

sidered by their lordships. Judging from their experience in making the selections deputed to them, under the present arrangement, the council are satisfied that they would have to meet for this purpose every day for at least one month. This further devotion of time could not be expected from any such body. It would probably become necessary to have recourse to a paid delegation, and the duty must of necessity be intrusted only to such persons as would require a very large fee for their services: thus a large portion of the subscribers' money would be diverted into a channel never contemplated by them, and in no way conducive to the advancement of art; and even then it would be quite impossible to avoid the imputation, if not the reality, of jobbing, while the particular views entertained by those who select, must inevitably give a particular bias to all their selections however conscientiously made.

Beyond these objections their lordships' proposal, that prizeholders should select from the collection thus made (in the case of the principal prizes there could still be no choice), involves a delay of the proceedings so great as of itself to make the scheme seem impracticable.

The selection of the prizes would put into the hands of the council all the patronage attached to the expenditure on works of fine art of 10,000*l.* per annum, supposing the number of subscribers to remain undiminished. It cannot be supposed that anything but a firm conviction of the inexpediency of the measure would lead them to decline the exercise of such patronage. The great aim of the society is to extend a knowledge and love of art amongst all classes of the community, and this, they feel assured, will be best advanced by continuing to permit prizeholders to select works of art for themselves from the various public exhibitions of the day, in accordance with the principle on which the Art-Union of London was established, and which it is chartered to carry out."

The communication closed with a request for an interview, which was afterwards granted; and on the 25th a deputation from the council, comprising Lord Montague, Mr. Auldjo, Mr. Dodd, M.P., Mr. Donaldson, Mr. Gascoign, Mr. G. Godwin, Mr. T. C. Harrison, Mr. Noble, Mr. Lewis Pocock, Mr. Serjeant Thompson, and Mr. Zouch Troughton, attended the Right Hon. Henry Labouchere, President of the Board of Trade, and pointed out further objections to the proposed changes. Mr. Labouchere said that, in consequence of the representations made to him, he would abandon the proposed retention of 10 per cent. of the amount of the subscription, and would not interfere with the distribution of engravings. In respect of the third and more important requirement—the selection of the prizes—he was not disposed to yield the principle, and wished that the council should themselves make some modified proposition—as, for example, that they would choose all the prizes above 70*l.* in value.

The council have since met, and, as a matter of course, have declined to make any proposition for a change in their constitution—certain to interfere greatly with the success of the association. It is to be hoped that the Board will weigh well the representations which have been made to them, and (wise in time) leave the Art-Union in quiet to its well-doing. It was not to be expected, that they could know all the bearings of the question so well as the gentlemen who have been zealously

and disinterestedly labouring in its administration for so many years, and they may yet retreat gracefully, if they will.*

ON THE GEOMETRICAL LINES AND OPTICAL CORRECTIONS OF THE GREEK ARCHITECTS.†

I HAVE been greatly flattered by the manner in which some of my friends here have expressed their desire, that I should bring before the Institute the subject which I have been endeavouring to pursue, in searching out the minute and beautiful curves which the refined minds of the Greek artists led them to substitute for the straight lines and circular forms with which the Egyptians, if I mistake not, before them, and the Romans and their followers, after them, have been contented.

I am afraid that I shall have great difficulty in putting the question into a sufficiently perspicuous shape; still as I am satisfied that the construction of the Greek temple (which within these walls at least, whatever prudence might in certain quarters suggest, I dare to call the most perfect system of design which architect's mind has ever conceived or workman's hand executed) must still claim a worthy place in your esteem. I am the less fearful of wearying you with the details and particulars which are necessary to lead me to the facts—small in size but not in meaning—which I have to bring before your notice. I would wish particularly to protest against any one measuring the importance of these results by the very small quantities which they involve. They create the whole difference between ordinary, and scientific and artistic construction. I will also observe, that although the scrupulous accuracy with which the measurements which I shall produce have been recorded may seem almost absurd to some, it will not appear so to those who have been so fortunate as to see the originals, and observe the perfection of the workmanship with which they are put together, and the exceedingly happy preservation of many parts from the weather, which enables measurements to be taken with precision in these, where in many buildings they could only be a matter of approximation. One advantage from the obtaining this rigid accuracy in the measurement of the temple and its parts, I shall be able to state by-and-by.

The last postulate I shall make is to beg you to allow me to use a decimal system of measures, as I have in these researches always done, which I shall briefly explain.

I use as my standard of measurement the English foot, and divide it into 100 parts, which I shall call cents; and as this is small enough for almost every practical purpose except the curvatures of Greek architecture, I shall not require any other name but cent; should it be necessary to go to more places of decimals, they may be stated thus—6:757 = 6 feet 75 cents 7. With regard to the cents, it will create very little confusion for the present if those who are more accustomed to the duodecimal system will consider them as eighths of inches, to which they are in the proportion of 96 to 100. Thus the quantity .210 may be easily solved into 2 inches and 5-6ths, which is a near approximation.

Having said thus much in the way of introduction, I will say a few words with your kind permission (first apologising for, I am afraid, a somewhat too free mention of the first person,) on the manner in which I was led to the subject I have the honour to bring before you this evening.

In the beginning of the year 1845 I was led to Athens by the same attraction which has been felt by so many, and will, I trust, continue so to be. I had an introduction to Mr. Riedel, a Ba-

varian architect, resident at that time at Athens, who kindly accompanied me on my first visit to the Acropolis, and pointed out to me the peculiarities of construction of which I am about to speak; it was the first time I had any intimation that there was any departure from ordinary line and rule work in these buildings, excepting a rumour which I heard from our consul at Trieste, that there was something very curious recently discovered in the ancient buildings at Athens.

These peculiarities, which were then pointed out to me, were the convexity of the stylobate on the four sides of the building, and the inclination of the columns towards the centre of the building, that is to say, on the east front the axes of the columns incline in a westerly direction, and those of the west front easterly. Those on the north and south flanks, south and north respectively. It follows that the angle columns share the two inclinations; for instance, the north-east angle column inclines in a direction south-west.

This fact has been ascertained some time; it is given with considerable accuracy in that part of the supplement to Stuart which was supplied by Mr. Jenkins. The exact amount, owing to the slight displacements which the building has suffered, is only to be obtained by a diligent survey of the whole building.

The observation of the convexity of the lines of the steps is more recent. I believe that one of our countrymen, Mr. John Pennythorne, whose little pamphlet on the subject no doubt some here have read, was the first who paid any discriminating attention to these lines. I use this phrase as they cannot but have in some measure influenced our earlier investigators, as no one could ever have cast his eye along any portion of the upper members without being sensible of them. The lower lines of the building were, as I understand, quite encumbered with rubbish until the excavations of the last few years. Any measures obtained by boning must have been vitiated, and they have doubtless given many a diligent measurer a vast deal of trouble, and many have been the dimensions which have stood at dismal variance with themselves, and been cast aside without being really to blame. In the same way as earlier astronomers have often unjustly blamed their instruments when the perturbations of the heavenly bodies were really the cause of the incongruities.

Mr. Pennythorne was the first to see in these an original intention and meaning; he however kept his knowledge to himself, and the world first heard of it through the communication of Mr. Hofer and Schawbert, German architects, to the *Bauzeitung*, in the year 1838, which very number was presented on our last meeting to the Institute.

I have been, however, assured by Mr. Hill, an American missionary, and now chaplain to the English Legation at Athens, that Mr. Pennythorne had communicated his ideas on the subject to him at least a year before.

I then (in 1845) was very much struck, as all who have seen the Greek buildings must be, by the perfection of the workmanship, and I took such levels and dimensions as I could with the instruments I had with me, for the purpose of ascertaining the amount and nature of these adjustments. And I arrived at a sufficient degree of exactness to assure myself that it was well worth while to go deeper into the matter. I, however, at that time (in 1845) was not able to pursue the subject further, and I returned to England in the autumn of that year, and had the pleasure of reading a paper to this institute on the observations, such as they were, which I had made.

They attracted more sensation than I had any right to expect, and I received a proposal from the Society of Dilettanti, that if I were willing to go out to Athens, for the purpose of taking more accurate observations, they would assist my operations with a sum of money. This proposal I willingly accepted, and provided myself with the necessary implements, and induced a young architect (son of Mr. E. Willson, of Lincoln, the well-known archaeologist) to accompany me, and arrived at Athens towards the end of October last year. I was also so fortunate as to fall in company with Mr. Meyer, associate, whom I beg here to thank for his very kind and able assistance during the time he remained in Athens.

The first thing which we attempted, as is

* For the re-assurance of some who have hesitated about subscribing, we may mention, that no alteration was ever contemplated in the mode of selection for the present year. The illustrated edition of "Il Penseroso" and "L'Allegro" is to be given to each subscriber, in addition to a copy of Bacon's beautiful engraving after Michener's "Prisoner of Ghent." It makes the most satisfactory progress. Amongst the wood-engravings already finished is one which is equal, perhaps, to anything of the sort ever published. A correspondent lays a complaint against the council on account of the engraving lately issued—"The Convalescent"—after already, by Do. When the council obtained one of the best pictures of one of our most esteemed artists, and commissioned the first engraver in England to reproduce it on copper, giving him his own terms and his own time, they surely took all the means in their power to ensure general satisfaction.

† Read at the Royal Institute of Architects, February 21st.