

UNIVERSITY OF TORONTO



3 1761 01622574 0

A KEY
TO THE TIME ALLUSIONS
IN THE
DIVINE COMEDY
OF DANTE

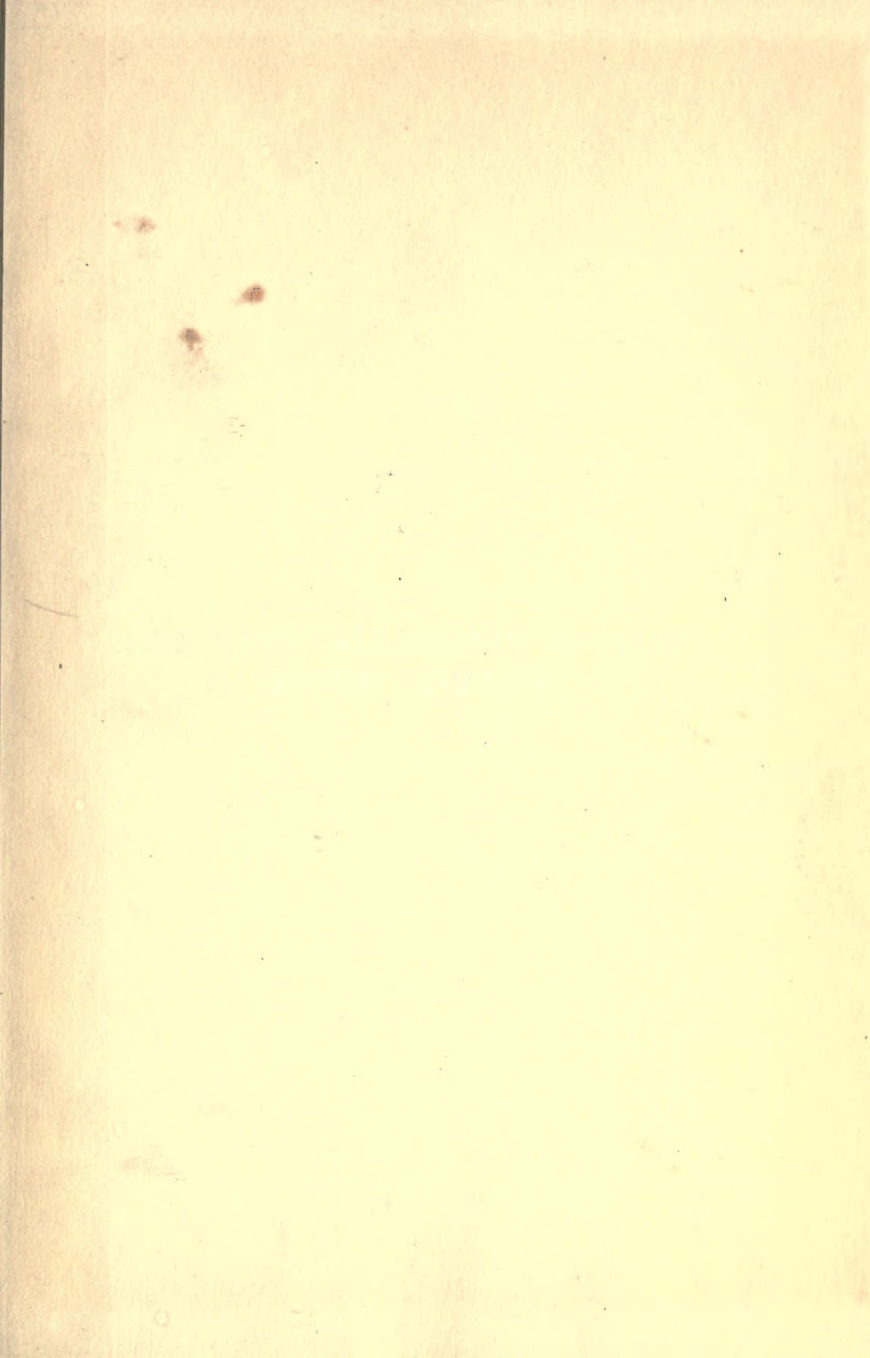
GUSTAVE PRADEAU

PQ
4404
P7



Presented to
The Library
of the
University of Toronto
by

The Estate of the Late
Professor J. E. Shaw



THE TIME ALLUSIONS IN THE
DIVINE COMEDY

A KEY
TO THE TIME ALLUSIONS
IN THE
DIVINE COMEDY
OF DANTE ALIGHIERI

BY
GUSTAVE PRADEAU

METHUEN & CO.
36 ESSEX STREET, W.C.
LONDON

1902

PQ
4404
P7



826662

TO
MY FRIEND
RAYNER STORR

THIS LITTLE BOOK IS DEDICATED
AS A TOKEN OF
MY HIGH ESTEEM AND DEEP AFFECTION



Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

PREFACE

DESIRING to know the duration of the action of the "Divina Commedia," I took one of the best known editions and there I found that it is ten days. In order to be quite sure I consulted a second edition which informed me that it is six days. A third one did not agree with either of the others. Rather surprised, because I am deeply convinced that a great poem is not a collection of riddles, I made up my mind to work out the question for myself. Thinking that the first condition of success was to form a clear mental picture of the astronomical data constantly referred to by Dante, I did so, and after the necessary simplifications, it finally took the shape of the Dial accompanying this little work. With its help all the time-references seem to me to be clear, perfectly coherent and easily followed. As no diagram can represent things exactly as they are, the reader will see in my note to *Purgatorio*, Canto iv. lines 61-84, how much my Dial conforms to reality and to what extent it departs from it. This small book contains the Italian text of the time-references, Longfellow's English translation of them, their explanation and the Dial.

G. P.

SYNOPSIS OF THE TIME ALLUSIONS IN THE DIVINE COMEDY

INFERNO

CANTI.	LINES.	TIME.
I.	16-18	Dawn.
	37-40	Morning.
II.	I	Evening.
VII.	98-99	Midnight.
XI.	113-114	Morning of Good Friday.
		1 Day.
XX.	124-129	Morning.
		2 Days.
XXI.	112-114	10 a.m.
XXIX.	10	Between 1 and 2 p.m.
XXXIV.	68	Evening.
	96	1½ hours later, Morning where Dante is.
		2½ Days.

PURGATORIO

I.	19-21	Beginning of Dawn.
	107	Dawn.
II.	1-6	Morning.
		3½ Days.
	56-57	8 a.m.
III.	25-27	9 a.m.
IV.	15-16	9.30 a.m.
	137-139	Midday.
VIII.	1-6	Twilight.
	49	Evening.
IX.	1-9	Dawn.
	44	Morning, 8 a.m.
		4½ Days.
X.	14-15	9.30 a.m.
XII.	80-81	Midday.
XV.	1-6	3 p.m.

10 TIME ALLUSIONS IN THE DIVINE COMEDY

CANTI.	LINES.	TIME.
XVII.	9	Twilight.
	70-72	Evening.
XVIII.	76-81	10 p.m.
XIX.	37-38	Morning.
		5½ Days.
XXII.	118-120	10 a.m.
XXV.	2-3	2 p.m.
XXVI.	4-6	Beginning of Sunset.
XXVII.	1-5	Sunset.
	61	Twilight.
	66	"
	68	Evening.
	94	Beginning of Dawn.
	109-112	Dawn.
	133	Morning.
		6½ Days.
XXXIII.	104	Midday.

PARADISO

I.	37-47	Nearly Evening.
XXII.	134	Midnight in Purgatorio.
XXVII.	77-87	Morning in Purgatorio.
		7½ Days since the beginning of the poem, or
		7 Days since the entrance into Hell.

A FEW WORDS AS TO THE USE OF THE DIAL

THE circle at the centre of the Dial represents the earth, which is supposed to be motionless. On it are indicated four points: Jerusalem, Purgatory, Ganges and Morocco. The first two, being antipodal to one another, have a common horizon which would intersect the central circle at the other two points. Dante thought that, with respect to Jerusalem, Ganges was the extreme east and Morocco the extreme west.

Round this circle we have a movable disc which contains the constellations of the Zodiac, and also indicates (1) the position of the sun; (2) the four important divisions of the day: Midday, *Mezzodì*; Evening, *Sera*; Midnight, *Mezzanotte*; and Morning, *Mattino*; (3) the succession of the hours; (4) the successive positions of the moon. The names of the constellations being generally known in Latin, are given in that language, the other indications are in Italian.

The red lines indicate the different positions of the moon, and the references to the canti in which they are to be found are also printed in red. The reader must bear in mind that on the day of the full moon she rises in a line with *Mezzanotte*, or 12 o'clock.

At the beginning of the poem *Gerusalemme* must be placed at the top of the circle, with *Mattino* over it.

Let the reader look southwards, holding the dial straight before him; if he moves the disc from left to right he will see at once that the sun on the dial follows the same course as the real sun.

THE TIME ALLUSIONS AND THEIR EXPLANATION

INFERNO

Inferno I. 16-18.

Guardai in alto, e vidi le sue spalle
Vestite già de' raggi del pianeta
Che mena dritto altrui per ogni
calle.

Upward I looked, and I beheld its
shoulders,
Vested already with that planet's rays
Which leadeth others right by every
road.

Dawn. The first rays of the sun illumine only the highest points.

Inferno I. 37-40.

Temp' era dal principio del mattino,
E 'l Sol montava 'n su con quelle
stelle
Ch' eran con lui, quando l' Amor
divino
Mosse da prima quelle cose belle.

The time was the beginning of the
morning,
And up the sun was mounting with
those stars
That with him were, what time the
Love Divine
At first in motion set those beauteous
things.

Morning. The sun rises with the constellation Aries, and it is the equinox of spring.

Inferno II. I.

Lo giorno se n' andava.

Day was departing.

Evening. Place *Sera* above *Gerusalemme*. The full moon rises on the line of *Mezzanotte* when the sun sets. The note to Inf. xx. 124-129 will explain why I place the time of the full moon now.

Inferno VII. 98-99.

Già ogni stella cade, che saliva
Quando mi mosse.

Already sinks each star that was as-
cending
When I set out.

Midnight. In the last position of the dial, Virgo was the latest constellation to rise. Leo and Cancer were still rising; place *Mezzanotte* over *Gerusalemme* and all the stars that were rising will be setting. The same is true of every star which at the same time describes a parallel to any star in the constellations above mentioned.

Inferno XI. 113-114.

Chè i Pesci guizzan su per
l'orizzonta,
E 'l Carro tutto sovra Coro giace.

For quivering are the Fishes on the
horizon,
And the Wain wholly over Caurus lies.

Morning of Good Friday—Since the beginning of the Poem, **1 Day**. When Pisces is over the horizon the Great Bear is in the North-Western region indicated by *Coro*. The wind "Caurus" blows from that quarter. The statements about Pisces and the Great Bear are only two different ways of indicating the same moment. Place *Mattino* over *Gerusalemme*.

Inferno XX. 124-129.

chè già tiene 'l confine
D'ambedue gli emisperi, e tocca
l'onda
Sotto Sibilia, Caino e le spine.
E già iernotte fu la luna tonda:
Ben ten dee ricordar, chè non ti
nocque
Alcuna volta per la selva fonda.

for already holds the confines
Of both the hemispheres, and under
Seville
Touches the ocean-wave, Cain and
the thorns,
And yesternight the moon was round
already;
Thou shouldst remember well it did
not harm thee
From time to time within the forest
deep.

Morning—2 Days. The last reference was to Morning, and so is this one. The natural question to suggest itself should be whether the allusions refer to the same morning or not. The moon rises and sets 50 minutes later every

24 hours. Between the first evening (Inf. ii. 1) and the morning of Good Friday she has not retrograded more than 25 minutes. The sun was not far below the horizon when Pisces was fluttering above it (Inf. xi. 113); so that altogether there would be a very short time between the two references. Now let us remember what Dante does during that time. He goes from where he is to the spot whence he can descend to the Minotaur, and he says that the spot at which one can go down from the ridge is far off (*via là oltre*, Inf. xi. 115). He passes by the Minotaur, and goes down with difficulty into the seventh circle, where he finds the Centaurs. Nesso guides him along the river of blood, describing about half its circumference, *i.e.* probably 15 miles. (This I shall explain presently.) He crosses the wood of the suicides, and the burning sand, this last being so extensive "that if I had looked back, I could not have seen where it (the wood) was" (Inf. xv. 13). The reader must understand that all these distances are great. Then he meets Brunetto Latini and others, visits the extreme limit of the circle, whilst Gerione is rising to him from the abyss. Gerione carries him slowly until he reaches the eighth circle. The circumference of this latter circle is 22 miles, and this is what led me to say that the circumference of the larger circle above mentioned was at least 30 miles. It is evident that all this could not have been done in a few minutes. When we add that he visits four more trenches (*Valli*) before our next reference, we may reasonably assume that a whole day elapses between Inf. xi. 113 and Inf. xx. 124.

This being so, the moon will have retrograded 50 minutes more, and this, with the 25 minutes of the previous morning, makes up 1 hour and 15 minutes. Place Capet over *Gerusalemme*, so that this latter is a little to the left of 7. Then the moon is in Libra, setting under Siviglia, *i.e.* at *Marocco*, and the sun is an hour and a quarter above the horizon. Yesterday means the day before the one just ended, and if we take yesternight to mean the night before the one just ended, two references will make everything clear. At line 52 of Canto xv., Dante says that yesterday morning he turned his back on the valley where lay the forest which he left at the beginning of the poem. Now, at line 127 of Canto xx. he says—yesternight the

moon was full. The night just ended is that of Friday to Saturday, the previous one was from Thursday to Friday, and this is my reason for placing the full moon at *Inf. ii. 1*. The moon was bright enough the night before to have been of use to Dante in the forest (*Inf. xx. 128-129*).

Inferno XXI. 112-114.

<p>Ier, più oltre cinqu' ore che quest' otta, Mille dugento con sessanta sei Anni compier, che qui la via fu rotta.</p>	<p>Yesterday, five hours later than this hour, One thousand and two hundred sixty-six Years were complete, that here the way was broken.</p>
--	---

10 a.m. Five hours later, at 3 in the afternoon, Christ died, and, according to St Matthew (xxvii. 51), "the earth did quake, and the rocks rent." This indicates clearly that yesterday was Good Friday.

Inferno XXIX. 10.

<p>E già la luna è sotto i nostri piedi.</p>	<p>And now the moon is underneath our feet.</p>
---	--

Between 1 and 2 p.m. The moon is in *Libra*. In the morning she was there between 1 and 2 o'clock. The moon is now under our feet. Place *Aries* between 1 and 2 over *Gerusalemme* and the moon will be at the opposite point.

Inferno XXXIV. 68.

<p>Ma la notte risurge.</p>	<p>But night is reascending.</p>
<p>Evening. Place <i>Sera</i> at the top.</p>	

Inferno XXXIV. 96.

<p>E già il sole a mezza terza riede.</p>	<p>And now the sun to middle-tierce returns.</p>
--	---

1½ hour later, Morning where Dante is; **2½ Days.** Dante stands at the centre of the earth, with his head towards *Gerusalemme*. With an effort he turns round in

order that his head may be towards *Purgatorio*. So that in the first position he is in the hemisphere where it is evening, and in the second he finds himself in the hemisphere where it is morning. Place Cancer above *Gerusalemme* between 7 and 8, and turn the dial bodily, so that *Purgatorio* may be at the top. The sun, as seen from *Purgatorio*, is $1\frac{1}{2}$ hour above the horizon, the hour indicated above *Purgatorio* is 7.30, which is half *Terza*, or half way between 6 and 9 o'clock.

PURGATORIO

Purgatorio I. 19-21.

Lo bel pianeta, ch' ad amar conforta, Faceva tutto rider l' oriente, Velando i Pesci, ch' erano in sua scorta.	The beauteous planet, that to love incites, Was making all the orient to laugh, Veiling the Fishes that were in her escort.
---	---

Beginning of Dawn. Venus rises with Pisces.

Purgatorio I. 107.

Lo Sol vi mostrerà, che surge omai.	The sun, which now is rising, will direct you.
--	---

Dawn.

Purgatorio II. 1-6.

Già era 'l Sole all' orizzonte giunto Lo cui meridian cerchio coverchia Gerusalem col suo più alto punto : E la notte, ch' opposita a lui cerchia, Uscia di Gange fuor con le bilance, Che le caggion di man quando soverchia.	Already had the sun the horizon reached Whose circle of meridian covers o'er Jerusalem with its most lofty point, And night that opposite to him re- volves Was issuing forth from Ganges with the Scales That fall from out her hand when she exceedeth.
--	---

Morning—3½ Days. This is evidently one day and one night after Dante had left the centre of the earth. He emerges at the foot of *Purgatorio* at the beginning of the next morning. The horizon whose meridian has its highest point over

Gerusalemme, is simply the horizon of *Gerusalemme*. Place *Mattino* over *Purgatorio*. The sun is setting at *Gerusalemme*, and it is midnight at *Gange*. *Libra* is rising with the night. When the night is longer than the day, after the autumnal equinox, the sun being in *Libra* (the scales), this constellation is no longer visible during the night, or, as Dante says, it "falls from the hands of night."

Purgatorio II. 56-57.

Lo Sol, ch' avea . . .	The sun, who had . . .
Di mezzo 'l ciel cacciato 'l Capricorno.	From the mid-heaven chased forth the Capricorn.

8 a.m. Place 8 over *Purgatorio*. *Caper* (*Capricornus*) has now passed the meridian, *the middle of the sky*.

Purgatorio III. 25-27.

Vespero è già colà, dove sepolto	'Tis evening there already where is
È 'l corpo, dentro al quale io facev'	buried
ombra ;	The body within which I cast a
Napoli l' ha.	shadow ;
	And Naples has it.

9 a.m. Place 9 over *Purgatorio*. If we imagine Italy between *Marocco* and *Gerusalemme*, it will be evening there.

Purgatorio IV. 15-16.

Chè ben cinquanta gradi salit' era	For fifty full degrees uprisen was
Lo Sole.	The sun.

9.30 a.m. The sun describes 15° in an hour, and 50° therefore in 3 hours and 20 minutes. But as Dante does not say exactly 50°, we may well take it as about 9.30.

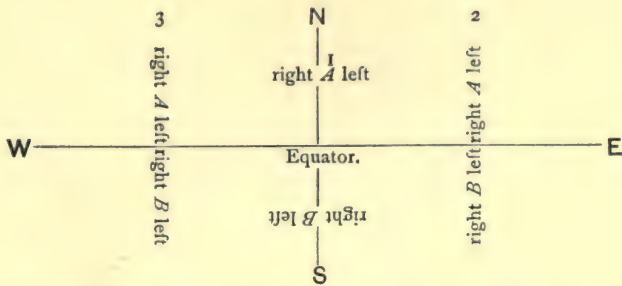
Purgatorio IV. 61-84.

Se Castore e Polluce
 Fossero in compagnia di quello
 specchio,
 Che su e giù del suo lume conduce,
 Tu vedresti 'l Zodiaco rubecchio
 Ancora all' Orse più stretto rotare,
 Se non uscisse fuor del cammin
 vecchio.
 Come ciò sia, se 'l vuoi poter pensare,
 Dentro raccolto immagina Sion
 Con questo monte in su la terra
 stare
 Sì, ch' ambodue hann' un solo orizzòn
 E diversi emisperi : onde la strada,
 Che mal non seppe carreggiar
 Feton,
 Vedrai com' a costui convien che vada
 Dall' un, quando a colui dall' altro
 fianco,
 Se l' intelletto tuo ben chiaro bada.
 Certo, Maestro mio, diss' io, un-
 quanto
 Non vidi chiaro, si com' or discerno
 Là, dove lo mio ingegno pareo
 manco.
 Chè 'l mezzo cerchio del moto
 superno,
 Che si chiama Equatore in alcun'
 arte,
 E che sempre riman tra 'l Sole e 'l
 verno,
 Per la ragion che di', quinci si parte
 Verso settentrion, quanto gli Ebrei
 Vedevan lui verso la calda parte.

If Castor and Pollux
 Were in the company of yonder mirror,
 That up and down conducteth with
 its light,
 Thou wouldst behold the zodiac's
 jagged wheel
 Revolving still more near unto the
 Bears,
 Unless it swerved aside from its old
 track.
 How that may be wouldst thou have
 power to think,
 Collected in thyself, imagine Zion
 Together with this mount on earth
 to stand,
 So that they both one sole horizon
 have,
 And hemispheres diverse ; whereby
 the road
 Which Phaeton, alas ! knew not to
 drive,
 Thou'lt see how of necessity must pass
 This on one side, when that upon
 the other,
 If thine intelligence right clearly
 heed.
 Truly, my master, said I, never yet
 Saw I so clearly as I now discern,
 There where my wit appeared in-
 competent,
 That the mid-circle of supernal motion,
 Which in some art is the Equator
 called,
 And aye remains between the Sun
 and Winter,
 For reason which thou sayest, departeth
 hence
 Tow' rds the Septentrion, what time
 the Hebrews
 Beheld it tow' rds the region of the
 heat.

This passage is not a time-reference, but I must explain it (1) because it will show exactly the meaning of our dial, and (2) because it will help us to understand a time-reference at the beginning of *Paradiso*.

If two persons, *A* and *B*, are respectively north and south of the equator, and are both looking towards the equator, the sun will rise to the left of *A* and set to his right ;



and will rise to the right of *B* and set to his left ; 1. If they look at the rising sun towards *E*, the sun describing the equator will move to the right of *A* and to the left of *B* ; 2. If they want to look at the setting sun, *W*, *A* must turn to his right and *B* to his left ; 3. We must remember this, as we shall want it later on.

Now let us take **Fig. 1.** It shows in their right angular positions Jerusalem, Purgatory, the Equator and the

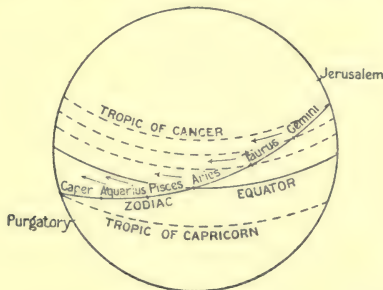


FIG. 1.

Zodiac. These last two make with each other an angle of about $23\frac{1}{2}$ degrees. Jerusalem is 32° north of the Equator, and Purgatory as many degrees south. Aries describes the Equator ; Taurus the first parallel, Gemini the second, and the beginning of Cancer the third, which is the tropic of Cancer. Cancer, Leo, Virgo follow towards the Equator, which is described by Libra as it was by Aries. The three

constellations, Libra, Scorpius and Sagittarius follow south until the beginning of Capricornus (Caper), which describes the tropic of Capricorn; then this last, with Aquarius and Pisces, take us back to the Equator. When the sun is at the junction of Gemini and Cancer, he is as high north as he can go; when at the junction of Sagittarius and Capricornus, he is as far south as possible. (Six constellations are on the other side of our globe and cannot be seen.)

Now, this succession of the constellations is seen from Jerusalem and from Purgatory *towards* the Equator, and if we make the Zodiac to coincide with the Equator, the succession of constellations will be in the same order. This is what has been done on the Dial. Moreover, if Jerusalem and Purgatory are brought on to the Equator, the constellations will still move round them in the same order. This also has been done on the Dial. Now the reader will realise what he must imagine in order to establish the relations as they really exist, but that cannot affect the use of the Dial.

The text will now be clear. Dante was surprised to see the sun between him and the north (line 60) and on his left hand. Then we have the explanation. If the sun were in Gemini (*Castore e Polluce*) it would be farther north (nearer to the Bear). Jerusalem and Purgatory, like all other antipodal points, have a common horizon, *e.g.* the equator is the common horizon of the two poles. We know that the sun goes to the right of the one and to the left of the other (lines 71-74). During the cold season the equator is between us and the sun (between the sun and the winter, lines 79-81), and where we are now, in Purgatory, it is as much towards the north as the Hebrews (Jerusalem) saw it towards the south. Which is clear if we remember that Purgatory is as many degrees south of the equator as Jerusalem is north of it.

Purgatorio IV. 137-139.

vedi ch' è tocco	see the sun has touched
Lo Meridian dal Sole; ed alla riva	Meridian, and from the shore the night
Cuopre la notte già col piè Marocco.	Covers already with her foot Morocco.

Midday. Place *Mezzodì* over *Purgatorio*, the sun touches the Meridian and *Sera* is over *Marocco*; the foot of Night already covers *Marocco*.

Purgatorio VIII. 1-6.

Era già l' ora, che volge 'l disio
 A' naviganti e intenerisce il cuore,
 Lo di c' han detto a' dolci amici
 addio;
 E che lo nuovo peregrin d' amore
 Punge, se ode squilla di lontano,
 Chi paia 'l giorno pianger che si
 muore.

'Twas now the hour that turneth back
 desire
 In those who sail the sea, and melts
 the heart,
 The day they've said to their sweet
 friends farewell,
 And the new pilgrim penetrates with
 love,
 If he doth hear from far away a bell
 That seemeth to deplore the dying
 day.

Twilight. *Sera* nearly over *Purgatorio*.

Purgatorio VIII. 49.

Temp' era già che l' aer s' annerava. Already now the air was growing dark.

Evening. *Sera* over *Purgatorio*.

Purgatorio IX. 1-9.

La concubina di Titone antico
 Già s' imbiancava al balzo d' oriente
 Fuor delle braccia del suo dolce
 amico:
 Di gemme la sua fronte era lucente,
 Poste in figura del freddo animale,
 Che con la coda percuote la gente:
 E la notte de' passi, con che sale,
 Fatti avea duo nel luogo ov' era-
 vamo,
 E' l terzo già chinava in giuso l' ale.

The concubine of old Tithonus now
 Gleamed white upon the eastern
 balcony,
 Forth from the arms of her sweet
 paramour;
 With gems her forehead allrelucent was,
 Set in the shape of that cold animal
 Which with its tail doth smite amain
 the nations,
 And of the steps, with which she
 mounts, the Night
 Had taken two in that place where
 we were,
 And now the third was bending
 down its wings.

Dawn. Let us remember Purg. ii. 4-5, where Night was issuing from Ganges with Libra. This is the first constellation which rises with the night, Scorpius is the second, and Sagittarius the third. The night may be said to ascend up to now, and to descend when Capricornus, Aquarius and Pisces appear successively on the horizon. Those are the steps (line 7) made by the night. Two of these steps had been made in the place where we were (lines 6-7), *i.e.* Libra and Scorpius had passed over *Purgatorio*, and the third was already inclining its wings downwards, *i.e.* was nearly to

the right of our meridian. Place Sagittarius over *Purgatorio* between 5 and 6, but nearer to 6. Then Pisces, the cold animal which strikes with its tail (lines 5-6), is nearly above the horizon, the time is Dawn, and Aurora (Dawn) is the consort of Tithonus (line 1).

As the reader may have been tempted to infer that the cold animal was the Scorpion, I feel bound to show that such cannot be the case. Contrariwise to what Dante said about Libra, we must take as the first three steps Cancer, Leo and Virgo, and place this last over *Purgatorio* near *Mezzanotte*. This being the fourth day since the time of the full moon, the moon has retrograded 4 times 50 minutes, or 3 hours and 20 minutes. She is therefore now in Scorpius, in a line with 3.20. The moon must veil the Scorpion, according to Dante's expression in another place (*Pur. i. 21*), but in that case I cannot see who is the *Concubina di Titone*.

Although Dante has more than once called the hours attendants (*ancelle*) and not steps, let us see what would be the result of taking the three steps to mean the first three hours. The third hour would, in that case, be going down, and we must place Leo over *Purgatorio* at nearly 9 o'clock. Then "Scorpius" is not half above the horizon, and the moon, being in a line with 3.20, will not rise for half an hour. Once more: Where is *la Concubina di Titone*? Can we thus name a lunar dawn? I know of no authority for doing so; and is not the moon still too low down? I may add another consideration. Dante is going to fall asleep, and will not wake till more than two hours after sunrise. As it is not quite 9 o'clock, he would thus be sleeping for more than eleven hours. Several passages of the poem show that such a long sleep would certainly not be in accordance with Virgil's repeated advice. See for instance *Inferno*, xxiv. 43-54. For all these reasons, then, the first explanation seems to me the right one.

Purgatorio IX. 44.

E 'l Sole er' alto già più di du' ore. And now the sun was more than two
hours high.

8 o'clock in the Morning—4½ Days. Place Aquarius a little after 8 over *Purgatorio*.

Purgatorio X. 14-15.

lo stremo della Luna	had the moon's decreasing disk
Rigiunse al letto suo per ricorcarsi.	Regained its bed to sink again to rest.

9.30. Place Aquarius between 9 and 10 over *Purgatorio*. The moon, in a line with 3.20, touches the ocean at the point marked *Gange*. It is nearly 9.30 in *Purgatorio*.

Purgatorio XII. 80-81.

vedi che torna	lo, returning is
Dal servizio del dì l' ancella sesta.	From service of the day the sixth handmaiden.

Midday. The service of the sixth hour is ended.

Purgatorio XV. 1-6.

Quanto, tra l' ultimar dell' ora terza	As much as 'twixt the close of the third
E 'l principio del dì, par della spera,	hour
Che sempre, a guisa di fanciullo,	And dawn of day appeareth of the
scherza ;	sphere
Tanto pareva già invèr la sera	Which aye in fashion of a child is
Essere al Sol del suo corso rimasto :	playing,
Vespero là, e qui mezza notte era.	So much it now appeared, towards the
	night,
	Was of his course remaining to the
	sun ;
	There it was evening, and 'twas mid-
	night here .

3 p.m. The sun had still as much of its course to run as the starry sphere shows of itself (the starry sphere which is always in motion, like a child) between the beginning of day and the end of the third hour. Place Taurus, 3 o'clock, over *Purgatorio*. The sun has still three hours to run. It is the time of vespers in *Purgatorio* and of *Mezzanotte* in Italy, between *Marocco* and *Gerusalemme*.

Purgatorio XVII. 9.

Lo Sole . . . che già nel corcare era.	The sun . . . that was already setting.
Twilight.	

Purgatorio XVII. 70-72.

Già eran sopra noi tanto levati	Already over us were so uplifted
Gli ultimi raggi, che la notte segue,	The latest sunbeams, which the night
Che le stelle apparivan da più lati.	pursues,
	That upon many sides the stars ap-
	peared.

Evening. Place *Sera* over *Purgatorio*. The last rays of the Sun, which Night follows, are so high in the atmosphere that the stars can be seen in more than one place.

Purgatorio XVIII. 76-81.

La Luna quasi a mezza notte tarda	The moon, belated almost unto mid-
Facea le stelle a noi parer più rade	night,
	Now made the stars appear to us
	more rare,
E correa contra 'l ciel per quelle strade,	And counter to the heavens ran through
Che 'l Sole infiamma allor che quel	those paths
da Roma	Which the sun sets aflame, when he
Tra' Sardi e' Corsi il vede quando	of Rome
cade.	Sees it 'twixt Sardes and Corsicans
	go down.

10 p.m. The moon is about half an hour later than in our last reference to her, when she was in a line with } 3.20. She is now about four hours late. Place 10 above *Purgatorio*. Dante says the moon rose at nearly midnight, and 10 o'clock is certainly nearer to *Mezzanotte* than to *Sera*. He also says that she was running through the regions where the sun is when the Romans see him setting between Sardinia and Corsica, *i.e.* at the junction of Scorpius and Sagittarius, where the sun finds himself at the end of October.

Purgatorio XIX. 37-38.

	e tutti eran già pieni	and full already of high day
Dell' alto di i giron del sacro monte.	Were all the circles of the Sacred	Mountain.

Morning—5½ Days. Place *Mattino* over *Purgatorio*.

Purgatorio XXII. 118-120.

E già le quattro ancelle eran del	And four handmaidens of the day
giorno	already
Rimase addietro; e la quinta era	Were left behind, and at the pole
al temo,	the fifth
Drizzando pure in su l'ardente	Was pointing upward still its burn-
cornò.	ing horn.

10 a.m. Four hours had ended their task. The fifth (from 10 to 11) was at the pole of the chariot of the sun, directing its point towards the meridian. *In su*, the sun is still ascending. Place Pisces over *Purgatorio* between 10 and 11.

Purgatorio XXV. 2-3.

Chè 'l Sole avea lo cerchio di merigge Because the sun had his meridian circle
 Lasciato al Tauro, e la notte allo To Taurus left, and night to Scorpio.
 Scorpio.

2 p.m. Place the beginning of Taurus over *Purgatorio*. Taurus being at the meridian, Scorpius is exactly opposite; for those in *Purgatorio* the meridian was left to Taurus, and for those opposite the night was left to Scorpius.

Purgatorio XXVI. 4-6.

Feriami 'l Sole in su l' omero destro, On the right shoulder smote me now
 Che già, raggiando, tutto l' occidente the sun,
 Mutava in bianco aspetto di cilestro. That raying out, already the whole
 west
 Changed from its azure aspect into
 white.

Beginning of Sunset. In *Purg.* xv. 7-9 Dante indicates that he is going from east to west. The present reference alludes to the same fact, for Dante, following the bend of the mountain, is already turning, so that the setting sun strikes him on the right shoulder. Our note to *Purg.* iv. 61-84 will have made this clear.

Purgatorio XXVII. 1-5.

Si come quando i primi raggi vibra As when he vibrates forth his earliest
 Là, dove 'l suo Fattore il sangue rays,
 sparse, In regions where his Maker shed his
 Cadendo Ibèro sotto l' alta Libra, blood,
 E l'onde in Gange da nona riarse, The Ebro falling under lofty Libra,
 Si stava il Sole: onde 'l giorno And waters in the Ganges burnt with
 sen giva. noon,
 So stood the Sun; hence was the
 day departing.

Sunset. Place *Sera* nearly over *Purgatorio*. The sun casts its first rays towards *Gerusalemme*. Ibero (Spain), represented by *Marocco*, will soon be under Libra, and the sun is so placed that the waters of *Gange* are made burning by the heat of noon (Nona, the period between twelve and three o'clock). (*Dante, Convito* iv. 23.)

Purgatorio XXVII. 61.

Lo Sol sen va, . . . e vien la sera. The sun departs, . . . and night cometh.
 Twilight.

Purgatorio XXVII. 66.

del Sol, ch' era già basso.

the sun, that now was low.

Twilight.

Purgatorio XXVII. 68.

'I Sol corcar, . . .
Sentimmo dietro . . .

. . . the sun's setting
Behind us we perceived,

Evening. Place *Sera* over *Purgatorio*. Dante is turning his back to the sun, and is beginning his ascent to the next circle, but after a few steps, his shadow vanishing makes him understand that the sun has set.

Purgatorio XXVII. 94.

Nell' ora, credo, che dall' oriente
Prima raggiò nel monte Citerea.

It was the hour, I think, when from
the East
First on the mountain Citherea
beamed.

Beginning of Dawn. Remember that *Citerea*, Venus, is with *Pisces*.

Purgatorio XXVII 109-112.

per li splendori antelucani,

And now before the antelucan splen-
dours

Le tenebre fuggian da tutti i lati.

The darkness fled away on every side.

Dawn. The light of Dawn is putting Darkness to flight.

Purgatorio XXVII. 133.

Vedi il Sol, che in la fronte ti riluce.

Behold the sun, that shines upon thy
forehead.

Morning—6½ Days. Dante's face when he reaches the earthly Paradise is turned towards the rising sun. Place *Mattino* over *Purgatorio*.

Purgatorio XXXIII. 104.

Teneva 'l Sole il cerchio del merigge.

The sun washolding the meridian circle.

Midday. Place *Mezzodì* over *Purgatorio*.

PARADISO

Paradiso I. 37-47.

Surge a' mortali per diverse foci
 La lucerna del mondo: ma da
 quella,
 Che quattro cerchi giunge con tre
 croci,
 Con miglior corso e con migliore
 stella
 Esce congiunta, e la mondana
 cera
 Più a suo modo tempera e sug-
 gella.
 Fatto avea di là mane, e di qua sera
 Tal foce; e quasi tutto era là
 bianco
 Quello emisferio, e l' altra parte
 nera;
 Quando Beatrice in sul sinistro
 fianco
 Vidi rivolta, e riguardar nel Sole.

To mortal men by passages diverse
 Uprises the world's lamp; but by
 that one
 Which circles four uniteth with three
 crosses,
 With better course, and with a better
 star
 Conjoined it issues, and the mundane
 wax
 Tempers and stamps more after its
 own fashion.
 Almost that passage had made morning
 there
 And evening here, and there was
 wholly white
 That hemisphere, and black the
 other part,
 When Beatrice towards the left-hand side
 I saw turned round, and gazing at
 the sun.

Nearly Evening. The sun does not always rise at the same point of the horizon. Among all the possible points, Dante calls attention to the one at which four circles meet,

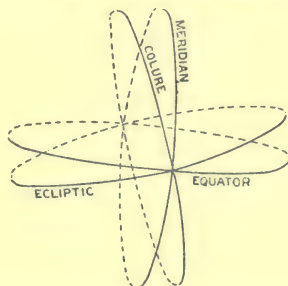


FIG. 2.

forming three intersections. There are such four circles used in astronomy, viz., the ecliptic; the equator; the colure of the equinoxes, perpendicular to the ecliptic; and the meridian

of the equinoxes, perpendicular to the equator. They all intersect at the equinoctial points; but of course we are here concerned only with the equinox of spring (Fig. 2).

It may well be that Dante had before him an armillary sphere. Imagine our Fig. 2 constructed with circles of wood or metal, representing only the ecliptic, the equator and the colure; place this machine in a semispherical support, the

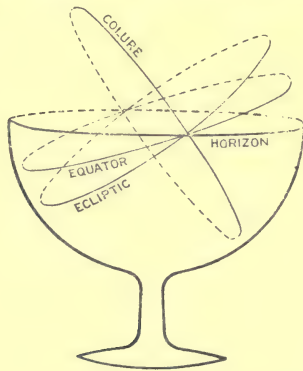


FIG. 3.

circular opening of which is called the horizon, and you have the armillary sphere (Fig. 3).

If you now place the circles obliquely, as in Fig. 3, there is a position in which the horizon also will intersect the other circles at the equinoctial points. Thus the four circles would be: the ecliptic, the equator, the colure of the equinoxes and the horizon.

I did not give this explanation first of all, because it is not true of all the positions of the sphere. The horizon of the poles is the equator; the ecliptic is the horizon of two other points; so is the colure. In these cases, then, there are only three circles, and I for one should be surprised if Dante had overlooked those exceptions.

At any rate, the point or region (*foce*) is the equinox of spring, the beginning of Aries. *Tal foce* (such a point, or the sun rising at such a point) had made morning somewhere and evening elsewhere. It was Dante's theory that mortal beings inhabited the northern hemisphere alone. Therefore when the sun rises to them, he is over *Gange*, on the horizon

of *Gerusalemme*. There it is morning, and in *Purgatorio* evening—nearly, *quasi*.

The last reference in *Purgatorio* was midday. Dante is led to Eünoè, with the waters of which he could never have been satiated. Then he returns to Beatrice, pure and ready to ascend to the stars. It is now nearly morning at *Gerusalemme*, nearly evening in *Purgatorio*, and for this reason Beatrice turns to her left to look at the setting sun. (See note to *Purg.* iv. 61-84.) Place Gemini over *Purgatorio*, between 5 and 6.

Paradiso XXII. 134, 151-153.

... Vidi questo globo

L' aiuola che ci fa tanto feroci
Volgendom' io con gli eterni
gemelli
Tutta m' apparve da' colli alle foci.

... I beheld this globe

The threshing-floor that maketh us so
proud,
To me revolving with the eternal twins,
Was all apparent made from hill to
harbour.

Midnight in *Purgatorio*. Dante reaches the sign which follows Taurus, *i.e.* Gemini (lines 110-111), and looks down, when he sees the earth, *vidi questo globo*. The next note will account for the time-reference. In the next canto, lines 11-12, Beatrice looks fixedly at the region of the solstice, where the sun shows least haste, *i.e.* Cancer.

Paradiso XXVII. 77-87.

Adima

Il viso, e guarda come tu se' volto.
Dall' ora ch' io avea guardato prima,
I' vidi mosso me per tutto l' arco,
Che fal dal mezzo al fine il primo
clima :
Sì ch' io vedea di là da Gade il
varco
Folle d'Ulisse, e di qua presso il
lito,
Nel qual si fece Europa dolce
carco.
E più mi fora scoperto il sito
Di questa aiuola ; ma 'l Sol pro-
cedea
Sotto i miei piedi un segno e più
partito.

"Cast down

Thy sight, and see how far thou art
turned round."
Since the first time that I had down-
ward looked,
I saw that I had moved through the
whole arc
Which the first climate makes from
midst to end ;
So that I saw the mad track of Ulysses
Past Gades, and this side, well nigh¹
the shore
Whereon became Europa a sweet
burden.
And of this threshing-floor the site to me
Were more unveiled, but the sun
was proceeding
Under my feet, a sign and more re-
moved.

¹ Dante says : Qua presso (near here), *i.e.* the point of the earth's surface nearest to him.

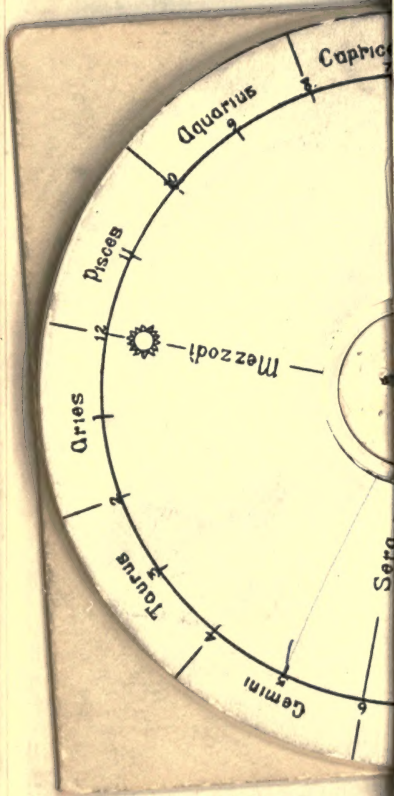
Morning in Purgatorio—Since the beginning of the Poem, $7\frac{1}{2}$ Days; since the entrance into Hell, 7 Days. Dante, in Convito (iii. 5), seems to indicate the tropic of Cancer as the limit of the first climate. The northern extremity of Gemini describes that parallel. The arc (lines 80-81) from the middle to the limit of the first climate is, of course, an arc of 90° . Place *Sera* over *Gerusalemme*. Looking down from Gemini, Dante would see *Marocco* (*di là di Gade*, "beyond Cadiz") as the extreme point of the earth; and near, *qua presso*, under him the shores of Phœnicia, just above Jerusalem. The sun, which moves 1° each day, can no longer be at the origin of Aries, which was the place he occupied when the Poem began. He is therefore parted from Gemini one sign and more. Dante could have seen the earth between *Gerusalemme* and *Gange* had not *Sera* been over *Gerusalemme* (lines 85-86). Now, before *Gemini* began to describe its arc of 90° , it was over *Gange*; at the end of the arc it was over *Gerusalemme*. When Dante left *Purgatorio*, Gemini was over *Purgatorio*; when he enters the constellation and looks at the earth for the first time (xxii. 134), it is over *Gange*; and therefore it is now six hours later, or midnight, in *Purgatorio*. After this Gemini describes its arc of 90° , and six hours later is over *Gerusalemme*. It is now, therefore, morning in *Purgatorio*.

There is only one more explanation to be made. In Par. xxii. 151-153, Dante says that in revolving with the eternal twins he sees the whole of the inhabited part of the earth, from the mountains down to the mouth of the rivers. Our Dial will show at once that from Gemini it is impossible to see more than half of that part of the earth which is illumined by the sun. When he entered the constellation (Par. xxii. 110-111) it was over *Gange*, and Dante could see the inhabited earth from *Gange* to *Gerusalemme*. When Gemini is over *Gerusalemme*, Dante can see it from *Gerusalemme* to *Marocco*, and therefore in revolving with Gemini he has seen the whole of it from *Gange* to *Marocco*. When Dante finds himself over *Gerusalemme* he ascends to the *primum mobile*, and we may take leave of him, as there are no more time-references to be explained.

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

PQ	Pradeau, Gustave
4404	A key to the time
P7	allusions in the Divine comedy



lxxxvi

