

TEXTS AND DOCUMENTS

THE SPHERE OF LIFE AND DEATH IN EARLY MEDIAEVAL MANUSCRIPTS

HENRY E. SIGERIST

1.

The *Sphere of Life and Death* was a magical device used for the purpose of finding out whether a patient would live or die. It could also be used for other purposes of divination, to ascertain whether a lost object would be recovered or not, whether an impending event would turn out happily or unhappily, and similar questions.

The Sphere was based on the magical virtue of numbers and astrology. It was easy to handle. All one had to do was to add the numerical value of the letters of the patient's given name. To this sum then was added the day of the moon on which the patient fell sick. The total was divided by thirty, and if the remainder was found among the numbers figuring on the upper half of the Sphere it meant that the patient would live. If, however, the number occurred on the lower half of the Sphere, the patient would die.

The Sphere was used by physicians because it is found in purely medical manuscripts. Undoubtedly it was also used by laymen because it frequently occurs in non-medical books such as missals. Charles Singer has very justly pointed out that such books were used by priests in visiting the sick and that they consulted the Sphere when they wanted to know whether the time had come to administer extreme unction.¹

The oldest text of the Sphere preserved is that of the 4th century Greek Papyrus V of Leyden published by C. Leemans² and again by Albrecht Dieterich.³ There it is attributed to Democritus, Δημοκρίτου σφαῖρα, προγνωστικὸν ζωῆς καὶ θανάτου.

¹ Charles Singer, *From Magic to Science*, New York, 1928, p. 146.

² Papyri Graeci musaci antiquarii publici Lugduni Batavi . . . edidit . . . C. Leemans, vol. II, Leyden, 1885.

³ Papyrus magica Musei Lugdunensis Batavi . . . denuo edidit . . . A. Dieterich, *Fleckeisen's Jahrbücher für classische Philologie*, Suppl. 16, 1888, pp. 747-829.

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This Greek Sphere of Democritus, although different, is related in character to the Sphere of Petosiris which seems to be of Graeco-Egyptian origin. It is included in an epistle of Petosiris to Nechepso and was published by Ernst Riess.⁴

The Sphere of Democritus was translated into Latin probably around the 6th century A. D. when such translations were made in large numbers. The translation, however, presented a serious difficulty. While all letters of the Greek alphabet were used as numerals, this was not the case with the Roman letters and there was a great variety of opinion as to their numerical value.

In the Latin translations the Sphere is attributed sometimes to Democritus, sometimes to other authors such as Pythagoras, Apuleius, Plato and others.

In 1914 E. Wickersheimer in a very interesting study entitled *Figures médico-astrologiques des IX^e, X^e et XI^e siècles*⁵ published various versions of the Sphere from the following manuscripts:

Bibl. Nat. nouv. acq. lat. 1616, saec. IX, fol. 7^v

Bibl. Nat. lat. 8663, saec. XI, fol. 57^v

Orléans 276, saec. XI, p. 129

In the same paper Wickersheimer published two versions of the so-called *Tetragonus subjectus*, a divination device very similar to the Sphere. He published them from the manuscripts:

Bibl. Nat. nouv. acq. lat. 1616, saec. IX, fol. 14

Laon 407, saec. IX, fol. 136^v

Charles Singer in his essay *Early English magic and medicine*⁶ published the Sphere from

Bibl. Nat. lat. 11411, saec. IX, fol. 99

Bodl. 718, saec. X, fol. 50^v-51^r

Lynn Thorndike in *A History of Magic and Experimental Science*

⁴ Nechepsonis et Petosiridis fragmenta magica, *Philologus*, Suppl. VI, 1891-93, pp. 325-394. Facsimiles of the Sphere in M. Berthelot, *Collection des anciens alchimistes Grecs*, vol. I, 1887, pp. 88-90 and A. Bouché-Leclercq, *L'Astrologie Grecque*, Paris, 1899, pp. 539-540.

⁵ *Janus*, vol. 19, pp. 157-177.

⁶ *From Magic to Science*, New York, 1928, pp. 133-167.

gives a list of manuscripts that contain the Sphere and similar texts.⁷

In the following I would like to publish three versions of the Sphere and some additional texts from three manuscripts that are not included in Thorndike's list.

2.

ST. GALL, STIFTSBIBLIOTHEK, CODEX 752, SAEC. X, p. 82 (Fig. 1).

The text reads:

Spera apulei platonici, de vita, de morte, vel omnibus negotiis, et quicquid inquirere volueris. Sic computabis per omnes litteras ut puta de nomine aegri, addes et lunam quota fuerit die qua decubuit. Et quotiens potueris, XXXmam deduces et quod superaverit, reverteris ad organiolum infra scriptum. Et si superiori convenerit parti numerus, vitalis erit. Si inferiori parti, morituum dicis. Sic et de omnibus negotiis vel causis requiris.

At the right is the Roman alphabet with the numerical value of each letter. Over the Sphere to the left is the Greek word $\Upsilon\text{ΠΕΡΦΕΙΟΝ}$ which designates the superior hemicycle.

The numbers in every hemicycle of the Sphere are arranged in three groups. This is not by accident. In the more elaborate Sphere of Petosiris⁸ the three sections of the hemicycle of life from left to right are designated as $\mu\epsilon\gamma\acute{\alpha}\lambda\eta \zeta\omega\acute{\eta}$, $\mu\acute{\epsilon}\sigma\eta \zeta\omega\acute{\eta}$, $\mu\iota\kappa\rho\acute{\alpha} \zeta\omega\acute{\eta}$. This meant that if the number was found in the left upper section, the recovery would be rapid, but slower if it occurred in the central section and slowest if in the right-hand section.

Correspondingly, the three sections of the hemicycle of death were designated as $\mu\acute{\epsilon}\gamma\alpha\varsigma \theta\acute{\alpha}\nu\alpha\tau\omicron\varsigma$, $\mu\acute{\epsilon}\sigma\omicron\varsigma \theta\acute{\alpha}\nu\alpha\tau\omicron\varsigma$, $\mu\iota\kappa\rho\delta\varsigma \theta\acute{\alpha}\nu\alpha\tau\omicron\varsigma$, and the interpretation followed the same principle.

In the simplified mediaeval Latin sphere the prognosis was not differentiated that far. It was simply life or death, but the traditional grouping of numbers remained.

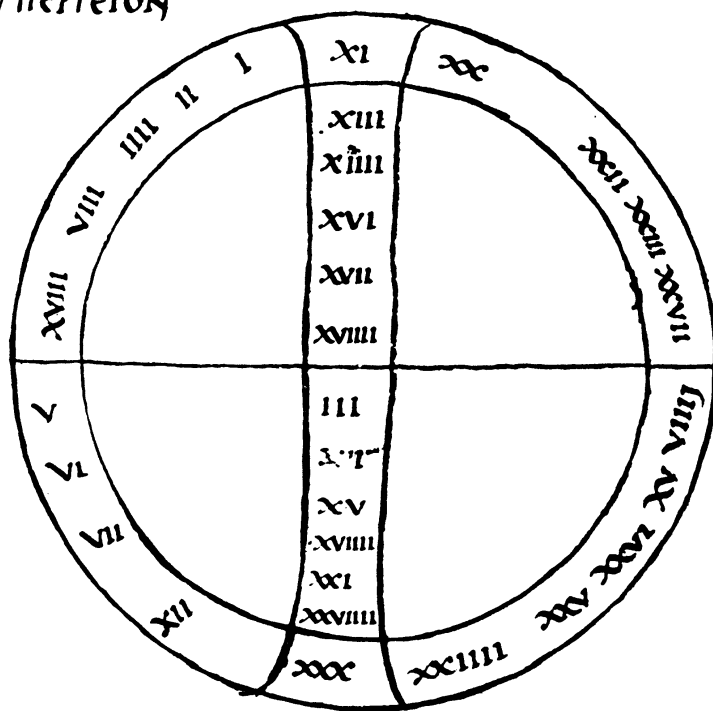
In this manuscript the Sphere is attributed to Apuleius Platonici. The philosopher and novelist, Apuleius of Madaura (2nd century A. D.), enjoyed in the Middle Ages the reputation of having been a great magician. This was probably due to the fact that he was

⁷ Vol. I, New York, 1923, pp. 692-694. See also Thorndike's *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin*, Cambridge, Mass., 1937.

⁸ Bouché-Leclercq, *l. c.*

Spera apulei platonici . de uita . de morte . t omniū . negotiis .
 et quicquid inquirere uolueris . Sic computabis per omnes
 litteras ut puta de nomine aegri . addes & lunā quota fue-
 rit die qua decubuit . Et quotiens potueris . xxxiā deducet
 & qd̄ superauerit . reuertetur ad organiolum infra scriptū . Et si
 superiori conuenierit paſti numerus . uitalis erit . Si inferiori
 paſti . mortuū dicitur . Sic et de omniū . negotiis t̄ causis requiris .

ΥΠΕΡΓΕΙΟΝ



A.	III
B.	XXII
C.	XX
D.	XXII
E.	XXII
F.	XX
G.	XX
H.	IIII
I.	XXII
K.	VIII
L.	VI
M.	III
N.	XXIII
O.	III
P.	XXIII
Q.	XV
R.	XXIII
S.	VIII
T.	XI
V.	VII
X.	VI
Y.	II
Z.	I

THYMIAMA PALTRIMI.

Gozumbri — III. Gumſtra — I.

Ala den̄ VI. Muſciden̄ II. Caſſore den̄ II.

Hæc omnia terendo miſcentur, ' ψ

Fig. 1.

SPHERE OF APULEIUS

Manuscript St. Gall 752, 10th century, p. 82.

once actually accused of having bewitched his wife Aemilia Pudentilla, an accusation against which he defended himself in his still preserved *Apologia*. It is needless to say that the attribution of the Sphere to him is purely fictitious.

3.

The page of the St. Gall manuscript that contains the Sphere has at the bottom an interesting recipe :

THYMIAMA PALTGRIMI

Cozumbri—iii. Cumfiti—i. Aloa den. vi. Musci den. ii. Caffore den. ii. Haec omnia terendo miscentur.

It is a *θυμίαμα*, a kind of incense. Such *θυμιάματα* were used in the cult⁹ but also for medical fumigations. As to the ingredients, cozumber (cozumber, cotzumber) was a precious kind of aromatic gum that was used as incense in the church,¹⁰ and also in salves and plasters.¹¹ Cumfitum occurs in other prescriptions as cumfita, gumfita, usually in connection with gums.¹² I am not sure what it actually is. Aloe was frequently used in ancient recipes. Muscus is here undoubtedly musk, and caffora is camphor which was imported from the East. Camphor occurs in early mediaeval recipes as cafora, casfora,¹³ and St. Hildegard mentions it as gamphora.¹⁴

The prescription is particularly interesting because it has the name of its author Paltgrim attached to it. This is a Germanic name, not that of an ancient author, and it is quite possible that Paltgrim was a St. Gall monk.

A similar thymiama, but with more ingredients, occurs in another St. Gall manuscript, codex 44, saec. IX, p. 247 :¹⁵

Confectio timiame

Cozumbrio lib. i, storace unc. ii et den. ii, confiti unc. iii et den. vi, thus unc. i den. ii, mirra den. vi, mastice unc. 8, spica unc. i et den. vi, croco den. ii, aloen unc. i et den. vi, cafora unc. i et den. i, musco den. iiiii, ambar den. i.

⁹ Herodotus, I, 198.

¹⁰ Ducange, *Glossarium mediae et infirmæ latinitatis*, vol. II, 1883, p. 386.

¹¹ H. E. Sigerist, *Studien und Texte zur frühmittelalterlichen Rezeptliteratur*, Leipzig, 1923, pp. 21, 61, 89.

¹² *Ibid.*, pp. 49, 55, 61, 62, 64, 89.

¹³ *Ibid.*, pp. 89, 147.

¹⁴ *Causæ et curæ*, ed. P. Kaiser, Leipzig, 1903, pp. 215, 26.

¹⁵ H. E. Sigerist, *l. c.*, p. 89.

There is one last difficulty on our page. After the recipe there is a sign that looks like an S on top of a V. What this means I do not know. It may be an unusual abbreviation for *salva venia*, *solvi votum*, or something similar.

4.

VERCELLI, ARCHIVIO CAPITOLARE, CODEX CLXXVII (Arab. 42),
SAEC. X, fol. 143^r (Fig. 2).

The text reads :

Ratio sperae phitagorae phylosophi quam apulegius descripsit, ut de quacunque re scire vel consulere volueris, utpote de aegris, qua die incurrit, et ea die quota luna fuerit scire debes, addis nomen ipsius hominis secundum infra scriptas literas, et sic in unum colligis et partire in triginta et quicquid remanserit respicies, et sic invenies, et si sursum inveneris, vivet et prosperum erit. Si autem infra fuerit morietur vel contrarium erit.

In this manuscript the Sphere is attributed to Pythagoras, and Apuleius is supposed to have copied it from him. The text is not identical with that of the St. Gall MS. but the content is the same. The beginning of the text is very close to that of MS. Bibl. Nat. nouv. acq. lat. 1616 published by Wickersheimer.

The Sphere is arranged somewhat differently from that of St. Gall. The numbers also occur in groups of three but they are not the same :

Lucky numbers

St. Gall: 1 2 4 8 11 13 14 16 17 18 19 20 22 23 27

Vercelli: 1 2 3 4 6 7 10 11 13 14 16 17 19 20 22 23 26 27

Unlucky numbers

St. Gall: 3 5 6 7 9 12 15 19 21 24 25 26 29 30

Vercelli: 5 8 9 12 15 18 21 24 25 28 29 30

The numbers 10 and 18 do not occur at all in the St. Gall Sphere, while 12 and 15 occur twice, and 19 also occurs twice, once on the lower and once on the upper half of the Sphere which must have been rather confusing. It shows that the St. Gall Sphere is somewhat corrupt.

The Vercelli Sphere has on the upper hemicycle the words DE CAELO VITA + DE AUSTRO CALOR, on the lower hemicycle DE TERRA MORS + DE AQUILONE FRIGUS.

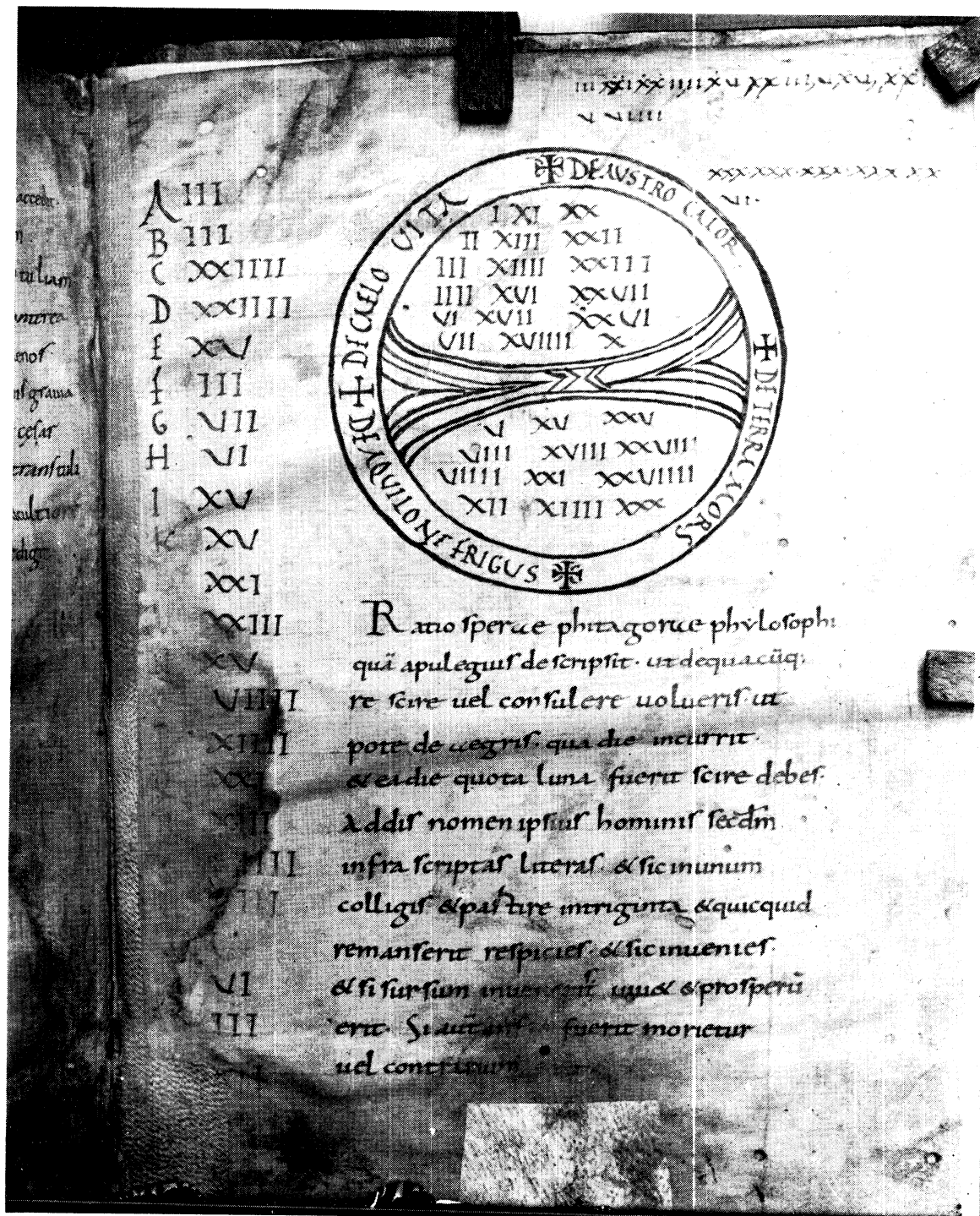


Fig. 2.

SPHERE OF PYTHAGORAS

Manuscript Vercelli, Archivio Capitolare CLXXVII
 (Arab. 42), 10th century, fol. 143v.

A very interesting item is found in the right upper corner. Here someone, perhaps the scribe himself, perhaps someone else, consulted the sphere. The first two lines read:

III XXI XXIII XV XXIII V XV XXI
V VIII

This in all probability is the numerical value of the person's name. The value of the individual letters is given along the left margin, namely

A III B III C XXIII D XXIII E XV F III G VII
H VI I XV K XV L XXI M XXIII N XV O VIII
P XIII Q XXI R XIII S VIII T VIII V V X VI
Y III Z III

Thus we should be able to find the man's name. We have the following possibilities:

III	A B F Y Z
XXI	L Q
XXIII	C D
VX	E I K N
XXIII	M
V	V
XV	E I K N
XXI	L Q
V	V
VIII	O S

The most probable choice of names we obtain is: ¹⁶

Alcemuelus	Aldemuelus
Alcimuelus	Aldimuelus
Alcemuilus	Aldemuilus
Alcimuilus	Aldimuilus

¹⁶ My colleague, Prof. Leo Spitzer of the Romance Language Department of The Johns Hopkins University, tells me that such a name as Aldemuelus is possible. It is Germanic and would correspond to “Altmüt” or “Edelmüt.” See Albert Heintze, *Die Deutschen Familiennamen*, 5th ed., Halle, 1922 and A. Longnon, *Polyptique de l'Abbaye de St. Germain-des-Prés*, Paris, 1895, p. 277 where such names as Adalmodus occur.

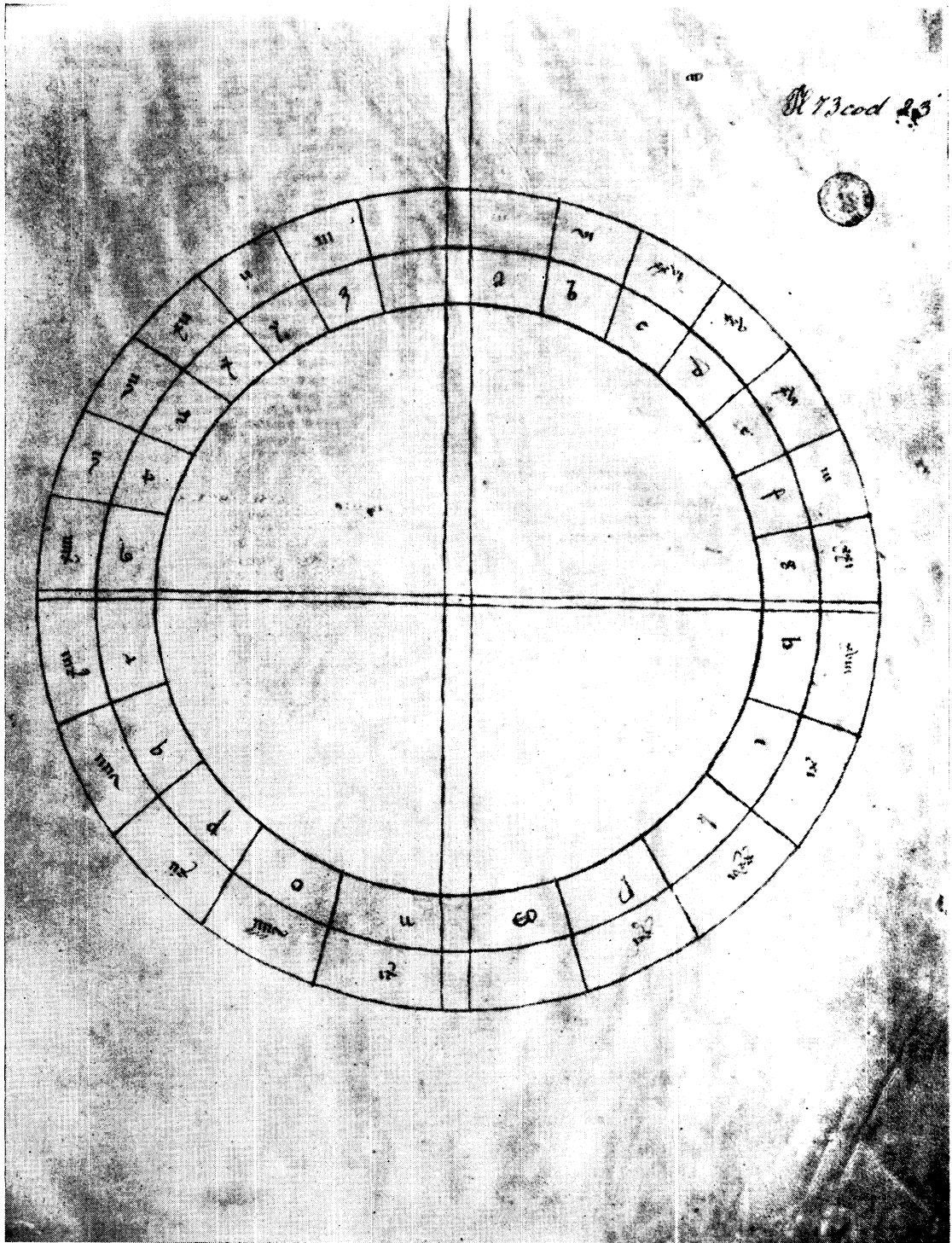


Fig. 3.

SPHERE OF LIFE AND DEATH
(Fragment)

Manuscript Florence, Laur. plut. 73, cod. 23, 13th century.

The next figures we find in the right upper corner are :

XXX · XXX · XXX · XXX · XX
VI ·

Our man apparently divided his name by 30 after having added the day of the moon to it, and he was lucky enough to obtain a remainder of XXVI.

I suspect that VI was the day of the moon and that it was written on a special line for that reason. There was space enough to have it follow the XX. The sum total of the name is 141. Four times 30 plus 20 is 140. So a mistake must have been made somewhere, but even with a remainder of 27 our man would have been on the lucky side.

5.

The verso of folio 143 of the Vercelli manuscript has an interesting prescription for the treatment of people possessed by a demon which deserves to be published. The leaf unfortunately is heavily stained and the script has faded in many places. The text reads :

Ad homines demoniosus . . . ΔOYN . . . OYC denarios duos et dimidio, herba sub ti . . . a colliges cum oratione dominica et viscu de collore aut de cerro cum aqua sancta colotio capre virginis dabis luna ΔEK . . . Prius tamen ut missas superfiant cantatas et sedeat ipse homo sub altario diebus VIIII postea dato et . . . diat hanc penitentia annum plenum custodiat vir si fuerit a muliere et mulier a viro cum vitro non bibat et carne caprina non comedat dum vivit nec lente nec carne porcina nec anguila nec barbium pisce neque tenca neque caput ullius animalis neque de pisce panis de dominico die factum non comedat tandem si vir fuerit colotio capri masculi si femina femine virginis sint et parvi hoc autem si custodierit liberabitur si autem preterierit statim revocetur in pristinum locum. Et ibi ter dicit extinguo c p n c f p c k p n k s h x k x s m x l k f r k s b b p m n k c p k t x x k r k l k x k . . vel ex hac hora quam voluerit salus . . . ita recte suis temporibus purgetur. Deinde ipse statim in buxide recondis qua volueris claud . . . ipsa buxide in linteolo involvis diligenter ligas et signas et absconde ea ut non aperiatur ita ut illa nec sol nec . . . aliquando videat aliquando . . . et iterum co . . . reddis.

The text is so corrupt that I cannot give a literal translation. The treatment apparently consisted of the following procedure :

For nine days masses were sung in the church while the patient had to sit under the altar. Then on the tenth day of the moon he was given a potion containing 2½ drachms of a plant that had been

	Vercelli	St. Gall	Flor.	B. N. 11411	B. N. 1616	B. N. 8663	Orl. 276	Bod. 718	B.N.1616 Wick., p. 172
A	3	3	3	3	3	3	3	3	3
B	3	27	6	3	3	3	3	3	3
C	24	15	26	22	27	26	22	28	15
D	24	22	25	23	26	23	24	24	23
E	15	12	16	12	15	17	15	25	15
F	3	21	3	3	3	3	3	3	3
G	7	15	21	7	7	21	7	7	7
H	6	4	18	6	3	29	6	6	6
I	15	12	11	15	15	12	15	15	15
K	15	9	26	15	15	26	15	16	15
L	21	6	21	21	21	21	25	21	20
M	23	3	?	22	23	17	24	23	25
N	15	18	11	16	15	15	15	15	15
O	9	3	9	9	8	8	8	9	9
P	14	18	12	24	17	12	?	14	14
Q	21	15	9	21	21	9	21	21	30
R	13	18	13	13	13	13	12	12	13
S	9	9	14	9	9	18	9	9	9
T	8	11	6	8	9	6	9	9	8
V	5	7	7	5	6	7	6	16	5
X	6	6	12	6	6	13	15	10	6
Y	3	2	2	3	3	2	6	6	3
Z	3	1	3	3	2	3	3	3	3

Fig. 4.

Numerical value of letters of the Roman alphabet.

gathered while the Lord's prayer was said. The Greek name of the plant was given but it is so mutilated that I cannot identify it. The potion contained in addition mistletoe from an oak (de cerro) or from another tree (de collore)¹⁷ and holy water. The whole was given with urine of a virgin goat. As a penance the victim had to abstain for a whole year from sexual intercourse. Throughout his life he was not to drink from a glass, nor was he to eat goat meat, lentils, three kinds of fish (eel, barbel, tench), the head of any animal or fish, bread baked on a Sunday. The following is not quite clear because the text is corrupt. The victim had to do something, perhaps wash himself with urine of a male or female virgin goat according to the demoniac's sex. Then he had to pronounce a charm three times beginning with the words "I extinguish." The charm consisted of a series of letters, all consonants, that do not make any sense. If the whole ritual was followed in the right order and all taboos were observed, the demoniac was liberated. Otherwise he relapsed into his former condition.

The end is like the beginning, an instruction for the priest. He shall put the charm back into a box, close it, wrap it into a small piece of linen, bind it, sign it and conceal it so well that neither sun nor moon will ever see it.

6.

The third Sphere is a mere fragment. It is found on the recto of the first leaf which is part of the binding of the *Florence Manuscript Laur. pluteus 73, codex 23, saec. XIII* (Fig. 3). It gives the numerical value of the letters of the Roman alphabet, but the scribe never finished his job.

7.

As we mentioned before, the numerical value of the Greek letters was given, since they all served as numerals. This was not the case with the Roman letters. It is very striking that not two manuscripts of the Spheres published so far have identical numbers (Fig. 4). They are unanimous in assigning the number 3 to the letter A. Eight out of nine manuscripts have 3 for F, seven have 3 for B and Z, but otherwise there is considerable divergence.

¹⁷ About the magic virtues of mistletoe, see Leo Kanner, Mistletoe, Magic and Medicine, *Bulletin of the History of Medicine*, 1939, vol. VII, pp. 875-936.