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DIGHTON ROCK

A STUDY OF THE WRITTEN ROCKS OF NEW ENGLAND





Dighton Rock at Low Tide

Frontispiece

DIGHTON ROCK

A STUDY OF THE WRITTEN ROCKS OF NEW ENGLAND

By

EDMUND BURKE DELABARRE

Professor of Psychology in Brown University

With 108 Illustrations, from Rare
Prints, Photographs, Drawings, Charts, and Maps

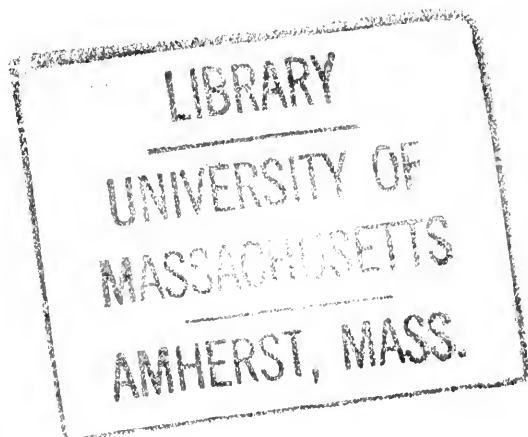


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1928



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EDMUND BURKE DELABARRE

Manufactured in the United States of America

To the Memory
of
MIGUEL CORTERREAL
First European Dweller in New England
and of
GREAT METACOMET
Commonly Known As King Philip
CHIEF SACHEM

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PREFACE

Several circumstances have conspired to bring it about that this study has been made by one who is a psychologist by profession, and not a trained archaeologist. For one thing, the archaeologists themselves were busy with other interests and assumed that this matter had been sufficiently settled. They were mistaken, as it turned out; nevertheless, none of them seemed likely to make the much needed investigation. It happened—*Voluntate Dei*, as one of the rock-records expresses it—that it was the psychologist who chanced to make his summer home within a mile or two of the most famous of these rocks, with the consequent arousal of his curiosity concerning the unsolved mystery of it. The endeavor to satisfy this curiosity followed naturally, and this led gradually to the discovery of so much of unsupported statement that called for assured verification or refutation, so much of positive error, so great a variety of conflicting claims and so deep an interest in the pursuit of them, that he was enticed little by little to the ultimate assemblage of all facts and views that had found expression. Among these were included a great many that were new and important, and it became his evident duty to provide a correct account of them all. Moreover, the inadequacies of previous investigations as well as previous historical accounts became apparent, and thus arose the necessity of making fresh and more thoroughly conducted observations of his own. Then, finally, in doing all this, he was able to justify to himself the time spent in the research and thus to appease his professional conscience, by finding the subject full of psychological contacts, some of which will become evident in the following pages.

Almost everything which appears in this book has been published before in a more extended form. Soon after the first set of new discoveries had thrown fresh light upon the

earliest history of Dighton Rock, the Colonial Society of Massachusetts requested that they be presented in the pages of its *Publications*. Later, it extended the courtesy of an opportunity to complete the history of the same rock in the fullest possible detail. After continued study of the rock had given new insight into the probable nature of its inscriptions, the Society for the Preservation of New England Antiquities permitted the announcement of the result in its *Old-Time New England*. Meanwhile, the Rhode Island Historical Society invited the writer to study and describe all of the other inscribed rocks about Narragansett Bay, for publication in its *Collections*. As preserved in these publications, however, the papers are too numerous and scattered, and are too full of minute detail, to serve the needs of the majority of readers. They can still be recommended to anyone who may wish the full proof or the ultimate source of any statement, or who may become interested enough to wish to read the more ample presentation of the facts about these rocks. It has seemed worth while, however, to bring together the more important features of the study in one volume and in a more compact manner, in the hope that it may thus reach a wider circle of readers, and perhaps arouse their interest in a subject which possesses so many-sided an appeal and whose study has been so continuous a source of delight to the writer. This new presentation is not merely a briefer repetition of what is contained in the early writings. Much of it has been revised radically, and frequently new facts are given and new conclusions drawn. Foot notes are limited usually to such added material, since the earlier publications, and the Bibliographies at the end of this volume, contain ample reference to authorities and sources.

The amount of neglected historical material that has come to light, the number of new facts that it has been possible to discover in a field apparently already worn threadbare by over two centuries of active controversy, is truly surprising. For instance, why should it have been assumed so long that these rocks were a mystery to the Indians at the time of the earliest

colonists, when in truth it is impossible to trace any reference to them until sixty years after the settlement of Plymouth? Why has no one previously established the identity of the Danforth who was the first to draw attention to them? Who would have suspected that the famous drawing sent by Cotton Mather to the Royal Society, which started the whole train of weird speculations, was in part a copy from Danforth, and in part published upside-down? Why has no one told of the visits to Dighton Rock of men so eminent as Smibert and Berkeley, or reproduced the valuable studies by President Stiles, or described and pictured the important inscriptions on Mark Rock? On the side of interpretation, it has been possible to develop a new view concerning the practice of picture-writing by Indians in New England; to discover the probable date and source and to decipher the meaning of the record on the boulder near Mount Hope; to suggest the first well-supported reading of the inscriptions on Dighton Rock, which, if correct, establishes the main features of its entire history in a definite and reasonable manner. These are examples of contributions such as appear in almost every chapter. They illustrate how generously new truths disclose themselves to one who does no more than make himself receptive by adopting the attitude of an absorbing interest in the subject, of a determination to pursue every statement to its original source and every clue to its ultimate attainable end, and of making new observations in as thorough and reliable a manner as lies within his resources.

The writer does not overestimate the importance of his contributions, nor feel that any particular credit is due to him personally for having made them. The nearness of his summer residence, his love for out-of-door activities with a definite object in view, his long summer vacations, gave him an opportunity and a temptation far beyond those which any previous investigator had experienced. Disclosures of new truth were inevitable under such conditions. The Story of the Rock simply found a receptive and impersonally attuned vehicle for its expression and gradually unfolded itself through it. In presenting the results, the writer has endeavored to make the record something more than a mere relation of events and

facts in their bare cold order. For him, they have woven themselves into an organic body and dramatic movement glowing throughout with life and purpose. So far as his powers permit, he has tried to convey a similar impression to his readers. As he once before expressed it: "A dead rock, if exhaustively studied, is not a dead rock merely, but the incarnation of a living, struggling, growing, self-perfecting Idea; and of such is the Kingdom of Truth."

The recent zeal and superficiality of reporters have been responsible for many misleading descriptions of some of the features of these studies. Their blunders are often both amusing and vexing. By calling attention to a few of them, the writer finds opportunity to relieve such slight irritation as they may have caused him, and to take precaution against their persistence. Moreover, it is always profitable to know the pitfalls of error that should be avoided, as well as facts that are to be accepted. One of the most extraordinary examples was perpetrated by a Denver newspaper. Learning that the writer had dug out some human bones at Grassy Island, near Dighton Rock, whose position and condition indicate that they are those of a native Indian cremated there more than a thousand years ago, it announced in headlines that "Bones Unearthed Prove Discovery of America in 927." Statements that the study of these inscriptions involved thirteen years of constant labor and the reading of six hundred books have received world-wide circulation. The research was begun, it is true, thirteen years ago. But it has been largely a summer-time occupation, and the most important of its results had been announced within five years. The six hundred books are a myth, based upon the fact that, to illustrate the intensity and continuity of interest in Dighton Rock, a Bibliography was compiled embracing over six hundred items that refer to it. Only a few of these were books, some of them important contributions in periodicals, a great many merely brief and trivial references to the rock. Some accounts made patently absurd statements, such as that it had taken thirteen years and required the reading of six hundred books to discover that the Cor-

tereals were early explorers of America—a fact known by every schoolboy, as one London editor remarked. Others thought that the labor was all devoted to the attempt to translate an abbreviated Latin inscription,—“which just goes to show what a college education can do,” according to a humorous weekly. Or the tale is varied by asserting that the sole result of all these years and readings was the deciphering of eight words. In truth, the work has had two separate phases. The first task that allured was the correct presentation of the historical facts concerning the long-continued discussions that had centered about these inscriptions. For this purpose it was essential to read everything, both published and in unpublished records, that could be found bearing upon the subject,—and this is where the six hundred items have their place. It was only later that ambition was aroused to reconstruct the faint and uncertain inscriptions themselves. No reading of books was helpful here, but only prolonged and patient examination of the rocks themselves and of photographs of them. Not thirteen years, but occasional periods of study through a much shorter time, were devoted to this; and the result was the discovery, not of eight words merely, but of more than twenty in English, Latin and Wampanoag, written on two rocks, and of numerous previously unseen Indian drawings. One account proclaimed that the extensive reading was a hindrance to the accomplishment of this latter task; but that was only an example of reportorial imagination. Still another recent review managed to incorporate four blunders in brief space: that the rock-writings are attributed by many to the Indians of 500 years ago; that the Vikings have been strongly advocated recently as their originators; that the old stone mill at Newport is accredited to the Vikings; and—most lamentable of all—that “investigators now set forth the claim that perhaps it was the body of Miguel Cortereal which was found in Fall River encased in armor!” It is unfortunate that misconceptions like these so easily arise and so long persist. It is the Indians of Colonial times, 300 years ago and less, who enter seriously into the discussion; the Norse theory of the rock and

mill was abandoned half a century ago by all who know anything about the facts; and no real investigator has advanced, or ever will, so silly a supposition about the skeleton.

Acknowledgment is due to the three Societies which have been mentioned, for generous permission to use in this volume plates and material that have appeared already in their publications. To the many persons whose invaluable help has enriched the results of his labors, the writer is under deep obligation. Already, in the earlier papers, he has expressed his appreciation of such service in case of particular facts supplied or useful hints given toward their discovery. He permits himself now, however, the pleasure of making known the sincerity of his gratitude to those who, apart from any particular contributions, have given constant encouragement and inspiration by their sympathetic interest and friendly counsel. Among these must be named James Edward Seaver, late Secretary of the Old Colony Historical Society, whose kindly help was indispensable in the early stages of the enquiry; Worthington Ford and Julius H. Tuttle, generous guides in the adventure of research; George Parker Winship, close friend and steady critic; Harris Hawthorne Wilder, the eternal youthfulness of whose enthusiasm, a prized influence enduring since days of youthful companionship, has been the stay of moments of discouragement; Howard M. Chapin, through whose wise suggestion the study was broadened beyond the compass of a single rock to embrace the entire related region; Albert Matthews, the unprobed depths of whose fund of elusive information has solved many a knotty problem, and whose tireless skill in the editorial art has raised the product to a higher plane; George Lyman Kittredge, who made firm the conviction of the real importance of these researches, contributed much out of his own deep lore, supplied a high ideal of scholarly method, and gave many an effective spur to continued endeavor; and most of all, Dorothea Cotton Delabarre, my beloved wife, whose patient endurance of endless attempts to formulate problems and to give adequate expression to results has been a treasured stimulus to thought, and who has

often suggested possibilities whose further elaboration has been incorporated into essential features of the completed structure.

9 Arlington Avenue,
Providence, Rhode Island.
September 1, 1927.

CHAPTER I

INTRODUCTION

There is an irresistible fascination in the study of the past. It gives glimpses of the process whereby cosmic systems have come into being, whereby life has arisen and has developed into successively higher forms, whereby man has advanced slowly, with unceasing struggle, from a level near to that of the brutes up to his present imperfect civilization. Surveyed in its wholeness, it is a revelation of the Divine purpose of Progress in the universe, and a firm foundation for hope in its continuance. It thus warrants a confident expectation of man's ultimate mastery in concerns of mind and of spirit, wherein he is yet lamentably weak, comparable to his present and increasing control over physical forces. The steps of his progress during the last ten thousand years are fairly well known through recorded history. But the beginnings of history are the end of an immeasurably longer period, during which he was slowly acquiring the arts and tools that were indispensable to any high advance. The most essential of these were evidently speech, weapons and implements of stone and other natural materials, fire, clothing, pottery, artificial shelter, agriculture, domestication of animals, smelted metals.¹ Each of these was an epoch-making development, and some of them were doubtless found, lost, and found again many times before they became permanent acquisitions almost universally employed; and each passed through a long course of gradual improvement.

The last of these necessary arts, whose arrival stimulated progress incalculably and marked the transition to civilization

¹ A paper by H. G. Wells on "The Ten Great Discoveries," in *American Magazine* for March, 1925, reminds me that I might well have added to this list at least the following: the taboo, basis of morality and social restraint; the boat, with its influence upon trade and tolerance of strangers; the wheel and road.

and its history, was that of writing. Something is known concerning the course that its development must have taken.² Its earliest germ lay in the attempts of stone-age cave-men to depict the actual appearance of things about them, so far as their skill allowed. Such skill had already become so great in prehistoric times as to result in representations surprisingly faithful and beautiful in design and spirited in action. Yet such high skill, though it developed independently in several distinct places and epochs, was exceptional. The drawings of most primitive peoples are crude and grotesque. A step forward, not in art but in the evolution of letters, was made when the drawing was so simplified that it was no longer an attempted portrait of an object, but served merely to suggest the thought of it to the observer; and then a characteristic part of the object instead of the whole of it, or something closely associated with it such as a peculiar track made by a particular animal, served fully as well for the purpose and made further simplification possible. Such designs readily came to suggest qualities and actions and relations, as well as objects. When a considerable group of people began to make them in relatively conventionalized forms and suggesting the same meaning to all, the art of picture-writing had arisen. Simplification and conventionalizing pushed to such an extreme that often little resemblance to the original object remained, led to the development of systems of hieroglyphs and ideographs, which are merely highly evolved pictographs. A significant advance took place when the hieroglyph came to stand for the sound of the name of an object or idea, instead of the latter itself; for then it could be used, as is done in a modern rebus, to designate that sound in any word of which it formed a part. This idea, brilliant but difficult, apparently occurred independently in but very few centers of culture. Later, instead of standing for the whole word, the glyph was used sometimes as a phonogram of its first syllable only, a device which greatly reduced the number

² For a more detailed account than can be given here, see "The History of the Alphabet," by Professor Ingo W. D. Hackh, in *Scientific Monthly*, August, 1927, page 97. He defends the belief that "the hieroglyphics of ancient Egypt are the parents of all our modern alphabets."

of symbols needed. A final step of vast consequence consisted in using the hieroglyph, now reduced to an ultra-simplicity that bore no likeness to the original form from which it started, as a symbol of the initial elementary sound of the name to which it once belonged, but now capable of utter detachment from the latter and of being joined with other characters of like nature into an endless variety of new sounds and words. The hieroglyph had become a letter, a gradual selective process produced a system of letters of which few were needed to represent all of the elementary sounds of any language, and the system thus became an alphabet.

While such a course of development may be regarded as typical, perhaps, yet it may not have been followed exactly in every case. Some stages may have been omitted at times, or others introduced, and the process may have been arrested at any phase. For instance, the syllabic stage may be dispensed with. Complication instead of simplification may occur, as it did in the Maya hieroglyphs. The cumbersome Chinese system is an example of complete arrest in the ideographic form. Mnemonic aids, such as tally-marks, knots in strings or notches in sticks, arbitrary shapes impressed upon any receptive material to indicate ownership or other feature of identity, marks devised for the needs of calendar-records or of trade, may supply some of the starting points for later elaboration. It has been suggested that gesture-language, which attained so high a development in America, may have been one source of pictographic conventions. Even "the tattoo marks on the warrior's breast, his string of gristly scalps, the bear's claws around his neck, were not only trophies of his prowess, but records of his exploits, and to the contemplative mind contain the rudiments of the beneficent art of letters."³

None of the aboriginal inhabitants of America had arrived at the development of a syllabary or alphabet, previous to their discovery by Europeans. Yet the more cultured of them seem to have been progressing in that direction, for the Mayas had arrived at the rebus stage of written records. The great majority of Indian tribes, however, aside from using as mere

³ Brinton, *Myths of the New World*, p. 9.

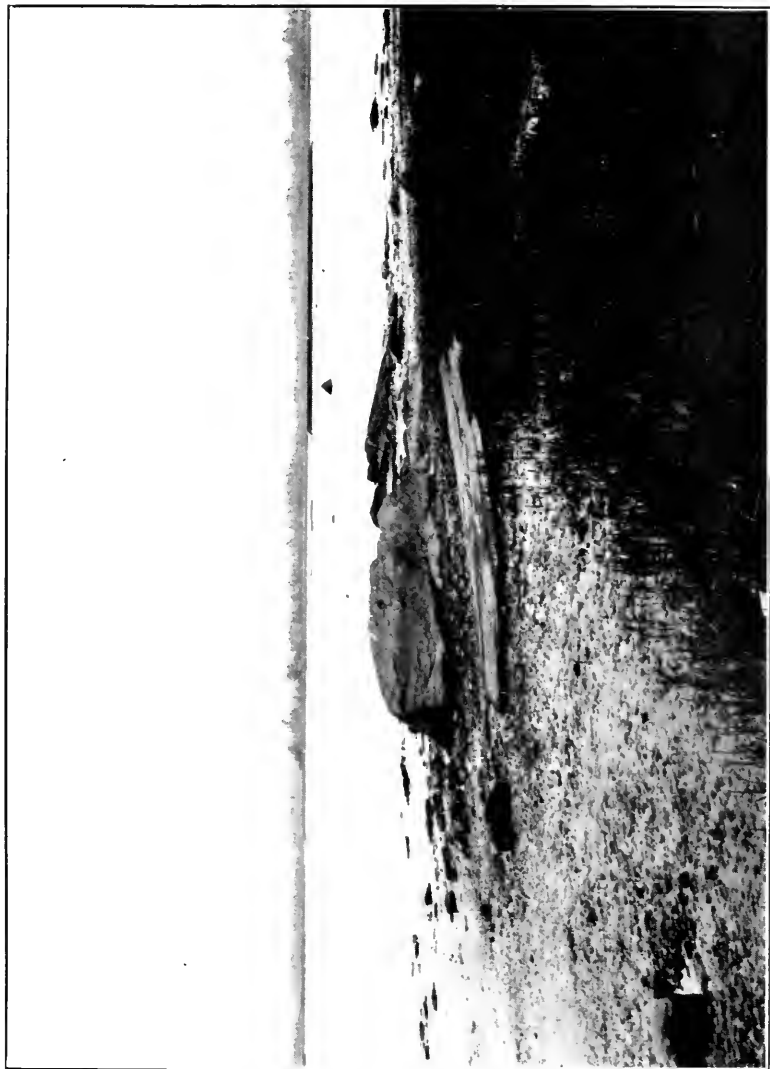


Fig. 2. Shoreward side of Dighton Rock, with Grassy Island beyond

Facing page 10



aids to memory a variety of devices that had no general meaning in themselves, had never advanced beyond a rather simple pictography, capable of expressing relatively few ideas, before their mode of life became profoundly influenced by the more intricate and varied practices and arts of the white invaders. Many of them, doubtless, were unacquainted with even the simplest forms of picture-writing. After the possibility and value of a method of written communication and record had been suggested to them through knowledge of the use made of it by Europeans, some of them seized the idea and put it to practical use by devising systems of their own. One case, to be discussed in a later chapter, worked out on a native basis by missionaries, was a complex system of ideographs. Another, invented by an untaught native, was a syllabary. For the most part, however, the stimulus to native ingenuity led simply to more highly elaborated systems of pictography and mnemonic artifices.

So far as can be judged by the accounts of early explorers and settlers in New England, the tribes who dwelt there were unacquainted with any form of writing. It is possible that they knew nothing even of the pictographic art, although this is a question which will demand our further consideration. Thus Roger Williams stated in 1624 that "they have no Bookes nor Letters, and conceive their Fathers never had;"⁴ and Daniel Gookin wrote in 1674 that "they being ignorant of letters and records of antiquity, any true knowledge of their ancestors is utterly lost among them."⁵ Yet they did paint their faces and bodies, and also their "moose and Deere-skins for their Summer wearing, with varietie of forms and colours."⁶ They also employed a mnemonic device of the simplest sort, which was described by Edward Winslow as a round hole made in the ground near the place of any remarkable event, as an aid to memory and oral narration, used "instead of records and chronicles."⁷ The rattlesnake-skin tied about a bundle of

⁴ *Key into the Language of America*, 1st ed., "Introduction."

⁵ "Historical Collections of the Indians"; *Mass. Hist. Soc. Collections*, 1st ser., i. 141.

⁶ Roger Williams, *op. cit.*, p. 113 *bis*.

⁷ E. Winslow, *Good News from New England*, 1624.

new arrows which was sent to the Pilgrims at Plymouth in 1621 by the Narragansett sachem Canonicus, and which they returned to him filled with powder and shot,⁸ was a crude symbolic message of hostility. At a much later date, at least, they made use of belts of wampum with various figures embroidered in them as mnemonic records of treaties, but this custom, Brinton thinks,⁹ was probably introduced by European influences. So far as we can tell from contemporary chronicles, this may be the utmost extent of their practices in this direction.

Such is one side of the setting of the problem with which we are about to deal.

To the other side belong the numerous speculations concerning pre-Columbian voyages to America. There is no need to survey them here, for they are adequately discussed in many easily accessible Histories. Most of them are regarded by historians as unsupported myths; but we shall find that belief in them constitutes an important factor in our investigation.

It has long been widely known that there are several rocks in New England on which are carved inscriptions¹⁰ of a mysterious character, about which there has been a very great deal of long continued discussion. One of them, commonly known as the Dighton Rock, was noticed fairly early in Colonial history, soon afterwards was brought to the attention of the Royal Society in England, and ever since then has aroused an intense degree of popular and scholarly interest and has been the subject of animated and earnest controversy. Strangely differing presentations have been made of its supposed inscriptions, and strange and many theories have been confidently advanced as to who carved the characters and what they mean. Already before 1800 a considerable literature had gathered about the subject, and since then hardly a single year has gone by without bringing some printed contribution to the discussion. Indeed,

⁸ Winslow, *op. cit.*, p. 2.

⁹ Brinton, *op. cit.*, p. 15.

¹⁰ I shall use the word "inscription" throughout in a general sense, to indicate any kind of a line or collection of lines incised upon a rock by intentional human agency, without implication as to whether it was designed to convey a meaning and thus to constitute a true "writing." Some non-committal word of the sort is needed, and this serves the purpose as well as any.

it is doubtful if there has ever been any relic of antiquity anywhere on earth that has appealed so strongly to general interest, been commented upon by so many scholars of every country, given rise to so extensive a literature, and so long remained an unsolved mystery. Although Dighton Rock has been the chief centre of all this speculation, yet it is not the only one in New England that bears unreadable inscriptions. A few others have been known almost as long as it, still others rumored but in need of confirmation, and a few discovered recently or only recently described for the first time.

In spite of this abundance of material and the long-enduring interest and discussion, no one, up to the time when this particular study of the subject began, had made a complete survey of the problem, at once thorough and critical. Some comprehensive reviews had been attempted and had served as the basis for later statements and deductions, but it needed only a little of careful examination to discover that they were unreliable. A considerable amount of historical misinformation was current, untrustworthy depictions of the inscriptions were accepted as adequate support for particular theories, romantic appeal often usurped the place of scientific judgment as a foundation for belief, pertinent facts of wide variety were left uninvestigated or ignored. No well trained archaeologist equipped with knowledge of up-to-date methods of research undertook the task of assembling the facts, historical and scientific, and thus modern archaeological opinion was founded upon insufficient information. It was evident that the whole matter needed to be examined anew, without bias and without reliance upon what had been said before, until fresh observation should have established the things that could be depended upon as unquestionable or accepted as reasonable probability. The result of conducting such an inquiry has been the discovery of an astonishing mass of new facts and new possibilities, and the gratification of finding in the study an amazing variety of appeals to interest. Before one has finished with the investigation, he will have found involved in it matters not only of history and archaeology, but likewise of myth and legend, of

astronomy and geology, of religion and aesthetics, of ethnology and literature, of graphic art and that of faithful deciphering and copying, of fundamental scientific method in observation and hypothesis, of logic and psychology and philosophy.

The problems presented by the existence of these inscribed rocks and stones in New England are many. We must discover exactly how many of them there are and where they are situated. The answer to this question will involve the examination of a great many rumors and claims, often vague but sometimes definite, and the determination as to whether they are well founded or are partly or completely erroneous, whether due to careless reports assigning genuine petroglyphs to mistaken localities, or to mistaken belief that marks having a natural origin are human inscriptions, or that work of recent and trivial origin, as by boys at play or by men idly scratching insignificant marks just for the fun of it or to mystify others, is ancient and significant. It will be found necessary also to inquire in some cases as to whether marks due to unquestionable human agency are deliberate inscriptions or accidental scratches, and in other cases as to whether unquestionable inscriptions are genuine records of an unknown past or are recent and fraudulent imitations. Cases of all these types will come to our notice. Having accomplished this sifting process, it will be desirable to secure a faithful representation of the appearance of each inscription, or at least of the more important of them. In some cases good drawings will suffice. But whenever there is any possibility of doubt occasioned by difficulty in deciphering what was originally inscribed, the best attainable photographs under controlled conditions of lighting will be indispensable. It will be of interest for psychological as well as historical reasons to assemble all earlier serious attempts to depict the appearance of the inscriptions, and to survey the numerous theories, some of them of the most extraordinary character, that have been advocated to account for them. Then, finally, we shall endeavor to arrive at conclusions of our own both in regard to what actually has been inscribed and what it probably signifies. In both respects we shall arrive at re-

sults fundamentally different from anything that has been presented before, during the two hundred and fifty years of earnestly conducted observation and discussion.

With these rather intricate and difficult tasks accomplished, we shall have found at least partial solutions of certain other problems. Is there any possibility that these inscriptions give evidence of visits to these shores by ancient peoples, Norse or other, long before the discovery by Columbus? Do they throw any light on prehistoric wanderings of Indian tribes? Could they by any possibility have been executed by white men at some time later than 1492? If made by Indians, was it before their acquaintance with Europeans began, or at a later date and as a result of European influence? Or is there in them a mingling of these various sources? Do they have any discoverable significance, pictographic or other, or are they mere meaningless pictures and scribblings? Do they give any indication as to how far the Indians of New England had progressed in the use of symbolic records of their own initiative, and to what degree their contact with a new civilization worked in stimulating further development? We may not be able to answer all of these questions with complete certainty, yet we shall surely find contributions toward the solution of some of them. Not the least valuable feature of our investigation will consist in the illustrations of various mental processes that it will afford, and the aid that it will give toward a better understanding of the psychology of observation and belief.

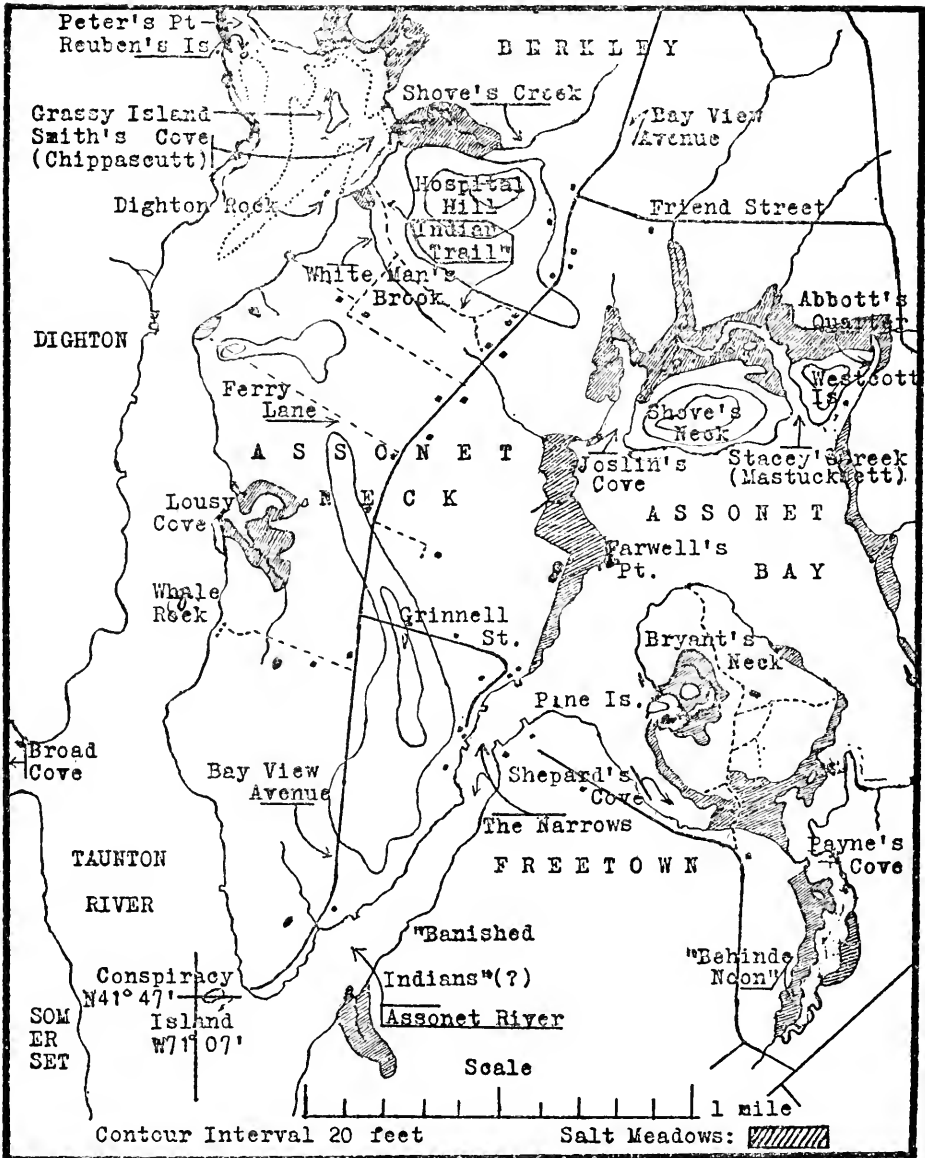
The first of these rocks to be brought to the attention of the world was the Dighton Rock. A description of it by Cotton Mather in 1690 aroused little interest. But in 1714 a communication from him to the Royal Society, mentioning its existence and giving a very inaccurate illustration of its inscription, was published in the *Philosophical Transactions* of that Society and attracted a great deal of attention. In 1781, Court de Gebelin published in Paris an account of it, with an elaborate translation attributing the inscription to a party of Phœnician adventurers from Carthage. Michael Lort of London assembled in 1786 all the facts about the rock and its history that he

could discover. In 1837, Charles Christian Rafn of Denmark brought out his monumental work called *Antiquitates Americanae*, in which he included a considerable amount of new information about this and other inscribed rocks. He made a new translation of the record on Dighton Rock, and claimed that it was carved by the party of Thorfinn Karlsefne the Norseman, who made an attempt at colonization in Vinland in the year 1007. These are the main sources from which all accounts of the history of Dighton Rock have been drawn heretofore. They are all of them incomplete, inaccurate, and marred by a considerable content of positive error. Instead of relying upon them, we shall examine afresh the actual facts as to its history, make our own observations as to its character and situation and the appearance of its inscription, and endeavor to arrive at a well-founded interpretation of its record.

CHAPTER II

THE DIGHTON WRITING ROCK

Among the other curiosities of New England—so runs in part the earliest printed description of this mysterious stone—one is that of a mighty rock, on a perpendicular side whereof, by a river which at high tide covers part of it, there are very deeply engraved, no man alive knows how or when, lines filled with strange characters; which would suggest as odd thoughts about them that were here before us, as there are odd shapes in that elaborate monument. The river on whose shore it stands was then known as the Taunton Great River, and the shallow cove which cuts into the land there was called Smith's Cove, although the Indians had given the much more picturesque name Chippascutt to the locality. Early observers spoke of the wonder-provoking stone as the Dighton Writing Rock, and speculated vainly as to the "how and when" of its unreadable characters. Later it became known commonly as Dighton Rock, although it was rarely referred to also as the Assonet Monument. It is not in what is now known as Dighton, but across the Taunton river from that town, about eight miles down-river from Taunton. The land on which it stands is near the northwesterly corner of Assonet Neck, a triangular peninsula two miles long and about a mile in greatest width, lying between Taunton and Assonet Rivers and forming a southerly projection of the town of Berkley (Figure 3). In early days, however, Assonet Neck was included within the limits first of Taunton and afterwards of Dighton, and so the name given to the rock was then appropriate. Dighton had been set off from Taunton in 1712. It was not until 1799 that the Neck was detached from Dighton, and made a part of Berkley, which had been incorporated in 1735. Together with Mount Hope in Bristol, Rhode Island, Assonet Neck was the



ASSONET NECK, BERKLEY, MASSACHUSETTS

Based upon U. S. Coast & Geodetic Survey by A. M. Harrison 1875 and upon U. S. Topographical Survey Map 1905

Figure 3

last land retained by the Wampanoag Indians for their own exclusive use. As late as 1673, a deposition was filed in the records of the Colony of New Plymouth, testifying that the Neck was the personal property of an Indian named Piowant. In 1676 it was seized by Plymouth Colony as spoils of war, and the next year it was sold to six men of Taunton, its first "proprietors." Long before that, however, the extensive salt-grass meadows which border it had been ceded to the Proprietors of Taunton as an important source of hay, and the Neck itself had been coveted by them, but not secured, as a place for "pasturing yeong beasts."

In the midst of Smith's Cove, fifty-six rods north of the Rock, lies Grassy Island,¹ a little over an acre in extent, which is of interest for two reasons. It has a level surface, which is entirely submerged at high tides, sometimes to a depth of three feet or more. Three or four feet below its surface, and underneath the peat of which it is formed, lies a deeper surface of sandy clay on which are found numerous specimens of stone implements that seem to give evidence that a thousand years ago or more this latter surface, and therefore Dighton Rock with it, was well above the reach of the water and was the site of an Indian encampment.² In the second place, the island is mentioned by name as early as 1644 as belonging to one of the first ministers of Taunton, and must have been assigned to him shortly after a court order had been issued in 1640 to the effect that he should be provided with meadow-land. Reference to the map will show that there are extensive salt-grass meadows about Assonet Neck and Bay, and these became the most important early source of hay for the inhabitants of

¹ See Figures 2 and 3.

² See "A Possible Pre-Algonkian Culture in Southeastern Massachusetts," by Edmund Burke Delabarre, *American Anthropologist*, July, 1925, xxvii. 359-369.—In the spring of 1927, I found on the same site, ten inches below the ancient deeper surface, a deposit of bones, broken into small fragments and lying together in a compact mass about ten to twelve inches in diameter and an inch or two in thickness. In the opinion of Mr. C. C. Willoughby, Director of the Peabody Museum of Harvard University, they are "undoubtedly what remains of a cremated human body." Their situation makes it practically impossible that they could be the result of a burial since the site became a peat-covered and tide-washed island, and therefore indicates that they are those of an Indian who lived there more than a thousand years ago.

Taunton. The Grassy Island date on their records, therefore, assures us that the earliest settlers at Taunton, very soon after their arrival in 1637, became intimately acquainted with this locality and consequently with the existence of Dighton Rock, whether or not it already bore any of its present inscriptions. It was not until very much later than that, nevertheless, that any mention of it was made which has come down to us.

There are a few other facts about Assonet Neck that have some bearing upon the problems that will confront us. Isaac Greenwood in 1730 said that it was "one of the most considerable seats of Indians in this part of the world, and the river remarkable for all sorts of fowl and fish." This is probably an exaggeration, for all of their known important centers of residence were located elsewhere. Yet there must be a degree of truth in it, for it still bears traces of former Indian occupancy. One or two probable sites of villages are indicated by stone artefacts still found upon them in considerable numbers, and there are a few not very extensive shell-heaps. That at least the entire southerly half of the twelve hundred acres of the Neck were under cultivation is made probable by the fact that the old Indian corn-hills are still clearly evident there, in all of the woods and pastures which have never been ploughed, in spite of the three hundred years that have elapsed since the great plague destroyed a large proportion of the Wampanoags.³ A tradition seems to have existed among the Indians of this vicinity pointing to an early visit of white men in a sailing vessel and a resulting encounter between the men of the two races. We shall have need to consider it more in detail in a later discussion. It was reported first by Danforth in 1680, and later independently by Kendall in 1807. Kendall also speaks of a tradition that Assonet Neck was a place of banishment among the Indians. There was in fact a "place commonly called the Banished Indians," either on or near Assonet Neck, mentioned in documents as early as 1660.⁴ It seems likely that

³ "Indian Cornhills in Massachusetts," by E. B. Delabarre and H. H. Wilder, *Amer. Anthropologist*, 1920, xxii, 203.

⁴ E. W. Peirce, *Indian History*, p. 241. This date is ten years earlier than the earliest one known to me at the time of my previous discussion of these questions, in *Publications Colon. Soc. Mass.*, 1917, xviii, 244-247.

this name, and that of a small island off the southerly point of Assonet Neck called The Conspiracy, may have originated in connection with events occurring between 1642 and 1645, when there existed a belief in a wide-spread conspiracy of the Indians against the Colonies, and when the Narragansetts held a number of Mohegans in captivity somewhere in this vicinity. So far as I can judge from the imperfect descriptions, the place called the Banished Indians was probably not on the Neck itself, but across the mouth of the Assonet river from it, somewhere near Barnaby Cove or the small cove next north of it. In the opinion of G. W. Ellis, this was approximately the scene of the Pocasset Swamp fight which occurred in 1675 near the beginning of King Philip's War. It was also not far from a place which we find referred to in 1705 under the peculiar name Behinde Noon.

Dighton Rock is a gray, medium to coarse grained feldspathic sandstone boulder, presenting toward the river a nearly plane and smooth natural face, inclined at an angle of 39° to the vertical. Although it has sometimes been regarded as a projecting portion of a ledge, its true nature as a detached boulder has been established by excavations around its sides carried as far down as the inflowing water would permit, and deeper exploration by means of a stick thrust down through the ooze in contact with the rock. Its dimensions below ground as well as above have thus been determined. The exposed face toward the river measures about eleven feet in average horizontal length, and four feet ten inches in extreme vertical width or height. The rear or shoreward slope above ground has a width of about 7 feet $9\frac{1}{2}$ inches and an average inclination of about 65° to the vertical, but is very irregular, probably being much worn and broken. These two slopes meet above at an angle, and end below at about the level of the beach, where the two underground surfaces begin to incline inward toward one another. Each of these extends down for about seven or eight feet, until they meet below at an angle of about 91° . A vertical section through the rock from front to rear would thus present a nearly diamond-shaped figure, with one of its angles

underneath. The weight of such a prism, eleven feet long, as nearly as it can be calculated, would be not far from forty tons, and its cubic contents about 480 cubic feet. Probably seven-tenths of the bulk of the rock lies underground. A line drawn longitudinally through the exposed face parallel to the beach, correcting for magnetic deviation, is directed about N 60° E, although its upstream end is usually referred to as the north end of the rock.

The rock is situated on the beach, between high and low water marks. At some low tides, the lowest part of the face is not quite fully exposed, but at lowest ebb the water recedes entirely away from the base, leaving fifteen feet or more of stony and muddy beach exposed between rock and river. The most moderate of high tides just cover the rock completely, and at extreme high waters there is a depth of 3½ to 4½ feet above its top.

A number of other rocks protrude from the beach in the near vicinity. One of them has often been spoken of as a "neighboring slab," because it looks like a large slab of stone lying flat on the beach, with only three or four inches of its thickness exposed. It is really, however, a boulder with a flat upper surface. This surface, in shape and dimensions, is closely similar to the face of the Rock, and lies only a few feet away, behind and southward from the latter. It is not at all impossible that the two were originally one boulder, and that something occurred to cause the Rock to split off from the slab, roll forward 2½ quarter-turns, and there settle edge-down in the mud and gravel. The present relative positions of the two would thus be exactly accounted for. If this happened while Indians were living there, as something similar did happen to a huge boulder on Assonet River in the great gale of 1815, it is not impossible that the name Chippascutt which they gave to the locality may have commemorated the event; for one possible meaning of the word is "the place of the split-apart rock." There is, however, on the upland not very far away, a "cleft of rocks" mentioned as a landmark in earliest deeds, that may equally well have served as the basis of the name.

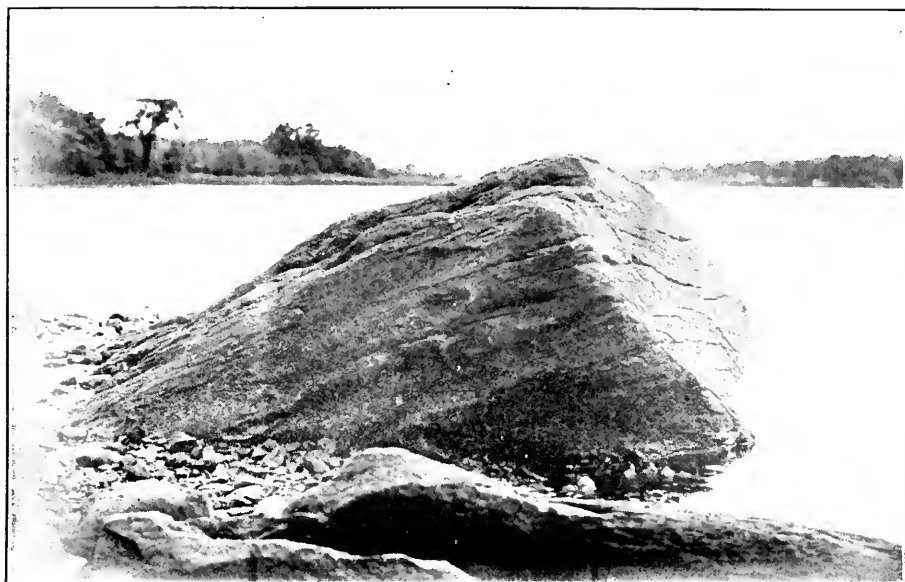


Fig. 4. The up-stream end of Dighton Rock



Fig. 5. A flashlight view of the Dighton Rock inscriptions



With its alternate exposure to air and to salt water, the face of the rock weathers to a reddish-brown rusty color, and is slightly roughened by minute pittings due to the decomposition of the feldspar and other constituents in the midst of the more resistant network of quartz. It is crossed longitudinally by a number of narrow cracks, and along these in a few places small thin sections of the surface have scaled off. At certain times of year, parts of the face are covered thinly with a greenish marine growth of algae and diatoms, but at other times these are entirely absent. A great many observers have believed that under the influence of storms and ice, the surface of the rock wears away rapidly, causing a noticeable diminution in the depth and legibility of the engraved characters within the space of a lifetime; or, on the other hand, that the present difficulty of deciphering them indicates that they are worn with age and must have been carved a very long time, perhaps centuries, ago. The two beliefs are incompatible with one another, though often held both by one person, and we shall see later, after we have had opportunity to compare early and recent descriptions and photographs, that both of them are mistaken impressions. Shallow incisions made in the rock, as a great many of these were, become difficult to discern within a comparatively few years, through change of color rather than through wear; but the actual wear of the surface is so slow that it is not appreciably more difficult to read what was carved upon it now, than it was when the rock first came under observation, two hundred and fifty years ago. Its appearance, therefore, affords no indication as to how old the inscriptions are. If they had been made centuries ago, they would probably have been tenaciously retained, much as we find them; but, on the other hand, if they had existed only for a few decades before 1680, that time would have been long enough to make the more shallow of them dim and uncertain, just as they have always appeared.

In addition to what we may call the "inscription," all of which was presumably there at the time of the first observation, in 1680, the face of the rock bears a considerable number of initials and dates made by thoughtless persons in the nine-

teenth and present centuries. On the shoreward slope, also, are numerous initials. None of them are recent, yet all were probably made by white men, and therefore within the last three hundred years; most of them, very likely, during the last century. In spite of their relatively recent date, they look as old as do any of the characters on the face, and there is hardly an instance in which I can be sure as to exactly what initials were traced. The same fact appears in the case of still another small inscription on the rock. On its vertical up-stream end (Figure 4), there is something faintly discernible, but it can be seen only rarely, under the most favorable conditions of light. Ezra Stiles mentioned it first in 1767, and suggested that it looked somewhat like "I HOWOO." Only two observers have spoken of having seen it since. I see it occasionally, with no assurance as to what was actually written. Yet Stiles was informed by persons who apparently knew the facts that this particular inscription had been made not more than about thirty years before the time of his visit; and I judge from his description that it was as difficult for him to decipher it then as it is for us today. My own best guess is that it may be the name GREENWOOD, and therefore carved in 1730. These facts, then, seem to add valuable support to our conclusion that dim and uncertain appearance affords no clue as to age, because shallow characters become rapidly obscure, mainly on account of their change in color, but last then for a very long time with very little wear or further diminution in legibility.

The face of the rock toward the river is nearly covered with incisions,⁵ pecked in with some sharp tool. There seems to be no decisive indication as to whether the tool was of metal or of hard stone. The depth and consequent clearness of the cutting varies widely. I made an accurate depth-gauge to measure them, and found that the great majority of lines, representing the average and characteristic results, have a depth ranging from about two millimeters down to a mere trace so superficial that it could not be measured. The best marked, most clearly discernible lines, fairly numerous yet less so than the others,

⁵ See Figure 5, and the figures illustrating Chapter X.

vary between two and three millimeters. This depth is very rarely exceeded. There are only two or three places where it is as much as five millimeters, and one single hole, apparently artificial, where it is 17 millimeters. Some recent initials, however, are cut to a depth of five to nine millimeters. The color of all of the lines, whether of earlier inscription or of later initials, even of a date "[18]87," is the same as that of the surrounding rock. Unless they are cut fairly deep, this makes them hard to detect and to distinguish from the natural pitings and other weatherings of the surface.

Not only is there this difficulty of deciding how much of what one sees is artificial and how much due to natural causes, but also, when one has arrived at some conclusion as to what he may plausibly accept as artificial, there is such a confusion of lines and such a certainty that not all of them have been discovered, that a still further difficulty arises. In what manner do they belong together? What shapes and figures and pictures were they intended to present? Some of them are clearly pictorial, representations of men or animals. Some are clearly arranged in more or less regular designs, whose meaning, however, is not easy to determine. A considerable number of them look as if they might be alphabetical characters, but we cannot be sure that this is their intention unless we can satisfy ourselves that critical scrutiny does not diminish the likeness, and can then give them a significant connection and meaning. Until my own interpretations had occurred to me, this had never been done satisfactorily in a single instance; and when our discussion is completed, it may be that the reader will decide that it has not been accomplished even now, and that therefore these appearances are merely unintended resemblances, giving no proof that there are any unquestionable alphabetical characters there at all. Besides these forms which suggest something definite, even if not interpretable, there are great numbers of other lines, some sure, some only possible, that run about everywhere in incomprehensible jumbles. Within them it is easy to imagine the depiction of almost anything one will, but the cautious observer cannot accept these suggested possibilities as having

any sure objective validity. It is this intricate mass of at least possible lines, observable in so very many alternative ways, together with the fact that it is exceedingly difficult for anyone to be an ideally cautious observer even when he tries to be so and is confident that he has succeeded, that accounts for the truly extraordinary diversity of the different drawings of the inscription that have been made. Some of them are so utterly different in important particulars that it seems almost impossible at first sight to believe that they represent the same object.⁶ In turn, a great many of the different, especially of the more detailed, theories as to the meaning of the inscription have been due to accepting some one of these undependable drawings as constituting accurate representations of the facts. These theories have been as extraordinarily numerous and varied as the drawings themselves. It will be profitable to examine them in their historical development and to satisfy ourselves as to their inadequacy, before we attempt the difficult task of determining for ourselves what the rock actually contains and what is its significance.

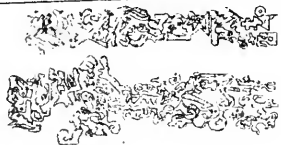
Until the close of King Philip's War, Assonet Neck, on which the Writing Rock is situated, was the property of the Wampanoag Indians. As early as March 10, 1676, the Colony of New Plymouth looked upon the Neck as belonging to it by right of conquest. On November 12, 1677, it sold the Neck to six proprietors. These men made an agreement of division on March 23, 1680, and the portion which included the rock was set off to James Walker, a prominent proprietor of Taunton. After that it remained in private ownership until June

⁶ See Figure 6, showing the best known drawings of the rock as they are commonly presented. Not only do they differ much from one another, but these reproductions themselves differ from the original drawings. Reliable facsimiles of the originals from which they were copied are given in my Colonial Society papers. In this volume, I have contented myself with presenting only a few of the more accurate versions of drawings included in Figure 6, and a few illustrative examples of the many other drawings and photographs of Dighton Rock. The reader who may wish to examine critically all versions of the drawings, and all photographs from interpretative chalkings, will need to consult the Colonial Society papers. Nothing is omitted here, however, which is requisite for interpretation of the inscription. The other rocks discussed in this volume are illustrated as fully as possible. For a description of the sources from which the illustrations have been taken, the List of Illustrations should be consulted.

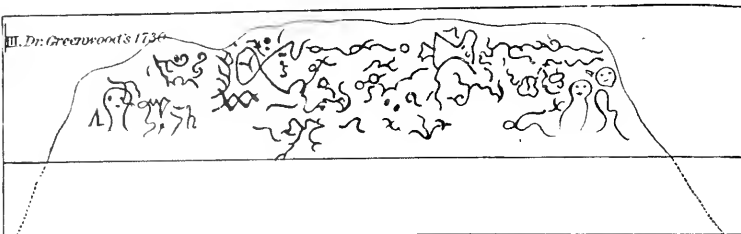
I. Dr. Danforth's Drawing 1680



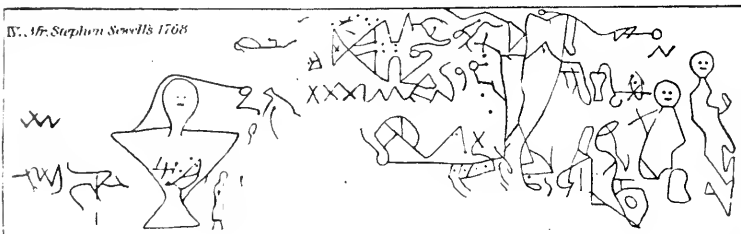
II. Dr. Cotton Mather's 1712



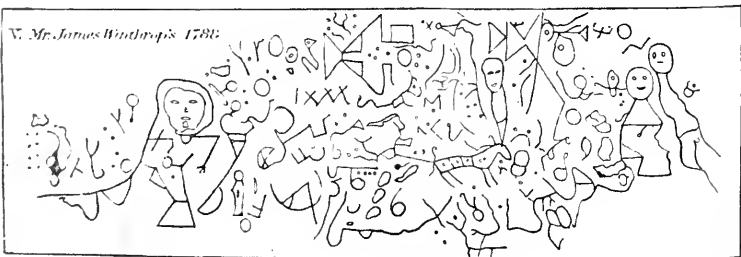
III. Dr. Greenwood's 1730



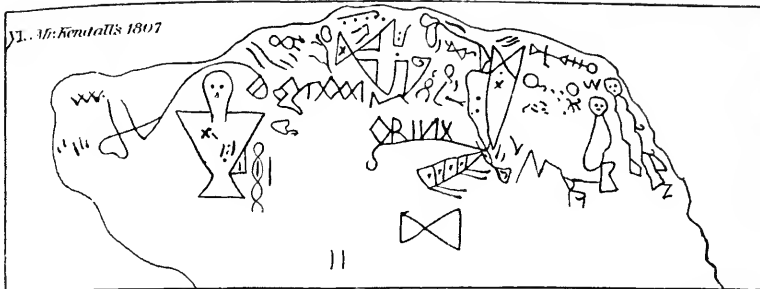
IV. Mr. Stephen Sewall's 1768



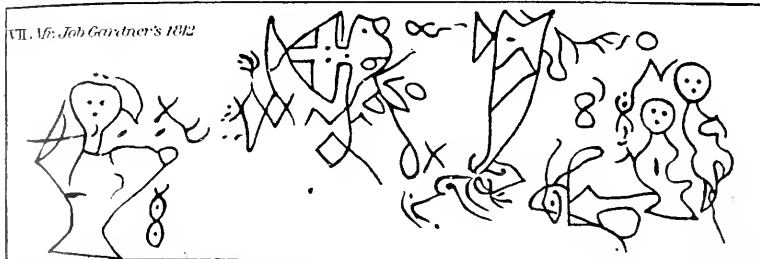
V. Mr. James Windrop's 1781



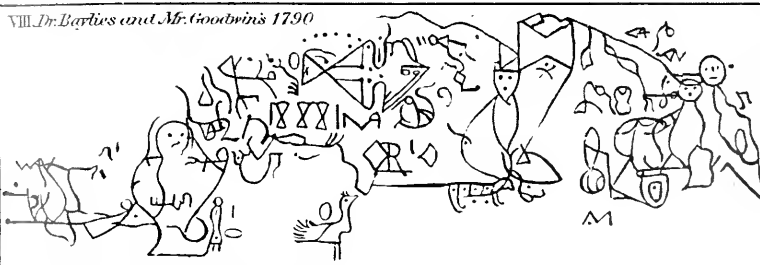
VI. Mr. Kentall's 1807



VII. Mr. Job Gortner's 1812



VIII. Dr. Baylies and Mr. Goodwin's 1790



IX. The Rhode Island Historical Society's 1830

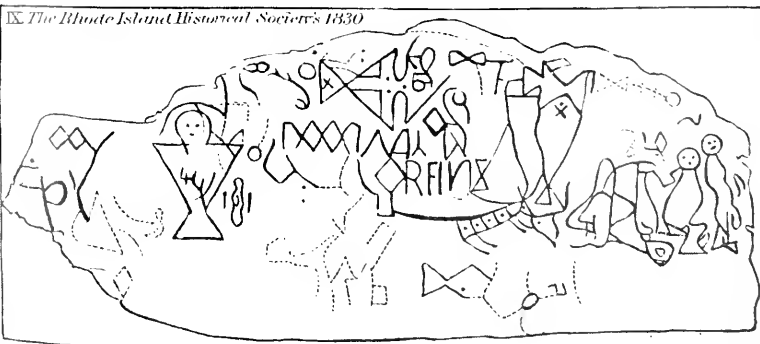


Fig. 6. Best known drawings of Dighton Rock, made before the introduction of photography

23, 1860, when Niels Arnzen of Fall River, who had purchased the rock at the request of Ole Bull, the violinist, made a gift of it to the Royal Society of Northern Antiquaries at Copenhagen. This Society transferred it in 1877 to the Scandinavian Memorial Club of Boston. But the latter was not legally incorporated and could not legally own property. Consequently, on January 30, 1889, the Danish Society deeded the property anew to the Old Colony Historical Society of Taunton, its present owner.

There have been many proposals from time to time to remove the rock from its present position to a place where it would be safe from the attacks of vandals and more accessible for observation. The first of these, apparently, contemplated its removal to Fall River, in 1829.⁷ The Rhode Island Historical Society considered the possibility of purchasing it, in 1838. Between 1861 and 1864, the Royal Society of Northern Antiquaries was intending to remove the rock to Denmark. There is reference about 1873 to another indefinite project to split off the inscribed face, probably for some museum. In 1877, the Committee in charge of the erection of the Leif Erikson statue in Boston were proposing to remove the rock to that city. Each of these schemes was abandoned in the end, and the rock still occupies its original site.⁸ Perhaps it is appropriate that it should continue to do so; but at least there ought to be devised some way of protecting it from the thoughtless persons who mar its ancient and still insufficiently studied records by carving their own initials among them.

⁷ *Columbian Reporter* (Taunton, Mass.), Dec. 2, 1829.

⁸ Owing to circumstances set forth in Chapter X, a large interest has been aroused recently among the Portuguese. It is possible that this may lead to the adoption of some plan for the better protection of the rock.

CHAPTER III

EARLY INTEREST IN DIGHTON ROCK

It is now a matter of common knowledge that there are a great many petroglyphs scattered widely through the United States, many of whose inscribed drawings, unquestionably made by Indians of the historically known tribes, resemble in essential character some of those upon Dighton Rock. We must not be too sure, however, at the start, that this means that everything upon our Rock must have had a similar origin. Aside from this larger acquaintance with the wide distribution of such work, very nearly all of what was known concerning Dighton Rock up to the time when these studies began was contained in the accounts published by Lort in 1787 and by Rafn in 1837. These writers, we have seen, not only omit important particulars, but include a considerable amount of actual error. Instead of following them as authorities, we must seek original and trustworthy sources.

When the rock was first observed, and whether it then had anything written upon it, cannot be known from existing records. All that we can be sure of is that the Taunton men who began cutting hay close by as early as 1640 must at least have seen it. So also, probably, must those who were in charge of a trading-post that was established at a very early date, possibly before the settlement of Taunton in 1637, at Storehouse Point on the Taunton River.¹ This Point has been variously located in Somerset and in Dighton, but in either case was across the river from Assonet Neck. A great many wholly unfounded statements have been made and frequently accepted as valid concerning this early period. Some of them claim that "the Indians were ignorant of the existence" of such inscribed rocks; or that "the natives could not render any account of its

¹ Francis Baylies, *Hist. of Plymouth Colony*, 1830, i. 288, ii. 272.

origin, when the Europeans discovered the country." Others assert that "the rock was seen and talked of by the first settlers in New England," or was "found there on the arrival of the first New England colonists." These are examples of mere plain romancing in the interest of a theory. There is nowhere on record any testimony by Indians at all resembling the statements quoted; and it was not until sixty years after the Pilgrims came that anyone is known to have noticed the rock.

There is a pedigree through Greenwood, Lort and Rafn, with all of whom we shall make acquaintance in due order, to common knowledge of the fact that the earliest drawing and description of the rock were made in 1680. But these accounts were incomplete, and the drawing as presented was not entirely faithful to its original form. It was told in these sources that this pioneer in petroglyphic observation was the Rev. Dr. Danforth. But there was no Rev. Dr. Danforth in New England at that time. Of the two brothers of that name, John and Samuel, who not long afterwards became clergymen, neither ever was entitled to be called Doctor. It has been generally assumed, however, that the one meant must have been Samuel, because from 1687 for forty years he was minister at Taunton, the rock was at first within his parish and owned by one of his fellow townsmen, and he had great interest in the Indians and compiled a vocabulary of their language. But in 1680 he was only thirteen years old and was beginning his studies at Harvard. Only by assuming that there was some mistake about the date as well as another in calling him Doctor, could he be regarded plausibly as author of the drawing.

In the course of investigation it became evident that there was something more to be discovered about this mysterious "Dr. Danforth" than had been told by Greenwood, from whom all existing information derived. James Phinney Baxter published in 1887 an extract from a letter that he had seen in the British Museum, in which, without mention of Danforth or Greenwood, he quoted statements that had been attributed to Danforth by Greenwood, but with the addition of a sentence that the latter had not given. Following this clue as to the existence of further material, I secured transcripts of all per-

tain records from the British Museum, the Royal Society, and the Society of Antiquaries of London. These yielded several interesting results. They confirmed the year of the drawing as being actually 1680, added the month when it was made, identified the Danforth, and explained why he, and Greenwood with him, had always mistakenly been called "Doctor" in all of the Dighton Rock literature.

The real draughtsman of this earliest representation of the inscription was Samuel's older brother, John Danforth, who became minister at Dorchester in 1682. In 1680 he had secured his Master of Arts degree from Harvard College while in his twentieth year. In the fall of that year he was evidently at Taunton, for in October he went to see the curiosity at Assonet Neck, very likely with James Walker, who had just become owner of the rock and adjoining land, or with Benjamin Jones, who in 1695 married Hannah, one of James Walker's daughters, and whom we shall meet again shortly. The drawing that Danforth made was of only a portion of the inscription, the rest of which may have been covered by the tide at the time of his visit. Either then or later he wrote on a separate slip of paper a disappointingly brief description to accompany the drawing. The slip reads as follows:

The uppermost of y^e Engravings of a Rock in y^e river Assonet six miles below Tanton in New England. Taken out sometime in October 1680. by John Danforth. It is reported from the Tradition of old Indians, y^t y^r came a wooden house, (& men of another country in it) swimming up the river Asonet, y^t fought y^e Indians & slew y^r Saunchem. &c. Some recon the figures here to be Hieroglyphicall. The first figure representing a Ship, without masts, & a meer Wrack cast upon the Shoales. The second representing an head of Land, possibly a cape with a peninsula. Hence a Gulf.

What are probably Danforth's own original drawing and the accompanying descriptive slip are preserved with a letter from Greenwood in the British Museum. Photostatic copies of them are reproduced in Figure 7. They are important because they give Danforth's own contribution in full and authentic form, instead of in the incomplete and slightly altered manner

in which Greenwood reported it. The latter alone has been used heretofore, and mistaken inferences have been drawn from it. The slip relates a tradition that we shall meet again in a somewhat differing version, and that has every appearance of being a genuine though vague reminiscence of a visit to the neighborhood by some early explorer. The two "figures" that it attempts to explain are evidently those at the right-hand end of the drawing, where the suggested resemblances may be seen easily but need not be regarded as anything more than mere fancies. There are two additions by Greenwood on the slip—the inserted *n* by which he corrected the spelling "Tanton" to "Taunton," and the "No. 2" at the bottom. Otherwise the writing is probably Danforth's, and it is he who mistakenly speaks of the Assonet instead of the Taunton river. The drawing is rather well executed, and we shall find reason to conclude that it is as trustworthy as any that were made by later observers, but no more so. The "No. 2" on it, as well as on the slip, is Greenwood's. The folio numbers close by, and the stamp of the British Museum, are also extraneous. The dimensions of the original drawing are $2\frac{3}{4}$ by $7\frac{3}{4}$ inches.

There is another extraneous mark on the drawing that is of particular interest and that perhaps throws light upon the wanderings of the document. Near the left-hand end there is a faintly drawn "BI" that is certainly not meant to represent part of the inscription. The only plausible explanation of this mark that I can think of is that it constitutes the initials of Benjamin Jones. Cotton Mather published in 1690 a drawing which he unquestionably copied from this one by Danforth; and on it he placed a mark resembling a "9" in the position corresponding to this "B," evidently mistaking the latter for an integral part of the drawing, and copying it imperfectly. Later, Greenwood obtained possession of both drawing and slip, either before or at the time of his visit to the rock in 1730. In making his own copy, Greenwood also, like Mather, included the "B," but, unlike Mather, he made it faint, as it should be. James Walker, in 1690, deeded to his daughter Hannah the portion of his property on which the rock was situated. In 1695, she married Benjamin Jones, and on division-stones be-

tween their own and adjoining lands they caused the initials "BI" to be engraved. Benjamin Jones, dying in 1720, left his farm to his son Benjamin, who was living there at the time of Greenwood's visit in 1730. All of these facts can be consistently woven together and the marks on the drawing explained if we make the following assumptions: that Danforth, attaching no great importance to the documents, gave them to Jones, who may have accompanied him; that Jones wrote his initials on the drawing; that Danforth, settling as minister at Dorchester in 1682, talked with Cotton Mather about the inscription; that Mather, deeply interested, wrote to Jones or Samuel Danforth and secured the drawing, copied it with erroneous inclusion of the "9," and perhaps later returned it to Jones; and that Jones's son presented both drawing and slip to Greenwood, although the latter might equally well have secured them from either Mather or Danforth, in case the first Jones had surrendered them permanently to either of these. Greenwood, as we shall see, retained for a while the original documents, but sent to England some quotations from the slip and a copy of the drawing. The latter, he stated, was "Delineata per Dom Danforth Anno 1680." This "Dom" was later accidentally transcribed "Dr." and thus became responsible for subsequent misapplication of that title to Danforth, under circumstances that can best be related in connection with Greenwood's own contributions.

Cotton Mather became interested in Dighton Rock, in some such way as has just been conjectured, and wrote about it on four separate occasions. The first time was in the Epistle Dedicatory addressed "To the Right Worshipful Sir Henry Ashurst, Baronet," which prefaced a sermon published early in 1690 under the title *The Wonderful Works of God Commemorated*.² He included a drawing of what he regarded as the "first line" out of a total of "about half a score lines" of the inscription, a few descriptive words of which the more important were quoted at the beginning of our second chapter, and an allusion to "what the Indian People have Engraved upon Rocks" which reveals his belief that it was to these people that

² Issued also in a second edition, 1703.

the inscription was due and that what they wrote is unintelligible. In Figure 8 is given a reproduction of the whole. It appears that in his day it was not customary to make acknowledgment of sources, nor does his Diary mention them. Consequently, it has never been known whence he obtained the drawing and description. But if we compare his drawing of this date, and those of the same part of the inscription that he published twice later, with the Danforth drawing, as plates in my Colonial Society papers give opportunity to do, the possibility will suggest itself that the former may have been copied from the latter. Study of the productions of later artists will convince us that any two independent observers, and even the same observer at different times, inevitably make drawings that differ markedly from one another in important features. In this case there are no such essential differences, but only distortions. The suggested possibility becomes a certainty. There is no question that Mather copied from Danforth, and that he was a very poor copyist.

In the following year, 1691, Mather again briefly referred to the rock in the following words: "Of the Indians Reading and Writing is altogether unknown to them, tho' there is a Rock or two in the Country that has unaccountable characters Engrav'd upon it."³ Afterwards, he wrote no more about it for twenty years. He had been industrious, however, in the meantime, in taking note of everything that he regarded as of an extraordinary nature. This suggested to him eventually an idea which he expressed in his Diary on July 5, 1711: "There is one good Interest, which I have never yett served, and yett I am capable of doing some small Service for it. The Improvement of Knowledge in the Works of Nature, is a Thing whereby God, and his Christ is glorified. I may make a valuable Collection of many Curiosities, which this Countrey has afforded; and present it unto the Royal Society. May the glorious Lord assist me, in this Performance." Acting upon this resolution, in November, 1712, he composed a series of thirteen letters on the Natural History of New England and

³ *Life of John Eliot*, 1691, p. 81.

kindred topics, which he sent to members of the Royal Society for communication to the Society. Excerpts from these were printed in 1714 in No. 339 of the *Philosophical Transactions*, and afterwards incorporated in its Volume XXIX. Among the curiosities of which Mather made mention, Dighton Rock was included. His description of it was written on November 28, 1712, and does not differ essentially from that of 1690, except that now he thinks that the inscription consists of seven or eight lines, two of which he presents in a drawing with the hope that "ere long" he may be able to obtain the rest of them; and he no longer suggests the Indians as the engravers, but considers the characters unaccountable, since no one "knows any more what to make of them than who it was that graved them." The drawing is shown with approximate accuracy among those of Figure 6. The Colonial Society papers present it enlarged to about double its original linear dimensions, for the sake of better clarity and comparison with others.

The "first line" of this drawing is evidently a copy from that of 1690 and hence from that of Danforth. The "second line" corresponds really to very nearly all of the remaining surface of the rock, below the "first line," instead of being only a second line out of seven or eight, as Mather thought it was. It has always been a puzzle, for it bears not the slightest resemblance to anything that anyone else has depicted as occupying this position on the rock. Like the inscription itself to Mather, so to everyone else this "second line" of his has been such a mystery that "no one knows any more what to make of it than who it was that graved it." It never occurred to anyone before, nor to the writer until he had puzzled over it vainly for several years, to turn this second line bottom-side up. When this is done, although it will be seen to be a very unskilled piece of work, its resemblance to later drawings will be readily recognized.

There are several possibilities as to whence Mather procured this second line. There is no indication and no probability that he ever saw the rock itself. The new drawing was evidently made by some one who had intimate knowledge of the "first line," for it is clearly designed as a supplement to the

latter and carefully avoids repetition of its features. One way in which it may have happened is suggested by an entry of February 24, 1691, in the Letter-Book of Samuel Sewall, where the latter reminds himself to write to Rev. Samuel Danforth "to take the writing off the Rock and send it." In carrying out this purpose, he may have secured the original Danforth drawing from Mather and returned it to Jones through Samuel Danforth, asking not for a complete new drawing but only for the additional "lines;" and it may have been Jones, a farmer unskilled in drawing, who executed the commission. Then, years later, when Mather was ready to write about the rock again, he may have procured this new portion from Sewall, too late to send for the other lines that he believed had not yet been copied, and, not knowing its correct position, added it upside-down to what he already had. This course of events would explain everything adequately, although there are doubtless other possible ways of doing it.

This communication of Mather's to the Royal Society aroused a great deal of interest. One result of this was the issuance of a small Broadside, about four by five inches in size, whose existence had been unnoticed before this research was undertaken. Two copies of it are known, one owned by the Massachusetts Historical Society and the other by Yale University. They differ in that in one the cut of the inscription is printed below the descriptive matter, while in the other the position of the two is reversed. It seems not unlikely that Cotton Mather himself was responsible for its appearance, in order to satisfy the curiosity of his friends, and that it was printed not far from the time when the account in the *Philosophical Transactions* came out in 1714. Its cut is not a direct reproduction from the latter, as will be seen by consulting the plate in the Colonial Society papers which shows the three Mather versions of the "first line" compared with one another and with the Danforth drawing. He probably retained a copy of the two lines for himself when he wrote to the Royal Society, and perhaps for the Broadside made a fresh copy from that; and he never copied well, nor twice alike.

Further results of the interest aroused by Mather's com-

munication were the publication by Daniel Neal of a quotation from it in his *History of New England* in 1720, and the production of a new drawing and description of the rock by Isaac Greenwood in 1730. But Greenwood was not the only person who visited the rock at about that same time and copied its inscription. Two men of considerable eminence went to see it, who have escaped the notice of previous writers. One of these was John Smibert, one of the earliest of American portrait painters. The only allusion to the fact is in an unpublished manuscript written by Pierre Eugène du Simitière about 1781. He says: "There was in the collection of Doctor [Williams] Smibert at Boston, an accurate drawing of the Supposed inscription at Taunton, done by his father John Smibert an eminent painter that came over to America with Dean Berkeley, and afterwards Settled at Boston."⁴ If this report is trustworthy, it is much to be regretted that search in many directions has thus far failed to discover this important early drawing by so gifted an artist. The time of the visit would probably have been 1729, for it was in January of that year that Smibert arrived from England at Newport, and he left there for Boston late in the same year.

There are three previously overlooked evidences of a visit by the Rev. George Berkeley, then Dean of Derry but temporarily residing at Newport,⁵ afterward Bishop of Cloyne and one of the most deservedly eminent of English philosophers. One of them is a manuscript note by Dr. Ezra Stiles, made in 1767, referring to the inscription on Dighton Rock: "Was taken off first by Dr. Cotton Mather. Then by Professor Greenwood.—Lastly by Dean Berkley. Greenw^d took the whole; the other two but half. Teste Benj Jones aet. 70 Owner of the Rock." This Benjamin Jones was "Owner of the Rock" from 1720 to 1768, and was son of the Benjamin Jones of Danforth's time and Mather's. He therefore may have personally seen Berkeley and Greenwood as well as Stiles on the occasions

⁴ P. E. du Simitière, "Inscription in Massachusetts"; in MS Volume No. 1412 Quarto, Library Company of Philadelphia.

⁵ He arrived in Newport on January 23, 1729, and departed for England on September 21, 1731.

of their several visits, but he would have known about Mather only by hearsay, and he very evidently confused Mather with Danforth. It is very possible also that, after nearly forty years, he confused the order of the visits of Berkeley and Greenwood, and forgot Smibert; for it seems most likely that Berkeley and Smibert, who had come from England together, would also have gone together to the rock made famous by Mather, and that the date of this event was 1729. A certain statement by Greenwood, also, becomes more comprehensible on this assumption.

The same manuscript by du Simitière which is authority for Smibert's visit, speaks also of Berkeley in the following manner:

There is a tradition very current in New England, but particularly at New Port that when the learned Dean Berkeley resided near that last mentioned place . . . he visited the rock at Taunton, and had began an Elaborate dissertation upon the supposed inscription, when a farmer in its neighborhood . . . informed him, that, that rock had been used formerly by the Indians that resorted thither to Shoot ducks, and dart fish, to wett [whet] and Sharpen the points of their arrows and darts on that Stone which was the cause of the various hollow lines and figures formed thereon.

Berkeley's visit is further attested, though with somewhat differing details, by a reviewer in the *English Review* for March, 1790, on the authority of "his ingenious and religious widow, the late Mrs. Berkeley." He well remembers to have been told by her that her husband "returned fully convinced that this reputed scrawl of the present Indians, this boasted inscription of Punick, of Phœnician, or of Tartar hands was merely the casual corrosion of the rock by the waves of the sea," and with this opinion he, the reviewer, cordially concurs.

It is unbelievable that anyone who had actually seen the rock could possibly have considered the lines upon it as having been caused either by casual corrosion through natural agencies, or accidentally in the process of sharpening weapons. The two opinions attributed to Berkeley disagree with one another, and personally I do not doubt that those who reported them fifty

years and more after the incidents were mistaken about the facts. We shall study by and by some marks on rocks at Purgatory, near Newport and near Berkeley's home, which were actually made by Indians in sharpening and shaping their stone implements. It must have been there, at Purgatory, that he was given this correct explanation of its marks by a "farmer of the neighborhood;" and, much later, the traditions lingering at Newport concerning this opinion and also his visit to Dighton Rock, easily confused the two. What kind of confusion accounts for the other report, that he saw nothing on the rock except the results of natural processes, cannot be exactly traced. But this view has been suggested not infrequently by persons who had never seen the rock, and somehow or other, in the course of sixty years, Mrs. Berkeley seems to have become convinced that it was her husband's belief. As to the fact of his visit, however, there seems to be no question, since there are three independent evidences of it—the personal knowledge of Benjamin Jones, the tradition preserved at Newport, and the memory of Mrs. Berkeley.

Isaac Greenwood was "Hollisian Professor of y^e Mathematicks and Philosophy" at Harvard College from 1727 to 1738. He seems to have been a picturesque character, inclining to extravagance in the purchase of neckties and the like, and to a rather indiscreet intimacy with John Barleycorn, yet regarded by Cotton Mather as "a sort of a son."⁶ He is the source of our earliest detailed information concerning Dighton Rock, but there has always been a puzzling degree of confusion concerning his contributions. These were first reported to the world by Lort in 1787, nearly sixty years after they were written. But little items of additional or conflicting information were available here and there, and suggested a fresh search for the original documents and the true history of them. Manuscripts preserved in the British Museum and records of the Royal Society and of the Society of Antiquaries of London, more exhaustively examined and compared than had been done before, made it possible to completely straighten out

⁶ *Diary*, ii. 741; July 15, 1724.

ask your Acceptance of them, as a part of our Acknowledgments. Among the other Curiousities of *New-England*, One is that of a mighty *Rock*, on a perpendicular side whereof by a River, which at High Tide covers part of it, there are very deeply Engraved, no man alive knows How or Where, about half a score *Lines*, near Ten Foot Long, and a foot and half broad, filled with strange Characters: which would

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The Epistle Dedicatory.

I suggest as *old Thoughts* about them that were here to save us, as there are *old Shapes* in that Elaborate Monument, whereof you shall see, the *first Line* Transcribed here.



Sir, I take leave to add, That the *English* people here will blude to have the Kindness of their *Bene-factors*, not lets *Durably*, but were *Intelligibly* Recorded with them, then what the *Indian* People have Engraved upon *Rocks*; And therefore it is, That you shall now publicly read your *Person* and Family mentioned in

Fig. 8. Earliest printed drawing and description of Dighton Rock, by Rev. Cotton Mather, D.D., 1690

Facing page 38

the confusion and to work out the following account of the actual facts.

Sometime before September, 1730, Professor Greenwood received from Mr. John Eames, a Fellow of the Royal Society, a letter stating that some of the members of that Society, interested by Cotton Mather's description in the *Philosophical Transactions* of 1714, wished to secure a new copy of the inscription on the rock in Taunton River. Accordingly, Greenwood visited the rock in September, 1730, and copied its inscription. He either had already in his possession, or more probably now secured from Benjamin Jones, the two papers that contain Danforth's original drawing of 1680 and his descriptive comments. The two drawings, his own and Danforth's, he copied onto one sheet of paper; and he also composed a letter in reply to Eames. This letter was at first a rough draft only, with numerous corrections, erasures, and interlineations; and in this form I refer to it as Letter B. Of this he then made a fair copy (Letter A), differing very slightly in content from the corrected original, markedly better in its handwriting and spelling, and containing most, but not all, of the contents of the "Danforth descriptive slip" in a postscript. This fair copy, Letter A, and the copy of the drawings he sent to Eames under date of December 8, 1730; retaining in his own possession the original draft, the two original drawings, and the Danforth slip.

In April, 1732, he learned from Eames that the latter had never received a reply to his previous letter with its request for a new drawing. There being a ship about to sail immediately, Greenwood, with no time to make another copy, put together the original rough draft of his letter, the two original and separate drawings, and the Danforth slip, together constituting what I call Letter B. This bears the original date of December 8, 1730, but was sent to Eames, with a brief and hurried letter of explanation (Letter C), on April 28, 1732.

Letters B and C arrived in London on June 5, were received by Eames, and were presented by him to the Royal Society on June 15, 1732. On the same day they were copied, including the drawings, into the Register Book of the Society. The

original documents eventually passed into Birch's collection of manuscripts, and by 1782 they were, as they now are, in the British Museum. Lort, prosecuting what he intended to be a thorough search of the records of the Royal Society, in 1786, failed to discover either the copied documents in the Society's Register Book, or the originals in the British Museum. By early November of the same year, Letter A also arrived at its destination. Eames seems to have thought that it would be of interest to the Society of Antiquaries of London; for it was presented before that Society on November 9 by Mr. Bogdani, to whom it appears to have been transmitted through the Rev. Mr. Villers. A portion of the letter, and the drawings, were copied into the Minutes of the Society, and it was this fragmentary account which Lort found in 1786, and from which very nearly all of previous statements concerning Danforth and Greenwood have been drawn. The letter itself apparently came into the possession of the Rev. William Cole, who bequeathed the volumes in which it is contained to the British Museum in 1783.

One of the remarkable facts illustrative of the inadequacies of previous investigation is that no one ever reported the full contents of the Danforth slip, and no one correctly named the correspondent to whom Greenwood addressed his letters. The "Minutes" recorded the latter as Viller, and Lort misread this as Villan; and in neither form is the name correct, for the contemporary *Historical Register* speaks of this man as Rev. Dr. Villers, while the parochial records give his name as John Villa. One recent investigator asserted wrongly that the correspondent was Sir Hans Sloane, and another that he was Mr. John Evanses. The address that is still on one of the letters proves that all of them were really addressed to John Eames.

Letter A was about twenty-three months in passage, but the combined Letters B and C took only thirty-eight days and arrived first. This irregularity seems to have been not unusual. Dean Berkeley, in 1730, wrote from Newport to one of his correspondents: "Letters are of uncertain passage: your last was half a year in coming, and I have had some a year after their date, though often in two or three months, and some-

times less;" and again he speaks of receiving a packet from Dublin by way of Philadelphia, "the postage whereof amounted to above four pounds of this country money."⁷ This probably also helps to explain certain marks apparently made by the postal authorities on the back of the packet B-C, which seem to indicate that it weighed one ounce, and that eleven shillings five pence were charged for postage. Greenwood intended to send the letter, as was usual, in charge of the ship's captain and to have him mail it in the Penny Post in London, in which case it would have cost but one penny. The legal route established by the British Post Office from Boston was via New York, at the rate of eight shillings an ounce. But there were actually no mail packets from New York at the time. If Greenwood missed the ship which, as he remarked in his Letter C, was "immediately to sail" and which did clear for London on April 29, his letter may have gone by way of Philadelphia, as one that Berkeley mentioned did, and thus been charged a higher rate for postage; although perhaps the short time of passage precludes this possibility.

Letter A contains Greenwood's copies of his own drawing and Danforth's. These have usually been presented after many copyings—from the letter to the "Minutes," thence by Lort, and thence by others. In 1908, however, David I. Bushnell published an accurate photographic reproduction of them,⁸ and they are again shown among my Colonial Society plates from a photostatic copy made in the British Museum. Our Figure 6 shows them with sufficient accuracy. Underneath them Greenwood wrote that they were "Delineata per D^{om} Greenwood" and "per D^{om} Danforth." This "D^{om}" evidently means Dominus; but it was copied into the Minutes of the Society of Antiquaries as "Dr." Since this, through Lort, has been the source of all later statements about these two men in the literature of Dighton Rock, it is easy to see why they have always been mistakenly spoken of as Dr. Danforth and Dr. Greenwood. The significance of the Dominus is thus explained by

⁷ *The Works of George Berkeley, D.D.* London, 1820. Vol. 1, pp. xxxix, xli.

⁸ *Amer. Anthropologist*, x, 251.

Albert Matthews: "On taking his first degree, or A.B., [at Harvard College] a student was, following the practice at English universities, called 'Dominus' or 'Sir,' the latter designation remaining in use down to the first decade of the nineteenth century. On taking his second degree, or A.M., the quondam student was called 'Mr.'"⁹ Until he received his first degree, he was called by his surname only. Danforth had both degrees, and while Greenwood calls him Dominus on the drawing, in the text of the letter he speaks of him as "Mr.,"—that is, as possessed of the Master of Arts degree.

Letter B contains the drawings from which Greenwood made his copies for Letter A, and it is not unlikely that they are the original drawings of Danforth and Greenwood. That by Danforth, together with its accompanying "slip," was shown in Figure 7. Greenwood's is not reproduced here, since it does not differ from that of letter A sufficiently to be of any additional interest. Underneath it is written the statement that it was made in September, 1730. In either form, the drawing is incomplete, poorly made, with weak rounded lines, and of little use except as an exhibit illustrating the psychological features of our discussion.

Since Greenwood's communication contains the first real description of Dighton Rock, it seems worth while to reproduce it here in full. The version given is that of the more finished Letter A, transcribed from photostatic copies of the manuscript in the British Museum.

N.E. Cambr. Decem^r 8. 1730

I have according to the desire of some of the Members of the Hon^{ble} the Roy^l Society, which you mention'd to me in your last, examin'd the remarkable Inscriptⁿ. on the Rock in Taunton River describ'd in the Phil. Trans. N^o. 339 pa. 70 and herewith send a View of as much of it as I could then possibly take. N^o I.

ABCDE represent the face thereof, being a Plane nearly perpendicular to the Horizon, looking N b W in length from B to D 11½ feet, and in Depth from C to F 4½. This seems to have been left by Nature very smooth & is certainly in its substance very uniform, compact and durable. BCD represents the surface of the

⁹ *Publications Colonial Soc. of Mass.*, xviii. 309.

Water at the time of Observation. I am inform'd that at some extraordinary Tides the Water ebbs below the Rock & some of undoubted Veracity belonging to the town assured me, that the River has been constantly encroaching on that part of the Beach, so as to waste the adjacent Lands, which since the Memory of many alive is something more distant from the Rock than formerly, tho' now but a few feet, and that there are the like figures for some feet under AE which is the present Surface of the Beach.

In determining the Characters or Figures I found some difficulty for the Indentures are not at present very considerable, nor I think equally deep, which put me upon the following Rule viz^t. Carefully to trace out and Chalk all such places and those only which I beleived were real Indentures, and in this part I desired the Revisal & assistance of the Rev^d. Mr Fisher & others. Many places were passed over which did not seem to be indented, as to the Eye, tho' remarkably discolour'd, by some adherent matter, in corresponding figures to the rest. I thought it more advisable to give such parts of these Characters as were real, that thereby the whole might be obtained; than to run the Risq of a conjectural Description, which would certainly endanger the discovery of many parts, and for this reason I must also note, that the figures are not all so well defin'd as I have express'd them, the Bounds being scarcely perceivable in some of them. The Stroakes also may be something, tho' very little broader; their Direction being what I cheifly aimed at. Time is suppos'd gradually to have impair'd them, and one of advanced Years in the Town told me he was sensible of some Alteration since his Memory. And for this reason I have also sent you N^o. II which is a Draught of some part of this Inscription taken by the Rev^d. Mr. Danforth 1680. This Gentleman observes with relation to it, that there was a Tradition current among the eldest Indians "That there came a wooden house (and men of another Country in it) swimming up the River of Assoonet (as this was then called) who fought the Indians with mighty Success &c." This I think evidently shews that this Monument was esteem'd by the oldest Indians not only very antique, but a work of a diff^t. Nature from any of theirs. It may not be improper to add here that this place was one of the most considerable Seats of Indians in this part of the World, and the River remarkable for all Sorts of Fowl & Fish.

After this description you may expect an Accompt of the Sentiments of some among us relating to this Inscription. Such as look

upon it as the work of the Nature are little acquainted with her Operations and have made but a cursory Observation hereof. Two Opinions prevail most. 1st. That these figures are the undesigning and artless Impressions of some of the Natives, out of meer curiosity or for some particular Use. 2^{ly}. That they are a Memorial in proper Sculpture of some remarkable Transactions or Accident.

That they are not the Effect of mere Curiosity I think is very evident, for 1st. the Natives of this Country were altogether ignorant of Sculpture & the use of Iron. And tho' they had some Stone Instruments, none that ever I have seen are capable (in much better hands than theirs) of forming so accurate an Inscription, and if they were, 2^{ly}. it is highly probable there would have been in the Neighbourhood or in some other parts of New England other Sketches of the same or a like Nature & Regularity which cannot be pretended. 3^{ly}. One would think their Curiosity would have lead them to the Representation of Birds, Beasts, Fishes, Trees &c which we have since found to be their prevailing Genius, & not to figures quite different from the Objects of their Senses. 4^{ly}. They were a Nation too idle & irresolute for a work of so much Industry & apparent Design.

Some think these Sculptures were of particular Use to the Natives in sharpening the Heads of their Arrows, their Axes &c or at least that they were first form'd by such means. This is obviated by two Considerations 1st. that there are no more (as I can yet hear) of such indented Rocks. If this was their usual Custom, we should find these Traces & Indentures very probably on many Rocks of the same Nature as this; and if it was political (a customary preparation to confirm & encourage one another in their Intention or prosecution of War) no doubt but kindred & confederate Tribes would have had their respective Standards. But 2^{ly}. The figures are too regular & uniform to comport with such an Occasion.

And this brings me to the second Opinion viz^t. That these figures are a Memorial in proper Sculpture of some remarkable Transaction or Accident which appears from the great Number thereof, from the likeness of several, from the Parallelism & Conformity of the Stroakes one with another in each, from the Circumstances of the Rock and Place, which are very proper for such a design, and from the equal Irregularity of some of the Oriental Characters &c. But for the farther Discovery of this our Hopes

being placed upon the extraordinary Skill and Ingenuity of Mr. La Croze in the Alphabet both ancient & modern of the Oriental Tongues, it is with pleasure I now take leave of this Subject.

If it should be thought proper to prosecute the Subject any farther I will endeavour to transmit unto the Society a large View of the whole Inscription, with an Acco^t. of some other Sculptures, which probably were the work of some modern Indians. And this I esteem but a just Debt to that illustrious Body, who have improv'd in so eminent a manner every Branch of humane Literature.

I am &c

Isaac Greenwood
Hollisian Professor at
N. Cambridge.

To the end of this letter a short postscript was added, quoting a portion of the Danforth slip. There are many things in the letter that are of no value as statements of fact or as examples of sound reasoning. Such claims as that, within the memory of individuals, the river has encroached upon the land or the marks upon the rock have grown perceptibly fainter, are proven by completer evidence than Greenwood possessed to have no foundation in fact. The conclusion that he draws from Danforth's tradition about the wooden house is unwarranted, for the tradition has nothing whatever to do with the question as to whether or not the Indians made the carvings or knew anything about their meaning. We shall find a better hypothesis than Greenwood's about the significance of the inscription and the relation of the Indians to it; yet his mistaken deductions have been the basis of many later positive but unfounded assertions about the matter. His later arguments against the possibility that Indians could have done the work are not convincing. His method of preparing for his drawing by first chalking upon the rock what he believed to be real indentures has been followed by almost every draughtsman and photographer since, but it inevitably leads to error. In spite of these inadequacies, however, the letter is very valuable for several reasons. It has been the means of preserving for us Danforth's drawing, and the contents of his descriptive slip. It proves conclusively what is already suggested by the earlier

drawings of Danforth and Mather, that from the very first of known observation there has been "difficulty in determining the characters," the indentures being "not very considerable," the figures "not well defined," and the "bounds scarcely perceivable in some of them." There is certainly no greater difficulty today, after two hundred and fifty years, and hence there cannot have been any very marked wear with consequent increase in faintness.

A further service rendered by Greenwood lies in his discussion of opinions, which probably reflects well the course of general conjecture up to his time. Mather at first, and probably Danforth, thought of it only as the work of Indians. But Mather seems to have given up this view as a consequence of current criticism, and regarded the characters as "unaccountable." Gradually the arguments against the Indians became accepted as conclusive, and probably most of the scholars of the day, interested in the possibility that the Indians were descendants of the "lost tribes of Israel," inclined to the opinion that seems to have been Greenwood's own, that the inscription was in "Oriental Characters," and might yet be deciphered as such. He indicates, however, that two other opinions were current to some degree—that the lines upon the rock were the work of Nature only, or that they were accidental results of the work of Indians in sharpening arrow-heads. The latter theory, it seems to me, can have arisen only as a result of a transfer to a wrong locality of Berkeley's observations at Purgatory, and this is why I have suggested the probability that, contrary to the statement of Dr. Stiles, Berkeley's visit to the rock occurred before that of Greenwood; for in that case it would have been easy for Jones to have related to Greenwood a garbled account of Berkeley's comments. The "work of Nature" hypothesis may well have been current anywhere, among skeptics who had never seen the rock itself. A final fact worth noticing is that, although Greenwood knew of "no more of such indented Rocks," yet he did believe that the "modern Indians" of his day, if not their predecessors, were engaged in making occasional sculptures.

We have thus gathered a rather gratifying amount of

information concerning the rock during the first hundred years of its history after white men settled in its vicinity. Earlier accounts of this period have been meager and distorted. It will be instructive and encouraging to review how much of definite knowledge it has been possible to add to what had been told before through undertaking a fresh and exhaustive inquiry. Concerning the rock itself, its exact character and dimensions have been determined, and various erroneous reports about it corrected. Its rate of wear is slow, and the legibility of its inscription has not diminished perceptibly within the last two hundred and fifty years. The worn appearance that it presents may have been acquired within a few decades after it was made, and throws no light upon its age. The rock must have been seen as early as 1640, but there are no reports about it until forty years later, and consequently, so far as records show, the work upon it could have been done, partly or wholly, within that time. Statements that it was a mystery to the Indians, or that it was reported and discussed by the earliest colonists, are without foundation. John Danforth, and not his brother Samuel, made the first drawing of it, in the month of October, 1680. His original drawing has been discovered and published, and also the full contents of his descriptive notes. The title "Doctor," always applied to him and Greenwood, has been withdrawn and the reason for its previous use explained. Something new is known concerning every one of Mather's contributions: that of 1690 was derived from Danforth; that of 1691 is noticed for the first time in the literature of the rock; the lower part of the 1712 drawing was published upside-down; and the Broadside has been discovered. Samuel Sewall was interested in the rock in 1691. The rock was visited, probably in 1729, by John Smibert and Dean Berkeley. The drawing that Smibert made seems to have disappeared completely. The opinions attributed to Berkeley are conflicting, and can be given a more probable application to other rocks. Greenwood's visit was in the month of September, 1730, and the correspondent to whom he addressed his letters was John Eames. Much confusion in the reports about these letters has been cleared up, the main letter has been given in a reliable ver-

sion, and it has been interpreted in such a manner as to reveal its true significance. These are the chief, but not the only new contributions affecting this period. They are enough to justify us in anticipating similar increase in our understanding of the rock as we pursue our study of it further.



Fig. 9. Drawing of the Dighton Rock inscription by Rev. Ezra Stiles,
July 15, 1767

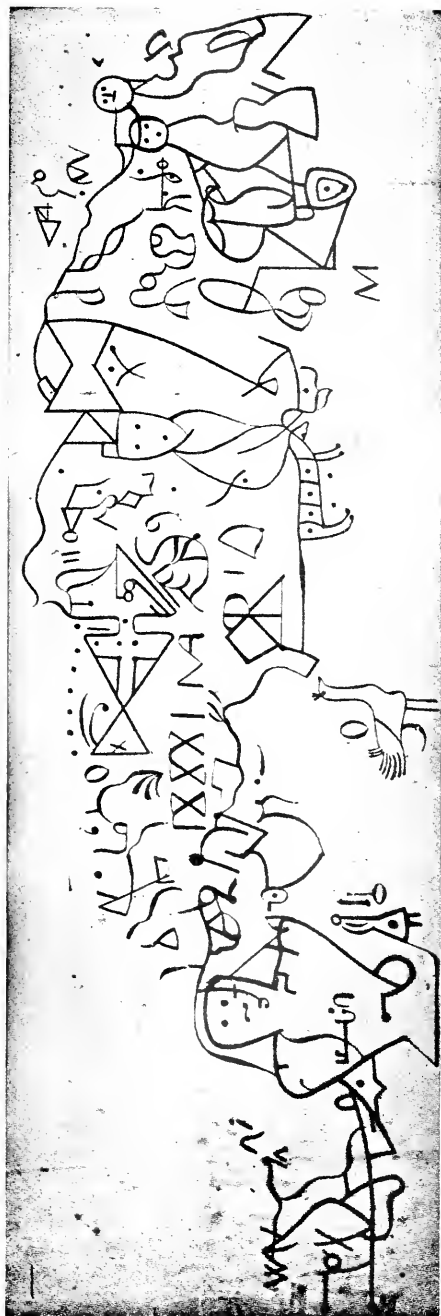


Fig. 10. The "Smith-Stiles" copy of a drawing made in 1789 by
William Baylies and others

CHAPTER IV

A RECORD OF PHŒNICIAN ADVENTURE

During the earliest period of interest in Dighton Rock and its strange writing, there seem to have been some, as Professor Greenwood implied in 1730, who suspected that possibly its characters were Oriental. This belief was doubtless closely connected with the many current theories as to the origin of the American Indians,—a problem which aroused interested discussion from almost the very earliest days of the colonies. On the one hand, northwestern Europe was looked upon by some as the home-land of some at least of the Indian tribes. But even more widely accepted as parents of the aborigines were Orientals, either from the eastern parts of Asia, such as the Siberian Tartars, the Chinese, or the Japanese, or from its western borders, such as the Lost Tribes of Israel, the seafaring Phœnicians, or even the exiled Trojans. It was natural that, when this rock became known, some of the advocates of one theory or another should find in its curious characters evidence in favor of their views. But up to this time no very definite theory concerning the origin of the inscription had taken shape. During the next following one hundred years after Greenwood, it became generally held that some ancient people of Oriental origin carved this monument, or that the Indians did it in a writing retained from their Oriental ancestors. Several theories ascribing it to different Oriental sources were announced. Some of them went so far as to discover a definite meaning for nearly every line upon the rock. Yet there continued an undercurrent of opposition to such speculations, and a belief that either the American Indians in a manner of their own, or even the action of natural forces alone, were responsible for the markings.

Greenwood's contribution did not satisfy his correspond-

ents, and consequently remained buried from sight for over fifty years. After his retirement from the Hollis Professorship at Harvard in 1738, John Winthrop was appointed in his place; and Eames, "at the desire of a gentleman at Berlin," requested Mr. Timothy Hollis to secure through Winthrop a more accurate copy of the inscription. It is said that John Winthrop was the foremost teacher of science in this country in the eighteenth century, and that the growth of the scientific spirit in America owes much to his influence. It is easy to understand, therefore, that when he visited the rock in answer to this request, in 1744 or earlier, he must have realized the nearly insuperable difficulty of determining what had been engraved upon it, and so he made only a rough and incomplete sketch and did not preserve it. It was not until thirty years later that he complied with Hollis's request by sending him a new drawing by another man.

In 1747, William Douglass, a Boston physician of violent prejudices and undisciplined utterance, published an intemperate criticism ridiculing Mather and his communication to the Royal Society and claiming that the ebbing and flowing of the tide had made the marks upon Dighton Rock, as "a sort of vermoulure, honey-combing or etching on its face." Except historically, his contribution was as unimportant as was Cotton Mather's own. The one distorts and misrepresents the appearance of the inscription, the other tells us that there is no inscription there; and neither of these men, apparently, had made a personal inspection of the rock. Yet until 1781 their accounts remained all that there was in print on this subject.

According to Kendall, the most active attention to Dighton Rock after Greenwood was occasioned by motives of greed rather than of scholarly research. "The unlearned believe that the rock was sculptured by order of a pirate," he says, "either Captain Kyd or Captain Blackbeard, in order to mark the site of buried treasure;" and in the search for it, in the years around 1765 according to his reckoning, much labor was expended in digging up the shore for more than a hundred fathom on a side.

The fact that Dr. Ezra Stiles expressed certain opinions

concerning Dighton Rock in an Election Sermon in 1783 is well known. But that he made three separate drawings in 1767, and another in 1788, is never mentioned in the literature of the subject. In all the history of the rock, perhaps nothing is more surprising than this almost complete ignoring of his important and repeated investigations. From 1755 to 1776 he was minister at Newport. After a brief residence at Dighton and at Portsmouth, New Hampshire, during the war, he was called to the presidency of Yale College in 1778 and continued in that office until his death in 1795. Most of his notes and drawings are contained in a series of manuscripts which he called his Itineraries, now preserved in the Library of Yale University. Many extracts from these Itineraries have been published recently, but not the many passages which contain his notes about inscribed rocks, a subject in which he was especially interested.

Dr. Stiles's interest in the rock was first aroused by seeing a copy of the Mather Broadside in the fall of 1766. On May 27, 1767, he learned from Mr. Edward Shove of Assonet Neck that the "cyphered Stone" was situated half a mile from the latter's house. On June 5th he rode from Taunton to Shove's house, and they went together to the Writing Rock. "I began to take off some of the Characters, but without Chalking first. Next day I chalked the marks and took them more distinctly. Spent the forenoon in Decyphering about Two Thirds the Inscription, which I take to be in phoenician Letters & 3000 years old." He made a number of descriptive notes, mentioned the previously made drawings by Mather, Greenwood and Berkeley, and thought that he detected marks resembling an X and an R on one corner of the flat "slab" which has been spoken of as lying near the Writing Rock. On the upstream end of the latter, he detected some further faint marks, "said to be done 30 years ago, some said 12." He drew these as dotted lines, to indicate their faintness and uncertainty, making them look much like the letters "I HOWOO," with three U-like curves underneath. We have already seen that there is unquestionably something more or less like this in that posi-

tion, so very rarely visible in favorable light that not more than two or three subsequent observers have noticed it.

On the 15th of June Stiles wrote a letter to Professor John Winthrop of Harvard, telling of this visit, asking for a copy of the Greenwood drawing, and expressing the following opinion: "It is not a Vermiculation or *Lusus Naturae*, but a Work of Art, and I believe of Great Antiquity, perhaps up to the phœnician Ages: but I believe it never will be interpreted." On July 15, 1767, he was again at Edward Shove's. After washing and scrubbing the rock, he attempted to take some full-sized impressions of its figures by using cartridge paper pressed upon them. Failing in this, he made a drawing by copying the characters as he had chalked them on the rock, devoting about two hours to the task. On the following morning, he took another copy on a larger scale. His Diary records that he visited Dighton Rock again many years later, on May 16, 1783, and still again on October 3, 1788. On the latter occasion he worked for an hour and a quarter on a new drawing, but became discouraged and did not finish it; and the fragment cannot now be discovered. At various times he made drawings also of other similar inscriptions, in Rhode Island and Connecticut, to which we shall give attention in later chapters.

The three drawings of 1767 are reproduced in the Colonial Society plates, and one of them is shown in our Figure 9. That of June 6 occupies four pages of the Itinerary, each measuring about $6\frac{1}{8}$ by $7\frac{5}{8}$ inches. Placed together, therefore, the whole drawing measures about $7\frac{5}{8}$ by $24\frac{1}{2}$. The right and left halves are drawn on somewhat differing scales. On them Stiles wrote a number of indications of dimensions, and a few descriptive remarks. The drawing of July 15 (Figure 9) is also in the Itinerary, where it covers two pages, and therefore measures about $7\frac{5}{8}$ by $12\frac{1}{4}$ inches. It attempts to indicate the relative breadth of the lines, shows the position of some of the natural cracks in the rock by dotted lines, and gives marginal indications of the dimensions in feet.

The drawing of July 16, being made on a larger scale, is

not in the Itinerary. It is on two sheets of paper pasted together, measuring together $12\frac{7}{8}$ by $31\frac{1}{4}$ inches, the drawing itself being about 9 by 23 inches. On the back is a carefully executed separate drawing of one of the groups of figures, 4 by $6\frac{1}{2}$ inches in size. The main drawing, like that of the day before, indicates the breadth of the lines on the rock, but contains no marks of dimension. The separate figure, however, is divided by dotted lines into squares corresponding in numbering to the indications of dimensions in feet as given on the drawing of the 15th. In one corner of the face is written: "Characters on the Writing Rock, whose Incisions were obvious & unquestionable decyphered July 16, 1767. Given to Yale College Museum / Ezra Stiles / 1788;" and on the back: "Dighton Writing Rock said to consist of Punic or Carthaginian Characters." The drawing is now in the collection of the Massachusetts Historical Society.

The three drawings are in some respects so unlike as to show little indication of having been made by the same hand. Other features, however, especially the representations of human beings and the triangular figures, which are presented in an essentially like manner by nearly every one who has ever copied the inscription, are naturally nearly alike in these. The figure usually drawn as a quadruped bears no resemblance to its usual manner of depiction on the first drawing, but slight resemblance on the second, and is lacking on the third. In view of later importance attached to them, it is particularly interesting to compare together the two lines of characters near the centre of the inscription which contain some resemblance to letters of the alphabet. Besides irregular marks possessing no such resemblance, the upper line includes shapes somewhat like XXXIM on June 6, XXX only on July 15, XXXIN on July 16, and cXXXIM in the drawing on the back of the latter. Calling the diamond-shaped character an O, and neglecting irregular curves, the lower line can be best likened to O . . OX on June 6, y7X on July 15, and OnΩX on July 16. As a whole, the June drawing is very dissimilar to the two of July; yet a distinct individuality of style is perceptible in them all. That of July 16 is very similar to the one of the day before,

being based on the same chalking; but it contains fewer figures, the omissions being mainly, but not wholly, in the lower part. It appears more carefully and accurately drawn than the others, and impresses me as the best one that Stiles made, though not the most complete.

One significance of these drawings is that they are the earliest that show the entire sculptured surface of the rock in a serious manner. Danforth's gave less than half. Mather's "second line" was published upside-down, and hence has hitherto been valueless; and even in its correct position it is seen to be ill-drawn and badly distorted. Greenwood's drawing went only a little beyond Danforth's. These of 1767 show, as Stiles says, about two-thirds of the face of the rock; but this is, nevertheless, nearly the whole surface so far as any artificial characters can be discovered on it. No one has ever given more than these drawings include, except perhaps for a few single figures that some have claimed to discover where others have seen little or nothing.

That Stiles was not content with his drawings and still wished, after his own unsuccessful attempt, to secure a full-size direct impression of the characters themselves, is shown by the fact that, at his request, an attempt was made on August 15, 1767, by Elisha Paddock of Swansea assisted by John Hudson, to "take off some of the figures as big as the life." They mixed ink and flour into a paste, filled in such marks on the rock as they took to be artificial, squeezed paper upon it, and then pricked off the resulting "negative" designs onto new paper. One small figure from this copy is preserved in Stiles's Itinerary, and another, much larger but still very incomplete and of no particular value for reproduction, is in possession of the American Academy of Arts and Sciences in Boston. This impression, as well as some of Stiles's drawings, is apparently referred to by du Simitière as having been shown to him by Stiles at Newport in June, 1768. Paddock suggested to Stiles in a letter of January 7, 1768, that one of the figures at the extreme right was meant to represent the "Phenitian God Dagon that we read of in the Old Testament," whom the Rev.

Mr. West had described to him as customarily drawn in the form of a half-man and half-fish.

The next actor on the scene was Stephen Sewall, Hancock Professor of Hebrew and other Oriental Languages at Harvard College. He made a life-size drawing of the rock on September 13, 1768. Very likely this production had some relationship to John Winthrop's failure in 1744 to satisfy the request of Timothy Hollis; for in 1774 Winthrop sent a reduced copy of Sewall's drawing to Hollis, with the remark that it was the "most exact copy" that was ever taken. Sewall himself relates the circumstances under which it was made, and expresses his own opinions. He had as collaborator Thomas Danforth, grandson of the Rev. John Danforth of Dorchester; and they were assisted by Seth Williams and David Cobb, and by William Baylies, prominent physician and judge in Dighton, who was intimately connected with several later investigations of the rock. In a letter to Court de Gebelin in 1781, a copy of which he wrote also upon one corner of his original drawing, Sewall expresses the belief that "the level of the beach seems to have risen and to have covered a considerable part" of the inscription, and remarks that "the greater part of it is effaced to such a degree that it is no longer possible to distinguish any characters in these portions of it." Of opinions he says: "Some imagine it to be the work of Phœnicians who were driven hither from Europe; others judge it to be rather hieroglyphical than literal, and that thus it may have been due to navigators from China or Japan!" As for himself, "I imagine it to be the work of the Indians of North America, done merely for amusement." Again, in a letter to Stiles on January 13, 1768, he says: "I confess I have no faith in the significancy of the characters. There is indeed in some of the figures an appearance of design. But the strokes in general appear to be drawn at random: So that I cannot but think the whole to be a mere *lusus Indorum*." We are still further assured, by Kendall on the authority of Dr. Bentley, that Sewall saw nothing on the rock which reminded him of any ancient alphabet.

Sewall's was the first complete drawing of the inscription

which was published, and the first complete one made of the full size of the face of the rock. It was kept for a long time in the Museum or Mineral Room of Harvard Hall, in charge of the Librarian, and this fact was probably responsible for the origin of a mistaken report that there was a "facsimile cast in the Geological collection at Cambridge." Reproductions of it on a smaller scale were published by Court de Gebelin in 1781 from a copy sent to him by Sewall, and by Lort in 1787 from the copy sent by John Winthrop in 1774 to Timothy Hollis; and from these two sources all later reproductions have been derived.¹

In the spring of 1774, John Winthrop made a second visit to Dighton Rock, but made no drawing. On the following 14th of November he wrote to Timothy Hollis, at last complying with his request of thirty years before by sending him a copy of the Sewall drawing, as we have seen. The letter shows that he was not exempt from the erroneous impression that so frequently occurs, that "the characters do not appear so plain now as they did about thirty years ago." He seems to have shared without hesitation Sewall's opinion that the lines were carved by Indians, but expresses uncertainty as to whether it was designed by them "as a memorial of any remarkable event, or was a mere *lusus* at their leisure hours, of which they have a great number." But he concludes with a statement which we have seen cannot be accepted without fuller investigation, that "'tis certain it was done before the English settled in this country."

Thus far we have met with a few attempts to depict the appearance of the inscription, differing from one another to a remarkable degree, and with a few suggestions as to what might have been its origin, but with no attempt to interpret it in detail. Now the scene changes. Our history enters upon an era of romantic and uncontrolled translations in which fact and fancy meet in weird partnership, and no critical attitude is taken toward the reliability of the drawings upon which the readings are based. The belief that the rock exhibits only the

¹See Figures 6 and 13, and a still more accurate version in the Colonial Society plates.

commonplace and unreadable products of rude Indian art continues to be held by cautious thinkers; but all of those who in the next fifty years announced a full solution of the riddle held that they found in it proof of visits to these shores in the distant past by Phœnicians or other transoceanic peoples. The first to give rein to his exuberant imagination in this manner was Antoine Court de Gebelin; and his theory had a far-reaching influence upon subsequent opinion and discussion. Sewall's drawing came to him as he was engaged in the preparation of the eighth volume of his elaborate treatise on *Le Monde Primitif*, and was enthusiastically greeted by him as furnishing the most convincing proof of his belief that Phœnician navigators had sailed "boldly and gloriously" throughout the ancient world, even to America. He published the volume in 1781, and claimed in it that the Dighton monument could not have been the work of American Indians, and was certainly inscribed "in very ancient times by Phœnicians, perhaps even by those of whom Diodorus speaks." The inscription is a record of the fact that a company of Carthaginian sailors, coming from a land of abundance and high culture, dwelt here for a time in amicable relations with the ignorant natives, and then, consulting their Oracle, obtained assurance of a prosperous return homeward. In support of this reading, Gebelin analyzed the drawing in detail, discovering a meaning for almost every one of the figures that it contains. He gives a beautiful illustration of the proneness of an uncritical mind to mistake its unrestrained fancies for actual truths. It is sufficient, however, to present his exposition in a very much condensed form. Most of the particular figures that he mentions can be readily identified in the Sewall drawing of Figures 6 and 13, although difficulty may be found in detecting any resemblance to what he sees in a few cases, especially that of the "horse." "The monument is divided," he says, "into three unmistakable scenes, one representing a past, another a present, and the third a future event;" and then he continues:

First Scene.—At the right are four figures which turn their backs on the scene representing the present. They clearly relate

to a past event. Their nature indicates that those who engraved them were Phœnician navigators, either from Tyre or from Carthage. The figure at the extreme right is Priapus, god of fecundity, father of fruits. He cannot be mistaken. He indicates the country whence come these bold navigators,—a country of prosperity and abundance. The next figure to the left is an owl, symbol of Minerva, Isis or Astarte, goddess of wisdom and of the arts. It indicates the superiority in the arts and the skill in navigation of the nation of these newly landed sailors. The next figure, a little to the left and lower down, is the head of a sparrow-hawk, with a kind of mantle over its shoulders. It symbolizes persons who have come by sea. Among the Egyptians and Phœnicians, the sparrow-hawk was an emblem of the winds, especially of the north wind, which is necessary in order to pass from Europe to America. The fourth figure, furthest left in this group, is unmistakably the little Telesphore, divinity of a happy outcome. He is wrapped in a sleeveless mantle, and covered with his hood. He shows that the voyage has met with the greatest success.

Second Scene.—This represents the present, and for this reason is placed in the middle of the picture. Its essential objects are two animals that face one another, armed with banners and streamers that float in the wind. One represents the foreign nation, the other the American. The former is a horse, at rest in a kneeling position; the other a beaver, recognizable by its long flat tail. Their good accord proves the intelligence of the two nations, and the favorable reception given to the strangers.

The horse, and particularly the head of this proud animal, was the symbol of Carthage, as a maritime city, situated in a fertile and fruitful land. The horse was also a symbol of Neptune, of navigation, and of ships. This horse moreover has the air of a sovereign, while the beaver has almost that of a suppliant,—vivid picture of the difference between the noble pride of science and of the arts, and the timid weakness of ignorance.

The upper part of this scene shows a large space enclosed on all sides, with three re-entrant gates facing north, east and south. It ends toward the west in a triangle within which is a cross. This is evidently a habitation divided into two parts, of which the larger was the dwelling of the natives, the smaller one that of the strangers, who placed a cross therein. It is known that the cross was in use in most remote antiquity among the Egyptians; and the Carthaginians were acquainted with it also, and used it as an instru-

ment of punishment. To the left of this dwelling is their bark or ship, with stern, prow, mast, and rudder. Below these is a band of alphabetical characters, reading from right to left. The first, resembling A, may be an H or an A; the next, resembling a 9, a B or an R. The next following characters cannot be deciphered. The band ends in three characters which may be three T's, or more likely three X's, indicating the number of the foreigners; and another, above them, which resembles a Phœnician *Caph*.

Third Scene.—This relatively empty scene represents the solitude of the future. The largest figure is a colossal bust, the Oracle who has just been consulted; the line above him is his veil, which is already drawn. The question put to him was concerning the time of departure homeward; and the answer has been favorable. On the right arm of the Oracle is a butterfly (the right-hand figure within the bust), symbol of return, of resurrection. On the breast of the god is a character which, if hieroglyphical, is the trident of Neptune; if alphabetical, is the Phœnician M, initial of the Phœnician name for water, and thus again symbol of Neptune. To his right is a small statue or priest; and to the left of the three X's, a person advancing hastily. Leftward from the latter is the Q of the Syracusans, Corinthians and Carthaginians. It is the initial letter of the name Carthage,—another evidence that Carthaginian sailors, perhaps while on a voyage to or from England, were driven by some northerly tempest to the shores of America.

At the left extremity of this scene are three monograms, formed of characters that are incontestably Phœnician. The uppermost is formed of the two letters, Sh and N, and is the word Sh-Na, year. The lower ones indicate probably the month and the day of the month. These letters are drawn with more taste and skill than the other figures, which are very crude. This is natural, for the writer on the ship would be more skilful than the painter. Nevertheless, the composition of the picture is executed with much intelligence and unity of design.

It seems hardly necessary to say that the interest of Gebelin's theory lies not in any possibility that it may be correct, but in its historical and psychological importance as an influence in shaping opinion and as a stage in the gradual development of scientifically sound views. From this point of view every fact, however trivial, every drawing, however distorted, and every

theory, however mistaken, is an interesting exhibit, an indispensable factor in the dramatic sequence of events that make up, all taken together, the entire absorbing story. It is worth while, laying aside the critical attitude toward these impossible visions, to try to think ourselves sympathetically into the frame of mind and limitations of knowledge of each painstaking producer of a drawing and each exponent of a theory, and thus to derive from this study all of its possibilities of instruction and entertainment.

Gebelin's views naturally aroused much subsequent discussion. Many, like President Stiles, accepted them favorably. Others opposed them. Alexander von Humboldt, for instance, speaks of the "enthusiasm which is natural to him, but which is highly mischievous in discussions of this kind." Lort remarked: "It would scarce be supposed he could be serious, by anyone that did not consider how far a man may be carried by attachment to a system." Vallancey calls Gebelin's an "explanation repugnant to all history. Many letters passed between me and Gebelin on this subject; at length he acknowledged his doubts; in short, tacitly gave up the point." This "tacitly" is misleading, and does not justify its conclusion. Vallancey had quite as indefensible a theory of his own to advocate; and that he was naturally a prejudiced and unreliable theorizer we are shortly to discover. Sounder criticisms of Gebelin, however, were fully justified. While his theory was still a serious possibility, the attitude of critical discussion, advocacy or opposition, was the only one possible, instead of that which I have just been defending as desirable now. The question is no longer a genuine issue. Yet it is interesting to notice, in finally taking leave of Gebelin, that I have found—in sources, of course, that have no scientific importance whatever—two revivals of this old Phœnician theory as recently as 1890 and 1915.

A complete and confident translation of this mysterious inscription had at last been published. It appealed to the always keen interest of Dr. Stiles, who now weaves in the next thread of the fabric of developing opinion. At first, as a record in his Diary on May 1, 1782, shows, he was inclined to question its

validity. But these doubts seem to have disappeared shortly. On May 8, 1783, he preached his so-called Election Sermon before the Governor and General Assembly of Connecticut, and this was afterwards published under the title "The United States elevated to Glory and Honor." It was only a year and a half since Cornwallis had surrendered at Yorktown, and peace had not yet been formally ratified with England. Indian wars had ceased in New England; but to the country as a whole they still presented a serious problem.

The future destiny of the United States was uncertain, but Stiles saw for it an "elevation to glory and honor." He based his certainty of this fortunate outcome on the prophecy in the ninth chapter of Genesis: "God shall enlarge Japhet, and Canaan shall be his servant." The European settlements of America were of the blood of Japhet; the Indians were "Canaanites of the expulsion of Joshua," arrived hither both from the northeast of Asia, and probably also from the Mediterranean. He concludes, therefore, that the Indians will eventually be, as most of them have already become, servants unto Japhet, at least unto tribute; and that the population of this land will become very great.

In the course of this argument he mentions Dighton Rock, citing Gebelin's opinion, and asserting his belief that in remote antiquity the Phœnicians charged this and other rocks in Narragansett Bay with Punic inscriptions, "remaining to this day."

In his last and most systematic expression of opinion, Dr. Stiles still believed that not only this rock, but others which he had observed or heard about, bore Phœnician or ancient Punic letters, mixed with symbolic and ideographic characters, and were inscribed some 3000 years ago. His "Memoir," in which these views were expounded, was dated June 8, 1790, prepared for presentation to the American Academy of Arts and Sciences, and was never published. He realized that it was based largely on imagination and conjecture, but hoped that it would arouse interest in such rocks and investigation of them.

It was this sermon by Stiles, together with Gebelin's discussion, that led the Rev. Michael Lort to search in 1786 for

previous references to the rock. Most of the contents of the paper that he read before the Society of Antiquaries of London, and published in *Archaeologia* in 1787, the unreliable source of nearly all reports as to the earlier history of the case until now, have been presented in earlier connections. As to his own opinions, he was really non-committal at this time. "When I first saw it," he says, "in M. Gebelin's book, I own I could conceive of it as nothing more than the rude scrawls of some of the Indian tribes, commemorating their engagements, their marches, or their hunting parties, such as are to be seen in different accounts of these nations." But he does not tell us whether he still holds to this opinion. After his paper and Vallancey's, which follows it, had been criticized in the *English Review*, however, and the reviewer had told the story of Dean Berkeley's visit to the rock and resulting belief that the marks were due to natural forces of erosion only, Lort wrote to Bishop Percy on April 16, 1790, saying: "I have reduced it to the lowest standard of human art, by supposing it the scrawl of Indian hunters;" but now, after learning of Berkeley's view, "I am very much disposed to be of this [i.e. Berkeley's] hypothesis."

The next following paper in the same number of *Archaeologia* was entitled: "Observations on the American Inscription. By Colonel Charles Vallancey, F.A.S. Read Febr. 9, 1786." Supporting his views on the similarity existing between Danforth's drawing and an inscription found on a rock in Siberia, described and figured by Strahlenburg, he concludes that Dighton Rock was certainly inscribed by a Scythian people, originally from Armenia, who arrived on this continent from Siberia, and were followed and destroyed by great hordes of Tartars, whose descendants now form the savage Indians. Vallancey's reputation as a scientific observer was not a flattering one, and some of his contemporaries characterized his "profound investigations" as "ridiculous and monstrous absurdities."

As usual, no one was yet satisfied either that the truth about the inscription had been found, or even that its appearance had been correctly presented. Everyone who tries to make a free-

hand drawing of the inscribed rock quickly realizes that, whatever his skill, his copy differs to some extent from the original. There was constant dissatisfaction with the copies already made, and a desire to obtain something more accurate. Before the introduction of photography, the most promising method of guaranteeing complete fidelity seemed to be to cover over the artificial characters with something like ink or paint, and then press paper firmly against the rock and thus take off the characters in exact form and size. Stiles had attempted this in July, 1767, and Paddack in the following month. But these copies never became widely known, and Stiles's has not been preserved. In 1788, however, James Winthrop, son of the John Winthrop already mentioned and for several years librarian of Harvard College, made use of a similar method, and the life-sized impression which he obtained is said to have been long preserved in the Library of Harvard College, but seems now to have disappeared. Fortunately, however, an engraving of it, from a copy reduced by an accurate method, accompanied by a letter dated November 10, 1788, in which Winthrop described his method and observations, was published in 1804. The engraving is reproduced in Figure 6. In his letter, Winthrop relates a rather absurd tradition to the effect that "in the last century it stood as much as four rods from the river, but the inhabitants by digging round it, upon the foolish expectation of finding money, gave a passage to the tides." Since the rock has always, within its known history, been covered at high tide, no amount of digging around it would give the rising waters any better passage than they already had. A thousand years ago, as our Grassy Island observations suggested, the rock may have been well above the highest level of the river; but if so, the change in the relations of the two must have come about through natural processes, and not through human agency.

The James Winthrop Impression was made under circumstances that are related as follows:

"In the course of last August, upon the invitation of Judge Baylies, of Dighton, I went to view the rock, and take a copy of it. We were assisted by Rev. Mr. Samuel West and Col.

Edward Pope, both of New Bedford, and Rev. Mr. Smith, of Dighton. We spent one day in clearing the face of the rock, tracing the character, and painting it black. . . . The next day [August 14, 1788], . . . after retracing the character with paint, . . . we applied the paper to the face of the rock, two of us managing the ends of the sheet, and the remainder, with towels, which we dipt into the river, pressing the paper upon the rock. . . . As soon as the paper was dry enough to be removed, we laid it upon the shore and completed the character with ink." Afterwards, at home, he traced the inscription with ink upon the other side of the paper. Having thus obtained a "positive," he had a large "pentagraph" made, which would expand thirteen feet; and therewith made the reduced copy which was reproduced in the engraving.

The fallacy of Winthrop's confidence in the accuracy of his method lies in the facts, first, that it does not insure a reliable distinction between natural and artificial markings; and secondly, that he and his party painted only what they personally believed to be inscription. We can have no confidence that their selection of characters as artificial was any more to be relied on than that of any one else who attempts to depict them. It is, of course, true that the method is well calculated to present the size, proportions, and relative positions of the figures in an exact manner. But as to what artificial figures are actually there, comparison of this paint-and-paper impression with the many differing other original copies that have been made, from which it differs vastly more than they from one another, seems to justify the conviction that Winthrop's result is the least trustworthy of any. It has rarely met with approval by any expert judge, and has often been justly criticized. Thus Kendall says: "Of all others the method of procuring a copy, described by Mr. Winthrop, is the one most infallibly adapted for producing a deceitful issue. . . . No such expedient can succeed. The greater part of the inscription is so much worn out, that the forms, of which it is composed, are wholly subject to the fancy; and in several places, where the figures are plain, they are made out, rather by difference of color, than by difference of surface. Figures of the latter class can yield no

impression; and those of the former will take any shape, into which the printers' ink may be spread." Elsewhere he says further: "It must be evident, that the accuracy of the impression eminently depended upon the accuracy with which the ink was applied. Now, the sculptures being in general very obscure, nothing could be more easy than to apply the ink erroneously."

It is said to have been this copy by James Winthrop that attracted the attention of George Washington in the autumn of 1789. Dr. John Lathrop, who was with Washington at the time of the latter's visit to the Museum of Harvard College, told the latter of the belief that there were Oriental characters on the rock, and that Phœnician navigators, "who as early as the days of Moses are said to have extended their navigation beyond the Pillars of Hercules," had made the inscribed record. "After I had given the above account," says Lathrop, "the President smiled, and said he believed the learned Gentlemen whom I had mentioned were mistaken: and added, that . . . as he had so often examined the rude way of writing practised by the Indians of Virginia, . . . he had no doubt the inscription was made, long ago, by some natives of America."

Several other well known persons, among whom were Dr. Jeremy Belknap, Ebenezer Hazard, and John Pintard, paid a little attention to Dighton Rock in their correspondence at about this time. There are occasional bits of mild humor in their references to Dr. Stiles and to James Winthrop, a general expression of doubt as to the possibility of any translation, and but little else of importance.

In the year following James Winthrop's enterprise, the restless spirit guiding the destinies of the rock led to the production of still another drawing of it, concerning which the exact facts have been rather difficult to determine. There are several somewhat differing versions of it, and conflicting statements as to who was the person chiefly responsible for it. It has always been known wrongly as "Dr. Baylies and Mr. Goodwin's Copy, 1790," through errors in both name and date that were made early and were continued in the name attached to its reproduction in the *Antiquitates Americanae*, the only published and well known version of it. But there are two draw-

ings which are clearly variants of the same, in the collection of the Massachusetts Historical Society. One of them was presented to the Society by W. P. Upham, and is described as having been made in 1789 by Rev. Mr. Smith of Dighton. The other was "sent to Prest. Stiles by Rev^d Mr Smith 1789." I have found in private ownership another clearly original version, with evidence that it was drawn by Joseph Gooding of Dighton. One of these versions, that of the *Antiquitates*, is exhibited in Figure 6, another, the "Smith-Stiles," in Figure 10, and all four in the Colonial Society plates. The originals all measure from seven to twelve inches in width, and from nine-teen to twenty-two inches in length.

There does not seem to exist in print any authoritative account of the authors and circumstances of this historically important representation of the inscription, all of whose versions must necessarily have been made as copies of the same chalking of the rock, and hence on one occasion. From various unpublished sources, however, we discover that it was made shortly before July 25, 1789; that several copies were drawn at the same time directly from the rock; that Joseph Gooding and another person, probably one of Dr. Baylies's sons, either Samuel or William Jr., were the actual draughtsmen; that the rock had first been carefully studied and its artificial lines selected and chalked by the Rev. John Smith and the Hon. William Baylies of Dighton, the Rev. Samuel West of New Bedford, and "an engraver;" and that the Rev. Dr. Stiles, President of Yale College, not yet satisfied with the several copies he had made or of which he knew, was responsible for its making, having applied to the Rev. John Smith to secure a new drawing.

Full accounts of the affair are contained in a letter from the Rev. John Smith to Dr. Stiles, preserved among the Stiles papers in the Yale Library, and in a letter from Dr. Baylies to James Winthrop, now among the manuscript Papers of the American Academy of Arts and Sciences. Smith emphasizes the necessity of a favorable illumination for observing the characters on the rock, which are commonly almost imperceptible. Both men speak of the great care that was exercised

to be exact, Smith remarking that it was their belief "that this draft has never been equalled; nor do they conjecture that it can hereafter be much exceeded." Yet they concede the impossibility of attaining complete accuracy and exact proportion in any free-hand copy. It will be noticed that this one alone, of all drawings early or late, pictures the "bird." Both writers relate that they were told by Capt. Walter Haley (or Healy) of Dighton that it resembled the Cassowary, one of which he had owned for several years in the East Indies (or in China). Dr. Baylies had little doubt that the quadruped represented a Leopard. Smith mentions suggestions of hieroglyphics, of a shield and helmet, and of worship in high places. Such things led both men to believe that the engravers of the rock must have come from Siberia, and have been perhaps Scythians expressing their Symbolic Worship.

One feature of the importance of this drawing lies in the fact that it was the one used by Magnusen as the basis for his translation of the inscription as a record made by the Norsemen; and that it was the one on which was based the only detailed reading by an Indian that we have. Another interesting thing about it is that, whereas earlier drawings had introduced figures like I, X, M, W, O, which might be letters or might not, this one introduces in addition an unmistakable A joined into an apparent monogram with an M, and also an R preceded by a diamond shape. Both of these, supplemented by additions of later artists, were made of definite use in support of the Norse theory.

CHAPTER V

CONTINUED ORIENTAL SPECULATION

The fame which our rock had attained by the end of the eighteenth century is attested by the facts that it was described in a manuscript journal written by François Marquis de Barbé Marbois between 1779 and 1784, and that it was visited in September, 1796, by Citizen Pierre Auguste Adet, French Minister to the United States. For knowledge of the former incident I am indebted to Mr. Albert Edgar Lownes, who generously loaned the original manuscript, hitherto unknown, apparently, to students of American history. Marbois takes a view of the inscription unusually sane for that period of highly imaginative speculations. He describes and reproduces the Sewall drawing of 1768, which he saw at Cambridge, and enumerates the current "remarkable ideas" about it, concerning which he says that "nothing hinders you from devising twenty other conjectures which I should regard as equally well founded." For himself, he prefers to believe that it is "a trophy of a victory of some American nation over an enemy tribe, or perhaps the pastime of some idle Indians, more ingenious and less lazy than the rest." Adet's visit occurred during a period of Gallophobia, and Dr. Baylies "fell under considerable odium for harboring a Frenchman."

A new translator of a portion of the inscription appeared about 1807 in the person of Samuel Harris. Many previous fruitless attempts had been made to compare the ancient Oriental alphabets with the Dighton characters, and to wrest from the latter their hidden meaning. Harris was an engraver who possessed an extraordinary acquaintance with languages, ancient and modern. He entered Harvard College at the age of twenty-five, and was accidentally drowned while a student

there. As an antiquary, his "researches were almost unbounded and inconceivable." He never wrote anything about Dighton Rock himself, so far as is known, but among his papers has been found a sheet, shown in Figure 11, whose right-hand column contains characters that were copied from such parts of the Winthrop representation as might be thought to have an alphabetical value. It is evident that Harris regarded them as ancient forms of Hebrew letters, and arranged them in alphabetical order, from Aleph to Tau, with five letters omitted. He found several groupings of these letters in the inscription as represented by Winthrop and read them as Hebrew words. All that we know about his conclusions is related by Kendall: "One of the figures is a king; another, his throne and canopy; a third a priest; a fourth an idol, a fifth a foreign ambassador, &c. and, in the intervening parts, he points out Hebrew characters, composing words, which words explain the figures; as *the king—the priest—the idol.*" By aid of Figure 6, No. V, and a little knowledge of Hebrew, all of these things can be identified in a fairly plausible manner in the Winthrop drawing.

There is a return to conservatism and good sense in Edward A. Kendall's dealings with the rock in 1807. He gave a number of successive days to its study, and made an oil-painting of it which for the first time portrayed the lines of the inscription with the faintness and uncertainty that belong to them. He thus avoided the otherwise inevitable error of personal interpretation and distortion. The painting is preserved in the Peabody Museum of Harvard University, and an engraving duplicating it as faithfully as possible was published in the third volume of the *Memoirs* of the American Academy of Arts and Sciences in 1809. Later representations of Kendall's depiction are copies from this engraving, but make it too detailed and definite, instead of retaining the characteristic vagueness and uncertainty that Kendall gave it. Our Figure 12 corrects this fault, being based upon a photographic copy of the original painting.

With due allowance for the limitations of knowledge of the time, Kendall was the most thorough and reliable observer who ever studied the rock. Comparing its records with others

which he had seen of unquestionable Indian origin, at two places near the Connecticut River in Vermont, he argued that Dighton Rock also was carved by them, probably long before the arrival of Europeans. It is unreadable, "as are all historical representations or sculptures without first knowing the story it is intended to portray." But he believed it to be a memorial of some solemn occasion or important transaction, either civil, military, or religious. The apparently alphabetical characters near the middle he rendered as ORINX; and the quadruped underneath he drew with an insect's wing, and thought that it represented a composite animal, a creature of fancy. He described the rock at length, discussed its artistic features and the merit of previous drawings, rightly emphasized the impossibility of securing accurate results by selective chalking of the artificial characters, noticed the slab nearly, and related a number of legends. One of these is a variant of Danforth's story of the "wooden house," now spoken of as a "bird" from which thunder and lightning issue—the whole story will be given in detail in a later connection. Another is the tradition that Assonet Neck was a place of banishment, which we have already discussed. Still others hint at a ship's anchor nearly eaten away with rust, discovered nearby many years ago; or at a rotting ship which lay there; or at an English vessel, one of the first to navigate these seas, whose crew wintered close by and made the sculptures; or at still another English vessel which was stranded here, whose disaster was commemorated on the stone. Two theories, moreover, are mentioned which had not previously found their way into the literature of the subject. The first is that concerning pirates and buried treasure, which has already been given its proper chronological place in our narration. The other speaks of an interpretation by some Mohawk Indians—perhaps the four Mohawk chiefs who were entertained in Boston in 1744—to whom a drawing of the rock was shown. They "declared its meaning to be that a dangerous animal, represented by the animal on the rock, had been killed at the place immortalized; that the human figures represent the persons whom the animal killed; and that the others denote other parts of the affair." Kendall himself interviewed

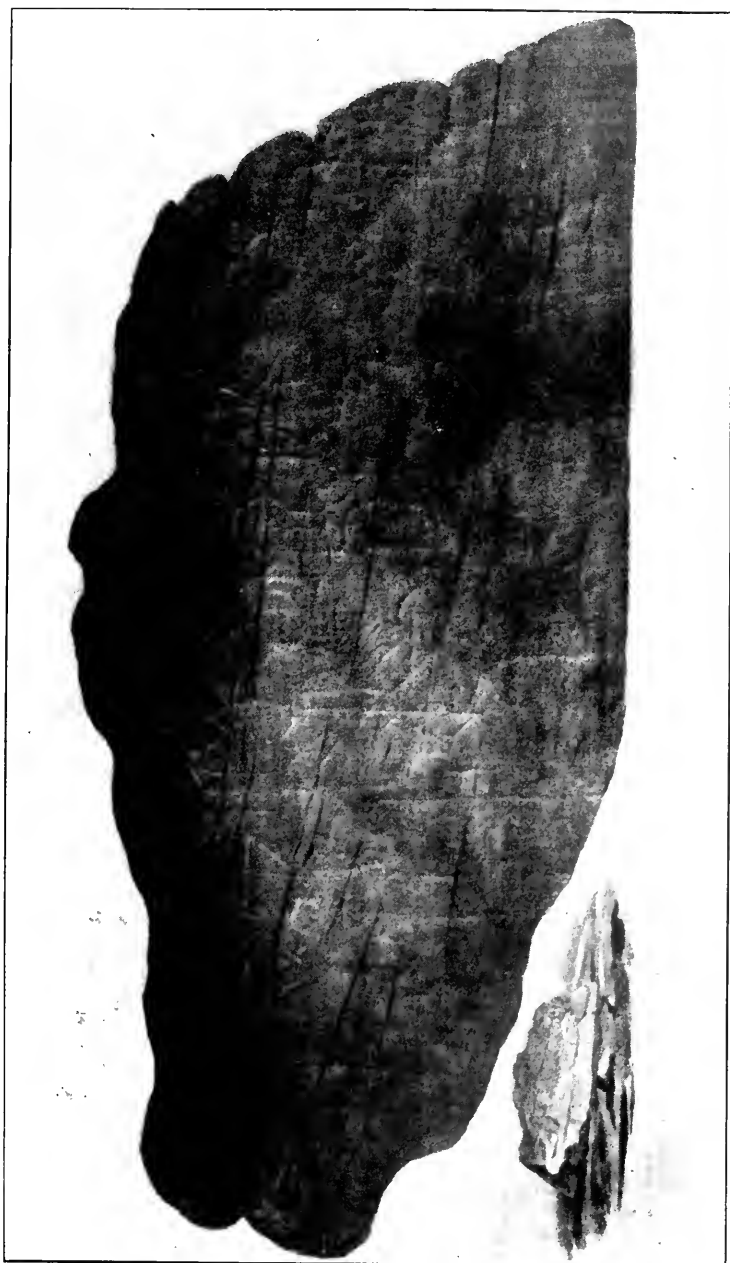


Fig. 12. E. A. Kendall's Painting in Oil, 1807

Indians, but found them unable to offer any explanation, except conjectures as to some particular parts.

Judge John Davis, in 1809, attempted a definite explanation of the rock as an Indian memorial, believing it to represent a hunting scene. The large triangular figures which appear on every copy of the inscription resemble the gigantic traps, often a mile or two in extent, into which Indians drove deer when hunting them on a large scale. Assonet Neck was a favorable place for such enterprises. Other figures on the rock, he conjectures, may represent the hunters, the deer, arrow-heads, a log-trap with noose, a river with a weir across it, and perhaps the marks or signatures of families or individuals.

Alexander van Humboldt mentioned the rock rather non-committally in 1810, drawing from it only the conclusion that we have no certain proof that the Indians had knowledge of an alphabet, and that the characters might be the work of chance or of idle amusement. In 1812 (or, possibly, 1821, with a probable re-issue in 1827) a new and rather poor drawing was produced, about which nothing is known except that it was lithographed and was the work of Job Gardner, a maker of globes in Dighton. Figure 6 shows it, after its first known reproduction by Professor Rafn in 1837.¹

A great many people paid their respects to the rock within the next few years. It began to receive mention in Gazetteers about 1817, as the chief distinction of Dighton, and never satisfactorily explained. In 1817 or thereabout, Charles Léopold Mathieu published in Nancy a translation of a Chinese poem, and included with it a disquisition concerning the inhabitants of Atlantis, whom he regarded as the carvers of Dighton Rock and the founders of a dynasty in China. These people carried on an extensive intercourse with the four quarters of the globe, and one of their kings, Indios, had a son named In who was chief of an expedition to America for the purpose of

¹ I had never discovered an example of the original lithograph until the summer of 1927. It is owned by a Mr. Sylvia of Standish Farms, South Dartmouth, Massachusetts, and has written on it the name "Henry W. Hart" and the date 1821. Rafn's copy is exceedingly faithful to the original. Probably it was a re-issue of this lithograph which the *Providence Journal*, July 15, 1827, mentions as "just published."

making a treaty of alliance and of commerce with the natives, in the year of the world 1902 (B.C. 2102). These facts are all recorded on the rock, which he has been enabled to translate by means of the art of reading hieroglyphics which he has discovered. He probably followed Sewall's version as published by Gebelin. Aside from the fact that we can easily imagine the word "In" there, we are given no clue as to how he derived his extraordinary interpretation. Another setting is given to the rock in 1818 by William E. Richmond of Providence who, in a long poem on "Mount Hope," declares that no doubtful legend ever told

The age or nation of those hapless men
By fate compelled the desert coast to gain, . . .
Who wrote and spoke a tongue to us unknown
And left their story on the mossy stone.

In appended notes, he expresses the belief that "we are justified in the conclusion that the Writing Rock was sculptured by inhabitants of the old world, in some period of antiquity anterior to the general use of letters."

Edward Everett referred to the rock in 1820, and urged its preservation. In 1823, Jean Pierre Abel Rémusat, Secretary of the Société Asiatique of Paris, wrote of the inscription as a great curiosity, but entertained no expectation that it could be deciphered. "Those who have tried to discover in such figures either Phœnician letters or vestiges of Chinese writing are really acquainted with neither. In my opinion it is very doubtful if any letters or regular symbolic signs occur there." J. W. Moulton, however, having personally examined the rock in October, 1824, defended the belief that it was of Phœnician origin. "It is a connected chain of hieroglyphics and rude letters of the ancient alphabet," in which he finds several figured images, and Phœnician letters resembling P, W, X, 7, 9, A, M, O, a triangle, a trident. John Finch, in 1824, supported the Scythian view. These people not only were ancestors of the Celts of Britain and Brittany, but also of the aboriginies of America. Their priests, the Druids, left monuments throughout the country which are the most ancient national memorials that America can show; and numerous sculptured

rocks, including that of Dighton, were their Stones of Memorial or Sacrificial Altars. David Baillie Warden, in a paper on American Antiquities in 1825, asserted that "it is difficult to discover, in these strange triangular figures, either human heads, Phœnician characters, or proofs of the origin of the American people." F. W. Assall, in 1827, was the first person we know of who wrote in German about the rock. Having seen many "Written Rocks" in the western part of America, he considered them merely idle scratchings of aboriginal hunters, added to by white hunters and perhaps by deliberate tricksters, and all faded away into the deceiving appearance of "curious hieroglyphics."

In late November of 1829, a party of residents of Fall River made an excursion to the rock, with the object of determining the feasibility of removing it to their own city. The same year is memorable as being the one in which a letter was received by the Rhode Island Historical Society, written by Professor Rafn of Denmark on June 15, 1829, asking whether any vestiges of the Norse voyages to America could be discovered; and this led to the birth of a famous new theory, whose development will be traced in our next chapter. In 1830, Francis Baylies, son of the Dr. Baylies who had taken part in the production of three drawings, published his *History of Plymouth County*. He was among those who held that "the absence of any similar monument in North America, and the total ignorance of the natives as to its origin and design, would seem to indicate in a manner too clear to admit of doubt, that we must look elsewhere for its authors." He did not definitely espouse the Phœnician view, but nevertheless admitted the possibility of its being true. The theory found a new definite advocate, however, in 1836, when John Stark stated, probably through careless reading of Kendall's traditions about remains of old ships, that brazen vessels have been found near Dighton Rock, and that the recently discovered Fall River "skeleton in armor" was probably that of one of the members of the crew of a Phœnician vessel, who wrote their names and perhaps their epitaphs upon the rock.

Two other well qualified candidates for membership in

what we might call the ever popular Society for the Promulgation of Extravagant Views about American Antiquities must be considered before this chapter closes. They are rivals of Gebelin and precursors of a number of other enthusiastic but misguided translators of every mark upon the rock, as depicted in some undependable drawing uncritically accepted. Unfortunately they must be given an amount of space which is not warranted by the importance of their theories, but which is necessary for their clear exposition. Their tales add a picturesque touch to the variety of theory that serves to keep this Dighton narrative alive and kaleidoscopic. Their results they hang blunderingly in the Halls of Science instead of in the Galleries of Art. But if we correct this mistake in classification, which tempts us to criticize rather than to enjoy their creations, we can contemplate them with as unqualified an admiration as we accord to any imaginative work of fiction.

Ira Hill was a graduate of the University of Vermont, and afterwards a teacher in Maryland. In 1831 he published a book, now rare, explaining the antiquities of America. Among these, Dighton Rock is naturally included, and is used as a proof that the Indians were descendants of ancient Jews and Tyrians. He tells us of two or three speculations then current that we have not met before—that the hieroglyphics on the rock are Pelasgian, or Trojan, or Egyptian, or Persian. He uses Job Gardner's drawing, and by its aid we can follow his exposition, which is here given in a much abbreviated form.

In the first book of Kings it is related that the Tyrians were skilled navigators, with knowledge of the seas, and that in company with Jews they made distant voyages in the service of king Solomon. It was a company of these who made on Dighton Rock a detailed record of their experiences. The characters must be read from right to left. The two figures on the right are designed to represent the Jews and the Tyrians. The latter are the stouter, both in body and in skill in navigation. The Jews were under their leadership or guidance, as shown by the marks at the bottom and from the shoulder of the first figure, which are as trails indicating following after. The Tyrians were soldiers or officers, as well as mariners, as appears by the weapon affixed to the breast of the

figure representing them. That they were in the service or pay of the Jews appears from the character extending from the head of the latter, and passing over the head of the former. The dots and cross marks at its end represent the time of service on which they had agreed, "which according to our interpretation was twelve years." The long, crooked and crossing lines extending from the figure representing the Tyrians, were designed to show the long and intricate voyage which the same Tyrian crew had already performed, occupying two months or moons (two dots), begun at full moon (the upper circle), during the ninth year of the reign of Solomon (the 8 followed by the curved line).

The second division shows the wandering of the fleet after the new voyage began. Its upper end is the east end of the Mediterranean. Some of the party left the ship here at the point indicated by a short mark. The two long descending lines are the north and south coasts of the Mediterranean, and their meeting point below represents the Straits of Gibraltar. At the right of the upper end of the figure is a much branching line and a short detached line, and these represent the graves or green fields of Egypt, the last land they beheld in that part of the world. The curved line joining them to the main figure is the river Nile. At the left of the upper end of the figure is a small triangle representing a battle-axe; and the detached curve to the left of it is a serpent with head directed toward the axe,—showing that the crew met a hostile nation here. The two lines which cross the Mediterranean at this upper end show that they crossed the sea from north to south, and then returned to the north; the meeting point of the two lines representing one of the ancient cities, perhaps Carthage, which then adorned the southern coast. At the lower end of the figure, outside the Straits of Gibraltar, are many leaves, vines, or branches, indicative of a fertile and pleasant country. Those to the right represent the coast of Africa, where they tarried for one moon (one dot). To the left of the Straits is the coast of Europe, along which they sailed for two moons (two dots). The first detached line here represents the Canary Isles, which they visited. The curved lines to its right and above it are the coasts of Portugal, Spain, and France. The last detached line at the left is England. The cross just above shows their intention of crossing the Atlantic Ocean, and the circle is a sign that they set forth at full moon.

The third division shows their wanderings on the ocean in

every direction, without a compass and with much suffering for five moons (the five dots scattered within). At the extreme left of this group is the indication of their discovering land—a branch erect over characters which denote bonds of union and of joy; and they remained four moons where they first landed (four dots at the extreme left). Some of the characters here may possibly be Masonic.

In the fourth division, the detached figure to the right of the head (a branch with two leaves and a cross stroke) shows that after their toils and wanderings the two peoples, Jew and Tyrian, united into one nation. The time is indicated by the lower detached figure to the right—an 8 with two marks attached above, denoting ten, and two dots within—the second month of the tenth year of the reign of king Solomon. The human figure is their king. On his breast are three dots, which may represent his heart. A line representing a serpent is in his breast, and its head is inclined to and near the heart, which clearly shows that he was a wicked man. He reigned for three moons (the three dots above his head). Then, at the date indicated, this first American tyrant was slain for his cruelty by means of an arrow (shown entering his head from a bow at the left). “May the example of those who first set foot upon American soil, more than three thousand years ago, be remembered by every American, and that they will not suffer a tyrant to rule over them even till three moons have finished their courses.”

There remains yet one more person whose interpretation may best be examined in this connection. His exposition appeared a year after the publication of the *Antiquitates Americanae*, with which event we propose to begin the next chapter in this history. But for many reasons it seems better to present it in connection with these earlier theories, which it resembles in principle, than in its exact chronological order. We are about to be informed with elaborate detail that the ancient stone was carved by Egyptians, that its puzzling characters have a sacred significance, and that they represent the position of the heavenly constellations as calculated for the time of the winter solstice, in celebration of the advent of a New Year. This view was advanced in 1838, by Moreau de Dammartin. He was apparently ignorant of all versions of the inscription except

Sewall's, and this he reproduced from Gebelin, with a numbering of the figures designed to facilitate reference to them, and therefore reproduced in Figure 13.

Unfortunately, on account of its minute descriptive details, it is impossible to condense his account as much as we might wish. The following is, however, a condensation and not a literal quotation. I have wished to give enough to make it possible to follow all of his details; but the reader who does not care to do this can gain a good general idea by reading the introductory paragraph and the first sentence under each of the six numbered groups.

The explanation that we shall give of this curious monument will show that it is the work of a nation foreign to America; and consequently that this land was visited long before Columbus by inhabitants of the Old World. The monument appears to us to be a fragment of the oriental celestial sphere, or an astronomical theme for a given moment, i. e., for December 25th at midnight, epoch of the winter solstice. We are persuaded that, even if we are mistaken in some details, on account of the probable imperfection of the copy, which perhaps offers but a feeble and imperfect idea of this monument, which is in part destroyed or effaced, yet these errors will in no way affect the general truth of our explanation. We divide the figures of the inscription into six groups.

First Group: The central and highest portion of the monument, containing the constellations and parts of constellations near the pole of the ecliptic.—The most remarkable feature of this group is the two lines crossing at right angles (1, 2, 4, 5), whose common section forms the pole of the ecliptic, as this is indicated on the planispheres projected on the plane of the equator. One of them (1, 2) is the meridian that passes from the beginning of the tail of the Great Bear and by the nose of Pegasus, a fact which led us to recognize the Great Bear in the seven stars joined by a dotted line (3). The other line (4, 5) corresponds to the meridian which goes from the Club of Hercules to Taurus. It passes by the head of the Dragon (6), separating it from the body, whereas the first separates the part which forms a loop and which is called the second vertebra (7). The curve (8) near the head of the Dragon is formed of stars constituting the left thigh, arm and

side of Hercules. We have indicated by dotted lines the disposition of the Dragon about the pole. The straight line (9) opposite the curve of the Dragon appears to be a part of the Milky Way, in which is found Cygnus, whose stars form a cross (10). Beyond this line is a rude square (11) which Gebelin took to be a Phœnician letter Kaph, and which, in our opinion, represents the Chair of Cassiopea, a constellation which, according to our explanation of the origin of alphabets, has been the source of all the alphabetic and hieroglyphic Kaphs, ancient and modern. The point outside the figure appears to designate the star of the back of the chair, situated exactly on the upper western colure. The point or small circle accompanied by a short line, higher up (12)—the line being on the projection of a straight line leading from behind the ship Argo through the two superior stars, and directed toward the star near the equator, called the thirteenth of the Ship by Flamsteed, and toward the Polar Star—can represent nothing else than the star Castor, one of the Twins, tutelary deity of mariners. Ursa Minor also is figured on the monument near the pole star, by a kind of Kaph which recalls its quadrilateral portion (13). To the right of the Great Bear is seen a space enclosed by three lines (14), which we suppose to be a diagram of the stars of the left arm of Boötes, including that of the shoulder. The star 16 would then be that of the extremity of the hand, which is situated on the meridian passing through the eastern node; 17, the star of the head of Boötes; 18, his staff, whose end is divided into two parts because of the stars of his right hand; 19, the star of his right shoulder placed upon a meridian. The line which joins this point to the other figures is a portion of this meridian, i. e., the part between the star of the shoulder and the one a little higher up on the same meridian at the level of the star of the head. The long curved line (20) is a tracing which, starting from the star of the left shoulder of Hercules (Ingeniculus, Kneeler), nearest the tropic of Cancer, passes through his neck, then through his right hand, near which it ceases, interrupted by the circular group of stars of the head of the Serpent of Ophiucus (21); begins again on the opposite side, goes round the lower stars of Corona Borealis, and rises to the star of the neck of Boötes, passing through the upper star of the meridian of the right shoulder, of which we have spoken.

We notice here that the figure in the form of a cross, outlined by figures 6, 7, 8, 14, greatly resembles an ancient monument in

Sweden. It represents a serpent doubly folded back on itself, at the centre of which is found the outlined cross of the American monument. The serpent, symbol of the Dragon of the pole, as is proved by comparison with other runic funereal monuments, commemorates the death of the sun and the birth of the new sun, and thus also death in general, and the passage to a new life.

Second Group: The lower portion at the left of the monument, containing the constellations whose rising on December 25th announces the birth of the new sun: Argo, Virgo, Hydra, Boötes. At midnight of this date the sun is in Capricorn, and at the lower meridian. Aries and Pegasus are setting in the west; and the star Janus, the Genius who opens the new year, announces it by rising. This star is at the feet of Virgo, of which it forms a part.

The most remarkable figure here is the bust of a woman (22), representing Virgo. On her breast is a sort of ancient *men*, or trident, formed by the tracing of the nineteen stars of fifth and sixth magnitudes which command the star called Vindemiatrix. The figure resembling a little bird, below this *men*, is likewise formed by stars in the vicinity of Vindemiatrix. Two free stars are indicated by the two points above the bird. The head of Virgo is covered by a long curved line (23, 24, 25), corresponding to Hydra. The circles described by this curve (24, 25) are the Cup and the head of Hydra. The point terminating the line recalls the star near the equator, for the head and neck of Hydra, including the three stars separated from the head by the equator, form the Arabic figure 2, exactly recalled in the monument. Near the bust of the Virgin is the figure of the little Horus, her son. A point, recalling probably the star Janus, which would be on the horizon and would form part of the constellation called Mons Menalus, would be indicated by figure 26, formed of five stars arranged in a circle and with a tail whose motive is given by the stars nearest to Janus and serving to identify it. Figure 27 represents a rude outline of Boötes, who is called the father and the foster-father of Horus. At the top of the drawing (28) is the ship Argo, three stars of which are indicated: (1) that of the rudder, or Canopus; (2) that of the top of the mast, Procyon, the thirteenth of the Shīp, touching the equator; (3) in front Sirius, similarly represented between the horns of the Cow in a boat in the circular Zodiac of Dendera.

Third Group: The lower centre, containing the constellations on the western horizon at the birth of the sun.—The first animal

is Aries (28), characterized in a very singular manner. The little circle terminating this figure recalls the double star of the head, which is on the meridian separating Aries from Pisces. It is certainly a poor drawing, yet the tail is a faithful representation of the stars disposed in the form of an elongated V. The second animal (29) is Pegasus, easily recognizable by the four points alluding to the stars of the quadrilateral. The curved line rising from its withers appears to represent the wings that are usually given to it. It corresponds also through its horns to the horned horse of the Hebrews: it is thus that they depicted Pegasus. The lines going out from between the horns are the continuation of stars included in the river of Aquarius. In figure 30 it will be easy to recognize the foot of Aquarius, separated from his body by a portion of the ecliptic (31). The curved figure 32 is the outline of stars in the lower part of Capricorn, separated from the head, here invisible, by a portion of the equator. Figure 33 is Ephaptus; 34, the Vase of Aquarius; 35, terminating the right hand upper part of the group, is a part of the bow of Sagittarius, of his arrow, and of the meridian which separates the latter from the bow, and on which are joined both the circle of the ecliptic and the tropic of Capricorn. The point where the lines cross at 36 being the western node of the sphere, the drawing below this can be nothing else than a crudely represented part of the Whale. Figure 37, detached from all the others, recalls the Fishes and the bands that bind them together.

Fourth Group: The three figures at the right lower end, not included among the constellations, but forming the three personified decans of the sign of Capricornus.—This part of the picture is of the greatest interest, supporting the above explanations, and serving to enlighten us as to the origin of the constellations, the first elements of astronomy, the personification of the spirits placed in the celestial sphere, the causes of their various attributes, and the numberless traditions to which they have given rise.

The first figure highest up (38) is very significant. It is the god Priapus, the Faun, the great Pan, etc., and, above all, Orion. It is the latter, because this constellation is represented in the Egyptian Zodiac of Kircher by a satyr or faun with goat's feet, with a shepherd's crook, and with a syrinx or flute of four tubes, represented with seven on certain monuments. If one draws lines joining together properly the stars of this constellation, including also the stars of the Hare, the result will be a figure exactly like

that of the American monument. Behind the lower part of Orion there are eleven stars, which, joined two and two by perpendicular lines nearly parallel, form the flute of Pan, or the four-tubed syrinx, ending at the tail of the Hare. If now one joins by similar lines the stars of the body of the Hare one will obtain an instrument with seven tubes almost as regular as the first. Orion was represented in this decan, the third of the month of December, because the rising of his belt announces the beginning of the year.

The second decan (39) presents a diagram of the stars of the constellation Antinous, emblem of the new sun which he precedes in rising in the morning. The eagle placed above Antinous seems to bear him in its claws. Here it is the Dolphin, which is found indicated above the head of Antinous, as can be recognized by the disposition of its principal stars in the form of the letter N. The two characters joined to the head of this decan by a horizontal line (40) should be considered as designating the attributes of the personage. We see in them a type of Boötes reversed, and of the head of the serpent of Ophiucus (21); but here this type is considered as the symbol of writing, and pronounced *em chai* by the Egyptians. The little mark detached from one of these figures is the expression of a little group of stars situated in the Tropic of Cancer between Corona Borealis and the head of the serpent of Ophiucus, and related in direction to two stars of the right leg of Boötes. It served as type for the sacred nail of the Romans, which they attached each year to the walls of the temple of Minerva; and may be compared to the keys of Janus and of Cybele, indicating the opening of a new era.

The last two figures (41, 42) grouped together as emblems of the first decan of December are the tracings of the stars of Canis Major and of Canis Minor. These two dogs were called the Barkers or Warners. They owe their use in this decan to their position opposite that of Capricorn; for their passage across the upper meridian indicates that of Capricorn and the sun across the lower meridian. These types, so original in form, appear at first sight to have little correspondence with the celestial Dogs. However, if we put on paper in their respective places the stars of Canis Major, except those beyond the meridian passing through the head of Procyon, whose stars should occupy this place; add to them the three lower stars of the fore feet of the Unicorn, the star of the head of the Dove and those of the Olive Branch that it holds in its beak, and then the four stars of Argo nearest the

Olive Branch; and then join them together properly, we will obtain a figure exactly like figure 41, without leaving any star unused. It will be the same with the stars of Procyon or of Canis Minor, to which should be joined the six stars of the breast of the Unicorn, and the two small stars above the head of the Little Dog. The star at the extreme right in this figure is the thirteenth of the Ship. The summit of the lower triangle recalls the stars alongside the equator, and the prolongation of its hypotenuse serves to discover a small star in front of the fore feet of Sirius and placed exactly on the first meridian, as is also the star of the eye of Columba in the picture of Canis Major.

Fifth Group: The hieroglyphic zone (43) in the centre of the monument, representing the Egyptian formula EM-CHAI-EN-NE-NOUTE, which may be rendered: Here are the portraits of the gods, the divine (sacred, celestial) writings.—All of the letters of the alphabet were derived from the constellations, and the ones that are here used owe their forms and significations to this source.

Sixth Group: The left end, containing three monograms which appear to indicate a date.—Figure 44 is the hieratic-hieroglyphic group *rompe*, the year; 45 is the number *ment*, ten; 46 is *son*, day of the month; and 47 indicates the number of the month—possibly the fourth, whose thirtieth day corresponds to the solstice.

Dammartin's theory has much novelty and charm as an addition to our collection. But the secret of such success as he actually attains is evidently due to the fact that any desired figure can be imagined into any constellation, especially if in difficult cases neighboring stars are brought in to make the task easier; and that symbolism is so elastic as to make it possible to assign almost any meaning to any figure. If, with the aid of some star-atlas of about his time, such as an old edition of Flamsteed, we follow his exposition with a sympathetic and not a critical attitude, we can verify without great distortion nearly every identity claimed by Dammartin, if each figure, or in many cases each small part of a figure, is taken independently without regard to its relation to the rest. But his account must be taken piecemeal to give it any plausibility, and we must be prepared to accept any change in the relative directions and distances of stars in order to force them into position in our figures, to draw numerous imaginary lines marked by no real

stars, to disregard the relative positions of constellations. Even then, after so elaborate a process, we ought to get out of it something more significant than a picture of the heavens and a commemoration of the advent of a new year. In my own "Middle Period of Dighton Rock History," I attempted to show that, using Dammartin's method, a much more attractive and meaningful theory—though, like his, a purely imaginative one—could be devised along similar lines, and made to fit the Sewall drawing and the constellations fully as well as his.

Gebelin, Harris, Mathieu, Hill, Dammartin, and numerous later devisers of detailed interpretations of this inscription, were of the type in whom the possession of a theory, the imagining of the presence of a particular figure, creates a blindness to all other possibilities. Such people see pictures in jumbles of lines, and instead of then proceeding to dismiss these and see others in their place, as they easily might, the very formulation of the first, whether purely fortuitous or suggested by a theory that appeals to them, at once inhibits the alternatives from arising. So they develop a more or less consistent story, and are convinced that it alone is the story that the maker of the lines intended to relate. Gebelin saw a Priapus, a horse, a habitation, a Phœnician letter; it followed that the figures were designed by their authors to be just these and nothing else. He believed in the far-extended voyages of the Phœnicians; and to him it followed that they unquestionably landed at Dighton Rock and made its carvings. Though put forward as a serious scientific discovery, such an interpretation contributes nothing to genuine scientific understanding of the subject it pretends to elucidate. Yet it is in itself of interest and value as a psychological fact, an example of a fitting stage in the unfolding drama of opinion, an imperfect early step essential to the coming of better things; and it is often also a picturesque fancy and thus a work of art, and so entitled to sympathetic appreciation. It is thus that our Dighton Rock attains so deeply rooted and widely varied interest. It invites our attention now as a subject of archaeological investigation, again through its his-

torical development, then as an object lesson in psychology, and frequently as demanding, not scientific seriousness and criticism, but aesthetic enjoyment.

There has been such a confusion of views thus far that it is worth while to review briefly the theories as to how the inscription originated. That it was unreadable, however originating, was claimed by Mather, Stiles, Hazard, Kendall, Moulton, Rémusat, Warden. That the whole thing consisted of accidental marks due to natural operations was held by some before Greenwood, was suggested to Berkeley, and was urged by Douglass and accepted as Lort's final opinion. Many believed that the Indians were descendants of the Lost Tribes of Israel, and some who thought that Hebrew words or Phœnician letters could be deciphered on the rock may have believed that they were carved by Indians who still retained memories of their ancient language and letters. A Tartar origin was assigned to the Indians by Smibert, Stiles, T. M. Harris and others; and that they were preceded by a Scythian race which migrated from Armenia through Siberia and eventually made these marks was advocated by Vallancy, suggested as plausible by John Smith and Dr. Baylies, and further elaborated by John Finch. Apart from views as to their origin, the Indians were held responsible probably by Danforth, by Cotton Mather at first, Professor Sewall, Lort at first, John Winthrop, George Washington, the Mohawk Chiefs, Kendall, John Davis, probably von Humboldt, and Assall, the latter believing that scribblings by white men were present also. Several motives were assigned to the Indians for the sculptures—though not everyone who mentions them himself accepts the theory: that they did it in idle sport (Greenwood, Sewall, John Winthrop, Marbois, von Humboldt, Assall); in sharpening arrows (Greenwood, du Simitière); as a memorial of some solemn occasion (Greenwood, Kendall); as a record of hunting (Abiel Holmes, John Davis), or of battle (John Winthrop, Holmes); in part as a record of names or signatures (Davis). Definite denials of the possibility that the Indians could have done it were based by Greenwood, Gebelin and Moulton on the arguments: that they were too lazy; that they left no other similar monuments;

that they possessed no adequate tools; that it was beyond their skill; that they had no knowledge of its existence or nature; that it depicts objects unknown or unfamiliar to them. A fairly definite Indian reading of it as a record of combat with a dangerous beast was given by Mohawk chiefs, according to Kendall; but other Indians consulted by the latter were unable to interpret it.

There are vague allusions to Chinese or Japanese as possible authors (Professor Sewall and others), or to Trojans and Persians (Hill), and to Prince Madoc (Stiles, Kendall). A Prince of Atlantis is advocated by Mathieu, and some very ancient but indefinite European adventurers by Richmond. But the theories which most strongly characterize this period in the development of opinion were those attributing the inscription to some Oriental people. This view was held by Greenwood without specification as to who they were; and by Stiles, Paddock, Moulton, Francis Baylies, Stark, with a belief that they were Phœnicians, but without further elaboration. Hebrews were probably in the mind of Samuel Harris. Egyptians were the choice of Dammartin, Carthaginians that of Gebelin, and a mixture of Tyrians and Jews that of Hill. On the other hand, as Kendall informs us, there were those who regarded the carvings as the work of commonplace and relatively modern white men, either early explorers or pirates. Finally, there are signs of the coming of the celebrated theory that was to appear next in order, namely, that Thorfinn the Norseman made the record in the year 1008.

Besides these theories, a number of drawings had been made by this time; a few traditions of value had been related by Danforth and by Kendall; and the better preservation of the rock had been urged by Edward Everett and by Moulton, and been considered without result by some men from Fall River. This abundant activity of speculation, controversy, and depiction we shall find continuing with even greater vigor in the next hundred years; and even the Oriental and similar theories will be found to possess a vitality which leads to their recurrence from time to time in the midst of their more ably defended rivals.

CHAPTER VI

THE NORSE MYTH

The Norse controversy that once raged fiercely about Dighton Rock can now be regarded as a closed chapter. Probably no one doubts any longer that the Northmen actually did discover some portion of the American continent nearly a thousand years ago. How far south they penetrated is still a matter of uncertainty and differing opinions, and with that question we shall have nothing to do except in so far as it is involved in the history of our rock. Everyone whose opinion has any weight agrees today that these hardy rovers left behind them no relics that have endured and that the Dighton Rock, the skeleton with brass armor found near Fall River, and the old Stone Tower in Newport, had no connection with them. Yet these were all, for a long succession of years, ardently supported as evidence of Norse visits to Narragansett Bay, by nearly one-half of the writers who discussed the subject.

In view of the deductions which were drawn from it, apart from all question as to its reliability, no more important reproduction of the lines on Dighton Rock has ever been made than that known as the "Rhode Island Historical Society's Drawing." At the same time none has been subject to more of misunderstanding and misrepresentation. One current error of importance concerning it, originating in a misstatement by Rafn, is that it was made in the year 1830; and a second, that the drawing which has been frequently published under that name correctly represents what the Society's committee saw and drew. As a matter of fact, the drawing was not in existence until four years later than the date always assigned to it; and, moreover, the genuine unaltered drawing had never been reproduced before this present study was undertaken.

The circumstances that led to the production of this and a

companion drawing are discoverable mainly from the manuscript records of the Rhode Island Historical Society. The fact that Charles Christian Rafn of Denmark was undertaking an ambitious reproduction and translation of all the Icelandic manuscripts that bear upon the Norse discovery of America, and wished to learn whether any remains of the Norsemen were discoverable anywhere on the American coast, was responsible for the new attempt to depict the characters on the rock. In pursuance of this purpose, Rafn addressed a letter on June 15, 1829, to the Rhode Island Historical Society, asking for the desired information. On December 19, 1829, the letter was read to the trustees of the society, and they appointed a committee to answer it. These men employed Dr. Thomas H. Webb, secretary of the society, to "draw up a memoir of the Writing Rocks in this vicinity, with a view to transmit the same or some parts of it to Chevalier Rafn." In February the committee visited Dighton Rock, but made no drawing of it. However, other drawings were assembled at about this time and shortly forwarded to Rafn; and it is this fact, doubtless, that led to the later error, originating in a confusion of dates due to Rafn himself, of attributing the Rhode Island Historical Society's drawings to the year 1830. With them was sent a letter, dated September 22, 1830, calling attention to Dighton Rock, and remarking that "no one who examines attentively the workmanship will believe it to have been done by the Indians."

The Society received acknowledgment of this letter in September, 1833; and again, on May 23, 1834, Rafn sent a long list of new questions and stated his confidence that he should probably succeed in deciphering the Dighton inscription. This started a fresh activity on the part of the Society. The matter was referred on August 15 to a committee consisting of Dr. Thomas H. Webb, John R. Bartlett, and Albert G. Greene. Soon afterwards they went to Dighton to make preparatory arrangements; again went there, probably on or about September 4, when they made what have become known as the Rhode Island Historical Society's Drawing of the Inscription, and the same Society's, or John R. Bartlett's, View or Representa-

tion of the Rock in its surroundings. They went finally for a third time on December 11 to revise and perfect the Drawing. Meanwhile they prepared four separate letters describing their activities and replying to Rafn's questions, assembled a number of useful documents, and forwarded the whole early in February of 1835.

During the summer of 1835 the committee continued its activities, searching out and preparing drawings of other inscribed rocks about Narragansett Bay, and answering further questions raised by Rafn. The facts of interest concerning these additional rocks will be examined in later chapters. No further contributions on the subject were sent by the Rhode Island society to Denmark, but the society's records give evidence of a continued correspondence with Rafn and an active interest in these matters for at least the next half-dozen years. In 1836 there is recorded a long report on the general subject of Inscription Rocks, emphasizing their importance and urging further efforts toward their discovery, study and preservation. In 1838 the society seriously considered the possibility of purchasing Dighton Rock, but took no effective action to that end.

Great care was exercised by the committee in making its drawings of 1834. The rock was cleaned, and then, as Bartlett described the process later, "Dr. Webb and Judge Greene traced with chalk every indentation or line that could be made out, while I, standing further off, made a drawing of them. As I progressed with my drawing, my companions compared every line with the corresponding one on the rock, to make sure that every figure was correctly copied, and nothing omitted." Dr. Webb, also, testified to their care to secure absolute accuracy. "We have copied, with continuous lines, all that is still to be clearly ascertained; by broken or interrupted lines, certain portions which we feel considerably confident about, although the unaided eye would not have enabled us to copy them; but there is much, very much, that is beyond our power to delineate with the least degree of accuracy; all such we have, of course, left unrepresented. What is figured was carefully examined by four individuals, each inspecting for himself, and subsequently

conferring with the others; and nothing was copied unless all agreed in relation to it." As a result, the committee reported to the society that "this Drawing is confidently offered as a true delineation of what is now to be seen on the rock, altho' it will be found to differ much from every other copy that has come under our observation." The trouble with such confidence is that it was quite as strongly felt and quite as fully justified in the case of nearly every other drawing or photograph ever taken; and these disagree with one another. The only hope of discovering what was written in the obscure and disputed portions of the inscription is to give months of study, not only to the rock, but also to the most perfect possible photograph of it; and even then, much must remain unsolved. Deductions founded upon any drawing or any number of drawings and photographs from chalkings must necessarily be erroneous. But this is an anticipation of conclusions to be elaborated later, and is introduced here only to assist in a sound judgment of the theories that are to be discussed meanwhile.

The original drawings that were sent to Rafn are preserved in the Royal Library at Copenhagen, and photographic copies of them have been secured. Rafn was not content merely with accurately reproducing them as they were sent to him. Consequently, in my Colonial Society papers I exhibited his reproductions side by side with their originals in Plates XXXIII and XXXIV. All of the important features of difference between the original and the Rafn version can be discovered, however, by comparing the usual reproduction of the Drawing as given in Figure 6, copied from Rafn, with the original as accurately rendered in Figure 14. In the View, Rafn has greatly embellished the landscape, and introduced a great deal more of detail in the inscription. The added details have clearly been transferred from the other Drawing. The reproduction of the Drawing is very faithful to the original with the minor exception that the outline of the rock has been copied from the View instead of from the original drawing, and with the further exceedingly important exception that in certain parts of the inscription Rafn added a number of conjectural lines of the most essential importance for the interpretation of the inscrip-

tion that he advocated. These inserted lines are all, with one exception, in the central portion of the inscription, and are as follows: the entire character, resembling a Greek Gamma, that precedes the three X's; the very short lower portion of the right-hand line of the character **M** in the same line; in the line below, following the diamond shape, the lower half of the upright line of the R, all of the F except the upper half of its upright line, the entire I, the first upright of the misshapen N, and the two horizontal lines of the X; and finally, at the extreme left of the drawing, all of the P-like character except its dotted outlines, which by themselves alone do not resemble a P. Rafn believed that he was justified in supplying these conjectural restorations, through a comparison of the Rhode Island Historical Society's drawing with earlier ones, especially those of Kendall and of Baylies. In fact, all of his inserted lines are present in one or more of the earlier drawings, with the exception of those of the F. Here, where both of the Rhode Island drawings have allowed him sufficient space to insert the two characters, FI, one or the other of them must be taken as an absolutely unsupported conjecture on his part. By means of these amendments to the drawing, Rafn believed that he could read the following numerals and words as part of the inscription: CXXXI, NAM, THORFINS. For his purpose, the Gamma was interpreted as a C; the **M** as a monogrammatic writing of NAM; and the P, either the one alluded to above or an assumed one immediately before the O, as the Icelandic *p*, equivalent of TH.

On the drawing as he presented it, Rafn attempted to distinguish his own additions by drawing them with shaded lines. Unfortunately, the shadings are not very distinct, and are easily overlooked. Of the fifteen later reproductions of this drawing known to me, six present it without any shading or other marks of distinction whatever, and few of the others copy the shaded portions in exactly the same positions as on the original. Moreover, although it may be inferred from his discussion of these portions of the drawing in his text, Rafn nowhere explicitly says that the shaded lines are additions by himself, but misleadingly calls the whole "The Rhode Island His-

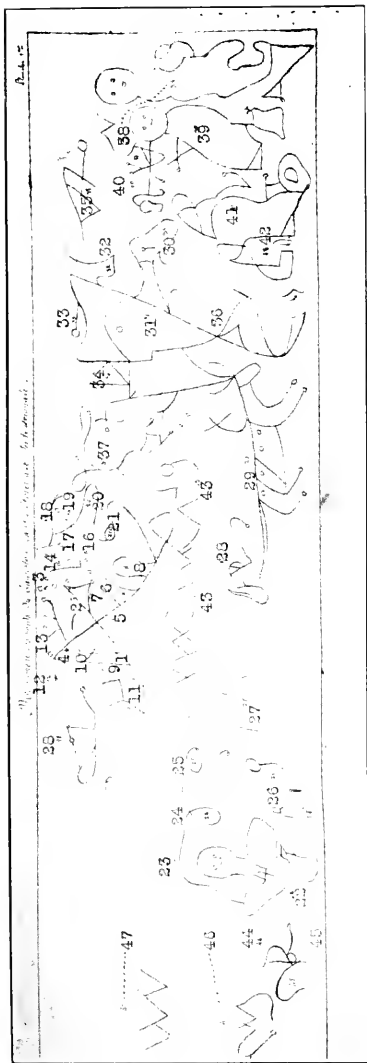


Fig. 13. Pammartin's version of the Sevall drawing of 1768 (The author has added clearer numbers to the very obscure ones drawn by Pammartin. Note that 15 is omitted, and 28 occurs twice)

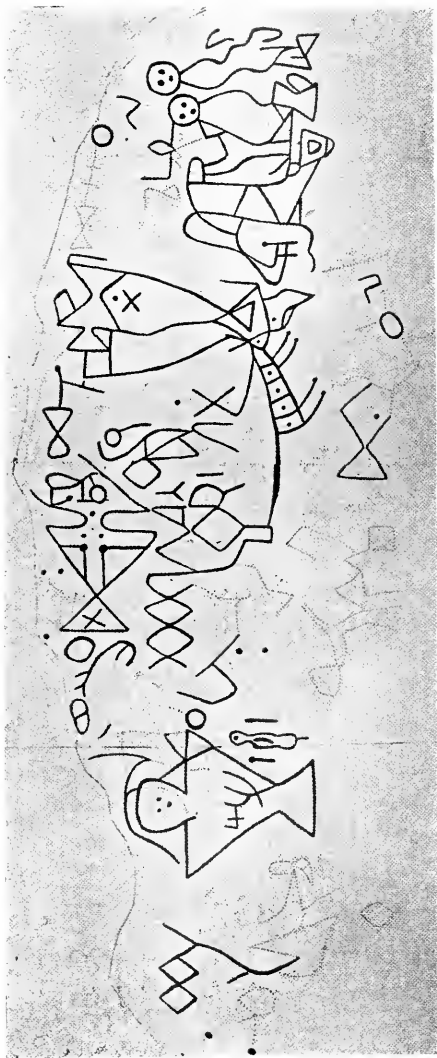


Fig. 14. The Rhode Island Historical Society's drawing, 1834, from a photograph of the original in the Royal Library, Copenhagen

torical Society's" drawing. As to the View, there is nothing whatever in text or in distinguishing marks on the drawing that could lead one to infer that he had greatly amplified and embellished what was sent to him, hence he wrongly attributes it to J. R. Bartlett as its delineator. As a consequence, only the most critical readers of his text have clearly realized how much of the depicted inscription was due to the actual observers of the rock, and how much was purely conjectural; and this fact has led to much misconception as to the strength of the argument for the Norse theory of the origin and meaning of the inscription. Hereafter, no one should refer to either of the two drawings in the *Antiquitates Americanæ* as those of the Rhode Island Historical Society. They should evidently be known as Rafn's conjectural drawings, based on a comparison of the Rhode Island drawings with those of earlier date.

It is a curious fact that none of the originators of the drawings, so far as I have knowledge of their published writings and unpublished letters, ever disputed the correctness of the date that Rafn assigned to them, or the justice of calling them, exactly as they were published, the Rhode Island Historical Society's drawings. Webb even came to believe that the shaded lines as well as the others had been drawn by his committee. It has required a careful study of Rafn's text, a comparison of the statements of nearly all the later expositors of his theory, and finally an examination of the original records of the Rhode Island Historical Society and the securing from Denmark of copies of the original drawings, to make possible a presentation of the actual facts.

The results of Rafn's studies were published in 1837 in an impressive volume entitled *Antiquitates Americanæ*. Whatever may be said of the success of the attempt to connect Dighton Rock with the visits of the Northmen to America, and through it or otherwise to identify localities connected with their discoveries, the service rendered by the publication of the *Antiquitates Americanæ* was a memorable one. The book is a quarto volume of 526 pages, illustrated by facsimiles of some of the ancient manuscripts, by maps and charts, and by six engravings of Greenland and American monuments. The body

of the work contains an Introduction written in Danish and Latin; a *Conspectus* of the eighteen manuscripts presented; a twelve-page essay written in English entitled "America Discovered by the Scandinavians in the Tenth Century. An Abstract of the Historical Evidence Contained in this Work;" the original text of each of the Icelandic manuscripts with a Danish translation in parallel columns and a Latin translation subjoined; lengthy discussions in Latin of monuments found in Greenland and America; and finally, geographical annotations in Latin, and indexes.

In order to appreciate satisfactorily the setting into which the theory of Dighton Rock was fitted, it is necessary to review briefly the story given in the Historical Abstract. Eric the Red settled in Greenland in the spring of 986. Later in the same year, Bjarne Heriulfson, attempting to join Eric's colony, was driven out of his course and saw strange lands of three typically different characters, but did not go on shore. In 1000, Leif, son of Eric, set forth to discover Bjarne's new lands. The first that he found he called Helluland (identified by Rafn with Newfoundland), the second, Markland (Nova Scotia), and the third Vinland, because of the wild grapes found there (vicinity of Cape Cod and Nantucket). Here he erected large houses, afterwards called Leifsbooths (in Mount Hope Bay), and wintered. Thorwald, Leif's brother, sailed in 1002, and passed two winters at Leifsbooths. He explored the country to the south, and gave the name Kialarnes to a prominent headland (Cape Cod). He was killed in a contest with Skrellings, and was buried at Krossanes (Gurnet Point). His companions wintered once more at Leifsbooths. In 1005, Thorstein, another son of Eric, made an unsuccessful voyage. Thorfinn Karlsefne, a wealthy and powerful man of illustrious lineage, went from Iceland to Greenland in 1006, accompanied by Snorre Thorbrandson, Bjarne Grimolfson, and Thorhall Gam-lason. Thorfinn married Gudrida, widow of Thorstein. In the spring of 1007 he set sail in three ships with his wife and companions, together also with Thorward and his wife Freydisa, daughter of Eric, and another man named Thorhall. They had with them 160 men and much livestock, intending to establish

a colony. They found all the places already named, and gave names also to Furdustrandir (Wonder strands; the long sandy stretches of Cape Cod), Straumey (Stream Isle; Martha's Vineyard), and Straumfiördr (Streamfirth; Buzzards Bay). At the latter place they landed and wintered. Thorhall with eight men left them. The others sailed southwards and arrived at Hop (Mount Hope Bay), where they found wild wheat and vines. They saw natives, erected dwelling houses a little above the bay, and wintered there. No snow fell. In the spring of 1008 (1009?) they traded with the natives, who were frightened away by the loud bellowing of a bull. About this time Gudrida gave birth to a son, who was named Snorre. Early next winter they were attacked by the Skrellings, but repulsed them after a severe conflict. In consequence of the hostility of the natives, they left Hop, and after some further exploration they spent the third (fourth?) winter at Streamfirth, and returned in 1011 to Greenland. In 1012-13 another expedition to Leifsbooths was made under the leadership of Freydisa. Later voyages also occurred, ending with one to Markland in 1347.

Rafn supported his identifications of localities by arguments drawn from geographical and nautical descriptions, by statements concerning climate and soil, produce and natural history, and by an observation seeming to determine the length of day and hence the latitude. But the most conclusive evidence that the Hop of the Northmen was situated at the head of Narragansett Bay, he believed, is furnished by the inscription on Dighton Rock. Apparently before he had received the new drawing of 1834, Rafn submitted some or all of the earlier drawings to Finn Magnusen for his opinion of them. Magnusen's report, based wholly on the Baylies drawing of 1789, was as follows:

I am glad to say that I support unhesitatingly your opinion as to the inscription and figures on the Assonet rock. I believe there is no doubt that they are Icelandic and due to Thorfinn Karlsefne. The Icelandic letter *þ*, near the prow of a ship, at the spectator's left, shows this at first glance, as do also the principal configurations cut in the rock. Several other considerations support this

belief. . . . I. The numeral characters CXXXI exactly correspond to the number of Thorfinn's men; for these were CXL, of whom nine under Thorhall left him at Straumfirth. With the rest he went to Hlop. Under the numeral characters appears the combination **NY**, consisting of two letters, a Latinogothic N and a runic M,¹ standing for norraenir (north) and menn or medr (men). Between them is a ship divested of masts, sails and ropes, indicating that these men came to this land in the ship but later left it after removing its masts, sails and ropes, and erected fixed habitations on the land occupied by them. The whole phrase means: CXXXI North-European seamen.

II. Following the numerals CXXXI is a Latino-gothic character resembling an M, the right-hand half of which has a crossline making it, taken by itself, an A. This is a monogrammatic combination standing for NAM, equivalent to land-nám. Underneath it is a diamond shaped O followed by an R. This OR is an ancient Scandinavian form for modern Icelandic and Danish *vor*, in English *our*. *Nam or* signifies "territory occupied by us," or "our colonies."—III. In the highest part of the configuration, above the portions just discussed, is a rather artificial figure representing in our opinion a great shield provided with a singular foot resembling a fish-tail. This shield, together with the adjacent inverted helmet, I accept as symbols of the peaceful occupation of this land.—IV. This occupation, or the cultivation of the land or development of the colony, is further indicated by a very crude figure cut in the rock underneath the *n* of norraenir, if this, as we conjecture, represents a heifer lying down or at rest. At the time of the first occupation of Iceland, the ground covered by a heifer in its wanderings during a summer's day customarily determined the extent of the land to be occupied.—V. I believe that the configuration as a whole presents to the spectator this scene: the famous ship² of Thorfinn Karlsefne as it first set out for Vinland and came to this shore, with a wind-vane attached to the mast. His wife Gudrida, seated on the shore, holds in her hand the key of the conjugal dwelling, at that time, as is evident, long previously constructed. Beside her stands their three year

¹ The former shaped like a lower-case n, the latter somewhat like a trident. They are easily found on the Baylies drawing in the position indicated.

² The ship here mentioned demands a complaisant imagination for its recognition in the jumble of lines between the P at the extreme left of the drawing and the first human figure.

old son, Snorro, born in America. Thorfinn's CXXXI companions were then occupying Vinland, and had declared it to be their own possession, thus occupied. One of their ships in which they had come, is represented fixed to the shore, for this reason despoiled of its sails.³ A cock⁴ announces by his crowing domestic peace, as do also the shield at rest and the inverted helmet. Then suddenly approaching war is indicated. Thorfinn,⁵ leader of the colonists, is seated, enjoying rest; but he seizes his shield⁶ and endeavors to protect himself against the approaching Skrellings,⁷ who violently assail the Scandinavians, armed with clubs or branches, with bow and arrows, and furthermore with a military machine, unknown to us, which in Thorfinn's history is called a ballista, from which are thrown, besides missiles and large rocks with ropes attached, as is seen, also a huge ball, which fact is testified to in express words in the same history.⁸—VI. Certain other features of the inscription, ropes and runic enigmas, must be left unexplained.

Rafn devotes 42 pages of the *Antiquitates Americanæ* to his own discussion of Dighton Rock. First he reproduces the letters which he had received from the Rhode Island Historical Society, then quotes the accounts of the rock that had been published by Lort, by Warden, and by Vallancey. Since his time these sources have been accepted as the basis of nearly all accounts of the earlier history of investigation of this subject; but how inadequate this account is both in accuracy and in completeness has been shown constantly in the course of our own investigation. Rafn then announces: "We are of the opinion that the inscription is due to the Icelanders. Finn Magnusen, an expert in Runic inscriptions, whose opinion we consulted, supports us." Magnusen's interpretation is presented, the nine

³ This ship is the one mentioned under I, between the N and the runic M.

⁴ This is of course the figure of the bird, at the middle bottom of the drawing.

⁵ The apparently human figure just to the right of the central part of the drawing.

⁶ Thorfinn's shield is the series of lines, to the right of Thorfinn, shaped like an hour-glass at the top, thence curving down to a small triangle near the bottom of the human figure.

⁷ The two human figures at the right.

⁸ All the implements of war here enumerated can be sufficiently well made out by an active imagination between the shield and the Skrellings.

copies of the inscription known to Rafn are enumerated, and finally he reviews the opinions of Magnusen and adds corrections and amplifications of his own. Concerning the numeral characters CXXXI in division I, it will be noticed that Magnusen left them without stating their equivalence in Arabic numerals. Rafn expresses the belief that the C stands for the Icelandic "great hundred," which is ten dozen instead of ten tens. Hence the whole signifies not 131 but 151, the true number of Thorfinn's men after Thorhall's nine had left. The Gothic N and Runic M with a dismasted ship between them are to be regarded as less certain, since they are to be found on the Baylies drawing only. Nevertheless, Magnusen's explanation of them fits in so well with the numerals, that their real existence at least formerly is of the highest degree of probability. Under II the NAM is accepted. But instead of OR Rafn finds in the Rhode Island drawing, supported in part by Kendall, as we have already seen, the fuller ORFINS.

In front of these six letters Greenwood's picture places a curved line, which is seen also, among others, even in Mather's earlier drawing. We are not very rash in suspecting this stroke to belong to the letter *p* with its first upright line now exceedingly worn or even wholly invisible. If therefore we accept this letter as having been expressed in this place, or even recognize as a *p* that letter which, though not a little distant from the succeeding letters, is yet visible in the Rhode Island Society's drawing and is plainly and accurately delineated in the Baylies drawing at the first of the representations of a ship, then there results, according to the greatest probabilities, this reading for the two lines of the inscription, disregarding the numeral characters:

NAM *p*ORFINS.

The whole inscription, therefore, reads: "Thorfinn and his 151 companions took possession of this land."

In III, Rafn accepts the interpretation of the figure as a shield, and describes the ancient shields, of which this is a true representation. The figure of a heifer in IV, given in the Baylies and in some part also in the Rhode Island drawing, is

very different in Winthrop. Its interpretation is subject to doubt, but yet sufficiently probable. Rafn continues :

V. The principal scenes of this representation correspond so perfectly with the accounts in the old Icelandic writings that this historical interpretation of their meaning is hardly to be regarded as rash or erroneous. The arrival of the Scandinavians in Vinland, their occupation of the land and even their encounter with the Skrellings, are here easily recognized. The figure of a man standing in the middle is given in the Baylies but is lacking in the more recent drawings, and hence is somewhat doubtful. Unless this figure was once there and has since been destroyed by erosion, then the human figure next to the ship ought to represent the leader of the expedition. At his side the best drawings show the figure of a child, which probably indicates Snorre. . . . In my opinion this assumption is proven by the fact that at his right side the Rhode Island drawing places the Runic letter S, initial of his name. The animal, placed under the upright shield in most drawings, is represented as having horns. We take it to represent the bull which is mentioned in Thorfinn's history.

The figures at the right, Rafn thinks, are very probably Eskimos with their weapons : stretched bow, ball flying through the air with rope attached, arrow-head, and finally a projected stone dashed against the upper margin of the shield.—VI. The rest is too doubtful for correct interpretation, though, as Magnusen says, there are resemblances to runic letters.—VII. Other examples of inscriptions are cited in support of the theory here advocated.

Following this account, Rafn describes the inscriptions at Portsmouth and Tiverton in Rhode Island, which confirm his opinion as to Dighton Rock. In short, as P. C. Sinding has expressed it, though substituting another name for Thorfinn's,

No shore to which the Northmen came
But kept some token of their fame ;
On the rough surface of a rock,
Unmoved by time or tempest's shock,
In Runic letters, Thorwald drew
A record of his gallant crew ;
And these rude letters still are shown
Deep chiseled in the flinty stone.

Although not including quite all the detail given it by Rafn, yet the foregoing presents fairly the evidence offered in the *Antiquitates Americanae* for the famous Norse theory of the inscription on Dighton Rock. Reserving for a moment the question as to the presence there of the name Thorfinn, it is clearly evident that all the rest of the alleged translation is pure romancing, on an exact par with the detailed readings of Gebelin, of Hill, and of Dammartin. The reader who has followed the changing phases of depiction and interpretation of the inscription thus far must realize that it is easy to imagine as present on the rock almost any desired letter of the alphabet, especially of crude or early forms; and that, starting with almost any favored story, he can discover for it, if he looks for them eagerly enough, illustrative images to fit its various features, and initial letters or even entire words or names. Later examples will give even stronger confirmation of this fact.

Aside from an undoubted fascination in the thought of the bold Norsemen sailing without compass the stormy seas and discovering and colonizing these shores so long a time before Columbus, the one thing that has led to so confident, widespread and prolonged acceptance of Rafn's views concerning Dighton Rock has probably been the apparently clear presence of the name of Thorfinn on the rock. It is undeniably there, plainly visible to everyone, in Rafn's seemingly scholarly compilation of the different extant drawings, published in an impressive volume issued by a highly reputable learned society. It is hardly a matter for wonder that so many persons have seen no reason to doubt the reliability of the depiction. But if this one word can be shown to be doubtful, or indubitably not there, then the whole fabric of Rafn's and Magnussen's ingenious readings falls with it and their translation of the rock's inscription becomes as much a fairy tale as are its earlier and later rivals.

Is there, then, any possibility that the name Thorfinn was cut upon Dighton Rock? We can answer with entire confidence that there is not. For one thing, no one, even of those eager to verify Rafn's views, has ever ventured to include it in

a drawing or marked photograph. Moreover, anyone may now prove the matter for himself as completely as if he were to visit the rock and examine it under favorable conditions of light and tide. Study of the photographs recently produced and described on later pages is for this purpose superior to direct examination of the rock, for they show the smallest details of texture of the surface with almost ideal clearness, and can be examined at leisure and in comfort—conditions that the rock itself rarely offers. The result of such study must be the conviction that although the actual lines are often doubtful yet the conjectural additions made by Rafn are wholly imaginary, corresponding to no actual markings on the rock, and that an entirely different name can be read much more plausibly in that position.

At a later date Rafn added to his “proofs” of the location of Vinland in the region of Narragansett Bay two other objects which played a prominent part in subsequent discussions. One of these was the Stone Tower at Newport, now generally accepted as without doubt Governor Benedict Arnold’s “Stone Built Wind Mill,” erected about 1675. The other apparent relic of the Northmen was the famous “Skeleton in armor” celebrated by Longfellow, discovered in Fall River in 1831, which no one now hesitates to regard as that of a commonplace Indian.

In justice to the men most prominently responsible for introducing Dighton Rock and these two companions into the story of Norse discoveries, a word should be said as to their later expression of views. Already in 1838, Rafn referred to the evidence given in *Antiquitates Americanae* merely as “hints,” and said that the matter would continue to form a subject for accurate investigation. In a letter of January 4, 1848, to David Melville of Newport he said that these monuments “unquestionably merit the attention of the investigator, but we must be cautious in regard to the inferences to be drawn from them.” Yet his letters to Niels Arnzen between 1859 and 1861, in which he approves of a project to remove Dighton Rock to Denmark, show that he still regards it as of “high and pressing importance.” The Royal Society of Northern

Antiquaries, however, eventually abandoned all belief in the value of the rock as evidence, as is shown by a letter of February 22, 1877, addressed to Arnzen, signed by four officials in behalf of the government of the society, and by a letter of November 1, 1878, from the Society's vice-president, J. J. A. Warsaae, to Charles Rau. The official letter to Arnzen says: "The Society must confess that the inscribed figures on the Rock have, according to the later investigations, no connection with the Northmen's journeys of discovery or sojourn in America, but rather that it is the work of the original races of Indians." Bartlett, in 1846, expressed his belief that no alphabetic characters had been satisfactorily identified on Dighton Rock; and many years later he wrote: "I never believed that it was the work of the Northmen or of any other foreign visitors. My impression was, and is still, that it was the work of our own Indians. . . . Nor do I concur . . . in the belief that it was intended as a record of any kind." Webb apparently clung persistently to the belief that the inscription was Norse, yet conceded that it might be otherwise: "If its anti-Runic character should be satisfactorily shown," and "allowing it to be an Indian Monument, it should be none the less highly prized and carefully preserved."

It is now generally conceded by everyone whose opinion is of value that no material remains of the Norse visits to America have ever been discovered. The whole matter is well summed up by Babcock:

So far as investigation has gone, there is not a single known record or relic of Wineland, Markland, Helluland, or any Norse or Icelandic voyage of discovery, extant at this time on American soil, which may be relied on with any confidence. One and all they may perfectly well be of some other origin—Indian, Basque, Breton, Norman, Dutch, Portuguese, French, Spanish, or English. Too many natives were on the ground, and too many different European peoples, who were not Scandinavians, came here between 1497 and 1620 for us to accept anything as belonging to or left by a Norse Wineland, without unimpeachable proof.

Accustomed as we now are to accepting the possibility that not only the Northmen, but perhaps voyagers on many other

unprovable occasions saw the shores of America before Columbus did, it is hard to realize what a tremendous impression was made by the appearance of the *Antiquitates Americanæ*. Edward Everett wrote, immediately on receiving it: "This is a work of great interest. It has long been expected with impatience." Higginson tells us: "I can well remember, as a boy, the excitement produced among the Harvard professors when the ponderous volume made its appearance upon the library table. . . . To tell the tale in its present form gives very little impression of the startling surprise with which it came before the community of scholars nearly half a century ago."

The book immediately, and for long after, was discussed in numerous reviews and magazines. Rafn's historical account in English was republished at least twenty times in eleven different languages. Lectures on the subject were delivered by men of prominence like Governor Edward Everett, A. H. Everett, and George Folsom, as well as by others less well known. Leading scholars and historians took account of it, and only Irving and Bancroft were wholly hostile to Rafn's conclusions, of whom Irving later somewhat modified his opinion and Bancroft eventually withdrew opposition by omitting from his History any reference to the subject. The story of the sagas was retold in a more compact form by several writers.

Such was the immediate effect of the book. With the content of the many discussions and controversies which it has inspired since then, we cannot further concern ourselves, except in so far as they involve new features in the unfolding of opinion about Dighton Rock.

One of the best of early opinions was that expressed by Edward Everett in a review of *Antiquitates* and in a lecture before the Massachusetts Historical Society. He said that the copies of the inscription were too unlike to command entire confidence, declared that he remained wholly unconvinced of the truth of the Norse interpretation, and questioned, without undertaking a positive decision, why it may not have been

wrought by Indians between 1620 and 1675, or even by some Anglo-American in that period.

Alexander H. Everett believed that the Norse settlement on Mount Hope Bay was "beyond controversy," even though "throwing out of view all the evidence that may be regarded as in any way doubtful, such as . . . the inscription on Dighton Rock." The Rev. A. B. Chapin exhibited a not uncommon type of poor reasoning: it is plain that the Indians did not inscribe the letters; either, then, the Norse view is correct, or they are a forgery; and the latter view is altogether improbable. Schoolcraft well expressed one of the early opinions adverse to Rafn's conclusions, regarding the characters as Indian hieroglyphics, easily producible by their stone implements, and believing that "it would be hazarding little to suppose that some idle boy, or more idle man, had superadded these English, or Roman characters, in sport."

How strongly the new theories appealed to the popular fancy is evidenced by the success of two uncritical books that appeared within a short time after the publication of the *Antiquitates*. In 1839 Joshua T. Smith published the *Northmen in New England*. It shows no originality aside from putting its exposition and defence of Rafn's views in a rather prolix and uninteresting dialogue form, of no present value except as a curiosity of the literature of the subject. A much more striking comment on popular taste is afforded by the long continued demand for a small treatise by the Rev. Asahel Davis, "Chaplain of the Senate of New York," as he is styled in some editions. Its first edition appeared apparently in 1838; the second edition, of 1839, is a small pamphlet of sixteen pages; its size gradually increased in successive editions to somewhat more than double that number. It is exceedingly ill-written, frequently ungrammatical, made up of choppy paragraphs of poorly selected and ill-balanced material taken with uncritical faith from the Bible, from reports such as that of an extinct race of men nine feet in height whose remains have been found in various states, and from Rafn. Yet ten editions had been called for by 1842, ten more within the next six years, and a thirtieth thousand is reported to have been issued in 1854.

Bancroft and Irving, in 1840 and 1841, agreed that "calm observers, in the vicinity of the sculptured rock, see nothing in the design beyond the capacity of the red man of New England;" and that it was equally easy to imaginatively read in its Algonquin characters the semblance of Phœnician, Egyptian or Scandinavian writing, or anything else desired.

On the opposing side, Beamish says all that could be said for a Norse Dighton Rock by referring to the "unanswerable arguments" of Professor Rafn, which, he claims, leave "no reasonable doubt as to its being the work of the Northmen." His work as a whole may have been worthy of the republication which it received, but the part wherein he comments on the rock shows a careless and inaccurate reading of his sources such as has often characterized the advocates of startling theories about this inscription.

Samuel Laing devoted a dozen pages of sharp and for the most part justifiable criticism to the subject of Dighton Rock and the Newport windmill in his *Heimskringla* of 1844. Besides suggesting natural veining of the rock and deliberate fraud as possibilities, he justly says that the marks resembling letters may not be letters at all, but merely scratches, marks or initials, made at various times by various hands; and that interpretation may assign them to any people or period one may please to fancy. In the same year appeared the first German book, so far as I have observed, devoted to the Norse discoveries—by Karl H. Hermes, who concludes that the rock testifies indubitably and unambiguously to the presence of the Northmen. Paul Guillot's translation into French of Wheaton's *History of the Northmen* also appeared in 1844, and the translator in his notes accepted the inscription as having been proved to be Norse.

I. A. Blackwell, writing in 1847, thinks that Rafn "might have spared us a great deal of learned trifling" by omitting his dissertation on the inscribed rocks. "The Dighton Rock is covered with tortuous lines which may be made to mean any thing or nothing, and which after all the noise that has been made about them may probably be the handiwork of one of old Sachem Philip's Wampanoag Indians." Herein, we

have seen, he was expressing the opinion of a great many of his predecessors. Thus far, however, there was but little more knowledge of Indian handiwork in the making of petroglyphs, that might serve as a sound basis for such opinions, than had been expressed by Kendall in 1807, depending largely on the observations of Dr. Stiles. The publication of the *Ancient Monuments of the Mississippi Valley* by E. G. Squier and E. H. Davis in 1847 gave new arguments to the anti-Norse faction; and in 1848 Squier minutely examined "the alleged monumental evidence of the discovery of America by the Northmen," and said that on comparing Dighton Rock with many known Indian petroglyphs, "the conclusion will be irresistible that this particular rock is a true Indian monument, and has no extraordinary significance." As to the Norse discoveries, "there is nothing which has tended so much to weaken the force of the arguments which have been advanced in support of that claim in the minds of those acquainted with the antiquities of our country, as the stress which has been laid on this rude inscription."

Argument by ridicule is often more effective than more direct attacks. This method found expression in the "Antiquarian hoax" of 1847, the contributions to which were later assembled by C. T. Brooks. With the utmost solemnity, and no indication that his statements were not to be taken seriously except the veiled one implied in his use of high-sounding and meaningless names and descriptions of non-existent incidents, a writer who signed himself "Antiquarian, Brown University" claimed that the characters were Furdo Argyto Dnostick, were made by an ancient race supposed to be Ægypto-Drosticks, and were discovered and described by the Northmen. His pompously worded absurdities were so mingled with statements of fact that they were at first sight not easy completely to expose. Lowell's caricature of the Norse theory in the Biglow Papers is amusing and should be read in full if one would follow exhaustively the fortunes of our rock.

We have assembled now practically all of the typical arguments on either side. For the Norse hypothesis there has really never been anything to say except to express a faith that Rafn

was right. On the other side, apart from presentation of a rival theory, or from constantly growing knowledge of the details of Indian customs and workmanship, to examination of which we shall turn shortly, there was little to do except to point out the inadequacies of the evidence in favor of Scandinavian artists.

Although preserving many of the essential features of Rafn's treatment, a translation offered by Gabriel Gravier in 1874 possesses enough of novelty to need separate mention. The author gives a fairly good survey of earlier opinions, and reproduces Rafn's version of the Rhode Island Historical Society's drawing. His originality consists largely in asserting that when Thorfinn sailed from Straumfjord he left there twenty men and consequently, since nine others had gone off with Thorhall, had but 131 with him at Hop. The inscription is so read as to give evidence of this. At the extreme left of the drawing is seen the number XX, followed by a long wavy descending line which he regards as the rune *kaun*, and below these a P-like character, which he interprets as the Icelandic *thau*, signifying a ship. The *kaun* means "enflure," a dwelling at the foot of a hill; and its irregular prolongation indicates the path that was followed between the ship and the dwelling. Thus are indicated the conditions at Straumfjord. The CXXXI has its usual significance, instead of the forced meaning of 151 which Rafn assigned to it. The next following character, **M**, is accepted, in accordance with its interpretation by Magnusen and Rafn, as being a monogrammatic NAM, meaning "occupation of a country." Gravier naturally fails to discover Magnusen's "Norse seamen," since that occurs only on the Baylies drawing. In its place, he takes the inverted Y which follows the **M** as the rune *madr*, meaning men. The *thau* of the name Thorfinn he thinks has been effaced by rain and tide, and for the rest of the name he accepts Rafn's version. The human figures toward the left are Gudrida and Snorre, the latter confirmed by the neighboring rune *sol*, in accordance with Rafn's belief. The animal is the famous bull. The two personages at the right, however, are not Skrellings, but Thorfinn Karlsefne and his friend Snorre Thorbrandson.

Instead of one Norse reading, therefore, there have been three more or less differing ones suggested. Their general purport is very similar. Although Magnusen's and Rafn's differ markedly only in the interpretation of the OR, yet all three wholly agree only in the meaning assigned to the monogrammatic **M**, and to the figures of Gudrida and her son. Gravier's version made little impression, having been noticed by only a few reviewers and other writers. Still another minor variant reading was given by a certain E. Fales in 1888: "Thorfinn Karlsefne in the ship Arrow landed here with 151 persons and took possession." He does not say whence he derives the name of the ship. His discussion, however, is ignorant and worthless.

Though we must now take leave of Thorfinn and his 151 companions, his Skrellings and his terror-inspiring bull, yet the debate for and against him has continued intricately through the years. Numerous champions possessed of well-known names have arisen, and numerous equally well-known opponents. There is constant interest and occasional humor awaiting anyone who may wish to follow the controversy in all of its successive phases.

As a final word, we may recall how strongly this theory of the rock has appealed to the imagination, and how many instances we have taken notice of wherein the exercise of this faculty has tempted to an expression of opinion many who were utterly unequipped in knowledge or judgment to say anything about it worth printing, and has led astray others better equipped into the adoption of an unscientific attitude on the subject. It is not surprising to realize, therefore, that the romance and fascination of this theme have stirred the ardor of a number of poets. William E. Richmond and P. C. Sinding have already been cited. Daniel Ricketson contributed a long poem on Dighton Rock to the *New Bedford Mercury* on May 4, 1839. Longfellow felt the inspiration. John Hay made a humorous allusion to the difficulty of the Dighton runes in his class-day poem, "Erato," in 1858. Sidney Lanier accepted the truth of Rafn's story in his "Psalm of the West":

Then Leif, bold son of Eric the Red,
To the South of the West doth flee—
Past slaty Helluland is sped,
Past Markland's woody lea,
Till round about fair Vinland's head,
Where Taunton helps the sea, . . .
They lift the Leifsbooth's hasty walls
They stride about the land.

And another of America's well-loved singers made allusion to a rival Northman's Written Rock in his "Double-headed Snake of Newbury," and devoted an entire poem to the Norsemen and their supposed visit to New England, a few of whose appreciative lines may well close this portion of our history:

My spirit bows in gratitude
Before the Giver of all good,
Who fashioned so the human mind
That, from the waste of Time behind,
A simple stone, or mound of earth,
Can summon the departed forth;
Quicken the Past to life again,
The Present lose in what hath been,
And in their primal freshness show
The buried forms of long ago.⁹

⁹ Whittier, *Complete Poetical Works* (1894), pp. 9-11.

CHAPTER VII

DEVELOPMENT OF THE INDIAN THEORY

Side by side with the Norse theory there developed, with increasing detail and growing confidence, the opinion that the inscription was wrought by no others than the aboriginal inhabitants of the country. It may seem strange that this, the most natural view of all, should not have prevailed from the first. In fact, it had a few supporters as well as many opponents in the periods surveyed in our earlier chapters. But, as Higginson remarked in 1882, "so long as men believed with Dr. Webb that 'nowhere throughout our widespread domain is a single instance of their having recorded their deeds or history on stone,' it was quite natural to look to some unknown race for the origin of this single inscription."

This, however, was not the only reason advanced by Dr. Webb for his disbelief in the responsibility of the Indians. In his letter of September 22, 1830, we find the following statement, which is typical of the arguments for this opinion:

In the Western parts of our Country may still be seen numerous and extensive mounds, similar to the tumuli met with in Scandinavia, Tartary and Russia; also the remains of Fortifications, that must have required for their construction, a degree of industry, labour and skill, as well as an advancement in the Arts, that never characterized any of the Indian tribes: Various articles of Pottery are found in them, with the method of manufacturing which they were entirely unacquainted. But, above all, many rocks, inscribed with unknown characters, apparently of very ancient origin, have been discovered, scattered through different parts of the Country: Rocks, the constituent parts of which are such as to render it almost impossible to engrave on them such writings, without the aid of Iron, or other hard metallic instruments. The Indians were ignorant of the existence of these rocks, and the manner of working with Iron they learned of the Euro-

peans after the settlement of the Country by the English. . . . No one, who examines attentively the workmanship [of Dighton Rock], will believe it to have been done by the Indians. Moreover, it is a well attested fact, that no where, throughout our widespread domain, is a single instance of their recording or having recorded their deeds or history, on Stone.

Webb still held to this belief nearly twenty-five years later, although in the meantime he had himself seen many "marked rocks" on the Mexican border. "A popular error, once started on its career, is as hard to kill as a cat," is the way in which John Fiske expressed his view of the situation. How the error has been killed, and the Indians proved entirely capable of having made the Dighton petroglyph, we have now to trace.

George Catlin made one of the earliest definite contributions, in 1841. He had traveled widely, and had seen a "vast many" of Indian picture-writings. "I have satisfied myself that they are generally merely the totems or symbolic names, such as birds, beasts, or reptiles, of Indians who have visited these places and, from a feeling of vanity, recorded their names as white men are in the habit of doing at watering places."

An important extension of knowledge in regard to Indian petroglyphs was due to the work of Squier between 1846 and 1860. The earliest evidence of his interest in Dighton Rock is furnished by his unpublished letters to Bartlett. In the course of one of them he mentions it, and says of other sculptured rocks that he is investigating: "There will be no difficulty in making German or Runic, or Latin, or Choctaw out of them." His first publication, made in collaboration with E. H. Davis, was on the ancient monuments of the Mississippi Valley. In it he describes many pictographs, and remarks that those at Dighton, Tiverton, and Portsmouth "do not seem to differ materially in character" from these. Shortly afterwards, he devoted an entire paper to the refutation of the Norse claim to Dighton Rock. He omitted any reference to the rock, but discussed the Fall River skeleton, in his *Aboriginal Monuments of the State of New York*, in 1849. He returned to the subject briefly and finally in a paper of 1860, wherein, speaking of the Runic, Hebrew, and Phœnician theories, he remarks:

“Of late years, however, reveries of this kind have been generally discarded, and the investigations of our monuments conducted on more rational and scientific principles.”

Squier's Ethnological Journal paper of 1848 is worthy of fuller notice. After a minute description of Dighton Rock and the “fanciful speculations” which have been based upon it, he argues that the rock—

coincides in position with a large number of similar monuments in various parts of the country, which bear inscriptions, not only similar, but identical in style and workmanship; that some of these are known to have been inscribed by the existing Indian tribes, since the period of the commencement of European intercourse, and that it was and still is a common practice among the Indians to delineate on trees and rocks rude outline pictures commemorative of the dead, or of some extraordinary event, as the conclusion of a treaty, or the termination of a successful hunting or martial expedition; then the conclusion will be irresistible that this particular rock is a true Indian monument, and has no extraordinary significance.

All of the sculptured rocks, he continues,—

are clearly within the capabilities of the Indian tribes, by whom they were doubtless inscribed. Their tools, though rude, are, nevertheless, adequate to the chipping of nearly every variety of rock to the slight depth required in these rude memorials. Besides, a personal examination of these rocks enables us to say that the amount of labor expended upon the largest rock of the Guyandotte group, making proper allowance for the difference of material, is five-fold greater than that expended on the rock at Dighton. . . . The time, however, expended upon these rocks, in the process of inscribing them, is a matter of no consequence among a people who had so great an abundance to spare as the Indian. The labor expended in reducing to shape and polishing some of their hatchets and other implements of hornblende, greenstone, and kindred materials, was probably little less than that bestowed upon the most elaborate of the sculptured rocks.

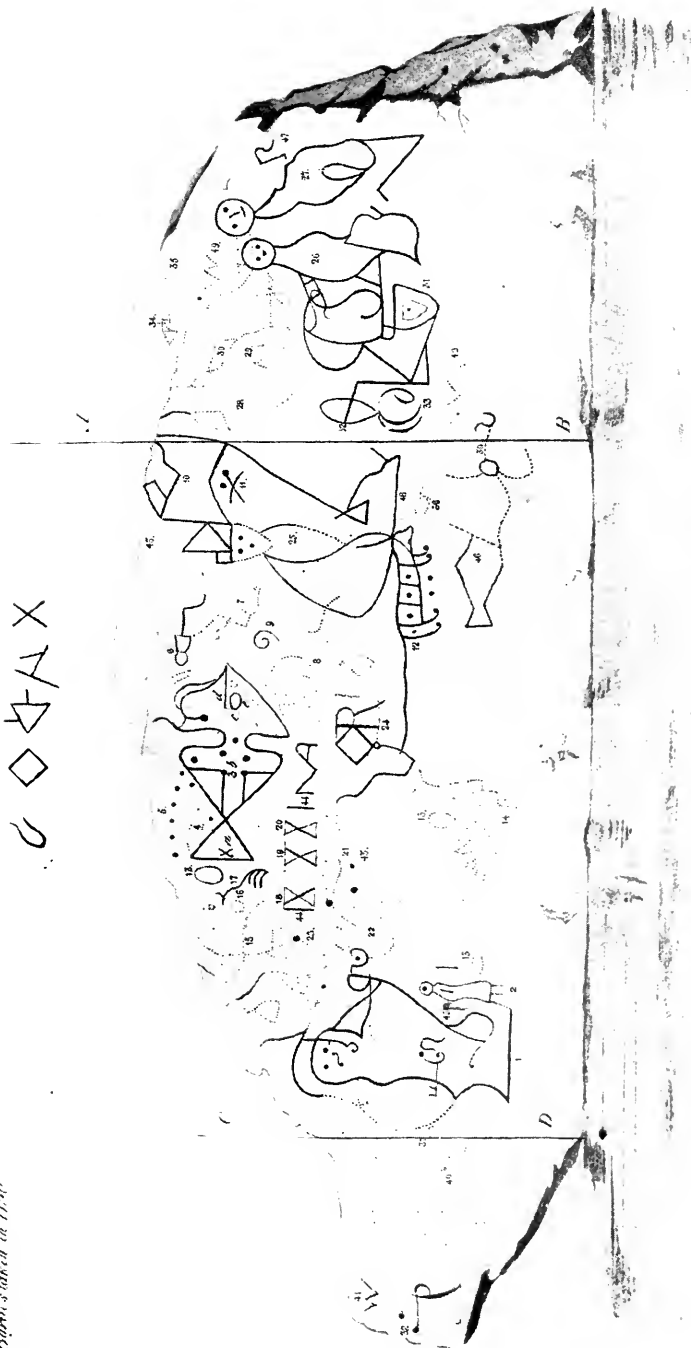
Although Schoolcraft expressed four differing opinions within the space of fifteen years, yet on the whole he helped materially toward progress in clearing the mystery of the rock. Brinton

The parts in dots are not in the Rhine tunnel plate.

The parts in lines are on the Rhine tunnel copy but not in Barth's taken in 1734.

Tibeta in 1890

Fig. E.



The characters represented by Fig. E. were found in 1837 by H. R. Schoolcraft, Esq. in plates of them seen at Fig. 24.

Fig. 15. Drawing of alleged Roman letters (Fig. E), 1847; and combination of the drawing 1789 and 1837, by Henry R. Schoolcraft, 1851



regarded him as a "man of deficient education and narrow prejudices, pompous in style and inaccurate in statements," and his views as "shallow and untrustworthy in the extreme." However, Mallery's judgment that Schoolcraft told the truth in substance, although with much exaggeration and coloring, applies well to his final attitude toward this inscription; for although the detailed translation that he advocated has no claim to acceptance, yet he exerted a wholesome influence in attributing it to Indian sources. Schoolcraft also has the distinction of being responsible for the production of the first published photographic representation of the rock.

In 1839, in a paper already quoted, Schoolcraft expressed opinions entirely hostile to the Norse theory, asserting that the characters on the rock are Indian hieroglyphics of the Algic stamp. At about the same time he sent to Rafn an account of a "Runic inscription," that of the stone found in the Grave Creek mound, now regarded as probably fraudulent. On November 17, 1846, he delivered an address before the New York Historical Society, showing a then wavering opinion. Regarding Massachusetts and Rhode Island as plausible localities of the Norse discoveries, he deplored the insistence on "localities and monuments, which we are by no means sure ever had any connection with the early Scandinavian adventurers." At a meeting of the same society on November 3, at his suggestion, a committee was appointed "to investigate the character and purport of the ancient pictorial inscription or symbolic figures of the (so called) Dighton Rock, with instructions to visit the same and report thereon to the Society," but there is no record that a report was ever submitted. But Schoolcraft visited the rock in August, 1847, and made a drawing of such of its characters as were in the position where Rafn had imagined the name Thorfinn. His version differs considerably from any others, and to the writer seems to have no better claim to accuracy than they. It can be seen as Figure E of our Figure 15.

Meanwhile, in 1839, Schoolcraft had submitted to Chingwauk, a well-known Algonquin priest and chief and an expert in the reading of Indian picture-writings, the drawings of

Baylies and of Rafn. Selecting the former only, Chingwauk had furnished him with a detailed translation of all of its parts, except the central characters; and he made a first announcement of this translation in an unpublished paper read sometime between 1842 and 1845. In 1851, Schoolcraft published the first volume of his *History of the Indian Tribes*, in which he devoted over a dozen pages to a description of Dighton Rock and a presentation of this new reading. It was accompanied by a plate reproducing the Baylies drawing of 1789, to which a few characters from Rafn's version of the 1834 drawing had been added (Figure 15); and by a second plate, which he called a synopsis of the Assonet Inscription, displaying the several figures and characters detached from one another and arranged in separate compartments of a square. On each plate he includes a separate figure, showing his own rendering of the central characters. We shall postpone for separate treatment the interpretation by Chingwauk, and present here only a much condensed account of Schoolcraft's own conclusions:

That America was visited early in the tenth century by the adventurous Northmen is generally admitted. Their Vinland has been shown, with much probability, to have comprised the present area of Massachusetts and Rhode Island. But the Assonet monument has been misinterpreted. Two distinct and separate inscriptions appear on it, of which it is evident that the Icelandic is the most ancient. The central space which it occupies could not have been left, if the face of the rock had previously been occupied by the Indian or pictographic part. The want of European symbols—such as hats, swords, etc.—connected with the figures representing the defeated enemy makes it hardly probable that this is a record of the defeat of the Northmen by the Algonquins; yet it is possible. The inscription was more likely, as is shown by Chingwauk, a triumph of native against native.

The rock was visited in August, 1847, in execution of the instructions of the New York Historical Society. Observation was rendered somewhat unsatisfactory, because of a light marine scum deposited by the water on the rock's surface. It was evident, under all the difficulties of tidal deposit and obscure figures, that there were two diverse and wholly distinct characters employed, namely, an Algonquin and an Icelandic inscription. No copy of

it, answering the highest requisites of exactitude, has, in my opinion, appeared. The principles of lithological inscription, as they have been developed in ancient Iceland, appear to me to sanction the reference of the upper line of the foreign inscription to the hardy adventurous Northmen. Thus read, the interpretation of this part of the inscription furnished by Mr. Magnusen, appears to be fully sustained. Put in modern characters, it is this: CXXXI men. The inscription below is manifestly either the name of the person or the nation that accomplished this enterprise.

And here it must be confessed, my observation did not enable me to find the expected name of "Thorfinn." The figure assumed to stand for the letters Th. is some feet distant from its point of construed connection, and several other pictographic figures intervene. The figures succeeding the ancient O cannot, by any ingenuity, be construed to stand for an F, I, or N. The terminal letter is clearly an X, or the figure ten. With respect to the characters which should be inserted after the letters OR, as they appear in the drawings [of Baylies and Rafn], we have felt much hesitancy. Nothing is more demonstrable than that whatever has emanated in the graphic or inscriptive art, on this continent, from the Red race, does not aspire above the simple art of pictography; and that wherever an alphabet of any kind is veritably discovered, it must have had a foreign origin.

This confidence that the central inscription was of Scandinavian, though unreadable, character, was of brief duration. In 1853, Captain Seth Eastman, of the United States Army, in pursuance of his task of supplying illustrations for Schoolcraft's volumes, secured a daguerreotype of the rock, probably not the first that was ever taken, but nevertheless the earliest photographic reproduction of the inscription that has been preserved.¹ The circumstances of its production will be described in a later connection. After seeing it, Schoolcraft, who reproduced it in the fourth volume of his work on the Indian Tribes, came to his final conclusion concerning the inscription: "It is entirely Indian, and is executed in the symbolic character which the Algonquins call Kekeewin, i. e., teachings. The fancied resemblances to old forms of the Roman letters or figures wholly disappear." This opinion he repeated in

¹ See our Figure 16.

greater detail in 1860; but his comments at that time can be presented better after we have examined, in abbreviated form, his account of Chingwauk's interpretation. Reference to the numbers which he attached to his drawings (Figure 15) will aid in identifying the portions of the inscription under discussion.

I will introduce an interpretation which was made by Chingwauk, a well-known Algonquin priest or Meda, at Michillimackinac, in 1839. He is well versed in the *Ke-keé-win*, or pictographic method of communicating ideas. He is the principal chief on the British side of the river at Sault St. Marie. He is quite intelligent in the history and traditions of the northern Indians, and particularly so of his own tribe. Naturally a man of a strong and sound, but uncultivated mind, he possesses powers of reflection beyond most of his people. He has also a good memory, and may be considered a learned man, in a tribe where learning is the result of memory, in retaining the accumulated stores of forest arts and forest lore, as derived from oral sources. He was one of the war-chiefs of his tribe, in the perilous era of 1812. He speaks his own language fluently, and is still regarded as one of the best orators of his tribe.

To him Schoolcraft submitted the plate in *Antiquitates Americanæ* containing the drawings of Baylies and of Rafn. Chingwauk selected the former, and excluded from it the central characters, which he did not regard as belonging with the rest. It will be remembered that Schoolcraft himself at first considered them Scandinavian, but later changed his opinion. After scrutinizing the engraving, Chingwauk remarked: "It is Indian; it appears to me and my friend to be a *mus-zin-na-bik* (i. e., rock-writing). It relates to two nations." He then took the volume to his lodge in order to study it further, and on the following day gave the following interpretation:

All the figures to the left of the line AB relate to the acts and exploits of the chief represented by the key figure, Number 1, and all the devices to the right of it have reference to his enemies and their acts. The inscription relates to two nations. Both were Indian people. No. 1 represents an ancient prophet and war-captain. He records his exploits and prophetic arts. The lines or

plumes from his head denote his power and character. No. 2 represents his sister. She has been his assistant and confidant in some of his prophetic arts. She is also the Boon of Success in the contemplated enterprise, and she is held out, as a gift, to the first man who shall strike, or touch a dead body in battle. No. 3 depicts the prophet's or seer's lodge. It has several divisions, appropriated to separate uses. Part *a* denotes the vapor-bath, or secret sweating lodge, marked by crossed war-clubs. The three dots, in the center of the apartment *b*, denote three large stones used for heating water to make steam, and are supposed to be endowed with magical virtues. The sacred apartment, *c*, from which oracular responses are made, contains a consecrated war-club, *d*, of ancient make, and a consecrated pole or balista, *e*.

No. 4 represents a ponderous war-club, consecrated for battle. No. 5, the semicircle of six dots, signifies so many moons, marking the time he devoted to perfect himself for the exploit, or actually consumed in its accomplishment. 6 is the symbol of a warrior's heart; 7, a dart; 8, the figure of an anomalous animal which probably appeared in his fasts to befriend him. 9 and 10 are unexplained. 11 represents the number 40. The dot above denotes skulls. 12 is the symbol of the principal war-chief of the expedition against the enemy. He led the attack. He bears the totemic device of the Pighoo, or northern lynx. 13 is the symbol of the sun. It is repeated three times in the inscription; once for the prophet's lodge, again for his sister, and again for the prophet himself, as his totem, or the heraldic device of his clan. 14 represents a sea bird called MONG, or the loon. It is the prophet's name. 15 is a war-camp, the place of rendezvous, where the war-dance was celebrated before battle, and also the spot of reassembly on their triumphant return. 16 is an ensign, or skin flag, and 17 an instrument used in war ceremonies in honor of a victory, as in ceremoniously raising the flag, and placing it in rest after victory, to be left as a memento. 18, 19, and 20 are dead bodies, the number of men lost in the attack. 21 is a pipe of ancient construction ornamented with feathers; 22 a stone of prophecy; 23 unexplained; 24 without significance; and 25 a wooden idol, set up in the direction of the enemy's country, and within sight of the prophet's lodge.

The devices to the right of the line AB have relation, exclusively or chiefly, to warlike and prophetic incidents on the part of the enemy, represented by 26, 27. They are drawn without

arms, to depict their fear and cowardice on the onset. They were paralyzed by the shock, and acted like men without hands. 28, 29 are decapitated men, probably chiefs or leaders. 30 is a belt of peace, denoting a negotiation or treaty. 31 is the enemy's prophet's lodge; 32, a bow bent, and pointed against the tribe of Mong, as a symbol of preparation for war and of proud boasting; 33, a symbol of doubt, or want of confidence in the enemy's prophet; 34, a lance pointing to the enemy, a symbol of boasting and preparation; 35, an ancient war-club.

The purport of the section to the left of the line CD appears doubtful. Most of the marks appear without meaning. It appears to be the territory of the Mong tribe. 39, 40 are villages and paths of this people or their confederates; 41 is Mong's village, or the chief location of the Assonets, being on the banks of a river. It may also represent a skin flag used in the war, and the dance of triumph.

Schoolcraft himself attempts to interpret a few of the figures left unexplained by Chingwauk: 43 denotes war-like implements; 47, a banner; 45, a headless enemy, the drawing of which from the 1837 version, he forgot to introduce on his combination plate. The number 23 he attached to one figure on this plate, but to another on his "synopsis," where it applies to the character **M** just to the right of the CXXXI, 44. The M-like part of this, and of figure 42, he wrongly says has been interpreted by Mr. Magnusen as an ancient anaglyph, standing for the word men. In reality, Magnusen considered it a monogram for NAM, while the runic letter that he interpreted as men was the right half of Schoolcraft's 21. We have already made acquaintance with the latter's Scandinavian interpretations of a few remaining characters.

In 1860, Schoolcraft connected this interpretation by Chingwauk, made by him "with priestly skill in necromancy," with the battles and triumphs of the local Wampanoag Indians. He says there, in part:

The Pokanokets were descended from an ancient stock, and, it is believed, they established themselves on the peninsula, with the aid of their friends and allies, the Narragansetts and Pequots, after conquering the tribes which then held possession. Evidences of

their ancient triumphs have, it is believed, been found in the rude and simple pictographs of the country. These simple historical memorials were more common among the hills and valleys of the country, when it was first occupied, than they are at the present day. On the Dighton rock, the amazement of the vanquished at the sudden assault of the victors, is symbolically depicted by their being deprived of both hands and arms, or the power of making any resistance. The name of the reigning chief of the tribe, is likewise described by a symbol to have been Mong, or the Loon, and his totem, the Sun. The name of Wampanoag, by which the Pokanokets were also designated, appears to denote the fact, that they were, from early times, the custodians of the imperial shell, or medal.

It is hardly to be wondered at, after this, that Mallery, though speaking in the main appreciatively of Schoolcraft, remarked that he was "tinctured with a fondness for the mysterious," and that interpretation by Indians must be received with caution; or that Cyrus Thomas says that "this Indian's explanation is considered doubtful." He might well have spoken more strongly. "Beyond the fact that by habits of thought and training the Indian may be presumed to be in closer touch with the glyph maker than the more civilized investigator," says Henshaw, "the Indian is no better qualified to interpret petroglyphs than the latter, and in many respects, indeed, is far less qualified, even though the rock pictures may have been made by his forbears." We have found abundant reason to feel sure that any one may with equal justification interpret any of the pictographic figures on the rock in whatever manner pleases his own prejudice and fancy; there is no reason, therefore, to allow more weight to the priestly fancies and habits of thought of Chingwauk than to those of the Mohawk chiefs, or of a Gebelin, a Hill, or a Magnusen. All of them are picturesque and of historical value, all of them illustrate instructive phases of psychology, but all of them are snares and delusions if taken as possible truths.

That the practice of picture-writing was of extremely wide extent among the Indians is repeatedly emphasized by Schoolcraft. Thomas Ewbank contributed to a spread of knowledge

of this fact, and strongly cautioned "against an hypothesis, not more untenable than absurd—that of seeking to explain Indian characters by phonetic symbols they are fancied to resemble. . . . Why, there is hardly a tribal mark painted on the face of a savage," he exclaims, "or tattooed on his person, but the germ of some European or Oriental letter might be imagined in it. As well derive Indian totems from books of natural history, and insist that mocassins were imitations of our shoes and leggings of our stockings." Daniel G. Brinton also insisted that Dighton Rock presented only a specimen of a kind of writing that was common throughout the continent. "They are the rude and meaningless epitaphs of vanished generations." And again:

Some antiquarians regard all these pictographs as merely the amusement of idle hours, the meaningless products of the fancy of illiterate savages. But the great labor expended upon them and the care with which many of them are executed testify to a higher origin. They are undoubtedly the records of transactions deemed important, and were intended to perpetuate by enduring signs the memory of events or beliefs. . . . Archæologists are of the opinion that their differences [in different areas] are related to the various methods of sign-language or gesture-speech which prevailed among the early tribes.

George A. Shove, who was a life-long resident near the rock, and an artist who often made paintings picturing its surface and surroundings, wrote well of it in 1883, and attributed it to the Indians. We need to quote only a few of his words, since they give us no new facts, but merely testify to the growth of this opinion in a neighborhood where proof of a foreign and ancient origin would naturally have been more welcome because of its seemingly greater importance:

In considering the diverse theories that have been advanced as to the genesis of the sculptured characters on this famous rock and the difficulty, if not the impossibility, of proving or disproving either of them, it would seem as if the genius of mystery were brooding over the spot, hiding with an impenetrable curtain the meaning of the semi-obliterated characters, and one recalls the inscription before the mysterious temple of Isis, "yesterday, today,

forever, and no mortal hath lifted my veil." . . . Those who think the inscription merely an example of the rude pictographs of the Indians now meet with little opposition to their views.

The adoption by R. Andree, a German writer of influence, of the "most natural and simple view, that we have here only a very ordinary Indian petroglyph," was a further step in the advance of this opinion. As to the figures resembling runes,—it would have been far simpler to regard the resemblance as due merely to accident; such "runes" can be seen on a great number of rock-markings all over the world.

The conclusion thus definitely established by this time was well expressed by J. W. Powell in 1890, though without reference by him to its application to Dighton Rock: "One of the safest conclusions reached in the study of North American Archaeology, is that graphic art on bark, bone, shell or stone never reached a higher stage than simple picture-making, in which no attempt was made to delineate form in three dimensions, and in which hieroglyphics never appear."² Shortly after this the memorable study by Mallery of the pictographs of the American Indians appeared in its final form. In his preliminary paper he had already said of Dighton Rock: "It is merely a type of Algonkin rock-carving, not so interesting as many others." In the later discussion he notes its resemblance in character to many other Indian glyphs in various parts of the country—a resemblance which cannot fail to impress any one who impartially compares it with the many examples pictured in the book.

If we accept the essential identity in character and origin of our Assonet inscription and those on numerous other rocks, then the remarks of W. J. Holland on certain petroglyphs in Pennsylvania are pertinent, and emphasize an estimate of their significance different from that of most of the authorities thus far quoted. These are on the Ohio river, and are submerged except at low water. "I wish to say that I have no idea that they embody historic records. I picture to myself a tribe of lazy Indians camping on the edge of the river, engaged in fish-

² "Prehistoric Man in America," in *Forum*, 1890, viii. 502.

ing and hunting, and amusing themselves in their rough way by depicting things on the smooth surface of the stone with a harder stone. They speak of an idle hour and the outgoing of the pictorial instinct which exists in all men. I cannot see anything more important than that."

Among the latest expressions of opinion by students of the Indians, now shared by all authorities of this class, is the following by William H. Holmes: "The concensus of opinion among students of aboriginal art today is that the inscription is purely Indian, not differing in any essential respect from thousands of petroglyphic records (undecipherable save in so far as the pictures tell the story) scattered over the continent from the Atlantic to the Pacific." Still more recently, the same writer remarks: "Visions of mysterious races and lost civilizations haunt the minds of those only who have failed to keep in touch with the progress of archaeological research throughout America." Similarly Cyrus Thomas said in 1907: "The general conclusion of students in later years, especially after Mallery's discussion, is that the inscription is the work of Indians and belongs to a type found in Pennsylvania and at points in the west."

The great and indisputable result of research along these lines, the only ones which have yielded definite and lasting results in contributing to the interpretation of Dighton Rock, has been to establish clearly the Indian origin of most if not all of the lines and characters marked upon it. No other rock, of course, exactly duplicates its design. But those now known, of unquestionably Indian workmanship, that are like it in character are exceedingly numerous. In some cases, even resemblance to particular figures has been noted. Thus, Catlin gives plates showing pictures of an animal very like that prominent on Dighton Rock. Similar human figures are found on plates in Schoolcraft, Squier, and Mallery. Characters resembling the square O, the M, X, I, and R may be found in the same sources. Without such approaches to exact duplication, however, a general resemblance is repeatedly evident, and these authorities point out such resemblances in connection with an impressive array of localities: New Mexico, the Mis-

Mississippi valley, on the rivers Allegheny, Monongahela, Kanawha, Ohio, Guyandotte, Muskingum, Cumberland, Tennessee, Missouri, Susquehanna, on Lake Erie. Particularly close resemblance is evident in the case of the rocks at Smith's Ferry, Pennsylvania, pictured by Holland, and is claimed by Mallery for others in the same State, one near Millsboro, the Indian God rock near Franklin, the Big Indian rock and one at McCall's Ferry on the Susquehanna. Mallery notes that they are often found at waterfalls and other points on rivers and lakes favorable for fishing.

The numerous objections urged from time to time against the possibility that the aborigines of the region may have carved the rock have now been completely disposed of. To the early view that no similar Indian monuments exist, that the occupation and the designs were incompatible with their customs or their powers, we have received a complete and convincing answer. To the plea that the Indians were ignorant of the existence or origin of this and other inscriptions, and hence could not possibly be its authors, we may oppose the fact that the apparent ignorance might be due equally well to either of two causes frequently operative among them: unwillingness to reveal all that they know, or lack of the habit of transmitting from generation to generation knowledge of ancestral deeds, especially those of a trivial character. Henshaw says that "modern Indians often disclaim knowledge of or interest in the origin and significance of petroglyphs;" and Tylor tells us that "there is seldom a key to be had to the reading of rock-sculptures, which the natives generally say were done by the people long ago." In a case on the island of St. Vincent, Brinton found that "the present Indians know nothing of the origin, age or meaning of these monuments." Their actual or apparent ignorance argues nothing against the possibility that the work was done by their ancestors, even in the not very remote past. If it be urged that the Indians were too idle and lazy for such work, Squier and Mallery tell us what patient and laborious tasks they executed, and Holland and others express the belief that it was by very reason of their idleness that the picture-making amusement was engaged in. When the attempt

is made, as it often is, to clinch the unfavorable argument by claiming that they had no adequate tools, we learn on the authority of those who have personally tested it that the ordinary stone implements of the Indians sufficed; and moreover, if metal instruments had to be conceded, there is no evidence that the work was done until after metal tools had been supplied to the native tribes.

The realization that without any doubt most of the characters, at least, are Indian markings and pictographs, does not help materially toward discovering what information, if any, they were intended to record. Many opinions have been advanced, not as to their exact translation, but as to their general significance. We have seen some of our authorities, early and recent, believing that they are meaningless scrawls and pictures, executed purely for amusement, or even accidental marks made in the process of sharpening arrow-heads. The latter view is absurd, but the former must be considered as a possibility. Inasmuch as this question will assume serious importance in our own conclusions, it will be well to realize that the weight of present most authoritative opinion favors the belief that they were meant to record definite and important facts or events. Brinton's statement has already been noticed. Mallery says: "No doubt should exist that the picture-writings of the North American Indians were not made for mere pastime but have purpose and meaning. Their relegation to a trivial origin will be abandoned after a thorough knowledge of the labor and thought which frequently were necessary for their production. The old devices are substantially the same as the modern; and when Indians now make pictographs, it is with intention and care, seldom for mere amusement. They are not idle scrawls." Henshaw supports the same view: "Significance is an essential element of pictographs, which are alike in that they all express thought, register a fact, or convey a message. . . . That, as a rule, petroglyphs are not mere idle scrawls made to gratify a fleeting whim, or pass an idle moment, is probably true, although sometimes they are made by children in play or as a pastime."

Nevertheless, even so, there is no expectation that their translation would yield material of any historical importance.

Squier has been quoted as believing this. Mallery is of the same opinion: "Their employment to designate tribes, groups within tribes, and individual persons has been the most frequent use to which they have been applied. Some of the characters were mere records of the visits of individuals." Henshaw, likewise, agrees that "our present knowledge of Indian petroglyphs does not justify the belief that they record events of great importance. Their significance is more often local than general; they pertain to the individual rather than to the nation, and they record personal achievements and happenings more frequently than tribal histories; petroglyphs, too, are known often to be the records of the visits of individuals to certain places, sign-posts to indicate the presence of water or the direction of a trail, to give warning or to convey a message. However important such records may have seemed at the time, viewed historically they are of trivial import and, for the greater part, their interest perished with their originators."

If our own particular rock possesses any meaning at all, then we have suggestions that the event recorded may have been some important transaction, treaty, battle, or solemn occasion; or that the record is a depiction of hunting scenes. Some of the characters may be mnemonic reminders of events or of songs or formulae known by heart, or symbols of myth and religion. Some may be totem-marks of tribe or individual, closely connected with similar designs painted on the face or body. Catlin emphasized this, and Mallery holds that "the ideography and symbolism displayed in these devices present suggestive studies in psychology more interesting than the mere information or text contained in the pictures." Some characters may be English letters, initials of the names of Indians who had become familiar with the act of thus affixing signatures or marks to deeds. Some may be tally-marks, and some may even represent a map of some locality. Many writers believe that petroglyphic designs in general have an intimate connection with sign-language, which has prevailed here "to an extent unknown in other parts of the world," according to Mallery and others. In any case, whatever their original significance, they are unreadable. Thus Holmes says that "they cannot be

interpreted, save in rare cases where tradition has kept the significance alive:" and Henshaw agrees, in these words: "Whatever the subjects recorded by Indian glyphs, whether more or less important, the picture signs and their symbolism were rarely part of a general system, unless perhaps among the Aztec and the Maya, but are of individual origin, are obscured by conventionalism, and require for their interpretation a knowledge of their makers and of the customs and events of the times, which usually are wanting. In most cases only the writer and his intimate compeers possessed the key."

These are the most important suggestions that have been offered. Which ones among them may be accepted as really applying to our rock is a matter that must be reserved for later decision. It is evident, however, that in case any of these explanations are true, it would never be possible to genuinely translate the corresponding characters. Only if it were known from other sources that a particular formula was there mnemonically indicated, or a myth symbolized, or a particular event illustrated, or a particular individual's initial or totem or face-device inscribed, could we be sure that that was among the features of the record. Such procedure is manifestly not translation, but recognition of something already known as at least probably there. Whatever may be possible in the future, thus far not even a single item of such recognition of a meaning has been established for any of the Indian devices upon this rock. The differing hypotheses as to the general nature of the characters need not be taken as mutually exclusive rivals. It is probable that instead of one connected record, the rock-surface preserves marks made on many different occasions and for different purposes.

Although it is certain that most of the carvings were made by Indians, and that even the established presence of detached letters of the English alphabet would not necessarily indicate anything other than initials of Indians of colonial times, yet this does not exclude the possibility that there may be other records intermingled with the Indian ones. The many translations that we are assembling for their historical and psychological interest are all of them, we may be sure, mere pleasing

flights of imagination, grown-up's fairy tales, without foundation in reality. Yet the characters engraved there have always been so faint and obscure, even in the earliest days in which white men began to observe them, that no one can be sure of more than a small portion of the original lines. It is not impossible that, through improvements in photography or in other ways, hitherto hidden tracings, if there be any, may become known. When our historical survey is completed and we arrive at an attempt to draw conclusions of our own, we shall find it necessary to give serious consideration to some wholly new suggestions along these lines.

CHAPTER VIII

A MEDLEY OF RECENT OPINIONS

Next after the Norse and the Indian theories, that of ancient Phœnician origin has possessed an appeal that has gained for it the largest number of adherents. Its charm for the mystery-lovers has not yet ceased. Along with it, several other ancient theories have continued to attract supporters and been given greater detail, and a number of entirely new ones have been added to the long list. A consideration of these will complete our historical survey.

1. A Libyan Theory.—One of the new theories was advanced soon after the publication of the *Antiquitates Americanae*, by Edme François Jomard, “président de l’académie des inscriptions et belles-lettres de l’Institut.” He had been engaged for a long time, he said, in seeking traces of a dialect which he called the ancient Libyan, represented by the modern Berber, once universally spoken along the 80-day caravan route from Egypt to the Gates of Hercules. This was the common language of the caravans which, from before the time of Herodotus, engaged in the commerce of salt along the entire northern coast of Africa.

When I began to study the monument of Taunton, my surprise was great to recognize the analogy of its forms with the inscriptions of Fezzan and of the Atlas. I have never admitted the pretended derivation of American, Mexican or Peruvian monuments from India or from Egypt. What appears to me most probable is that the Africans of the Canaries, or even the Carthaginians, have been in contact with the Americans. Not only would the trade winds have carried them a thousand times to America, but they would also have been likely to have sought in this direction for riches such as the commerce of India and of China procured for the Asiatics. The inscription on the Taunton rock, although

of a barbaric design, presents forms which are unmistakably like the Libyan characters. . . . The monument is evidently ancient.

2. Revivals of the Phœnician Theory.—An article appeared in the Taunton *Whig* in 1839, strongly supporting the responsibility of the Phœnicians. The editor of the paper remarked that it consisted of “extracts from a letter written by a gentleman in our vicinity.” If this gentleman was not actually Joseph W. Moulton at least he used almost the exact arguments of the latter. Besides presenting the reasons for his own belief, he is authority for the fact of the visit to the rock in “1798” of “M. Adel,” which we have interpreted as meaning probably 1796 and M. Adet; and he claims to have seen the celebrated and elusive “bird”—which Moulton had not seen in 1824—and also on the south end of the rock a number of marks, observed by none before, including three triangles resembling the Greek Delta, and “the rude outlines of the head and body of a man.¹ To find these figures much depends on the position of the sun; I think the afternoon is the most favorable time for an examination.”

An anonymous writer in the *Dublin Review* of 1841 was attracted by the same possibilities :

This mass of traditions convinces us that the Phœnicians, Egyptians, and Greeks, were acquainted from the remotest times with Atlantic islands, peopled by Atlantians or Cimbrians, and that these islands comprehended the Americas. . . . It would be too bold to draw an inference from the monument, apparently Punic, which was found some years ago in the forests behind Boston. It is possible that some Tyrians or Carthaginians, thrown by storms on these unknown coasts, uncertain if ever the same tracts might be again discovered, chose to leave this monument of their adventures. Of their further expeditions there is no trace. Nor do we know whether these adventurers returned, or what attraction the marshy feet of the American mountains held out to the avarice of the Phœnicians.

Lossing expounded a sort of combination view about 1850:

¹ I doubt very much whether any marks exist on the south, or down-stream end of the rock. There are some, however, on the up-stream end, already described, ordinarily wholly invisible, but on rare occasions in unusually favorable light appearing with great clearness.

When we remember that the Phœnicians were for many ages in the undisputed possession of the traffic of the Baltic, around which clustered the Scandinavian nations, and that Runic, or ancient German inscriptions, in Phœnician characters, have been discovered in abundance in all the countries formerly occupied by these nations, the inference is plainly correct, that the Scandinavians received their alphabet from the Phœnicians. . . . Is it not reasonable to infer that these Scandinavians, acquainted with the Phœnician alphabet, made a record of the battle upon the rock [at Dighton], by a mingling of alphabetical characters and pictorial hieroglyphics?

William Pidgeon believed that the rock at Dighton offered strong evidence of the presence of Phœnicians or their descendants on this continent. He also had faith in the presence in this country of authentic relics of Romans, Greeks, Persians, Egyptians, Danes and Hindoos. He is perhaps a rather late survival of a type of person so delightfully described by a reviewer of about the same time that it may relieve the monotony of our pages somewhat to quote him:

The learned have occupied themselves in tracing the physical migrations of particular races of men; . . . how our Punic friends, the Irish, quitting Asia, strayed to the green isle and thence, finally, shilelah in hand, to "the land of the free and the home of the brave;" how our uncles the Welsh peopled the upper Missouri and turned into Kickapoo Indians; in what manner our cousins the Norwegians settled New England and were the original Yankees; and how the pyramid-builders of Mexico and Yucatan, the Aztecs, were nothing in the world but the lineal progeny of the Lost Tribes of Israel, who, to our thinking, were no great loss anyhow, judged either by their previous behavior or by their manners when found again.²

The next advocate in order of time, Onffroy de Thoron, presented such an elaborate and sparkling gem that we shall reserve consideration of him to the last among this group. A paper written in 1890 by George M. Young of Boston shows that this gentleman, who claimed to be "compiling all material obtainable" but who derived his information apparently solely

² "Notes on New Books," in *National Intelligencer*, September 13, 1848.

from Barber, possibly Schoolcraft, and Arnzen, inclined to the Phœnician theory. Rufus K. Sewall, vice-president of the Maine Historical Society, held that "Deighton Rock and Monhegan . . . are possible footprints not of Northern visits alone but of Phœnician adventure here." P. De Roo, in 1900, argued in favor of Phœnician and other pre-Columbian voyages to America, but held that Dighton Rock and other pretendedly Phœnician monuments "are all equally dubious." Nevertheless, Mathieu's theory appealed to him, and so did that of Norse origin, with the result that he concluded that "it would not be an unnatural deduction to presume that the famous Writing Rock may have been selected as the faithful guardian of great memories by both barbarian [Indian] and civilized nations." Herbert M. Sylvester seems to concede the possibility of a Phœnician origin when, after describing this and the Norse theory and denying that it could have been due to the Indians, he remarks: "Its antiquity is more remote, possibly, than as yet has been accorded it." Finally, in a Fall River newspaper of 1915, there is given in its entirety the old exposition by Gebelin with a remark by the editor that the extract describes "a probable visit by the Phœnicians" to Dighton, that many nowadays believe the inscription to be the work of Indians, and that the reader is left to choose his own belief.

As a fitting conclusion to our survey of these believers in the American commerce of the Phœnicians, we will now return to Onffroy de Thoron, Ancien Emir du Libau (1840). His book, mentioned apparently by only one writer on our subject and thus discovered only by rare good fortune, is of the extravagant type which is so refreshing when it is taken, not with the seriousness intended by the author, but in the spirit in which we read Gulliver's Travels. At the outset he tells us that he has discovered the fact of the triennial voyages of the fleets of Solomon and of Hiram to the river Amazon, where were the regions of Ophir, Tarschich and Parvaim, and whence the Phœnicians derived great wealth; and further, the primitive language, still living and spoken within the limits of the terrestrial Paradise—the Kichua language of Peru. Now he announces his third great discovery, to the effect that the Phœni-

cians made voyages to Haiti and also, taking a northerly route past Iceland and Greenland, marched southward by land, followed by other fragments of maritime and commercial people; and, as the centuries went by, their families were mingled with the autochthonous populations, which absorbed them, though their language still survives in Mexico under the name of Tsendal, and likewise their story of Votan, mysterious founder of the colonies and of the cult of the Serpent. Dighton Rock supplies a proof of these migrations.

He follows the Rafn version of the inscription, reproduced from Gravier. Its characters are not Norse, but Phœnician and Campanian. He displays apparently deep philological learning in tracing the local usage of each letter and the derivation and significance of each word that he recognizes. Into these ramifications we shall not follow him. Beginning with the marks on the breast of the bust at the left,—from which Gravier had omitted the horizontal line, thus leaving three separate characters—he identifies them, reading right to left, as the Phœnician letters *m, l, n*: *mâlôn*, equivalent to the sepulchral phrase “here lies.” This *n* and this *m*, he says, are the characters which Magnusen accepted as meaning Northmen—a new error in placing the actual characters thus read by the much misunderstood runologist. The allegorical image at the right of the bust—the little Snorre of the Rafnites—represents a buried person, upon whom and by whose side tears are seen.

To follow the rest of his translation by aid of the drawing,³ we must begin with the familiar CXXXIM line and continue it, trending upward, to the O equipped with a descending tail; and below, beginning with the hour-glass arrangement of the shoulder of the bust, proceed through the intervening characters to the end of Rafn’s ORFINS. Reading from right to left, the tailed O is a *q*, the long curve an *n*, the square an *o*, and the triangle an *a*: *qanoa*. The inverted Y is *g*, the A, *d*: *gâd*. The rest of the M, an inverted V, is *g*, and the I is *l*: *gal*. Two X’s form the word *theth*. The next X is again *th*, the gamma is *p*: *thop*. Passing to the rightward end of the line below, the S part of the terminal X is *sh*, the stroke that crosses it is *l*,

³ Rafn’s drawing, Figure 6, No. IX.



Fig. 16. The earliest known photographic representation of Dighton Rock: daguerrotype by Capt. Seth Eastman, 1853

and the rightward half of the N is again *l*: *shâlal*. The other half of the N is *l*, the I is *n*, the F is *g*, the R is *r*: *le-nâgar*. The diamond-shaped O is *o*, the curving line to the left of it is *n*, the dotted line descending from the latter is *g*: *oneg*. Then the dotted curve with its opening to the right is *l*, the diagonal stroke leftward from it is *g*, the curved line attached to the latter is *l*: *le-gâl*. The upper part of the last-named curve is *l*, the O beyond it is *o*, the hour-glass is *q*, and the stroke meeting its inner angle is *l*: *qal-lo*. The entire message is translated by its gifted decipherer into both Latin and French: "Invidiosus fortunæ, ruinas dare feriendo spoliabat: Effusa est vita delicata sicut unda rapida"—"Envieux de la fortune, pour causer les ruines, il pillait en frappant: Sa vie voluptueuse s'est écoulée comme l'onde rapide." Since this turns out to be apparently the most puerile announcement that the old rock ever has been compelled to yield, the reader may study both of these versions in order to make out of them as much as he can. Taken in connection with the word on the bust, the buried person, and the tears, the whole may be freely rendered: "Here lies one whom we mourn. Seeking to enrich himself, he fought, pillaged and laid waste. His luxurious life passed by like a rapid wave."

Judging from the transitional character of some of the letters used, the author concludes that the emigration from which this inscription is derived took place approximately at the time of the conquests of Alexander the Great,—which would assign to it a date not far from 330 B.C.

3. The Work of Pre-glacial Man.—Aside from Mathieu's Prince of Atlantis, the Phœnicians are the most ancient people to whose agency the marks on Dighton Rock have been seriously attributed in any printed source. But an antiquity incomparably more remote, extending to perhaps 25,000 years ago, was suggested by E. E. Blackman in a paper prepared for the Nebraska Academy of Science in 1917. He visited the rock in 1907, and compared it with the petroglyph on the University campus at Lincoln. Both of these rocks, he believes, contain pictographs of the American Indian, but also another set, with a different manner of execution and a different individu-

ality, much older and more weathered. Among the latter, on the Dighton rock, he includes an X, single and double "turkey tracks," a dotted C, a "three dots" figure, and a figure of parallel lines. These ancient marks, he thinks, for reasons which are not made very clear in the paper which he courteously permitted me to read, could not have been carved where the rocks now stand, and must have been engraved before the rocks were brought to their present sites in the glacial drift.

4. A Druid Stone of Sacrifice or of Memorial.—We have met with this view as advocated by John Finch in 1824. It was greatly and interestingly elaborated by James N. Arnold in 1888, with particular application to the Narragansett region. According to him, the Druids of Britain had colonies far to the west, across the great water. Their main cultural and religious centre was in the "summer land" of the Narragansett country. They were worshippers of sun and moon, of stones and rocks and the forces of nature. Though they were eventually displaced by a mound-building race which had migrated from Atlantis by way of Mexico, and these in turn by the Narragansett Indians, yet, through intermarriage, the Celtic blood and their religious beliefs and practices persisted in the descendants of their conquerors; and thus the inscriptions on Dighton and other sculptured rocks, though Indian, were executed under inherited Druid influences.

5. A Roman Catholic Invocation.—Buckingham Smith, who was an eager student of Mexican history and antiquities, suggested in 1863 a new type of interpretation of a portion of the inscription. In the midst of the emblems of the aborigines by which they are surrounded he finds a series of letters which he believes to be initials or cyphers used in the Catholic church for words of sacred significance. We are not told what characters of the rock were so taken; but there is practically no doubt that they were, as read by him from a single line of the Rafn drawing: I. XXX. I. **M**. I. This he interprets as meaning: Jesu Christo Santissimo Jesus Maria Josef. "Mr. Smith suggests that these inscriptions may possibly have been derived from Spanish missionaries who penetrated the country at a very early period, of whom no account has been transmitted;

and refers to the stone found in Onondaga county, New York, which has upon it the figures 1520, as perhaps determining the period of these memorials."

6. A Chinese Version.—Among the persons and peoples who have fallen under suspicion of having fabricated the stone document that we are examining, the Chinese, though vaguely hinted at, were never given serious consideration. At last, however, a keen modern detective followed out the clues to the final establishment of their guilt—at least to his own satisfaction. We are unable in his case to compare his translations with the characters transliterated and translated, as we have attempted to do in all previous cases when the author furnished the necessary information. In this case, we shall have to content ourselves with the results, without understanding how they were reached.

On March 1, 1883, the Rev. John P. Lundy made a communication to the Numismatic and Antiquarian Society of Philadelphia "upon a remarkable fact which he had just discovered after long study, viz., that the Mongolian symbolism of writing was to be found on the rock-sculptures of Mexico and Central America, and that by the aid of the former the latter could be readily and easily deciphered; that these latter were evidently of Mongolian origin, and that he had interpreted some of the symbols in Stephens' *Yucatan* by means of Mongolian symbols." On April 5, he read an essay upon the Dighton Rock inscription, which he claimed to have translated by means of Chinese radicals, to the following effect:

A chain or band of folk from the Sunrising (or East), after a long and stormy voyage, found the harbor of a great island. It was wild, uninhabited, green and fruitful. On landing and tying up our boats, we first gave thanks and adoration to God, Shang-Ti, the Supreme Ruler of the Universe. We then sacrificed a human head to the moon, burning it and the body on a round sun-altar. The next morning a bright sun shone auspiciously on all things below; the heavenly omens and prognostics, duly consulted, were all favorable. We then struck across the tangled forest-land westward. Our mouths hankered after something to eat and drink. We found the blue-black maize of our native land and wild fruit. We filled our rice-kettles. We dug a pit under the rocks of a

hill-side, put in our corn and fruit, and cooked them. We sat down under the shady trees, covered with wild grapes, and ate our fill. When the moon rose, we retired to our hut or bough-house, and slept. The next day we pushed on westward through the tangle, guided by the sun. The chief gave the orders and led the way. We all followed in close march. We crossed some low hills and came to green meadows, filled with wild rice or oats. A stream of water came down from the hills. We stopped; we made a great feast; we sang and danced around our big kettle; its sweet odors curled up high to Shang-Ti, our God and Father in heaven. This memorial-stone or altar is dedicated to Shang-Ti, our Ruler and Guide to this newly-found island.

7. Diabolism.—Cotton Mather, who first introduced our rock to the notice of the world, taught that it was probable that the Devil seduced the first inhabitants of America into that continent, and—

therein aimed at the having of them and their Posterity out of the sound of the *Silver Trumpets* of the *Gospel*, then to be heard through the *Roman Empire*; if the *Devil* had any Expectation, that by the Peopling of *America*, he should utterly deprive any *Europeans* of the Two Benefits, *Literature* and *Religion*, which dawned upon the miserable World, one just *before*, t'other just *after*, the first famed *Navigation* hither, 'tis to be hop'd he will be disappointed of that Expectation.⁴

Leonard Bliss, in 1838, expressed wonder that Mather, believing that the Devil led out a colony of miserable savages to America for the reasons stated, "had not also suggested the idea that this rock probably recorded some event connected with that expedition of his Satanic Majesty and that the strange characters were the work of Tartarian chisels."

8. A Record by Romans and by Christ.—Diabolical influences have been humorously attributed to Dighton Rock. But our next authority seriously claims that some of its records were inscribed by the Son of God himself. Anyone who has followed our chronicle thus far can be no longer surprised, shocked, or convinced by extravagant claims of any sort. They may arouse admiration for their ingenuity and appreciation as

⁴ *Magnalia*, bk. i. ch. i. p. 2.

fresh examples of pleasing fiction. They serve instructively as illustrations of curious psychological processes in the formation of beliefs. Impossible as they are, they are nevertheless intriguing, and deserve preservation as historical phenomena.

In 1910 there was published a beautifully printed and illustrated folio volume of 432 pages under the title: "Fernald Genealogy. Universal International Genealogy and of the Ancient Fernald Families. . . . By Charles Augustus Fernald, M.D. . . . Principal of G.U.S. & F.A." This extraordinary book purports to trace the genealogy of the Fernald family back to Ava and Adam, our first parents, who were created 4376 B.C. The author claims to have discovered the primitive language (which was Egyptian) and the primitive alphabet, and his method seems to be to first translate his ancient documents into these, and thence into English in a manner peculiar to himself. As evidential documents, there seems to be nothing mysterious and unreadable that does not serve him. Incidentally, he claims that George Washington was a Fernald, and that he so signs himself in his well-known signature; that William Shakespeare was the *nom-de-plume* of Samuel Washington, who also was a Fernel; and even that God's name in the primitive language was O, which means Fa, equivalent to Fernald.

The lack of an index and the almost utter lack of system in the arrangement of his rambling and frequently irrelevant material, make it difficult to give an impartial and reliable account of his claims and of their basis. For most assertions, no evidential basis is even suggested. Scattered here and there, however, can be found a few examples that seem to show his method of interpretation. Usually he gives no indications whereby the reader can at all follow and test his readings; but the instances that follow may be taken as typical.

On pages 29 to 32 he gives "six all true translations from a grave tablet in Ægypt." They differ utterly. For one of them, he reverses the plate "to show one mode of reading;" and in an adjoining plate he shows "the inscription on Dighton Rock reversed to show one of six readings." So far as the reader can judge from text and plates, the six readings from the

Egyptian tablet are identical with the six from the entirely dissimilar inscription on the rock. His method permits him, evidently, to find any desired meaning anywhere, and as many different translations from one source as he wishes. On page 79 is figured a "coin of Alexander." We are told that thirteen dots that appear on a sword-blade there represented, as also on a well-known Egyptian drawing that he calls the "Ham Map" (best shown on page 278), "represent stars that foretells U.S.A." Eleven o's are "a prophecy that child of line shall write the lines as declared above." An A is the pyramid in a lake in Oregon, the garden of Eden; the white spot in it is "name pure God." An insignificant curved black line "is the so-called Serpent Line Mound at Adam's County, Ohio." A long thing that looks more like a knobby club than anything else is "a line of waters that represents Dighton Rock and River Taunton." A short pointed mark or wedge is "a fallen pike point carved on said Rock prophesying fall of killed Alexander and Sassan." A T is a "monogrammic spelling of Noah and Lamar, Ham, Araat, and turn the coin upside down and T symb. declares Lamar Noah and Hm. went from Araat and next symb. 'to pyramid Lake, Oma'." He thus concludes this interesting study of a single coin:

To be complete some of capital point mentioned would enlarge this work, far beyond the intent to more than bring before all, especially expert linguists, positive evidence to glean, for the granary store house of history, crude sheafs of TRUE unwinnowed perfect grains that if well received—is to be put into 2nd Edition: the opponents will be, are those, set forth in past Encycliæ who profit by ignorance and sin.

It is clear that Fernald assigns any desired meaning to any symbol; and there are a few cases (as on pages 218, 266) that show that he also, whenever it suits his convenience, selects letters at random from different parts of any source, and puts them together to form any desired words or even uses them as initials of whatever he has in mind. We may be tempted to dismiss the whole elaborate nonsense as unworthy of further consideration; but after all it furnishes a beautiful *reductio*

ad absurdum of all those methods of interpretation that find in the rock's inscriptions evidence of ancient Phœnician voyages or Icelandic discoveries.

In the entire work, I find fifty cases of mention of Dighton Rock. The author claims to have made sixteen photographs of the rock in 1903, but shows none of them. Three times, however, he reproduces the Job Gardner drawing, once inverted "to show one of six readings." In addition, he gives twice what appears to be an original drawing of the shoreward slope of the rock with initials and other markings upon it.

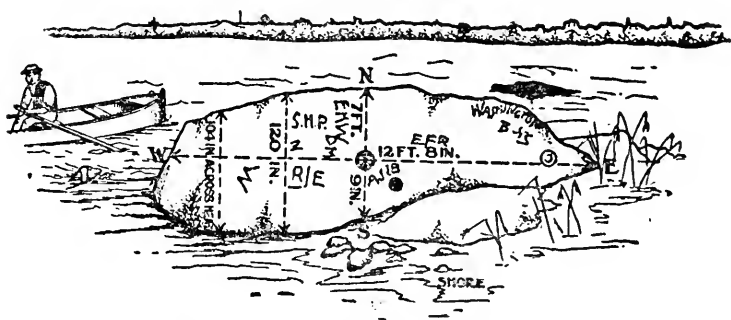


Figure 17—Drawing of the Shoreward Side of Dighton Rock by Charles A. Fernald, 1903.

Of the characters on the rock, mention is made of an 8, of two squares "placed cornerwise on Rock with a line showing them returned," and of three O's, "ancient names of Trinity," one of which was "added by Christ that gives the time he taught at that locality." There is no indication given of the translation of any other marks on the face, unless an XV, an XXIII, and a combination of three letters resembling O Delta Upsilon which he mentions, are supposed to occur there. On the shoreward side (Figure 17), we are told that there occur, in positions indicated in the drawing, (1) the name of Christ included within that of God (a C within a circle); (2) the name of Washington, "distinct in first three or four letters;" (3) the names of Chia and Bahman; (4) the name of Marcus Agrippa over that of C. Furnius, or of C. Furnius over Agrippa; (5) the names

of Noah and Ham; (6) an ancient compass; (7) many initials. Finally we are informed (page 427) that "on Dighton Rock was photographed by me characters that Marcus Agrippa Lucius Furnius was conversant with as is found in his chiseled inscription containing primitive language that Christ used when he conversed in 'tongues.'"

This is all that we have of interpretation that can be assigned to particular characters. But, without further understanding its justification, we are given a story which may be assembled from scattered passages as follows:

Marcus Agrippa Lucius Furnius, the great Naval Commander of the Emperor Augustus, sailed with five ships from Roma in 29 B.C. to Annona (Anon, Omo, Ama, Amo, Augustii, Amarica) where God in the Garden of Adn first created woman and man, Ava and Adm, and their seed. There, in the primitive language of lines, he engraved the fact and date on Dighton Rock, and on it raised the Sea Green Flag given to him by the Emperor; and also wrote his name over that of C. Furnius (unless the latter was the later). He returned from Omo 28 B.C. with three ships, wife, son and daughter. He left behind his son Graecianus Julius Caius Furnius and daughter Isabel, who commenced the Newport Tower before he left, for defence, Temple, and Monument. The son did not complete the Tower, but returned to Rome with one ship and fifty men. His name and his father's appear not only on Dighton Rock, but also in the Monhegan Rock inscription, which dates from 1013 B.C.

In 15 A.D. Christ sailed from Rome to Anona, and wrote his name on Dighton Rock. The following is "translated from Dighton Rock inscription" (page 8):

Theos, I Christ, the son of my Heavenly Father God come up from the waters and write my name within that of God on this Rock and Engrave hereon for men and the sons of all women and men for I am sent by the Father to teach that all who believe in me shall have Eternal Light for I AM HE THAT I AM: I the son of God the Father and God the Holy One of Israel, sail from Roma XV to Anona the land of Omo, Ama where God from Air, Earth, Electricity, Radium, Water made woman and man,

Ava, Adam in his glorious form and image to be children of the Light and Multiply for the glory of God. I Christ the son of God to teach you to do the works of my God who gave to you his symbolic letters OΔΥ here shown. Returned 10 plus 10 plus III = 23 to Roma, etc.

Another translation is given, purporting to be from "an Ægyptian tomb at Eileithyias" (pictured on page 29 and again inverted on page 33), and to be also a translation of the inscription on Dighton Rock. It is one of "six all true translations" of these two records (page 32):

THE FIFTH TRANSLATION HISTORICAL CORRESPONDING WITH INSCRIPTIONS ON DIGHTON ROCK, TAUNTON RIVER, MASSACHUSETTS, UNITED STATES OF AMERICA
BEAUTIFUL HIEROGLYPHICS AND LINES STRANGE

God the Eternal Mother and Father of Christ the Son to be Born from Mary and Joseph:—"XV, I, Christ the Messiah, came by Ship from Roma, to be known Dighton Rock, Taunton River, Massachusetts: and say I, the Great Spirit, Chisel My Name in the Rock in My Father Fa (O=Fa=God name) * On the Rock East of where Marcus Agrippa Lucius Furnius, Driller of the Names of God the Holy One and God the Father, and from former raised the Sea Green Flag: by Chart and Compass * * I came bringing to the Land of Omo, Ama=Annona=Augustii=Amarica, foretold by Moses, the Serpent Mound Land, bringing the Sacred Rolls, Squares and Tablets given to Ava and Adam and Seven Laws, where Cain was born, given: I taught the Antedeluvians from the Squares to be One with Trinity, that willed all United in Brotherly Filial Love a Branch of Triune the Manitou God: I taught: 10 and 10 and 3 years returned to Roma: Thus my Father God ordered and made most perfect, His children, Female and Male, Daughters and Sons line to count by the Stars, Completed in Messiah Christ and Saviour." This and much more is read in the inscription from Dighton Rock, that the tide conceals and reveals twice in twenty-four hours; fast disappearing, without (till this hundreds of years past) correct translation lost, which, is honestly, carefully presented for Justice, verity.

In 221 A.D., Fnr Chia, daughter of the Emperor of China, a descendant of Fut, son of Ham, founder of China, and of M. Agrippa, with her husband Fna Bahman of Persia, sailed with two vessels from Fars (Persia), with Agrippa's Chart Log and Compass (the latter shown on the Rock), and finished the Tower Temple at Newport. Their names are carved on Dighton Rock. The people were fierce and bloodthirsty, and slew Bahman and many of his people. He died June 8, 223, and was buried (as was also an infant child born here) under the Tower. Their eldest son, F. Sassan, also died on December 10, and was buried with his armor on, and with his sword and spear, near the mouth of the river TSEON or Taunton (a picture of the Fall River skeleton is shown on page 8). With another son, Chia visited the Serpent Mound, built by Ava and Adam. She died May 6, 230; and her features are sculptured on the stone at Copan in Central America. One son became ancestor of many great nations in Anona; a second went to China and was ancestor of Confucius!

9. Minor suggestions.—A number of these have been made, without receiving any elaboration in detail.

a. Post-Columbian white men.—We have seen that Kendall related two traditions, attributing the sculptures to English sailors. Samuel A. Drake concedes that it is generally admitted that the inscription is Indian; but adds that if the work of white men, it would strengthen the theory of Verrazano's presence in these waters. Laing asked what there is to prove that these marks are not the work of early European settlers, or the scratches of some idle sailor boy. Edward Everett also, it will be remembered, thought that there was a possibility that they were made by some Anglo-American between 1620 and 1675. Schoolcraft, in his review of 1839, suggested that the English or Roman characters might have been added to the Indian marks by some idle boy or more idle man, in sport. Baxter informs us that some writings on the Maine coast, claimed to be Norse, are known to have been made by boys, for sport. Squier also, in his paper of 1848, was of the opinion that some of the lines were preserved from disappearance, or even brought



Fig. 19. Plaster Cast of Dighton Rock by Lucien I. Blake, 1876

into existence, by the constant rubbing to which they are exposed from the sticks and canes of visitors.

b. Pirates and Buried Treasure.—We have the authority of Kendall also for a vague tale of pirates who made the inscription. Such rumors are not yet dead in the neighborhood. A resident of the town tells me that when he was a boy he knew an old man who claimed that he could read the inscription on the rock. Its purport was to the effect that “I, so-and-so, have buried treasure in such-and-such a position, measured thus-and-so from this rock.” In connection with such tales, we have already noticed James Winthrop’s story of much digging for treasure in the vicinity, and Kendall’s mention of it. According to the *American Whig* of Taunton, there seems to have been a recrudescence of such activities about 1850. “Some think that here exists another El Dorado. Others suppose that some piratical freebooters hid money near, and that on this rock they recorded the means of finding it. The more probable hypothesis is that the Northmen, being about to leave this country for their own, with an idea of returning to plant a colony, buried all their wealth and chiseled upon this rock a sort of chart by which the earth might afterwards be made to yield up its trust. The owner finds the frequent visits of fortune-seekers so annoying that he threatens to blow up the rock.” A correspondent who lived near the rock years ago knew an elderly lady, who, when she was a girl, knew of a treasure-hunter whose enterprise terminated when he slipped and broke his leg. The most circumstantial tale that I hear in the neighborhood is the following, related by a man who knew the hero of the tale when he was a boy. The said hero dreamed for three nights running that he had found treasure near Dighton Rock. Consequently he went to it at low tide and began digging. He quickly noticed that the tide began to rise almost immediately, although it was long before the time for it to do so. Thus interrupted in his digging, he turned toward the river. In the mist before him he saw the devil, equipped with all his paraphernalia of tail and horns and cloven hoof, mocking and laughing at him. Convinced that the treasure was effectually guarded he fled in terror.

c. The Work of Nature Only.—In the earliest period of this history, we found a few who believed that nature alone, with its weather-cracks and veins and stains, was the sole designer of the figures on the rock. Besides the other suggestions referred to above, Laing hints that the “Deighton Written Rock would perhaps be the better of a certificate from the mineralogist, as well as the antiquary.” Webb tells us of one person who was positively sure that there is no inscription on the rock. In a letter of February 4, 1838, he complains to Bartlett: “John Whipple laughs at the whole affair, denies that there are any such figures as we represent on the Tiverton Rocks, *having visited them* many times, that there *are hundreds of just such rocks* in our Bay, all of which were *marked by the action of water, stones, &c.*, and that these markings have by the conjurings of our imaginations been fashioned into the shapes delineated on our plates. He considers the Inscription Rocks, Animal Magnetism, & Phrenology, among the humbugs of the day.” Apparently he refers to the same person in his letter of sixteen years later to John Ordonaux, in which he says: “One denied that any kind of Inscription was on the Assonet Rock; declaring that the markings were mere *lusus Naturae*; or at most, simply the results of combined action of wind, water, ice and kindred influences.”

d. These miscellaneous theories would be incomplete without mention of one which I believe to be a complete fabrication. A boy of fourteen or fifteen years residing temporarily in Dighton told me that he could read the inscription on the rock. The characters, he said, are all Indian names. He knew a dozen or so of them, but a friend of his once knew them all, about fifty in number. He could remember only the names Leo, Viola, Varcana—the first being the name of the infant pictured there. He could not describe the characters that spelled these names, except as different kinds and groups of X's; nor could he draw them. He would have to show me on the rock itself,— and we never found opportunity to go to the rock together. He claimed to have studied the Indian language and writing at a high school in Vermont. Among the neighbors he had the reputa-

tion of telling big stories; one said he was "just a plain liar;" and a report from the school where he gained his unusual ability to read Indian writings naturally disclosed the fact that nothing of the sort had ever been taught there. But it is worth while to have a "plain lie," especially when so picturesquely developed, to add to our collection.

It will be helpful toward a grasp of this complex study to make a few summarizing statements. Of independent attempts to represent faithfully the appearance of the inscriptions, in whole or in part, aside from my own, I have found forty-two. The earliest was in 1680. Twenty-two of them are drawings of the face, but six of these are now undiscoverable. One is a drawing of inscriptions on the shoreward slope. Two are ink-impressions, one a plaster cast. The remaining sixteen are photographs, of which the earliest, an alleged daguerreotype of 1840, cannot now be found. For all the photographs except three the supposed artificial lines were brightened by means of chalking or some similar process. Many of these depictions have been described in these pages, and an enumeration and description of all of them will be given in the next chapter.

Of theories advanced to account for the origin of the inscriptions, in whole or in part, we might enumerate more or fewer according to whether we include vague allusions and statements of mere possibility as well as completely formed and defended theories, according to the degree to which we make distinctions among those that differ only slightly, and according to whether we admit parodies as well as seriously entertained views. Our list below includes all of these varieties, and gives a separate number to each one that, though it refer to the same people as another, may be considered a different and independent theory. In a parallel column, with separate numbers, are the names of those who have presented a translation, complete or partial, in harmony with the parallel theory; and even an assignment of meaning to one or two figures or characters is classed for this purpose as a translation. The order is roughly that of the antiquity assigned to the inscription:

THEORIES

TRANSLATIONS

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Not satisfactorily explained. 2. The work of Nature only. 3. A pre-glacial race. 4. Egyptian priests, 2700 B.C. (a criticism, not a serious theory). 5. In, Prince of Atlantis, 2102 B.C. 6. Phœnicians or Carthaginians. 7. A definite Carthaginian expedition. 8. Tyrians and Jews, about 1000 B.C. 9. Another Phœnician adventurer, about 330 B.C. 10. A Hebrew people; the Lost Tribes. 11. Persians. 12. Trojans. 13. Ægypto-Drosticks (a hoax). 14. Egyptians. 15. Libyans. 16. Romans; also Christ and others. 17. Scythians or Tartars. 18. Scythian Celtic Druids. 19. Japanese. 20. Chinese. 21. The Norse Colony of Thorfinn, about 1008 A.D. 22. The Norse Bjarna (a parody). 23. Prince Madoc, about 1170 A.D. 24. The Devil (humorously suggested as what ought to have been Cotton Mather's theory). 25. An early native race, predecessor of the Indians. 26. The Indians, by accident in sharpening arrows. 27. The Indians, as an actual record or records. 28. Miguel Cortereal, 1511. 29. A Roman Catholic missionary, about 1520. 30. Verrazano's expedition. 31. Other early English sailors. 32. Pirates. 33. American colonists or boys. 34. Modern visitors with sticks and canes. 35. Initials undoubtedly carved by visitors not Indian, since 1620, some recent. | <ol style="list-style-type: none"> 1. The author. 2. Mathieu. 3. Yates and Moulton. 4. Gebelin. 5. Ira Hill. 6. Onffroy de Thoron. 7. Samuel Harris. 8. Dammartin. 9. Fernald. 10. Lundy. 11. Magnusen. 12. Rafn. 13. Gravier. 14. Lowell. 15. Kendall's Mohawk Chief. 16. Chingwauk. 17. John Davis. 18. The author. 19. Buckingham Smith. 20. Perhaps Danforth. |
|---|---|

Excluding four theories that were not seriously advanced, and nine others that have been barely suggested as possibilities without any defence of them, there remain twenty-two theories that have been definitely held and defended.

In connection with this amazing variety of theories as to origin and of beliefs as to meaning of the inscriptions in gen-

eral, it is exceedingly interesting to bring together the different meanings that have been assigned to particular figures. The entire assembly of lines to the left of the large human figure have been interpreted as a Phœnician date, an Egyptian date, zodiacal constellations, Thorfinn's ship and its surroundings, the camp at Straumfiord, the village of the Assonets. One character within it, sometimes drawn like the letter P, has been a Phœnician letter, an Egyptian monogram, a rune, a constellation, a noose-trap. The human figure itself has played the role of Neptune, Gudrida, Thorfinn, a person killed by an animal, a hunter, an idol, the Chief Mong, the constellation Virgo, the first American king and tyrant. The small figure at its feet possesses versatility enough to pose as a priest, as Chief Mong's sister, Thorfinn's baby son Snorre, Horus as son of the virgin goddess, a buried person with tears upon and near him, a part of the constellation Leo, a symbol of the second month of the tenth year of the reign of Solomon, and a portion of the date 1511 with circles above and below it. The clear-cut triangular figures in the uppermost central region are a Carthaginian camp, a seer's lodge, a collection of constellations about the northern Pole, a deer-trap, a shield. The apparently alphabetic characters near the centre are the name Thorfins, the name Cortereal, the constellation Aries, the constellation Gemini, the Icelandic word OR, the Phœnician words shâlal le-nâgar oneg, or a collection of indecipherable non-alphabetic lines. The famous animal below this has figured as a beaver, an unnamed dangerous animal, a deer, a composite animal with insect's wing, a bull, a winged and horned Pegasus, an unknown Asiatic animal, a leopard, a lynx, a constellation, a collection of leaves and vines symbolizing a fertile land, a map of the coasts of Europe,—and it might perhaps just as well represent a coon, a skunk, or a chipmunk. The lines next rightward of the three last mentioned figures include a deer-trap, a human trunk, a horse, a constellation or two, Thorfinn's shield, Thorfinn himself, a canopy over a throne, a wooden idol, a map of the Mediterranean. We might thus continue at great length; but enough has surely been given to discourage anyone acquainted with these facts from making further attempts to assign unsupported meanings to any portions of the inscription.

CHAPTER IX

REPRODUCTIONS OF THE DIGHTON ROCK INSCRIPTION

The many drawings and photographs of the rock's inscribed surface are fully as important historically and psychologically as are the theories that we have surveyed. They are also useful, though to a surprisingly small extent, in helping to solve the difficult problem as to what was actually inscribed. No single one of them by itself can be at all trusted. With few exceptions, they are based upon chalkings of selected lines upon the rock which are necessarily inaccurate, because it is absolutely impossible for anyone, in the brief time devoted to the task, to make his selections correctly. Yet each informs us as to what someone has seen, and thus suggests things to look for and to confirm or correct after more adequate study. Our final decisions must be based upon prolonged and minute study of photographs of the natural unaltered surface. My own recent ones, taken by flashlight and without perspective distortion are beyond question the best yet produced for this purpose. But they need to be supplemented by others, taken under different conditions of lighting. I shall describe several which I have found serviceable in this way.

All of the drawings made down to the year 1834 have already been described and are again listed below. Following these, all traceable depictions of later date are mentioned, together with the circumstances of production of each.

Reproductions of each by other authors are listed, the Figure in this volume where it is shown is given, and, following the abbreviation "C.S.M.," the plate, volume and page of its reproduction in the *Publications of the Colonial Society of Massachusetts* are indicated.

1. John Danforth Drawing, October, 1680.
 - a. Original, probably that of Greenwood's Letter B,

- in British Museum. About 3 x 8. Unpublished copy in Royal Society Register. Figure 7. C.S.M. Plate XV, xviii. 288-289.
- b. Cotton Mather's copy of *a*, in *Wonderful Works*, 1690. $\frac{1}{2}$ x 3. Reproduced by Mather in his later amplified drawings. Figure 8. C.S.M. Plates III, VI, xviii. 242, 254-255.
 - c. Greenwood's copy of *a*, 1730, in British Museum. Reproduced by Bushnell, 1908. C.S.M. Plate XI, xviii. 274-275.
 - d. Copy of *c*, in Society of Antiquaries of London, 1732. Reproduced by Lort, 1787, and thence by Rafn, 1837; Winsor, 1889; Mallery, 1893. Figure 6. C.S.M. Plates II, III, xviii. 238-239, 242.
2. Cotton Mather's Drawing, 1712. Only the lower part new, by an unknown draughtsman. This part is always inserted upside-down.
 - a. Original unknown. About $1\frac{1}{2}$ x $3\frac{1}{4}$. Reproduced in *Philosophical Transactions* 1714, in *Philosophical Transactions Abridged*, 1721, Lort, Rafn, Winsor, Mallery. Figure 6. C.S.M. Plates II, IV, VI, xviii. 238-239, 246, 254-255.
 - b. Mather Broadside, possibly about 1714. Originals in Massachusetts Historical Society and Yale University Library. C.S.M. Plates V, VI, xviii. 250, 254-255.
 3. John Smibert's Drawing, about 1729. Lost.
 4. George Berkeley's Drawing, about 1729. Lost.
 5. Isaac Greenwood's Drawing, September, 1730. Assisted by Rev. Mr. Fisher.
 - a. Probable original, in Greenwood's Letter B, in British Museum. $3\frac{1}{2}$ x $9\frac{1}{2}$. C.S.M. Plate XIV, xviii. 284.
 - b. Greenwood's copy of *a*, in British Museum. Reproduced by Bushnell, 1908. C.S.M. Plate XI, xviii. 274-275.
 - c. Copy of *b*, in Society of Antiquaries of London,

1732. Reproduced by Lort, 1787, and thence by Rafn, Winsor, Mallery. Figure 6. C.S.M. Plate VII, xviii. 258.

6. John Winthrop's Drawing, before 1744. Not preserved.
7. Drawing by Ezra Stiles, June 6, 1767, in Yale University Library. $7\frac{5}{8} \times 24\frac{1}{2}$. C.S.M. Plate XIX, xix. 50-51.

Some further drawings of particular figures, of same date, in Itinerary in Yale University Library.

8. Drawing by Ezra Stiles, July 15, 1767, in Yale University Library. $7\frac{5}{8} \times 12\frac{1}{4}$. Figure 9. C.S.M. Plate XX, xix. 58-59.

Some further drawings of particular figures, of same date, in American Academy of Arts and Sciences.

9. Drawing by Ezra Stiles, July 16, 1767, in Massachusetts Historical Society. 9×23 . C. S. M. Plate XXI, xix. 66-67.
10. Ink-impression by Elisha Paddack, August, 1767, in American Academy of Arts and Sciences, never reproduced; incomplete. 26×41 . Another small fragment in Stiles's Itinerary, in Yale University Library.
11. Stephen Sewall's Drawing, September 13, 1768.
 - a. Original, in Peabody Museum. 36×120 . C.S.M. Plate XXII, xix. 74-75.
 - b. John Winthrop's copy of *a*. Reproduced by Lort, 1787, and thence (unless from *e*) by Rafn, Winsor, Mallery. Figure 6. C.S.M. Plates II, XXII, XXXI, xviii. 238-239, xix. 74-75, 146-147.
 - c. Gebelin's copy, 1781. Reproduced in *L'Independent* of Fall River, July 14, 1915. C.S.M. Plate XXIII, xix. 82-83.
 - d. Dammartin's copy of *c*. Figure 13. C.S.M. Plates XXIII, XXXI, xix. 82-83, 146-147.
 - e. Hale's copy of *a*, 1834. Copy of this, sent by Webb to Rafn, may have been latter's source.

12. Ink-Impression by James Winthrop, August 14, 1788.
 - a. Original not discoverable. About 48 x 120 probably.
 - b. Pantographic copy of *a* by Winthrop, published in *Memoirs* of American Academy of Arts and Sciences, 1804. Reproduced by Warden 1825, Rafn, Roux de Rochelle 1853, Winsor, Mallery. Figure 6. C.S.M. Plate XXIV, xix. 90-91.
 - c. Copy of alphabetical characters of *b*, by Samuel Harris, about 1807. Figure 11. C.S.M. Plate XXVII, xix. 114.
13. Drawing by Ezra Stiles, October 3, 1788. Incomplete; not discoverable.
14. Baylies Drawing, by William Baylies, John Smith, Samuel West, Joseph Gooding, and possibly William Baylies Jr., about July 15, 1789.
 - a. Dr. Baylies's copy, sent to American Academy of Arts and Sciences. Not discoverable.
 - b. Smith-Stiles copy, in Massachusetts Historical Society. 12 x 22. Figure 10. C.S.M. Plate XXV, xix. 98-99.
 - c. Smith-Upham copy, in Massachusetts Historical Society. 7½ x 19. C.S.M. Plate XXV, xix. 98-99.
 - d. Joseph Gooding copy, in possession of heirs of Sophia F. Brown. 7¼ x 20¾. C.S.M. Plate XXVI, xix. 106-107. A copy by H. I. Beckwith, 1864, in Rhode Island Historical Society.
 - e. Webb copy, made probably from *d* or from some fifth original in February, 1830, known as "Dr. Baylies and Mr. Goodwin's 1790," published by Rafn, 1837. Reproduced by Aall, 1838; Laing, 1844; Schoolcraft, 1851 (combined with 1837 drawing); Winsor, Mallery. Figure 6. C.S.M. Plates II, XXVI, xviii. 238-239, xix. 106-107.
15. Edward A. Kendall's Painting and Engraving, 1807.
 - a. Oil Painting, in Peabody Museum. 17½ x 26¼.

- Figure 12. C.S.M. Plate XXVIII, xix. 122-123.
- b.* Engraving after *a.* $9\frac{1}{2} \times 23$. Published in *Memoirs of American Academy of Arts and Sciences*, 1809. C.S.M. Plate XXIX, xix. 130-131.
- c.* Misleading copy of *b.*, published by Rafn, 1837, and thence in *Dansk Kunstblad*, 1837; Anderson, 1904; Winsor, Mallery. Figure 6. C.S.M. Plate II, xviii. 238-239.
16. Lithograph by Job Gardner, 1812 (or 1821?).
- a.* Only one example of the original lithograph is known to the writer. Not reproduced, because copy *c* is sufficiently accurate.
- b.* Dissected copy by Ira Hill, 1831. C.S.M. Plate XXX (with modifications), xix. 138-139.
- c.* Copy published by Rafn, 1837, thence by Lossing, 1850 (thence by Fernald, 1910); S. A. Drake, 1875; Winsor, Mallery. Figure 6. C.S.M. Plate XXX, xix. 138-139.
17. Rhode Island Historical Society View or Sketch, by J. R. Bartlett, December, 1834.
- a.* Original, in Royal Library, Copenhagen. $9 \times 11\frac{1}{2}$. C.S.M. Plate XXXIII, xx. 298-299.
- b.* Rafn's amended and amplified copy, published by Rafn, 1837. Reproduced by Aal, 1838; Schoolcraft, 1839; Laing, 1844; Lelewel, 1852; Horsford, 1887; Winsor, 1889; Bangor *Commercial*, 1897; Anderson, 1904. C.S.M. Plate XXXIII, xx. 298-299.
18. Rhode Island Historical Society's Drawing, by a committee of the society, about September 4 (retouched December 11), 1834.
- a.* Original, in Royal Library, Copenhagen. 15×35 . Figure 14. C.S.M. Plate XXXIV, xx. 308-309.
- b.* Rafn's copy with additions, published by Rafn 1837. Reproduced by Aal, 1838; Barber, 1839; Beamish, 1841; Laing, 1844; Hermes, 1844;



Fig. 20. By A. M. Harrison and W. B. Gardner, 1875



Fig. 21. By Frank S. Davis, 1894

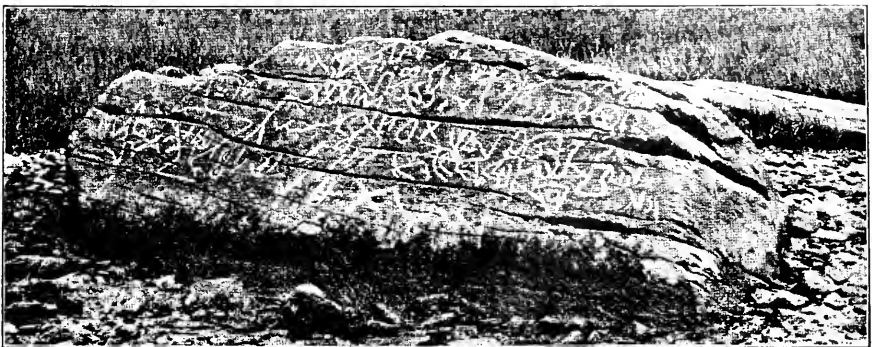


Fig. 22. By the Old Colony Historical Society, 1902

Examples of photographs interpreting the inscription by chalking its supposed characters

Guillot, 1844; Holmberg, 1848; Schoolcraft, 1851; Gravier, 1875; Andree, 1878; Mallery, 1889; Onffroy de Thoron, 1889; Gaffarel, 1892; Neukomm, 1896; Brittain, 1903. Figure 6. C.S.M. Plate XXXIV, xx. 308.

19. Drawing by Edward E. Hale, July 31, 1839. Not preserved.

In his manuscript Diary there is a small crudely drawn picture of the "animal" of the rock, with the letters O. . .X above it, which he remarks is the nearest he could see to the pretended Norse inscription; and he expresses as his own view the probability that the Indians cut the marks after the introduction of metal tools, obtained possibly from the Northmen. He says further, however, that he "took a copy" of the inscription; but in a letter to S. F. Haven on October 18, 1864, he remarks that this drawing "has long since disappeared."

20. Drawing by John W. Barber, 1839. Figure 18. C.S.M. Figure 6, xx. 379.

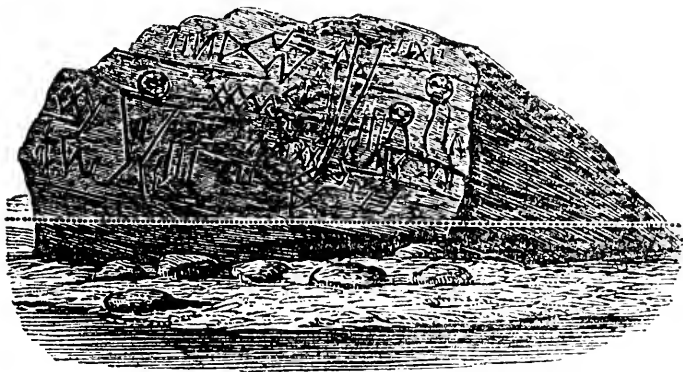


Figure 18—Drawing of Dighton Rock by John W. Barber, 1839.

This drawing was published in Barber's *Historical Collections of Massachusetts*, page 117. In his preface he says that "the drawings for the numerous engravings interspersed throughout the book were, with few exceptions, taken on the spot by the author of this work." The dotted line in the draw-

ing indicates, according to the author, the level to which the rock is generally covered at high water. He should have said "generally uncovered at low water." On the same page is another cut, showing the rock as seen from the opposite side of the river, with a wide stretch of shore visible on either side of it.

This drawing of the inscription has hitherto been reproduced, apparently, only by Goodrich, 1848, and by Nason, 1874.

21. Daguerreotype of 1840. Not discoverable.

In 1854 Dr. Webb claimed that he had in his possession a daguerreotype of Dighton Rock taken in 1840. No trace of it can now be discovered. The date assigned, though early, is perfectly possible.

22. Drawing by the Chevalier Friedrichsthal, 1840. Not discoverable.

Evidence for this drawing is contained in a manuscript letter, the writer saying that he made a sketch of the rock, and calling attention to the animal and the adjoining characters XV. Friedrichsthal was attached to the Austrian legation at Washington.

23. Drawing of the alleged Roman or English letters in the central part of the inscription, by Henry R. Schoolcraft, August, 1847. Figure 15. C.S.M. Plate XXXV, xx. 316.

The circumstances of the making of this drawing have already been described. The plate on which we present it shows also the combination of the 1789 and 1837 drawings which Schoolcraft published in 1851.

24. Daguerreotype by Captain Seth Eastman and a "professed daguerreotypist of Taunton," 1853.

a. Original daguerreotype, in possession of the Historical Society of Pennsylvania. Figure 16.

b. A second daguerreotype in possession of Massachusetts Historical Society.

c. Reproduction of *a*, in Schoolcraft's *Indian Tribes*, 1854, iv. 120. Figure 14. C.S.M. Plate XXXVI, xx. 324.

Schoolcraft relates the circumstances under which this first extant photographic representation of the rock was made. It was taken during the summer of 1853. "By this process of

transferring the original inscription from the rock, it is shown to be a uniform piece of Indian pictography. A professed daguerreotypist from Taunton attended the artist (Capt. E.) on this occasion. The lines were traced with chalk, with great care and labor, preserving their original width. On applying the instrument to the surface, the impression herewith presented was given."

At least two daguerreotypes were made on this occasion. One of them came into possession of the Rev. Mortimer Blake, who moved to Taunton about 1856, and through his sons it passed to the Massachusetts Historical Society in 1917. The other is in possession of the Historical Society of Pennsylvania. The man who is pictured in both of them is doubtless Captain Eastman.

This depiction of the inscription has been the one chosen for purposes of illustration by Bryant and Gay, 1876; F. S. Drake, 1884; McLean, 1892; Mallery, 1893; Andrews, 1894; E. E. Free, 1926.

25. Lithograph by George A. Shove, 1864. $6\frac{3}{4} \times 9\frac{1}{2}$ inches. C.S.M. Plate XXXVII, xx. 332.

George A. Shove was a resident of Dighton, a descendant of the Rev. George Shove, minister of Taunton, who in 1677 became one of the six purchasers and original proprietors of Assonet Neck. He was born about 1824, and was lame from his childhood. He held many responsible positions in town offices, and for a time was local postmaster. He was ingenious with tools, possessed a fair degree of skill as an artist, and had some gift as a writer. He died in 1890.

His lithograph makes no pretence at a full and accurate representation of the inscription, being intended evidently only to give a general idea of it and of the rock in its surroundings. There is only one figure in the sketchily traced inscription that is at all unusual—the double parallelogram with parallel cross-lines to the right of the picture of the animal. Besides the lithograph, Shove made at least one other drawing of the inscription that I have seen, which shows it in an even more simple and uninformative manner. He also produced many paintings, practically all alike except that one set exhibited

spring-time foliage and the other that of autumn, and practically all of them duplicates of the lithograph, including the inscription. A painting by him of the Landing of the Norsemen hangs on the walls of the Old Colony Historical Society.

26. Drawings by Edward Seager, 1864. 47 x 72 inches. C.S.M. Plate XXXVIII, xx. 342.

In 1864 Commodore George S. Blake, Superintendent of the United States Naval Academy at Newport, presented to the American Antiquarian Society these two drawings, which were made by Edward Seager, Professor of Drawing and Draughting at the Academy, assisted by the Rev. Charles R. Hale, Chaplain and Acting Assistant Professor of Mathematics. In March, 1865, Commodore Blake presented also to the society Mr. Hale's Essay on the Dighton Rock, bearing the date January 31st, 1865. Relative to the drawings, it speaks of two visits having been made, on the first of which the tide was unfavorable. "On a second visit, we had ample time, and every circumstance of light &c favoring us. From the careful sketches taken by us, Mr. Seager has since made the beautiful and elaborate pencil and India Ink drawings laid before you."

One of the drawings shows the rock and its surroundings, the other the rock alone, with its inscription. Its particular merit is the same as that of Kendall's painting and engraving, of endeavoring to present the actual appearance of the rock to the eye, without emphasis and interpretation of its lines, with all its actual faintness and uncertainty. Kendall's, I think, is more successful in this than Seager's. But of course a faithful photograph of the unchalked surface, better than any that had been possible up to Seager's time, would be a vast improvement over the method employed by these two men. The possessor of a drawing, however faithful, can see the inscription in only the one way, as the artist himself saw it. A perfect photograph enables its owner to engage in repeated and protracted study of the surface, to see constantly new things in it, to make his own interpretations exactly as if he were examining the rock itself. An approach toward such a photograph was the next representation of the inscription to appear.

27. Burgess-Folsom Photograph, by George C. Burgess

and Augustine H. Folsom, July, 1868. 9 x 13 inches, and stereoscopic. Figure 23. C.S.M. Plate I, xviii. 234-235.

This was made without first chalking the supposed characters on the rock. In matters of dispute as to what is there, earlier depictions enable us to say only that someone did or did not see them; but this is the first of all depictions that makes it possible to study out the matter for ourselves and arrive at an independent opinion.

On December 24, 1868 and February 10, 1869, copies of these photographs were presented to the Massachusetts Historical Society by George C. Burgess of Dighton. I have seen duplicates of them in the Gilbert Museum at Amherst College and in the Rhode Island Historical Society. The two halves of the stereoscopic arrangement are identical, instead of having the typical and desirable difference necessary for production of the full stereoscopic effect.

Mr. Folsom, a photographer of Roxbury, wrote to me in 1916 that he still remembered the circumstances very distinctly. "Mr. Burgess had the rock scrubbed off with scrubbing brush and sea water to remove the slime and seaweed that had grown on it. There was no chalking or working it up at the time that I remember."

28. Davis-Gardner Stereoscopic View, by Captain Nathan S. Davis and William B. Gardner, 1873. C.S.M. Plate XXXIX, xx. 352.

This photograph and the next following caused me a great deal of uncertainty and confusion for a considerable period, which led to much correspondence and investigation before the facts were sifted out. Partly through positive and sometimes conflicting statements in the literature, partly through natural inference from such statements, and partly through hints and rumors and facts communicated by correspondents, I have had to entertain the possibility that photographs had been made by twelve distinct persons. In the end, all the facts and rumors settled down into the certainty that there were but two occasions involved, each with its own separate whitening of the lines on the rock, and that all the photographs in the tentative list were made from either the one or the other of these two

interpretations of the lines, or through re-photographing one of the photographs so produced.

I have seen but two photographs, both of them stereoscopic, made on the earlier of the two occasions. One of them is in the Harvard College Library, the other in the Rhode Island Historical Society. Captain Nathan S. Davis of Somerset has furnished me with the facts concerning it:

I was postmaster of Somerset and much interested in stereoscopic work. William B. Gardner was a travelling photographer, going with his covered wagon as a darkroom from town to town making local views. We went to the rock together with the fixed purpose of making the best and most nearly perfect photograph of it that could be made. After washing the written face, I found that a small pointed stone held like a pencil in my fingers would go to the bottom of the lines cleaning them out and leaving a mark behind much resembling chalk. We made several exposures. Gardner made photographs and mounted them on cards with his name on them. As I had one or more of the original negatives, some little later I made prints and mounted them on cards bearing my name. Somewhere near the time of making this photograph Gardner moved his family here.

The Harvard copy bears on the margin of the face Gardner's name with address given as Sherborn, Mass., and the printed legend: "Runic Inscription on Dighton Rock." The other lacks these features, but has on the back a long printed description attributing the inscription to the Norsemen, and the statement: "As the cleavage was found to run horizontally, the inscription could not be split off for removal." Mr. Gardner moved from Sherborn to Somerset sometime between April and June in 1874. Since the printed matter on the mounts indicates that he was still living in Sherborn when he took it, and since Davis confirms the fact that he had not yet moved to Somerset, it seems probable that it was in 1873 that this event occurred.

I know of no former reproductions of this photograph in the literature of the rock.

29. Harrison-Gardner Photograph, by Captain A. M.

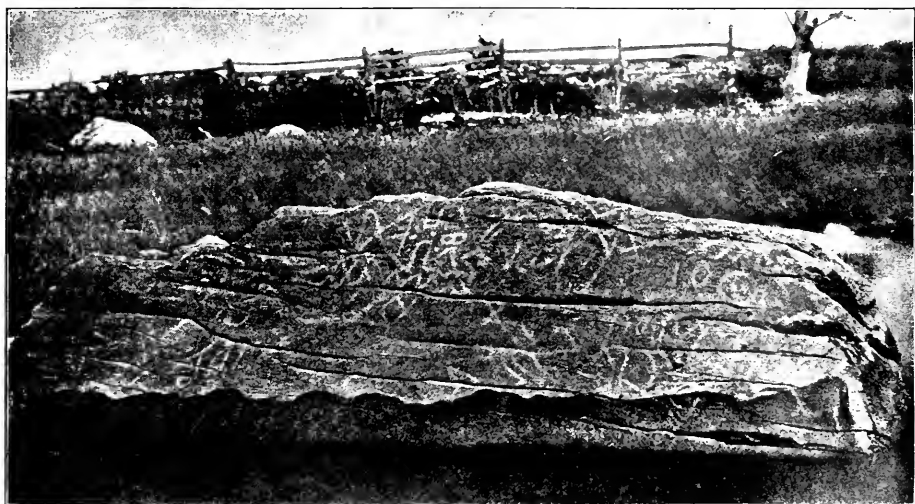


Fig. 23. By George C. Burgess and Augustine H. Folsom, 1868

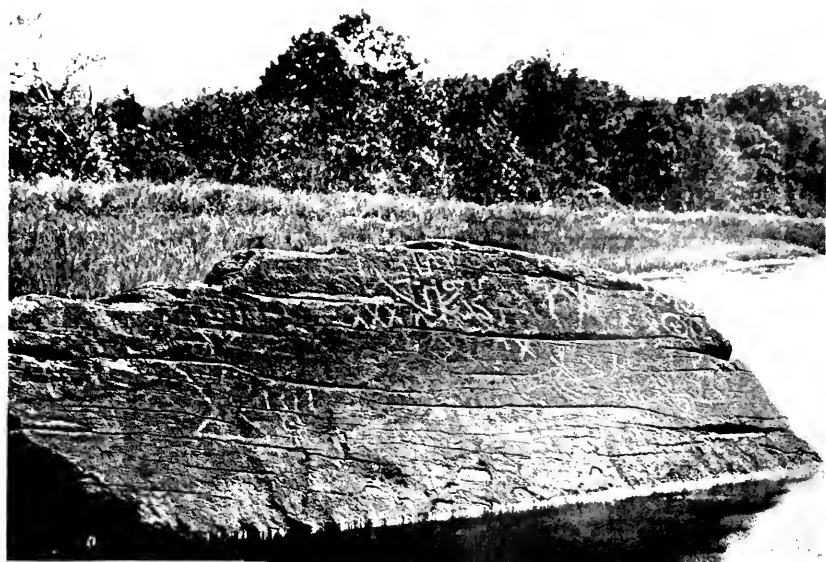


Fig. 24. By Charles A. Hathaway, Jr., 1907
Photographs of Dighton Rock without preliminary chalking

Facing page 156



REPRODUCTIONS OF THE INSCRIPTION 157

Harrison and William B. Gardner, about September 15, 1875. Figure 20. C.S.M. Plate XL, xx. 362.

- a.* Stereoscopic View of the rock alone.
- b.* Stereoscopic View including five persons.
- c.* 8 x 11 Photograph.
- d.* 4 x 5 copy from the original by William E. C. Deane, about 1882.
- e.* 5 x 8 copy from the original by George M. Young, 1890.

This was made under direction of Captain A. M. Harrison of the United States Coast Survey, who at the time was engaged in making a survey of Taunton River. I have seen several complimentary copies signed by Harrison bearing date September 15, 1875; hence it was taken shortly before that date, unless the date indicates the time of taking instead of that of presentation. A number of persons participated in the process. One of them was Captain Harrison himself, who signed a statement that has been printed on many of the cards on which these photographs were mounted:

Having been present when the above picture was taken, I can certify that no hieroglyphic marks were "chalked" which were not clear to the eye, (though too obscure to copy plainly upon the negative,) and that special care was taken to avoid making any line more distinct where there was the least room for doubt. I think that there can be no question that there were originally many more characters cut upon the Rock than appear in the photograph, particularly at the base, where it has been for centuries exposed to the action of the tides.

In addition to this statement, the printed matter on the mounts included a lengthy exposition by Gardner of the Norse origin and Rafn's translation, similar to the one that he used on the Davis-Gardner version.

The date of this photograph is often given wrongly as 1876. The only copy of the plain stereoscopic view that I have seen is in the Harvard College Library. Of the other stereoscopic view I know only through a copy loaned to me by Ed-

ward F. Waldron of Dighton. This shows five men grouped about the rock, and Mr. Elisha Slade informs me that, in order from left to right, they are: "Beoni Bradbury, William B. French, A. M. Harrison, Elisha Slade, and Mr. Lockwood. All but myself were of the U. S. Coast Survey, Mr. Harrison in charge of the party. The latter died in 1880." It is clearly from this stereoscopic photograph that was derived a small cut, the source of which long puzzled me, used by Ernst Löffler in his paper on the Vineland Excursions. The large photograph has doubtless been more widely distributed than any other depiction of the inscription. It has been used as the basis of illustrations by T. W. Higginson, 1882; Old Colony Historical Society (in a leaflet on the rock, after Higginson); George A. Shove, 1883; F. S. Drake, 1885; Baxter, 1889; William A. Slade, 1898; *Harper's Encyclopædia of United States History*, 1901; E. Hitchcock, 1904; K. M. Abbott, 1904; Avery, 1904.

The large Harrison-Gardner photograph was itself photographed, in 4 by 5 size, probably at some time between 1882 and 1884, by William E. C. Deane, of Taunton. I have a letter from him in which he says: "I borrowed a picture from Capt. Davis, copied it, and sold the pictures at Dighton Rock Park." The mounts bore a statement about its runic character, similar to that used by Gardner. The Peoria Public Library has another copy of this photograph, made by the late George M. Young of Boston in 1890, on a 5 by 8 plate.

30. Plaster Cast by Lucien I. Blake, 1876. Figure 19. C.S.M. Plate XLI, xx. 372.

Concerning this, which is now in the Gilbert Museum at Amherst College, the late Professor Blake wrote to me in 1916:

I took the plaster cast of the rock myself in the summer of 1876, when I was a Junior in Amherst College. I was assisted by Louis B. Dean of Taunton, then a Sophomore at Harvard, since deceased. We rowed down the river from Taunton with a barrel of plaster of Paris and took the cast at four o'clock one morning, when the tide was out, after cleaning and oiling the face of the rock. We had to take seven sectional plates to get the whole surface. From these reliefs, I made afterwards the cast now at Amherst.

I remember suggesting that the rock be taken up bodily and put in some museum. I then found that it is not a boulder, but an exposed part of a ledge, and there were no funds available for such expensive work as slicing off a ledge.

A photograph of the cast was taken in February, 1894, and is preserved in the manuscript catalogue of the Gilbert Museum. It is this which is reproduced in our plate. The general surface of the cast has been colored a uniform slate or drab, and on it the prominent lines have been emphasized by means of a bluish paint.

31. Photograph by Frank S. Davis, September 11, 1893. C.S.M. Plate XLII, xx. 382.

The date is marked on the rock. See number 33.

32. Photograph by Frank S. Davis, January 27, 1894. C.S.M. Plate XLII, xx. 382.

The date is marked on a wooden slab placed by the side of the rock. See number 33.

33. Photograph by Frank S. Davis, early in 1894. Figure 21. C.S.M. Plate XLIII, xx. 392.

This is another photograph whose authorship was difficult to discover. I found it reproduced as an illustration to Cyrus Thomas's account of Dighton Rock in Hodge's *Handbook of American Indians*, 1907, and again accompanying a paper describing the rock by William H. Holmes in 1916. Mr. Davis, who now lives in Florida, wrote to me all that he could remember about these three photographs :

Going back to my school days, I can remember going to the rock and taking chalk and marking in the lines. There would be a number of us and we would all work at it and talk about what they were put there for. Then in after years I got a camera and got quite interested in taking pictures. One of the photographs I made for some one who was writing a book at that time, but cannot remember the name of the writer or that of the book.¹ I expect that I marked quite a few lines on the rock which were never put on by the maker ; also that there were quite a few marks put on by the maker which I did not mark in.

¹ It may have been C. Thomas's account of the rock in Hodge's *Handbook*.

The three photographs here listed are given separate numbers because they show separate chalkings. The first of them exists in two varieties, the one taken from a nearer point than the other. The last has three varieties: the one that has been published in the two cases mentioned above; a similar one taken from a slightly different position; and a third, the one here reproduced, taken after a few further chalk-marks had been added to the rock.

34. Post-Card issued by Charles W. Chace, about 1900. C.S.M. Plate XLIII, xx. 392.

Mr. Chace, who was born in Dighton, has long had these postal cards for sale at his place of business in Taunton. Since about 1905, they have been issued in colors. Concerning the photograph from which they were made, he can tell me only that it was made "about fifteen years ago by a young man who worked in a wheelwright shop at Westville; but he left for parts unknown several years ago."

35. Old Colony Historical Society's Photograph, June, 1902. Figure 22. C.S.M. Plate XLIV, xx. 402.

The late James E. Seaver, secretary of the society, informed me that this was taken under his supervision in June, 1902. In preparation for it the rock was first carefully cleaned and chalked. The photographer was A. L. Ward of Taunton. Mr. Seaver had invited a number of men to be present and assist him in the selection of the lines to be chalked. Two photographs were taken, one of the rock alone, the other showing the persons who were present. These persons, in order from left to right, he named as Joshua E. Crane, librarian, of Taunton; John O. Babbitt of Dighton; William MacDonald, Professor of History at Brown University; James E. Seaver; Ralph Davol of Taunton; Professor Crosby of Harvard (whom I cannot identify); Mr. Negus of Dighton; C. A. Agard of New Bedford.

The photograph has been reproduced in the *Providence Journal*, July 15, 1912; and in the report of the Dighton Bi-Centennial Celebration, July 17, 1912.

36. Drawing of the Shoreward Side of the Rock and its

Markings, by Charles A. Fernald, 1903. Figure 17. C.S.M. Figure 5, xx. 366.

This is the date of Fernald's visit to Assonet Neck, according to the person at whose house he passed the night. The drawing was published in the *Fernald Genealogy*.

The initials cut upon this shoreward slope are all very faint and apparently old, so obscure that most of them are rarely clearly visible, and almost all of them susceptible of being interpreted in varying ways under different conditions of lighting or different mental attitudes toward them. Of thirteen sets of them that I have found, I am uncertain of the correct reading in all cases but one. Most of my readings differ from Fernald's; and the names and characters that he depicts, other than initials, I am sure are purely imaginary.

37. Photograph by Charles R. Tucker, August, 1903. C.S.M. Plate XLV, xx. 412.

This is a small amateur photograph, with conservative chalking, concerning which its maker, of New Dorp, New York, writes me: "The characters were not plain and I was careful not to chalk any that I could not readily see."

38. Photograph by Carlton Grinnell, about 1907. C.S.M. Plate XLV, xx. 412.

This is another small amateur photograph, presented to me by Edward F. Waldron of Dighton, a cousin of the maker. I know nothing further about it.

39. Photograph by Charles A. Hathaway, Jr., July, 1907. Figure 24. C.S.M. Plate XXXII, xx. frontispiece.

The original is an 8 by 10 negative, taken under excellent conditions of lighting and expert manipulation. It has the exceptional merit of showing the rock as it actually is, without any kind of artificial emphasis of the lines upon it. Mr. Hathaway is a teacher of science in the Taunton High School. Concerning its production, Mr. Hathaway informs me:

I believe I made that particular negative with a Collinear anastigmatic lens of about 8 inch focus. Of course almost any good lens would give a sharp negative. The peculiar lighting is what is important. I chose the time of day and year that I thought best adapted to my attempt. It was in July, and during the late fore-

noon, as nearly as I can tell at the present time. I wished to show the characters without any chalk marks. The sediment in the grooves and cracks was not disturbed, and aided in bringing out the surface inequalities. I washed off and brushed off the growth of algæ on the very base of the surface.

40. Eddy Photograph, by William P. Eddy and Frank N. Ganong, August, 1908. C.S.M. Plate XLVI, xx. 422.

Mr. Eddy is owner of the Eddy House in Dighton, and secured this $3\frac{1}{4}$ by $4\frac{1}{4}$ photograph for use in his prospectus. The photographic work was done by Mr. Ganong, a professional photographer, then living in Cambridge. Mr. Eddy himself did all the work of cleaning and chalking the rock.

41. Post-Card by G. K. Wilbur, 1913. C.S.M. Plate XLVI, xx. 422.

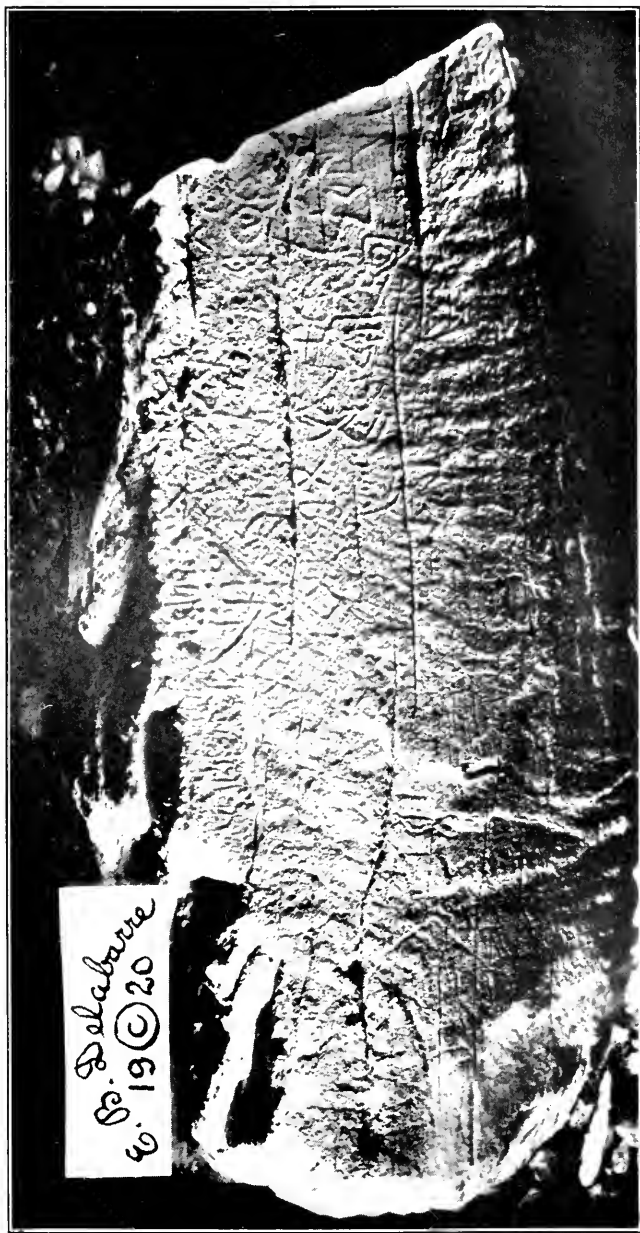
Mr. Wilbur was manager of Dighton Rock Park, which is not at the rock itself, but across the river, below Dighton village. The negative was made for him in the fall of 1913, by a photographer whose name he does not recall, and the lines on the rock were marked not with chalk but with plaster of Paris. The post-cards, of which there are two, differing only in size, are in colors, and were produced in Germany. The same picture, uncolored, is printed at the head of the prospectus of the Park, which endorses without qualification the Norse claim for the rock.

42. Photograph by Charles W. Brown, May 15, 1915. Reproduced in *Old-Time New England*, October, 1923, frontispiece.

Mr. Brown is Professor of Geology in Brown University. His photograph was taken without chalking, and, being from an unusual angle, caught a lighting which shows some characters more clearly than they appear in any other photograph.

43. Photographs and Sketches by E. B. Delabarre, 1919 to 1927:

- a. Flashlight photograph, Copyright 1920, July 17, 1920, 3:00 A.M. Figure 25.
- b. Other photographs, sketches and drawings.
- c. Complete Conjectural Reconstruction of the Inscriptions on Dighton Rock, 1927. Figure 35.



Copyright, 1927, by E. B. Delabarre

Fig. 25. Flashlight photograph of Dighton Rock by E. B. Delabarre,
July 17, 1920, at 3:00 a.m.

I have made more than a hundred photographs, under various conditions, and a number of sketches interpreting the inscription. Some of them have been given in earlier publications and in this volume. Only one or two of the photographs are of unique value and deserving of particular description.

The best device for bringing out in strong relief every detail of texture, every varying elevation and depression, and thus every line that has been graved so as to lie more or less below the general level, is that known as shadow-lighting. The source of illumination must be almost in the plane of the surface, only a little elevated above it, with the result that the light glances close along the surface and leaves deep shadows in all of the depressions. Sunlight never does this perfectly for Dighton Rock. Moreover, since the rock's face inclines at an angle of 39 degrees to the vertical, it is impossible, by the use of a camera resting upon an ordinary tripod, to focus all parts of it with equally perfect definition, or to represent exact shapes and proportions without perspective distortion. For best results the camera must be elevated to such a height that it can be pointed down in a direction perpendicular to the face, there must be no diffused daylight present to light up the hollows, and the illumination must be artificial. These conditions were satisfied in a photograph which I took at three o'clock in the night on July 17, 1920. It was made on a 5 by 7 plate with a good lens, the camera mounted on a trestle at a height of eleven and a half feet and pointing downward at an angle of 51 degrees in a line perpendicular to the centre of the inscribed face, so that the sensitive plate was parallel to the plane of the surface photographed (Figure 26). This insured a result in which shapes and proportions and relative positions were correctly represented. The rock was then lighted by strong flashlights, one at each end. The two lights were necessary, not only to secure equal illumination at both ends, but also because the face is considerably rounded horizontally, and the middle of it thus bulges out so much that effective shadow-illumination cannot be secured from one side alone. The resulting photograph (Figure 25) is by far the best one ever secured, full of minute and exact detail, equally focussed for all parts of the

surface, properly proportioned, and thus a secure basis for fruitful study. It does not, however, dispense with the need of consulting other photographs also. No single moment and manner of illumination, hence no single photograph, can possibly make visible all discoverable details. I have made many by daylight, at different hours and from differing positions, and many by flashlight with various directions and angles of lighting and sighting. A few of these, and those previously mentioned as due to Burgess, Blake, Hathaway, and Brown have been helpful as supplementary material for study. Some of the characters and figures on the rock stand out with especial clearness under particular other conditions than those of my best flashlight production, such as a peculiar incidence of daylight, a particular angle and distance in the position of the camera, a focussing less exact which catches the reflections of light rather than the minute texture of the stone. Partial examples, therefore, will be used from several of these supplementary sources in our later discussion; but main reliance will be placed upon the doubly-lighted flashlight of 1920.

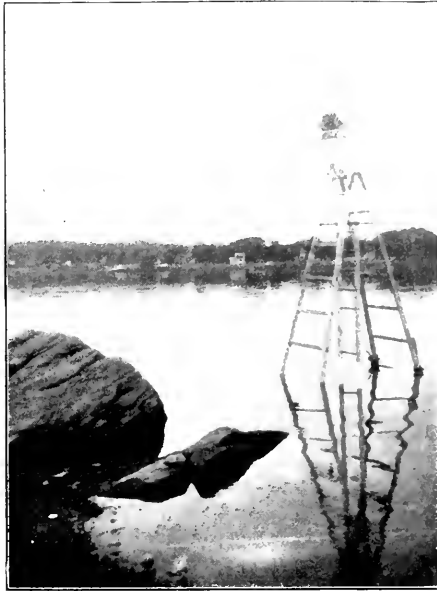


Fig. 26. Arrangement of apparatus for taking flashlight photographs

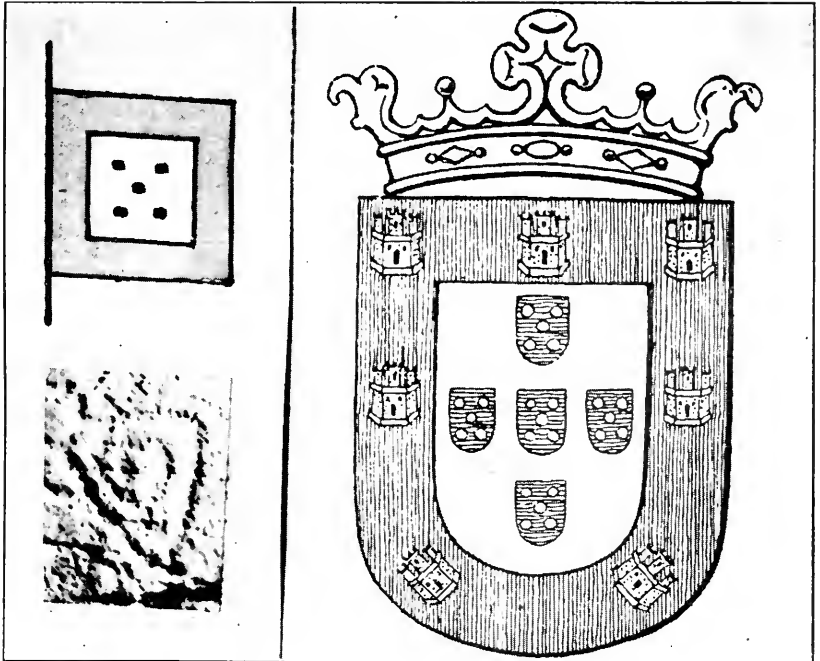


Fig. 29. The Coat-of-Arms of Portugal

- a. As adopted in 1485
- b. As depicted on the Cantino chart, 1502
- c. As inscribed on Dighton Rock

CHAPTER X

A NEW INTERPRETATION OF THE RECORDS

We cannot be far wrong in asserting that rarely if ever has any human document given rise to richer fancy or more varied controversy than has Dighton Rock. For more than two hundred years learned men have been disputing about its writings, and are never satisfied with the proposed solutions. Almost every theory about its origin and meaning that human ingenuity could devise has had its advocates. A score of conflicting translations have been offered, and double that number of suggestions as to who may have been its probable authors. Inhabitants of Atlantis, lost tribes of Israel, Egyptians, Libyans, Phoenicians, Scythians, Chinese, Romans, Norsemen, Druids, Catholic missionaries, pirates, and even pre-glacial men have all been summoned from the past to claim its writings as their own. Not one of the theories has succeeded in arousing general confidence. Even the most popular and hotly defended belief of all—the Norse theory—has not had a single advocate among serious scholars for more than fifty years, and is certainly wrong. Aside from the natural assumption that Indians alone were responsible, the theories have rested solely upon fanciful and sometimes romantically appealing but never proven beliefs that some man or race of men may possibly have reached the locality, and upon accepting some undependable version of the rock's artificial characters as sure and reliable. New methods of study have now made it possible to end these futile speculations, and it testifies no longer in fancy to fabled adventures of long ago, but rather in reality to incidents that fall within the range of recorded history.

One great difficulty in arriving at agreement has been that no one, by study of the rock itself, can tell with any satisfying degree of certainty what was actually graven on its surface.

The tides leave it exposed for too short a period at a time to permit satisfactory examination; illumination is never at its best for all parts of the surface at once; most of the lines are so shallow, so identical in coloring with the rest of the surface and so intermingled with the irregularities of the rock's own texture, wear, and decay, that it is impossible to see them clearly and to distinguish the artificial from the natural ones. Only a few of the pictographs are unquestionable. A large human figure midway between centre and left end, two smaller ones at extreme right, two complex figures made up of triangular forms at the top, and a peculiar quadruped with horns, near the centre, are about all that nearly everyone sees alike. The Kendall and Seager drawings exhibit this fact admirably, being deliberately intended to present only so much as is clearly evident. There has been great diversity in seeing everything except these few common features. It is evident that no two persons who study the surface, and even no single person who studies it at different times, can agree about what is there. The various drawings have a certain value for suggesting what to look for, but otherwise are almost worthless, since each represents only one person's way of interpreting the probabilities as they appeal to him on one occasion, and no one else can rightly feel any confidence that they help him to a knowledge of what most of the lines and characters and pictures actually are. A good photograph should remedy the difficulty. With very few exceptions, however, the photographs suffer from the same defect as that of the drawings. In order to secure a clear picture, the supposed lines of the inscription are usually first marked with chalk, and these selected lines give only the untrustworthy individual rendering. Although the earliest daguerreotype that we have, the one made by Captain Seth Eastman in 1853, has this defect, yet the focussing was so unusually good for a case where chalking was resorted to that much unmarked detail is visible, and we can compare it with later productions in order to determine whether there has been wear or other change within the last seventy years. Aside from such minor services, the photographs from chalkings are no better than the drawings, merely increasing the confusion and

uncertainty as to what is actually there. They prove clearly that it is hopeless to study the rock itself to discover what is recorded upon it. The only possibility of success must depend upon securing a photograph unspoiled by previous chalkings, under conditions that will reproduce the rock's surface faithfully and exactly, and permit later minute and prolonged examination, not of the rock itself but of the unprejudiced photograph of it.

The only useful photographs known to me earlier than my own which are free from chalked lines and show the rock just as it appears, are those by Burgess, 1868 (Figure 23), by Hathaway, 1907 (Figure 24), and by Brown, 1915 (Figure 27); although the photograph of the Blake cast, 1876 (Figure 19), is also somewhat helpful. They show about all that anyone could see by examination of the rock itself, by daylight illumination. They are preferable to the unreliable drawings and chalkings, for they permit us to examine the surface for ourselves without prejudice; and each of them settles conclusively the nature of some limited portions of the inscription. But none of them gives a satisfying view of the whole. They are tantalizing in leaving only vaguely hinted at so much that must be there. They leave us, therefore, still baffled, and we must conclude that daylight illumination is inadequate for exact and complete portrayal of the indentations of the surface. My own flashlight photographs, without perspective distortion, are naturally the most serviceable of all. They do not, however, dispense with the need of consulting other photographs also. No single moment and manner of illumination, hence no single photograph, can possibly make visible all discoverable details. So all of those here mentioned can be helpful in arriving at decisions. In fact, it is much more profitable to study them than to seek at the rock itself for the dim message that it bears. The writer has spent many hours at many different times in studying it in place, but has never yet detected on it a single new and certain feature.

It requires hours, and days, and months of prolonged and microscopic study to arrive at a well-founded decision as to what these photographs reveal. So far as I can read them, the

whole inscription (Figure 35) is a confused maze of lines, figures, pictographs, scribblings, words, initials, names, dates, covering almost the entire surface, intricately intermingling and in some cases covering one another. Among them I find a considerable number of pictographs and records that no one has ever observed before.

The first independent discovery that I made for myself, by aid of this new battery of photographs, was of the date "1511" (Figure 33). Almost everyone else, neglecting the lower curve of the 5 and adding the circles resembling sun-symbols just above and below the 51, had seen this as a small human figure. Once seen as a date, with Indian pictographs drawn over and around it, it is unmistakable. There soon followed the discovery of a number of other figures: the two Indians with joined hands, the turtle, the date 1825, a second deer, and certain words and numerals to whose examination we shall return later. The most important of these new readings are exhibited in the Figures numbered 27, 28, 32, 33, and 34. Each of these plates presents an enlargement of some portion of one of my flashlight photographs on which I have drawn in ink the records as I see them, and above it is placed the same portion of the same photograph left untouched, in order that the reader may compare the two and test for himself the validity of the interpretation. I make no claim that complete certainty attaches to most of the readings suggested. A few of them are sure, and all of them are not only plausible, but are even highly probable and fit the markings on the rock very much better than do any of the ways of depicting them that appear on earlier drawings and chalkings. Why they have never been deciphered in this manner before is a question that we shall take up for examination shortly.

It is safe to say that there is hardly any likelihood that any one of these discoveries—dates, names, deer, turtle, numerals, Indians—would ever have been made by examination of the rock itself, or could have come to light in any other way than by prolonged and repeated studies of the photographs. That every one of the new features constitutes a plausible, and in some cases unquestionable reading, however, anyone can con-

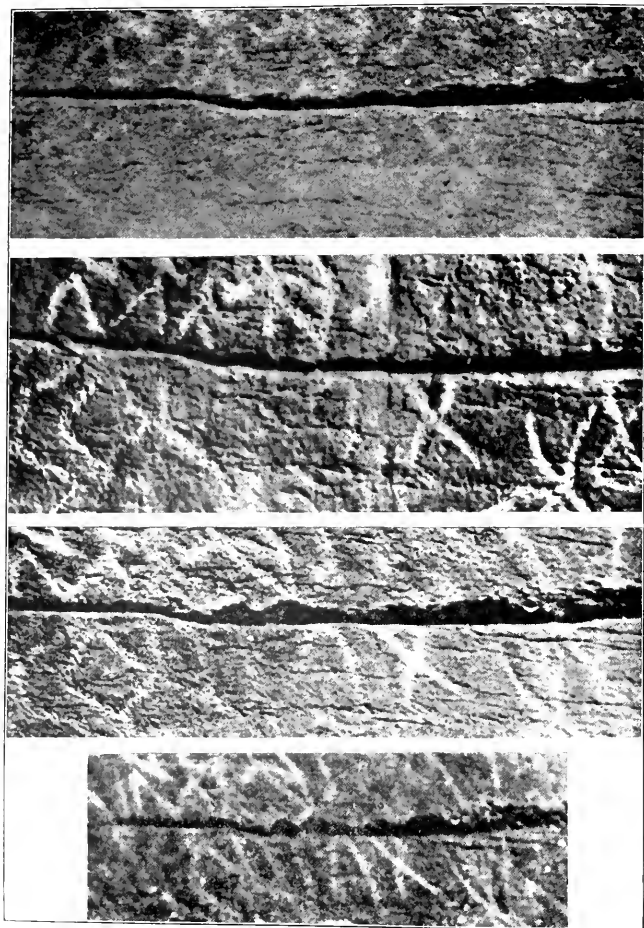


Fig. 27 The "Cortereal" inscription on Dighton Rock, 1511

- a* By Burgess and Folsom, 1868 (see Fig. 23)
b By Lucien I. Blake, 1876 (see Fig. 19)
c By C. A. Hathaway, Jr., 1907 (see Fig. 24)
d By Charles W. Brown, May 15, 1915

- e* By E. B. Delabarre, July 16, 1920. (Daylight)
f By E. B. Delabarre, July 17, 1920 (Flashlight)
g The probably correct reading
h By E. B. Delabarre (June 19, 1925)

vince himself by careful study of the flashlight photograph by aid of a magnifying glass, especially if he will compare it with the earlier photographs without chalking, and with the Eastman daguerreotype. Some lines may be indistinct or invisible in one or another of the earlier depictions, because these are less perfect in definition, less searching in illumination, and one of them conceals real features by mistaken chalkings; but enough is discoverable in them to prove that the new-found items have been existent for seventy years at least and are not of recent introduction or merely imagined.

There are two lines of characters near the middle of the inscribed surface that seem almost certainly to be alphabetic, but are so worn as to be difficult to read. Rafn and his followers once thought that Thorfinn's name was engraved there, and many alternative readings have been advocated. The discovery of the date 1511 led me to reflect upon the early explorers who might by any possibility have been in this vicinity at that time. The first known visit to Narragansett Bay was by Verrazano in 1524. It soon became evident that none of the known explorers could have been here in 1511, except one of the two Cortereals, Gaspar and Miguel. There could have been unrecorded visits by others, for the Banks fisheries were already in vigorous operation, and some of those who pursued them might have wandered farther than we know. But of men known to have been on this side of the Atlantic by 1511, the two Cortereals are the only ones who could possibly have been responsible for our inscription. In their case, it was entirely possible. Gaspar had explored Newfoundland and Labrador in 1501, Miguel in the following year, and both had unaccountably disappeared. Either one of them might have journeyed to this place for some unknown reason, and been unable to return. With this in mind, fresh examination of these obscure characters made it clear that they could easily be read as the name "Miguel Cortereal," and that no other definite reading could plausibly be made out of them.

The entire name is not clear and certain, and many will doubtless find it difficult to accept it as valid. Yet it is even more difficult not to accept it. The strongest assertion that I

am willing to make is that the name is almost surely there, and that numerous items of indirect evidence that we shall soon examine increase the probability of its presence to such a degree as to justify a strong conviction that the record was really carved by Miguel Cortereal in 1511. At any rate, whatever doubts and reservations may linger in any one's mind, it is beyond dispute that this reading is the only one ever suggested that fits the visible marks on the rock with any degree of exactness, and no known facts or sound arguments offer the least difficulty in the way of a belief in its truth.

Figure 27 is designed to assist the reader in arriving at his own conclusions. In it, this critical portion of the rock's surface is presented as it appears in every photograph of value for the purpose, each enlarged to a size that makes it easy to examine; and my own manner of reading the record is indicated by ink-lines drawn upon a repetition of one of my flashlight pictures. Besides these, the Eastman photograph (Figure 16), alone among all those made from chalkings, may render some service in arriving at a decision.

The first thing to notice is that two prominent neighboring shapes resembling an X and a V near the end of the lower line are certainly not a part of the original inscription, but were added later and interpolated over it, obscuring some of its characters. This is not very apparent in the earliest photographs, but it is easily suggested in number 3 and proven by numbers 5 and 6. It is uncertain what the X signified to those who thus inserted it over the lines of an earlier inscription, although in a later figure (No. 35) I have suggested one possibility. The V constitutes a pair of horns belonging to the deer underneath this line of letters.

Disregarding the XV, therefore, and a few other marks which the later Plate just referred to indicates as interpolations, one may quickly convince himself that the letters MIGV . . . CORTER . . . are present beyond question. Some of them show most clearly in some of the photographs, others in others. The remaining letters are very obscure. The second E and the L of "Cortereal" are defaced by the overlying Indian glyphs. The EL of "Miguel," and the A below them, are probably

almost worn away by attrition, since they are situated on that part of the slightly curving face of the rock which projects most forward and is thus subjected to the greatest amount of rubbing by ice and wave. But if we look with minute care, not always for clearly and deeply incised lines, but in some cases for series of dots pecked lightly in, we can find faint yet satisfactory traces of every one of the letters. These five letters last mentioned are not very convincing on their own evidence alone. But with the other ten practically beyond question, and the assumption of these five consistent with such dim indications as the rock affords, there is little ground for hesitancy in accepting the entire name.

Almost sure, but not quite, is, after all, the best that we can say on the evidence from the rock itself; plausible, yet not fully certain. The rock itself, and photographs from it, do not tell its story unambiguously. It would have been read correctly long ago, if it did. There are numerous other considerations, however, which increase the probability very much. One strong item of this indirect evidence is the character of the letters and numerals employed. These are appropriate to the period when they were written. It was a time of transition between the use of Gothic and of Roman forms in lettering, and their intermingling, as in this inscription, was customary. It even happens that in the same phrase various forms of the same letter occur. Two maps discussed on page 217 of Henry Harrisse's *Discovery of America* use a 5 of almost the same peculiar shape as that of our date, in their own dates 1524 and 1527. Abundant instances of the use of angular C and O and of curved E may be seen, or will be found described, in Rafn's *Antiquitates Americanæ* on page 379, in Engel and Serrure's *Traité du Numismatique du Moyen Age* on 1350 and later pages of volume three—in one case three forms of E appear on one coin—and in number 42 of Conrad Hæbler's *Typographie Ibérique du Quinzième Siècle*. The use of such letters is strongly confirmatory of the validity of our reading. Even the insertion of what to us is a lower-case A, though unexpected and without precedent so far as we have discovered, is accordant enough with the variable usage of the time.

It is true that there exists a Portuguese inscription made in 1482 on the Congo river,¹ whose writing is practically all in lower case letters, and very different in appearance from this. A reviewer in the *Geographical Journal* for 1923 thinks that this fact is a reason why we should regard the style of our own supposed lettering as "not altogether such as we should expect in an inscription of the date in question." Nevertheless, general usage was very variable, and there is no difficulty in believing that one man may have preferred to use capital letters for his inscription at the same period when another and his companions avoided them almost entirely even as initial letters of names. Moreover, the circumstances were altogether different in the two cases: Cortereal was an educated man, undoubtedly acquainted with literature and with Latin, and, as we shall conclude, he made his writing large and prominent, in order that it might be surely seen and thus lead to his rescue. The others, less cultured explorers and sailors, were merely making record of a visit.

Some doubters have expressed wonder why these writings were not read by the first observers of the rock. The answer is easy. No one attempted to report what was there for 200 years after the record was made. These shallow marks were at first clearly visible because when fresh they would have been of a lighter color than their background. But long before the 200 years were elapsed, they would have become changed to the color of the rock itself and thus hard to discern, and all the more so because they were battered and worn, and already overlaid with the Indian interpolations. There has never been a time since observations began when they could have been read successfully on the rock itself. It has required the special conditions of improved photographic methods to bring them out into satisfying visibility.

Having found Cortereal's name engraved upon the rock, we are encouraged to look for more that he may have written, besides the name and date. And we can find something which, while not entirely certain, is exceedingly plausible. In the confusing tangle of lines that follow his name, careful study shows

¹ *Geographical Journal*, 1908, xxxi. 590.



Fig. 28. The right-hand end of the inscribed surface
 a. Section of flashlight photograph of July 17, 1920
 b. Probable inscription of Miguel Cortereal, 1511
 c. Indian glyphs overlying and obscuring the Cortereal inscription

that it is possible, rightly or wrongly, to read something definite. By regarding most of the lines as Indian additions, but selecting certain ones among them as constituting the original writing, we can discover the words emphasized in the middle section of Figure 28: "V. DEI hIC DVX IND." Under it is carved the heraldic symbol of Portugal. Expanding the abbreviations, this would evidently mean: "Voluntate Dei hic Dux Indorum." If actually written by Cortereal, he thus indicates that he, a Portuguese, by pure accident, had become leader or chief of the natives of India in that locality. How this message was obscured by the overlying and interlacing lines of later Indian glyphs, is shown in the lowest division of this Plate. There is no question that the shapes of these letters are all distinctly there in those positions on the rock. A few of them, especially the IND, appear even more convincingly in the flashlight photograph of Figure 5, taken from an entirely different angle. The only doubt about them is as to whether they are really letters, or only parts of the neighboring Indian devices. The sense that they make, and the consistent way in which they fit into all the other features of our story as we shall develop it further, make it almost inevitable that we should accept the reading as valid. Moreover, it is clear that none of these marks are of recent introduction. Every one of them can be found by careful search on the cast of 1876. They are almost as convincingly visible in the daguerreotype of 1853. In the earlier drawings, of course, they were never all brought together in this form, yet the presence of each is unequivocally indicated in one or another of the drawings made between 1767 and 1834, the earliest that show this part of the surface.

That the escutcheon truly represents the arms of Portugal is highly probable and adds confirmatory evidence to our reading of the name. From long before Cortereal's time, the royal arms of Portugal had consisted of a shield within a shield, the inner one containing five quinas or "five-spots" of small dots or squares.² When exigencies of space demanded, one quina within the two shields sufficed, as in the symbol of Portuguese

² The one shown in Figure 29 was adopted in 1485, slightly changed from the previous one. See *Geographical Journal*, 1900, 16: 634.

discoveries that is used on the Cantino chart of 1502 (Figure 29). It is not difficult to believe that when there was no room to introduce five dots, as was true of this design on the rock, one dot within the two concentric escutcheons might have been regarded as an equally characteristic symbol of Portugal. It is even possible that originally there were five smaller dots, which someone obscured by introducing the deeper one now so prominent. Traces of such smaller dots suggest themselves, especially if the large one is examined analytically under a magnifying glass; but they are not wholly distinguishable from natural pittings. The device is clearly of the shape of an heraldic coat-of-arms, and it is noteworthy that of all the nations of the earth, in the fourteenth century at least, Portugal was the only one whose arms portrayed a shield within a shield.³

Aside from the doubtful claims that Norsemen sailed as far south as New England more than nine hundred years ago, the first explorer heretofore known to have been here was Verazano, who spent two weeks in lower Narragansett Bay in 1524. Cortereal must have preceded him by more than a dozen years, and it seems probable that he settled among the friendly Indian tribes living on Assonet Neck. He belonged to a nation of intrepid and famed explorers, of whom HARRISSE remarks that "no nation in the fifteenth century exhibited so great a spirit of maritime enterprise as the Portuguese." Their remarkable exploits were largely due to the enterprise, skill, and foresight of Prince Henry the Navigator. C. R. BEAZLEY writes of him in the *Encyclopædia Britannica*: "The glory attaching to the name of Prince Henry does not rest merely on the achievements effected during his own lifetime, but on the subsequent results to which his genius and perseverance had lent the primary inspiration. To him the human race is indebted, in large measure, for the maritime exploration, within one century (1420-1522), of more than half the globe, and especially of the great waterways from Europe to Asia both by

³ *Book of the Knowledge of all the Kingdoms, Lands and Lordships that are in the World*. Written by a Spanish Franciscan in the middle of the XIV Century. Hakluyt Society, 1912.

east and by west. . . . The prince's share has often been forgotten in that of pioneers who were really his executors—Diogo Cam, Bartholomew Diaz, or Vasco da Gama." There are even some who believe that a Portuguese discovered America twenty years before Columbus. Thus Sophus Larsen assembles evidence which proves, he thinks, that Joam Vaz Cortereal, father of Gaspar and Miguel, sailing with Pinning and Pothorst of Scandinavia in 1472, discovered Newfoundland and Labrador. This may have been the reason why his two ill-fated sons later sailed to make further explorations in the same region, which was long known as the Land of Cortereal.

It may be that this story of the elder Cortereal is in need of further confirmation. But, in any case, it is well known that Gaspar Cortereal in 1501 explored the coasts of Newfoundland and Labrador, eventually sent home some of his ships, and was never heard from again. His brother Miguel desired to rescue him, and to make new discoveries himself. Accordingly he set sail from Lisbon on May 10, 1502. On reaching Newfoundland, his ships separated in order to explore more thoroughly, agreeing to meet again on the 20th of August. The two other ships did so, but eventually had to return home without him. The world has "neuer heard any more newes of him, nor yet any other memorie," as Galvam wrote in 1563. But now, if our reading is correct, his hitherto unknown fate is at last revealed.

He must have sailed far to the south in his search, or, if shipwrecked in Newfoundland, he must have escaped from the wreck alive and then pushed on to the south in an attempt to reach the Spanish seas where he might find an opportunity to return home. In the latter case, it may have taken him years to reach Narragansett Bay, for the distance was great and he had to pass through or sail along by the territory of Indians who are reported to have been "bad people, powerful, and great archers." Here he found a race that was kind, gentle, courteous, friendly, according to the testimony of all early voyagers. His record seems to indicate that he settled among them. It is highly probable, therefore, that he died there before 1524,

for otherwise he would have been informed of Verrazano's presence and would have joined him. On the other hand, it is not very surprising that Verrazano tells us nothing about him, for his narrative implies that he explored to a distance of not more than five or six leagues beyond Newport, and if the natives tried to inform him about the strange white man who had recently dwelt and died among them, he would have understood nothing of what they were trying to say. By the time the next white visitors arrived and gained power to converse with the natives, about three-quarters of a century later, the Indians had apparently retained but little memory of the incident. A fragmentary and distorted part of the story did persist among them, however; or, at least, a vague tradition that could well have had reference to Cortereal's arrival at Assonet Neck.

There are two independent versions of the tradition, one gathered by John Danforth in 1680, the other by Edward A. Kendall in 1807. Danforth said: "It is reported from the tradition of old Indians, that there came a wooden house, and men of another country in it, swimming up the river Asonet, that fought the Indians, and slew their Saunchem." Kendall's version is a little more detailed. "As to traditions, there is, though but in a few mouths, an Indian tradition, which purports, that some ages past, a number of white men arrived in the river, in a bird; that the white men took Indians into the bird, as hostages; that they took fresh water for their consumption at a neighboring spring; that the Indians fell upon and slaughtered the white men at the spring; that, during the affray, thunder and lightning issued from the bird; that the hostages escaped from the bird; and that a spring, now called White Spring, and from which there runs a brook, called White Man's Brook, has its name from this event."⁴

The authenticity of the tradition in its main features is evidenced by its two independent forms. It must have referred to the Indians' earliest experience with white men and their

⁴ See Figures 30 and 31. The brook is unquestionably the one referred to by Kendall. The spring shown is only one of several that feed the brook, any one of which, or even another not now discoverable, may have been "White Spring." See also footnote 10.



Fig. 30. A spring near Dighton Rock, possibly the "White Spring" of tradition



Fig. 31. The mouth of "White Man's Brook" and beginning of the "Injun Trail"

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ships, and this, by the testimony of the rock, was on the occasion of Cortereal's arrival. In similar manner, the Walam Olum of the Delawares mentions only the earliest contact with the new race: "At this time, from north and south, the whites came. They are peaceful; they have great things; who are they?" (Canto V, verses 59, 60). In our local case, the strange appearance of the new people, the marvelous bird or wooden house in which they came, and the conflict that followed, made a deep and lasting impression on the minds of the natives that had not disappeared when Kendall pursued his inquiries 300 years later. But the subsequent events, of a less startling and more peaceful character, became commonplace features of their daily lives. It is no more extraordinary that they were not long remembered, than it is that most people among us have no knowledge of their great-grandfathers and earlier forebears. Even if the minuter details of the tradition do not apply exactly to the circumstances of Cortereal's adventure, they yet suggest a plausible reconstruction of those circumstances. Whether he explored thus far in his original vessel, or was shipwrecked in Newfoundland and came hither in a smaller sailboat, he arrived eventually in Taunton River. Sending some of his men ashore for water, they came into conflict with the natives. The men who went to the spring were slain, as was also the Indian sachem. Cortereal escaped, and others of his crew who had remained aboard and who were responsible for the "thunder and lightning" that "issued from the bird during the affray." We must assume that it was impossible to continue the voyage, and can only guess at the reason. Perhaps the ship had become disabled, or there were too few left to handle it. Perhaps they were all held captive for a while by the natives. Or it may be that the crew, after passing a winter or more there, found some way of going on and were finally lost elsewhere; but that Cortereal, then about sixty years old, was too ill to proceed, or too exhausted by protracted hardships endured in reaching the place. But we must also believe that eventually, with firearms in his possession, sufficient companions to help, and high qualities of tact and leadership, he seized and held the place of the dead sachem. He settled

there, possibly near the spring mentioned; and it was because of its connection with him that it and the brook received the names that Kendall assigns to them. His name on the rock was meant to attract the attention of possible new explorers, and thus give him a chance to return home, if any came. The statement that he was leader of the native inhabitants would tell them where to make inquiries in order to find him. His reference to himself as "Dux" would also have been justified by his letters-patent from the king, which conveyed to him all the continents and islands that he might discover. We may not have related all of the circumstances exactly as they occurred. But something not very different from our story must have taken place, and the consistency of the whole leads me to attach a considerable degree of evidential value to these traditions.

But why, it has been asked, if these things are true, were they not related to the earliest traders and settlers, from 1600 on, instead of being first recorded eighty years later, and then only in a disappointingly abbreviated form? The Indians of Colonial times, these critics continue, knew nothing about these incidents and could give no account of the origin of the inscription on Dighton Rock. These are, however, unjustified inferences. Their only basis is the absence during those eighty years of any reports about these matters, and this proves nothing. Even if the Indians had still retained a memory of these events, it is hardly likely that they would have spoken of them, or that their hearers would have recorded them, for the traders and colonists were not interested in such vague historical allusions. From the time when Cortereal carved his record, more than a hundred years had elapsed before the Pilgrims came to Plymouth, more than 150 before Danforth exhibited the first slight casual interest in the rock, more than two hundred before Greenwood made the first serious inquiries about it. By that time the writing was illegible, and it is not surprising that the memory of the Indians had almost wholly faded. A fragmentary and distorted part of the story did persist among them, however, as we have seen, down to the time of Kendall's investigation in 1807. Why it mentioned only the

more striking incidents connected with the first arrival of the strangers, and not the later events of equal interest to us, has been already made clear.

There are a few additional details that were gathered by Danforth and by Kendall, of which I have not previously spoken. They were not related by these men as part of the story of the principal tradition, but as unrelated circumstances. Danforth, possibly because the suggestion had been given to him by the Indians, interpreted one of the figures of the inscription as "a ship without masts, a mere Wrack, cast upon the shoales." Kendall heard rumors of a rust-eaten ship's anchor that had long previously been found near the rock; of a wrecked ship that had lain and rotted there; and of a ship's crew of long ago that had passed a winter in the vicinity. Some or all of these rumors may well have had an actual connection with the circumstances of Cortereal's visit, and add a little of detail and confirmation.

An interesting possibility has been suggested by several of those who have recently commented upon these new discoveries. "Who can say," says one of them, "that the blood of this Portuguese adventurer"—or, we should add, of one of his younger companions—"was not coursing in the veins of King Philip himself some 150 years later?" Another supports the same suggestion in these words: "No trace of European blood was ever noted among the Indians of Assonet Neck. But of course none was ever looked for in the early days when it might have been noted. A trace of Latin blood, a sign of a race marked by black eyes and hair and olive complexion, after a few generations is less easy to find than a Nordic strain that gives a distinct new trend to type." Apart from this possibility of blood descent, a third reviewer has said something that may well be true: "It is not unreasonable to suppose that Cortereal's influence was that which resulted in the Wampanoag's place in history—that of the most intelligent tribe of Indians in America, a tribe that, faced with extermination, preferred to die fighting."

I have thought that some slight further evidence might possibly lie in the names of some of the Indians who were

known to the Pilgrim Fathers. Suppose that the Indians among whom Cortereal found a home were particularly impressed by two things about their foreign leader and the "magic" that he had cut into the rock: the first part of his name, and the *quinas* that symbolized the country from which he came. They might have learned to call him by the combination of the two—Corte-quina, Portuguese Corte. Then, according to frequent European custom, this name might have been passed on to later sachems, and have reappeared a hundred years later in the name of Massasoit's brother, Quadequina. White men heard Indian names very inexactly, and spelled them in numerous varying ways; so that the difference in spelling here does not invalidate this derivation. The first part of the name, it may be, occurs again without much variation in the name of Corbitant; and the second part in Massasoit's own other name, Ossame-quin, and in Tuspa-quin. William B. Cabot, of Boston, to whose judgment we must accord much weight, can feel nothing but plain Indian in these names; and justly says, moreover, that when an Indian dies, anyone else of the same name at once abandons it, in order to avoid very bad things. Still, there were exceptions. Among the Narragansetts, there was a second Canonicus, nephew of the first. Descendants of Europeans might have been free from the inhibiting superstition and have departed from the prevailing Indian custom. In any case, these resemblances, in view of all the other circumstances, constitute a very curious coincidence that is worth considering as having been possibly more than mere coincidence.

Whether there is much or little value in the individual conjectures that we have added to the undoubted facts, together they form an impressive body of evidence. We may refuse to be impressed by some one or other among them, but we cannot reject them all. The known history of Cortereal, his name on the rock, the fitting date, the pertinent additional message, the form of the letters used, the shield of Portugal, the wooden house of Danforth, the bird of Kendall, the wrecked ships of them both, the story of conflict, the names of spring and brook, the rumor of a ship's crew wintering there long ago, the excep-



Fig. 32. The "Thacher" writing on Dighton Rock, 1592:

- a. Section of flashlight photograph of July 17, 1920
- b. The same, with the "Thacher" reading emphasized

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tional character of the later Wampanoags that might thus be so readily explained, the persistence in similarity of names—here are more than a dozen separate things that weave together into a consistent and plausible story. Every known fact and rumor falls readily into place without contradiction. It would be too much to dismiss it all as a mass of disconnected coincidences. The first four letters of the name Miguel and the first six of Cortereal, are beyond question inscribed on Dighton Rock. With this assurance, and with the confirmatory indications given by the other details just mentioned, it is not difficult to accept the entire record as highly probable: “Miguel Cortereal. 1511. By the Will of God, leader of the natives of India in this place,” followed by the Portuguese coat-of-arms. Then, finally, the entire story, as we have attempted to reconstruct it by aid of the tradition and other pertinent considerations, becomes an almost certainly correct account of the latest incidents in the life of Miguel Cortereal.

The writings by Cortereal, it will be remembered, are not the only ones on Dighton Rock. With few exceptions, the decision as to what the others are is even more difficult than it was to decipher his. There is a fair degree of probability for the presence of the record: “Thacher 1592,” as we have drawn it in Figure 32. It is entirely possible, for the name was a current one in the seacoast counties of England, whose fishermen had long been making the voyage to Newfoundland in considerable numbers. Many of them had doubtless penetrated to New England in their search for cod, long before the end of the century. The evidence for this is convincing. Within the hundred years following the discovery by Columbus, numerous unrecorded voyages were made all along our coasts. Henry Harrisse⁵ speaks of many by unknown Spanish and Portuguese explorers that must have occurred before 1502. Kohl⁶ finds evidence that men of Bristol in England had been in the New Found Land by that time, besides those who sailed with John Cabot in 1497 and 1498. Prowse⁷ confirms this, and

⁵ Henry Harrisse, *Discovery of North America*, pp. 124ff, 249.

⁶ J. G. Kohl, *History of Maine*, pp. 185ff.

⁷ D. W. Prowse, *History of Newfoundland*, pp. 4, 12, 41, 57.

further assures us on good grounds that "from 1504 onward, for a hundred years following, Newfoundland was visited every year by an annually increasing number of fishermen," and that before 1527, and again especially later in the century, Englishmen and others fished and explored frequently not only in Newfoundland but as far at least as the coast of Maine. Mr. C. C. Willoughby, Director of the Peabody Museum of Harvard University, tells me that numerous relics from Indian graves testify to the frequent presence of traders along the New England coast before 1600. When the clear light of history first fully illumines events in New England shortly after 1600, we meet with abundant proof that its waters had been already a familiar resort of French and English fishermen "for divers years before."⁸ By 1620, the fisheries in New England were represented in Parliament as far better than those of Newfoundland.⁹ There is not the slightest degree of improbability, therefore, affecting our reading of the date 1592. That the name was actually engraved on the rock, however, is not much more than a guess, advanced only as the most plausible reading yet suggesting itself of certain partially visible and otherwise unexplained characters of the inscription. It will be noticed that some lines that we assign to this name were used before in the word "hic" attributed to Cortereal, and some again as helping to form the Indian pictograph of a deer. But such a threefold interpretation need not distress us. In numerous places on the rock, portions of an earlier inscription have been covered over by a later artist or utilized by him to form ingredients in his own design.

The word "Spring" and some neighboring features shown in Figure 33 are almost indubitably present. But a suggestion as to the further context of this word that is ventured in Figure 34 is presented with a very great deal of hesitation. That a spring plays a prominent part in the Cortereal story and that the word appears also on the rock, is of course merely a curious coincidence. It can have no reference to Cortereal. One possi-

⁸ Bradford, *History of Plymouth Plantations*, M. H. S. edition, I., 208n, 360n.

⁹ Bradford, *op. cit.*, I. 103n.



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Fig. 33. Part of the left-hand end of the inscribed surface:

- a. Section of flashlight photograph of June 27, 1922
- b. The same with pictographs and records emphasized

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bility concerning it is so very plausible that there seems to be very little doubt about its being correct. Very soon after the settlement of Taunton in 1637, the proprietors began using the salt-meadows about Assonet Neck as their chief source of hay. The earliest haymakers came in boats, the eight miles down the river, and passed by this rock with Cortereal's writing upon it, perhaps already too obscure to read after the lapse of 130 years. Their principal meadows lay only a short distance beyond. One of their chief needs while there would have been a source of good water. About twenty rods above the rock is the mouth of a small brook, draining a considerable swamp (Figure 31). The firm upland at the farther side of the swamp, where the latter comes down to the river, begins just "167" yards, or three foot paces, from the rock, and the arrow on the latter points almost directly to this spot. Here a foot-path now climbs the river-bank, and continues in a woodroad skirting the edge of the swamp. Although no noticeable spring is now discoverable feeding the brook, and although the names mentioned by Kendall appear to have become wholly unknown, yet Kendall in 1807 undoubtedly believed that this brook was White Man's Brook, and he observed a spring near its source, near the foot of a hill at the distance of a quarter of a mile from the rock and the river, which he took to be identical with the White Spring of the tradition. If he was right, then there was a spring, now filled in with mud and growths, probably known earlier by the Indians and approached from the river by a trail which has become the modern woodroad.¹⁰ Before the various springs of the neighborhood had been located by the early haymakers, a direction pointing the way to this one would

¹⁰ Kendall described the spring as one from which runs the brook, and as being located near the foot of a hill to the northeast of Dighton Rock, at the distance of a quarter of a mile both from the rock and the river, on the farm of a Mr. Asa Shove (in 1807). His direction was surely mistaken and should doubtless read "southeast," the error being due to the fact that he thought that the northwesterly course of the brook was southwest. But aside from that error, I find no spring that corresponds to all of his descriptions. The only one now evident is very near Bay View Avenue (see Figure 3), a full half-mile from the river, and not, so far as I can discover from the land records at Taunton, on land formerly owned by Asa Shove. More nearly at Kendall's distance of a quarter-mile, I have dug out several springy places on the edge of the swamp, without satisfying myself that any one of them is the one he meant. One of these is pictured in Figure 30.

have been useful. This would argue that it was made shortly after the settlement of Taunton, and so also would the fact that these marks, as well as those made by Cortereal, had become illegible by the time that the earliest drawings were made, in 1712 and 1730. Danforth, in 1680, drew only the parts of the inscription lying higher up, the rest of the rock being probably under water at the time of his visit. I conclude that the haymakers placed such a sign on our rock at some time very near to 1640, and that it probably included other words in addition to "Spring." What these words were is not at all sure. I find it possible to read them in the manner suggested in Figure 34: "Injun Trail to Spring in Swomp (pointing arrow) Yds 167." Some of this is fairly distinct, especially the fragments: "—JU—IL—SPRING—SW—167." The rest is little more than guesswork, supported by the appropriateness of the words and by the fact that the assumption of their presence explains consistently quite a number of the lines on the rock.

These seem to be all of the writings by white men, except for dates and initials of more recent times. We have every reason to believe that everything else upon the rock was the work of the native Indians. The deer, the turtle, the two Indians with joined hands, the other human figures, are products of characteristically Indian art. No other origin is reasonably suggested by anything else that we can discover there. Whether any of these Indian records were made before Cortereal used the surface cannot be surely decided, but it is highly improbable. The central position of his name, and the way in which the rest of his message sprawls freely over the rock, seem to indicate that the entire surface was available for his writing. Many of the carvings are unquestionably drawn over his and of later date. Study of the other petroglyphs scattered about Narragansett Bay, as we shall see, argues that they, at least, were motivated by the example of the whites of Colonial days. It seems unquestionable, then, that it was Cortereal's example, reinforced by more intimate acquaintance with white men's writings after 1600 and by still later development of the Indian practice of affixing signatures to deeds, that inaugurated among the local Indians the first imitative efforts to accom-

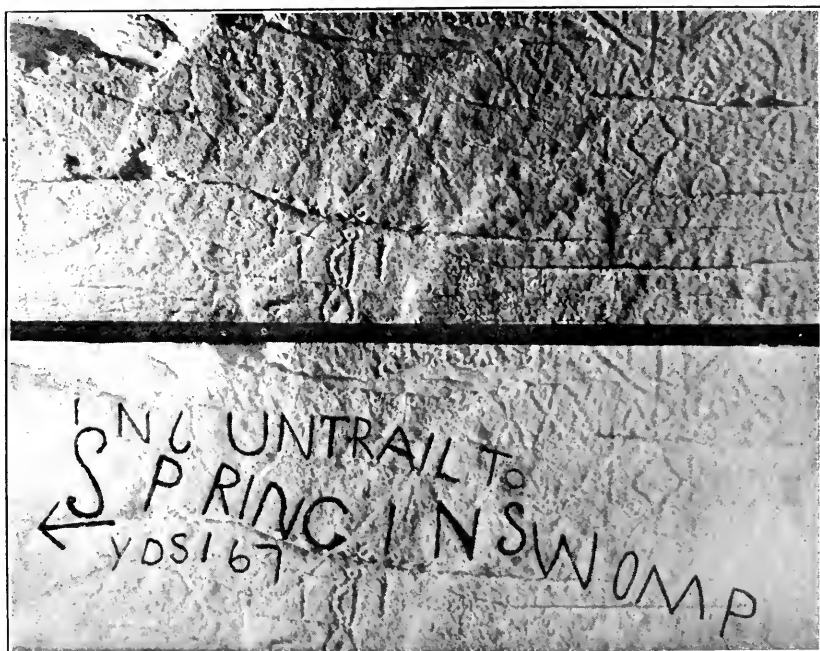


Fig. 34. Conjectural completion of the "Spring" inscription, about 1640

- a. Section of flashlight photograph of July 17, 1920
- b. The same with the writing emphasized

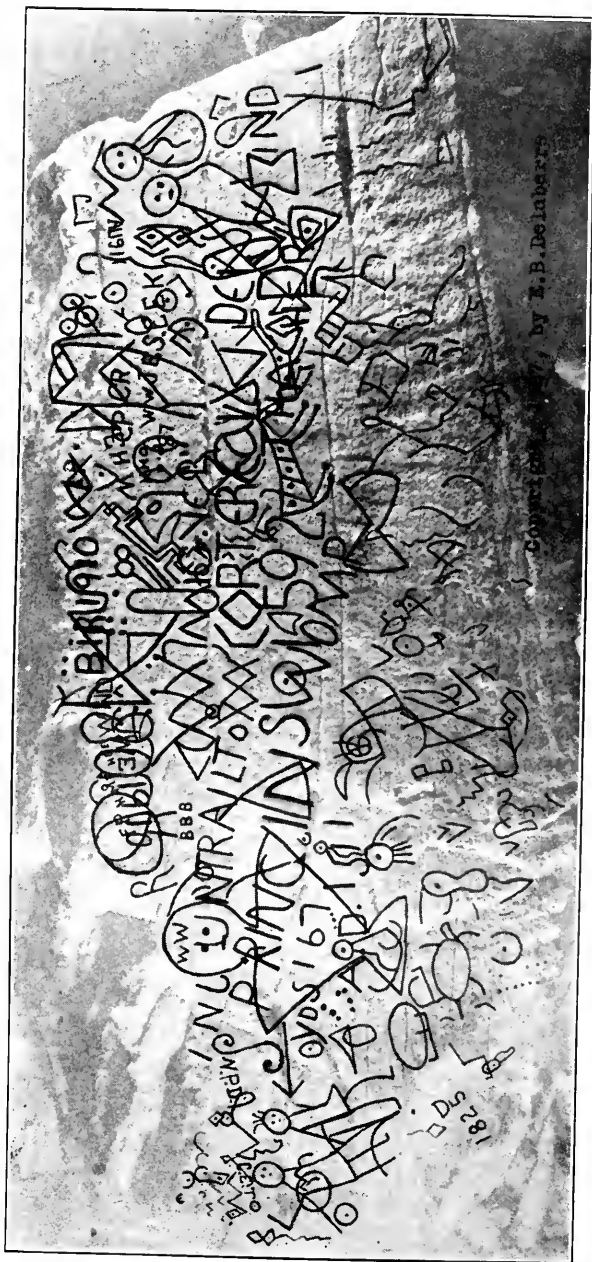
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plish something similar. Study of all of the discoverable evidence leads me to believe that the same was true throughout New England. The Indians of this region had no knowledge even of pictographic writing before contact with white men suggested the idea to them. These Indian records belong, then, in all probability, to the period extending from about 1640 to about 1675.

The Indian contributions to Dighton Rock do not form a connected story, but were evidently made by many different individuals and on different occasions. Many of them are doubtless meaningless scribbings, others merely trivial pictures. Some of them, especially the more regularly formed designs, may have had a more elaborate symbolical purpose, but anything of that sort would have been probably so local and temporary and unimportant that we are not likely ever to discover what particular objects and ideas their authors had in mind. It is not at all easy to decide just what most of the Indian records were. Some of them, enumerated at the beginning of this chapter, were fairly deep and sure. The rest, of which there were certainly a great many, were carved in a very shallow manner, often intermingling and covering one another. Some of their lines have wholly disappeared, and the remainder can be seen in almost innumerable alternative ways. I have made, however, in spite of these difficulties, an attempt to reconstruct the entire confused mass of records on Dighton Rock, so far as it is possible to make a plausible interpretation of them (Figure 35). At least seventy-five per cent. of my renderings are different from those of all previous drawings and chalkings. Since this version has been derived from painstaking study of unprejudiced photographs, and not from the less dependable study of the rock itself, I regard it as unquestionably much nearer to the truth. It will probably be forever impossible to decipher the entire collection of inscriptions with certainty. It is inevitable that I must have missed many significant details and connecting lines, and must have included much that is exceedingly dubious. In spite of its unavoidable defects, however, I offer it as a distinct improvement over previous depictions, and as the best that I can devise in the reading of this intensely interesting and exceedingly difficult document. For reasons

that I have already made plain, I make no attempt to interpret the meaning of any of the Indian contributions, if, indeed, they possess any meaning at all.

Probably everything of real interest upon the rock has now been deciphered with approximate correctness. It teaches a respectable number of hitherto unsuspected historical facts, which can be regarded as sure, however, only to the degree to which my new readings are accepted as well founded. In the first place, it makes it practically certain that Miguel Cortereal, lost to sight on the coast of Newfoundland in 1502, nevertheless survived, and, in his original ship or in a smaller sailboat, made his way to Assonet Neck in the present town of Berkeley in Massachusetts, was interrupted in his voyage, probably because of a conflict with the natives in which most of his companions were slain, became leader of the Indians, left his name and the date 1511 upon this rock on the edge of Taunton River, and probably made his home there until his death. Secondly, it seems to indicate that an English fisherman named Thach or Thacher may have visited the place in 1592. Next, it bears directions, probably carved by Taunton haymakers about 1640, for finding a spring of water. Further, it gives evidence that it was the example of Cortereal and of later white men that first suggested to the Indians the idea of making rock-records for themselves, and thenceforward they doubtless continued the practice at intervals until about the time of King Philip's War. Finally, it contributes to knowledge of the earliest graphic and artistic efforts of New England Indians, and supports the belief that they were only insignificant scribblings and pictures, and in no case records of important or historical events. This famous rock, then, is not so full of wonder and strange tales as has often been proclaimed of it in the past, nor is it so trivial and commonplace as current archaeological opinion assumes. It has had the misfortune of being assigned always either too exaggerated or too insignificant a value. With the better, though still incomplete understanding of it which we have gained, it should be possible now for Dighton Rock to take the dignified and respectable position that it deserves, of recognition as an historical record of moderate, yet genuine importance, and the earliest one known in New England.



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Fig. 35. Conjectural reconstruction of all of the inscriptions on Dighton Rock, plotted upon the flashlight photograph of July 17, 1920

CHAPTER XI

THE MOUNT HOPE ROCK

There are many other inscribed stones in the region about Narragansett Bay, besides the one known as Dighton Rock. In spite of the vigorous debate which has centered about the latter, the others remain without adequate description. One who desires to inspect them all meets with difficulty in securing a complete list, and then in finding them when he knows their approximate location. Several of them seem never to have been mentioned in print.

A hundred and fifty years ago Ezra Stiles, then minister at Newport and later President of Yale College, found inscription-rocks at five different places within this region. His carefully made drawings and observations were never published. Again, about ninety years ago, Dr. Thomas H. Webb and John R. Bartlett, as a committee of the Rhode Island Historical Society, sought out and made drawings of all the inscribed rocks that they could discover. Their results, though published, are not now easily accessible. Since then no similar study has been made, until this present investigation was undertaken.

The one commonly known as the Mount Hope Rock is situated on the shore of Mount Hope Bay, in Bristol, a little north of the base of Mount Hope, and south of the Narrows of the Kickamuit River. The chart of Figure 36 indicates its position, and the next following figures show its appearance and help in identifying it. The rock is low, flat-topped, of relatively small thickness, lying flat on the beach. It measures five to seven and a half feet in width, ten and a half in length, and sixteen to twenty-four inches in thickness. In shape it is nearly an oblong rectangle with a triangular point projecting outward toward the water, and a slight inward curve on the side toward the bank. Like Dighton Rock, this one is of the kind which

used to be called graywacke, but may be more definitely described as a very fine-grained slightly argillaceous sandstone, rather quartzose, with frequent minute particles of an indistinguishable mineral which weathers rusty, imparting in the weathered zone—which may be from $\frac{1}{4}$ to $\frac{1}{2}$ inch deep—a brownish tone to the prevailing bluish-gray color of the fresh rock.

A striking feature of the surface is the occurrence within it of a number of large circular or oval patches of a darker gray and much harder consistency, which seem to be what one observer mistakenly regarded as marine fossils. The inscription occupies a very small portion of the surface, close to the point which projects out toward the water. The position is well shown in Professor Munro's drawing. The line of apparent letters is twenty-one inches in length, and two and one-fourth inches in average height of the individual characters. Its exact appearance is shown clearly in Figure 38. In examining this, it is well to realize that the rock surface is broken away in some places and is worn everywhere, obscuring the characters more or less. Moreover, a few natural cracks are intermingled with the artificial characters and must not be taken as part of the latter, though it is not always possible to distinguish them with certainty. However, as is shown by the comparative table which appears later (Figure 42), no one, unless Bacon, has regarded as artificial the prominent line, running vertically in the photograph, below the left-hand corner of the boat, nor the horizontal one running leftward from the top of the character to which our table assigns the number 6. Character number 1 is at the extreme edge of the rock, and is not very clear. Between characters 3 and 4 is a moderately wide space; and between 4 and 6 a relatively very wide one, in which was a character not easy to read because of scaling. The lines are narrow, clear-cut for the most part, smoothly engraved as if by a sharp iron tool, not, as in most of the rocks of the region, pecked in by blows of a blunter point, probably in some cases that of a stone implement. Among the figures, the depiction of an unmistakable boat is prominent. Leftward and a little above it is a group of marks that Miller has drawn

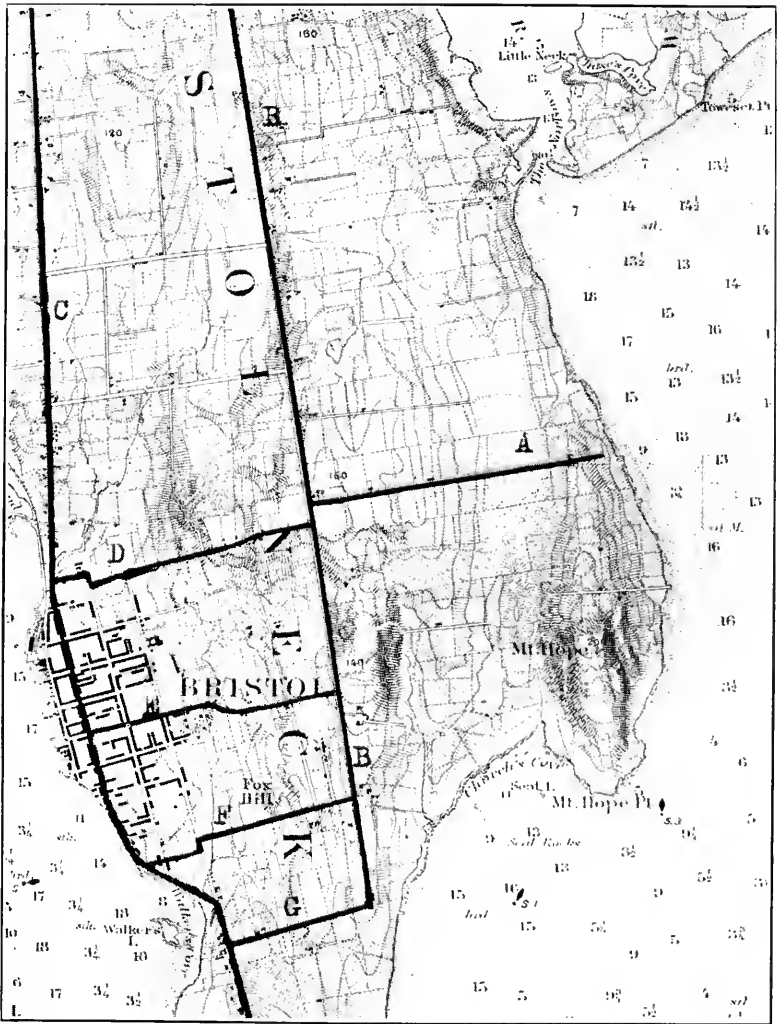


Fig. 36. Chart of the vicinity of Mount Hope, Bristol, R. I. The Rock is on the shore, about one-eighth inch above the road marked A. Routes of approach marked by heavy lines. A, private road; B, Metacom Avenue; C, Hope Street; D, Bay View Avenue; F, Woodlawn Avenue; G, Griswold Avenue

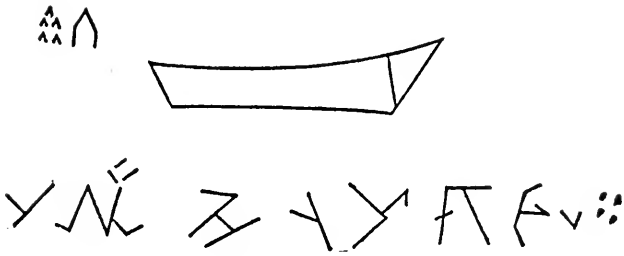


Figure 39—By William J. Miller, 1880.



Figure 40—By Wilfred H. Munro, 1880.



Figure 41—By Edgar M. Bacon, 1904.
Drawings of the Mount Hope Inscription

in a manner suggesting somewhat a large wigwam with smaller ones near it, or possibly a church in a village. This group, almost surely not artificial, although neglected by all except Miller, shows plainly in the photograph. Underneath the boat is a line that appears to be composed of alphabetic, syllabic, or ideographic characters "in an unknown tongue." Besides this older inscription, a considerable number of more modern initials mar the surface of the rock, and one of these silly and futile attempts at ego-maximation has unfortunately been made over a portion of the inscription itself since the photograph was taken.

Three independent drawings of the inscription have been published, by Miller in 1880 and 1885 (Figure 39), Munro in 1880 and 1881 (Figure 40), and Bacon in 1904 (Figure 41). For better comparison, the characters of the inscription as they appear in these drawings are again given, together with two unpublished versions of the same inscription, in Figure 42.

There is considerable evidence, in the form of rather convincing tradition, that the rock once rested in the field above the low cliff or bank near the base of which it now lies. There it is within reach of the tides, being entirely submerged at times of extreme high water. It is said to have been once surrounded by a much larger number of boulders and pebbles, many of which were removed during the construction of the neighboring wharf. There is even a tenuous rumor of another inscribed stone having once lain nearby, which someone, wearied of the Norse disputes, turned over in order that it might not foster further controversy.

As to the age of the inscription, Miller claims that the rock "was known to the early English settlers," and that its characters "bear marks of great antiquity;" and he speaks of it again as "an inscription that the Indians had called to the attention of the early visitors to Mount Hope, and disclaimed all knowledge of its origin." These and similar misleading statements made by other writers are confessedly based upon tradition only, not on records; and we shall see that the traditions are wholly fictional and probably of recent manufacture.

The first genuine hint of the rock's existence seems at first



Fig. 37. The Mount Hope Rock as seen from the northwest



Fig. 38. The inscription on Mount Hope Rock

sight to be contained in a statement made in 1835 by Dr. Thomas H. Webb in a letter to Rafn, to the effect that "Mr. Almy understood Dr. Stiles, in 1780, to say, that an Inscription Rock was situated near Mount Hope."¹ Webb, who with Bartlett sought diligently for all such rocks, did not succeed in finding it; and we shall argue later that this passage does not necessarily help in any way to establish the sure date of its existence. When Diman first wrote of it in 1845, it had been known at some time previously, but it was then believed that it had been destroyed, and that when known it bore characters that were strange and were thought to be old. How great an age it is necessary to assign to it as a minimum on that basis depends on the question as to how long it requires for such a tradition to grow; and this is reserved for later discussion. After a period of unknown beginning and of unknown length during which its location was known, it was lost to view before 1845 and the opinion prevailed that it had been destroyed, perhaps through being used in the construction of the wharf nearby. Its rediscovery was first announced by Miller in a paper which he read on March 17, 1874, in which he says that he visited the rock for the first time "last autumn."

It seems clear, then, that 1873 was the year in which the discovery was made. A record of 1877 shows that by then it had become known as "Northmen's Rock." Neither of the writers of 1880 mention this name. If it was applied earlier, it certainly must have originated later than 1837, the date of appearance of *Antiquitates Americanæ*, to which is due the earliest hint that there had ever been Northmen in this vicinity. No further incidents of importance mark the rock's history until, on June 13, 1919, under the auspices of the Rhode Island Citizen's Historical Society (not the Rhode Island Historical Society), it was dedicated with picturesque ceremony and with appropriate addresses, and was christened in the ancient manner with corn, wine and oil, receiving the name "Lief's Rock." After our own conclusions are drawn, we shall doubt the de-

¹ *Antiquitates Americanæ*, 1837, page 403. The Almy referred to was John Almy of Tiverton.

sirability of the permanent retention of either of these two names that have been given to it.

The only attempt that has ever been made at an interpretation of the word or words represented by the inscription is in an ill-written and ignorant pamphlet of 1888, by Ernest Fales of Bristol, who gives no clue as to how he obtains his absurd reading: "Rock of safety, and all the power of man cannot take the rock from the place of its situation." Aside from this claim, all that has been guessed is that the letters exhibit the name of the person who carved them. There is, however, among a portion of the writers a very definite opinion as to the race of the engraver and almost the exact year when it was done. The theory was first advanced by Diman when, as a youthful student, he wrote the "Annals of Bristol" in 1845. He related the story of the Norse visits to America, especially that of Thorfinn Karlsefne in 1007, following the version that had been given in *Antiquitates Americanæ*. Rafn argued that Thorfinn had wintered on the shores of Mount Hope Bay, and that the name Hop, which he gave to the place, was still preserved in the name of the hill near Bristol. This view was naturally accepted by Diman in his school-boy days, and he believed the rock to be "the only trace which has been left by the Northmen of their wintering in Bristol;" but in his maturer years he became and remained exceedingly doubtful as to its truth.

Both Miller and Munro relate the circumstances under which they believe that the work may have been done. The former ascribes it to one of the party of Bjarne Grimalfson, a commander in Thorfinn's expedition, who, sacrificing himself for one of his crew, stayed behind with others in a worm-eaten ship and probably "perished among the worms." The latter gives the probable story in these words:

It is easy to conjecture in what manner the record was made. As the boat of the Northmen approached the shore, when the tide was almost at the flood, the broad, flat surface of the rock presented itself invitingly to their feet amid the surrounding boulders that covered most of the shore. When the party set out to explore the surrounding country one of their number was left in charge

of the boat. As the tide went down he seated himself upon the rock with his battle-axe in his hand, and amused himself by cutting his name and the figure of his boat upon its surface.

Besides the two men just mentioned, a few others have espoused the cause of the Northmen. William A. Slade spoke of the rock guardedly in 1898 as having "a certain value as cumulative evidence." Thomas W. Bicknell said something closely similar in his history of Barrington. The latter again supported the Norse hypothesis a short time before the dedication of the rock on June 13, 1919, in a communication to the Bristol *Phoenix*. So also, judging from the brief newspaper reports, did the speakers at the exercises on that occasion. But the warmest advocates of the view concede that their belief rests solely on the absence of convincing proof against it, and on local pride and the romantic appeal of the story. "We may please ourselves with the fancy," said Diman doubtfully; and "a halo of romance will surround these shores" if we do so. "Imagination delights to connect it with the visits of the Northmen," is the strongest reason that Professor Munro ventures to express; and he puts the whole matter admirably in his latest statement: "Around Mount Hope the legends of the Norsemen cluster, shadowy, vague, elusive, and yet altogether fascinating. Only legends they are and must remain." It is, then, the poet's voice alone which is raised in behalf of Norse visitors to these shores; as, for example, in the following by Bishop Howe, read at the Bi-Centennial of Bristol in 1881:

Here in dim days of yore—
Six centuries before
Saxons sailed these waters o'er;
Norsemen found haven!
Tread we historic ground,
Where, on the shores around,
Records of them are found
On the rock graven.

Thomas W. Higginson wrote briefly of this rock in 1882, taking his descriptions from Diman and from Miller and reproducing Miller's drawing. He thought that the picture

showed little resemblance to a Norse boat, and that the apparent letters were "an idle combination of lines and angles. . . . All these supposed Norse remains must be ruled out of the question." The writer of the article "Vineland" in *Harper's Encyclopædia of United States History*, in 1901, exhibits a curious inconsistency. On page 76 he gives Miller's drawing without textual comment, and entitles it "Old Norse Inscription;" but in his text on page 70 he tells us that "no genuine Norse remains have ever been discovered in New England." In 1904 our rock is again mentioned, by Edgar M. Bacon in his *Narragansett Bay*. The author gives more space to an absurd estimate of the rapidity with which the rock's surface is wearing away than to anything else. Relying on statements that are in themselves incorrect, he uncritically claims that the rate of destruction on Dighton Rock, roughly stated, is a half inch in a century; and that this rock, being much softer, is wearing more rapidly. "I have several times examined the Mount Hope Bay rock within the past five years and I find the change very marked—there is hardly anything left of it." Such a conviction is merely a common yet mistaken psychological impression. Bacon makes a genuine contribution in his new and valuable drawing. As to the origin of the inscription, he says merely that the Norse claim is not proven—but likewise is not disproven.

Although Babcock thinks it probable that the Norse voyagers reached Narragansett Bay, yet he holds that "there is not a single known record or relic of any Norse or Icelandic voyage of discovery extant at this time on American soil, which may be relied on with any confidence." He inspected the Mount Hope rock in 1910. The outline of the boat reminds him, not of a Norse bark, or Indian's canoe, but of a modern white man's boat with its bow uplifted and its stern set low in the water. Some characters are gone from the stone and all the others have been damaged. Only the boat remains unhurt, though shallow. After reminding us that Indians often made drawings on rocks, including random grooves and scratches and idle depictions of objects, he draws his final conclusion: "The tendency to find something esoteric or at least very meaningful in every chance

bit of native rock-scratching has been a delusion and a snare. The proximity of the boulder to Mount Hope seems to mark this queer relic as almost certainly Wampanoag work." Du-buque also attributes it to the Wampanoags, "probably to commemorate the event of some great conflict among hostile Indian tribes."

It has been argued that the characters on the rock resemble runes. It needs only an actual comparison of them with the well-known forms of the runic alphabet to establish the fact that this is not true. Again, it is said that the characters bear the appearance of being very ancient. But we have seen abundant evidence in the case of Dighton Rock that this would be true of any rather shallow marks cut into that kind of rock, within a relatively short time after their formation. The argument that the inscription must be old, because Indians could give no account of it when the white settlers first arrived, is pure assumption; for no one knows anything about it so early as that. The first rumor that there was such a rock is that of 1835, and is unreliable, for reasons given later. Diman remarked of it in 1845 only that "it is said to have been" existent. It is not again mentioned until 1874, when for the first time the "earliest settlers" appear. It is an interesting psychological question as to how long a time would be required to create the impression of an indefinitely remote antiquity,—how long it takes to produce a tradition of "long long ago." A few examples will show that the time required is very brief. One writer said about 1880: "Popular conjecture has always associated it with the visits of the Northmen." But this "always" cannot mean more than about forty years; for it was not until 1837 that the first suggestion was made that the Northmen ever saw Rhode Island's shores. Exactly the same sort of statement has been made concerning Dighton Rock: "Its inscriptions have always been thought to have been made by the Norsemen."² Within less than fifteen years after Rafn's first announcement in 1840 that the Newport mill was Norse, a writer in *Putnam's Magazine* spoke of it and Dighton Rock as "monuments which tradition has immemorially ascribed to

² Taunton Gazette, May 3, 1905, p. 9.

the handiwork of the Northmen." As to the Mount Hope traditions, people now living, I am told, received them from old persons to whom they had been related by their grandfathers or other old people; and Dr. Doringh heard of the rock from an old resident who saw it when he was a boy, having had it pointed out to him by an old man. Miller calculates that this involves a sure period of fully a hundred years prior to 1873. But these facts might still be true if the rock had first been seen about 1835 or 1840. It is well to realize that no actual fact is included in any form of the tradition as I have heard or read of it that necessarily carries us back to an earlier date, and that statements about knowledge by earliest settlers and lack of knowledge on the part of Indians have been repeatedly made concerning Dighton Rock and are provably mistaken. One or two persons might have seen the inscription about 1835, and reported it as composed of strange characters. Rumors of the curiosity spread, but the location of the rock was forgotten; and when the Norse theory of Dighton Rock became known, about 1840, this mysterious rock also would naturally have been attributed to the same source. Thus Diman's statement in 1845 would be accounted for, even though the characters had been carved not more than ten or twenty years before. Within the next twenty years, following the example set by Dighton Rock, it would become easy for the memory of old people to assure them that the inscription had been seen at some indefinite time and therefore long before Diman's mention of it, and for the early settlers and the ignorant Indians to be introduced into the accounts because, if the writing was really old and unaccountable, these facts also must have been true.³ The rumor of 1835, purporting to date from 1780, cannot be regarded as evidence against these suppositions. It is highly probable that Almy's

³ This is an interesting example of the not uncommon logical error of "putting the cart before the horse" and of "arguing in a circle." It begins, not long before 1845, in this form: "The inscription is old, because known by vague rumor only, and in unreadable characters; therefore it must have been seen by the earliest settlers, have been a mystery to the Indians, and have been another example of Norse carving." It gradually becomes transformed into the argument used by later writers: "It was seen by the early settlers and was unexplainable by the Indians; therefore it is very old, and of Norse origin."

memory was at fault in this instance. Stiles was in the habit of entering in his Itineraries notes concerning every rumored inscription-rock that was brought to his attention, and he visited and made drawings of every one that he could locate. Yet his notes contain no allusion to any near Mount Hope. I conclude that probably Stiles had never heard of one there and had mentioned to Almy a rock at some other place. The fifty-five years that had elapsed before he spoke of the matter to Webb would easily account for the error in Almy's impression; and we shall meet later yet another instance of his tendency to confuse localities.

I am inclined, therefore, to set 1835 as the earliest date at which we can be sure that the inscription was in existence. It seems to me significant that William E. Richmond published a long poem on "Mount Hope" in 1818, devoting three pages of verse and ten pages of notes to Dighton Rock, but without mention of this nearer curiosity. He had certainly never heard of it, and, since he apparently knew the region intimately, this may argue that the inscription there had not yet been made.

Similarly unsound is the argument that the record cannot have been made by Indians, because they had no written language. For Indians of the time of the first settlers and earlier this is true. But in Colonial times the case was different. A Micmac system of hieroglyphics developed, many Indians were taught to write English or at least to affix their "marks" or signatures to official papers, and there is some slight evidence, to be examined in a later chapter, that a native system of symbolic characters may have been coming into use in this locality before King Philip's war. Moreover, in 1821 an uneducated Cherokee,⁴ analyzing his language into eighty-six syllables, devised a separate and fixed character for each. The result was easy to learn and his whole tribe was soon making use of it. Before concluding that Indians cannot have been the authors of our puzzle, we must first make sure that it cannot be explained as having been written in one or another of these systems.

The following Table will help to a decision.

⁴ George Guess, known also as Sequoyah.

	1	2,3	4	5	6	7	8	9	
1. Miller	✓	Λ	Σ	.	γ	γ	Α	Ε	~ ∴
2. Munro	γ	Μ	Σ	∴	γ	γ	Α	Ε	
3. Bacon	✓	Λ	Σ	—	ι	γ	Ρ	Ε	
4. Chapin		Μ	Σ	—	γ	γ	Ρ	Ε	
5. Delabarre	ι	Λ	Σ		γ	γ	Α	Ε	
6. Cherokee	γ	Α	Α	Ο	λ	γ	Ρ	Ε	
7. Photograph	γ	Α	Α	Ο	γ	γ	Ρ	Ε	
8. Warren	ι		Ε			▷	▷		
9. New Jersey	γ	Λ	Λ		γ	γ	Ρ	Υ	X
10. Tennessee	±	Λ	Σ		γ	γ	Ε	Ε	Σ

Figure 42—Versions of the Mount Hope Inscription and Comparison with Other Indian Writings.⁵

The presence of natural cracks, the scaling off of parts of the rock's surface, and the wear and tear of the letters, make it impossible to be sure exactly how the original inscription looked. For this reason the first five lines of the Table present versions of it as seen by five independent observers. They are closely similar, but not identical. The first three are from the published drawings. The fourth was made by Howard M. Chapin on May 23, 1919, and the fifth by myself on August 5, 1919. These last two are confessedly hurried impressions without pretense to critical study, but are useful, nevertheless, as showing how the characters may be seen. With these should

⁵ Since the characters of this Table had to be drawn free-hand, they are of course not photographically faithful to their originals. Those of the sixth line follow sometimes the model of the U. S. Doc. No. 135, sometimes that of Pilling. The order of the characters of the last three lines is not that of their originals, it being desired to place each underneath that character of the Mount Hope inscription which it most nearly resembles.

be compared the photograph of the inscription, which offers the best means for studying its exact appearance; but care must be taken not to mistake natural cracks for artificial lines. In the sixth line of the table are presented those characters of the Cherokee syllabary which most nearly resemble the Mount Hope inscription. In the three lowest lines are shown the characters on three Indian stones that are to receive attention later. Concerning them it is sufficient to remark that a general resemblance can be discerned, enough to suggest that, if these three are Indian, the one near Mount Hope may be Indian also. They cannot help us, however, to read what is written.

Returning now to the Cherokee characters, we shall find that they offer a possible solution of our enigma. At first sight they seem too different from those of the stone to admit the possibility of the latter having been intended to represent the former. But careful study of the photograph proves that the resemblance may really be accepted as greater than the drawings hitherto made would suggest. A few lines are clear in the photograph, and others can be faintly seen if looked for, whose presence no one has suspected before. Some show very clearly and have always been drawn as artificial, which may, nevertheless, be cracks or other accidents. Adopting an attitude as favorable as possible in these respects, line 7 of the table may be found in the photograph. It shows indubitable lines heavily drawn, faintly observable ones more lightly traced; while those that are clear yet are to be rejected are indicated by dimly drawn dotted lines. To accept this as the correct interpretation involves only slight departures from what the draughtsmen from the rock have seen and depicted. We have to add but very little to what one or more of them have seen: the horizontal line over character 2 and the short horizontal line of 3, both of which appear clearly in the photograph; the whole of 5; and the short and uncertain up-curve at the bottom of 7. From what has been unanimously accepted heretofore we have to omit as imperfections only a curved diagonal line running down to the right from the middle of 3, and the long horizontal line running leftward from the top of 4 which simply is here made to share the fate of the always rejected similar horizontal running left-

ward from 6. Unusual features that nevertheless have been given already by one or two observers are the up-curve at the bottom of 1, the separation of 2 and 3, the R-shape of 8, and the curved form of 9. The last is easily seen if we follow with the eye the right side, not the left side, of the lines composing the letter. The fifth character occupies a position where the surface of the rock has scaled away. But we shall see, when studying Mark Rock, that even where this happens it does not necessarily destroy altogether marks which were carved in the original surface. They may continue to be legible under favorable conditions of lighting. The photograph shows faint traces of the character here in the form that is given in the Table, and careful study of the rock itself convinces me that the reading is justified.

It demands, therefore, no great credulity to believe that line 7 may be a correct restoration of what was actually written. Its differences from line 6 are very slight. Character 2 is reversed, but evidently the same—a very common error of children and ill-educated persons; 4 is a little unconformable in shape, but unmistakable; 6 is badly drawn, but almost solely through having its short diagonal directed wrongly. It is always much harder to remember accurately the forms of letters in writing them than it is to recognize them in reading; and a man of little education, without having his book at hand for guidance, would naturally have made many mistakes in attempting to draw these eighty-six characters. Even fairly educated white men do not always remember the correct shapes of their own twenty-six letters; one of them has recently inscribed a date on this same rock, with the lower curve of a J turned the wrong way. Most of the characters of the inscription more nearly resemble Cherokee symbols than any other specific alphabet, in spite of not corresponding exactly. In fact, I think that we may say that seven of the nine characters are practically sure; but if so, then 5 and 6, the only uncertain ones, must be accepted with them, because taken thus the line now conveys a discoverable meaning.

The Cherokee syllables of line 6 are pronounced, in Cherokee, as follows:

Mu-ti-ho-ge-me-di-mu-sv-quv.

The *g* approaches *k* in sound, and the *d* approaches *t*. The *v* is a short *u* strongly nazalized.⁶ Now it is not impossible, as we shall see, that a New England Indian inscribed these symbols some time between 1825 and 1835. If he was depicting syllables of an Algonkian language by means of symbols devised for Cherokee sounds, he would have had to select the nearest resemblances, not having exact equivalents. The place where these occur gives a sure clue as to their meaning. The first part can stand for nothing else than "Metahocometi" or, as we more familiarly know it, "Metacomet." The *mu* which follows naturally unites with the *s* of the next syllable, becoming *mus-*, one of the forms to which Trumbull assigns the meaning "great." The final word is evidently sachem;—*saunchem* is the Wampanoag form of it which John Danforth wrote in 1680. The syllable *ho*, I am informed, has an intensive effect in Algonkin. The whole, then, will have been intended to read: Great Metacomet, Chief Sachem.

Who could possibly have written such a record on this obscure rock, in Wampanoag dialect but in Cherokee letters, long after Indians had ceased to live in this region? The question, of course, cannot be answered with entire certainty. Nevertheless, it is not difficult to reconstruct plausibly the circumstances under which the inscription may have been made.

It is a matter of record that a party of Penobscot Indians visited Warren and vicinity in 1860. There seems to be convincing evidence in local tradition that one or more other parties of them had been there in previous years, and there is fairly strong indication that such visits were made as early as 1830 or 1835. Again, it is known that a party of Penobscots was in Cambridge in the winter of 1833-1834, and they may well have come to Warren also in one or the other of those two years and thus have been responsible for the origin of the local traditions. In the third place, there was living in Massachusetts at the time a Cherokee Indian, more or less of a wanderer, married into the family of descendants of the Wampanoag Chiefs.

⁶ The earliest authority, the U. S. Doc. 135, instead of *ge* gives *keh*; for *di* gives *tee*; and for the last two syllables: *sahn-quhn*.

Thomas C. Mitchell was a half-blooded Indian, born in 1795, whose mother was Patapsico, a native Cherokee, and whose father was an Englishman. At an early age he became a sea-faring man. It is not known whether or not he ever returned home for a time and learned the Cherokee manner of writing, but this is a not remote possibility. He was living in Charlestown and North Abington in the years between 1828 and 1835. When the party of Penobscots, who encamped in Cambridge in the winter of 1833-'34, visited Warren, as they probably did, he may well have gone with them, for he would naturally have been interested in Indians who came to his vicinity; or he may have gone independently at about the same time, which I regard as less probable. He had married into a family that was proud of its descent from Massasoit and that had great reverence for King Philip; and he himself, as his daughter Charlotte, or Wootonekanuske, informs me, "thought that King Philip was a great man." His knowledge of Cherokee, and his visit to Warren and Bristol, are matters of conjecture, it is true. But they are not at all improbable, for, in the first place, the above-mentioned known facts make him an exceedingly likely person to have carved the inscription; and, moreover, he seems to have had a restless and wandering spirit, indicated by the fact that, as his daughter expressed it, "he used to stay at home sometimes for two or three years at a time, and then go off on a sailing trip again." Unless, then, some positive evidence in favor of another view develops, I am convinced that it is so highly probable as to amount nearly to certainty, that the inscription on the Mount Hope rock was written in Cherokee symbols and Wampanoag words by Thomas C. Mitchell, in or about 1834.

In view of the condition of the rock and the departure from life of everyone who could possibly have known the circumstances, it is exceedingly unlikely that the exact truth can ever be established beyond question. There are three strong points in favor of our hypothesis: five of the characters, perhaps seven, are almost surely Cherokee; adding to them two less certain ones, they make definite and appropriate sense; and we can account for their being there, in a manner consistent with all

the known facts. Any one of these alone might leave us in serious doubt. The three taken together make an exceedingly strong case.

If we accept the new interpretation, even though hesitantly and doubtfully, and lose the halo of antiquity, we do not relegate all the poetry and romance to acknowledged fictions. It clings abundantly to the realities themselves. What can be more romantic, what a more inspiring theme for poets, than the actual facts, if our story be indeed true? Amid these indented shores and wooded hills once roamed a free and happy people—"kind and gentle; the finest looking tribe, and the handsomest in their costumes, that we have found in our voyage,"—so Verrazano wrote of them in 1524. Dark days came upon them which never ended. Displaced by an alien people, their broad lands tricked away from them, they were degraded, wronged, subdued. An irremediable incompatibility in ideals, in temperament, in unalterable manner of life, without serious fault on the part of either, made it impossible for the two races to live together in peace. It was the working of unhappy fate for the one that inevitably had to yield and vanish. Yet before it yielded utterly, under the leadership of a brave man, it made a last despairing, heroic, vain attempt to save itself. Thereafter there was nothing left for its disappearing remnants but tame submission and memories of a greater past. The two monuments of Mount Hope in their sharp contrast are a fitting memorial of this tragic story. At the summit, carved in stone, is the name "King Philip," unveiled amid impressive ceremonies, erected tardily by the conquering and self-styled superior race, as a tribute to a great man who, had he succeeded, would have been a Washington to his people. On the shore at the base of the Mount is a humbler and more pathetic stone, on which someone, silently and alone, engraved an epitaph to his dying race and its vanished hopes, symbolized in the name of its unhappy hero: Great Metacomet, Chief Sachem.

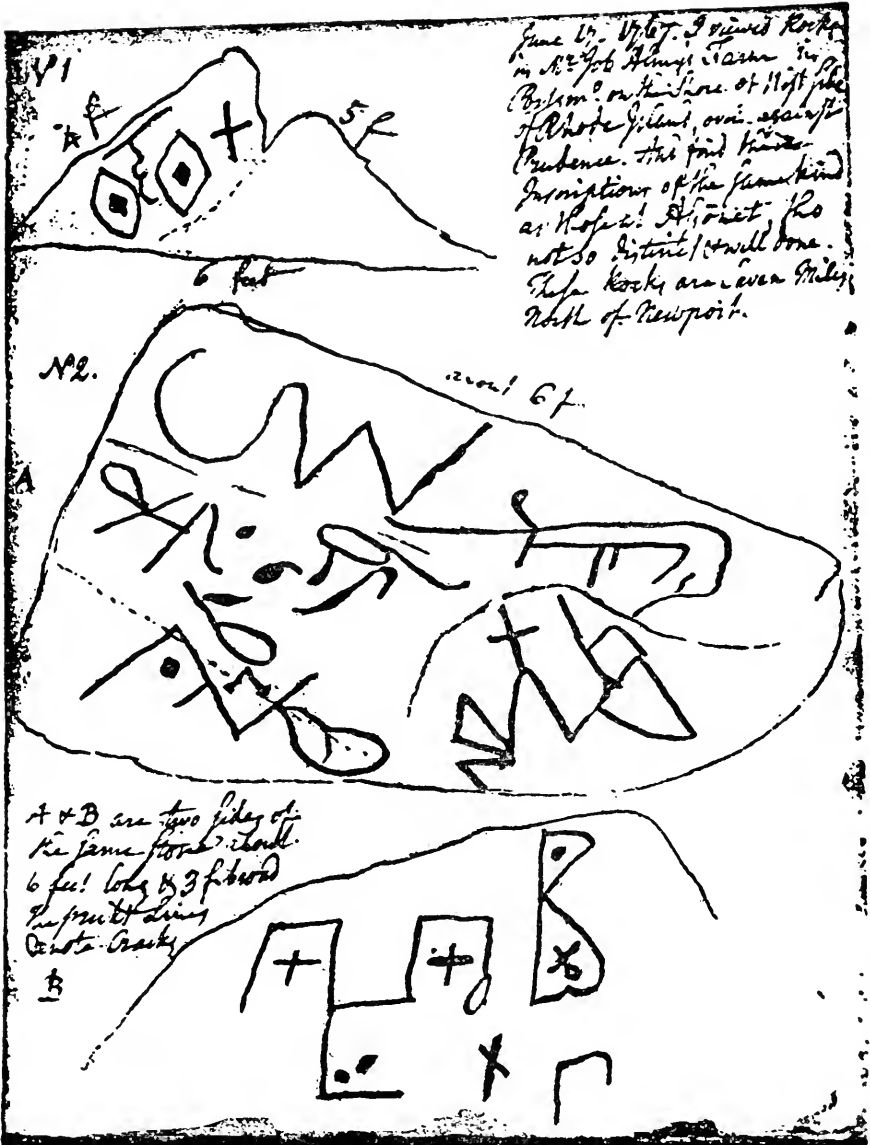


Figure 43—Drawings of Portsmouth Inscriptions by Ezra Stiles, June 17, 1767, from his Itineraries, ii, 265.

CHAPTER XII

THE ISLAND OF RHODE ISLAND

1. The Portsmouth Rocks.—There was once a group of inscribed rocks in the town of Portsmouth, on the Island of Rhode Island, that are now irretrievably lost. Fortunately they were thoroughly studied before their disappearance by two different observers and careful drawings of them were made. They were described in 1835 by Dr. Webb as follows :

The rocks are situated on the western side of the island of Rhode Island, in the town of Portsmouth, on the shore, bordering the farm formerly belonging to Job Almy, but now the property of William Almy of Providence, about seven miles from Newport, taking the western road, and four miles from Bristol Ferry. They are partially, if not entirely, covered by water, at high tide. They were formerly well covered with characters, although a large portion of them have become obliterated by the action of air and moisture, and probably still more by the attrition of masses of stone against them in violent storms and gales, and by the ravages of that most destructive power of all, the hand of man. The rocks are, geologically, similar to that at Assonet neck; being fine grained Gray-wacke. The Inscriptions were made in the same manner, as that on the Assonet Neck rock; viz. by being pecked in upon the rocks. Some individuals have very recently drawn, probably with pitchforks, circles all over the original marks. Some of the characters are similar to the Assonet ones. One head of a human figure could just be distinguished on a rock, from which the other characters were so far obliterated as to prevent their being made out; on another, some irregular quadrilateral and angular ones could be faintly traced.

Reference to the section of chart in Figure 50 will show that the position described by Webb is occupied by the plant of the United States naval coal depot at a place now called Mel-

ville Station but formerly known as Portsmouth Grove and later as Bradford.

The earliest visitor to these rocks of whom we know was Ezra Stiles. He went first on June 17, 1767, and found "their Inscriptions of the same kind as those at Assonet, tho not so distinct & well done." Drawings were made from four rocks, one of them from two sides. In regard to the latter he remarks: "A & B are two sides of the same stone about 6 feet long & 3 f. broad. The prikt lines denote Cracks." The five drawings are reproduced in our Figures 43 and 44.

He went again to inspect the rocks on October 6, 1767. One of his sketches shows the entire vicinity of Coggeshall's Point, with various distances exactly measured and recorded. Another is a plan, on an enlarged scale, of the rocks in their relation to one another and to the shore. Three pages contain drawings of the inscriptions on the three principal rocks. These five depictions appear in our Figures 45 to 49. On the first chart, one of the notes is so near the edge as to be illegible in the reproduction: "Low water mark makes shore 20 or 30 feet broad;" and another is of especial interest: "This point formerly a place of Indian Wigwaums but now none." His rock A of this occasion is the same as the one which he called No. 3 at the former visit. It is divided into squares, indicating dimensions in feet. Beneath it is an enlarged sketch of one of the figures. Rock B is identical with his previous No. 2. Both sides of it which bear inscriptions are copied. The side previously called A is drawn in ink, and a faint note in pencil on it shows that this side faces "East a little S°." The previously designated side B of rock No. 2 is here called "N° Side" of rock B. It is drawn hurriedly and in pencil. The right-hand half of the upper line in the first of the two drawings from this rock B was again drawn with greater care and on a larger scale, with dimensions indicated. It seems hardly important enough to need reproduction. Rock C of this occasion is his previous No. 1. Its upper half contains two diamonds and a cross which so interested him that he laid three pages of his Itinerary against them on the rock and traced them exactly in full size. These three figures, also, we have not reproduced, since they

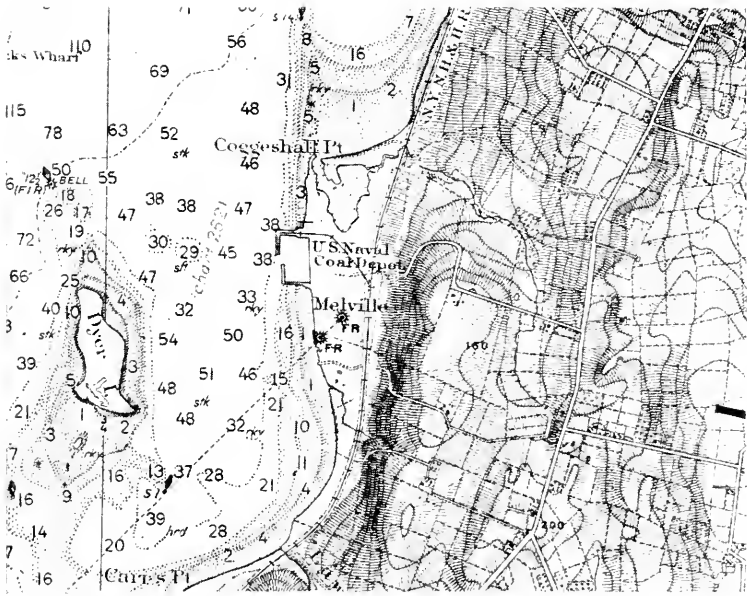


Fig. 50. Chart of the vicinity of the former Portsmouth rocks situated where the wharves of the U. S. Naval Coal Depot now stand



Fig. 51. Drawing of Portsmouth inscription "number 1," by John R. Bartlett, August 10, 1835

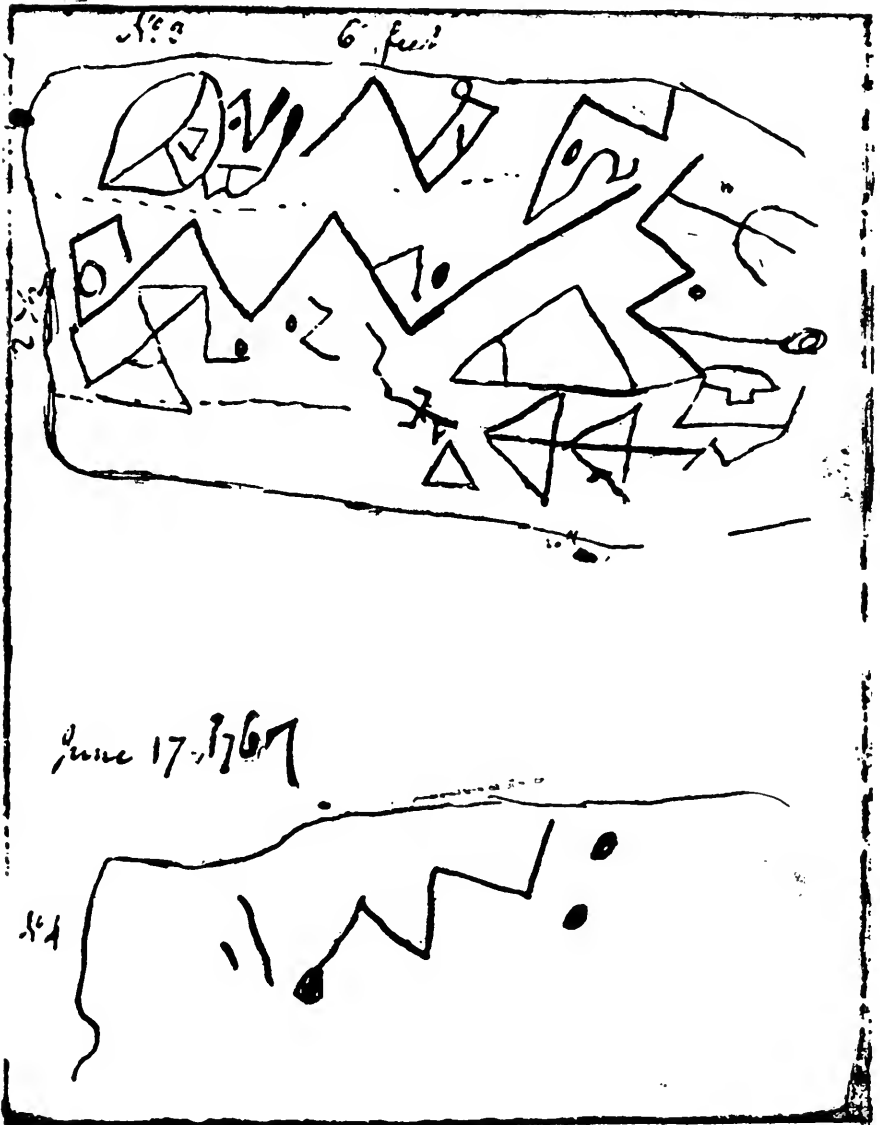


Figure 44—Drawings of Portsmouth Inscriptions by Ezra Stiles, June 17, 1767, from his *Itineraries*, ii, 266.



Figure 45—Map by Ezra Stiles, October 6, 1767, of the Vicinity of the Portsmouth Rocks, from his *Itineraries*, ii, 301.

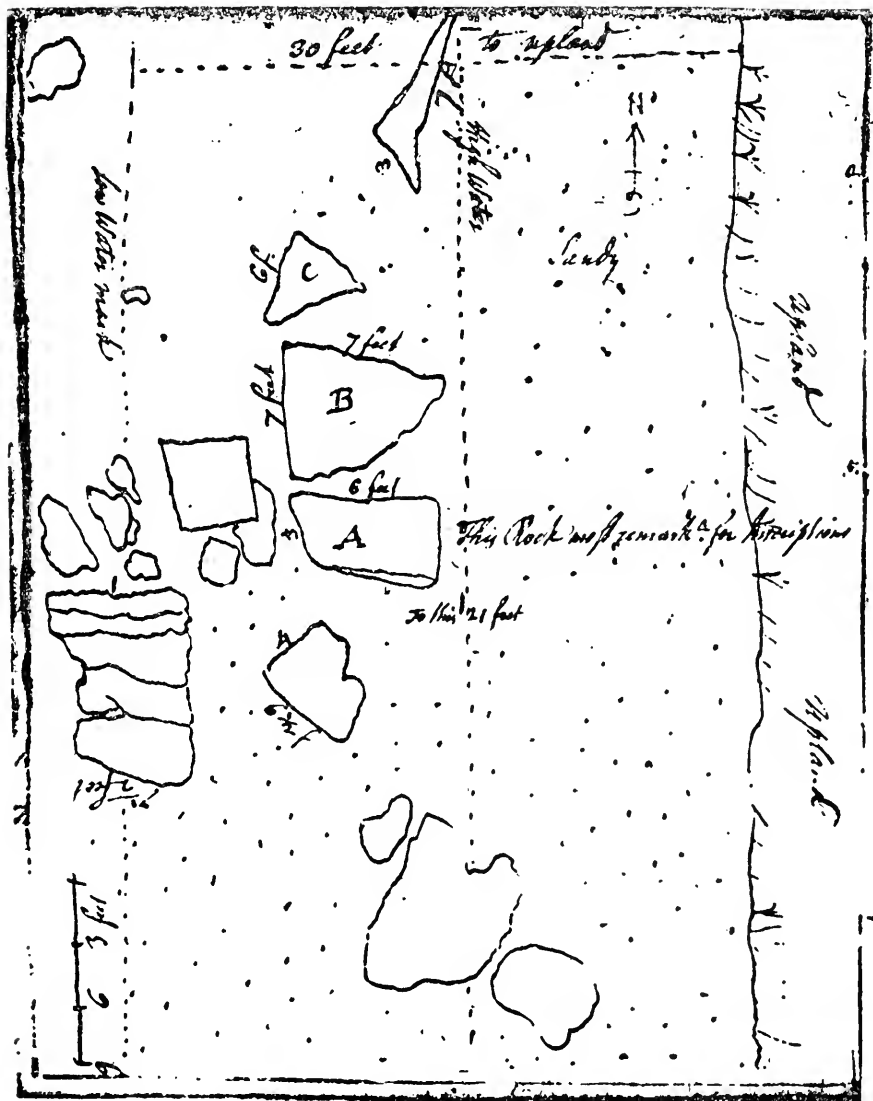


Figure 46—Plan of the Portsmouth Rocks by Ezra Stiles, October 6, 1767, from his *Itineraries*, ii, 302.

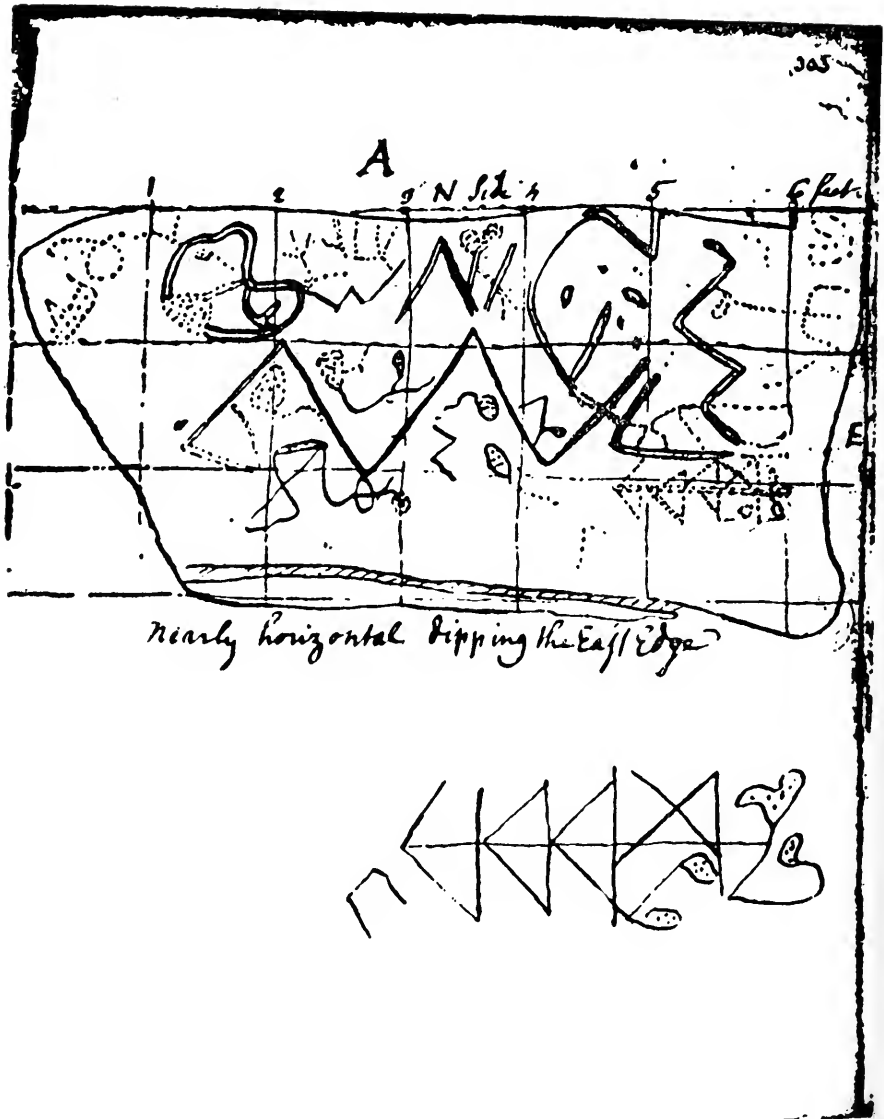


Figure 47—Drawings of Portsmouth Inscriptions by Ezra Stiles, October 6, 1767, from his *Itineraries*, ii, 303.

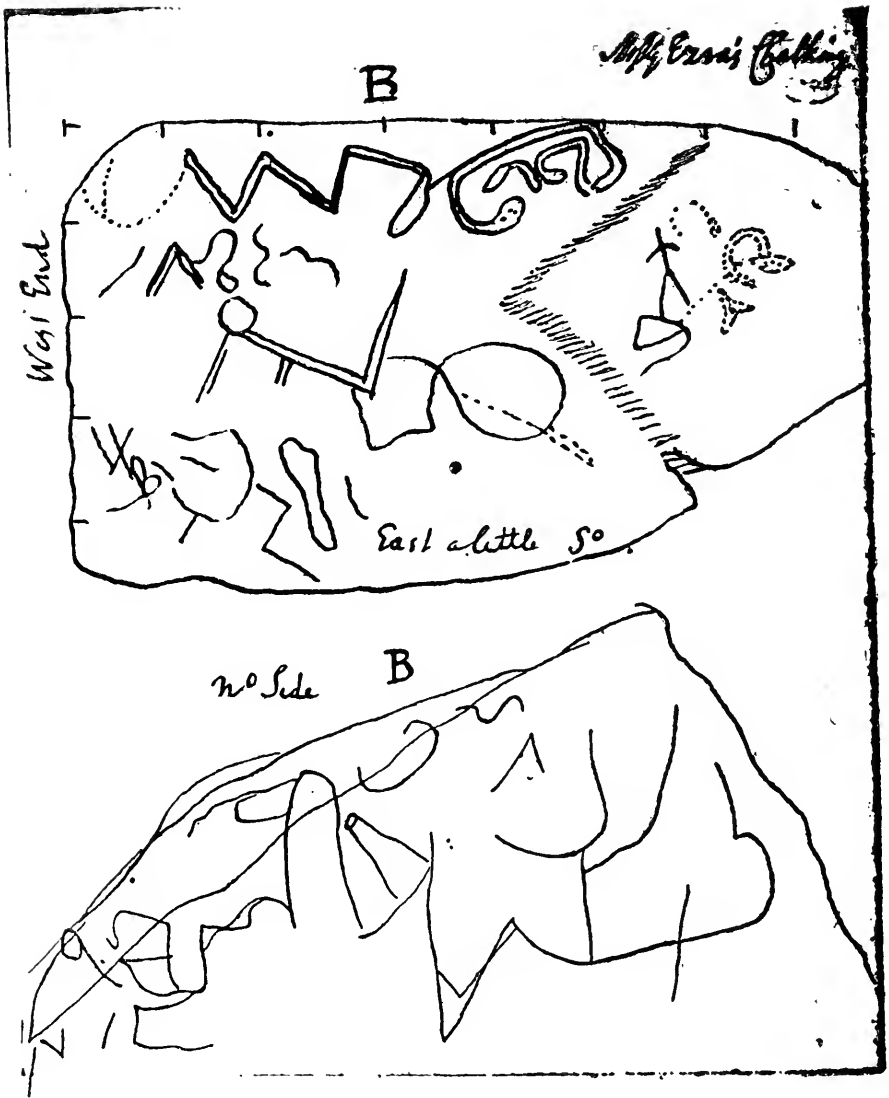


Figure 48—Drawings of Portsmouth Inscriptions by Ezra Stiles, October 6, 1767, from his *Itineraries*, ii, 304.

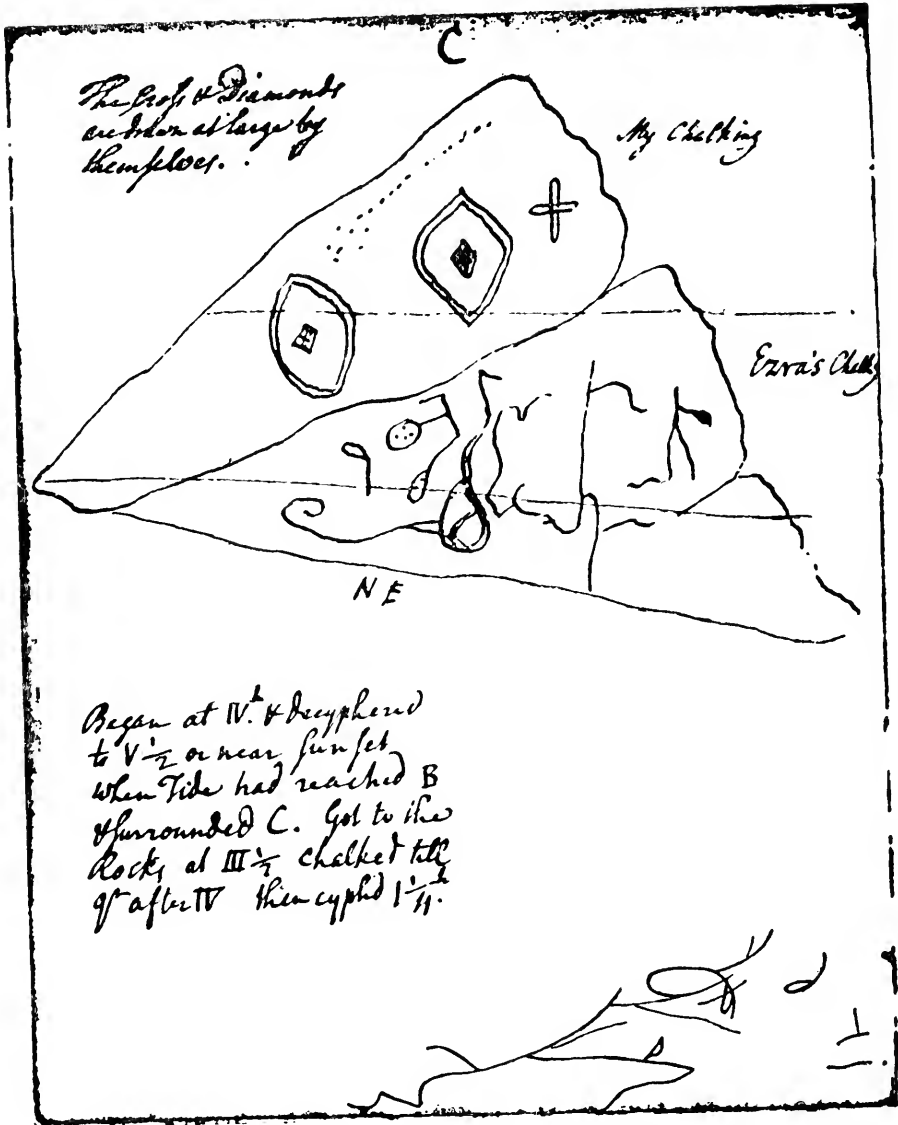
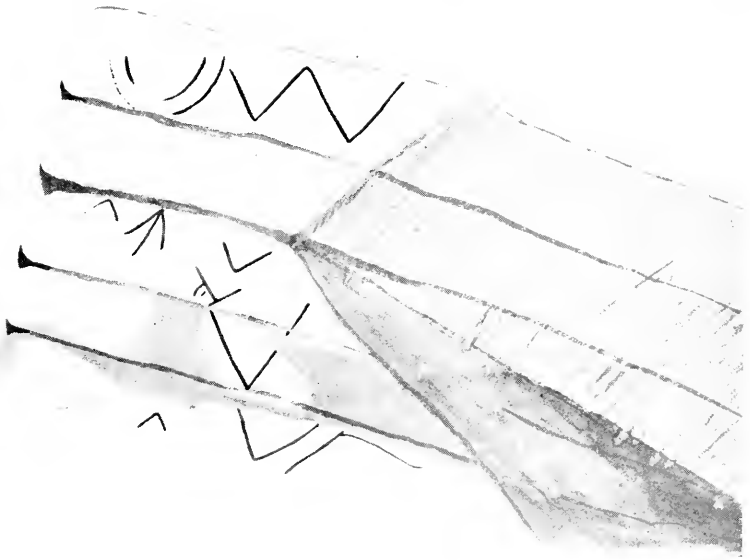


Figure 49—Drawings of Portsmouth Inscriptions by Ezra Stiles, October 6, 1767, from his *Itineraries*, ii, 305.

Portsmouth



N 3 Portsmouth



Figs. 52, 53. Drawings of Portsmouth inscriptions "numbers 2 and 3," by John R. Bartlett, August 10, 1835

seem to be sufficiently well presented in drawing C. The left-hand diamond measures $3\frac{3}{4}$ by $5\frac{1}{4}$ inches; the other, $4\frac{3}{4}$ by $6\frac{1}{2}$; and the cross, $3\frac{5}{8}$ by $4\frac{1}{2}$. Underneath the drawing of rock C are a few penciled tracings whose source I have not identified.

Twenty-one years later, on October 6, 1788, Stiles remarked in his Itinerary: "Copied 4 Rocks on Mr Job Almys Farm." The drawings were not made on pages of the Itinerary and are now lost.

Nearly fifty years after Stiles's last note on this subject, another study of these rocks was made, by Dr. Thomas H. Webb and John R. Bartlett. Their first visit was before July 20, 1835, and resulted in a report to the Trustees of the Rhode Island Historical Society and a letter to Rafn which has already been quoted. They went there again on August 10th, and Webb wrote again to Rafn on October 31, 1835, describing the rocks as follows:

No. 1 in the most Northern, and the characters are inscribed on the perpendicular surface of its Eastern side; No. 2 stands between the others, and is inclined to the S. having its characters on the surface facing to that point of the compass; such also is the position of No. 3, as well as the situation of the figures upon it. These are not stratified as some may conjecture from viewing the Drawings; each is a single block, deeply and somewhat regularly fissured. Farther to the S. and S.W. are some smaller rocks which were marked, but nothing satisfactory can now be distinguished on them.

The drawings that Bartlett made were reproduced by Rafn in Tabella XIII of *Antiquitates Americanae*. Originals of them are in possession of the Rhode Island Historical Society, on sheets of paper each measuring $15\frac{1}{2}$ by $19\frac{1}{2}$ inches, and it is these originals that we reproduce, Figures 51 to 53. The Webb-Bartlett No. 1 is the same as Stiles's 1 or C; 2 is Stiles's 2 or B; and 3 is Stiles's 3 or A. Thus we have three separate drawings of each of these inscriptions, and study and comparison of them, in spite of their differences, will give a fairly accurate idea of what the markings on the rocks must have been

like. Besides these three rocks, pictured on all three occasions, it will be remembered that Stiles twice depicted the figures on another side of B, and once made a drawing from a fourth rock; and Webb mentions several "smaller rocks which were marked," from which Bartlett made no drawings, including two of whose faintly discernible characters he could barely make out a human head on one and some irregular quadrilateral and angular marks on the other.

In addition to these drawings, there is a photograph which shows the general appearance of some of the rocks, although it does not help much in regard to the inscription. It was taken in 1883 by George H. Chase of Portsmouth, and is shown in Figure 54. Mr. Chase says that the rock was of gray slate and measured about eight feet in length and four in width, with a height of two feet at the upper and eight inches at the lower end. This was evidently the rock called A by Stiles. The rocks seen beyond it are the group of three pictured by Stiles directly to the west of A; and the other rock, at the extreme left of the photograph, is drawn by Stiles a little to the south of A. The zigzags seen by both Stiles and Webb clearly marked upon this rock are visible in the photograph, but the other markings that they drew are too obscure to be seen.

We know of only one other occasion on which these rocks were seen and described. Dr. Samuel A. Green visited them in 1868.¹ He found only two of them, "situated on the beach near the old landing place of the military hospital at Portsmouth Grove." Their material appeared to him to be of a gneissoid character. "Many of the marks are still distinct and well-defined, and perhaps were made by the same tribe that made those on Dighton Rock. They are of interest as early specimens of rude Indian art." In 1913, William H. Babcock reported that the rocks seemed to have disappeared. He says of them, however: "Several inscriptions, plainly Indian work, are found at the end of the *Antiquitates Americanæ* as formerly existent at this point and at Tiverton."

Babcock's belief that the rocks have now disappeared is unfortunately correct. The contractors who constructed the

¹ *Proceedings of the American Antiquarian Society*, October 21, 1868.



Fig. 54. One of the inscribed rocks at Portsmouth, R. I.,
photographed by George H. Chase in 1883.

Naval Depot there between 1901 and 1906 have described their work to me in such a way as to make it certain that the place where the rocks are indicated on Stiles's chart is now occupied by wharfs, walls and filling; and they noticed no rocks with inscriptions.

Discussions concerning the origin of these inscriptions have been numerous; but since they are always connected with those of Tiverton, it will be well to postpone examination of them until the latter have been considered. We may notice concerning them, however, that they include nothing that resembles alphabetic characters, nothing that suggests even pictographs symbolizing definite objects, conveying a message or preserving a record. Some of them may be the expression of a mere restless and aimless desire to be doing something, as one scratches idle lines in sand or on paper. So far as they exhibit definite purpose, their motif appears to be exclusively decorative. They must probably be regarded, therefore, merely as ornamental lines mingled with meaningless scribblings. If any of them, in addition, symbolized some object or thought, it was probably of no more than momentary and trivial significance.

It is unfortunate that relics of the past so interesting and important as these should have been suffered to disappear. It is much to be hoped that a like fate may not overtake any of those which remain in other places. In this case, however, the loss is less irreparable inasmuch as we have three separate and independent drawings of each of the three most important inscriptions, and from them can determine with a high degree of probability the general character and the most significant details of the incised lines.

2. Fogland Ferry.—Dr. Stiles believed that there was another inscribed rock in Portsmouth. On October 6, 1788, he wrote in his Itinerary: "Visited & copied a markt Rock about half a m. above Fogland Ferry on Rh.I. on shore agt. or just below Mr McCorys Farm." Fogland Ferry ran from Fogland Point in Tiverton across to the island of Rhode Island. On the Portsmouth side, its landing place was about half a mile to the south of McCurry Point, shown on the chart of Figure 57. This Point is part of an estate still known as the McCorrie

Farms. The rock was probably situated just to the south of the first division line shown on the chart south of McCurry Point, this being the southerly border of the property. I have not succeeded in finding a rock with inscriptions on it, anywhere near that place.

3. The Arnold's Point Cup Stone.—There is still another marked stone lying on the shore near one of the Portsmouth coal mines, a little to the south of Arnold's Point. Its position can be found on the chart of Figure 55, about opposite the figure 3 off the shore west of the "Coal Mine"; and its appearance is shown in the photograph of Figure 56.

The rock is of sandstone, merging somewhat into conglomerate at the in-shore end. It is near the edge of the beach at low tide, and is covered by high water. It measures about 3 feet in width, $4\frac{1}{2}$ in length, and in thickness from 16 to 22 inches. It is nearly flat and smooth on top, with rounded edges, and a slight lateral inclination shoreward. Its long axis is directed about N. 40° E. Its artificial markings are unique among the inscribed rocks of this region. They consist of six relatively deep holes or cups, connected together by shallow channels. The holes vary in depth from $2\frac{1}{2}$ to $3\frac{1}{4}$ inches. Beginning in-shore and following the channels, their distances apart from centre to centre are respectively $9\frac{1}{2}$, 8, 9, $10\frac{1}{4}$ and $9\frac{1}{4}$ inches; and of the second from the sixth, 15 inches. They appear to have been drilled, and are not circular, but more like triangles with rounded angles. This would be a natural shape for them if they had been made with a steel drill having one straight cutting edge. Their diameter at the top is $1\frac{5}{8}$ to $1\frac{3}{4}$ inches, narrowing slightly below. The top edges are not smooth-cut but broken and roughly beveled. The channels are pecked in, and like the crudely pecked lines of other rocks of this region, are very irregular in width and depth. Their typical width is $\frac{3}{8}$ to $\frac{5}{8}$ inch, narrowing rarely to $\frac{1}{8}$, and widening rarely to $\frac{3}{4}$ or 1 inch. Their depth is usually $\frac{3}{16}$ to $\frac{3}{8}$ inch, with extremes from $\frac{1}{2}$ down to a mere trace.

In the more conglomerate portion of the surface, near the first and second holes, the stone is roughly and irregularly much pocked and scaled, and here it is doubtful whether or not

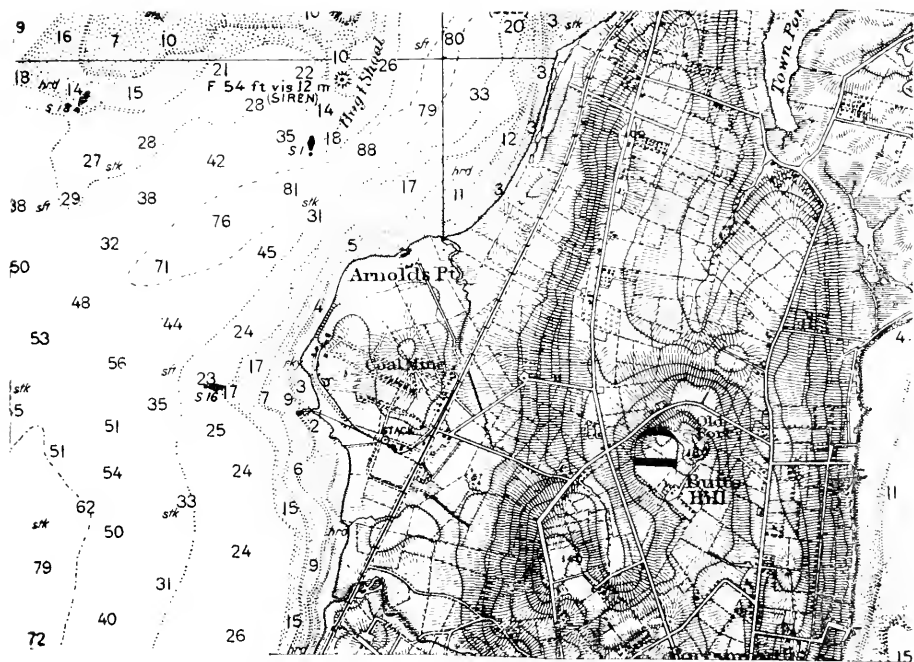


Fig. 55. Chart of Arnold's Point and Vicinity, Portsmouth, R. I.



Fig. 56. The Arnold's Point Cup Stone

there was another shallow curved channel leading off from the one between these two holes to a seventh very shallow depression, and whether or not there was a shallow irregular half-ring about hole number 2. The marks so described might be either natural or artificial, but are probably natural.

The history of this stone is unknown earlier than 1910, when it was shown by a native of Portsmouth to Mr. David Hutcheson of Washington, D. C. He writes me concerning it: "At first sight I thought, from the arrangement of the holes, that it was an attempt to represent The Dipper, but the seventh star was missing. On a sheet of paper I drew a rough outline of the face of the stone showing the position of the holes. I sent this to Mr. Babcock and he showed it to some of the Washington anthropologists, and they thought it was an Indian Cup Stone." In 1913 it was mentioned by William H. Babcock in his *Early Norse Visits to America*. We have quoted his belief that the inscription near Mount Hope was "almost certainly Wampanoag work;" and he remarks that "the same may be said with less confidence" of this Portsmouth stone.

I have seen numerous examples of isolated drill-holes in rocks along shore, which may have been made to hold ringbolts or stakes for boat moorings, for attaching the nets of fishweirs, or for other commonplace purposes. But no such use can be attributed to this constellation of six holes connected by shallow channels.

Since one of the possibilities concerning this boulder is that it is a genuine cup-stone of considerable antiquity, it will not be amiss to look briefly into the distribution, character and significance of stones so marked. Cup-like excavations, usually in irregular groups, are among the most primitive of markings on stone, are found widely distributed over nearly the entire world, are nearly everywhere similar, and are often closely associated with cromlechs, stone circles and other primitive stone monuments. Many examples of them have been reported from both North and South America. Usually they are shallow depressions, from $\frac{1}{2}$ to 1 inch deep and 1 to 3 inches in diameter. Larger ones occur rarely, extending up to basins nearly 3 feet in diameter and 9 inches in depth. A few of the common

narrow type are of unusual depth, thus resembling more nearly those at Portsmouth. Thus, on the shore in Scotland they have been found $2\frac{1}{2}$ inches in depth, always more than one, irregularly placed; and the *Handbook of American Indians* speaks of many cups prolonged below by a secondary pit as though made with a flint drill or gouge. The cups occasionally occur singly, more often in constellation-like groups, most often irregularly distributed over the surface, in number often up to 20, in rare instances up to 50, 100 or even 200 on one rock or ledge. Very commonly, but not always, they are surrounded by from one to seven concentric rings, which sometimes have a straight radial groove running out through them. Not infrequently the cups, whether with or without rings, are connected together by grooved lines.

A vast variety of theories have been advanced to account for the meaning of these simplest, most primitive and most wide-spread of sculptured marks. They are of a deep psychological interest as showing the inexhaustible budding-out process of man's speculations about things that are mysterious. Among them are these: they are natural, not artificial; there is no clue to their purpose; they are plans of neighboring camps, or maps of neighboring peaks; sacred symbols of tombs approached by an underground passage and marked above by stone circles; symbols of life; enumeration of families or tribes; representations of sun, moon and constellations; a primitive form of writing; tables for some gambling game; moulds for casting rings; representations of shields; totems; small wine-presses or grain mortars; holes made in grinding pestles; depressions for cracking nuts, or grinding paint, or for steady-ing drills, spindles or fire-sticks, or for collection of water; sundials; relics of sun-worship of the Phœnicians, or of Roman Mithras-worship; basins for holding the blood of sacrifice or libations to spirits or to the dead; objects for the practice of magic and necromancy.

The most widely accepted view of them, so far at least as their occurrence in Europe is concerned, is that they are symbols connected with the religious rites or beliefs of the Druids, the philosophers and priests of the Celtic tribes. This belief, how-

ever, has no confirmation, and is now unanimously opposed by well informed students. Another hypothesis, which seems to be unquestionably true of them in some parts of the world, is that they are phallic symbols. Andrew Lang² believes that in Australia they were all originally simply decorative, but when found on sacred ground a mythical and religious meaning is read into them. Garrick Mallery,³ who says that a large number of stones with typical cup markings have been found in the United States, explains them as easily drawn and probably meaningless designs, perhaps "instinctive" commencements of the artistic practice, as was the earliest delineation of the cross figure. "Afterward the rings [and cups], if employed as symbols or emblems, would naturally have a different meaning applied to them in each region where they now appear."

There seem to be three plausible alternatives concerning this Portsmouth Cup Stone. The first of these is that it is an example of Indian cup-stone, which Mallery and the *Handbook* describe as so numerous, and which the latter authority says sometimes have drilled pits at the bottom of the cups. If so, it may be of almost any period down to and into Colonial times. As to its meaning, it may or may not have had one. Mallery makes it very clear that such cuttings may often have been the result of a mere aimless desire for activity, or a crude attempt to fabricate something ornamental. On the other hand, it may have symbolized something to the individual who made it, and which, of course, no one uninstructed by him could possibly decipher. Such private symbolism must have been the first step beyond the activity-impulse and the ornament-urge already alluded to; and the further step, to a commonly accepted symbolism for such figures, had apparently not been taken by the American Indians.

There are two arguments against its being an Indian product: the fact that no one ever reported its existence before 1910, and the fact that its holes are deeply drilled and are not typical cups. It may therefore seem more probable that the holes were drilled by miners in idle moments, or by their children at play.

² *Magic and Religion*, 1901, p. 241.

³ Bureau of Amer. Ethnol., *10th Ann. Rep.*, pp. 189-200.

Coal mines were opened at Portsmouth apparently as early as 1808, and have been worked frequently at intervals since then. The longest continuous period of operation was by the Taunton Copper Company, from about 1860 until 1883. They built a dock, railroad connections, and a copper smelter, and mined about ten thousand tons a year. There was plenty of opportunity, therefore, for the idle drilling of these holes at a relatively recent date by white workmen.

But while the holes may incline one strongly to the belief that they were hollowed out by these miners' drills, yet the connecting grooves, crudely pecked between them and unquestionably of considerable age, exactly resemble the known examples of Indian rock-carving in this region. Though possible, it does not seem likely that white men equipped with drills and hammers would have made them as additions to the holes. With the holes arguing against the Indians and the grooves against more recent white men, we have nevertheless a third or combination alternative as a possible solution. The rock may have been originally a typical Indian cup-stone, devoid of any important symbolism; and the miners or miners' children, seated there at play or on an idle day, with drills accidentally at hand, may have deepened the original cups. This hypothesis is certainly not at all unlikely. But it is not probable that we can ever be sure which of the three hypotheses is the true one.

4. Newport.—There have been numerous rumors of the existence of inscribed rocks in the vicinity of Newport. There are in the vicinity several examples of markings that are natural, accidental, or the incidental result of operations that had another purpose, and these may have led to misinterpretation as intended inscriptions. Another source of mistaken reports was undoubtedly the manner in which Kendall, in a list of sculptured rocks of which he had heard, referred to the ones at Portsmouth: "In Narragansett Bay, on Rhode Island near Newport, on the lands of Mr. Job Almy." Dr. Stiles, who resided in Newport for twenty-one years and sought eagerly for inscriptions on rocks, never found any nearer than Portsmouth, except two that were dated 1728 and were made by a white man. One of these was at Brenton's Point and is

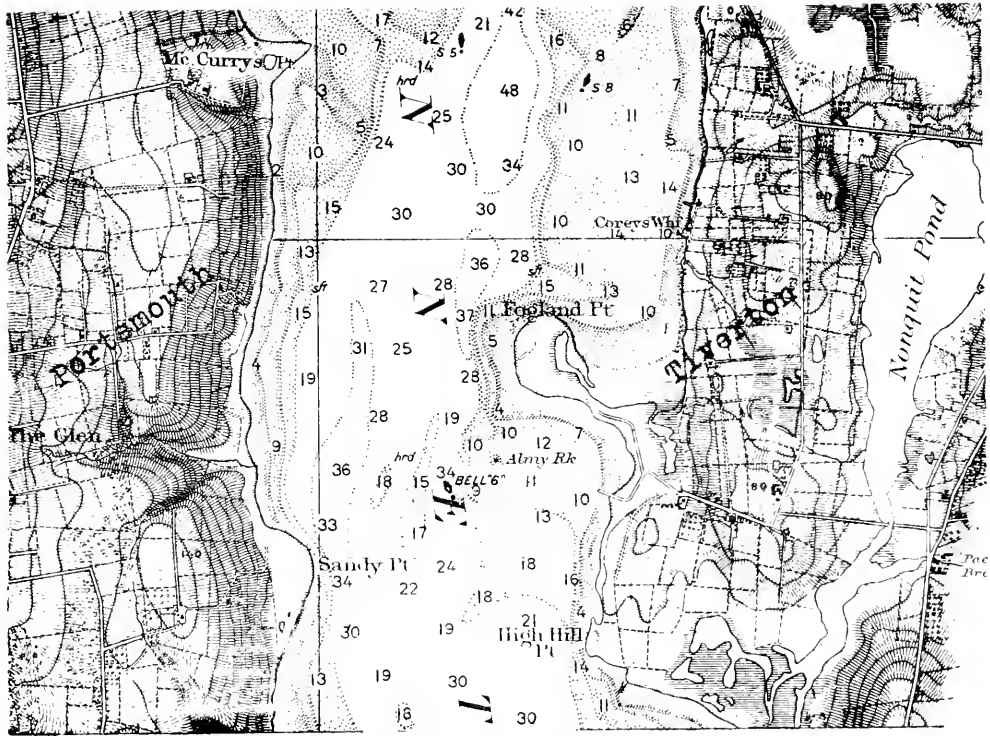


Fig. 57. Chart of portions of Portsmouth and Tiverton in the vicinity of Fogland Point

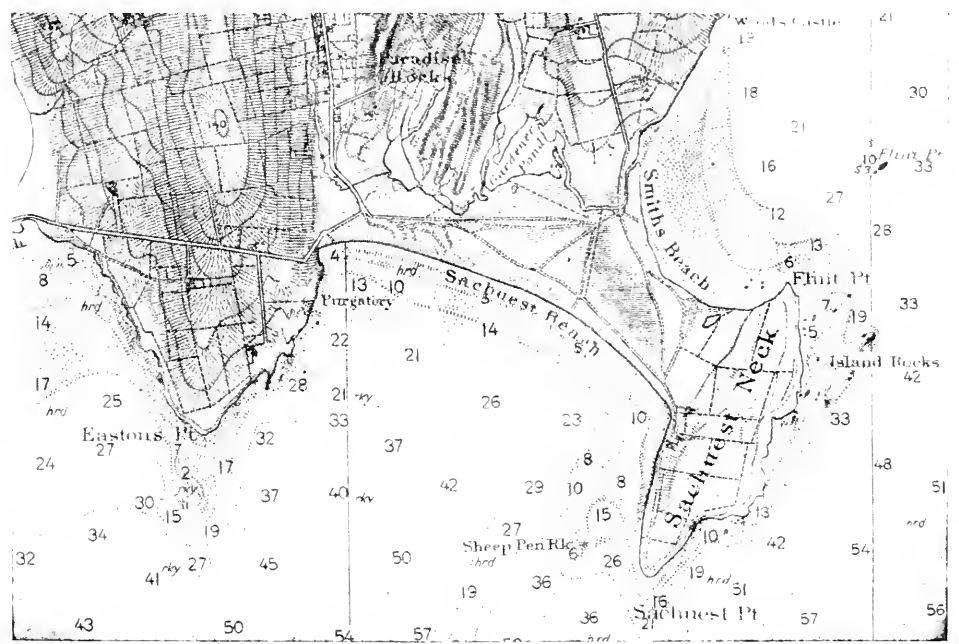


Fig. 58. Chart of the southerly part of Middletown, R. I.

still extant, bearing the words: "Beleve in Christ & Live in No Sin." The other, at Price's Cove, has now disappeared. It read: "God Presarve All Mankind." Stiles attributed them both to the Rev. Nathaniel Clap. On another stone, near the second, he saw "a number of seeming Incisions of the Wedge or Runic Kind, but evidently the Work of Nature only." I have myself observed in that vicinity wedge-like marks of natural origin, which the incautious might easily mistake for artificial incisions.

On March 3, 1840, Dr. Christopher Perry of Newport reported to the Rhode Island Historical Society that he had discovered some rocks near Newport bearing inscriptions resembling those on the rocks at Dighton and Portsmouth. The records of the Society state: "Since then the rock has been visited and examined by John R. Bartlett. The impressions were found to be very indistinct, but Mr. B. succeeded in making a drawing, which will be presented to the Society." Unfortunately no such drawing has been preserved, and we have no knowledge even of the approximate location of the rock or of the appearance of its characters. It is not improbable that it was similar to, if not identical with, those seen at Price's Cove by Stiles and myself, bearing seeming incisions that were "evidently the Work of Nature only."

5. Middletown.—Within a short distance of Newport there is one interesting set of markings that are unquestionably artificial, although they do not in any sense constitute an inscription. They are a collection of basins and grooves on the rocks of the Bluffs near Purgatory. It is rather remarkable that the only allusions to them in print that I have been able to discover are such as speak of them in connection with foolish legends only, calling them the Devil's footprints, or the marks of his dragging a sinful woman over the rocks, or of the axe that he used in beheading her. They appear never to have been really described, though they are familiar to the passing visitor.

The chart and photographs of Figures 58 and 59 show the location of the Purgatory rocks and the appearance of the markings. These occur on narrow sandstone intrusions in the conglomerates at the lowest part of the ledges near their

northern extremity at Sachuest Beach, just before the rocks begin to rise into cliffs. They begin about 250 feet beyond the extreme meeting-point of rocks and beach, and occur at intervals for a distance of about 100 feet toward the south. They are of two kinds. Some of them are shallow oval or roundish depressions or basins, somewhat like pot-holes but clearly not due to natural forces. They might even be classed as large cup-markings. There are about three dozen of them in all, ranging in size from long ovals measuring about 25 by 10 inches, down to more nearly circular cups about 7 to 10 inches in one diameter and 6 to 9 in the other. Their depth runs from a little less than an inch to about 2 inches. Some are rather rough and irregular, others very regular, clear-cut and smooth. The grooves of the second type look very much like such a cut as would be made in soft material by a clean blow with a sharp axe. The largest is 14 inches long, $1\frac{1}{4}$ wide and $1\frac{5}{8}$ deep at the centre, narrowing and curving upward to a point at either extremity. Another measures 9 by $1\frac{1}{4}$, and $\frac{3}{4}$ deep. Most of them are 7 to 10 inches long, $\frac{1}{4}$ to $\frac{1}{2}$ wide, and $\frac{1}{8}$ to $\frac{1}{4}$ deep. I counted twelve of them in all. One of them, shown in the photograph, is at the bottom of one of the basins. Besides these narrow grooves and wider basins, there are two other incisions of interest, as well as numerous names and initials. One is a representation of an arrow, about $3\frac{1}{2}$ inches long, shallow but very clear. The other is a figure like the "eye" of a dressmaker's hook-and-eye, about 5 inches long and wide, with a sort of U between the small circles of the open end. The U and the circles are made of very small clear dots, the rest is grooved. Whether these two figures are due to the makers of the other grooves and basins, or to more recent visitors, it is impossible to determine.

While studying these basins, I heard some passers-by speak of them as "Devil's Footprints," probably because of the frequently repeated legends already referred to. Apparently this name gets attached everywhere to any mysterious holes in rocks that in the least resemble the prints of feet or hoofs. There are other alleged instances of marks made by the Devil in Warwick, in Swansea, near New Bedford, and probably in

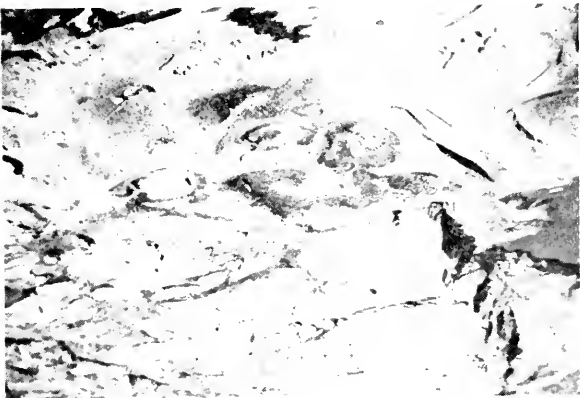


Fig. 59. The basins and grooves on ledges near Purgatory
Facing page 222

other places. The only serious account of the origin of these near Newport that I have heard of was related to me by Dr. Eugene P. King of Providence. He was told about 30 years ago that the basins were made in old days by Indians in polishing some object by rubbing it round and round. As to the "axe-cut" grooves, the Indians made them also, he was informed, in sharpening their arrow-points. Doubtless it was not actually stone arrow-points that were thus sharpened there, for these the Indians fashioned and sharpened by flaking, not by grinding. But others of their implements, including bone and horn arrows and darts, were polished and sharpened by grinding, and for this purpose, says W. H. Holmes,⁴ "in many localities exposed surfaces of rock in place were utilized, and these are often covered with the grooves produced by the grinding work. These markings range from narrow, shallow lines produced by shaping pointed objects, to broad channels made in shaping large implements and utensils." This description exactly applies to the markings on these Purgatory rocks, and might have been written with especial reference to them. It supplies the natural and almost certain explanation of their origin.

In our discussion of Dighton Rock, we saw that du Simitière reported that Dean Berkeley had been informed that its incisions were made by Indians in sharpening their arrow-points. It seems much more likely that the legend as related is a case of transference from one region, of which it may be true, to another where it cannot possibly apply. Berkeley wrote much of his *Alciphron* while sitting under the shelter of the overhanging ledges at Paradise Rocks. He was a lover of nature, and must have strolled upon the beaches and climbed over the rocks near Purgatory, close by. In fact, at the beginning of the second dialogue of the treatise mentioned, he speaks of going down to a beach, "where we walked on the smooth sand, with the ocean on one hand, and on the other wild broken rocks," and this was doubtless not his only visit there. It was there, much more probably than at Assonet Neck, that "a

⁴ *Handbook of American Indians*, Bureau of Amer. Ethnology, Bulletin 30, part i, page 7.

farmer of the neighborhood" expounded to him, and perhaps with truth, the same explanation of the marks that was still current when Dr. King heard the story. Afterwards, when the Dean had described his visits and observations at both places, his auditors, unacquainted with either, easily mixed them up and attached the arrow-sharpening incident to the wrong rock.

It is barely possible that King's Rocks near Warren constitute another case where marks were made by Indians without direct intention, incidentally to their other operations. The belief has been expressed that a long trough worn into the surface of the ledge was made by Indians rolling a heavy corn-grinding stone in it. But I am told that, in the opinion of geologists, the rock exhibits nothing more than the results of glaciation. The place has long attracted the attention of initial-carving visitors. I have found one date recorded as early as 1834.

Middletown supplies one further contribution to our study. Dr. Webb wrote to Rafn in 1835 that John Almy of Tiverton thought he had heard of an inscription-rock at Sachuest Point. We have seen reason, in connection with Mount Hope, to believe that Almy's memory of old conversations was faulty; and it was probably so in this case. The marks at Purgatory, at the other end of Sachuest Beach, were commonly confused at Newport with those of Dighton Rock, as du Simitière's story about Berkeley testifies; and it was probably another confusion of this sort that was responsible for Almy's impression. However, I made a search at Sachuest Point in 1919, and found a rock that appeared at first sight to be covered with rude artificial characters. With its partial covering of lichens, some marks looked like an Indian's crude drawing of a human figure, and others like circles and curves and a figure 4 that, if correctly seen, must have been deliberately produced by human beings. But after more deliberate study, and the discovery of other rocks similarly marked, I became convinced that the incisions are all either plough-marks, or to a less extent due to the action of harrow and crowbar. The neighboring cultivated field contains many stones, slabs and small boulders, buried at

various depths. The "inscribed" stones on the bank nearby have been drawn out from this field from time to time. A stone lying with a flat face upward at just the right depth to engage the nose of a plough without much interruption to its progress would be scored by just such lines year after year, until it became enough of a nuisance to get dug out and carted to the dump heap.

In Newport and Middletown, therefore, aside from the pious work of Mr. Clap in 1728, there are no rock-inscriptions. Nevertheless, there have been rumors, and it is important to have discovered the truth about them. These cases emphasize the fact that, in the endeavor to make an exhaustive and trustworthy study of genuine inscriptions, it is necessary frequently to investigate uncertain reports, and to make a distinction that is not always easy to establish conclusively between the genuine cases and a number of alternative possibilities. Among the latter we must include natural forces of a wide variety, distorted rumor, deliberate fraud, and likewise human yet unintended agency such as that of plough, crowbar and other tools, or that resulting in grooves incidental to grinding and similar processes. Any of these may give rise to belief that inscriptions exist where none are actually to be found.

CHAPTER XIII

THE WRITTEN ROCKS AT TIVERTON

The town of Tiverton, lying across the Sakonnet River from Portsmouth, was once, like the latter, a centre for the activities of the ancient rock-inscribers. There is evidence that there was formerly a considerable number of rocks in Tiverton whose surfaces served as tablets for the primitive engraver. Some of them have been destroyed, some used in constructing stone walls or foundations, some covered deep with the debris of storms, so that now there is only one exposed to view. The main road from Fall River to Sakonnet passes near the place, which is about five miles south of the Stone Bridge, and a short distance southwest of Tiverton Four Corners. Leaving the main road near the latter place, a by-road leading westerly is taken, either the one just north or equally well the one just south of Nonquit Pond. This is followed, with the necessary turns as indicated on the chart (Figure 57) until we pass the wharf south of Fogland Point and proceed nearly to High Hill, walking down to the beach just before the latter is reached. A short distance from High Hill, on the next little point north of it, about opposite the number 16 that appears as a depth-indication on the chart, is a group of large "graywacke" or sandstone boulders on the shore between the low and the high water levels. The only one of these that is inscribed is marked with an X in the photograph showing the appearance of the group (Figure 60), and is thus readily identified. It is the most southerly and farthest in-shore of the larger boulders. North of this group, about half-way to the wharf, is a ledge of similar rock, with a fish-weir at its southerly end.

A very striking feature of the situation consists in the enor-



Fig. 60. The group of Tiverton boulders as seen from the south



Fig. 61. The Tiverton inscription

mous masses of water-worn stones that cover the beach and rise up in thick deposits behind the group of boulders. The photograph shows their appearance better than words can describe it. Some of the inscribed boulders that, as late as 1835, were plainly exposed to view, now lie completely buried by these storm-tossed fragments. The spot impressed Dr. Webb, when he viewed it, as apparently "one of Nature's favorite battle grounds; and the great masses of rock scattered around and piled upon one another, near by, indicate the ravages which at some distant period here took place. The inroads made upon most of these boulders, by the action of winds, and tides and storms, are strongly evidenced by the singularly cellulated or honeycombed appearance they present." He expressed the opinion that the great September gale of 1815 was responsible for serious damage to the inscriptions, since "the water swept with such tremendous violence and power over the ground where the Inscription-Monuments are situated, that it bore along with it rocks, and sand and gravel, which so ground in upon the faces of them as to occasion their present impaired condition." But though thus injured, none of the rocks were then covered by the piles of loose stones. This had happened, however, in 1868, when Dr. Samuel A. Green reported that he could find only one of them.¹ The present owner of the place, Mr. Leon F. Almy, tells me that about ten years ago the beach back of the rock was washed up two or three feet higher than before. Both he and the writer have, at different times, thrown aside considerable quantities of the overlying stones in the endeavor, as yet unsuccessful, to uncover additional inscriptions; but a year later the stones had been washed back again. Evidently the spot is still "one of Nature's favorite battle grounds;" and we may well hope that in her changing moods she may some day wash away these obstructing stones and again reveal the missing inscriptions.

The single inscription now observable is on a nearly plane surface of rock measuring about four by seven feet, inclined a little to the north of west at an angle of 23° to the horizontal. The lines are pecked in, with a depth usually of 2 to 5, though

¹ *Proc. Amer. Antiqu. Soc.*, Oct. 21, 1868, p. 13.

occasionally as much as 8 millimeters. One possibly artificial cup near the centre is 15 millimeters deep and 60 in diameter. On account of the conditions of lighting, it is difficult to secure photographs which show the carvings clearly. Probably the one here presented, in Figure 61, is as successful as any that could be made without artificial lighting. It was taken on October 29, 1919, just at sunset of a day without clouds or mist, with the light glancing low across the face in such manner as to throw the figures into the greatest possible relief, and with the daylight supplemented slightly by a not very successfully working flashlight.

Examination of the rock itself, and comparison of these photographs with the earlier drawings of Figures 62 to 66, show several features of interest. The most prominent and certain artificial markings are a figure shaped like the number 4, an oval or diamond with central dot, an ill-shaped X, some zig-zags, and finally the crude figure of a man, about two feet in length, with cross-lines running from each shoulder to opposite hip. Mr. Almy thinks that the man is represented as hanging from a gibbet, and there is some faint suggestion of this in the drawing of 1768. The surface of the rock above the inscribed portion and to a slight extent below it is deeply and intricately pitted and honeycombed, and is evidently soft enough to have been subjected to great decay and wear. But the inscribed surface itself is of more resistant material, and clearly has suffered little in the course of 150 years. Stiles's careful drawing shows not only the artificial lines but also many of the natural pittings and flakings of the surface, distinguished by dots between the lines. These features remain now, in size, shape and position, almost exactly what they were in his day. The "graywacke" of this boulder is very similar to that of Dighton Rock and the other inscribed rocks of this region. In spite of its exposure to unusually severe batterings by storm, stones and ice, the Tiverton rock has suffered little, and this strongly supports the belief that on all of these sandstone rocks throughout the region actual erosion has been so slow as to have made no appreciable change in the appearance of the figures carved on them since the time of their earliest observation.

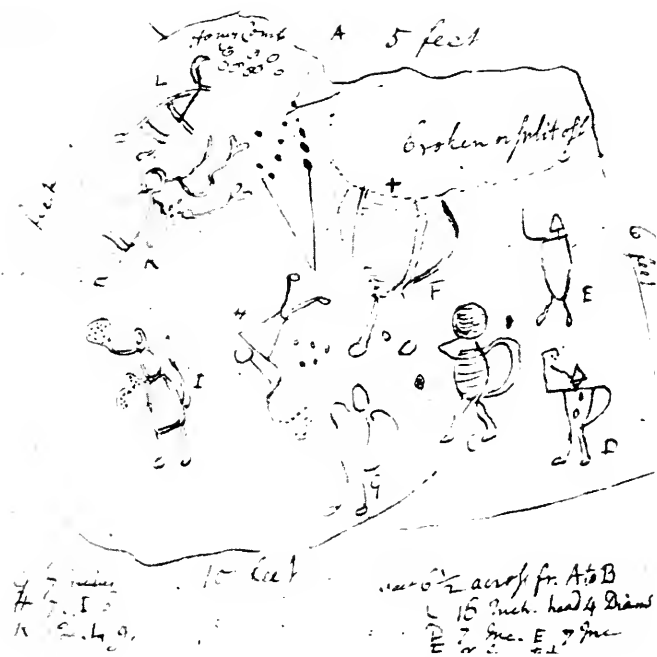


Fig. 62. Stiles's First Drawing (Its lowest line reads: F 8 Inc. to +)

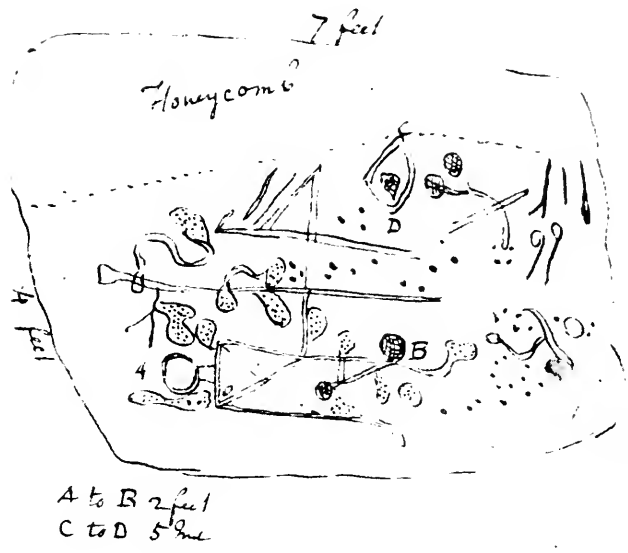


Fig. 63. Stiles's Second Drawing
 Drawings of Tiverton inscriptions by Ezra Stiles, June 7, 1768,
 from his Itineraries, ii. 351, 352



So far as we know, Dr. Stiles was the first person who investigated the "Written Rocks," as he called them, in Tiverton. He went there first a year after his first inspection of the Dighton and Portsmouth rocks, arriving on June 6, 1768, and lodging with Mr. John Almy, son of Col. Job Almy, who died in 1767. Mr. Almy was deaf, and consequently Dr. Stiles wrote down in his Itinerary certain questions which he wished to ask him. We can infer from the context the answers that he received. Including these within brackets, the following is the record of their conversation :

" 'Please to tell me how I may find the Rock markt with Characters in your Farm.' [Location of two or more such rocks given by Mr. Almy.] 'Do you know any other?' ['Yes; but it has been destroyed.'] 'How long ago?' ['Six years.'] '1762?' ['Yes.] Cut it up for Whetstones & sent to Nova Scotia.' "

On the following day, Stiles made drawings of the inscriptions on two rocks in his Itinerary (Figures 62, 63). Underneath each drawing are several indications of dimensions; and underneath the second is the statement: "A Third Stone obliterated and two other small Stones." Twenty years later, on September 29 and 30, 1788, Stiles again copied the characters on these rocks, but the drawings made on this occasion are not preserved.

When Edward A. Kendall compiled his "List of Indian Sculptures" in 1809, he erroneously interpreted Stiles's manuscripts as indicating two localities here instead of one. His item 11 reads: "In Narragansett Bay, on the lands of the late Col. Almy, on the peninsula of Paucatuc, on the east side of the bay, and at six miles from the shore;" and item 12: "In the same, at Tiverton." Evidently Paucatuc should have been written Punkatace, the distance mentioned was not from the shore but from Newport, and with these corrections the two items should have been combined into one.

Webb and Bartlett visited these rocks on the 18th of August, 1835, made drawings of their inscriptions, and on October 31 made the following report to Rafn :



Figures 64—Webb-Bartlett Drawing “No. 4. 6 x 8½ feet.”

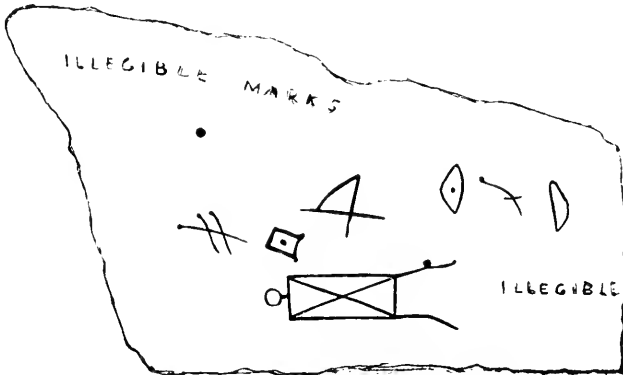


Figure 65—Webb-Bartlett Drawing “No. 5. 4 x 7 feet.”

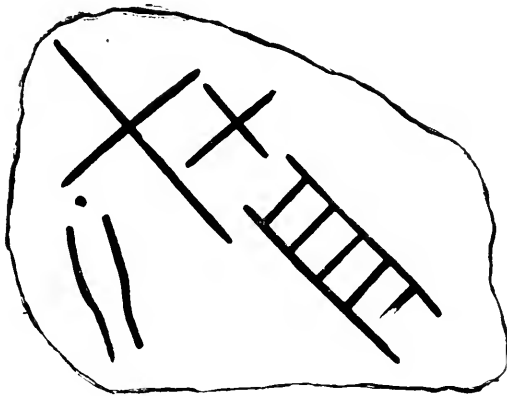


Figure 66—Webb-Bartlett Drawing "No. 6."

Drawings of Tiverton Inscriptions by John R. Bartlett, August 18, 1835.

The inscriptions are on masses of gray-wacke, near a ledge of the same rock, occurring on the shore of Mr. Almy's farm, a short distance to the N.W. of the High Hill. The Drawings sent marked No. 4, 5 & 6 exhibit the present condition of the Inscriptions. No. 4 and 5 are on a line ranging from N.E. to S.W. No. 4 is a very large mass, if not in fact a continuous portion of the ledge near by. It being buried in the ground, we were unable to decide the point. The markings are on its upper surface, which is inclined at an angle of a few degrees to the N. and that part which is uncovered, measures $8\frac{1}{2}$ feet in length and 6 feet in breadth. It is utterly impossible for us to conjecture what was formerly in the vacant spaces; we can only state, they were occupied with some kind of characters. The individual, upon whose land they are, thinks there was never any thing but human figures on them; but sufficient even now remains to prove the incorrectness of his opinion; look, for instance, at the figure resembling somewhat a cross, and at the one a little below it, to the right. This rock has a crevice running across it near the upper left hand corner; and a portion has been broken away at the upper right hand corner. The characters on another lying between No. 4 and No. 5 have become entirely obliterated. Those on No. 5 faced to the the N.W. and the space they occupied measured 4 feet by

7 feet. The human figure on this rock is more distinct and perfect than the rest, being formed on a much larger scale, and the indentations being deeper. The peculiarity about the left knee will not escape your notice. No. 6 is a small stone of a schistose structure lying a short distance to the S. of the others, and might be lifted by two stout men; it is of the size of the outline sent, on which the characters are represented of their true dimensions. These are formed in a different manner from the others and perhaps are of a different origin; although we do not pretend to decide upon the matter; they are channelled or grooved, and appear to have been made by a chizel or smooth cutting instrument. Previously to 1815, according to Mr. Almy, the characters were so plain, that they could be clearly distinguished at some distance from the rocks. . . . The distance across, from the Tiverton Rocks to the Rhode Island shore is $1\frac{1}{4}$ mile and to Newport $6\frac{1}{4}$ miles.

The portions of the letter here omitted discuss the obliterating effect of storms and have already been quoted.

Instead of reproducing the Webb-Bartlett drawings as given in Tabella XIII of *Antiquitates Americanæ*, our Figures 64 to 66 present the originals of them in possession of the Rhode Island Historical Society. Like the Portsmouth drawings, these are on sheets of paper measuring $15\frac{1}{2}$ by $19\frac{1}{2}$ inches, and are here shown much reduced.

The only further report upon these rocks based upon personal inspection that we possess is that of Dr. Samuel A. Green in 1868, already cited. Although he knew that three sculptured rocks had been found here by Webb, he could then discover but one of them. "Of the missing two at Tiverton, one is known to have been taken away several years ago and kept as a curiosity near a farm house. It was afterwards built into a wall in such a way that the pictured face could not be seen. . . . The stone at Tiverton is a mica-slate. . . . Many of the marks are still distinct and well-defined, and perhaps were made by the same tribe that made those on Dighton Rock. They are of interest as early specimens of rude Indian art."

In these accounts, there is evidence that at least six rocks bearing man-made characters were once included in this Tiver-

ton group. Giving them arbitrary numbers, and assuming as few as possible, they were as follows: 1. The one reported to Stiles as having been cut up into whetstones in 1762 and sent to Nova Scotia. 2. The first of Dr. Stiles; Webb's No. 4; now buried deeply underneath the stone-heaps on the shore. 3. Webb's stone with characters obliterated, between his No. 4 and No. 5; probably identical with the "third stone obliterated" of Dr. Stiles; now buried under loose stones. 4. The second of Dr. Stiles; Webb's No. 5; the one now visible on the shore. 5. Webb's No. 6, originally a short distance to the south of his No. 5, where no such boulder can now be found, although there are no overlying stones on that part of the beach; perhaps identical with one of Stiles's "two other small stones," and with the one reported by Dr. Green as having been removed and built into a stone wall. 6. The second of Stiles's "two other small stones"; not now discoverable; had probably disappeared before 1835.

When Dr. Stiles first saw Dighton Rock, he believed that its writing was "Phœnician and 3000 years old." His latest view, expressed in 1790, applicable to the Portsmouth and Tiverton rocks as well as to that on Assonet Neck, was practically unchanged. "There seems to be a mixture of Phœnician or antient Punic letters" and other symbols, he wrote; there might have been a "ship's crew from the Mediterranean or Europe, shipwreckt in Narraganset Bay;" and the rocks may have been "of the period of the Phœnician ages & of the memorable Atlantic war 1300 years before the Christian Aera."

When Rafn received from Webb the drawings of these rocks, he naturally regarded them as corroborating his opinion that the Norse explorers had found their Vinland here and had left upon its rocks evidences of their brief attempt at colonization. "There are," he says, "indubitable signs of Scandinavian origin in the presence of unquestionable runes or runic letters."

In confirmation of his own belief, Rafn sought the opinion of the learned runologist, Finn Magnusen. Between them,

they found upon these Portsmouth and Tiverton rocks the following runic letters and monograms:²

1		2	3	4
R, R or Þ, Th		↑, L	↑, T	⊥ = †, AN
5	6	7	8	
†, N	⋈, O	Φ, E	Υ, K or G reversed	
9			10	
✠ = † , AKI			Υ, K, G, or Υ, F	
11		12		13
∩ or ∪, U or V		↑, L		✠, O

Figure 67—Alleged Runic Characters on Portsmouth and Tiverton Rocks.

Magnusen's report is of the kind to be expected of a runologist who is reported to have once found a complete runic message on a rock which more reliable authorities assure us has on it nothing but natural cracks and markings. He claims that these inscriptions contain lines of letters which "conform perfectly to the ordinary Scandinavian runes, and therefore such an origin for them can hardly be denied." He calls particular attention to four characters, and in explanation of them offers what he regards as "the least improbable conjectures." Concerning the letters which we have numbered 2 and 3, he assumes that "Leif and Tyrker, two of the earliest dwellers in Vinland, wished to indicate thus their names by their initial letters." Number 4 is a monogram spelling a name once common in Iceland. There was an An, son of Thorer, living in Iceland at the

² Numbers 1 to 6 are on the Portsmouth rocks. Examination of the Webb-Bartlett drawings will discover them. Number 1 was probably found on rock number 3, in the upper line at the left; 2, 3 and 4 are on rock number 2, in the middle line; 5 is the uppermost character on rock number 1, and 6 probably the one at the extreme right.

time of the discovery of Vinland, and it is not improbable that he may have been a companion of Thorfinn, and that this monogram may have been executed by him. Number 9 (on a Tiverton rock) is a monogram for Aki, which was formerly a common Scandinavian name.

Rafn's main work, that of assembling and translating the Vinland sagas, was scholarly and admirable. His attempts to locate the position of Vinland were uncritical, founded upon evidence which is now discredited. Magnussen surpasses him in mistaking empty guesswork for scientific probability, merely because it pleases his fancy. It is evident that such markings as these cannot be copied with any sureness. Yet these men assumed that the drawings sent to them were sufficiently exact and reliable to justify their conjectures. Detached simple lines resembling pot-hooks and crosses and arrows, that might have been pure accidents, or have been parts of larger partly undrawn figures, or have meant any one of a thousand particular things, they regarded as "unquestionable" runic letters. With thousands of possible inscribers to be considered—Phœnicians, Norsemen, or other equally unprovable pre-Columbian voyagers to this place, Indians of countless generations, white men of many nationalities and in great numbers, who may have passed this way before Stiles first saw the rocks—Magnussen felt justified in believing that Leif made a pot-hook there to indicate his name, and Tyrker an arrow-point! It is an extreme example of solemn silliness posing as serious science.

Rafn's ideas naturally made a profound impression. They were echoed far and wide by numerous writers, and these rocks were long believed by many of them to have been engraved by Northmen. There have been upholders of other queer views about these simple carvings besides the Norse and the Phœnician. The Druidical Monument theory expounded in 1824 by John Finch and in 1888 by James N. Arnold is one of them. Another is the equally absurd belief of John Whipple that there are no artificial characters at all on these rocks. Dr. Thomas H. Webb is authority for this fact, in a letter which he wrote to John R. Bartlett in 1838, which was quoted in an earlier chapter.

In recent years there is practically no dissent from the view that these records are, as Green expressed it, specimens of rude Indian art. They seem to be executed in the characteristic style of the Indians, now familiar to us through numerous far-scattered examples. Stiles's note that the Portsmouth locality was once "a place of Indian Wigwaums" gives a clear clue as to who were the probable artists. We know nothing as to the time when the work was done, except that it must have been long enough before 1767 to render the marks then indistinct and difficult to decipher. Some twenty to fifty years would have sufficed for that, as our studies of the rocks at Assonet Neck and at Mount Hope have shown. Consequently, those at Tiverton might even have been engraved as late as July, 1675, at which time Captain Church came into conflict with a party of Indians on the beach a little to the north of High Hill.³ The carved lines may, therefore, be of relatively late Colonial date. So far as they themselves give indication, they might also equally well be considerably older than that. We must look to our later conclusions for a solution.

The Tiverton rocks, of course, as in every other individual case, have a content different from that of any others. They include a large number of rudely executed human figures, which, though not lacking, are much less numerous on other rocks of our region. But these appear to have no significant grouping, to tell no story, and are probably the record of individual fancy. The single human figure on the only rock now visible has a certain resemblance to others discussed in the next chapter. The other markings do not seem to be representations of anything definite, and, as in the case of those at Portsmouth, must probably be classed as merely whimsical or decorative scribblings.

³ George W. Ellis, *King Philip's War*, 1906, p. 76.

CHAPTER XIV

MARK ROCK IN WARWICK

The most astonishing fact in all the history of the pictured rocks that we are studying is that one of the most interesting, instructive and easily accessible of them all seems never to have been mentioned in print as a rock bearing inscriptions. Many of its sculptured designs are clear and unmistakable. Some of them are as worn and dim and present an appearance of as great age as do those on any of the other rocks of this region. It lies within less than ten miles from Providence, close by an estate that was once a brilliant centre of social, intellectual and political life. It received a distinctive name, and gave its name to the whole neighboring locality, which was for a time a well-known shore resort. Yet while Dighton Rock became famous and other petroglyphs about the Bay were joined with it as objects of controversy, this one slumbered in obscurity. Its name was widely enough known, but only as applied to the locality about it. No one seems ever to have written a word about the rock itself and the curious records on it. Dr. Ezra Stiles, indefatigable searcher after "written rocks," lodged once less than half a mile away, yet never heard of it. Dr. Thomas H. Webb, no less eager to discover every "Inscription Rock" within reach, actually stood upon it but could not see its records. How it could have been so near and so well known locally, and yet have remained so concealed from everyone interested in observing and describing such objects, is a mystery as great as that of the origin of the dispute-provoking records themselves, here and elsewhere. Now that it emerges from its long-guarded retirement, it bids fair to give more aid than any of its fellows in unveiling the mystery that has clothed them all.

My own first knowledge of it was due to Mr. Howard M.

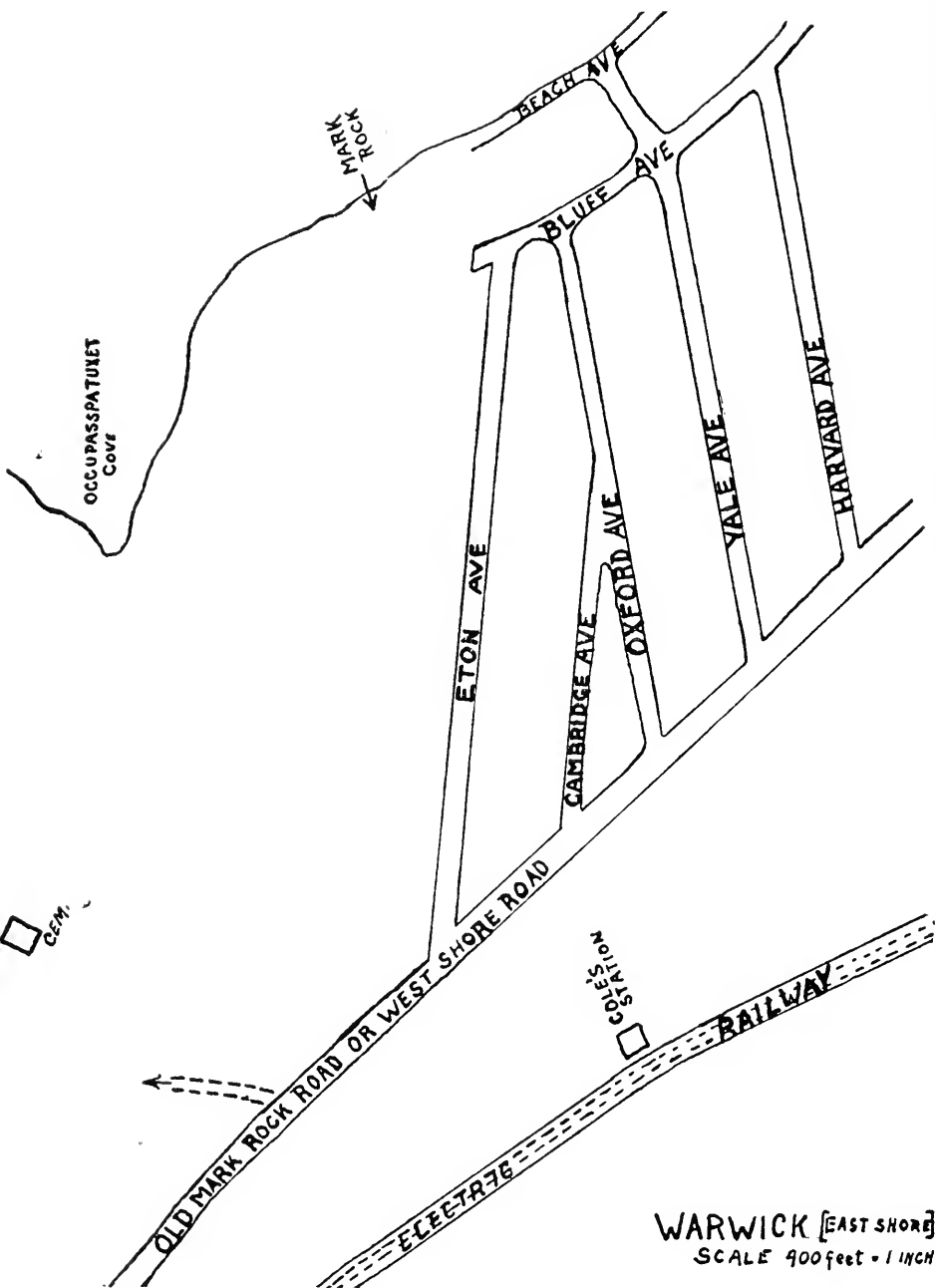


Figure 68—Map of the Vicinity of Mark Rock in Warwick, R. I.

Chapin, who had met with the usual vague rumors of its existence, but learned of its exact location only after much difficulty, many futile inquiries and long delay. It is situated in the town of Warwick, on the west side of the Bay, seven miles distant in direct line from the State House in Providence and nearly two miles farther by road. The accompanying map, Figure 68, indicates its exact position. It may be reached from Providence either by taking the cars of the Buttonwoods line to Cole's Station, or by following the highway passing west of Pawtuxet to the first left-hand main branch, which has been known at various times as "River Road," "Shawomet Avenue," "Old Mark Rock Road," and "West Shore Road," the latter being its present designation. The "avenues" shown on the map, leading eastward to the shore, are at present unfinished roads and are not actually named as the map indicates, "Yale Avenue" being labeled "Rock Avenue," and the rest of them without name-signs.

The known history of the rock is easily surveyed. Its older inscriptions must have been already long in existence at the time when Dr. Stiles wrote down in his Itinerary, on July 23, 1770, that he "rode to W^o Greens" at Occupessuatuxet, where he remained for the night. The Widow Greene of that day was Mary Almy, who died in 1777, wife of John Greene of the fourth generation in Warwick, who died in 1762. Unfortunately, no one there seems to have known of his keen interest in such relics and so did not inform him of this one in the close vicinity.

They must have been still there in 1835, when Dr. Webb visited the spot, but failed to observe any inscriptions except names of visitors. It is hard to understand how he can have overlooked them; but probably he was expecting to find them crowded on a single boulder, like Dighton Rock, and thus missed these inconspicuous designs scattered widely over a broad ledge. His description, given in a Report to the Trustees of the Rhode Island Historical Society on November 16, 1835, is as follows: "We visited Warwick July 31, 1835, in pursuit of a marked rock rumored to be located there. After much fruitless search, we succeeded in finding the spot spoken of,

but no Inscription Rock upon it. It is situated a short distance S. W. of Spring Green Farm, near the shore, resting in situ. It was probably once a resort for fishing or for clam bakes; & the visitors were in the practice of cutting their names on the rocks; there was one date as early as 1762. . . . This spot is spoken of, because it is of importance, to future investigators, to have all erroneous rumors corrected as far as possible, in order that their attention may be directed elsewhere to greater advantage."

The name occurs again in a deed of March 26, 1847, from Sarah Cole to her three sons, in which the southeasterly boundary of the property conveyed is described as "at the shore near the marked rocks (so called)." Twice only I have seen the name in print as applied to the rock itself, but unaccompanied by any description: first in a list of rocks in Warwick given in J. R. Cole's *History of Washington and Kent Counties*, and second on the map of 1917 from which our Figure 68 is reproduced.

As a place-name of the surrounding region, however, Mark Rock is not infrequently mentioned. It was so designated, no doubt, because, as Sarah Cole's deed shows, its "marked rocks (so called)" were already thus locally celebrated. When the name was first given to the locality is uncertain. Webb's report indicates that it was called a marked rock and was a resort for fishing and for clam bakes before 1835. Mr. Fred A. Arnold informs me that he used to visit the place as early as 1855, when it was already known as Mark Rock and was a well-known small shore resort used for family parties. In 1865, Moses Greene leased "the whole length of Mark Rock Shore," after which, with a change of lessees in 1867, a wharf was built, the steamer *What Cheer* made regular trips between it and Providence, shore dinners were served, and it became a somewhat noted and not always particularly reputable place of resort until the buildings were destroyed by fire some time previous to 1878. The name Mark Rock is applied to the locality on maps between 1872 and 1881. "Coles" is given as an alternative name on a map of 1877, and "Riverdale" appears instead in 1895. The name Mark Rock seems now to have wholly disappeared, and



Fig. 69. The Mark Kock Ledge

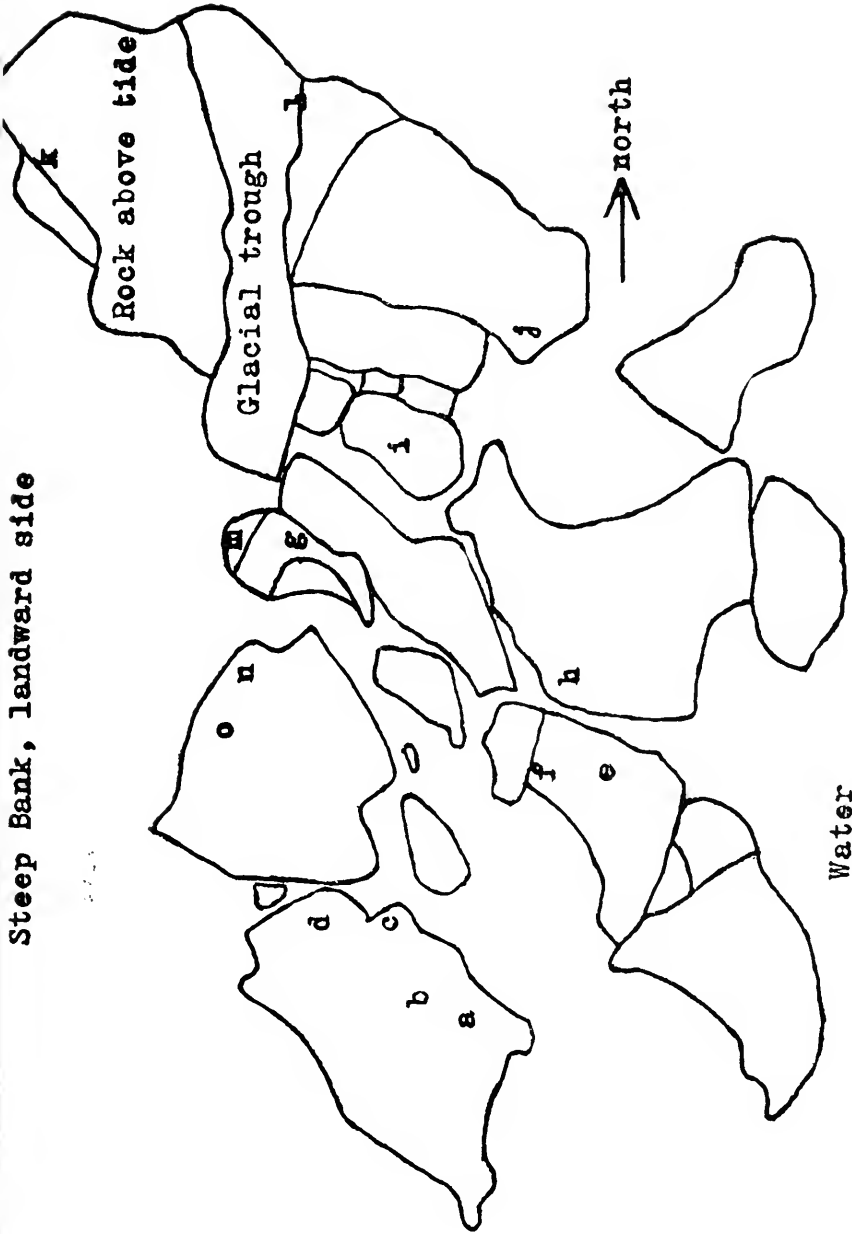
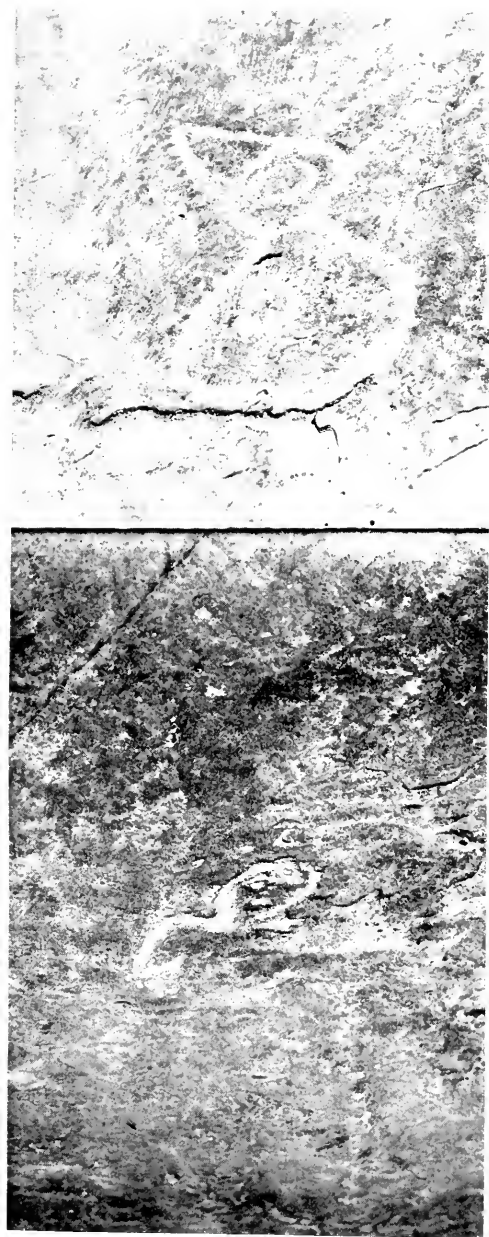


Figure 70—Plan of Mark Rock Ledge Based upon an Aeroplane Photograph Taken by E. B. Delabarre, May 28, 1920. Letters Indicate Position of Marks Discussed in Text.

for many years the locality has been known as Cole's Station, or simply Coles.

Mark Rock is not a single rock, but an irregular ledge, broken up into a group of more or less fully separated fragments. Its general appearance is well indicated in the photograph of Figure 69. Figure 70 gives a plan of its more important separate divisions, to aid in locating the pictographs and inscriptions scattered irregularly over the surface. In length it extends about 75 feet north and south, parallel to the shore, and in width about 50 feet. It is a "graywacke" rock, similar to most of the others in this region on which inscriptions have been made; or, more exactly, according to Professor C. W. Brown, to whom samples were submitted, it is a medium to fine grained gray feldspathic sandstone, slightly sheared. Behind the main part of the ledge is a smoothly worn glacial trough, beyond which a small section of rock climbs a steep bank, rising beyond the reach of the tides. All the rest is submerged at high water, and wholly exposed at low tide. The ledge slopes gently down eastward toward the water at an angle to the horizontal plane ranging usually from ten to twenty degrees. Most of the component rocks are convex on top in the direction of the slope, though a few are nearly flat and horizontal. They are worn smooth and striated by glacial action. The color is a light gray on the higher parts where the action of salt water and its deposits is least, of a decidedly reddish tinge in many parts of the middle zone, and dark gray in general on the lower portions. In a great many places, especially in the middle zone, decomposition has so affected the outer surface that it tends to scale off at intervals in thin laminae, thus producing the appearance that Stiles and Webb described, in other similar cases, as an "incrustation." Unfortunately this tendency has seriously marred some of the older inscriptions. All of the older artificial lines are pecked in. Some are very distinct and unmistakable. Many others are faint, illegible, darkened to the color of the surrounding surface, in some cases making it hard to tell whether they are artificial or natural. Mingled with them are also very many modern names and



Figs. 71, 72, 73. Mark Rock glyphs *a* (upper left), *b* (lower left), and *c* (right)

initials, some of them dated, which are pecked, chiseled or scratched in, or painted.

Besides modern names and initials, I have found twelve designs, figures or groupings of lines on this ledge, distinct enough to be recognized as clearly artificial. I have designated them by the letters *a* to *k*, inclusive. All of them except *k* are indistinguishable in color from the rock itself, so that except in favorable conditions of lighting some of them are hard to discover. This fact, together with injuries in some cases due to the scaling off of parts of the "incrustation," make it certain that they are much older at least than any of the dated names. But *k* looks fresh and is lighter in color than the rock-surface. This may be because it is so high up on the ledge that it is never submerged. Still, the oldest of the dated names are also of a much lighter gray than the surrounding rock, and these are covered at high tide; so that I judge that *k*, as well as these, may be relatively modern. There seems to be no clue to relative age in the width, depth or manner of incision of the lines of the different designs. Like all the pecked characters of the whole region, they were made by blows of a rather blunt hard point, of stone or metal, and are very irregular in both width and depth. In width, the lines vary between extremes of about 5 to 20 millimeters, tending to an average of 9 to 12; and in depth they run for the most part from 1 to 5 millimeters, averaging about 3.

In examining the photographs it must be remembered that it was often impossible to set the camera directly over the rock-carvings, pointing perpendicularly toward them, as would have been desirable; and consequently these cases are pictured with some degree of perspective distortion. Moreover, the lighting was rarely such as to give the greatest possible relief and distinctness, so that in some of the reproductions the lines are presented with less of clearness than when they are viewed on the rock itself under the most favorable conditions of illumination and point of view. Whenever close study left little or no doubt as to what the artificial lines actually were, I rubbed into them in most cases a thin layer of fine dry sand, which renders them much more readily visible without seriously inter-

fering with a minute examination of their structure even under a magnifying lens. I refrained from doing this, however, in all cases where I regarded the lines as doubtful and also where they were sufficiently distinguishable without it. The approximate location of the different designs or glyphs should be sought by aid of Figure 70. Their most important features are as follows, dimensions being given in inches:

a (Figure 71).—Apparently an ornamental design. Difficult to discover in some lights, but may be found by noting its relation to the crack shown in the photograph. Diameter of inner central circle, $3\frac{1}{2}$; of outer circle, $6\frac{1}{2}$ to 8; length of the two attached arms, 8 to $8\frac{1}{2}$; larger oval, $9\frac{1}{2}$ by 13; its included circle, 3. Photographed from the north; sanded.

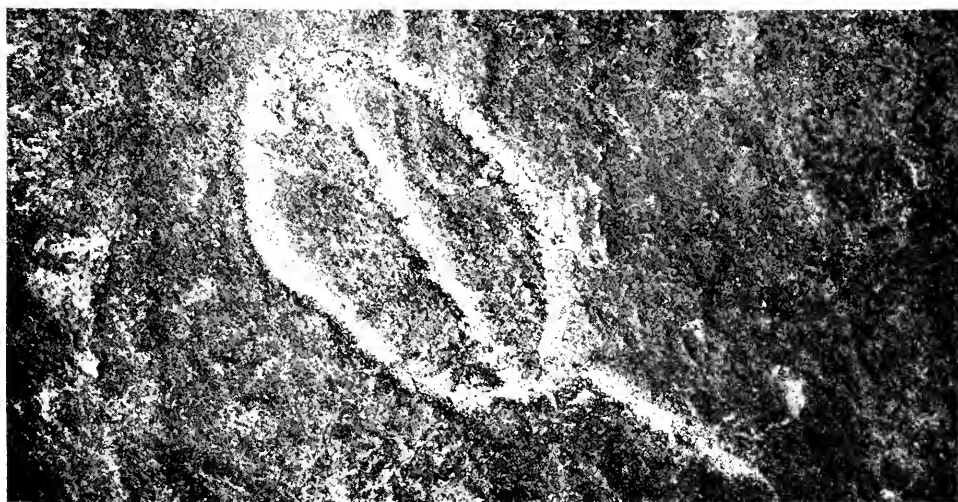
b (Figure 72).—A human head and bust. Rather hard to find. Situated a little north of the middle of its rock-section, on the crest of its steepest slope, three feet west of *a*, five feet from north edge of rock. The surface here is much scaled, pitted, irregular and broken. Head about $4\frac{1}{2}$ by 5, whole figure $7\frac{1}{2}$ by 12. Photographed from northeast; sanded.

c (Figure 73).—Apparently an irregular, complex, meaningless grouping of lines; some suggestion of a rude human figure. Covers a space about 12 by 28. Photographed from northeast; sanded.

d (Figure 74).—Unquestionably many hand-cut lines here, but most of them faint and uncertain, and the design, perhaps a meaningless complex, greatly damaged by extensive scaling off of the "incrustation." A space at least five feet square was apparently covered with incisions. Photographed from southeast. No sand used, in order that the photograph may be studied without prejudice.

e (Figure 75).—Apparently an ornamental design. Difficult to discover. On its particular rock-section, it lies about in the middle from east to west, its centre being two feet from the north edge of rock. The oval part measures $5\frac{1}{2}$ by $8\frac{1}{2}$. Photographed from directly above; sanded.

f (Figure 76).—Apparently a meaningless complex of lines, very indistinct, occupying a space measuring about 18 by 30. Impossible to photograph satisfactorily. I have attempted,



Figs. 74, 75. Mark Rock glyphs *d* and *e*

however, a free-hand rendition of the lines as I see them, submitted with much uncertainty as to its correctness.

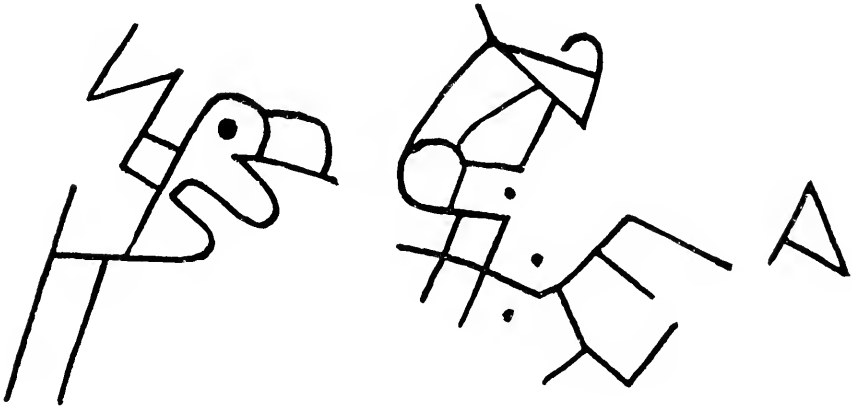


Figure 76—Sketch of probable markings in position *f*; looking northward.

f2 (Figure 79).—This lies just to the west of *f*. It contains a number of lines that are doubtful, but also, very clearly discernible, a figure closely resembling the body of the human figure at *j*. There seem to be suggestions of a head with feathers, of two arms with spread fingers, and of legs, one with bent knee. Photograph taken slantingly, looking westward.

g (Figure 77).—An ornamental scroll, measuring ten by eleven, with some neighboring curved lines and angles less easy to decipher. The regularity and beauty of the curves is noticeable. Distinct on the rock, but not easy to photograph because partly covered by daubs of paint. Photographed from directly above; sanded.

h (Figure 78).—For reasons given below, I class these zigzags as “signatures.” Clearly observable. Together, they measure about 5 by 17. Photographed from directly above; sanded.

i (Figures 80 to 83).—A large section of the rock-surface here was originally covered with lines and figures, now greatly impaired by extensive scaling. Figures 80 to 82 all show the same portion of the rock above, toward the west, and embrace

successively more and more of the rock eastward, until the last of them includes nearly all of the figured portion of the rock in this section. Figure 83 shows on a larger scale a portion of it toward the easterly end, taken with the camera pointed vertically downward. In this latter place, the figures are distinct except in the scaled area. One figure is somewhat boat-shaped, about $1\frac{3}{4}$ by 6. Across it, to the right of its centre, runs a line slanting upward to the left and disappearing in the scaled-off region; but it is fairly certain that its continuation can be traced within the latter, in spite of the scaling, and close examination makes it seem probable that it ends in an arrow-point below the centre of the small island of unscaled surface within the scaled area. The whole figure, boat (or inverted bow) and arrow together, as we shall see later, constitutes a possible "signature." To the right of it lies what was once a definite and regular design, but now so mutilated that part of its original form and significance is uncertain. The diameter of each circle with inner dot is $2\frac{3}{4}$ inches; the distance between them, centre to centre, is $6\frac{1}{2}$ below and 9 at the right. Besides the three circles clearly visible where no scaling has occurred, a fourth one can be unmistakably observed within the scaled area, 8 inches from its neighbor to the right and $8\frac{1}{2}$ from that below. A fifth circle lies within, half on the scaled, half on the unscaled surface. All of the circles have inner dots. Joining the two to the right is a straight line and also, to its left, a second line triply curved. Between the two lower circles is a single straight line, and between those at the left a curved line. Whether a line joined the two at the top is uncertain. One further line is distinctly visible curving downward from the central circle. Other uncertain lines are dimly indicated. There is even a faint but wholly doubtful suggestion that the entire inner figure may have been a rosette somewhat like that described under *k*, below. The only plausible suggestion that occurs to me as to the possible significance of the whole figure is that it may have been the crude attempt of an Indian, unacquainted with the art of drawing in perspective, to picture an ox-cart or something similar.

The design pictured in the three smaller photographs, oc-



Figs. 77, 78. Mark Rock glyphs *g* and *h*

cupping the westerly portion of this section, is less distinct, but is nevertheless clearly that of a man. His head is in profile, facing leftward. Feathers run back to the right, and a long big nose is pictured at the left. The right arm is seen clearly running down through the highest scaled-off section to an elbow, and thence upward and leftward through and beyond the same section, ending in a hand with spread fingers on the unscaled part of the rock. Through the same scaled section and the one below it can be traced a body and the two legs. What lies to the right of the figure is less clear, though it includes a suggestion of a left arm, possibly holding something, of which a U-shaped portion above and a portion resembling a rayed sun below are fairly distinguishable. The figure seems to represent an Indian, apparently making the gesture of contempt vulgarly known as "thumbing the nose." If, as is possible, Miantonomi and his companions left their signatures here about 1640, they may conceivably also have drawn this picture to express their opinion of the whites to whom they had sold the adjoining lands; although some other significance may equally well have been intended. The entire scene depicted, including the peculiar quadrilateral design of lines and circles below, cannot now be reconstructed, and interpretation must remain doubtful.

I have never seen clearer proof than these photographs give of the fact that exfoliation of a rock-surface does not necessarily destroy the legibility of marks previously inscribed upon it. In all three of the scaled areas of *i*, some of the marks remain nearly as visible as in many cases where no scaling has occurred; and much the same thing is true of *f2* and of the Mount Hope inscription.

j (Figure 85).—A rude human figure. Diameter of head, $2\frac{3}{4}$; entire figure, 5 by $12\frac{1}{2}$. Photographed from directly above; sanded.

k (Figure 86).—An ornamental design, like a conventionalized rose; possibly modern. On highest part of ledge, above water. Central hole is $\frac{3}{8}$ deep, $\frac{1}{2}$ diameter, cup-shaped; diameter of circle, 2; of total figure, 11. There is a large E $2\frac{1}{2}$ inches south of it, measuring 4 by 8; and the same distance

northwest of it is an S, 5 by 9. Photographed from above; not sanded.

l.—This is a large, regularly shaped half-circumference, closed below by its 28-inch diameter; within, near the top, is a well-formed picture of an anchor, and along the diameter is written the name "Philip Greene," followed by the representation of a plough. It is situated at the edge of the glacial trough, and the lower part of it, including the name, is ordinarily covered by sand. It was made probably by Philip, born in 1806 and married in 1832, son of Thomas Lippitt Greene. Although not so stated in the family history, he seems to have indicated by his pictures that he combined the occupations of his father, a mariner, and of his grandfather, a farmer. The actual date of the inscription was very likely 1827, coincidentally with two dated inscriptions, one of which also pictures an anchor. The lines are pecked in, but are narrower and shallower than most of those in the older inscriptions, being 3 to 6 millimeters wide and 2 to 3 millimeters deep.

m.—The name and date, "S. Low, 1827." It is scratched in, not pecked, with lines less than 3 millimeters wide and 2 to 3 deep.

n.—"I. W. Greene Oct. 14, 1827" followed by an anchor. Lines scratched in, 2 millimeters or less wide and deep. This was very likely John Wickes Greene of the Stone Castle in Old Warwick, born 1809, married 1831. I have found no statement concerning his occupation, but his father, Robert W., is described as a farmer and captain in the merchant marine. This probably accounts for the anchor.

o. Various early names and initials.—Webb found one name recorded as early as 1762. The earliest that I find, besides those just described (*l*, *m*, *n*), are in this location *o*. They include: "WG 1775;" "A. Low 1776;" "Mary A. Waterman July 5th AD. 1830;" "H. Waterman June 1831;" "Stephen A. Lockwood Au 19 1837." In the section called *d*, not far from these, is the name "F. M. Waterman" accompanied by a well executed drawing that probably represented a spread-eagle with scroll. The figure was drawn with such shallow lines, however, that they are badly worn and many of them wholly obliterated,



Fig. 79



Fig. 80



Fig. 81



Fig. 82

Figs. 79, 80, 81, 82. Mark Rock glyphs *f*2 (upper left) and *i* (remaining three)

and I have thought that possibly it may have been a winged death's-head such as was often carved on gravestones. I discover no date for this signature, but there may have been one, possibly the 1762 seen by Webb, now wholly worn away.

p.—Numerous more recent initials of no particular interest.

Since there is considerable difficulty in seeing the pictures correctly in the photographs without prolonged and microscopic study, I present in Figure 84 the appearance of all of the human figures on Mark Rock, as I see them. They are not drawn in correct proportion, because the photographs necessarily distort them perspectively; and I am doubtful about many of the lines. There seem to have been some other human figures in *d* and perhaps in *c*, but there they are particularly hard to make out.

Although we have no mention of Mark Rock or of the "marked rocks," printed or documentary, earlier than 1835, the dates on the rock itself carry it back as a place for records to 1762. But every one of the glyphs which we have described under the designations *a* to *j* is unquestionably much more ancient than this. The later ones are all clear, fresh and distinct, of a decidedly lighter grayness than that of the untouched rock, although they are narrower and more shallow than the older ones; while the latter are dulled to the grayness of the rock, often look indistinct and difficult to distinguish from the natural striae and pittings, and are frequently badly dilapidated by time. Many of them, too, are of unquestionably Indian type, and therefore, since they clearly show that they are not modern imitations, are probably as old as early Colonial times at least. These eleven first-named designs or groups include three irregular and apparently meaningless complexes of lines, *c*, *d* and *f*; three ornamental designs, *a*, *e* and *g*, of a regularity, beauty and skill in execution rare in the case of Indians, who may or may not have been the originators of all of them; two or three regular designs with probably definite symbolism, including a dilapidated and therefore uninterpretable collection of lines and circles in *i*; four human figures, *b*, *f*2, *i* and *j*, and possibly others in *c* and *d*; and three characters that we have said may possibly be signatures. Leaving the

complexes unanalyzed, this makes about fifteen discoverable designs in all, not including those lettered *k* to *p*.

The irregular complexes are probably what they appear to be, mere meaningless scribblings, products of an unguided urge-to-do something. Our own children turn out something closely similar in their ignorant attempts to draw or to imitate grown people's writing. It is not by any means improbable that in these rock-scribblings uninstructed red men may have been similarly trying to imitate what they had seen white men do; but of this we cannot, of course, be certain.

The human figure in *j* closely resembles that on the rock at Tiverton. The diagonal lines across the breast, and the prominent "buttons," strongly suggest a military uniform. It may well be that Indians attempted thus to picture a white soldier of early Colonial days, an impressive object in the experience of the aborigines. The militia of those days wore no regular uniform, it is true, but they did have to carry powder-flask, pouch for shot, provisions, and sometimes sword or bayonet, and these were supported often by straps crossed over the breast.¹ If this is the meaning of the rock-picture, it helps to fix the probable approximate date of these pictographs.

This indication of a definite date gains strength from the three designs that I have classed as possible signatures. As to whether they are truly such or not, it would be unwise to venture too confident a judgment. Indians often affixed marks as signatures to deeds and similar papers. A very few of them, perhaps including Philip with his P, may have adopted a definite design characteristic of the individual and invariably used by him. But most of them seem to have made a more or less different mark every time they signed, and different individuals often used similar marks. Many examples of such signatures are reproduced in Chapin's *Documentary History of Rhode Island*. Among them, the following, made between 1637 and 1645, may have some bearing upon our discussion and may serve as illustrations of the mingled variability and similarity in practice. On five papers, Canonicus signed with a bow-shaped

¹ E. McClennan, *Historic Dress in America*, i. 346. Alice Morse Earle, *Two Centuries of Costume in America*, pp. 685-687.



Fig. 83. Mark Rock glyphs in position *i*

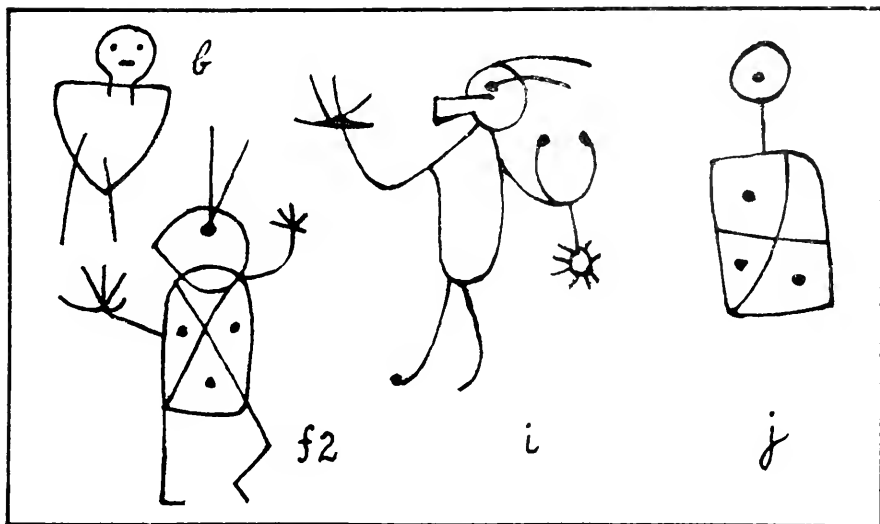


Fig. 84. Probable appearance of drawings of human figures on Mark Rock

figure twice, differing bow-and-arrow shapes twice, and another design once. Nine of Miantonomi's marks are shown, all differing from one another though with some resemblances: an arrow four times, a bow-and-arrow twice, and entirely different figures three times. Socononoco signed with differing bow-and-arrow figures four times. At least three other sachems used a bow-and-arrow mark during the same period, practically always with differences in detail. The arrow is represented sometimes by a straight or curved line only, sometimes as ending in an arrow-point. Usually the arrow is drawn starting naturally from the string, and crossing over and projecting beyond the curve of the bow. But in one case, illustrated below, the straight string is uppermost and the arrow, starting from it, projects upward away from the curve. Of course marks of many other shapes were used, besides those here mentioned.

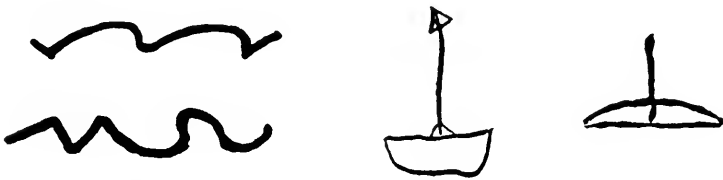


Figure 87—Indian Marks or Signatures: of Weshaganesett (upper left), Wonimenatony (lower left), Miantonomi (middle), and Socononoco (right).

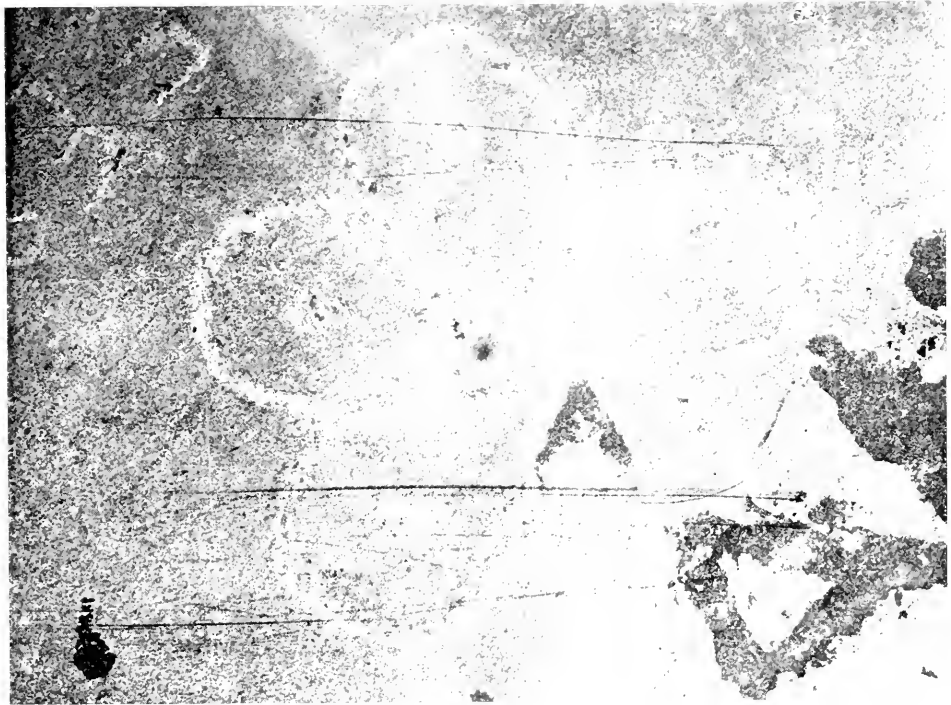
Four Indian signatures are reproduced in Figure 87. The first of them is that of Weshaganesett, and the second that of Wonimenatony, as they appear on papers signed at Aquidneck in 1639. The third is the way in which "Myantonomey," chief of the Narragansetts, wrote his mark on the deed of the lands of Shawomet to John Greene and others, 12 January 1642-3. The fourth is the mark of Socononoco as on the deed of Occu-pessuatuxet to John Greene in 1642.² It will be seen that the two parts of *h* on the rock (Figure 78) are as nearly exact duplicates of the signatures of the two first-named Indians as any two signatures of an Indian are of one another. The third signature greatly resembles the lowest left-hand design on *i* (Fig-

² H. M. Chapin, *Documentary History of Rhode Island*, i. 167, 170, ii. 73.

ure 83), not only in its inverted bow or boat-like shape, but also in respect to the line running from it and ending in an arrow-point. These resemblances suggest strongly that this bow-like design on the rock may have been made by Miantonomi or Socononoco, who sold the adjoining lands in 1642, or by some other sachem who was accustomed to sign his name in this manner. We thus have three cases of close correspondence between rock-carvings and documentary signatures. One instance of such resemblance might well be attributed to chance. This may be the explanation of them all; yet it is entirely possible that the two sachems of Aquidneck, and one or more of the other Indians mentioned, having learned from the whites to use these marks, at some time not far removed from 1640 may have thus carved their name-symbols upon the surface of this rock.

I have enquired of residents near the rock as to whether any local legends or theories survive concerning it. The only indication of such that I have found was related to me by Col. H. Irving King of Apponaug. He writes: "The only legend in regard to 'Mark Rock' is that it was inscribed by the Norsemen and that the inscription is similar to that on the Dighton Rock. This is the belief among the remnants of the old settlers of Old Warwick. In the Greene family I know the Norse legend still persists. In my early youth in this village I heard Indian legends about a great number of places in the town but never a word about 'Mark Rock' in connection with the aborigines. The ascription of the marking on the rock to the Northmen is evidently a transference of the myth—if it is a myth—of the Dighton Rock to the one at Cole's Station."

There is no doubt that there is no more reason to attribute the inscriptions on New England rocks to Norsemen than to Phœnicians or Druids. The Warwick rock itself proves the mixed Indian and white-American origin of its markings, more clearly and certainly than is the case with any others of the rocks that we have studied. It is thus the most illuminating and instructive of them all. It has lain at our door with its lessons, in all probability, as long as any of them. But it has eluded all scientific observers, so that only now can its lessons be read.



Figs. 85, 86. Mark Rock glyphs *j* and *k*

Among these, the following at least are important probabilities—I do not speak of them as certainties, for in a field like this it is difficult to speak of many conclusions as absolutely sure:

1. The markings are scattered, individual, unrelated, like the modern initials. They do not tell a single connected story. Many an attempt has been made to force the characters on Dighton Rock to do this, but such unified interpretations of it are all futile. On the other hand, it has been surmised, by myself and others, but without complete proof, that the carvings on nearly all these rocks, however crowded together on one surface, were made by many different individuals, on different occasions, through a considerable period of time. We may say that this is practically proven for Mark Rock, and thus its probability in the other cases is greatly strengthened.

2. There is good reason for believing that the Portuguese explorer, Miguel Cortereal, may have been the first to use Dighton Rock as a recording surface, in 1511, and that later the Indians, following his example, acquired the habit of doing the same. It seems not unlikely that Indians, again following the example of white men's writings, first made use of Mark Rock's tempting surface sometime between 1620 and 1650, and that the practice continued at intervals, ending probably with the scattering of the race at the close of King Philip's War.

3. Some of the marks here, due to the Indians, are almost certainly meaningless scribbles, and others equally meaningless decorative designs. Our already expressed belief that this is true in other cases thus gains support.

4. Very few of the marks here seem to have any possible symbolic significance. Where such exists, it is individual and trivial, either a name, or an object like the soldier that had attracted interested attention. There is no story told, no historical event indicated, no information conveyed. This is not true, of course, of all Indian writings; but, so far as I have studied them, it seems to apply to a great many of their petroglyphic efforts everywhere. It is not impossible that the obliterated portions of the records here may have contained some small feature conveying more elaborate meaning. There is no indica-

tion of it now, except that in case of the human figure and the quadrilateral of lines and circles in *i* I have a persistent impression that they were meant to indicate some particular idea, more elaborate than usual. Yet even so, whether the ideas were more or less like those of disparaging gesture and of ox-cart that I have suggested for them, or were wholly different, it seems probable that it was still merely individual and trivial.

5. If our surmise about the signatures is correct, then some of the marks are provably of Indian origin, and of early Colonial date. The figures which, here and elsewhere, probably represent Colonial soldiers, and our interpretation of the scribblings as inspired by white example, point with some force to the same conclusion. The belief that Indians, some at least, if not all, in early Colonial times, were responsible for the puzzling and much controverted markings on all the other rocks of the region, thus gains strength.

6. White men, after the Indians had gone, and because the Indians had begun the practice, carved not only their names and initials here, but also occasionally ornamental and symbolic designs, as is shown by the plough, anchors and eagle. Some of the earlier and better executed scrolls, and the rosette at *k*, may have been made by them instead of by Indians, but this is not sure. In like manner they carved initials, at least, in other localities, on all similar rocks to which their attention has been drawn. Those at Tiverton have thus far providentially escaped.

If these conclusions, all or most of them, can be accepted, then it is true that Mark Rock, so easily accessible yet so curiously elusive heretofore, contributes a great deal toward the solution of many perplexing questions about the numerous written rocks of this region that could not be decisively answered without its aid.

CHAPTER XV

MISCELLANEOUS INSCRIBED ROCKS AND STONES

We have found seven rocks or groups of rocks with carved inscriptions, about Narragansett Bay. There remain a great many more reported instances in New England to examine, some of them still within the Narragansett Basin or near enough to belong to the same cultural region, and others elsewhere. Many of the reports will turn out to be mistaken, and the genuine cases will require less of detailed description than those which have occupied us thus far.

1. Gardner's Point Rock.—There seems to have been once an inscribed rock at Gardner's Point on Mattapoissett Neck in Swansea, which has long since disappeared. We are indebted to Dr. Webb for the single extant account of it. He first alluded to its existence in his letter to Rafn on September 22, 1830. But when he sought to discover it somewhat later, he failed in the attempt, and shortly sent to Rafn a full description of the circumstances, in his letter of October 31, 1835. He had first learned of it about 1820 from a Mr. Gardner of Dighton, who, then eighty years old and living near Dighton Rock, "recollected perfectly well of seeing, when a boy, a similar rock" on his father's farm in Swansea. On August fifth, 1835, Dr. Webb visited Swansea in company with John R. Bartlett. "We traced the shore along for some distance, but unsuccessfully. Mr. Gardner, aet. 70, who owns the last farm on the Point, and is brother to the one already spoken of, had an indistinct recollection of having seen a rock on the east side of the Point, about one fourth of a mile from its extremity, which had marks on it, 'but none,' as he observed, 'that would be read;' this he thinks was broken up 20 years ago or more. We searched for it, but in vain."

2. Warren Banner Stone.—Double-edged and perforated

Indian stones of axe-like appearance are not rare, and are commonly known as bannerstones. Indian incisions on implements as well as rocks are of frequent occurrence, but they consist usually of pictographs or of decorative lines, and authentic specimens whose lines resemble alphabetic characters are exceedingly rare. The combination of axe-like shape, double blade, perforation for hafting, and inscribed characters suggesting a possible alphabetic or ideographic significance is apparently wholly unique. A specimen possessing these characteristics, however, is now in the Museum of the American Indian, Heye Foundation, in New York, and came originally from somewhere in this region.

Unfortunately the history of this stone is not entirely clear. About ten years ago it came into the possession of the late Charles R. Carr of Warren, Rhode Island, from a source now unknown. The most probable account of it now obtainable is that it was discovered by someone who was clamming on the Kickamuit river in Warren, somewhere north of the Narrows, and that he sold or gave it to a man in Tiverton or Fall River, from whom in turn Mr. Carr obtained it.

The stone is pictured in Figure 88 from photographs for which I am indebted to Professor Foster H. Saville of the above-named Museum. It is a granitoid pebble somewhat sharpened on both of the edges or blades by a slight degree of rubbing. A perforation, about one-half inch in diameter, extends through the middle where the stone is thickest. It appears to have been made, not by a rotary drill, but by the use of a steel tool with pressure. The stone measures about $5 \frac{5}{8}$ by $3 \frac{1}{2}$ inches, with a greatest thickness of $1 \frac{3}{4}$ inch. The incised lines are $\frac{1}{32}$ to $\frac{1}{16}$ inch deep and an average of $\frac{1}{12}$ inch in width. The inscription consists of four characters on one face of the specimen; and, on the other face, the two middle characters of the first face repeated and joined together by a circle.

It is generally agreed that bannerstones were used for ceremonial purposes only, and that they possessed some symbolical significance. There is no agreement as to the meaning of the symbolism, and most authorities venture no opinion except



Fig. 88. Inscribed Indian Banner Stone found in Warren, R. I., near the Kickamutt river

that it was religious in nature. Dr. George B. Gordon suggests the possibility that the stones represented originally a whale's tail and symbolized the whale as an important source of food to the tribes among whom the use of these objects originated. W. K. Moorehead, on the other hand, considers it probable that, mounted on a staff with eagle's head and feathers, they represented the thunder-bird. Some writers have even suggested their practical use, not as axes, but as counterweights on fire-drills and perforation-drills, or as hair ornaments. But a purely ceremonial use of some kind may be most plausibly assigned to our stone.

In the opinion of Miss Virginia Baker,¹ Philip's village was not at Mount Hope but near the Narrows of Kickamuit River. One of the characters on the stone resembles the P which Philip always used as his signature to official documents, and the remaining characters suggest some alphabetic or ideographic significance. If the incisions and perforation were made by a steel tool, as is probable, and if it is of genuine Indian origin, which no one who has examined it seems to have doubted, then this object was fashioned almost certainly sometime between 1620 and 1675, and may well have been a ceremonial stone belonging to Philip himself. If so, then we might very plausibly infer that the whole inscription on one side may have been meant to signify something like "Philip, Chief Sachem of the Wampanoags." The repetition of the same characters on the other side within a circle might then have been intended as a sort of royal coat-of-arms or heraldic device, signifying "Wampanoag royal property," or "tribal emblem." As an exact interpretation, this is, of course, pure guess-work; but whether it is right or not, some meaning surely attached to the characters.

In the Table (Figure 42) which was given in our chapter on the Mount Hope Rock, the characters on this Warren stone were compared with those on two other stones bearing inscriptions which have been attributed to Indians. One of these was the Pemberton Axe, found in 1859 in New Jersey; but Mr. C. C. Willoughby doubts if its incisions are of Indian work-

¹ *Massasoit's Town*, 1904, p. 24.

manship. The other stone was a tablet found in a mound in Tennessee, whose engraved characters were regarded by Cyrus Thomas as "beyond question letters of the Cherokee alphabet." Things like these are too few and too dubious to permit any very confident conclusions. But there is no question that a Cherokee system of writing, in syllabic characters, was devised as a native product early in the nineteenth century, and there is very little doubt that it was used on the rock near Mount Hope. It is at least possible that, after long intercourse with the whites, similar spontaneous impulses toward devising a native system of writing may have arisen much earlier, and that the Warren bannerstone is a real example of the use of such a system that may have been in process of development among the Indians of this region, perhaps during the time of King Philip. If we were surer of the circumstances of its discovery and that it was an indubitable Indian product, we could make such a statement with greater confidence.

3. Dighton Headstone (Figure 89).—A headstone to an Indian grave in Dighton, now in the Museum of the Old Colony Historical Society in Taunton, furnishes a proof that Indians, under white influence, learned to carve inscriptions on stone, or else that a white man did it for them in ideographic symbols that would be intelligible to them with a little explanation. In its upper line is an Indian's head between the Greek letters Chi and Upsilon, which are supposed to stand for *Christou Huios*,—son of Christ. The whole line therefore reads: "Here lies a Christian Indian." Next below is an arrow pointing toward a rectangle enclosing an X; and this rather clearly means: "The aim of his life was toward the Banner of the Cross." Below this is an Indian pipe, undoubtedly meaning in this context: "May he rest in peace." Then follows a Greek letter Delta, possibly the initial of Samuel Danforth, minister at Taunton, who converted many Indians to the Christian faith. Finally, the figures 68 are clear, and were probably part of the complete date 1687, 1688 or 1689, the earliest years of Danforth's ministry. This interpretation was given me by the late James E. Seaver, secretary of the Old Colony Historical



Fig. 89. A pictographic headstone found in Dighton, Mass.

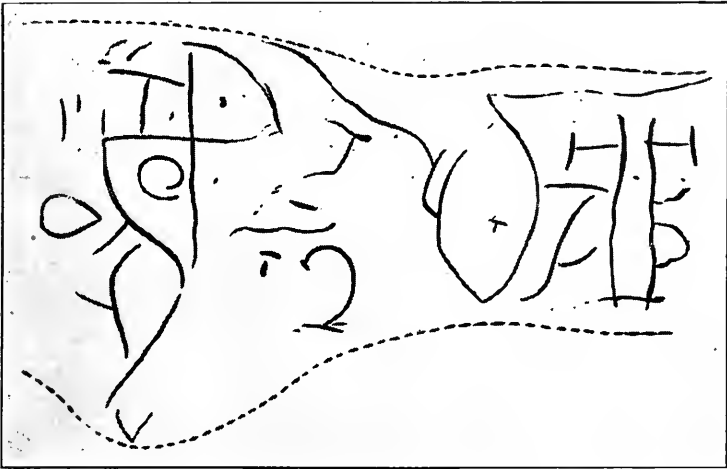


Fig. 90. Indian inscription carved upon a small boulder found in West Wrentham, Mass.

Society. It is not known who first suggested it, but it is so obvious that it is almost surely correct.

4. West Wrentham Stone.—A small stone, about ten inches in its long diameter, was found about seventy-five years ago at West Wrentham, within the Narragansett basin, at a spot known as the home of the last local native. It has been fully described by Professor Harris H. Wilder.² His reproductions of its incisions (Figure 90) convince one that if they were intended to convey a definite meaning, the symbolic devices employed were not of a character that could have been widely understood, but were more likely random inventions of the individual maker, or at most of local and temporary significance only. They look, however, like haphazard and meaningless scribbles. Wilder does not question their Indian origin, and hesitatingly suggests that they may have had some ritualistic use.

5. Long Island Tablet.—A small tablet of hard sandstone with engraved figures on both sides was found about forty years ago on a shell heap at Eagle Neck, Orient, at the easterly end of Long Island. It is now in the Museum of the American Indian, Heye Foundation, in New York. The stone measures about 7 by 4½ inches, with a thickness of about 7⁄8 of an inch. One side of it has been described and pictured by Dr. Daniel G. Brinton.³ From the casts that were submitted to him, he was unable to decipher what was upon the other side. Both sides are here shown in Figures 92 and 93, after drawings carefully made from the stone itself by Daniel A. Young of the Museum. I can add nothing, except the drawing of the second side, to the description and estimate that Brinton gave of it. After naming the figures in order as probably those of a man, canoe, deer, bow and arrow, footprint of bear, sign of fire, unknown object, fish, eel, vague lines, and wigwam, he says:

It seems to be the record of a hunting and fishing excursion of little importance, which the writer may have amused himself in inscribing on a piece of stone simply because it was suited to

² "A Petroglyph from Eastern Massachusetts;" in *American Anthropologist*, 1911, xiii. 65.

³ *The Archaeologist* (Waterloo, Indiana), 1893, i. 201.

the purpose; or, it may have been a mnemonic aid to retain in the memory the words of some hunting song or medicine chant, intended to propitiate the divinities who confer or deny success in fishing or the chase. Whatever it may have been, I see nothing in it to convict it as spurious; nor, on the other hand, anything to indicate that it was a record of a matter of moment.

6. Denison Tablet.—From somewhere in Rhode Island came a stone whose two sides are pictured in Figure 91. It was formerly in the Jenks Museum of Brown University, which was closed some twenty-five or thirty years ago. Its former contents were recently redistributed, and this stone is now in possession of the Rhode Island Historical Society. It is of some slaty material, measuring about 6 by $3\frac{1}{2}$ inches, with a thickness tapering regularly from nearly an inch down to a rough irregular blunt edge of about $\frac{1}{4}$ inch. The inscribed figures are very unlike the shallow irregular pecked ones of known Indian origin in this region. On one side is a shield-like figure whose incisions are smooth, of half-round section, almost uniformly 3 millimeters deep; also a very shallow design, resembling the Ace of Spades. On the other side is another very regularly and exactly formed figure of similar uniformity and smoothness, 4 millimeters deep; and two shallower circles, evidently drawn with a compass. These features make it doubtful that it can have been the work of Indians: but if it was, it seems to me that it must have been very late and the result of skill derived from white men's teachings. Nothing whatever is known about the stone except what is revealed by its label, which mistakenly calls it an "Inscribed Semilunar Knife," says that it is from Rhode Island and was presented by Rev. F. Denison. This Mr. Denison lived in Westerly, and made many contributions to the Jenks Museum of specimens gathered by him between 1865 and 1872, most of which were found somewhere in the region between New London and Newport.

7. Scaticook, Connecticut.—On October 7, 1789, Dr. Stiles observed and copied what he believed was an ancient Phœnician inscription in Connecticut, but no one has yet confirmed his

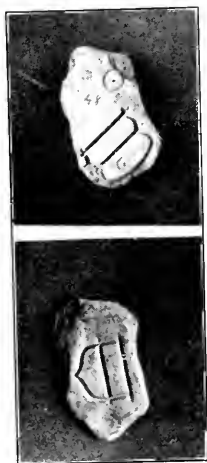


Fig. 91. The Dennison Tablet found in southerly Rhode Island

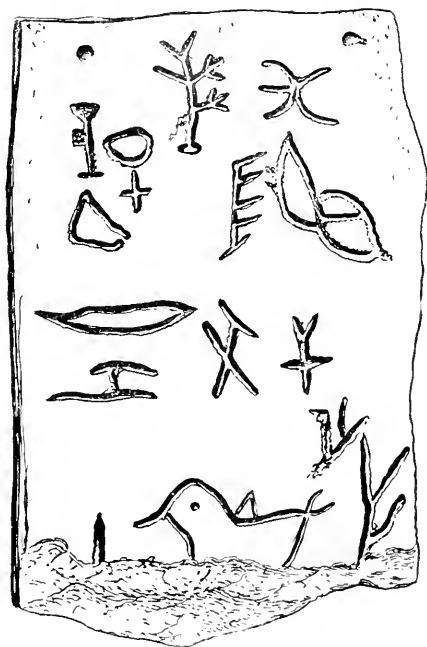


Fig. 92

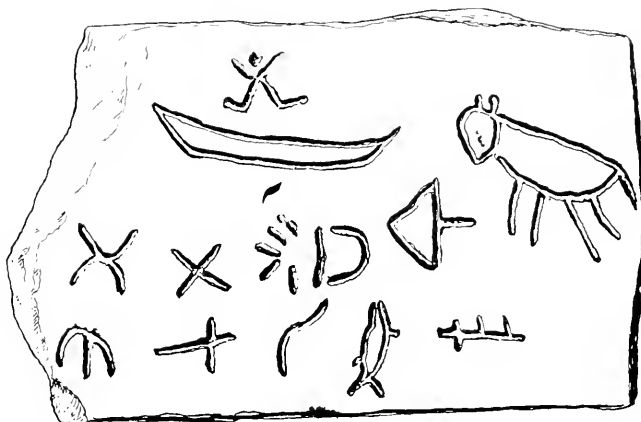


Fig. 93

Figs. 92, 93. Inscribed Tablet found at Orient, Long Island

discovery. His description of it is in the Memoir of 1790, of which we spoke in an earlier chapter. The manuscript paper and accompanying drawings are preserved in the library of the American Academy of Arts and Sciences in Boston. Some portions of it, quoted by Webb, have been published in *Antiquitates Americanae*, and others by Kendall in his *Travels*. The following account is condensed from the original Memoir. He found the inscription in the township of Kent. On the west side of the Housatonic river, about a mile from the southwest corner of the township, was an Indian settlement called Scaticook. Across from it, about a hundred rods east of the river, is Cobble Hill, upon whose summit stands a rock of "white flint," twelve to fourteen feet long, eight to ten feet wide, and five to six feet high, "charged with antique and unknown characters" on all sides, but not on the top. The engraving was done, apparently, with an iron tool by pecking, and impressed him as being very old. Much of it seemed very faint and doubtful at first, but after more close attention and more diligent scrutiny he concluded, as he remarks, that "the more it is studied, the more writing appears to satisfaction." The lines varied from one-fourth inch to an inch in breadth, and from one to two tenths of an inch in depth. He copied some of the characters, "such only as were obvious, certain and indubitable," in the following manner: "I laid the sheet of paper on the Rock & with my finger & the inverted end of a pencil, depressed it into the Lacunae or Excavations, rubbing it hard, so as to make the impression of the figure at its full bigness, & in its real shape: then with a pencil I traced the edges of the lines, while the paper was yet lying upon the character." One example of the drawings so produced is exhibited in Figure 94. It was hastily copied, free-hand, from the original, and hence lacks entire accuracy, yet nevertheless conveys a sufficiently correct impression of the general appearance.

Besides such irregular lines as are shown in our illustration, Stiles found and reproduced only two cases of "solitary and disconnected characters," resembling the letters EI in one case, and BH in the other. Concerning these he had "some apprehensions," as he puts it, that they might be modern, and

especially that the BH might be the initials of a Barnabas Hatch who settled in 1741 within a hundred rods of the rock.

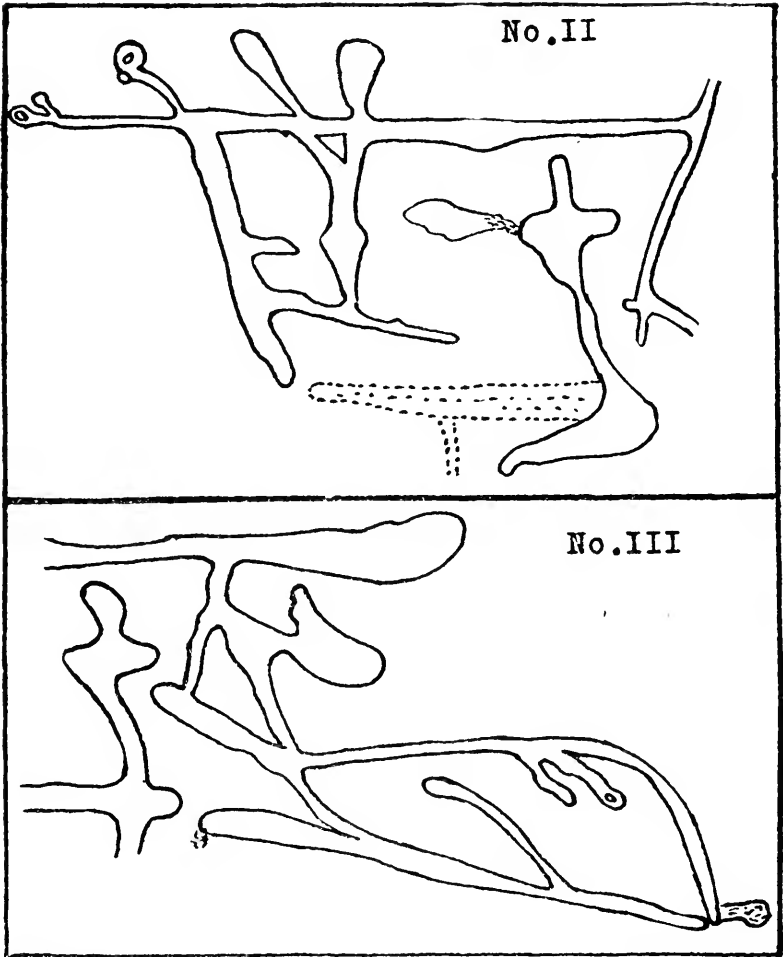


Figure 94—Inscriptions on a Rock near Scaticook, in Kent, Conn., after Drawings by Ezra Stiles, October 7, 1789.

“The rest however is not of English Fabrick, but a sculpture I believe of very high & remote antiquity.” Although the contemporary Indians, as is usual when such things are under

investigation, "knew nothing of the matter," yet there had been an "immemorial settlement" of them in the vicinity. Moravian missionaries had lived at Scaticook from 1750 to 1770. The first known report of the existence of the rock as a characted stone seems to have occurred about 1760, when "an old woman shewed to a selected few a paper giving an account that at a Rock with writing on it near this place, they should find Mony buried;" in consequence of which they spent several years in digging for the treasure, but "secreted the matter first for gain & since for shame."

Dr. Stiles believed that the manner of inscription was very like that of Dighton Rock, and had the same Phœnician origin. Kendall, however, regarded it as an Indian inscription consisting "but of a very few and trifling sculptures." Examination of the nine pages of drawings in the Memoir and of an accompanying loose sheet of the original drawing in full size confirms Kendall's impression. Aside from the initials, in whose case Stiles's apprehensions of a relatively modern origin were doubtless justified, there is nothing other than irregular haphazard lines, with no suggestion that they were meant to form definite designs of any kind. If they are truly an inscription, and not an accidental natural formation, it would seem that they are merely an example of meaningless scribbling by local Indians.

Filed with these papers by Stiles in the American Academy is a sheet of drawings which evidently represent another attempt, a year later, to copy the same characters. It is entitled: "Inscription or Characters on a Rock in Kent taken off A D 1790 By Barzillai Slosson." Five figures are presented, having, like the sample which we have reproduced from Stiles, no resemblance whatever to alphabetical characters or representations of objects. Slosson's depiction, in fact, suggests nothing more than irregular natural cracks, veins and weatherings of the stone. It is quite as likely, nevertheless, that Stiles was right in describing them as artificial peckings.

The place which Stiles called Cobble Hill is not now known by that name. In fact, on the New Milford Quadrangle sheet of the U. S. Geological Survey of Connecticut, it has no name

attached to it. The map shows it near the village of Kent, east of the river at the mouth of Thayer Brook, west of Leonard Pond, and next north of Spooner Hill, of which it is now considered a part. The tradition of a rock inscribed with mysterious characters still survives in Kent. It is now known as the Molly Fisher rock. It is in the woods, a little south of the summit of the hill. I examined it on July 9, 1927, and could detect nothing that resembled artificial markings on its rough sides. Nevertheless, some of the present inhabitants of Kent are firmly convinced that it bears a genuine inscription in unreadable characters. One of them told me that the writing is practically identical with that on a rock at Groton—the first and only suggestion I have met with that there is an inscribed rock at the latter place. He told me also that someone once marked the inscription on this Kent rock with chalk and took a photograph of it, but he does not know where a copy of it can be found. It is said that a Mr. Spooner wrote a description of the rock some years ago, and published it in a local paper.

Six miles east of this rock, on the Pinnacle two miles north of New Preston, also in Kent (but now in Washington), Stiles found another rock on which four Hebrew words were engraved. After discussing various theories, he concludes that the carving was done by Jewish searchers after mines, since 1760.

8. Connecticut Valley, Vermont.—In his *History of Vermont*, first published in 1794, Samuel Williams described Indian sculptures on rocks at two places in Vermont. Kendall observed them in 1808, and discussed them in his *Travels*. At the Great Falls of the Connecticut at Bellows Falls, on the west side of the river, is one collection of them, consisting of ten or twelve heads, human and animal. They are awkward and ill executed, scattered over the face of the rock in the most even and eligible places, not forming a connected work. "How long they have been there," says Williams, "or what transactions they were intended to represent, no tradition gives us any account." In Kendall's opinion, they speak only of idle hours at a fishing resort.

On West River near Brattleboro, a little above its mouth, Kendall found "the most insignificant of all the Indian sculptures that I had met with. They comprise only five figures, of a diminutive size, scratched rather than sculptured on the surface of a small mass of shistic rock. Four represent birds, and one is either that of a dog or of a wolf." They are an example "of the disposition of the Indians to sculpture rocks, and to sculpture them even for amusement." The place was a resort of wild ducks.

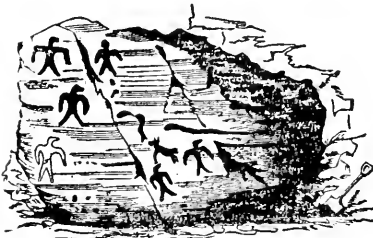
A detailed description of these stones is given in the *History of Eastern Vermont*, by Benjamin H. Hall, in 1858. His illustrations permit a good idea of the appearance of the rocks and their Indian glyphs. At Bellows Falls there are two rocks, one with sixteen human heads, the other with only one. The rocks are at the foot of the Falls, eight rods south of the bridge, and are much of the time under water. The largest one measures six feet in height by fifteen in width. W. H. Crockett, in his *History of Vermont* in 1921, says that the figures are now almost entirely obliterated. Searching for them unsuccessfully in 1927, I came to the conclusion that the rocks are now probably entirely covered over with filling or destroyed, as a consequence of the recent extensive industrial developments that have been made at their site.

The "Indian Rock" at West or Wantastiquet River, likewise, is now concealed from observation, being entirely covered by water on account of the recent construction of a dam in the Connecticut River. Its location, on the south bank of West River just above the new highway bridge, is well shown in an illustration opposite page 4 in the first volume of Mary R. Cabot's *Annals of Brattleboro*, 1921. Hall speaks of this rock as being ten feet wide and eight feet high, and situated a hundred rods west of the junction of West River with the Connecticut. The date "1755" can be distinguished on it. He finds it decorated with ten figures, instead of the five seen by Kendall, including two additional birds, two resembling snakes, and one uncertain. He believes that they were carved by Indians for amusement.

Schoolcraft is another authority who has pictured and dis-

cussed these records.⁴ It was his belief that at West River the family clan of the Eagle had recorded its location, and that the pictographs at Bellows Falls represented a battle scene. His illustrations were based upon drawings by A. C. Hamlin.

There are photographs of these pictographs in the Gilbert



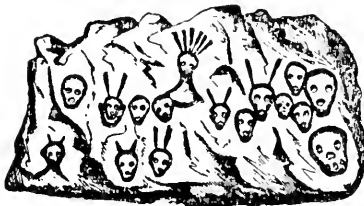
"Indian Rock."

Fig. 95



Locality of the Sculptures.

Fig. 96



Indian Sculptures.

Fig. 97



Indian Sculpture.

Fig. 98

Figures 95-98—Inscription Rocks in Vermont as Pictured by Benj. H. Hall, 1858.

Museum at Amherst College. In our own Plates we present a representative selection of illustrations from Hall (Figures 95 to 98), from Schoolcraft (Figure 99), and from the Gilbert Museum (Figure 100).

⁴ *Indian Tribes*, 1860, vi. 607.

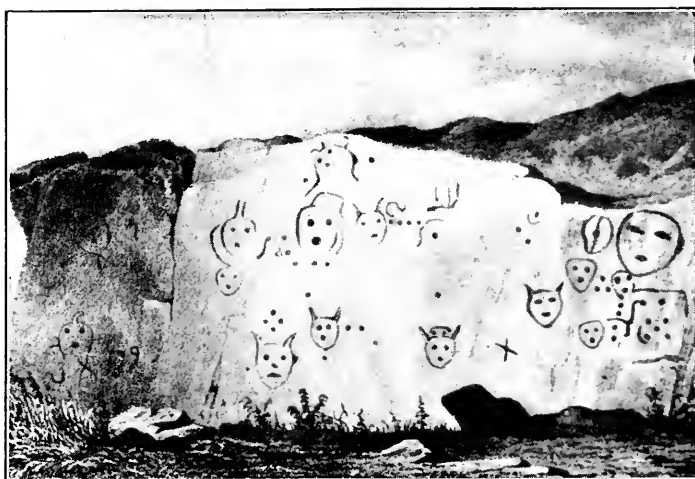


Fig. 99. Drawing by A. C. Hamlin, 1860, of inscriptions at Bellows Falls

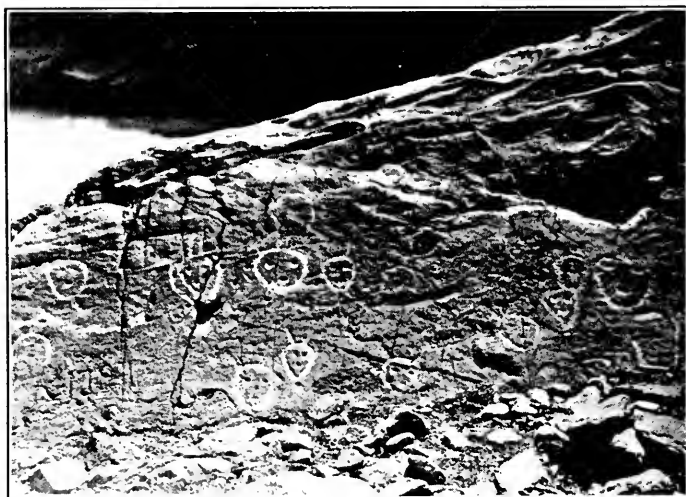


Fig. 100. Inscriptions at Bellows Falls, from a photograph in the Catalogue of the Gilbert Museum, Amherst College

9. Tree at Weathersfield, Vermont.—Kendall found confirmation for his belief that Dighton Rock and the two Connecticut Valley sites in Vermont were sculptured by Indians, in a design known to have been cut by Indians on the four sides of the trunk of a pine tree at Weathersfield. He could make out only two figures, one of a woman much like the large bust pictured on Dighton Rock, and one of a child. Something, perhaps also human figures, had been on the other two sides, but had become illegible. The carving is known to have been done by an Indian party that raided Deerfield in 1704.

Hall criticizes Kendall's account of this tree. Finding that in his day, fifty years after Kendall, "the oldest inhabitants of Weathersfield have never known of its existence," he believes that there never was anything of the sort. But Kendall was a careful observer, and his description as an eye-witness is too circumstantial to permit any serious doubt as to its truth.

10. Trees in New Hampshire.—Jeremy Belknap mentioned in 1813⁵ "a piece of bone, on which is engraven the bust of a man, apparently in the agonies of death;" and two pictured pine trees. One of the latter, on the shore of Winipiseogee River, depicted a canoe with two men in it, and was supposed to be a mark of direction. On the other, in Moultonborough, by a carrying place between two ponds, was carved the history of some expedition, with the number of killed and prisoners. On account of their perishable character, these engravings cannot have been of any considerable age.

11. Picture Rocks about Machias Bay in Maine.—In his monograph on the Picture Writing of the American Indians, Mallery says that a number of inscribed rocks have been found in Maine, and that information of others has been obtained. He mentions specifically, however, only those at Clark's Point, Birch Point, and Hog Island, about Machias Bay, and describes only those at Clark's Point. His drawing of these is from a sketch made by H. R. Taylor of Machias in 1868, and is shown in Figure 101. The following account is condensed from his description:

⁵ *History of New Hampshire*, iii. 65.



Figure 101—Drawing by Garrick Mallery of Inscriptions at Machias, Maine.

The rock or ledge is about fifty feet long and fifteen feet in width, nearly horizontal for most of its length, thence sloping gently to low-water mark. Many figures have been effaced by natural erosion and by visitors. The carving was made by blows of a pointed instrument of hard stone and gives evidence of much patient labor. The deepest incisions are now [1888] about three-eighths of an inch. There is no extrinsic evidence of their age. The place was known to traders early in the seventeenth century, and much earlier was visited by Basque fishermen, and perhaps by the unfortunate Cortereals. The local Indians, a tribal branch of the Abnaki, said of the sculptures that "all their old men knew of them," perhaps by traditions handed down through many generations. Mr. Taylor obtained from Peter Benoit, an aged resident Indian, the following suggestions concerning interpretation: the figures must not all be read from one side only; one near the centre is a squaw with sea-fowl on her head, denoting "that squaw had smashed canoe, saved beaver-skin, walked one-half moon all alone toward east, just same as heron wading along shore;" the three lines below her, resembling a trident, represent the three branches of Machias river; the feathery mark to the right of this is a fissure in the rock. Mallery concludes that all these petroglyphs were without doubt of Abnaki origin, either of the Penobscot or of the Passamaquoddy division. The rocks lay on the common line of water communication between those divisions and were convenient as halting places.

The *Narrative of the Town of Machias*, by George W. Drisko, published in 1904, mentions that traces of Indian hieroglyphics were visible forty years ago, and are not altogether obliterated now. At the time of the first white settlers, he continues, and long before, Machias river was a place of rendezvous every September for Indians from St. John to the Penobscot. The *Centennial History of Machias*, 1863, speaks of the carvings as a "picture-map;" and H. D. Williamson, in his *History of Maine*, 1832, says that the Plymouth colonists established a trading house at Machias in 1633.

In our discussions of Dighton Rock, we have learned to be cautious about accepting interpretations by Indians of the petroglyphic records of their own ancestors. If one knows already from other sources a story that has been thus depicted, he can

see the appropriateness of the illustrations and perhaps be aided also in recalling the details. But otherwise, as Henshaw points out, an Indian's guess is no better than that of a well-informed white man, and many alternative guesses can equally well be made. Consequently, we can give very little weight to Peter Benoit's few suggestions. It may be that some small parts of these inscriptions refer to agreements or treaties concerning trade or hunting-grounds, but no one now, Indian or white, could possibly be sure of this. Many of the designs are almost surely the same kind of things that we have found on the rest of our rocks, casual pictures of men and animals—moose, caribou, beaver—made merely for amusement. Some look as if they might have been intended to commemorate an interesting incident, now wholly unrecoverable, in some individual's experience. The most striking difference between these and our other petroglyphs consists in the fact that these seem to portray animals and men almost exclusively, and to lack the many haphazard and meaningless lines so prominent on the rocks elsewhere. These are predominantly pictures; the others predominantly mere scribbles. The latter, we saw, were probably made after the arrival of white men and were inspired by their example. So far as known facts are concerned, the same may be true of these near Machias; and the early existence of a trading post there suggests it as a strong probability.

CHAPTER XVI

FRAUDS, RUMORS AND MISTAKEN REPORTS

Our list of genuine or probable localities of inscriptions in New England has now grown to approximately twenty. Fully as many more have been reported from time to time, which we shall have to regard as cases of unfounded rumor, of error due to mistaking natural marks for human records, or of fraud. Some of them are well known and have been seriously accepted, so that it is important to establish the truth about them. Examination of them all is instructive as showing how easily rumor may mislead, how difficult it often is to distinguish between accidental collocations of lines and products of human design, and the extent to which wide celebrity as ancient records may be attained by rocks and tablets without sufficient warrant. In any field of inquiry, knowledge is not complete until not only the true details, but also the false appearances that simulate fact, are understood; and to a psychologist the latter have a positive and fascinating interest of their own. We turn, therefore, to the New England instances of this kind.

1. In Wampanoag and Narragansett Territory.—Schoolcraft believed that the Pokanokets, or Wampanoags, had established themselves in their ultimate territory after conquering tribes already in possession. "Evidences of their ancient triumphs have, it is believed, been found in the rude and simple pictographs of the country. These simple historical memorials were more common among the hills and valleys of the country, when it was first occupied, than they are at the present day."¹ This seems to have been all pure fancy on Schoolcraft's part. The few inscriptions credibly reported as having disappeared, —a few at Tiverton and one at Gardner's Point,—would not

¹ *Indian Tribes*, vi. 113.

warrant such a statement. His belief was founded, apparently, on accepting as valid such rumors as we are about to examine and reject.

In another connection² he asserts that "Mr. B. Perley Poore, the historical agent of Massachusetts, found Indian pictographs, of an early date, represented in the Marine Department of France." This might easily be interpreted as evidence of early and spontaneous pictography in New England; but it has no such implication. Mr. Poore's valuable transcripts from the French archives, although intended as contributions to the history of New England, include much material that has no direct bearing upon that subject. They are contained in ten volumes, which were deposited in the Archives of the Commonwealth of Massachusetts on January 1, 1849. The list of illustrations in the first volume refers to an "Indian hieroglyphic Picture Book," and the catalogue of contents mentions the same as a "Manuscript in Indian Hieroglyphics;" and it is clear that there is no other representation of pictographs in the ten volumes. These are on pages 5 to 8 of Volume III, and are "Fac-similes of the 108th, 9th, 10th and 11th pages of the 'Livre des Sauvages,' " which seems to have been written about 1680. There is nowhere any statement as to the locality of its origin. But the pictographs themselves exhibit abundant and unquestionable evidence of white influence, and the character of the whole series of documents transcribed by Poore makes it certain that the "Livre des Sauvages" was found somewhere in French Canada, and not in New England.

We have already investigated a rumor that there was an inscribed rock at Sachuest Point, and discovered it to be, in its original form, probably a case of assigning to a wrong locality the accidentally made grooves at Purgatory. Another rock at Sachuest, studied for a while as a possible petroglyph, was found to have on it only plough-marks. A stone from Tiverton bearing mysterious marks, and another from "King Philip's Path" in Duxbury, have been submitted to me for inspection, on which I find nothing that cannot be explained in a similar manner. Dr. Webb once expressed his opinion that the Writ-

² *Ibid.*, vi. 605n.

ing Rocks in Tiverton, of which he had heard but which he had not yet found, were situated near Howland's Ferry, and had been used in the construction of the Stone Bridge there; but this was a mislocation of the rocks actually near High Hill. A friend has told me of having seen marked rocks at still another place in Tiverton; but I discover nothing to confirm it. Another has described strange "Northmen's writings" which he and his companions used to see on rocks on Windmill Hill in Warren when he was a boy, some of which have since then been blasted away. There are unquestionably numerous human records there. They seem to consist, however, only of initials, names, and dates. The earliest date that I saw was 1875; but one of 1889 looked very old and worn, giving a new illustration of how, on such rocks, relatively recent inscriptions may sometimes fade into an appearance of great antiquity. There are older names and initials than these dated ones, and these are all illegible. They were doubtless more numerous on the parts of the ledge that have now been removed, and it is not improbable that many of them dated from revolutionary days. A regiment under Col. Israel Angell encamped here for several months in 1778, and two years later a detachment of French troops occupied the same camping grounds. Miss Virginia Baker says that "a little more than half a century ago a post driven into the ground indicated the spot where Lafayette's marquee stood, just southeast of the ledge of rocks on the summit of the hill."³ These soldiers may well have been the first to make records here, and the illegible remnants of their work may have accounted for the later belief in Northmen's writings. It is likely, however, that certain curious natural formations contributed to the same impression. Some hard veins, for example, stand out on the rock in shapes very like letters and pictures, and further mysterious resemblances to them can be seen in other natural features of the surface.

A correspondent asked me to investigate a rumor that there was an inscription on the Maker Farm near Bushee's Corner in Swansea. I found a ledge with "Devil's Footprints" of natural origin, a cave once inhabited by an Indian woman named

³ *History of Warren in the War of the Revolution*, 1901, pp. 25, 31.

Marget, and a story of a rock, now lost, which almost certainly had on it only natural veins and similar marks. Another correspondent wrote to me that he had heard of an inscribed rock in Middleboro, on the Taunton River. This rumor may well have been founded upon the following statement by Henry E. Chase: "In Indian burying ground in Assawamset Neck, in Lakeville, near Middleboro', is a gravestone with a peculiar inscription of two letters or characters." The stone seems now to have disappeared, although there are other Indian grave-stones still there, and I find no one who recalls what the strange characters looked like.

Still another rumor that came to me was that of a "marked or inscribed rock" on the farm of Stephen O. Metcalf in Exeter. This turned out to be a very modern tribute "To the Memory of Wawaloam, Wife of Miantinomi, 1661," fully described by Sidney S. Rider in his *Lands of Rhode Island*. The Providence *Sunday Journal* for October 21, 1923, tells of a head-and-shoulder outline of a man, hewn into a boulder on the old William Slocum Farm in South Kingstown, long believed by neighbors to be a relic of the "Stone Age," but actually carved by a very small boy fifty years ago.

Not far from the Coast Guard station near the southwest corner of Block Island there is a "chiseled rock," which Mr. George R. Burgess has described to me as bearing artificial lines resembling the letters LM. Nothing more than this fact seems to be known about it. In S. T. Livermore's *History of Block Island, 1877*, on page 197, is a description of a pestle found on the island about 1860: "On it are still remaining Indian characters, made, it seems, by some thickened juice or sap, of dark brown, and of such a nature as to whiten the stone beneath the ink, or juice, so that when the latter has worn away and disappeared the hieroglyphic beneath still remains. Two characters are well defined; the one representing a stalk of corn half grown, and the other resembling a full grown stalk." This stone, probably only a naturally shaped pebble, is now in the Museum of the Rhode Island Historical Society. The drawings are apparently in ink, one of them still fresh and clear, a well made picture of a stalk of corn. I agree with the

judgment of Mr. Chapin, secretary of the Society, that it is not aboriginal work, but was executed by a white artist, very likely in the 19th century.

There is one stone in this region which has been described to me recently, about which I do not yet feel free to speak fully. It is said to bear characters in genuine runic letters, recording a name and date which, if authentic, would settle finally the question as to whether the Norsemen of the Eleventh Century ever voyaged as far south as this. The stone has not yet been examined by persons qualified to determine the approximate age of its inscribed letters. It is not likely, however, that it can ever serve as decisive evidence of Norse visits. If it can be established that the characters are of relatively recent origin, then we may conclude that someone made them either as a deliberate deception, or in response to a playful impulse to act out the story of the Norse voyages, with himself as hero. Even grown men, as well as children, sometimes delight in such games. But, on the other hand, if their recent origin cannot be conclusively proven, there is no probability that a genuine antiquity of 900 years can be proven for them, either. Far from testifying unmistakably to visits here by the Northmen, therefore, those who believe that Labrador, or Newfoundland, or Nova Scotia mark the southernmost limit of their penetration can always justify themselves in the conviction that the markings on this stone must be of fairly recent date.

The most interesting case from this region, unfortunately, it seems necessary to regard as deliberately fraudulent. An elaborately inscribed stone, called the Hammond Tablet by those who know of it, measuring about $6\frac{1}{2}$ by $9\frac{1}{2}$ inches, is claimed by a resident of Taunton to have been found by him in 1917 buried a few inches deep in the soil on the bank of the Three Mile River at Westville, two miles from the centre of Taunton. It has been described by Ralph Davol in the *Boston Sunday Post* for June 26, 1921. It is crowded on both sides with pictographs skilfully executed in the Indian manner or in evidently designed imitation of it. Except for a much larger number of them in this case, they closely duplicate the pictured symbols on another tablet found fifty years ago in Bucks

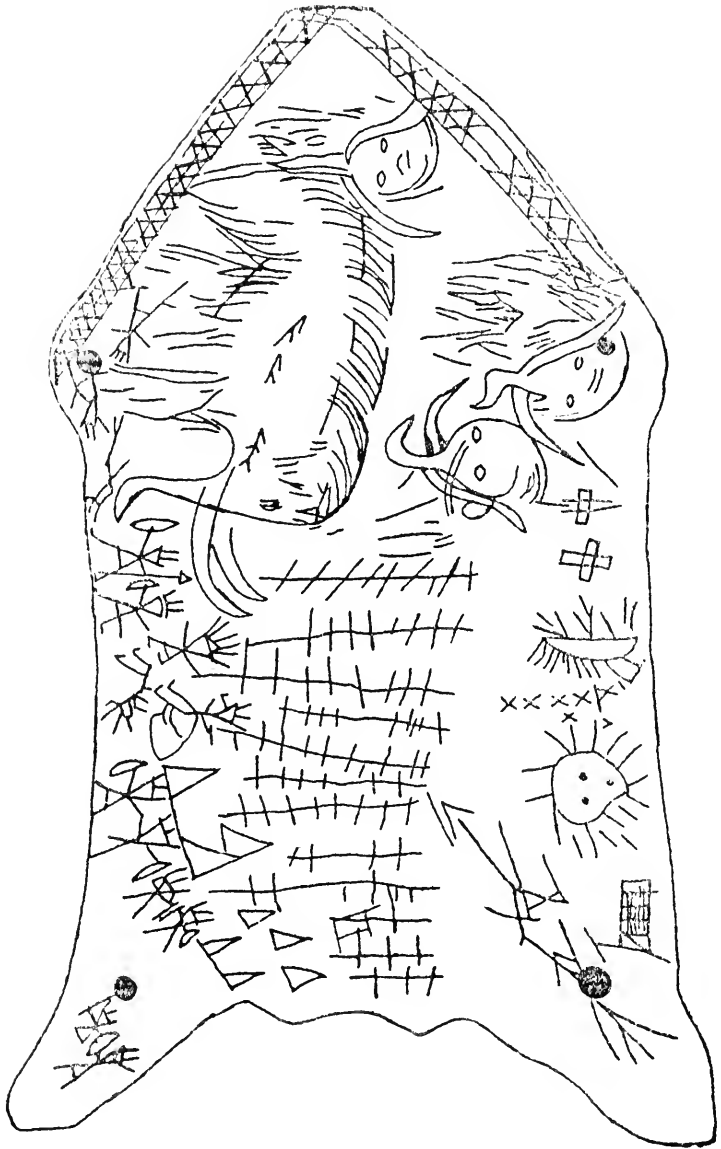


Figure 102—The “Mammoth” Side of the Hammond Tablet.

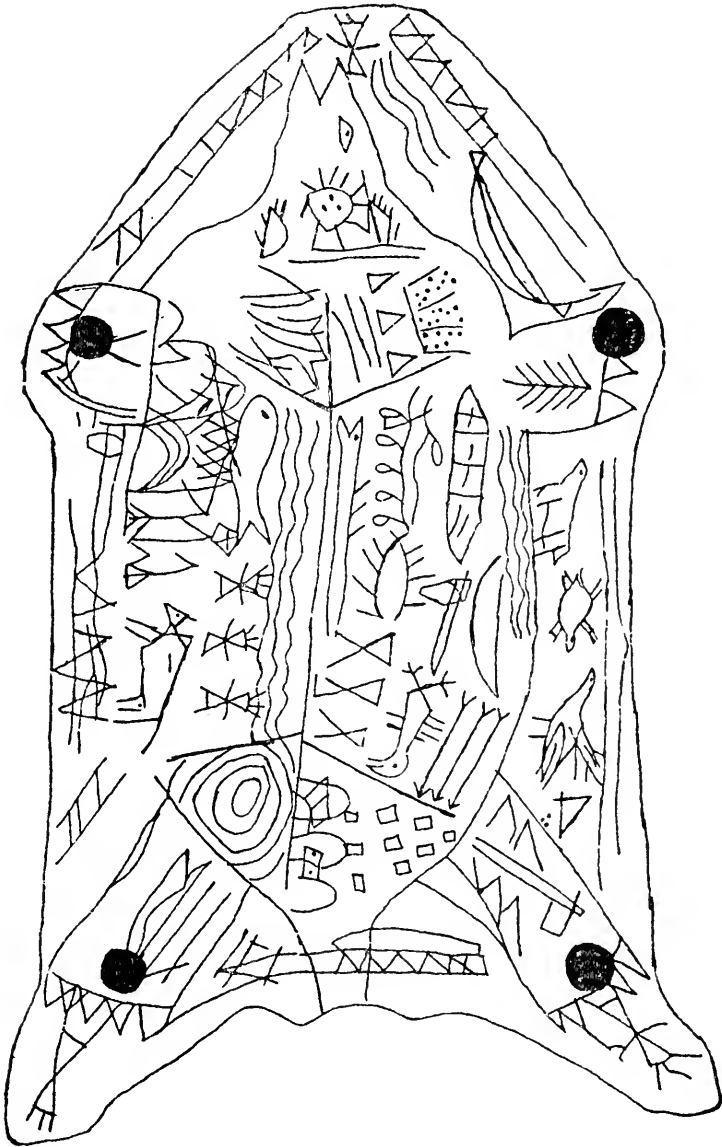


Figure 103—The "Historical" Side of the Hammond Tablet.

County, Pennsylvania.⁴ On one side of each stone is depicted a scene of combat between Indians aided by the Heavenly Powers, near their wigwams on the edge of a forest, and the great hairy American mammoth. On the other side are numerous designs that undoubtedly symbolize scenes in the history of the migrations of the Lenni Lenape, or Delaware Indians, as that is related in their historical song, the *Walam Olum*. Archaeologists have never been willing to acknowledge the authenticity of the engravings on the earlier tablet as genuine Indian records of ancient date or faithfully copied by Indians from an ancient original. In case of this later tablet we must accept as authoritative the opinion of C. C. Willoughby, director of the Peabody Museum of Harvard University, who has examined it and who writes to me about it as follows:

The surface of the tablet does not seem to be very old. The shape of the tablet itself is different from any example of pre-historic art that I have seen. It resembles the spread skin of an animal. A few of the designs on the tablet, notably the three figures of birds and quadrupeds at the top of the side not showing the mammoths, bear a very close resemblance to Indian pictographs. Most of the other designs, however, have little in common with old Indian work. The upper mammoth is drawn in perspective, a method of delineation unknown to Indians unfamiliar with drawings of Europeans. A comparison of this picture with the similar scene upon the so-called Lenape stone shows conclusively either that one of the pictures was copied from the other or that both were made by the same man. I am inclined to the latter opinion, that both are the work of a clever maker of fraudulent "antiquities." [In the collection of which the tablet forms a part] there are thirty or more objects which I am sure are fraudulent. The owner claims that most of them were found by him in Taunton and vicinity. If so, they must have been "planted" for his benefit. The tablet undoubtedly belongs with this group. I doubt if these fraudulent specimens are of very recent origin. They may have been made several years ago, and it is possible that the "Lenape" stone formed originally a part of the same lot.

⁴ H. C. Mercer, *The Lenape Stone, or The Indian and the Mammoth*. Putnam's, 1885.

Even if fraudulent, this tablet is a remarkable production, and of sufficient interest to deserve a permanent record. The photograph of Figure 106 shows the general appearance of one side of it, but it is not possible to see in it very clearly the designs engraved upon the stone. In Figures 102 and 103, however, are presented drawings of the two sides, made by first taking rubbings direct from the stone and then marking on these all lines that seemed to be artificial after careful comparison of the rubbings with the stone. These drawings portray the engravings on the tablet accurately for the most part, although a few of them were drawn so faintly that one cannot be entirely certain about them.

2. Elsewhere in Massachusetts.—Except about Narragansett Bay, there are no genuine Indian inscriptions reported from Massachusetts. Two rocks gained fame, however, as possessing them. The first of these was in Rutland, and was apparently first mentioned in Morse's *Universal Geography* in 1805 as an "Ethiopic inscription." Kendall visited it and found it to be a purely natural granite stone with veins of schorl. Yet Webb, in his letter to Rafn in 1830, indicates that it is still rumored to be "a line of considerable length in unknown characters;" and only later, after further inquiry, as he announced in his letter of 1835, did he discover and adopt Kendall's view of it.

In 1854, G. L. Pool described and pictured in the *New England Historic Genealogical Register* an inscription on a rock in West Newbury, in the Merrimack valley (Figure 104). It was referred to by Whittier in his "Double-headed Snake of Newbury" as a "Northman's Written Rock," and I have found no further discussion as to its authenticity. But we can now definitely include it among mistaken reports. It was investigated recently, at my suggestion, by George Francis Dow, editor of *Old-Time New England*. He found the local antiquarian, William Merrill, an elderly man, who was familiar with the story and who took him to the ledge. Mr. Dow writes to me: "To our great disappointment we found that the supposed markings were only natural cracks in the rocks. There isn't a sign of an artificial marking on the surface. Mr. Mer-

rill told us that an elderly man, a Mr. Follansbee, had told him that at the time when Mr. Pool, the originator of the report of the inscription, visited this ledge he accompanied him, and he said to Mr. Merrill that Pool at the time was much intoxicated. He recalled that Pool showed him a sketch of the rock, but nothing was said at the time of the appearance or discovery of an inscription. So the legend may be considered as disposed of."

In the *American Monthly Magazine* of 1836 there is mention of a stone found in Sandwich, Massachusetts, in 1833, with characters thought to resemble those on Dighton Rock. The reviewer says, however, that this turned out to be the work of an insane man, who had been allowed to ramble about in the woods, and who cut meaningless figures upon rocks. In his second manuscript Itinerary, Dr. Stiles entered the following note on June 7, 1768: "At Nantasket at South Side of South Hill is a Stone charged with Characters. Mr. Loring of Sudbury Aet 86 tells me he well remembers it." Nothing further has ever been heard of it. The report probably had no better foundation than the following one, which Stiles recorded in his fourth Itinerary on September 30, 1788: "Rock 1½ m NW from Acushnet—Writing—near Moses Washburn—K Philip." What the connection was between King Philip and the Writing Rock he does not state. Mr. Louis W. Tilden of New Bedford has kindly investigated this reference for me. He located the Moses Washburn farm and talked with Mr. Skiff, its present occupant. He writes: "Mr. Skiff is about 86 years old but has a very good memory. He knows of no rocks with inscriptions about there, but does recollect a huge boulder called 'Devil's Rock,' which bore a so-called impression of a human foot and a groove as if a chain had been dragged across it. This rock was demolished back in the forties to supply stone for the New Bedford City Hall. We located its position about ten minutes walk from the house and found a few fragments left. It was of hard granite formation with a vein of soft slaty stone running through it. I think this freak of nature was very likely what your memorandum referred to,

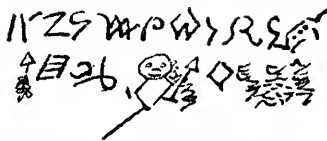


Foot of a stone statue found in Bradford, Mass., in or about 1820. Carved from dark gray stone.

See Whittier's Poems, "Legend of the Norsemen." "Gilt from the cold and silent Past!" "Or called by the Northman's written Rock."

Whittier's Home Ballads.

The double-headed snake of Newbury.



Tracings from a ledge or stone boulder at or near West Newbury, Mass., supposed to be Brule letters of the tenth century, with additions by the native Red Men at a later date.

He found the Norman's nameless grave

Within the headlock's shade,

And stretching wide its arms to save,

The sign that God's hand made."

"Whittier's Poems, 'Norembega'"



"They came to a headland that jutted out. This was all covered with wood."

Tracings from a sculptured stone at Bears' Head, Hampton, N. H., supposed to mark the site of Thorvald's grave, A. D. 1001. "There ye shall bury me, and set crosses at my head and feet, and call it Krossanes, henceforth."

See saga of Eirik the Red."

"In searching for the lost City of Norembega in 1601, Champlain found a cross in the woods, very old and mossy.



Prof. F. W. Putnam, in 1871

Original tracings.

Supposed map of Norembega Harbor and surroundings with the Norsemen's house where "they dwelt long and mended the ship," and the keel or stem of Thorvald's ship as it appeared set up on the Ness. "Then said Thorvald to his companions: 'Now will I, that we raise up here a keel on the ness, and call it 'Keelness,' and so they did."

Supposed to have been drawn by a skraeling Indian or by a Red Man a descendant of Eirik the Red in the Eleventh Century.

From an ancient grave in Beverly, Mass.



on Bergen Cove - Boaly Cove

Jan. 1855 by John H. Hild.

Map as above from a different standpoint, traced on the base of a stone pipe. From an ancient grave in Beverly, Mass., supposed to be of a later date but traced by a native Red Man.

The Rev. John Higginson says that about 1601, when he came over with his father to Salem, he then being about 13 years of age, "To the best of his remembrance, there was a widow woman called Squaw Sachem who had three sons. But ye Indian town of wigwams was on ye north side of ye North river, and ye north and south side of ye river was together called Nannokek."

In Gov. Winthrop's description of ancient Nannokek in 1611, is the following:

"In the midst of this palisado stood the frame of a house, wherein being dead, he lay buried. About a mile hence, we came to another, but seated on the top of an hill, here Nanepasmet was killed, none dwelling in it since the time of his death."

Fig. 104. The Ober Broadside, 1889

as it was locally well known." We may be very sure that Stiles would never have called this a Writing Rock, if he had seen it. But his memorandum, of course, was written before he had gone there to examine it, and was probably based upon a distorted rumor.

3. In Beverly, Massachusetts and Hampton, New Hampshire (Figure 104).—Two pictographs have been reported from Beverly, consisting of simple scratchings whose meaning, if they possessed any, must have been simple and unimportant and is now undiscoverable. One is on a small piece of shale, reported to have been found in a grave in 1871, and sketched by Professor F. W. Putnam. The other is on the bottom of a steatite pipe of the platform variety, said to have been found in a grave, in 1885, by Nathan Patch. We have expressly excluded such small decorated articles from the usual compass of this study, but mention these because they have been regarded as contributing to the evidence for Norse visits. Andrew K. Ober of Beverly described and pictured them in the *Beverly Citizen* under dates of September 14 and 21, 1889, calling them supposed maps of Norumbega Harbor and surroundings, showing the Norsemen's house where "they dwelt long and mended the ship," and the keel or stem of Thorvald's ship as it appeared set up on the Ness. The first, he said, was supposed to have been drawn by a skraeling Indian or by a Red Man descended from Eirek the Red; the other was of later date but traced by a native Red Man.

At the same time, Ober pictured "tracings from a sculptured stone at Boar's Head, Hampton, New Hampshire," which I have not seen referred to elsewhere. He said that the stone at Hampton is "supposed to mark the site of Thorvald's grave, A.D. 1004." The drawing certainly shows nothing that could tempt anyone to regard the lines as other than natural cracks, veins and weather-marks, or possibly accidental marks made by a plough. It is an example of such "legends and runes of credulous days" as were alluded to by Whittier in his "Tent on the Beach," whose scene was laid nearby. Mr. C. C. Willoughby tells me that the drawings from Beverly are typically

Indian, and that such pipes as that on which one of them is traced frequently have designs sketched on the bottom. He also agrees with my own opinion about the Hampton boulder. He tells me further that after exhibiting these fancied "Norse" memorials in the *Beverly Citizen*, Ober published them again in some other paper of which Willoughby has a clipping, and then apparently assembled his cuts and had them printed with additional text on single sheets of paper, which he distributed (Figure 104). I have found an example of these sheets in possession of the Old Colony Historical Society in Taunton. On it, besides the three items just described, Ober has included a copy of Pool's drawing from the West Newbury ledge, stating that its markings are "supposed to be Runic letters of the eleventh century with additions by the native Red Men at a later date," and a cut of a "foot of a stone statue found in Bradford, Mass., in or about 1830," which Mr. Willoughby says is without doubt a natural formation.

4. In Maine.—Maine seems to provide an example of a new and unique motive serving as basis for mistaken belief in the existence of old inscriptions. Mr. George R. Burgess tells me that there are painted picture-rocks at Lake Sebago, and he believes that they are freshly painted every year or so, merely for the purpose of arousing the interest of tourists.

I am indebted to Mr. Henry W. Carter of Providence for the description of a rock which I have not examined, and which may be a genuine petroglyph. It is situated between Farmington and West Farmington, about twenty rods above the railroad bridge across Sandy River, a tributary of the Kennebec. The rock is "as big as a bed," lying in the middle of the river and covered with about a foot and a half of water when the river is low. On it are pictures of a ship, anchor, flag, and some writing. These features, however, would seem to indicate white origin for the pictures, rather than Indian. There is a tradition that, during the Revolution, an old man buried eighty thousand dollars nearby.

In the remarkable *Fernald Genealogy*, with which we have made acquaintance, there is a drawing (on page 398) of "Rock Writings at Damaris Cove Island" (Figure 105), and an

absurd "translation" of them similar to those that Fernald made from Dighton Rock. This is another example of a claimed inscription for which I can find no reputable authority, and whose appearance as depicted so much resembles natural markings as to be worthy of no serious attention. It may be that there is some connection between this report and the fact that there is a rock of some repute at Damariscotta. The only account of it that I have seen removes all mystery from it.

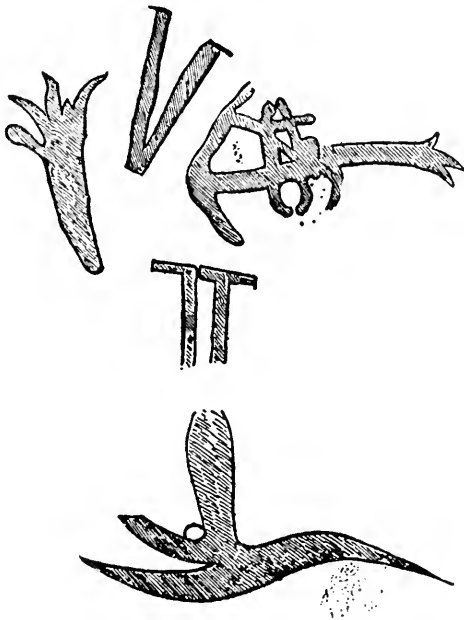


Figure 105—C. A. Fernald's Drawing of Alleged Inscription at Damariscotta Cove Island, Maine.

This was a brief paragraph in the *Taunton Gazette* of July 1, 1925, which reads in part as follows: "Damariscotta, Me., is brushing the dirt off her most famous rock. It is now as well known as Plymouth's on the Massachusetts bay. This particular rock marks the site of one of the worst massacres in Maine. In 1747, in April, there were thirteen whites slain by the redskins at this spot."

James Phinney Baxter speaks of certain alleged Norse writings upon the Maine coast, whose location is not mentioned, "which an old resident in the vicinity averred that he, when a boy, assisted by other boys, made upon the rocks, from time to time, for sport. Natural lines and seams were brought together and united by artificial scratches, and such additions were made as comported with the fancies of the rock artists." So experienced an observer as Professor W. F. Ganong writes me that he once found markings on a stone which at first he took to be undoubtedly Indian and of which he even published an attempted interpretation, but which he is now convinced are glacial scratches.

Another report for which there is no confirmation is mentioned by Stiles in his second Itinerary. On a map of islands in the mouth of the Penobscot River, near the southeast corner of the southerly projection of Deer Island, he marked the "place of a Rock near the shore ten feet high & six or 8 feet wide near perpend on which are Figure of Man Boy Bow & Arrow & a fowl." In my fruitless efforts to discover, through correspondence, whether such a rock now exists, I have been informed that there is an inscribed rock on Little Deer Isle. But I have not succeeded in obtaining any description of its appearance, and the postmaster of the place writes to me that "none of the older inhabitants seem to know anything about it." There is no mention of either of these rocks in Hosmer's *Historical Sketch of Deer Isle*, in 1905.

The most famous inscription in Maine, if it be one, is that commonly spoken of as on Monhegan Island, though it is actually on Monanis, close by Monhegan. It has been often described and pictured (Figure 107). Samuel Adams Drake, for example, in his *Pine Tree State*, says it is "generally attributed to the Northmen or the devil," although, of course, as in case of Dighton Rock, Phœnicians and other strange people have frequently been regarded as its authors. Dr. A. E. Hamlin exhibited a cast of it at the Albany meeting of the American Association for the Advancement of Science in 1856, suggesting that it was the work of "some illiterate Scandi-

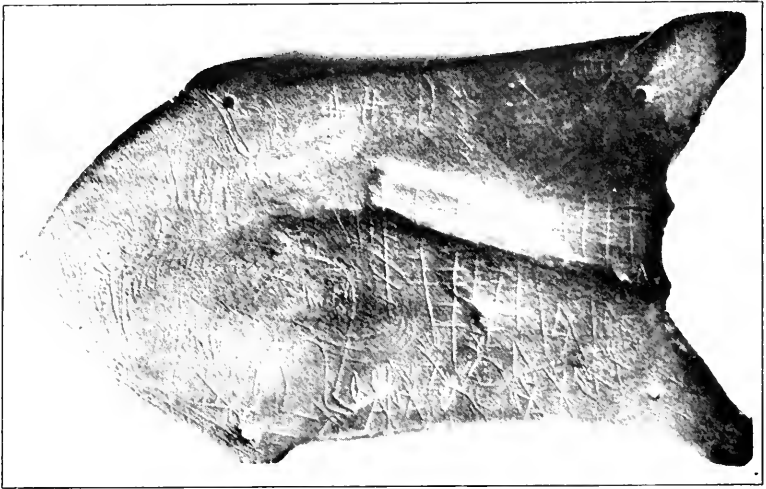


Fig. 106. Photograph of one side of the Hammond Tablet



Fig. 107. A. C. Hamlin's drawing, 1860, of alleged inscription at Monhegan Island, Maine

navian, whose knowledge of the runic form was very imperfect." There is nothing in its appearance as pictured to suggest dissent from the opinion expressed by most authorities, including Mallery, Daniel Wilson, De Costa and others, that its markings are only "freaks of surface erosion." This opinion appears to have been first expressed, on the basis of a careful and trustworthy personal examination, by G. H. Stone in *Science* for 1885; and is confirmed, according to Winsor, by later reliable independent investigation.

CHAPTER XVII

PSYCHOLOGICAL OBSERVATIONS

Throughout this investigation we have found it possessed of many different features appealing to interest—a history full of incident and controversy, inviting to research; a succession of attempts at accurate portrayal; a searching inquiry into every possible theory that might reveal the truth as to origin and meaning; an incentive to imaginative flights that repel us if we are critical, but stimulate the sense of aesthetic enjoyment as works of art; extremes of picturesque humor and pedantic solemnity, of sound truth-seeking scholarship and deliberate deception. Every phase and feature of it, however, has illustrated some principle of psychology, some variety of mental process, some type of human intellect and feeling. It was the psychological interest of the endless variety of observation and theory which was responsible for drawing the writer into the intricacies of the research, and it does not seem inappropriate to include some discussion of the psychological features that he has contrived to find in it. There are “sermons in stones,” and an especially good one in stones such as these that we have been studying.

The psychological features naturally lie not in the stones themselves, but in their human relationships. These are of several kinds. For one thing, this case is one among countless others that illustrate how, as Baring-Gould expresses it, “the restless mind of man, ever seeking a reason to account for the marvels presented to his senses, adopts one theory after another”¹ in endless and intricate variety—a ceaseless budding-out process of men’s speculations about things that are mysterious, as we called it in our discussion of cup-stones. The whole story is a dramatic movement of many conflicting motifs,

¹ *Curious Myths of the Middle Ages*, “Schamir,” at end.

developing picturesquely, through various stages and with many actors, toward a definite goal. In this way it is like a symphony, or a life, or an Idea unfolding from crude beginnings through constant inadequacy and struggle to complete content and truth. Of such a nature is the history of everything and of everyone possessed of a spiritual personality, a purposive life which in its total unity but manifold content and process has individual significance and value. Those who have felt the dramatic appeal of our story throughout its course will grasp what is here hinted at.

Concerning the producers of the petroglyphs, I shall content myself with merely calling attention to the error of those who have believed that Indians were too lazy and idle to have been capable of the work, or that, so far as it is Indian, later Indians would necessarily know of its origin and be able to interpret it correctly. What kind of motives led them to the work, what impulses or thoughts or feelings they were seeking to express, is a question that has been introduced already while examining the facts concerning particular rocks, and can receive fuller discussion more appropriately when we attempt to arrive at our final conclusions. Two matters, however, can be advantageously considered here,—the types of men who have engaged in these discussions, and the principles of observation and belief that are illustrated in their contributions.

1. Types of mental attitudes and types of men. A number of times during the course of this study attention has been called to the characteristics of a certain type of writer and deviser of theories in whose case "waking dreams" are taken for realities. Gebelin, Hill, Dammartin, Magnusen, Onffroy de Thoron, Fernald,—will be recalled as examples. Other and saner, though perhaps less picturesque writers, have spoken of the productions of such men by various uncomplimentary names: "air built fabrics," "humbugs," "enthusiastic rubbish," "laborious trifling," and many longer and equally disparaging phrases.

At the other extreme from these Don Quixotes of science are the plain, matter-of-fact, unimaginative fellows who make

everything dry and commonplace. When accompanied by careful and exhaustive accumulation of evidence, their attitude becomes a part of the true method of science. But through haste, ignorance, prejudice or natural narrow-mindedness, they are quite as apt to be one-idea men as the others, and accordingly no more likely to hit upon the truth. These are little attracted by mysteries. Consequently we have few of them writing upon our subject, and can mention as best examples only those who dismiss the matter briefly with the remark that the apparent inscription is the work of nature or accident only. We are thus safe in including, it would seem, at least Douglass, John Whipple, and the writer in the *English Review*.

Between the two extremes lie the more versatile minds. They possess imagination, but restrained and tempered by the more prosaic qualities. The combination may be an habitual one, or the two may alternate, either in different moods or as applied to different subjects. In either case, the result may be good or bad, according to the appropriateness of the distribution. Such men, as well as the preceding, may lack the painstaking industry and the breadth of mind that lead to truth and so be as unreliable as their fellows. At their best, we find them holding fast to fact, so far as research has yet supplied it, but communicating it with grace of expression, with sympathetic understanding of opposing views, and with appreciation of its appeal to the æsthetic feelings as well as to the intellect. Strict in their acceptance of evidence and formulation of truth, they can then relax in order to enjoy its poetry and beauty, and even appreciate these qualities in the whole struggle for truth and thus in its stages of error as well as of attainment.

Professor James drew a distinction between what he called the easy-going and the strenuous moods. The distinction is much like that between our two extreme types, if we take it as referring not to amount but to tenseness of activity. Our first type is easy going; but it may be exceedingly industrious and in that sense strenuous, and the other very little so. Another pair of terms, soft and hard, among those used by James, comes nearer to expressing the essence of our distinction. I shall call

them, however, by names that apply both to the type and to its underlying causes: first, the "lax" or "relaxed;" at opposite extreme, the "tense;" between, the "supple." For it is just these characters of muscular adjustment attending the processes of observing, remembering, reasoning, acting and feeling that determine the mental and personal differences to which attention has been called. At their greatest extremes, laxness becomes flabby and tenseness becomes rigid and cramped. When crystallized into abiding personal traits these two, whether as greater or more moderate extremes, become unchanging types of personality. But in those who are supple of mind and muscle they rarely become extreme, and are alternating attitudes of mind or merge into a permanent attitude of poise or balance. In every case, the relaxed attitude is favorable to imagination and feeling, and also, if not at the same time narrow, to sympathetic understanding of others. Tenseness, if too firm and unadaptable, like imagination and feeling unrestrained, leads to nothing admirable; but when, instead of being rigid, it becomes supple self-adjustment to conditions, delicately changing with their changing character, it is the foundation of accurate and exact observation and thought. The supple, balanced attitude is ready to meet either demand, for relaxation or for adjustment, and thus is best adapted to arrive at wide-vised truth in all its forms. We have met with numerous examples of its possession by the partakers in our discussions, more or less successful according to the range of information and degree of attention devoted to the subject. It hardly demands further description. About the extremest types much further may be said.

A few simple illustrations will assist in realizing the unescapable dependence of the mental types and attitudes on muscular tendencies. We know that mental relaxation demands bodily relaxation, and the two together favor the free play of fancy and disconnected ideas; while to observe accurately and to reason logically requires an alertness and appropriate adjustment of muscles as well as of mind. There are intoxicants and drugs that render exact observation impossible, foster illusions, stimulate wild trains of imagery and thought, diminish

control in speech, expression and action; and they accomplish it largely through relaxing the muscular adjustments and controls. On the other hand, the words keen, alert, vigorous, eager, intent, virile, call attention to conditions of muscular tonus as well as of mind, that are bound to one another indissolubly. Exactly adjusted conditions of muscles that assist in close attention are essential to reliable observation, and loose adjustment tends to substitute the imagined for the real.

Yet our loose-muscled and loose-minded friends are no less confident of the reality of their visions than are those whose felicitous adjustments make their observations and reasonings more trustworthy, or those who make another type of error through ill-adjustment arising from excessive and unadaptable tenseness. Confidence and sureness of being right as readily attend narrow-visioned error as wide-visioned truth. The lax and the over-tense are very liable to be narrow-minded; and the supple may be so, on some or all subjects, through ignorance, or haste, or laziness, or forgetfulness, or lack of system, or emotional appeal, or habit, or other causes. In all three types, the single unopposed idea seems right, since belief arises as inevitably from absence of anything that contradicts as from the triumph of well-reasoned ideas. The confidence, therefore, with which anyone asserts that he has observed a fact, or remembers clearly, or knows a thing to be true, cannot be accepted as having in itself any value as evidence. It may attach to any kind of an idea, theory, or supposed fact. It will have different attendant characteristics, however, in the different types. In the loose adjustment to realities of those who pin their faith to figments, it is more apt to be a genial ignoring of other possibilities; while at the opposite extreme it is an active and obstinate hostility toward them. These considerations find abundant application in this particular study.

Typical laxity or tenseness, as permanent type or temporary attitude, affects the whole range of mental processes and action. For illustrations, we must here resort exclusively to the loose type, for there are too few of the opposite kind in our history and they treat the subject too briefly to make it possible to dissect them. But this is just the kind of a mystery to appeal to

the imaginative and induce them to lay bare their whole nature. Accordingly we find the advocates of startling theories consistently careless and inaccurate in observation, uncritical and inexact in dealing with their accepted sources, unsystematic and often self-contradictory and illogical in their theories. They are strongly ruled by their feelings, and are therefore attracted particularly by beliefs that pleasantly stimulate the imagination and possess a poetic appeal. They are not to be trusted in their statements of fact, their quotations from others, their processes of reasoning. They see weird and wonderful objects depicted in the drawings. They are very often confused in their arrangement of data and ungrammatical in their manner of speech. Ira Hill, Asahel Davis, and Fernald are shining examples. Any one, in moments of relaxation or in dealing with special topics, may make errors of any of the kinds here noted, without implication that their makers belong habitually to the lax type. But the incurably lax-minded exhibits a lax adjustment of muscles in all of his processes that renders exactness, clarity and consistency impossible in any field of mental activity, and makes him liable to errors and inadequacies of all varieties.

When narrowness of vision, habitual or occasional, combines with these muscularly founded qualities, it produces a number of characteristic manifestations. The idea that appeals leaves no room for rivals, and its possessor when confronted with other possibilities, unless confused or vacillating, must either ignore their existence or disparage their importance. Such people are necessarily unsympathetic, seeing no merit or virtue in their opponents. In argument, if driven from one defence they resort to a second, and on demolition of that they resort again to the first as though it had never been touched. They cannot be doubters, for that attitude demands sufficient breadth to entertain various possibilities at once. They therefore have complete confidence in their own reliability, the faithful care and accuracy of their drawings, and the truth of their own beliefs. These facts are well illustrated throughout the discussions that we have been following.

Besides these general effects, narrow vision produces differ-

ing results in our different types. Of the more balanced kind, we need only say that it makes them superficial, hence careless and inexact. In the others, entertaining no doubts as to the correctness of their views, it is apt to induce a large self-importance, but differently manifested in the two. The loose type is more genial, the tense more blustering. The former have solved deep mysteries and made great discoveries: Mathieu, of the art of reading hieroglyphics; Onffroy de Thoron, of the primitive language; Fernald, of the same, and of the primitive alphabet of lines; Lundy, of the Mongolian symbolism of writing; Dammartin, of the origin of all alphabetic characters in the constellations. Gebelin was an expert and highly gifted reader of Phœnician characters, Samuel Harris an almost super-natural linguist, Magnusen a master of runes. These men are not often combative, and for the most part ignore alternative views, or dismiss them with easy grace. We are more amused than offended by their pretentious claims. But those who are over-tense as well as over-narrow, unless kept servile by authority, are the easiest victims of an offensive megalomania which makes them blind ruthless Huns, arrogant, pompous, blustering, dealing out contempt, abuse and ridicule to their enemies. Our history has furnished us with a few mild illustrations of the type, which we see at work in Douglass's attitude toward Cotton Mather, in Vallancey as described by Ledwich, and in a few other instances where abuse takes the place of argument. One of the best examples I have found is contained in a private letter of long ago which, as it was not designed for publication, I quote without mention of its author. As so often in like cases, he appears to mirror his own egotism in the abusive terms which he applies to those whose beliefs do not agree with his:

There are many wise-acres in this country and Europe whose zeal far outstrips their wisdom and who endeavor to make up for want of knowledge by bold assertions and wholesale statements. With these would-be wise ones the [advocates of a certain theory] have constituted a fruitful topic for gibes and jeers; in their self-conceit and gross ignorance, they have deemed themselves amply qualified to sit in judgment, and with a boldness of which "none

but itself can be its parallel," they have not hesitated to act as judges, jurors and witnesses in the case at issue. And who has by them been often arraigned as a set of ignoramuses, historic falsifiers, and visionary theorists? At one time these "Know-Everythings" labored most vigorously to break the Dighton Rock to pieces.

Yet even this is mild in comparison with Fernald's apparently honest conviction that those who disagree with his opinions necessarily "will be, are those, who profit by ignorance and sin."

2. The extent to which apperception enters into all intellectual processes is one of the clearest facts to which our studies contribute evidence. We neither perceive nor believe anything on the basis of presented data alone. By themselves they are always too meagre and too detached to possess any significance at all. They must be given meaning, distinction, relation, completer filling and objective reality by aid of our own reactions and of our organized past experience before they can become for us objects or truths. It is this process that is called apperception. There is a class of modern realists who deny or minimize its existence; but their claims are irreconcilable with sound handling of the facts, and incapable of detailed organization and explanation of them. Whenever we perceive an object, as by looking at it, it is not the object itself, complete and unchanged, that in some mysterious manner enters into the mind; nor the mind, looking out from itself, that magically knows the genuine external reality as it actually exists there outside the mind; nor an incomprehensible relation between the two that itself is the knowing. To be acceptable, a scientific hypothesis must take into account every single one of the pertinent indubitable facts, fit each into its definite place in a harmonious system, account for all distinctions and variations and conditions. These forms of realism treat all cases by the one invariable formula, make but the one undifferentiated and unsupported claim, possess plausibility only as long as they confine themselves to generalities, and have no power to enter into the minute explanation of the million details and distinctions that must be examined and assigned each to its separate definite

cause. They are all mere hocus-pocus and magic. A magic power or explanation is one that, without any causally determined differences in itself, is supposed to create or account for a variety of results. A scientific cause or explanation is one within which is a causally determined difference for each difference that is to be explained. There is but one account of the facts which, while it has not solved all problems, is yet inherently capable of accomplishing the task.

The things outside us do not enter our senses. Nor do they throw off sensations which faithfully represent them and succeed in penetrating the mind. Instead, the process is a complex one. The forces of light, heat, pressure, molecular activity, and the others, themselves determined by the activities of what we call the objects outside us and the internal activities of our own bodies, excite appropriate sense-organs to a discharge of their stored neural energies. These set cortical cells in our brains into activity, and when this happens there arise as facts of consciousness, by a law which most psychologists accept as parallelism, the phenomena that we call sensations. These are wholly mental contents and cannot by any possibility resemble in the slightest particular the external things and qualities and forces which have aroused them. But these sensations, though in our minds, we do not yet know. By wholly unconscious but accountable processes, we select certain ones among them all at any particular moment and neglect the rest; then add to these a mass of selected "kinæsthetic" sensations arising from our own muscular adjustments to the ones first named; then incorporate these into an organized mass of earlier sense-experiences, into which they will acceptably fit; then substitute some features involved in the latter for some of the sensations that are actually presented; then, instead of realizing that we have done any of these things and that the product is wholly in the mind, we believe it to have existence outside us; and then at last—numerous as the stages are, for us they appear practically instantaneous—we become aware of the complex "externalized" fabric, and believe it to be the observed external object. Such is the process of apperception. Without it we can observe nothing, not even the plain original sensations. It enters necessarily into

what we call correct perception as well as into illusion, into that of the psychologist, the physical scientist, the plain man, as well as of the visionary. It is less easy to prove it for ordinary clear perception, especially with the materials furnished us in this study, than for the perception of faint and confused objects. In the case of the latter it can be made very evident.

A few years ago there were observed, at a laboratory in Nancy, faintly visible emanations of a new kind, which were called n-rays. A whole series of definite properties was worked out for them, a considerable number of reputable scientists confirmed them, a long series of scientific papers was written concerning them—and they were proved in the end to be purely subjective phenomena. Nothing could have established more clearly the fact that it is impossible for anyone to distinguish between faint objective and vivid subjective appearances. If not accepted as externally real, it is not because anyone is acute enough to make this distinction, but because their behavior is reconcilable only with subjective and not with objective existences. If they accord with all the rest of what he knows and believes about external facts, he must class them with the latter. Something similar is true of plainly visible external things. For a simple case, take a series of parallel lines and mentally group them together in pairs. The spaces between them are all alike, but they will no longer appear so. Within a group, the space takes on the appearance of a surface bounded by the lines; between groups are mere emptinesses. Or examine a puzzle-picture, or such ambiguous pictures as the one that may be seen either as a duck or as a rabbit, or the diagrams of ambiguous perspective shown in many text-books on psychology. Apperception, aided by appropriate muscular adjustments and their resulting kinæsthetic sensations, makes each alternative real in its turn. In extreme cases, like that of the opium-stimulated brain, everything may be thus ambiguous. Again, everyone knows how easy it is to see pictures that at least almost seem real things in clouds, in flames and embers, in wall-paper patterns, in the graining of wood and veining of marble, in frost-covered window-panes. A sheet of marbled paper is inserted in Sterne's *Tristram Shandy* as material for

the exercise of this diversion. Irregular ink-blots are excellent material. In commenting on Dammartin, we demonstrated that any desired outline figure could be found in the constellations. Any complex collection where something is to be taken as real and some parts ignored as irrelevant serves this purpose. What is seen in these instances we know to be our own fanciful creation, but only because we know that the things seen cannot possibly exist in those places. Our belief about them will be very different if nothing in our experience contradicts their objective reality. Whenever we can, we tend to find something definite in the faint and orderly in the confused and to trust what we find, if it and other things and our system of beliefs will permit it. There is a pleasure in seeing uncertainties and irregularities resolve themselves into definite form, and the forms take on connected and acceptable meaning. If the critical attitude be not aroused or find no support, if no conflicting appearances or beliefs occur to mind, if rival possibilities arouse no liking, the apperceptively constructed object must be believed to be external. In that very way we construct all objects that we actually do accept as genuinely perceived, even the most sure and familiar ones.

Some of the alleged indentures of Dighton Rock are unquestionably there, artificially carved upon it. But aside from them it offers an ideal surface for these borderland apperceptions which may or may not represent objective facts. Examination either of the rock itself or of a clear photograph of it reveals both features under discussion—an abundance of lines that are faint and doubtful, and a vast confusion of other marks that are clearly observable and may or may not be artificial. There are numberless little pittings and protrusions, irregularities of texture, almost eroded remnants of indecipherable characters, minute cracks, light-reflections varying from dark to bright forming dots and lines and blotches, small differences of color. Such materials can be woven together apperceptively into a thousand varying forms. For the purpose of comparing the different drawings, none of which can be exact enough to show the precise position on the rock where each figure belongs, I tried at one time to identify and mark on the Burgess photo-

graph every figure that had ever been drawn or chalked, and thus to produce a composite representation of them all. I found the task almost impossible, not because I could not discover the figures in any case, but because I could see many of them in too many different places. For instance, at the extreme left of the rock some of the drawings show a P, which at different times I placed in at least four plausible positions; and as to others I was equally uncertain. My notes state that "after prolonged and close searching, I got so that I could find any given figure almost anywhere."

Those who are cautious and instructed in the dangers will know enough not to trust any but the most indubitable of the figures they see. But even they will find it difficult to know where to draw the line between the sure and the doubtful. Kendall and Seager were the most cautious draughtsmen who ever viewed the rock; yet their drawings are very different. Very few are sufficiently instructed to be cautious. To look for what has been carved there insures the seeing of something among the thousand possibilities. The very seeing of a plausible figure makes it seem to be actually present on the rock. It may dissolve and give place to another, and if not satisfying it probably will. But the situation here differs from that when we are deliberately looking for what we know will be only dream-pictures. We can adopt that attitude toward the rock or its photograph; but not if we are earnestly trying to discover everything possible of what was originally carved there. Then, any plausible and consistent appearance tends to be taken as objective and to inhibit the many alternative and mutually exclusive things that might have been seen in the same place. The lines and dots have been apperceived into an object. The fact that it is one's own discovery gives it strength. If, in addition, it for any reason appeals to the feelings, or best among various possibilities fits in with a preformed hypothesis, its full acceptance is almost inevitable.

It is easy to see why the many drawings and chalkings are so definite and likewise so different. Some of the causes are external. The lighting of the rock differs greatly with the position of the sun, and is of exceedingly great importance for

the relative observability and distinctness of different figures. So also is the position of the observer. Carelessness and varying skill have some influence. But the most potent cause of all lies in the apperceptive factors. For the most part these make for variety, although within rather definite limitations, for no one yields to unrestrained imagination but rejects such apperceptions as have no plausible nucleus in actual objective data. Yet in some cases the objective lines may be most readily apperceived in a manner that is almost uniform and that nevertheless may be mistaken, as in case of the small human figure seen by nearly all observers where I now find the date 1511 with circles above and below it. The apperceptive possibilities wherever the lines are not sure and definite are so numerous that no one has yet exhausted them. We can constantly find new and unsuspected letters and figures with more or less of confidence in their actual presence on the rock. They may come by accident, as in case of the 1511, or by definitely looking for them under the inspiration of a new theory as to what may be there, as in case of my discovery of the Cortereal. Very few if any of the draughtsmen and chalkers, I think, have been biased by definite ideas beforehand of figures they wished to find, except in so far as they have been influenced by knowledge of previous depictions. Had they been so, they would probably have found what they sought. Moreover, they would almost inevitably have been in error, for there can be but one right theory, but there may be devised a host of wrong ones. Yet we must realize that bias in the one right direction may be as essential to the correct solution of some difficult scientific problems, as bias in the numberless wrong directions is unfavorable. In dealing with obscure and ambiguous phenomena, the genuine truth about them is more likely to be perceived after the hypothesis that later proves to be the correct one has suggested exactly what to look for.

If anyone finds it difficult to believe that apperception can create objective fact, or to see how so many different representations can have been made honestly from the same model, it may be recommended that he study for himself the Burgess or the Hathaway photograph. Let him try to localize in the

photograph the lines of any particular drawing, or make his own drawing showing every line that he thinks is probably artificial. He can inevitably bring himself to the discovery of any desired figure, though not necessarily with sufficient clearness to satisfy him. His own independent depiction will differ, if made detailed enough, for all except well marked lines, from any others. Moreover, the psychology of the chalking process can be readily and experimentally studied in the same manner. Before rendering any lines of the photograph more distinct by means of ink or pencil, there are numerous possibilities as to what may be seen in a given region. But once mark a line clearly, and many of these possibilities are obscured or vanish. A set is established toward seeing one or more definite figures, instead of many possible ones. The fixing of one line more nearly determines its neighbors; until finally, a single definite and solely visible figure stands out, where at first others might equally well have been seen. Had one started by marking some other line, the resulting figure would have turned out, in many instances, a very different one.

There is now one point more to develop before we close this study. We form our system of beliefs, or our interpretation of any particular phenomenon, by a process very like the apperception that has just been described. We sift and select among the materials actually given, ignoring what rightly or wrongly we regard as irrelevant. We fill out the inadequacies of the rest, rounding it into a full idea, by aid of our stored experience and completing hypotheses. According to the scientific strictness or the looseness and insufficiency of our apperceptive systems, the result is more or less able to bear the scrutiny of sound criticism. Of all our interpreters and theorizers, only the advocates of Indian origin, or those who have cautiously refrained from forming any final opinion, have possessed a system of interpretative beliefs into which the data given by the drawings could fit in such a manner as to yield truth. It may be—or may not be—that our new hypothesis concerning Miguel Cortereal can eventually be added to the Indian theory as also having scientific warrant. With respect to it, we await such ultimate fate as future research may determine. The

extremest methods of indefensible yet very natural interpretation are those that accept particular pictures as symbolizing entire incidents or characters in a story, with no other warrant than consistency with their own beliefs, or that regard single supposed letters as initials of complete words. There is very little difference in principle between these two procedures. They are essentially identical with one of the cabalistic methods called notarikon, wherein every letter of a word is taken as the initial or abbreviation of another word, so that from the letters of a single word a complete sentence may be formed. Buckingham Smith used a mild form of this process. It is perhaps not unlikely that Lundy's Chinese radicals were used in a similar manner. When the letters to be thus used are not taken in succession but selected at random from a large collection in any desired order, there are no limits to what they may be made to mean. Fernald permitted us a few insights into his manner of finding the meanings he wanted. It was not wholly crazy and baseless, for there was something of system in it. But the system, wherever we found it possible to follow its workings, was this super-cabalistic notarikon; and it is highly probable that it is the same whereby he obtained his six all different yet all true translations of Dighton Rock. It is in a similar manner that the discoverers of the various ciphers which prove that Bacon was the author of the works of Shakespeare and of other writers have reached their results. In a system of materials sufficiently complex, by the use of a cipher sufficiently elastic, any type of message may be discovered. Certainly the works of Shakespeare are sufficiently complex; and I have been informed by one who has a profound acquaintance with all the ciphers, including some very recent ones, that these are all sufficiently elastic to account for the results. Exactly the same can be said of Dighton Rock. The interpreters have worked with the drawings, not with the rock itself. Yet even these have offered a sufficient variety of figures and complexity of lines to permit the finding among them of pictures and apparent letters to furnish seeming evidence, by means of the methods alluded to, for practically any theory that any one may have the

ingenuity to devise. This does not imply that all theories must necessarily be equally worthless, but rather that we must use scientific methods, and not methods analogous to notarikon or Baconian ciphers, in reaching them.

CHAPTER XVIII

CONCLUSIONS

Narragansett Bay was once the centre of considerable activity in rock-carving. The distribution about the Bay and vicinity of the various rocks and stones that have been discussed is indicated in the map of Figure 108. In two or three other places in interior New England there were scattered examples of such work; and again, about Machias Bay near the northeasterly extremity of the Maine coast, there was a second centre of similar activities. Anticipating our conclusions as to the approximate periods in which such work was executed, we may classify the examples of it that we have found, in the following manner:

A. Dighton Rock, on Assonet Neck, the earliest one to receive inscriptions, containing records made first probably by sixteenth and seventeenth century whites, and later by Colonial Indians.

B. Other rocks, ledges, stones, and trees, with records by Colonial Indians—Mark Rock, Tiverton, Portsmouth; probably also Swansea, Fogland Ferry, West Wrentham, Long Island, the Warren Bannerstone, and, in part at least, the Arnold's Point Cup Stone, in the Narragansett area; Scaticook in Connecticut; West River and Bellows Falls in Vermont; a tree in Vermont and two in New Hampshire; Clark's Point, Birch Point and Hog Island in the region of Machias Bay in Maine;—nineteen localities in all in A and B, with some doubt as to the existence or character of three of them.

C. Rocks with unintentional Indian markings, resulting from their operations of grinding tools and grain—Purgatory; possibly King's Rocks.

D. Later inscriptions, not fraudulent, but doubtful whether by Indians or whites—Dighton headstone, Denison tablet; possibly Arnold's Point Cup Stone in part.

E. Early eighteenth century inscriptions by a white man—Newport.

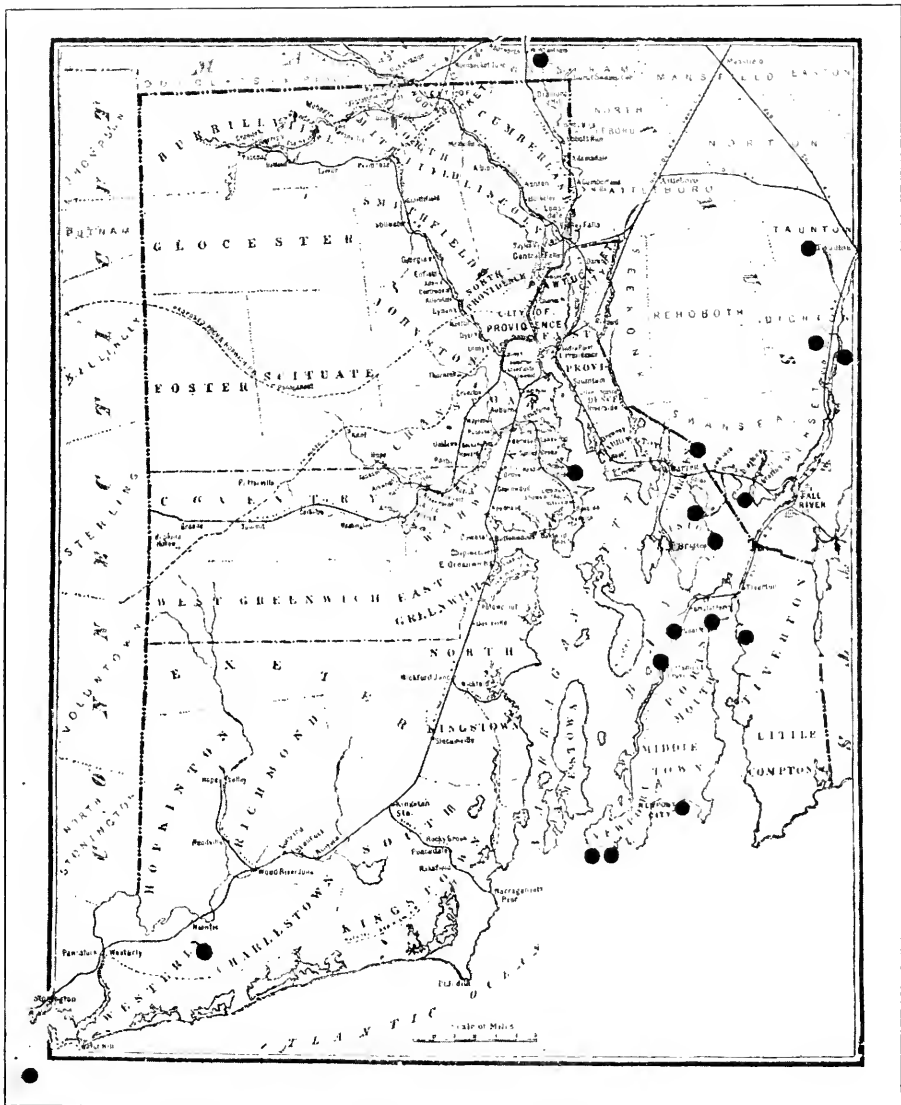


Fig. 108. Map showing approximate locations of inscribed rocks and stones of the Narragansett Basin

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F. Late Indian, nineteenth century—Mount Hope.

G. Cases of deliberate fraud (Taunton tablet); and more than twenty of mistaken rumor and misinterpretation of natural markings.

The great majority of the inscriptions were made by the aboriginal Indians, most of them surely in colonial times, although it is possible that a few beginnings had been made earlier, during the period of exploration and early fishery. If we include the Arnold's Point rock as of partly Indian workmanship, then there were four important localities about Narragansett Bay, and probably five or six others of less consequence, at which Colonial Indians engaged in rock-carving activities. I have not personally studied the petroglyphs about Machias Bay; yet, so far as they have been described, there does not seem to be any reason to believe that they would justify conclusions different from those that are arrived at for the rest of New England. I exclude from consideration such small stones and implements as are incised with purely decorative designs, of which I have seen a few examples in New England museums, and have had occasion to discuss a few in these pages. With these reservations, it has become evident that the regions about Narragansett Bay and Machias Bay were the only noteworthy centres of petroglyphic work in New England. Nothing of like character and of any importance occurs nearer than Pennsylvania and Ohio on the one side, and Nova Scotia on the other. Most of the alleged instances elsewhere that we have examined have either been proven erroneous or have lacked confirmation. Scaticook in Connecticut may be one additional example, and the Connecticut Valley in Vermont is certainly another; but their inscribed records are few and trivial.

This fact gives rather strong support to a conclusion at which we have arrived from a study of the rocks themselves, namely, that the making of rock-inscriptions did not arise in New England from a spontaneous impulse and native practice of the aboriginal inhabitants, but was imitative, and due to the example of Europeans. No one of our reasons is entirely con-

clusive, but they all seem to point in the same direction. There are several of these reasons. The first is the one just given, that nowhere in New England except around Narragansett Bay and near Nova Scotia was there any appreciable carving on stone. A second is, that the testimony of early observers asserts that the New England Indians, unlike some of the Delaware stock from which they derived, had no historical sense, no interest in their ancestors, and no records of any sort. If, before the coming of Europeans, they had known anything at all about the possibility of communication and of making records by means of picture-writings, one would naturally expect to find some mention of the fact in the writings of the explorers and colonists who first came into contact with them and studied their customs. I am unable to discover a single suggestion of the sort. On the contrary, such early evidence as I can find, which has been quoted in our introductory chapter, seems to imply the entire absence of any idea of communication by written signs, even pictographic ones. Henry E. Chase, therefore, appears to be correct when, in his *Notes on the Wampanoags*, he remarks upon the fact that among these Indians we find "not a trace of any attempt, before their contact with the whites, to convey to later generations an idea, either historical or otherwise, in a form likely to last." So also, it would seem, was J. A. Goodwin, who, in his *Pilgrim Republic*, says of the New England Indians that they had no relics and memorials, no traditions and legendary songs, and that even the intelligent Massasoit knew nothing of his immediate predecessors. In the third place, the evidence from the rocks seems to show that the Indian inscriptions were made after the arrival of white men. The early white records on Dighton Rock, from 1511 to 1640, occupy a prominent position and do not seem to have been hampered by the previous presence of Indian writings; some of the Indian pictographs (Mark Rock, Tiverton) may possibly have represented colonial soldiers, and others may plausibly be regarded as Indian signatures of colonial times; the Mount Hope inscription was almost surely made as late as 1834. Still further, the only instances of

real picture-writing whose date is definitely known—those of the Dighton headstone and of the tree at Weathersfield—were executed not far from 1700; and this is one reason why the only other instances that have been reported, the Warren bannerstone, the Long Island tablet, and the trees in New Hampshire, may be regarded as most likely to have been also of relatively late date. Moreover, it seems to have been known to the colonists that the Indians of their time made engravings upon rocks; for Isaac Greenwood, near the close of his letter of 1730, speaks of certain unnamed “sculptures, probably the work of some modern Indians.” Similarly, Squier says that some petroglyphs “are known to have been inscribed by the existing Indian tribes, since the period of the commencement of European influence.” Finally, there is a suggestion of significance in the fact that the only important centres of rock-carving in New England were centres of Pilgrim influence—Narragansett Bay was in home territory, and they had a trading post in Machias in 1633. Another curious and perhaps significant fact is that at least two of the localities—Tiverton and the Connecticut Valley—were places where Indians gathered, under conditions of unusual excitement with long periods of idleness during King Philip’s War. One of the infallible detectives of fiction whose identity I have forgotten is made by his creator to remark: “Once is a happening; twice is a coincidence; three times is a certainty.” We have found six reasons for believing that Indians in New England owed to white influence their habit of making carvings on rocks, and perhaps even the first suggestion of the use of pictographs. Each is incomplete in itself, but all together they are almost compelling in their cumulative indications. The probabilities point to a period around 1640 as that of scribblings, pictures, and perhaps records of individual names and adventures, on rocks; and to a period around 1675 to 1700 as that when they began to make a few pictographic and possibly ideographic writings.

While these conclusions can be accepted as practically certain so far as records on rocks and other enduring materials are concerned, yet the absence of present evidence does not

make it entirely sure that pictographs may not have been made, as Schoolcraft thinks they were, "early and generally among all our principal tribes, . . . on sheets of bark, painted skins, tabular sticks of wood or the decorticated sides of trees, where they were read by one or two generations, and then perished."¹ Mallery, also, calls attention to evanescent forms of pictographic work, and remarks that "there may thus have occurred much more of such activity than is evidenced by the still extant petroglyphs." He secured, for example, "a valuable collection of birch-bark pictographs immemorially and still made by the Passamaquoddy and Penobscot tribes of Abnaki in Maine, showing a similarity in the use of picture-writing between the members of the widespread Algonquian stock in the regions west of the great lakes and those on the northeastern seaboard."² This fact, he says, had been inferentially asserted, but no satisfactory evidence of it had been presented, before his own researches were undertaken in 1887 and 1888. An "immemorial use" of pictography for which no evidence is submitted before 1888 need not have really existed for a very long time before that date, as our own observations in regard to the use of similar phrases in connection with the Dighton and Mount Hope rocks clearly shows. Probably the actual facts are not very different from those which we know, on abundant early evidence, were true in the case of the Micmac tribe of the Abnakis. Of their method of writing, Vetroville asserts that already, in native hands, when the French first arrived in Acadia, it had become a highly elaborated system, capable of expressing every idea and shade of meaning, and that it was in regular use for communication. But this is an example of extreme exaggeration founded upon a slim basis of fact. The natives did use some simple mnemonic marks of their own devising as aids to memory. The most complete and reliable account of this practice, and its elaboration by missionaries into a complex ideographic system, is given by William F. Ganong in his "Introduction" to Le Clercq's *New Relation of Gaspesia*, published in 1910. Its degree of development as

¹ *Indian Tribes*, 1851, i. 414.

² Tenth Annual Report, B. A. E., 201.

a purely native product is well indicated by the statement of Father Drouillette in 1651-52: "Some would write their lessons after a fashion of their own, using a bit of charcoal for a pen, and a piece of bark instead of paper. Their characters were new, and so peculiar that one could not recognize or understand the writing of another,—that is to say, they used certain signs corresponding to their ideas; as it were, a local reminder, for recalling points and articles and maxims which they had retained." In other words, it was not true picture-writing, with symbols to which fixed meanings were attached, understood alike by all who learned to read, but was mnemonic, individual and variable. Ganong thinks that "it is possible the Indians had some which were understood by them all, though of this we have no definite knowledge," and, if there were any, "these must have been extremely few." But there is clearly no evidence, and, I think, in view of all the facts that we have assembled, no likelihood that they used a single character of fixed meaning. All was as purely mnemonic as is a string tied round a finger or a knot tied in a handkerchief to remind one of some idea which he wishes to recall on an appropriate occasion. It was the missionaries who developed the practice into an elaborate ideographic system. Men like Vetromile and Mallery, observing late forms highly developed under white influence, seem to have assumed without warrant that these had existed "immemorially," and were of native devising.

There is, then, no discoverable indication that the aboriginal tribes in New England made true pictographs of any kind, unless the designs on a number of small stones and other objects of uncertain date may have been pre-white and may properly be classed as pictographs. They do not seem to include any true symbolic picture-writing, however, but only decorative, pictorial and perhaps mnemonic devices. On the whole, for the many reasons given, I am inclined to believe that they knew nothing of the pictographic art.

The worn appearance of the inscriptions, with the consequent difficulty in deciphering them, their appearance of great age, the mistaken belief that the rock surfaces wear away rapidly and that the lines drawn upon them become distinctly

less legible within the period of a lifetime, cannot be used as a criterion of antiquity, great or little. In my earlier chapters I have frequently shown evidence that the inscriptions are today as easily and accurately discernible as they were when the first description of the appearance of any of them was given, two hundred years ago. In fact, our recent flashlight photographs reveal more today than direct observation of the rocks has ever done, from the very first. We have also seen that marks made provably since 1700, such as Stiles's "I HOWOO," and the names and initials of white men, often look as faint and uncertain as do the earlier carvings. When shallow lines, such as are most of those of the inscriptions, are first made upon these rocks, they at first stand out clear and certain, of a lighter coloring than the natural rock-surface. But it does not take many years of weathering, varying with exposure to storm and ice and with the length of their daily covering by the tide, before their color merges into that of the rock and their outlines become blurred. Thereafter they look very old, and cannot with certainty be distinguished from natural striae, cracks and pittings; and many of the shallowest of them, satisfactorily visible when first made, disappear altogether. On the other hand, these rock-surfaces do not wear rapidly. The frequently expressed opinion that they do is a natural but mistaken psychological impression, and the worn appearance of their carvings is compatible with any actual age, remote or recent.

One fact of interest concerning almost all of these rocks is that they are submerged at high tide, with the exception formerly of the one at Mount Hope. Various opinions have been expressed as to the reason for such a position. The one that appeals to me is that all of the localities where they are situated were probably not far from Indian villages or encampments, and were places where Indians gathered in considerable numbers at low tide for digging clams, darting fish, drawing fish-nets, and for incidental bathing and social pleasures. Some of the more idle of them, after the idea had been suggested by the practices of white men, amused themselves and others by making these pictures and haphazard lines. The same impulse, in the opinion of Kendall, was responsible for

the carvings in Vermont—"the work of idle hours," "the whim of vacant moments," at a fishing or duck-hunting resort; and likewise, according to W. J. Holland, for certain petroglyphs in Pennsylvania, which "speak of an idle hour and the outgoing of the pictorial instinct which exists in all men," and which were executed, he thinks, by "lazy Indians, engaged in fishing and hunting, and amusing themselves by depicting things on the smooth surface of the stone." As early as 1779, the Marquis de Marbois recorded his belief that, if not a trophy of victory of some native tribe, the inscription was "perhaps the pastime of some idle Indians, more ingenious and less lazy than the rest." Richard Andree also expresses the belief that "petroglyphs are usually made for mere pastime." He excepts those of America, but unnecessarily, it would seem, for those of New England at least. Very recently, J. W. Fewkes has added his authority in support of a similar opinion, saying that Indian rock-carvings are usually "little more than idle markings by one or more individuals, and there is little likelihood that anyone except the Indian or Indians who etched them could tell of their significance."

In thus advocating a trivial origin and a consequent lack of important significance for these pictographs, we are at variance with the beliefs of many eminent archaeologists. Brinton, Mallery, Henshaw and others refuse to believe that, with rare exceptions, Indian pictographs can be "idle scrawls," and assert that "significance is an essential element of them." Most of those who have attempted to interpret the records on Dighton Rock have taken all of its carvings as forming together one connected story. In this they are certainly wrong. The most plausible interpretations of the designs upon this rock, and the scattered and unconnected positions of the drawings on Mark Rock, at Machias, and on the rocks in Vermont, are a convincing testimony that they were made at various times by many individuals. With the disappearance of any possibility of connected meaning that can be assigned plausibly to the whole collection of glyphs upon any one rock,—except for that near Mount Hope and some of the smaller stones,—it remains only to examine the individual designs to determine

whether or not they constitute important records. The answer to this question seems to be unmistakable. We have repeatedly seen reason to believe that some of the markings are indeed mere "idle scrawls," childish and haphazard scribbles, the outcome merely of an impulse to be doing something, and perhaps to attract attention from idle and admiring companions. The forms adopted at first might very naturally have been crude attempts at imitation of the magically working writings of white men, with no more actual resemblance to them than is attained by a little child who first essays a like enterprise. These primitive scrawls easily merge into ornamental and pictorial designs, without symbolic significance, made for similar reasons and likely to arouse a larger degree of immediate admiration. We have seen upon our rocks a number of designs that are clearly decorative; and there are a great many pictures representing definite and recognizable objects but without probable further significance: human beings, deer, turtle, on Narragansett rocks, also various other animals in Vermont and at Machias. The next natural step is an easy one: the delineating of forms that may have been "mnemonic," or have had some significance other than decorative or pictorial to those who made them, but one that could not possibly be more than guessed at by anyone else to whom they were not explained. The most probable instances, and perhaps the only ones in our area, seem to be the designs composed of triangles on Dighton Rock, the glyphs in position *i* on Mark Rock, and some of the pictures at Machias. Some of the latter suggest the possibility that they may have been portrayals of individual adventures in hunting or the like. Of similar character would be the few probable, or at least possible, signatures of individuals at Mark Rock. Until we come to the smaller stones of probably later date and to the Mount Hope rock, this is all that the Indian inscriptions of this region contain, so far as we can be sure and so far as is at all probable. There is not a single readable, or even identifiable, instance of a collection of pictographic or ideographic devices that would have been at all likely to possess a generally accepted and interpretable symbolic character. The conclusion seems to be justified that in New England, at

least, the Indian carvings on rocks were truly some of them meaningless scrawls, ornamental designs, and pictures, and that none of them possessed any further meaning that was important or discoverable by anyone except the maker of them. Their execution was a pastime of idle and social leisure, was suggested by similar, though purposeful, activities of white men, and was due to no higher psychological impulses than the urge to be doing something interesting and the desire for attracting attention. Some of the small stones, such as those from Warren and Long Island, seem to contain truly symbolic writings; but, if the above conclusions are justified, this fact would strengthen our already formed suspicion that all such are of later date. Algonkian Indians made pictographic writings elsewhere; but, so far as we have present evidence, this practice did not arise in New England until after European influence had been felt, and then only to a small extent.

Summing up the whole matter briefly, we have found three centres in New England at which aboriginal rock-carving occurred. By far the most important of these was the region about Narragansett Bay, where such work was done in fifteen to twenty separate localities. Less extensive, yet still considerable, similar activity took place in three localities about Machias Bay in Maine. A very small amount of it was done at two places in the lower Connecticut Valley in Vermont. Concerning the time, circumstances and significance of the inscriptions, we have arrived at certain conclusions that appear highly probable, but that, from the very nature of the case, are not susceptible of absolute proof. The rocks themselves are too worn, the markings on them frequently too obscure, the known historical facts too meagre, to permit full certitude. Yet not only have they seemed the ones best justified in each individual case, but taken together they form a consistent and unified picture of petroglyphic activities in New England. With these reservations, we may accept the following as an approximately correct account of the sequence of events. The first rock-record in New England appears to have been made by Miguel Cortereal in 1511, evidently for the purpose of attracting the attention of possible explorers, and in it he stated

that he was leader of the local Indians. It is fairly probable that a fisherman named Thacher made the second record on Dighton Rock in 1592, and that haymakers from Taunton wrote on it directions for finding a spring, about 1640. After some or all of these were made, Indians followed with numerous carvings on rocks and stones in the Narragansett and Machias regions, but very rarely elsewhere in New England. Their designs were trivial scribblings and pictures, made only for pastime and attendant admiration of their companions, in crude imitation of what they had seen done by white men. For the most part they had no significance at all, although in a few cases it seems likely that they may have had something more than merely pictorial meaning to the individual who made them, not discoverable by anyone else unless he explained it. Later, perhaps toward the end of the seventeenth century, a very few small stones and trees began to be inscribed with truly symbolic writings. We know of only four examples in which the writing was pictographic, and one in which it appears to have been ideographic. The last record of all fittingly closes the series. It was made probably as late as 1834, by a half-breed Cherokee who had married a descendant of the Wampanoag chiefs, and was written in Cherokee symbols as a tribute to the man whose great personality and sad fate aptly typified the tragical history of his race: Metacomet, Chief Sachem.

BIBLIOGRAPHIES

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Nothing affords clearer evidence of the depth of interest that has been taken for so long a time in the subject to which this study has been devoted than a survey of the extensive literature that has discussed it. It has seemed worth while to make such a survey particularly complete and impressive for the one rock that is most famous of them all, and to compile separately a list of only the more important of the references to the other petroglyphs.

The Bibliography of Dighton Rock aims to record all cases of mention as well as of discussion of Dighton Rock that have come to the writer's attention, with the exception of very recent newspaper notices. In 1926, seven years after my first announcement of the Cortereal theory, reviews of it were published by Free, by Hough, by Lord, and in the New York Times Mid-Week Pictorial. Since then, there have been innumerable newspaper articles, Associated Press despatches, and editorials, in the press of nearly all countries, and especially lengthy ones in Portuguese publications; and these are not recorded in the Bibliography. It includes not only printed sources, but letters, manuscripts, drawings and photographs, and occasionally incidents of importance. A very few cases are included where the rock itself is not directly mentioned, but where judgment concerning it is implied in such statements as that Rafn's conclusions are to be fully trusted, or that there are no discoverable vestiges of the early Norse visits. Page references are usually not to the entire discussion named in the title, but only to the portion dealing with the rock. Whenever representations of the appearance of the inscription accompany a discussion, the fact is noted by insertion of the abbreviation "Illus.," followed by a number which is that of some drawing or photograph so numbered in the list of reproductions given in Chapter IX. A brief comment is attached to each item, which

rarely attempts to indicate the value or the entire contents of the source, but confines itself usually to stating the opinion expressed as to the origin of the inscription. Titles are given with brevity, and as a rule the date of first publication only is given.

Inclusion in the list is naturally no indication as to the value of a paper. A large proportion of the papers never possessed any merit as serious or reliable statements of fact or discussions of the problem, yet even these may have psychological or historical significance. Many trivial instances of casual mention of the rock are included, for they serve at least as indications of the degree of interest aroused by the inscription and of importance attached to it. It is inevitable that many references to the rock must have been overlooked, and the compiler of the bibliography earnestly hopes that readers knowing of possible additions to it will kindly call them to his attention.

The second Bibliography, which is merely a repetition of the numbers of the first one arranged in chronological order, is a striking evidence of the continuity of interest in the subject through a long period of years. It includes 69 items belonging to 31 years out of the 120 between 1680 and 1799; 55 items in 24 years of the 37 between 1800 and 1836. Since then not a year has passed without some reference to the rock, and usually many; so that we have found 184 items in the next 35 years, to 1871; 175 items in 29 years, to 1900; and 113 items in 25 years, to 1925.

The third Bibliography, of the subject in general, does not attempt to be exhaustive. Many of the papers enumerated under Dighton Rock discuss other inscribed rocks also, and their titles are not usually repeated in this section. The aim has been to include only the most important of the additional sources, and also such discussions as contribute to the solution of our problems even if they make no direct mention of New England petroglyphs.

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58-61 BELKNAP, J. Corr. with E. Hazard. In Belknap Papers, 1877, [58] i. 353, June 6, 1784; [59] ii. 76, Nov. 16, 1788; [60] ii. 81, Dec. 13, 1788; [61] ii. 160, Aug. 20, 1789. — Doubtful.

62 BENTLEY, W. Diary, 1911, iii. 322 (Oct. 13, 1807). — Mention; references to Kendall, S. Harris, the two Baylies.

63 BERKELEY, GEO. Visited Rock about 1729; made an uncompleted and unpreserved drawing.

64 BICKNELL, T. W. History of Barrington, 1898, p. 22. — Strong circumstantial evidence for the Norse theory.

65 BIGELOW, JACOB. Reference to Rock, Oct. 27, 1852. In Proc. Mass. Hist. Soc. xvii. 458.

66 BLACKMER, E. E. Ms. paper on petroglyphs of boulder at Lincoln, Nebr., 1917. — Mixture of Indian glyphs with others by pre-glacial men.

67 BLACKWELL, I. A. Colonization of Greenland, and discovery of the American Continent by the Scandinavians. Translated from the French of M. Mallet [1755], by Bishop Percy [1770]. New ed. by I. A. Blackwell, 1847, pp. 261 f. — Norse theory doubtful, to say the least; may probably be Indian.

68 BLAKE, G. S. Ms. letter of March 25, 1865, to Amer. Antiq. Soc., transmitting essay on Rock by C. R. Hale. — No opinion expressed.

69-71 BLAKE, L. I. Maker of plaster cast of the Rock, 1876. [70] Report to Old Col. Hist. Soc. on transfer to the Soc. of title to Rock, Jan. 1880. [71] Description of making of plaster cast, in letter to E. B. Delabarre, Jan. 13, 1916.

BLISS, LEONARD, JR. See nos. 32-33.

72-73 BODFISH, J. P. Discovery of America by the Northmen in the Tenth Century. In Proc. Second Public Meeting held by U. S. Catholic Hist. Soc., Oct. 29, 1885 (1886), pp. 38-40. — Norse; uncritical acceptance of Rafn’s views. Several errors of statement. [73] Discovery of New England by the Northmen in the Tenth Century. Paper read before the Bostonian Soc., Feb. 8, 1887; reported in Boston papers of the following day. Probably identical with 72.

74 BOGGILD, F. Ante-Columbian discovery of the American Continent by the Northmen. In Hist. Mag., 1869, N. S., v. 170-179. A reprint from the New Orleans Sunday Times. — Uncertain as to Rock; accepts Tower and Skeleton as Norse.

75 BORDER CITY HERALD, June 19, 1876. — Mention.

76 BORRING, L. E. Notices on the Life and Writings of C. C. Rafn, 1864, p. 10. — Mention.

77 BOSTON TRANSCRIPT, Sept. 25, 1848, p. 2/2. Account of Elton's paper.

78 BOURINOT, Sir J. G. Voyages of the Northmen. In Proc. and Trans. Royal Soc. of Canada for 1891 (1892), vol. ix. sect. ii. pp. 291-295. — Rafn's theory of Rock, but not of Norse voyages, now discredited.

79 BOWEN, F. Schoolcraft on the Indian Tribes. In North Amer. Rev., 1853, lxxvii. 252-256. — Not Norse; a meaningless scrawl, probably Indian.

80 BOWER, S. J. Painter of copies of 17b and 18b, 1834, to illustrate lecture by A. H. Everett, 1838; now in Amer. Antiq. Soc.

81 BRADFORD, A. W. American Antiquities, and Researches into the Origin and History of the Red Race, N. Y., 1841, pp. 184-186. — No mention of Rock; but contributes to knowledge of Indian pictographs.

82-83 BRINE, L. Travels amongst American Indians, 1894, p. 33 n. — Indian; visited it in 1870.

84 BRINLEY, G. Cat. of the Amer. Library of, 1881, pt. iii. nos. 5378, 5405. — Mention.

85-86 BRINTON, D. G. Myths of the New World, 1868, p. 10. — Indian; rude and meaningless. [86] Prehistoric Archæology. In Iconographic Encyclopædia, 1886, ii. pp. 75 f. — Indian.

87-90 BRISTOL COUNTY, Mass., Northern District, Land Records. [87] Book 253, p. 92, July 25, 1857. Deed of the Rock from Thomas F. Dean to Niels Arnzen. [88] Book 253, p. 93. Jan. 23, 1860. Deed of the Rock from Niels Arnzen to Royal Society of Northern Antiquaries. [89] Book 259, p. 49. May 27, 1861. Acknowledgment of donation of Rock to Royal Society of Northern Antiquaries, by King Frederick VII of Denmark, President of the Society. [90] Book 470, p. 211. Jan. 30, 1889. Deed of the Rock from Royal Society of Northern Antiquaries to Old Colony Historical Society.

91 BRITAIN, A. History of North America. (Ed. by G. C. Lee), 1903, i. 16, 37. Illus., after no. 18b, p. 37. — Not Norse; Indian theory generally accepted; Vinland was New England.

92 BROCKHAUS' KONVERSATIONS-LEXIKON, 14th ed., 1898, v. 304. — Indecipherable runes.

93 BROOKS, C. T., editor. Controversy touching the Old Stone Mill in Newport, R. I., 1851. See Antiquarian; Melville.

94 BROOKS, R. General Gazetteer, 1876, p. 294. — Never satisfactorily explained.

95-97 BROWN, C. W. Photograph of Rock, May 15, 1915. [96] Photograph of Rock and vicinity as seen from the shore, May 15, 1915. [97] Description of composition of Rock and its manner of weathering, 1916. Cited in no. 146.

98 BROWN, SOPHIA F. Ms. letter of Oct. 19, 1864, to E. E. Hale concerning the "Gooding drawing" of "1790." Owned by Amer. Antiq. Soc.

99 BRYANT, W. C., and GAY, S. H. Popular History of the U. S., 1876,

i. 60 f. *Illus.*, after no. 24, p. 61. — Norse view questionable; Indian theory mentioned.

100 BULL, OLE. Visited Rock, 1857.

101 BURGESS, G. C. With Augustine H. Folsom as photographer, produced the first photograph with Rock left unchalked, in July, 1868.

102-103 BUSHNELL, D. I. An Early Account of Dighton Rock. In *Amer. Anthropologist*, 1908, x. 251-254. — Transcript of letters by Greenwood in British Museum. Accompanied by first photographic reproduction of drawings no. 1c and 5b. [103] Letter of Oct. 21, 1915, to E. B. Delabarre. — Indian.

104 CABOT, J. E. Discovery of America by the Norsemen. In *Mass. Quart. Rev.*, 1849, ii. 209. — No sufficient evidence for Norse theory; probably Indian.

105 CADY, MRS. ANNIE C. History of New Eng. in Words of One Syllable, 1888, p. 15. *Illus.*, after no. 29c. — Meaning unknown; Norse origin suggested.

106 CARTER, B. B. Sent copy of inscription to Rémusat, 1822.

107 CATLIN, G. Letters and Notes on the Manners, Customs, and Condition of the North American Indians, 1841, ii. 246. — Indian; their picture-writings are "generally totems of Indians who have visited those places."

108-109 CHACE, C. W. Issued a post-card, by an unknown photographer, about 1900. [109] Historic Rocks. In *Taunton Gazette*, May 3, 1905, p. 9/1-7. — Non-committal.

110 CHAMBERS, W., and R. Chambers' Papers for the People, 1850, no. 42, vi. 28. — Indian view more reasonable.

111 CHANNING, E., and HART, A. B. Guide to the Study of American History, 1897, pp. 231-234. — Related bibliographical material.

112 CHAPIN, A. B. Ante-Columbian History of America. In *Amer. Biblical Repository*, 2nd Series, 1839, ii. 191-197. — Not unlikely that the Norse engraved the letters and numerals, and the Indians the rest.

113 CHASE, HENRY E. Notes on the Wampanoag Indians. In *Ann. Rep. Smiths. Inst.* for 1883 (1885), p. 894. — Indian.

114 CHECKLEY, WM. First aroused Dr. Stiles's interest in Dighton Rock, 1766. Remark by Stiles on copy of Mather Broadside, Yale University Library.

115 CHINGWAUK. Indian interpreter of inscription, 1839. See no. 484.

116-117 CLARKE, R. H. America discovered and Christianized in the tenth and eleventh centuries. In *Amer. Catholic Quart. Rev.*, 1888, xiii. 228 f. — Norse theory plausible. [117] First Christian Northmen in America. In *Amer. Catholic Quart. Rev.*, 1889, xiv. 608. — Believed to be Norse.

118 COLANGE, L. DE. *National Gazetteer*, 1884, p. 119. — Mention.

119 COLBURN'S NEW MONTHLY MAG. AND HUMORIST, 1850, xc. 128-132. American Antiquities. — No mention of Rock; but inscribed rocks are Indian.

120 COLLINS, J. F. Report on marine growths on Rock, in Pub. Col. Soc. of Mass., 1919, xx. 396.

121 COLUMBIAN REPORTER. (Taunton, Mass.) Dec. 2, 1829. Dighton Writing Rock. — Never deciphered.

122 COOK, J. America, Picturesque and Descriptive, 1900, iii. 121-123. — Probably Indian.

123 CORNHILL MAG., 1872, xxvi. 457. Legends of Old America. — Mention.

124 CORTREAL, MIGUEL. Probable first carver on Rock, 1511.

125 COURT DE GEBELIN. Monde Primitif, 1781, viii. 58 f, 561-568. Illus., no. 11c, Planche I. — Phœnician; a complete translation given.

126 CRONAU, R. Amerika, 1892, i. 137. — Unquestionably Indian.

127 DALL, W. H. Pre-Historic America. By the Marquis de Nadaillac. Translated by N. D'Anvers. Ed. by W. H. Dall. 1884. Chap. x. Origin of Man in America. (For this chapter the American editor is chiefly responsible.) — Omits a discussion of Rock, favorable to the Norse view, that appeared in the original; and says: "Theories ascribing the origin of the Americans to full-fledged races from elsewhere are enthusiastic rubbish" (p. 530).

DAMMARTIN, MOREAU DE. See Moreau de Dammartin.

128 DANFORTH, JOHN. Author of first known drawing of Rock, October, 1680; and probable author of the "Danforth slip" in Greenwood letter B.

129 DANSK KUNSTBLAD, March 17, 1837. Illus., after 15c. — Characters have runic appearance, and are evidence of connection of America with the old world.

130 DAVIS, A. Lecture on the Antiquities of Central-America, and on the discovery of New England by the Northmen, five hundred years before Columbus, 1838. At least thirty editions, with slightly varying titles, up to 1854. — Norse. An illiterate, ill-balanced, uncritical compilation.

131-133 DAVIS, F. S. Author of three photographs: [131] Sept. 11, 1893; [132] Jan. 27, 1894; and [133] one undated, early in 1894.

134 DAVIS, JOHN. Attempt to Explain the Inscription on the Dighton Rock. In Memoirs Amer. Acad. of Arts and Sciences, 1809, iii. 197-205. — Indian representation of deer-traps and hunting scenes.

135 DAVIS, N. S. Collaborator in production of photograph, no. 28, 1873.

136 DAWSON, S. E. North America, 1897, i. 108 f. — Mention.

137 DEANE, C. Remarks on Rock. In Proc. Amer. Antiq. Soc., Oct. 21, 1867, p. 7. — Mention.

138 DEANE, W. E. C. Maker of reduced copy of photograph, no. 29d, 1882.

139-142 DE COSTA, B. F. Pre-Columbian Discovery of America by the Northmen, 1868. Later editions, 1890, 1901, 2nd ed., p. 65. — Central portion may be Norse; the rest may be Indian. [140] Northmen in America. Paper read Dec. 17, 1868. In Journal of the Amer. Geogr. and Statistical

Soc., 1860-1870, ii. 51.—Hardly considered as a relic of the Northmen. [141] Note to no. 74, *Hist. Mag.*, 1869, v. 178.—Cannot be relied on to prove anything. [142] *Columbus and the Geographers of the North*, 1872, pp. 14 f.—Not Norse.

143-159 DELABARRE, E. B. Some new facts concerning Early Descriptions, Reproductions and Interpretations of Dighton Rock. Paper read before Old Colony Hist. Soc., Oct. 9, 1915. Abstract thereof in Taunton Herald News and in Taunton Gazette of same date. [144] Early Interest in Dighton Rock. In *Publications Col. Soc. Mass.*, 1917, xviii. 235-299, 417. [145] Middle Period of Dighton Rock History, id. 1918, xix. 46-149. [146] Recent History of Dighton Rock, id. 1919, xx. 286-438. [147] Bibliography of Dighton Rock, id. 1919, xx. 438-462. [148] A Unique Indian Implement from Warren. In *R. I. Hist. Soc. Coll.*, 1919, xii. 96-100. [149-155] The Inscribed Rocks of Narragansett Bay. Seven papers in *R. I. Hist. Soc. Coll.*, 1920, xiii. 1-28, 73-93; 1921, xiv. 10-22; 1922, xv. 1-15, 65-76; 1923, xvi. 46-64; 1925, xviii. 51-79. [149a] The seven Collected Papers in one volume, 1925. [156a] (with H. H. Wilder) Indian Corn-hills in Mass. In *Amer. Anthropologist*, 1920, xxii. 203-225. [156b, 156c] Photographs, 1920, 1922, and others. [157] Dighton Rock. In *Old-Time New England*, 1923, xiv. 51-72. Reprinted in Portuguese translation in *Boletim da Agência geral das Colônias*, Lisbon, Ano III, no. 20, Fev. 1927, 143-166. [158] A Possible Pre-Algonkian Culture in Southeastern Mass. In *Amer. Anthropologist*, 1925, xxvii. 359-369. [159] Dighton Rock: A Study of the Written Rocks of New England, 1928.—Illustrations in these papers reproduce all discoverable drawings and photographs of the inscriptions. Detailed histories, descriptions, and new interpretations, including discovery of the Cortereal reading.

160 DE ROO, P. *Hist. of America before Columbus according to documents and approved authors*, 1900, i. 195, ii. 307-314.—Has served a dozen theories; may never prove any; "is and will remain forever a perplexing enigma."

161-162 DEXTER, G. Remarks on the Norse discovery of America, April, 1880. In *Proc. Mass. Hist. Soc.*, 1881, xviii. 18 f.—Not Norse. [162] In *Memorial Hist. of Boston*, 1880, i. 26.—Not Norse.

163 DIGHTON BI-CENTENNIAL CELEBRATION, July 17, 1912, p. 85. Illustrations: Seal of Dighton, with cut of Rock after no. 40, on cover and title-page; no. 35, on p. 86.—Origin unsettled; possibly Norse.

164-166 DIMAN, J. L. Critical Notice of De Costa's Pre-Columbian Discovery. In *North Amer. Rev.*, 1869, cix. 266 f.—Mention. [165] Settlement of Mount Hope. Address . . . delivered Sept. 24, 1880. In *Oration and Essays*, 1882, pp. 145 f.—Northmen left no trace behind them. [166] Editorial notice of W. J. Miller's Notes concerning the Wampanoag Tribe of Indians. In *Providence Daily Journal*, Nov. 19, 1880, p. 2/3.—Mount Hope inscription more like Norse writing than that of Dighton Rock. Latter considered by the most competent judges to be Indian.

167 DOMENECH, E. Seven Years Residence in the great Deserts of

North-America, 1860, i. 52, 61. — Norse; confirms Danish archæologists. At first confounded with Indian pictographs, "but on more serious examination the difference was perceived, and the archæologists acknowledged their mistake."

168 DOUGLASS, W. Summary. Volume i. first issued in numbers, beginning in 1747; as a complete volume, 1749. Later editions, 1755, 1760. Ed. of 1760, i. 170. — Natural honeycombing of the rock, not artificial characters.

169-170 DRAKE, F. S. Indian Tribes of the United States, 1884, i. 88 f. Illus., no. 24, opp. p. 88. — Condensed from Schoolcraft. [170] Indian History for Young Folks, 1885, pp. 27 f. Illus., after no. 29c, p. 28. — Indian.

171-172 DRAKE, S. A. Nooks and Corners of the N. Eng. Coast, 1875, pp. 416 f. Illus., after no. 16c, p. 416. — Generally admitted to be of Indian origin; but may be the work of white men, possibly of Verrazano's expedition. [172] Book of N. Eng. Legends and Folk Lore, 1884, pp. 395, 398. — Not Norse nor an intelligible record of any kind.

173 DRAKE, S. G., editor. Historical Memoir of the Colony of New Plymouth by F. Baylies. With some corrections, additions, and a copious index, by S. G. Drake. 1866, pt. v. p. 22 (by Drake). — Baylies' estimate of its character and antiquity is believed to be correct; previous to Indians, perhaps Phœnician.

174 DUANE, Col. [Wm.?). His "speculations on this subject," previous to 1824, referred to by Yates and Moulton, i. 82, have not been located.

175 DUBLIN REVIEW, 1841, xi. 286. Successive Discoveries of America. Reprinted in Amer. Eclectic, 1842, iii. 242 ff. — Apparently Phœnician.

176 DU BOIS, B. H. Did the Norse discover America? In Mag. of Amer. History, 1892, xxvii. 374. — Not Norse; archæologists now agree as to its Indian origin.

177 DUBUQUE, H. A. Fall River Indian Reservation, 1907, p. 35. — Indian.

178-179 DUNKIN, CHRISTOPHER. Ms. letters to T. H. Webb, concerning copy of Sewall drawing, Sept. 24, Nov. 17, 1834. In ms. Corr. and Reports, R. I. Hist. Soc., ii. 27, 32; the copied drawing on p. 23.

180 DU SIMITIÈRE, P. E. Inscription in Massachusetts. In ms. volume no. 1412 Quarto of Library Company of Phila. Written probably in 1781. — Mention of Berkeley's visit to Rock, Smibert's drawing, visit to Stiles.

181 DWIGHT, W. R. Paper read before Ethnographical Soc. of N. York. In Hist. Mag., 1859, iii. 362. — No opinion expressed; describes visit to Rock.

182 EASTMAN, S. Together with a "professed daguerreotypist of Taunton," made the first published photographic representation of the inscription, the daguerreotype of 1853. In Schoolcraft's Indian Tribes, 1854, iv. 120, Plate 14.

183 EDDY, W. P. With F. N. Ganong as photographer, produced a photograph in August, 1908. Published in his Prospectus of the Eddy House, Dighton.

184 ELLESMERE, FRANCIS EDGERTON, Earl of, editor. Guide to Northern

Archæology, 1848, pp. 114-119. — No direct mention of the Rock; but expounds favorably Rafn's views of the visits of the Northmen.

185 ELLIOTT, C. W. *New England History*, 1857, i. 34 f. — "The rocks may go for what they are worth. The strongest proof is in the Sagas," of the Norse visits to New England.

186 ELLIS, G. E. *Remarks on Rock*. In *Proc. Amer. Antiq. Soc.*, Oct. 21, 1867, p. 7 f. — Indian.

187 ELTON, ROMEO. *On the Ante-Columbian Discovery of America*. In *Brit. Assn. Adv. of Science, Rep. of 18th Meeting, August, 1848*, pt. ii. p. 94. — "The Norse discovery of America . . . is confirmed by the Dighton Rock, found there on the arrival of the first New England colonists." *See also* no. 77.

188 *ENCYCLOPÆDIA BRITANNICA*, 11th Edition, 1911, xxvi. 454. — Not Norse; "now known to be the work of Indians."

189 *ENGLISH REVIEW*, 1790, xv. 180-182. Review of papers by Lort and Vallancey. — Agrees with the view which it attributes to Berkeley, that the lines are not artificial, but the casual corrosion of the rock by the waves of the sea.

190 EVERETT, A. H. *Discovery of America by the Northmen*. In *U. S. Mag. and Democratic Rev.*, 1838, ii. 156. A drawing and a painting made by S. J. Bower to illustrate this lecture, after nos. 17b and 18b, are owned by Amer. Antiq. Soc. — Norse origin of Rock is doubtful; but Norse settlement on Mount Hope Bay is "beyond controversy."

191-192 EVERETT, ED. Review of Gesenius' *Versuch über die maltische Sprache*. In *North Amer. Rev.*, 1820, x. 226 f. — Mention. [192] *Discovery of America by the Northmen*. In *North Amer. Rev.*, 1838, xlvi. 188 f, 197. — "Wholly unconvinced" of Norse theory; may be due to Indians, even later than 1620, or to white men; cannot decide positively.

193 EVERETT, WM. *Remarks on a proposed statue to Leif the Northman*, May, 1880. In *Proc. Mass. Hist. Soc.*, 1881, xviii. 79 f. — Mention.

194 EWBANK, T. *North American Rock-Writing*. In *Hist. Mag.*, 1866, x. 257, 272, 306; reprint, 1866. — Implies that it is Indian.

195 FALES, E. *Hist. of the Norsemen's Visits to R. I. and Mass. in the Tenth Century*, 1888, chap. VII. — A small illiterate pamphlet, valueless but amusing; Norse.

196 *FALL RIVER NEWS AND TAUNTON GAZETTE*, with assistance of Alanson Borden. *Our County and Its People: A Descriptive and Biographical Record of Bristol County, Mass.*, 1899, p. 197. — Mention of Dighton Rock newspaper.

197 FARNUM, A. *Visits of the Northmen to Rhode Island*. *R. I. Hist. Tracts*, no. 2, 1877, pp. 5, 39. (First published in *Providence Journal*, Dec. 2, 1869). — Not Norse.

198 FARQUHARSON, R. J. *On the Inscribed Tablets, found . . . in a mound near Davenport, Iowa*. In *Proc. Davenport Acad. of Nat. Sciences*, 1876-1878, ii. 105. Paper read March 9, 1877. — Two kinds of inscriptions:

Indian, intelligently translated by Chingwauk; and Runic, as translated by Rafn.

199 FAY, J. S. Track of the Norsemen. In *Mag. of Amer. Hist.*, 1882, viii. 431-434. Also issued as a monograph of 7 pages, Boston, 1873 and 1876. — Mention. It is believed that the Norsemen settled in Narragansett Bay.

200 FENNER, H. M. *Hist. of Fall River*, 1906, p. 1. [200a] *Hist. of Fall River*, 1911, p. 6. — Possibly Norse.

201-202 FERNALD, C. A. Visit to Rock, and drawing of its shoreward side, 1903. [202] *Universal International Genealogy and of the Ancient Fernald Families*, 1910. *Illus.*, nos. 16c, and 36. Numerous references to the Rock, and translations of it. — Rock contains inscriptions by Marcus Agrippa (29 B.C.), by his son Graecianus, by Christ (15 A.D.), and by Fnr Chia and Fna Bahman (222 A.D.). A masterpiece of seriously intended absurdities.

203 FEWKES, J. W. Letter in *Boston Herald*, Sept. 24, 1925, p. 26, col. 8. — Of purely Indian origin.

204 FINCH, JOHN. On the Celtic Antiquities of America. In *Amer. Jour. of Sc. and Arts (Silliman's)*, 1824, vii. 149-161. — Indian, of great antiquity, showing Druidical influences.

205-206 FISCHER, J. *Die Entdeckungen der Normannen in Amerika*, 1902. Also translation by B. H. Soulsby, 1903, pp. v, vi, 42 f. — Not Norse; without doubt of Indian origin. [206] *Pre-Columbian Discovery of America*. In *Catholic Encyclopedia*, 1907, i. 418 f. — Not Norse; merely Indian picture-writing.

207 FISCHER, R. S. *New and Complete Statistical Gazetteer of the U. S.*, 1853, p. 181. — Mention.

208 FISKE, J. *Discovery of America*, 1892, i. 213-215. — Not Norse; refers to "Rafn's ridiculous interpretation of this Algonquin pictograph."

209 FISKE, WM. Quoted in *Islandica*, 1909, vol. ii, Editorial Note. — Norse theory exhibits prodigious play of imagination.

FOLSOM, A. H. Photographer of no. 27, 1868.

210 FOLSOM, C. Remarks on Rock. In *Proc. Amer. Antiq. Soc.*, Oct. 21, 1867, p. 7 f. — Indian.

211 FOLSOM, G. *Discovery of America by the Northmen*. In *N. York Rev.*, 1838, pp. 361-363. — Norse, probably; "we shall not pretend to decide;" but "no reasonable doubt" of Rafn's location of Vinland.

212 FOREIGN QUARTERLY REVIEW, 1838, xxi. 89 ff. Review of *Antiquitates Americanæ*. — Not Norse; "enough of these antiquarian absurdities."

213 FOSSUM, A. *Norse Discovery of America*, 1918, pp. 17 f. — Not Norse; Indian.

214-215 FOSTER, JOHN WELLS. On the Discovery of America. In *Hesperian*, 1838, i. 27. — Not Norse; "I know not why they may not have been made by the Indians." [215] *Prehistoric Races of the United States*, 1873, p. 400. A 6th ed., 1887. — Not Norse; "crude picture-writing of the savage."

216 FOWLE, W. B., and FITZ, A. *Elementary Geography for Massachusetts Children*, 1845, p. 155. — Supposed to be earlier than Indians of colonial times.

217 FRANKLIN, BENJ. Letter to Gebelin, May 7, 1781; in *Writings of B. F.*, 1906, viii. 246. — Mention of Rock.

218 FREDERICK VII, King of Denmark. Letter to N. Arnzen, May 7, 1861. Acknowledgment of donation of Rock to Roy. Soc. of Northern Antiquaries, May 27, 1861. *See nos.* 22, 23, 89.

219 FREE, E. E. *Pictured Rocks of N. Amer.* In *N. Y. Herald Tribune*, July 18, 1926, Sect. III, p. 5. Illus., no. 24. — Not Norse; Delabarre's "Cortereal" reading "seems to have solved the problem."

220 FREEMAN, F. *History of Cape Cod*, 1860, i. 55. — Norse.

221 FRIEDRICHSTHAL, The Chevalier. Ms. letter to T. L. Winthrop, July 16, 1840; accompanied by drawing of Rock. Owned by Mass. Hist. Soc. — Not Norse.

222 FROTHINGHAM, N. L. Value of James Winthrop's reproduction of the inscription. In *4 Mass. Hist. Colls.*, 1854, ii. 142.

223 FUGL, N. Letter to Rafn, Jan. 20, 1840, on a comparison of the Sewall drawing with that of the R. I. Hist. Soc. In *Mémoires de la Société Royale des Antiquaires du Nord*, 1840-44, p. 8.

224 FUNK AND WAGNALL'S STANDARD ENCYCLOPEDIA, 1912, ix. 64. — Indian.

225-226 GAFFAREL, P. *Étude sur les rapports de l'Amérique et de l'ancien continent avant Christophe Colomb*, 1869, p. 130. — An indecipherable enigma. [226] *Histoire de la découverte de l'Amérique depuis les origines jusqu'à la mort de Christophe Colomb*, 1892, i. 80, 84 f, 88. Illus., after 18b, opp. p. 80. — An indecipherable enigma.

227 GAGNON, A. *Les Scandinaves en Amérique*. In *Proc. and Trans. Royal Soc. of Canada for 1890*, vol. viii. sect. i. pp. 43-50. — Norse, accepts Rafn's views.

228 GALLATIN, A. *Synopsis of Indian Tribes*. In *Archaeologia Amer.*, 1836, ii. 147. — Norse theory "out of the question."

GANONG, F. N. Photographer of no. 40, 1908.

229 GARDNER, J. Author of lithograph of 1812.

230-231 GARDNER, W. B. Photographer in the production of the Davis-Gardner version, 1873, and of the Harrison-Gardner version, 1875. Author of a descriptive paragraph printed on the mounts of these photographs, endorsing the theory and translation of Rafn.

232 GAZETTEER OF THE WORLD, London, 1886, i. 216, 630. — Mention; "supposed to be Norse."

GEBELIN, Court de. *See* Court de Gebelin.

233 GEHLEN, A. *Latest Researches on the Discovery of America by the Northmen*. In *Scientific American Supplement*, 1903, lv. 22874 f. — Indian; not Runic, but Algonquin characters.

234 GELCICH, E. *Zur Geschichte der Entdeckung Amerikas durch die*

Skandinavier. In *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, 1892, xxvii. 156. — Not Norse.

235 GENTLEMAN'S MAGAZINE, 1787, lvii. 699. Review of papers by Lort and Vallancey. — Natural corrosions; not Phœnician.

236 GEOGR. JOUR., 1923, lxii. 470. A new Interpretation of the Dighton Rock Inscription. — Review of no. 157.

237 GJERSET, K. History of the Norwegian People, 1915, i. 214. — Indian.

238 GOODRICH, A. History of the character and achievements of the so-called Christopher Columbus, 1874, pp. 69-87. — No direct mention of Rock; but accepts conclusions of Rafn.

239 GOODRICH, S. G. (Peter Parley). Lights and Shadows of Amer. Hist., 1848, pp. 39-41. Illus., p. 34, after no. 20. — Norse.

240 GOODWIN, J. A. Pilgrim Republic, 1888, pp. 129, 140. — Not Norse; may be by some prehistoric tribe.

241 GOSLING, W. G. Labrador, [1916], p. 1. — An Indian picture-writing.

242-243 GRAVIER, G. Découverte de l'Amérique par les Normands au X^e Siècle, 1874, pp. 91-97. Illus. [243] Notice sur le roc de Dighton . . . In Congrès international des Américanistes. Compte-rendu de la 1^e session, Nancy, 1875, pp. 166-192. Also separate reprint, Nancy, 1875. Illus., no. 18b. — Norse. Gives a translation slightly different from that of Rafn.

244-245 GREEN, S. A. Remarks concerning a recent visit to Rock. In Proc. Amer. Antiq. Soc., Oct. 21, 1867, p. 7. [245] Remarks on sculptured rocks in Rhode Island lately visited. In *ibid.*, Oct. 21, 1868. — Indian.

246-248 GREENWOOD, ISAAC. Letter to J. Eames, Dec. 8, 1730. Letter A, actually sent on that date. Contains copied drawings of Danforth and Greenwood. In British Museum, Add. MSS. 6402.47, 106, 107. [247] Letter to J. Eames, Dec. 8, 1730. Letter B, the original rough draught, not sent until April, 1732. Contains the probable originals of the Danforth and Greenwood drawings, and the "Danforth slip." In British Museum, Add. MSS. 4432.185-189. [248] Letter to J. Eames, April 28, 1732. Letter C. In British Museum, Add. MSS. 4432.190.

249 GRINNELL, C. Photograph, about 1907.

250 GUDMONDSSON, F. Opinion on Rock, cited by J. Fischer in Discoveries of the Northmen, 1903, p. 42. — Rafn's theory quite untenable.

251 GUILLOT, P. Histoire des peuples du Nord ou des Danois et des Normands. (Translation of Henry Wheaton's History of the Northmen, 1831). . . . Édition revue et augmentée par l'auteur . . . traduit de l'Anglais par Paul Guillot, 1844, pp. 43n, 491-499 (by translator). Illus., after no. 18b, opp. p. 491. — Norse; accepts Rafn's views.

252 H., H. W. (H. W. HAYNES?) Review of De Roo's History of America before Columbus. In Amer. Hist. Rev., 1901, vi. 801. — Mention. See also no. 280.

253 H., W. D. Answer to a query. In Notes and Queries, 2nd series, 1858, v. 387. — Not Norse; Indian.

254 HALE, C. R. Essay on the Dighton Rock, 1865. An illustrated ms., 104 pp., owned by Amer. Antiq. Soc. — Not Norse; Indian.

255-261 HALE, E. E. Ms. Diary, July 31, 1839. Description of a visit to Rock and of making a drawing. [256] Ms. letter to S. F. Haven, Oct. 18, 1864, accompanying a gift of the A. H. Everett drawings to Amer. Antiq. Soc. Owned by Society. See also Proc. Amer. Antiq. Soc., Oct. 21, 1864, p. 46n. [257] Report of Council. In Proc. Amer. Antiq. Soc., Oct. 21, 1871, p. 23. — Mention. [258] History of the U. S., 1887, p. 17. — Cannot be used as evidence for the Norse theory. [259-260] A Harvard Undergraduate in the Thirties. In Harper's Mag., 1916, cxxxii. 696. — Mention of Rock, under dates of Nov. 20, 24, 1837. [261] Life and Letters. Ed. by E. E. Hale, Jr., 1917, i. 32 f 45, 59-63, 199, 360.

262 HALE, HORATIO, or NATHAN. Copy of Sewall drawing, and transcript of writing on it, Nov. 17, 1834. In ms. Corr. and Reports, R. I. Hist. Soc., ii. 23.

263 HALL, BENJ. H. Hist. of Eastern Vermont, 1858, p. 588. — Mention.

264-266 HALL, J. W. D. Two newspaper contributions, 1877, in Old Col. Hist. Soc. [264] Dighton Rock. [265] The Norsemen and Dighton Rock. — Norse. [266] Dighton Writing Rock. In Colls. Old Colony Hist. Soc., 1889, no. 4, p. 97. — History of ownership.

267 HAMLIN, A. C. Cited by Lodge in 1874, as having unsuccessfully attempted a cast of Rock, and being of opinion that it is an ordinary Indian pictograph with no runic characters on it. A resident of Dighton recalls an attempted cast, probably this one, made not later than 1870.

268 HARPER'S ENCYCLOPÆDIA OF UNITED STATES HISTORY, [1901], x, article Vineland. Illus., after no. 29c. — Not Norse.

269 HARRIS, S. Translation of Dighton Rock inscription, about 1807. Cited by Kendall [324], and E. Everett [192]. — A Hebrew inscription in ancient Phœnician characters.

270 HARRISON, A. M. Made a topographical survey of Taunton river in 1875; embodied particulars concerning Rock in a separate paper filed in the office of the Survey; signed some copies of the Harrison-Gardner photograph as having been present when taken. See Report of the U. S. Coast Survey for the year ending June, 1876; U. S. Document, 1688; Executive Document no. 37, 44th Congress, 2nd session, Senate, p. 18.

271 HASKEL, D., and SMITH, J. C. Complete Descriptive and Statistical Gazetteer of the U. S., 1850, p. 177. — Mention.

272 HATHAWAY, C. A., Jr. Photograph, with Rock unchalked, taken in 1907.

273-277 HAVEN, S. F. Archæology of the U. S. In Smithsonian Contributions to Knowledge, 1856, viii. 28-35, 106 f, 133. — Indian. [274] Report of Librarian. In Proc. Amer. Antiq. Soc., April 29, 1863, p. 31. [275] Report of Librarian. In *ibid*, Oct. 21, 1864, p. 41. [276] Report of Librarian. In *ibid*, Oct. 21, 1867, p. 7. [277] Report of Council. In *ibid*, April 26, 1871, p. 21. — Not Norse.

278 HAWTHORNE, H. *Old Seaport Towns of New England*, 1916, pp. 250 f. — Not Norse.

279 HAY, JOHN. *Erato: Class-day poem*, June 10, 1858.

280 HAYNES, H. W. *Historical character of the Norse sagas*. In 2 *Proc. Mass. Hist. Soc.*, 189, v. 334 f. — Mention. *See also* no. 252.

281-283 HAYWARD, J. *Gazetteer of N. England*, 1839. [282] *Gazetteer of Mass.*, 1846, pp. 33, 137. [283] *Gazetteer of the U. S.* 1853, p. 350. — Mention.

284-286 HAZARD, E. *Corr. with J. Belknap*. In *Belknap Papers*, 1877, [284] i. 343, May 17, 1784; [285] i. 361, June 21, 1784; [286] ii. 77, Nov. 22, 1788. — Undeciphered.

287 HAZARD, T. R. *Miscellaneous Essays and Letters*, 1883, p. 329. — Norse.

288 HEADLEY, P. C. *Island of Fire*, 1875, p. 65. — Mention.

289 HENRICI, E. *Amerikafahrer von Leif bis auf Columbus*. In *Beilage zur Allgemeine Zeitung*, 1892, no. 87, April 12, pp. 1-5. — Norse. "The Runic stone of Dighton causes the last doubt concerning the situation of *Weinland* to disappear. The voyages of the Northmen extended surely to Florida and with the highest probability even to Brazil. Everywhere are found traces of the ancient colonies."

290 HERBERMANN, C. G. *Northmen in America*. In *Hist. Records and Studies*, published by U. S. Catholic Hist. Soc., 1903, vol. iii. pt. i. pp. 185-204. — "Instead of being runic, turns out to be Indian picture-writing."

291 HERMANNSSON, H. *Northmen in America*. In *Islandica*, 1909, ii. — No vestiges left by the Northmen have been found (Introduction). Mention of *Rock* in the bibliography.

292-293 HERMES, K. H. *Entdeckung von Amerika durch die Isländer im zehnten und elften Jahrhunderte*, 1844, Pref. and p. 123. *Illus.*, after no. 18b. — Norse; a "most unambiguously testifying monument." [293] *Discovery of America by the Icelanders*. Translated by F. J. Grund. In *Graham's Amer. Monthly Mag.*, 1853, xlii. 545-562. — An abstract of the German work.

294-295 HIGGINSON, T. W. *Visit of the Vikings*. In *Harper's Mag.*, 1882, lxxv. 515-527. *Illus.*, after no. 29c, p. 515. — Not Norse; Indian. [295] *History of the U. S.*, 1882, pp. 28-51. *Illus.*, after no. 29c, p. 45. — Reproduces no. 294.

296 HIGGINSON, T. W., and MACDONALD, W. *History of the U. S.*, 1905, pp. 40 ff. — Essentially the preceding account, with a few alterations.

297 HILL, I. *Antiquities of America Explained*, 1831, pp. 70-76. *Illus.*, no. 16b. — Inscription due to Jewish and Tyrian sailors, in second month of tenth year of the reign of Solomon (about 1000 B. C.); full translation.

298 HITCHCOCK, E. *Explanatory note in Catalog of New England Indian Relics in Gilbert Museum of Amherst College*, 2nd ed., 1904. *Illus.*, after no. 29c, Plate VI.

299 HOFFMAN, W. J. Visited Rock, 1886; cited on its rapid wear, in 10th Ann. Rep., Bur. Amer. Eth., p. 86.

300 HOLLAND, W. J. Petroglyphs at Smith's Ferry, Pennsylvania. In International Congress of Americanists, 13th session held in New York in 1902, pp. 1-4. — Similar to Dighton Rock; due to Indians.

301 HOLMBERG, A. E. Skandinaviens Hällristningar, 1848, pp. 146-153. Illus., no. 18b, tab. 45, fig. 165. — Norse; the Rafn version.

302 HOLMES, A. Life of Ezra Stiles, 1798, p. 119. — Non-committal.

303-304 HOLMES, W. H. Dighton Rock. In Art and Archæology, 1916, iii. 53-55. Illus., no. 33. — Indian. Apparently a verbatim reprint from Thomas, with an addition concerning Lundy. [304] Handbook of Aboriginal Amer. Antiquities, Part I, The Lithic Industries. Bur. Amer. Ethnol., Bull. 60, 1919, pp. xv, 101, 355. — Indian.

305 HORSFORD, E. N. Discovery of America by Northmen. Address at the unveiling of the statue of Leif Eriksen, Oct. 29, 1887 (1888), pp. 23 f., 65. Illus., after 17b, p. 24. — Not Norse; Indian.

306 HOSMER, HEZEKIAH L. Origin of Our Antiquities. In Overland Monthly, 1872, ix. 531 f. — Norse; if Icelandic manuscripts are genuine, "there is abundant reason to believe that all the antiquities of North America owe to the Northmen their origin."

307 HOUGH, CLARA S. Is Lost Sailor's Name cut on Dighton Rock? In New Bedford Sunday Standard, Aug. 29, 1926, Sect. 4, pp. 1, 2. Illus., no. 43a. — Exposition of Cortereal theory.

308 HOVGAARD, W. Voyages of the Norsemen to America, 1914, pp. 115 ff. — Not Norse; Indian.

309 HOWARD, R. H., and CROCKER, H. E. Popular History of N. Eng., 1881, i. 122. — Mention.

310 HOWLEY, M. F. Vinland Vindicated. In Proc. and Trans. Roy. Soc. of Canada, 1898, ser. 2, vol. 4, sec. 2, p. 77. — "Doubtful hieroglyphics of Dighton."

311 HUMBOLDT, F. H. A. VON. Vues des Cordillères et monuments des peuples indigènes de l'Amérique, 1810, i. 180. Recherches, concerning the Institutions and Monuments of the Ancient Inhabitants, of America, . . . Translated into English by H. M. Williams, 1814, i. 149-155. — Work of the natives.

312 HURD, I. H., compiler. Hist. Bristol Co., Mass., 1883, p. 250. — Not Norse.

313 HUTT, F. W. Review of Cortereal theory, in Taunton Gazette, July 16, 1920, p. 16. [313a] Editor, Hist. Bristol Co., Mass., 1924, i. 16. — Mention.

314 INDEPENDENT CHRONICLE, Boston, May 19, 1819, p. 1/5. American Antiquities. From Newburyport Herald of May 4. The "Writing Rock." — Mention.

315 INDEPENDENT DE FALL RIVER, L'. 14 Juillet, 1915, pp. 17, 23. Les Phéniens ont-ils connu l'Amérique? L'inscription du Rocher de Dighton. Des

Phéniciens auraient visité la Baie Mount Hope, dans l'antiquité. Illus., no. 11c, p. 17. — A reprint from Gebelin; editorial comment non-committal.

316 IRVING, W. Review of Bancroft's History of the U. S., 1841. In Biographical and Critical Miscellanies, 1863, i. 330 f. — Indian.

317 JAMESON, J. F., and BUEL, J. W. Encyclopedic Dictionary of the United States, 1901, i. 219. — Rafn's view "has now been generally abandoned, though the central portion may be Norse."

318 JOMARD, E. F. Seconde note sur une pierre gravée, trouvée dans un ancien tumulus américain, et . . . sur l'idiome libyen, [1845]. — Inscription is in Libyan characters. See no. 557.

319 JOURNAL POLITIQUE OU GAZETTE DES GAZETTES, Bouillon, June, 1781, p. 65. — Gebelin's Carthaginian interpretation.

320 JULIUS, N. H. Letter to R. I. Hist. Soc., May 23, 1839; in ms. Correspondence and Reports, iii. 43. — Rock is Norse, "speaking clearly and boldly of the first white Americans."

321 KAISER, W. Entdeckungen der Normannen im Grönland und in Amerika, 1882, p. 17. — Norse; "for unbiassed observers no doubt can remain that it is an inscription by Thorfinn."

322-324 KENDALL, E. A. Painting in oil, 1807. Now in Peabody Museum. [323] Account of the Writing-Rock in Taunton River. In Memoirs Amer. Acad. of Arts and Sciences, 1809, iii. 164-191. A letter to J. Davis, dated Oct. 29, 1807. Illus., no. 15b. — Origin undetermined. [324] Travels, 1809, ii. 219-232; iii. 205-222. — Unquestionably Indian; an unreadable record of some unknown transaction.

325 KINNICUTT, L. N. Indian Names in Plymouth County, 1909, p. 42. — Indian.

326 KITTREDGE, F. E. Letter to Edwin M. Stone. In Proc. R. I. Hist. Soc., 1872-73; Report by the Librarian, Jan. 21, 1873, p. 72. — No opinion expressed.

327 KITTREDGE, G. L. Cotton Mather's Scientific Communications to the Royal Society. In Proc. Amer. Antiq. Soc., April, 1916, xxvi. 18-67.

328 KNEELAND, S. American in Iceland, 1876, p. 224. — Norse.

329 KUNSTMANN, F. Entdeckung Amerikas, 1858, p. 29. — Norse; accepts Rafn's views.

330 LAGRÈZE, G. B. DE. Les Normands dans les deux mondes, 1890, p. 352. — "In several parts of America have been found stones with runic inscriptions."

331 LAING, S. The Heimskringla, 1844, i. 174-183; 2nd ed., 1889, pp. 218 ff. Illus., after no. 17b, p. 175; nos. 14e and 18b, p. 176. — Not Norse; might belong to any people or period one may please to fancy.

332 LANIER, S. Psalm of the West. In Lippincott's Mag., June, 1876; and Poems, 1909, pp. 114-138.

333 LARNED, J. N. The Literature of Amer. Hist., 1902, p. 56, no. 750. — Mention.

334 LATHROP, JOHN. Letter to J. Davis, Aug. 10, 1809, describing

Washington's visit to the Harvard Museum. In *Proc. Mass. Hist. Soc.*, 1869, x. 114. — Washington believed it to be Indian.

335 LELEWEL, J. *Géographie du Moyen Age*, 1852, iii-iv (in one volume), p. 82. *Illus.*, after no. 17b, Plate I. — Norse; accepts Rafn's views.

336 LIBRI-CARRUCCI DALLA SAMMAIA, G. B. I. TIMOLEONE, Conte. Introduction, dated March 7, 1861, to *Cat. of the Mathematical, Historical, Bibliographical and Miscellaneous portion of the Celebrated Library of M. Guglielmo Libri*, pt. i. p. vi. — Inscriptions left by the Norsemen on rocks are the best proof of their visits to America.

337 LIPPINCOTT'S GAZETTEER OF THE WORLD, 1906, p. 203. — Mention.

338 LODGE, H. C. *Critical Notice of Gravier's Découverte de l'Amérique par les Normands*. In *North Amer. Rev.*, 1874, cxix. 173-175. — All the best American authorities agree that it is wholly of Indian workmanship.

339 LÖFFLER, E. *Vineland Excursions of the ancient Scandinavians*. In *Congrès international des Américanistes*. *Compte-rendu de la 5^e session*, Copenhagen, 1883, pp. 64-73. *Illus.*, after no. 29b, p. 70. — Indian.

340 LÖHER, F. VON. Cited by Peschel, *Jenäer Literaturz.*, 1874, as reporting that Bancroft visited Rock. (Gravier reports Löher as saying that Bancroft found the stone.)

341 LORD, AVERY E. *Brown Professor Solves Puzzle of Dighton Rock*. In *Providence Journal*, Oct. 10, 1926, sect. F, p. 2. *Illus.*, from no. 43b. — Exposition of Cortereal theory.

342-343 LORT, M. *Account of an antient Inscription in North America*. Read Nov. 23, 1786. In *Archæologia*, 1787, viii. 290-301. *Illus.*, nos. 1d, 2a, 5c, 11b, in Plates XVIII, XIX. — First historical survey. At first thought the inscription was Indian; non-committal as to present opinion. [343] Letter to Bishop Percy, April 16, 1790. In *J. B. Nichols's Illustrations of the Literary History of the Eighteenth Century*, 1848, vii. 504-506. — Much disposed now to believe it due to natural corrosion of the rock.

344-345 LOSSING, B. J. *Pictorial Field-Book of the Revolution*. First issued in numbers, 1850-52; frequently reprinted; i. 633-635. *Illus.*, no. 16c. — Record of a battle with Indians, made by Scandinavians acquainted with the Phœnician alphabet. [345] *Centennial Edition History of the United States*, 1876, p. 35. — Norsemen left no traces except the tower at Newport.

346-347 LOWELL, J. R. *Biglow Papers* (1890). [346] 1st Series, 1848, no. vii. p. 115; [347] 2nd Series, 1862, no. iii. p. 278; iv. p. 297; v, pp. 311-318. — A parody of the Norse theory.

348 LUBBOCK, Sir J. *Pre-historic Times*, 1865. 3rd ed. 1872, p. 278. — Non-committal.

349-350 LUNDY, J. P. *Communications on Mongolian symbolism and on Dighton Rock*. In *Proc. Numismatic and Antiq. Soc. of Philadelphia for 1883*, pp. 7-8. Meetings of March 1, April 5. — Chinese; full translation given. [350] *The Dighton Rock Inscriptions*. In *Phila. Ev. Telegraph*, April 12, 1883, p. 6, col. 1. — Chinese.

351 M'CULLOCH, J. R. *Gazetteer*, 1843. — Never satisfactorily explained.

352-353 McLEAN, J. P. *Study of American Archæology*. In *Universalist Quart. and Gen. Rev.*, 1881, xxxviii. (N. S. xviii.) 285. — Indian; contains numerous errors. [353] Critical examination of the evidences adduced to establish the theory of the Norse discovery of America. In *American Antiquarian*, 1892, xiv. 33-40, 87-94, 139-154, 189-196, 271-276. Separate reprint, Chicago, 1892. *Illus.*, after no. 24, opp. p. 192. — Not Norse.

354 MADDEN, SIR F. *Index to the Additional Manuscripts preserved in the British Museum*, 1849. — Reference, under Greenwood.

355 MAGNUSEN, F. Translation of the inscription as a Norse record. In *Antiquitates Americanæ*, 1837, pp. 378-382.

356-357 MALLERY, G. *Pictographs of the North American Indians*. In *Fourth An. Rep. Bureau Amer. Ethnology for 1882-83* (1886 [1887]), pp. 20, 250. — An Indian pictograph. [357] *Picture-writing of the American Indians*. In *Tenth An. Rep. Bureau of Amer. Ethnology for 1888-89* (1893 [1894]), pp. 35, 86, 762. *Illus.*, no. 24, p. 86, fig. 49; nos. 1d, 2a, 5c, 11b, 12b, 14e, 15c, 16c, 18b, on Plate LIV, p. 762. — An Indian pictograph.

358 MARBOIS, FRANÇOIS MARQUIS DE BARBÉ. *Journal d'un voyage de France en Amérique à bord de la Frégate la Sensible* (17 June, 1779, to 6 Oct., 1784). Ms. in possession of Albert E. Lownes. *Illus.*, no. 11. — Mention of current theories; Indian.

359 MARSH, G. P. *Man and Nature*, 1864, p. 60n. — Not Norse; but accepts Rafn's localities.

360-364 MASS. HIST. SOCIETY. *Proceedings*, ii. 309, March, 1845; viii. 96, Jan. 1865; x. 470, Feb. 1869; liv. 49, Nov. 1920. Other references to publications of the society under names of persons. — Mention. [364] *Collections*, vol. 75, 1922, p. 53, no. 372. — Mention of Mather Broadside, 1714.

365-371 MATHER, COTTON. *Dedicatory Epistle to Sir H. Ashurst, in Wonderful Works of God Commemorated*, 1690. *Illus.*, no. 1b. — First printed account and illustration of the inscription. [366] 2nd ed., 1703. [367] *Life of John Eliot*, 1691, p. 81. — "Unaccountable characters." [368] *Letter to R. Waller*, Nov. 28, 1712. Ms. in *Letter-Book of Royal Soc.*, M 2.21.32. [369] *Extract of several Letters from C. Mather, to J. Woodward, and R. Waller*. In *Phil. Trans.*, no. 339, April-June, 1714, xxix. 70, 71. *Illus.*, no. 2a, in Plate, Fig. 8. [370] *Republication of letter on Rock*. In *Phil. Trans.*, abridged by H. Jones, 1721, vol. v. pt. ii. p. 165. *Illus.*, no. 2a, Plate VIII, Fig. 72, p. 190. [371] *Broadside, with description of Rock and drawing of the inscription*. Date of issue unknown, probably about 1714.

372 MATHIEU, C. L. *Le Printemps*, Nancy, [1816?]. Contains an account of Rock, reprinted in *American Monthly Mag. and Critical Rev.*, 1817, i. 257-262. — A record made by In, son of Indios, King of Atlantis, in Anno Mundi 1902.

373 MELVILLE, D. *Letter concerning Rock, the Stone Tower in New-*

port, and the Antiquarian hoax, March 23, 1848. In Brooks's Controversy touching the Old Stone Mill, 1851, pp. 51-54.—Indian.

374 MERRILL, F. T. Painting of the Rock, 1901; in possession of R. Davol.

375 MEYER'S KONVERSATIONS-LEXIKON. 6th ed., 1904, v. 3.—Not Norse.

376-377 MILLER, W. J. Notes concerning the Wampanoag Tribe of Indians, 1880, p. 119. 2nd ed., under title King Philip and the Wampanoags of R. I., 1885.—No direct mention of Rock; but the one on Mount Hope Bay is Norse. [377] Bi-Centennial of Bristol, R. I., 1881, p. 66.—Norse; follows Rafn.

378 MITCHILL, S. L. Discourse delivered Nov. 7, 1816. In *Archæologia Americana*, 1820, i. 340.—Disputes Mathieu's theory. *See also* no. 8.

379 MOCK, E. Entdeckung Amerikas durch die Nordgermanen. In *Mittheilungen des Vereins für Volkskunde zu Leipzig*, 1892, pp. 57-89. Separate reprint, 1893.—Not Norse; Indian.

380 MOHAWK INDIANS, cited by Kendall in 1807, in *Memoirs Amer. Acad. of Arts and Sciences*, 1809, iii. 182.—Interpretation of the inscription as an Indian record.

381 MONTHLY REVIEW, 1788, lxxix. 424. Review of *Archæologia*, 1787, viii.—Mention.

382 MONTJAU, E. M. de. Reads summary of Gravier's paper, 1875, *Congr. internat. des Amér.*

383 MOOSMULLER, P. O. *Europäer in Amerika vor Columbus*, 1879, pp. 130, 138-143. English translation, 1911.—Norse; follows Rafn's account.

384 MOREAU DE DAMMARTIN. *La Pierre de Taunston*. In *Journal de l'Institut Historique*, 1838, ix. 145-154. Published also as an autotype lithograph under the title: *Explication de la Pierre de Taunston*, Paris, n.d., 28 pp. Illus., no. 11d; a second plate analyzing and explaining the same.—An Egyptian representation of the celestial sphere.

385 MORGAN, T. Old found lands in North America. In *Trans. Royal Hist. Soc.*, 1874, N. S., iii. 75-97.—Does not seem to be Scandinavian.

386 MORSE, ABNER. Further Traces of Ancient Northmen in Amer., 1861, p. 20.—Norse.

387 MORSE, E. S. *Mars and its Mystery*, 1906, p. 97.—Discusses divergence in drawings.

388 MORSE, J., and R. C. *New Universal Gazetteer*, 3rd ed., 1821, p. 221.—“No satisfactory account has been given.”

389 MOULTON, J. W. *History of the State of New York*. By J. V. N. Yates and J. W. Moulton, 1824, vol. i. pt. i. pp. 84-86, 313. “Mr. Moulton is in fact the sole author of this scarce book” (*Sabin*, xii. 440).—Inclined to believe it of Phœnician origin.

390 MULHALL, M. McM. *Explorers in the New World before and after Columbus and Story of Jesuit Missions of Paraguay*, 1909, p. 4n.—Mention.

391 MUNRO, W. H. *Hist. of Bristol, R. I.*, 1880, p. 17. — Norse settled on Taunton River.

392 NADAILLAC, J. F. A. DU POUGET, Marquis de. *L'Amérique pré-historique*, 1883, pp. 556 f. (For American edition of 1884, *see* Dall). — Certainly not Indian; Norse theory the most plausible explanation.

393 NASON, E. *Gazetteer of Mass.*, 1874; enlarged ed., 1890, 1st ed., pp. 78 f, 181; 2nd ed., pp. 142 f, 274. *Illus.*, after no. 20. — Probably Indian.

394 NATION, THE, N. Y., 1882, xxxv. 178. Comment on Higginson's paper in *Harper's Mag.* — Mention.

395-396 NATIONAL INTELLIGENCER, Washington, Sept. 28, 1848, p. 3/2; Oct. 4, 1848, p. 3/1. — Mention.

397-398 NATIONAL QUARTERLY REVIEW, 1873, xxviii. 96. Discovery of America by the Northmen. — Norse reading has been questioned. [398] 1876, xxxiii. 20. Pre-Columbian Discoveries of America. — Doubtful.

399 NEAL, D. *History of N. Eng.*, 1720, ii. 593. 2nd ed., 1747. — Quotation from Cotton Mather.

400 NELSON'S LOOSE-LEAF ENCYCLOPEDIA, 1907. Dighton Rock. — Indian.

401 NEUKOMM, E. *Les Dompteurs de la Mer*, 1895. Two translations: *Rulers of the sea*, Boston, 1896; and *Tamers of the Sea*, N. Y., 1897. 1896 ed., pp. 99-101. *Illus.*, after no. 18b, p. 101. — Norse; follows Rafn's account.

402 NEW BEDFORD MERCURY, May, 1819. Notice on Rock, quoted in *Independent Chronicle*, May 19, 1819. — Mention.

403 NEWBURYPORT HERALD, May 4, 1819. Quoted in *Independent Chronicle*, May 19, 1819. — Mention.

404 NEW INTERNATIONAL ENCYCLOPEDIA. 1st. ed. 1902; 2nd ed. 1915. — Indian.

405 NEW YORK HIST. SOCIETY, *Proceedings*, Nov. 3, 1846: appointment of a committee consisting of H. R. Schoolcraft, M. S. Bidwell, and J. R. Bartlett, "to investigate the character and purport of the ancient pictorial inscription or symbolic figures of the (so-called) Dighton Rock." There is no record of a report by this committee; but see nos. 46, 483, 484.

406 NEW YORK TIMES, 1890. *See* no. 6.

407 NEW YORK TIMES, MID-WEEK PICTORIAL, Nov. 4, 1926, p. 18. *Has the Mystery of Famous Dighton Rock Been Solved?* *Illus.*, no 43a, 43b. — Exposition of Cortereal theory.

408 NICHOLS, W. D. Berkley. In *Hurd's History of Bristol County, Mass.*, 1883, p. 181. — Mention.

NORRAENA SOCIETY. *See* nos. 14, 55.

409 NORSEMEN MEMORIAL COMMITTEE, Boston, Jan. 12, 1877. Leaflet issued by the committee announcing its election Dec. 8, 1876, to take measures to erect a monument in honor of the Norsemen and for the protection of Dighton Rock, "a valuable historic relic of American Antiquity."

410-411 OLD COLONY HIST. SOCIETY. *Broadside on Dighton Rock*, issued

about 1882. — *Illus.*, after no. 29c. [411] Photograph, 1902, taken by A. L. Ward under direction of J. E. Seaver, sec. of the society.

412 ONFROY DE THORON, DON ENRIQUE, Vicomte. *Les Phéniciens à l'Île d'Haiti et sur le Continent Américain*, 1889, pp. 37-48. *Illus.*, after no. 18b, p. 40. — Sepulchral monument of a Phœnician adventurer about 330 B. C.; translation given.

413-414 PADDACK, E. Ink-impression of part of the inscription, taken August, 1767, now in Amer. Acad. of Arts and Sciences. Also ms. letters describing the same, Aug. 15, 1767, Jan. 7, 1768 in Stiles Collection, Yale University Library.

415-416 PALFREY, J. G. Visited the Rock, 1857. [416] *History of N. Eng.*, 1858, i. 56n. — Probably Indian.

PARLEY, PETER. *See* S. G. Goodrich.

417 PAYNE, E. J. *History of the New World called America*, 1892, i. 85. — Not Norse; quite certain that it is Indian.

418-420 PEABODY MUSEUM, Harvard University, *Annual Reports*: [418] i. 22, 6th, 1873; [419] ii. 13, 13th, 1876; [420] iii. 15, 14th, 1880. — Mention.

421 PECK, J. T. *History of the Great Republic considered from a Christian Stand-Point*, 1868, p. 20. — Norse; Rafn's localities accepted.

422 PERRY, C. G. Letter to R. I. Hist. Soc., March 3, 1840; in ms. *Correspondence and Reports*, iii. 68. — Inscriptions near Newport resembling those on Rock.

423-425 PESCHEL, O. *Geschichte des Zeitalters der Entdeckungen*, 1858. 2te Auflage, 1877, p. 82. — Norse; follows Rafn. [424] *Geschichte der Erdkunde*, 1865, p. 78. — Bancroft's opinion. [425] *Review of Gravier's Découverte de l'Amérique par les Normands*. In *Jenâer Literaturzeitung*, 1874, no. 17, April 25. — Norse; follows Rafn; but mentions dissenting opinions without comment.

426 PETERS, A. Ed. note to Schoolcraft's *Ante-Columbian Hist. of America*. In *American Biblical Repository*, 1839, 2nd series, i. 441. — Not Norse; Indian.

427 PETERSEN, E. *History of Rhode Island*, 1853, pp. 174-178. — Mention.

428 PIDGEON, W. *Traditions of De-Coo-Dah and Antiquarian Researches*, 1853, p. 20. — Phœnician.

429 PINTARD, J. Letter to J. Belknap, Aug. 26, 1789. In *Belknap Papers*, 1891, iii. 447. — Mention.

430 POOL, G. L. *An Antiquity Discovered in the Valley of the Merrimack*. In *N. Eng. Hist. Gen. Register*, 1854, viii. 185. — Thinks it similar to Rock.

431-432 POWER, L. G. *Vinland*. In *Colls. Nova Scotia Hist. Soc.*, 1891, vii. 18. — Not Norse. [432] *The Whereabouts of Vinland*. In *N. Eng. Mag.*, 1892, N. S., vii. 174. — Mention.

433-435 PROVIDENCE JOURNAL, July 15, 1827. Mention of a just published lithograph. [434] Dec. 2, 1869. Editorial comment of Farnum's paper on visits of Northmen to R. I. — Not Norse; mentions "the merited

ridicule heaped on Dighton Rock and the Old Stone Mill." [435] July 15, 1912. Account of the Dighton Bi-Centennial. Illus., after no. 35.

436 PUTNAM, F. W. Cited by H. E. Chase in no. 113, 1883.—Indian.

437 PUTNAM'S MONTHLY MAGAZINE, 1854, iv. 467. First Discoverers of America.—Norse. The Rock and the Newport Mill "are slowly and surely moulding public opinion to a favorable reception" of the Norse claims.

438 RAFINESQUE, C. S. Ancient History, or Annals of Kentucky; with a survey of the ancient monuments of North America, 1824, p. 35.—Mention of "many opinions."

439-444 RAFN, C. C. Antiquitates Americanæ, 1837, pp. xxix-xl, historical Introduction; 355-396, Dighton Rock; 396-405, inscribed rocks in Rhode Island. Illus., no. 17b, Tab. X; nos. 1d, 2a, 5c, 11b, 12b, 15c, 16c, Tab. XI; nos. 14e, 18b, Tab. XII.—A record made in 1008 by Thorfinn and his 151 companions, original source of the Norse theory. [440] America discovered in the tenth Century, 1838.—Mention. [441] Letter to D. Melville, Jan. 4, 1848. In Brooks's Controversy touching the Old Stone Mill, 1851, pp. 80 f; and in Petersen's Hist. of R. I., 1853, p. 174.—"We must be cautious in regard to the inferences to be drawn from . . . the early monuments." [442-444] Letters to N. Arnzen concerning removal of Rock to Denmark, dated Aug. 16, 1859; Aug. 30, Oct. 10, 1860; Sept. 3, 1861. In Arnzen's Report, Colls. Old Colony Hist. Soc., 1895, no. 5, p. 95.—The Rock is "of high and pressing importance."

445-446 RAU, C. Observations on the Dighton Rock inscription. In Mag. of Amer. Hist., 1878, ii. 82-85. Reprinted in Amer. Antiquarian, 1878, i. 38, and in Kansas Review, ii. 168.—Advises caution in accepting the Norse theory. [446] Dighton Rock inscription, an opinion of a Danish archaeologist. In Mag. of Amer. Hist., 1879, iii. 236-238.—Worsaae's opinion: Indian, not Norse.

447 READER, A. Archaic Rock Inscriptions, 1891, pp. 64-70.—Indian.

448 RECLUS, É. Nouvelle Géographie Universelle, 1890. xv. 12.—Not Norse.

449 REEVES, A. M. Finding of Wineland the Good, 1890, p. 97.—Rafn's theories have fallen into disfavor.

450 RÉMUSAT, J. P. A. Letter to Dr. Benj. B. Carter of New York, Feb. 4, 1823. Ms., owned by Amer. Antiq. Soc.—Indecipherable; doubtful if it has any letters or symbolic characters.

451 RHODE ISLAND HIST. SOCIETY. Drawing by a committee of the Society, about Sept. 4, perfected Dec. 11, 1834. Published, with conjectural additions by Rafn, in Antiquitates Americanæ, 1837.

452-464 RHODE ISLAND HIST. SOCIETY. Ms. volumes entitled: Correspondence and Reports, vols. i and ii; Records, vol. i; Trustees' Records, vol. i. [452] In 1829, appointment of committee consisting of Richmond and Staples to answer letter from Rafn. [453] 1830, addition of Webb to committee; replies sent to Rafn. [454] 1831, Annual Report. [455] 1833, appointment of committee on the antiquities and aboriginal history of

America, consisting of Webb, Bartlett, and Greene. [456] This committee in 1834 made new drawings of Rock and sent further communications to Rafn. [457] In 1835, further reports of committee, visits to other inscribed rocks, and letters to Rafn. [458-463] 1836-1841, Annual Reports mention Rock, measures for its preservation, importance of inscription rocks, and further correspondence with Denmark. [464] Museum catalogue, 1916, p. 3. — Not Norse.

465 RICHMOND, W. E. Mount Hope, 1818, pp. 10-13 (verse), 43-53 (notes). — Not Indian; probably Egyptians, Phœnicians or Carthagians, in remote antiquity.

466 RICKETSON, D. Dighton Rock. A poem in *New Bedford Mercury*, May 4, 1839.

467-468 RIDER, S. S. In *Book Notes*, 1888, v. 126. — Mention; sarcastic review of Fales. [468] In *Book Notes*, 1892, ix. 254 f. — Mention.

469 RIVERO, M. E., and TSCHUDI, J. J. von. *Peruvian Antiquities*. Translated by F. L. Hawkes, 1853, pp. 5, 21. — Supposed to give confirmatory evidence of the visits of the Scandinavians.

470 RÖTTINGER, H. *Entdeckung Amerikas durch die Normannen im 10. und 11. Jahrhundert*, 1912, p. 18. — "An indisputable proof of the presence of the Northmen in America."

471 ROUX DE ROCHELLE, J. B. G. *États-Unis d'Amérique*, 1853, pp. 161 f. *Illus.*, no. 12b. — Engraved by ancient American people, predecessors of Indians.

472-473 ROYAL SOCIETY OF LONDON. *Ms. Register-Book*, June 15, 1732: Copy of Greenwood's letter to Eames. [473] *Minutes*, 1775. Abstract of John Winthrop's letter.

474-475 ROYAL SOCIETY OF NORTHERN ANTIQUARIES, Copenhagen. General Anniversary Meeting, 15th February, 1851. — Mention. [475] Letter from J. J. A. Worsaae and three other officials to N. Aruzen, Feb. 22, 1877, expressing opinion of society that figures on Rock are not Norse, but Indian. Owned by Old Col. Hist. Soc.

476 RUGE, S. *Entdeckungs-Geschichte der neuen Welt*. In *Hamburgische Festschrift zur Erinnerung an die Entdeckung Amerikas*, 1892, i. 8 f. — Not Norse; "mere Indian picture-scratchings."

477 SABIN, J. *Dictionary of books relating to Amer.*, 1879, xi. 450. — Mention.

478 SANFORD, E. *History of Berkley, Mass.*, 1872, pp. 59 f. — Mention.

479 SARGENT, P. E. *Handbook of New England*, 1916, p. 578. — Indian.

480 SCANDINAVIAN MEMORIAL CLUB of Boston, committee of, visits Rock Nov. 7, 1877; includes P. L. Everett, T. G. Appleton, E. N. Horsford, W. E. Baker. See letter of Baker to Aruzen, in *Old Col. Hist. Soc.*

481-486 SCHOOLCRAFT, H. R. *Ante-Columbian history of America*. In *Amer. Biblical Repository*, 1839, i. 441 ff. *Illus.*, after no. 17b, p. 440. — Not Runic. Records an event manifestly of importance in Indian history. [482] *Incentives to the study of the Ancient Period of American History*. Address delivered before the N. York Hist. Soc., 17th Nov., 1846 (1847),

p. 10. — "We are by no means sure" that the localities and monuments mentioned by Raín ever had any connection with the Scandinavians. [483] Original drawing of the alleged Roman letters in the central part of the inscription, made in August, 1847; published in no. 484. [484] History of the Indian Tribes, 1851, i. 106-120, 125. Illus., no. 23 together with combination of 14c and 18b, Plate 36, p. 114; and an analytical Synopsis of the inscription, Plate 37, p. 119. — Central characters are Scandinavian. All the rest is Indian; Chingwauk's interpretation of it is given. [485] History of the Indian Tribes, 1854, iv. 119 f. Illus., no. 24, Plate 14, p. 120. — "It is entirely Indian." [486] History of the Indian Tribes, 1860, vi. 113 f, 605, 609. — An Indian record of battle between two tribes.

487 SEAGER, E. Two india-ink drawings, made with assistance of C. R. Hale in 1864. Owned by Amer. Antiq. Soc.

SEEVER, J. E. See no. 411.

488 SEGRAVE, F. Sagas Tell of Leif the Lucky's Brave Venture. In New Bedford Sunday Standard, July 25, 1926, Sect. 4, pp. 31, 32. Illus., no. 17b. — Not Norse.

489 SEWALL, R. K. Ancient Voyages to the Western Continent, 1895, pp. 12, 23. — "Deighton Rock and Monhegan . . . are possible footprints not of Northman visits alone but of Phœnician adventure here."

490 SEWALL, SAMUEL. Letter-Book (1886), i. 116. Memorandum of Febr. 24, 1691. — Mention.

491-493 SEWALL, STEPHEN. Author of drawing of Sept. 13, 1768. Owned by Peabody Museum. [492] Ms. letter to E. Stiles, Jan. 13, 1769. In Stiles Collection, Yale University Library. — Indian; without significance. [493] Letter to Court de Gebelin, 1781, accompanying copy of his drawing. In Gebelin's *Monde Primitif*, 1781, viii. 58 f.

494 SHAFFNER, T. P. History of the U. S., n. d. [about 1862]. — Norse.

495 SHEA, J. G. Introd. to C. G. Herberman's transl. of Torfason's *Hist. of Ancient Vinland*, 1891, p. iv. — Not Norse.

496 SHIPLEY, J. B., and M. A. English Rediscovery and Colonization of America, 1891, p. 7. — No direct mention; but Vinland was Rhode Island and Massachusetts, and "traces of their long-continued presence have been found . . . in various parts of New England."

497 SHORT, J. T. Claims to the discovery of America. In *Galaxy*, 1875, xx. 517. — Not Norse; Indian.

498-500 SHOVE, G. A. Lithograph of Rock, 1864. Made also many other drawings and paintings of Rock, much resembling the lithograph. [499] Dighton. Chapter xix in Hurd's *History of Bristol County, Mass.*, 1883, pp. 250 f. Illus., after no. 29c. — Probably not Norse; little opposition to the Indian view. [500] Toast to "The South Purchase." In *Quarter Millennial Celebration of Taunton, Mass.*, June 4 and 5, 1889. — Mention.

501 SIBLEY, J. L. Description of the restoration of the Sewall drawing in 1860. Ms., attached to the original drawing, in the Peabody Museum.

502-503 SINDING, P. C. History of Scandinavia, 1858. [503] Scandinavian Races, 1876, p. 84. — Norse; accepts Rafn's opinions.

504-505 SLADE, E. Letters describing Rock, Dec. 17, 1875, March 13, 1876. In R. B. Anderson's America not discovered by Columbus, 2nd ed. 1877, p. 21, 33. — Not Indian.

506 SLADE, W. A. King Philip Country. In N. Eng. Mag., 1898, xxiv. 609. Illus., after no. 29c, p. 606. — Has some value as evidence for Norse visits.

507-508 SLAFTER, E. F. Voyages of the Northmen to America (Prince Society), 1877, pp. 11, 132-134, 137, 140. — There is left no trace of belief in Norse origin of Rock and Newport mill "in the minds of distinguished antiquaries and historians." [508] Discovery of America by the Northmen, 985-1015. Discourse delivered before N. Hamp. Hist. Soc., April 24, 1888. Also read before Bostonian Society, Dec. 10, 1889. In Proc. N. Hamp. Hist. Soc., ii; and in Granite Monthly, 1890, xiii. 201 f. Separate reprint, 1891. — Indian.

509 SMIBERT, J. Drawing of Rock, about 1729, not now discoverable.

510-511 SMITH, B. Paper on Rock. Abstract in Proc. Amer. Antiq. Soc., April 29, 1863, p. 31. — Inscription by a Roman Catholic missionary, about 1520. [511] Ms. letter to J. R. Bartlett, July 14, 1864. In Letter-Book of J. R. Bartlett, in John Carter Brown Library.

512 SMITH, J. V. C. Letter on Rock and Fall River skeleton, June 15, 1842. In Mémoires de la Société Royale des Antiquaires du Nord, 1840-1844, p. 116.

513 SMITH, JOHN. Ms. letter to E. Stiles, July 25, 1789, describing the making of the drawing by himself, Dr. Baylies and others. In Stiles Collection, Yale University Library. — Queries if it may not be Asiatic.

514 SMITH, JOSHUA T. Northmen in New England or America in the Tenth Century, Boston, 1839, pp. 310-328. London editions of 1839 and 1842 bear title: Discovery of America by the Northmen in the tenth century. — An exposition and defence in dialogue form of Rafn's opinions.

515 SOCIETY OF ANTIQUARIES OF LONDON. Ms. Minutes, ii. 2; Nov. 9, 1732. — Copy of Greenwood's letter to Eames.

516 SPENCE, L. Myths of N. American Indians, 1914, p. 16. — Not Norse; Indian.

517 SPOFFORD, A. R. Library of Historic Characters and Famous Events. Edited by A. R. Spofford and Others, 1895, i. 108. — Not Norse.

518-519 SQUIER, E. G. Ms. letters to J. R. Bartlett, Nov. 7, 1846, Jan. 24, 1847. In Letter-Book of J. R. Bartlett, in John Carter Brown Library. — Indian inscriptions resembling that of Dighton Rock.

520 SQUIER, E. G., and DAVIS, E. H. Ancient Monuments of the Mississippi Valley. Smithsonian Contributions to Knowledge, 1847, i. 298, 300. — Indian.

521-523 SQUIER, E. G. Alleged Monumental Evidence of the Discovery of America by the Northmen, Critically Examined. In Brit. Ethnol. Journal, December, 1848. Reprinted in the National Intelligencer, March 27,

1849, p. 2/1-3. — Not Norse. The conclusion is irresistible that this rock is a true Indian monument and has no extraordinary significance. [522] Observations on Memoir of Dr. Zesterman. Reprint from Proc. Amer. Ethnol. Soc., 1851, p. 20. [523] Ancient Monuments of the U. S. In Harper's Mag., 1860, xx. 738. — Indian.

524 STANDARD DICTIONARY. Ed. 1903, p. 2242, mention; ed. 1913, no mention.

525 STARK, J. Antiquities of North America. In Amer. Monthly Mag., 1836, N. S., i. 71; and in Amer. Mag. of Useful and Entertaining Knowledge, 1837, iii. 433. — No sufficient explanation yet given; believes it Phœnician.

526-529 STILES, E. Drawings of Rock: June 6, July 15, 1767, in his Ms. Itinerary, ii. 273-283, in Yale University Library; [528] July 16, 1767, owned by Mass. Hist. Soc.; [529] Oct. 3, 1788, not preserved.

530 STILES, E. Ms. letter to John Winthrop, June 15, 1767. In Stiles Collection, Yale University Library. — Mention.

531-534 STILES, E. Descriptions and drawings of Rock and other inscribed rocks, 1767, 1768, 1783, 1788, in his ms. Itineraries, in Stiles Collection, Yale University Library, ii. 245, 265 f, 272-315, 333, 345, 347, 351 f; iii. 600; iv. 251, 254 f.

535 STILES, E. Itineraries and Correspondence, 1916, p. 234. — Visit to the Rock of June 5 and 6, 1767.

536 STILES, E. The United States elevated to Glory and Honor. A Sermon, Preached May 8th, 1783, pp. 11 ff. — Phœnician.

537 STILES, E. Account of two Inscriptions upon Rocks in Kent and Washington in the Western Part of the State of Connecticut, taken off 1789 by Ezra Stiles, and by him communicated to the Acady of Arts & Sciences, June 8, 1790. Ms. owned by Amer. Acad. of Arts and Sciences. — Contains extended discussion of Dighton Rock as a Phœnician inscription.

538-541 STILES, E. Literary Diary, 1901, [538] i. 20, 1782; [539] i. 72, 1783; [540] i. 330, 1788; [541] i. 402, 1790. — Mention.

542 STONE, E. M. Report of the Northern Department, Jan. 21, 1873. In Proc. R. I. Hist. Soc., 1872-3. — Mention.

543 SVEINSON, Dr. Cited by Fischer, in his Discoveries of the Norsemen in America, 1903, p. 43. — Not Norse.

544 SWEETSER, M. F. New England, 1873, p. 39. — Mention.

545 SYLVESTER, H. M. Indian Wars of New England, 1910, i. 28-30, note. — Not Indian; possibly Phœnician. "Its antiquity is more remote, possibly, than as yet has been accorded it."

546 TALLMAN, M. M. Pleasant Places in R. I., 1892, p. 70. — Mention.

547 TAUNTON, Mass. Quarter Millennial Celebration of, June 4 and 5, 1889, pp. 141, opp. 179.

548 TAUNTON DAILY GAZETTE, Jan. 11, 1902, p. 6/4. Sketches of Taunton History, second paper. — Norse theory possible, but not proved.

549 TAUNTON MEN, probable inscribers on Rock, about 1640.

550 TAUNTON WHIG, Jan. 23, 1839, p. 2/3-5. Dighton Rock. — Phœnician.

551 TAYLOR, J. L. American Antiquities. In *Bibliotheca Sacra*, 1855, xii. 460. — Mention.

552 THACHER, — . Probably wrote name on Rock, 1592.

553-554 THOMAS, C. Catalogue of Prehistoric Works East of the Rocky Mountains. Bureau of Amer. Ethnology, Bulletin 12, 1891. — Does not include Dighton Rock. [554] Dighton Rock. In *Handbook of American Indians North of Mexico*, 1907, i. 390 f. Illus., after no. 33. — Indian.

555 TUCKER, C. R. Photograph, 1903.

556 UNIVERSAL CYCLOPEDIA AND ATLAS, 1901. — Indian.

557 VAIL, E. A. Notice sur les Indiens de l'Amérique du Nord, 1840, pp. 36 f. — Mention; quotes Jomard's opinion.

558 VALLANCEY, C. Observations on the American Inscription. Read Feb. 9, 1786. In *Archæologia*, 1787, viii. 302-3. — Made by Scythians of Siberia.

559 VETROMILE, E. Abnaki Indians. In *Colls. Maine Hist. Soc.*, 1859, vi. 223. — Indian.

560 VIGNAUD, H. Expéditions des Scandinaves en Amérique devant la critique. Un nouveau faux document. Extrait du *Journal de la Société des Américanistes de Paris*, nouvelle série, 1910, vii. 21-24. — Not Norse; Indian.

WARD, A. L. Photographer of no. 35, 1902.

561 WARDEN, D. B. Recherches sur les Antiquités des États-Unis de l'Amérique septentrionale. In *Recueil de Voyages et de Mémoires*, publié par la Société de Géographie, 1825, ii. 375, 438 f, 505. Illus., no. 12b. — Non-committal.

562 WASHINGTON, G. Remarks on seeing drawing by James Winthrop in Museum of Harvard College in Oct., 1789. Cited by J. Lathrop in letter to J. Davis, Aug. 10, 1809. In *Proc. Mass. Hist. Soc.*, 1869, x. 114. — Indian.

563 WATSON, P. B. Bibliography of the pre-Columbian discoveries of America. In *Library Journal*, 1881, vi. 227-244. Reprinted in R. B. Anderson's *America not discovered by Columbus*, 3rd ed., 1883. — Mention.

564 WEBB, T. H. Authority for a daguerreotype made in 1840. In *Ms. letters to J. Ordronaux*, May 9 and 27, 1854, owned by Old Colony Hist. Soc.

565-568 WEBB, T. H. Letters to Rafn. In *Antiquitates Americanæ*. [565] Sept. 22, 1830, pp. 356-361; [566] Nov. 30, 1834, pp. 361-371; [567] Sept. 14, 1835; pp. 397-399; [568] Oct. 31, 1835, pp. 400-404.

569-570 WEBB, T. H. Letters to Christopher Dunkin, 1834, requesting copy of Sewall drawing. In *ms. Correspondence and Reports*, R. I. Hist. Soc., ii. 22, 25.

571 WEBB, T. H. Ms. letter to J. R. Bartlett, Feb. 4, 1838. In *Letter-Book of J. R. Bartlett*, in John Carter Brown Library.

572 WEBB, T. H. Ms. letter to J. Ordronaux, May 9 and 27, 1854. Owned by Old Colony Hist. Soc. — Norse.

573 WEBB, T. H. Communication on Rafn. In Proc. Mass. Hist. Soc., 1865, viii. 175-201.

574 WEISE, A. J. Discoveries of America to the year 1525, 1884, p. 42. — Not Norse.

575 WESLAUFF, E. W., President R. S. N. A. Letter to R. I. Hist. Soc., May 30, 1838. In ms. Records, Annual Report, July 19, 1838; and in ms. Correspondence and Reports, iii. 23.

576 WHIPPLE, J. Cited by T. H. Webb, in letter to J. R. Bartlett, Feb. 4, 1838. — No inscription; marks due to natural processes only.

577 WHITTLESEY, C. Rock Inscriptions in the United States. In Western Reserve Hist. Soc. Tracts, no. 42, March, 1878, p. 41. — Indian.

578-579 WILBUR, G. K. Colored Post Cards of Dighton Rock [1913], and Prospectus of Dighton Rock Park. — Norse.

580-581 WILDER, H. H. Petroglyph from Eastern Massachusetts. In Amer. Anthropologist, 1911, N. S., xiii. 65-67. — Indian. [581] Man's Prehistoric Past, 1923, pp. 362, 363n, 370n. Illus., no. 43b. See also no. 156a.

582 WILHELMI, K. Island, Hvitramannaland, Grönland und Vinland oder der Normänner Leben auf Island und Grönland und dehren Fahrten nach Amerika schon über 500 Jahre vor Columbus, 1842, pp. 228-230. — Norse; follows Rafn.

583 WILLIAMS, H. S., editor. Historians History of the World, 1908, vol. xxii. pt. xxiii. bk. i. ch. i. p. 398. — Indian.

584-586 WILSON, Sir D. Prehistoric Man, 1862, ii. 172-178. — Indian. [585] Vinland of the Northmen. In Proc. and Trans. Royal Soc. of Canada for 1890, vol. viii. sect. ii. pp. 113 f, 116, 120. — Not Norse. [586] Lost Atlantis and other Ethnographic Studies, 1892, pp. 46 f, 54, 61, 206. — Not Norse; Indian.

587 WINSOR, J. Pre-Columbian Explorations. In Narr. and Crit. Hist. of America, 1889, i. 101-104. Illus., no. 17b, p. 101; nos. 1d, 2a, 5c, 11b, 12b, 15c, 16c, p. 103. — Indian.

588-589 WINTHROP, JAMES. Ink-impression of the inscription, reduced by pantograph, made Aug. 14, 1788. [589] Account of an inscribed rock, at Dighton, accompanied by a copy of the inscriptions. In Memoirs Amer. Acad. of Arts and Sciences, 1804, vol. ii. pt. ii. pp. 126-129. Dated Nov. 10, 1788. Illus., no. 12b. — Description of Rock and of making the ink-impression.

590-591 WINTHROP, JOHN. Imperfect drawing of the inscription, about 1744, not preserved. [591] Letter to Timothy Hollis, spring of 1774, transmitting copy of Sewall's drawing. Quoted by M. Lort, in Archaeologia, 1787, viii. 295. — Indian.

592 WORCESTER, J. E. Geographical Dictionary or Universal Gazetteer, 1817, i, under "Dighton." — No satisfactory explanation.

593 WORSAAE, J. J. A. Dighton Rock inscription, an opinion of a Danish archæologist. In a letter to Rau, Nov. 1, 1878, in *Mag. of Amer. History*, 1879, iii. 236-238. — Not Norse; Indian. *See also* no. 475.

594 WYMAN, J. Remarks on Stone Implements of the Indians. In *Proc. Boston Soc. of Nat. History*, Dec. 2, 1868, 1868-69, xii. 218. — Indian.

YATES, J. V. N. *See* Moulton, J. W.

595 YOUNG, G. M. Dighton Rock; compiled and written for the Peoria Scientific Association, October, 1890. In *Peoria Journal*. — Inclines to Phœnician theory. A photograph that he claims to have made in 1890 was a copy of no. 29c.

596-597 YOUTH'S COMPANION, March 18, 1920, cover. — Reference to Norsemen, and "a rock mysteriously carved, a myth, a local legend." [597] Jan. 27, 1927, p. 72. A Message from the Past.

B. CHRONOLOGICAL SEQUENCE OF ITEMS IN A

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1592: 552	1787: 235	1834: 45 178 179 262
1640: 549	1788: 59 60 286 381	451 456 566 569
1680: 128	529 534 540 588	570
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1703: 366	1790: 189 343 537 541	1837: 129 260 355 439
1712: 368	1796: 5	459
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1729: 63 509	1809: 134 323 324 334	571 575 576
1730: 246 247	1810: 311	1839: 1 42 112 115
1732: 248 472 515	1812: 229	255 281 320 426
1744: 590	1814: 311	461 466 481 514
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