The Aratea of Germanicus:
Text, Commentary and Translation.

by

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Abstract of thesis

This thesis consists of an edition of the *Aratea* of Germanicus. In its preparation twenty eight manuscripts and many early editions were collated (most of them for the first time) and their relationships established as far as possible. In the construction of the text of the poem the manuscript evidence was evaluated and a large number of conjectures sifted. The text is followed by an English translation and a commentary which discusses the text and the sources of the poem, defends the text printed and comments on other matters such as the author's style and imitations of earlier Latin poets. There is a discussion in the introduction of the sources, date and authorship of the poem.
Preface

I am very grateful to Professor F.R.D. Goodyear for the help he has given me in the preparation of this thesis. I have incorporated several of his conjectures into the text and mention others in the commentary, but my biggest debt is one I mention only here, the correction of errors in the text and translation. I am also very grateful to Mr. E. Courtney, who has discussed many passages with me. I have incorporated conjectures of his into the text, and defences of them and discussions of various problems into the commentary. I would also like to thank Professor O. Skutsch, Mr. E. Kenney and Dr. J. Diggle for suggestions they have offered and their discussion of difficulties with me.

My final thanks go to all the librarians who provided me with microfilms of manuscripts, to Mr. Patrick Strong, Keeper of the College Records and Collections, Eton College, who bought the Eton manuscript to Senate House Library, London, for my use, and to the University of London Research Grants Committee for helping me with funds to purchase microfilms.
# Table of Contents

Abstract of thesis 3
Preface 4
Table of Contents 5
INTRODUCTION 6
1: The manuscripts 7
2: The editors 19
3: The form of the present edition 21
4: Sources 25
5: Identity of the author and date of the poem 28
TEXT and APPARATUS CRITICUS 31
TRANSLATION 70
COMMENTARY 104
The Manuscripts.

I give a stemma codicum below.
The Greek letters represent lost manuscripts. 0 and Z are, of course, also lost. The other symbols represent the following manuscripts or early printed editions:

**Z family**

Bern: Codex Bernensis 88 (Burgerbibliothek, Bern) 10th cent.
C: Codex Bohoniensis 188 (Bibliothèque de Boulogne-sur-mer) 10th cent.
E: Codex Einsidlensis 338 (Stiftsbibliothek, Einsiedeln) 10th cent.
L: Codex Leidensis Voss. Lat. Q 79 (Universiteit tot Leiden Bibliotheek) 9th cent.

L = the agreement of the majuscule and minuscule texts in the manuscript. Where they differ, L = majuscule, l = minuscule.

**0 family**

**V branch**

B: Codex Basileensis A.N. iv 18 (Oeffentliche Bibliothek der Universität, Basle) 8th or 9th cent.
D: Codex Berolinensis Philippicus 1832 (Deutsche Staatsbibliothek, East Berlin) 9th or 10th cent.
F: Codex Parisinus Lat. 5239 (Bibliothèque Nationale, Paris) 10th cent.
G: Codex Argentoratensis Lat. 275 (Bibliothèque Universitaire et Regionale de Strasburg) 15th cent.
P: Codex Parisinus Lat. 7886 (Bibliothèque Nationale, Paris) 9th or 10th cent.

**μ branch**

A: Codex Arundelianus 268 (British Museum Library, London) 13th cent.
M: Codex Matritensis 19 (Biblioteca Nacional, Madrid) 12th cent.
S: Codex Strozzianus 46 (Biblioteca Medicea Laurenziana, Florence) 15th cent.
T: Codex Egertonensis 1050 (British Museum Library, London) 15th cent.
U: Codex Barb. Lat. 76 (Biblioteca Apostolica Vaticana) 15th cent.
V: Codex Vat. Lat. 3110 (Biblioteca Apostolica Vaticana) 15th cent.
1: Edition of Pisanus, Venice 1488
2: Codex Montpesulanus 452 (Bibliothèque de l'école de médecine, Montpellier) 15th cent.
3: Codex Matritensis 8282 (Biblioteca Nacional, Madrid) 15th cent.
4: Codex Vat.Barb.Lat.77 (Biblioteca Apostolica Vaticana) 15th cent.
5: Codex Monasterii Sanctae Mariae apud Scottos 521, Vienna 16th cent.
6: Codex Vat.Urb.Lat.1358 (Biblioteca Apostolica Vaticana) 15th cent.
7: Codex Laur.Gad.89 suppl.plut.43 (Biblioteca Medicea Laurenziana, Florence) 15th cent.
8: Codex Vat.Lat.3293 (Biblioteca Apostolica Vaticana) 15th cent.
9: Editio princeps (ed.Bonincontrius, Bologna) 1474
10: Codex Vat.Lat.1653 (Biblioteca Apostolica Vaticana) 15th cent.
11: Codex Additional 15,819 (British Museum Library, London) 15th cent.
12: Codex Panormitanus 2QQ.E.11 (Biblioteca Comunale, Palermo) 15th cent.
13: Codex Berolinensis Lat.Oct.149 (Staatsbibliothek der Stiftung Preussischer Kulturbesitz, West Berlin) 15th cent.
14: Codex Vat.Reg.Lat.1801 (Biblioteca Apostolica Vaticana) 15th cent.

Unclassified because of contamination, but derived from X
The edition of Aldus (Venice, 1499) and Codex Etonensis 88 (Eton College Library, Windsor) 15th or 16th century.

The dates given are derived from printed catalogues and/or editions of Germanicus. I have seen A, 11, T and Codex Etonensis; I have collated the other MSS in microfilm.

There also exists a Codex Ambrosio.D 52 inf, 15th cent., of the Collegio Ambrosiano, Milan, containing lines 1-430 and iv 52-163 (seen by Holder in 1871 and described in his edition of Aulenius, Innsbruck, 1887, p xi1). I have not been able to obtain a microfilm. There also exist certain Codex Fribergensis, a collation of which was incorporated into his edition by Orelli. It too contained 1-430 and iv 52-163. Both are thus copies of X.

There also exist or existed certain early editions (no copy of them in the British Museum Library or the Bibliothèque Nationale). They are mentioned in Hartley: 'Catalogus Universalis Librorum Insignium et Rarissimorum' (1699), one of 1497, 8vo, Venice, another of 1500, 4to, Venice, another of 1503, Rhegium, impressum expensis et labore Francisci Mazalis calcographi diligentissimi.
The division between $O$ and $Z$ can be seen in numerous divergences of reading, in the verses contained in one and omitted by the other and in the different order of verses.

$Z$ omits 35, 65-70, 85, 97, 143, 267, 343, 555, 568-71 and fragment iv (all contained in $O$), has 90-5 after 64, after 146 a verse made up from 148 and Aukenius 370, Au. 371-4, 376-8, Germ. 147, Germ. 148/Au. 383, Au. 384, 388-90, Germ. 387-393 before 286, after 341 Au. 749, after 342 Au. 747, 748, 750; after 464 one, after 472 two spurious verses.


$O$ omits 253 verse contained in $Z$, $Z$ 179 contained in $O$, they have in common 500 verses. $E$ alone contains 4 verses, $A$ alone 9, $L$ are known only from a quotation by Priscian. Total verses extant: 946¾. 3 of these are spurious. Total of genuine verses: 943½.

Relationships of the $Z$ manuscripts.

Bern throughout (except for a few individual errors) follows $C$ as corrected by its second hand. It has, up to verse 61, many $O$ variants in a second hand, derived from $P$ or a manuscript now lost, which also contained the conjecture paene found in $P$ at verse 51. Its only individual reading of interest is that of the 2nd hand at 676 (recorded in the apparatus criticus to that verse).

$C$, $E$ and $L$ are independent sources for the text. $E$ and $L$ are not copies of $C$, for $C$ differs from $OEL$ in having 333-40 after 344 and from $EL$ ($O$ not having this fragment) in omitting iii 13-4. That $C$ and $E$ are not copies of $L$ is shown by the following readings: 229 illi facies $OCE$ facies illi $L$ 256 occupat $OCE$ occupat $L$ occupat 1 264 si uere $O$ si uero $E$ siu ero $C$ siu etro $L$ si utro 1 276 uel Tedae $OE$ uilledae $C$ nilledae $L$ niliede 1 and that $C$ is not a copy is also shown by the fact that $C$ possesses the initial letters of 290-3 missing in $L$ and $E$ and of 404-13 missing in $L$ (1 omits the whole of 404-13). Neither $C$ nor $L$ was copied from $E$, for $E$ differs from $OCL$ in having 209-223 after 224-247, 248-255 after 256-268, omitting 269-75, 286-314 and 321-7, having 366 after 367 and omitting 394-413.

But $C$ and $L$ share an ancestor not shared by $E$. This is demonstrated not so much by the fact that $OE$ agree in truth against $CL$ several times (119 dominis $OE$ dominus $CL$ 130 abit $OE$ om. $CL$ 154 rudente - rudenti 217 destituunt - distituunt 283 fugit fulget 335 clauo lauo 367 interiacet iniacet 375
praebere prebuere 489 speciosa aplustria speciosae
plustria 500 fecundum fecundus 535 donaut donabit
578 aut ut) and QCL agree in truth against E (210
tristissima QCL tristissim E 215 totam tutam 222
pegasus pesagus 501 orbe ore), as the truth could have
been arrived at by conjecture or contamination, but by the
fact that E sometimes occupies an intermediate position
between Q and CL (58 dexterius quae Q dexteriusque E
dexterique CL 98 si te site siti 78 mensem cum pleno
pleno mense cum pleno mense cum 392 nullum paulum
paululum 446 est transpos E om CL 491 arcus om E
orbis 550 canet canat canant ). The only evidence that
can be adduced against the stemmatic outline given above
(as L never agrees with Q against CE and neither C nor L
has any readings intermediate between Q and E) is the fact
that C agrees with Q against E three times: 187 breueu
OC breue EL 470 hirsutis hirsuti 230 nitere niteret
(although in this last instance C could have had niteret
and the final t may have been erased by the 2nd hand with­
out my being able to see that there is an erasure. Dahms,
JKPh 99 (1869) 269-75, who saw the actual manuscript, reports
in other places erasures by C where I can see nothing on
microfilm). But these could easily be due to conjecture
(187: breue made to scan and agree with Cynosuran 470:
hirsuti made to agree with the preceding clunibus 230:
niteret changed to nitere - if this is the reading of C -
as an infinitive is required after possunt). C also seems
to have a conjecture at 450 (est EL est et Q extat C,
restoring the metre, defective in EL).

I give now a brief account of the Z MSS individually.
The corrections of C, which I call C , are all in the
one hand, roughly contemporary with C and in a very much
brighter ink. Sometimes the reading of C is completely
obliterated by them, more often the way the correction is
made allows it to be inferred. The corrections are very
rare after 511. I list them all (with the exception of
spelling variants and emendations of the verses of Auien­
lius), in the following five classes:

(1) Those that corrupt a text there is no good reason
to suspect (23 examples) 27 rotis OZ polis C 36
mendaci mendacis 61 qua sic 78 orbe orbes 98
quam qua 106 uera uero 146 ignoti ignotae
188 diducto deducto 210 capiti capiti est 285 manus
manu 320 excidio excidium 334 contemptior contention
345 fulgent fulget et 350 fuit fugit 351 numina
numina 428 et sed 430 forat uorat 432 formatus
formatur 445 docebit docebunt 455 uidetur uidentur
456 sidera sidere 466 cubito cubitos 467 nixa fixa
(2) Those that unsuccessfully emend a corrupt text:
(38 examples) 24 axem cretae axem nam cretae 33 donabit
donabat 58 dexterique dexteri quae 100 mediomini
mediomine 124 nullus nullus tunc (loco nulliusque)
125 notabat notabat 131 _om._abit petit 142 quid...
quid quod...quod 145 alii aliae 146 expletum
expletur 194 nox noctis 195 breuis (om.et) breuior
204 lucetue lucet quoque 209 armoset armo set
256 est et 257 facile facile est 263 et mea
simul et mea 264 siu ero siu erus 269 ponto ponto est
272 erectaque erecta quoque 283 leua fulget fulget
leua 285 latices latices qui 292 spectaueris
spectaberis 293 rigora frigora 296 oriturque oritur
qua 298 interratem ante ratem 317 ardum arduum
321 delphin? delphinus 330 spars ecum sparsae cum
380 iniacet hic iniacet 390 squamiger squamigeri
403 splendenti metuendum splendente tuendum 427 centaur?
lucet centauriere lucet 436 inmorti inmortis 440 possim
possent 472 diuidit diuisi 483 ego chero ergo chero
488 contigit contigerit
(3) Those that unsuccessfully emend a corrupt text
(the emendation agreeing with other manuscripts) 26 quae,
quae quae (sic 01).
(4) Those that successfully emend a corrupt text (the
emendations agreeing with other manuscripts). 28 examples:
2 carmini carminis 3 t.eneror te ueneror 34 quo
quod 51 cynosum cynosuram 87 crinata crinita (sic _
fac.ex crinata E) 125 _om._que que 134 uitiis uitiis
153 laetus laetus 168 siderique sidere quae 178 q,
qua 179 hac haec 208 radiatque radiat quae 213
capiti capite 217 distiuuent destiuent 276 uil uel
392 paululum paulum 292 uultum multum 295 temia
temaria 298 iuba iuan 355 lauo clauo 402
soddebunt sordebbunt 417 costa costas 420 de?es deos
436 longe longo 452 distant distant 462 aurige
aurigae 112 21 incaelum caelum
(5) Those that successfully emend a corrupt text, the
emendations being unique (6 examples) 273 tortis torti
331 humeris humeri 333 et ei 427 tractus tractu
428 capiti capite 429 hic huic
There is nothing in C² that could not be due to conjecture.
C² is only mentioned in the apparatus criticus in the
six examples of (5) listed above.
In E a hand (probably that of the original scribe) has
replaced several readings with those found in _λ_ (often supple-
lying missing letters) evidently correcting the text from
the exemplar. There are a few other variants in E. I men-
tion them in the apparatus.
The text of L is written in majuscules and minuscules in 1-141, minuscules only in 142-6, both in 147-403, majuscules only in 404-13, both in 414-445, majuscules only after 445. There is no evidence for supposing that the majuscule and minuscule texts were not both derived from the one source. There are several corrections of both L and 1, in more than one hand, although I have not been able to distinguish them clearly. I call them L1, L2. L2 is unremarkable, as it either agrees with L or L2 or (twice) exhibits false conjectures of its own (155 neu Z seu L2 335 prios suum procyon L2).

L2 is sometimes derived from a source agreeing with Q (thus it includes 97, missing in Z). In 98 it agrees with τ in the false vocant for the correct vocem of L and OZ in general. It also agrees with Q in the correct demersa for Z's dimensia at 134. Sometimes it agrees with QE against λ: 98 siti Q siti EL2 siti λ 131 abit QEL2 om. λ 134 utiris utiris. Sometimes it corrects mistakes peculiar to the majuscule text in L, sometimes mistakes peculiar to the MS L (e.g. 170 ibi L ubi CEPL2 (sub and the like Q) 229 facies illi L illi facies QCEL2. Where Q is missing, L2 sometimes agrees with other members of Z, e.g. 2 with C (in the spurious verse after 464 EL have et, CE atque, in 635 referetur EL referetur L2C, a false conjecture), sometimes with E against λ, always in truth (710 ullis L E illis λ 721 terga terra ii 10 tempora tempore ii 15 annus annus). Agreements with C may go back to interlinear variants in λ, although coincidence in conjecture is possible, agreements with E suggest a source of L beyond λ, although conjecture by L2 is possible.

Certain readings (436 inmorti L2 immorti Z 546 nouerca nouerca iii il rocat rore 17 fallit falli 24 torpere torpore are unique, and probably due to conjecture, correct except at iii 17.

In the apparatus criticus individual errors of C, E or L are not usually noted. The symbol Z means the agreement of all three or of CE or EL. Where Q is present the errors of λ are not noted if E agrees with Q.

0 family

As I will show later, this has two branches. Certain manuscripts derive from a lost manuscript which I call μ, others from another lost manuscript, which I call ν. As D, F and G end at 146, after 146 ν has only two representatives, B and P. Where P and B disagree, it is impossible to reconstruct ν from 147 on. P contains many conjectures, which complicates the picture further.
I list below all the differences between \( \mu \) and \( \nu \) up to 146, noting also where \( P \) has abandoned \( \nu \). The reading of \( \mu \) is given first.

6 ardentem (ZP) ardente 9 parta (Z) tanta
18 trahit (ZP) traxit 27 melius (ZP) melius
38 dictata texere deae (uel similia) dictae aestexere
dei (dictei texere datis Z) 48 has (Z) ab ast P
60 helices (Z) helicis 68 pansis passis (uersetum om. Z)
71 ariadnaeo (Z) ariadnaeos 71 sacrata stat
ignes sacrata stigne sacrataest igne ZP 73 se uertice
(ZP) euertice 76 tum (Z) dum 88 dorsos inuadit
dorsos inuadit dorso sinuabit (ZP) 90 helicen (ZP)
helicens 90 minatur (ZP) minatur 92 munere
munera sidere Z 93 tristia (ZP) tristitia
94 numine nomine (Z) 106 seuero seu uera (Z)
112 uesanos (Z Lactantii codices) uesano 113 consanguineis
(ZP Lactantii codices) consanguinis 115 dubios (Z)
dutos 116 naue (ZP) nau 118 terminus (ZP) terminis
120 argenti creuit (Z) creuit argenti 122 excelsis (Z)
ea 123 abscondita ripa (Z) abscondit aripa
128 uota (Z) uocata 130 tradat tradam (Z) 143
(priore loco) quisque...quisque (P) quisquis...quinque
uersetum om.Z 145 aliae quibus (ZP) alia equibus
143 tenet (P) tenec.

I only give the readings of \( \mu \) and \( \nu \) in the apparatus
criticus where Z is missing, where all three disagree, or
where \( \mu \) or \( \nu \) by itself is correct.

\( \nu \) subfamily

That \( B \) and \( \pi \) belong to this group is evident from the
above, that \( P \) belongs to it from the fact that together with
\( B \) it omits 224, 400, 402 and 513 (found in \( \mu \) and Z) and iv
3-4 (found in AMS. Z and V omit the whole fragment, \( T \) all
of the fragment before verse 52).

\( P \) has many false conjectures. I list those to 176.
The true reading is listed first. 48 has \( \mu Z \) ab \( \nu \) ast \( P 
51 redit Z om.O paene P 74 succiduis Z succidus O
succidius P 156 spirantibus OZ furentibus P
176 docebit Z docebat O doceret P. On the other hand,
certain true or nearly true lections are found only in \( P 
116 petebat P petebant OZ iv 1 solis P solus O
6 balabit Iriarte balauit P ualebit O 22 fessos
fessus 73 dabit cum P labitum cum B labetum cum \( \mu \),
aurora P curora Q 76 monobit P mouebit Q
77 fulgora fulgera. I see no way of determining whether
these, and P's many agreements with Z, where Z is present,
derive from a MS source, or are due to conjecture.

Where Z is present I have not recorded agreements of
individual MSS with it. In fragment iv, however, where
Z is absent, I have often cited from individual MSS. It
can be seen that contamination and/or conjecture has of­
ten confused stemmatic lines.

None of the MSS D, F or G was copied from another.
D or F (both 10th cent.) could not have been copied from
G (15th cent.). G was not copied from F: 59 cauda V
canda F 121 fraudibus V fradibus F. F several times
writes quae where G correctly has que with the rest of
V, and G and the rest of V divide several words rightly
where F is wrong. But decisive is 93: tristitia V
tristia F. G has tristta**a (the ** represent two let­
ters in rasura). The common source of F and G indicated
that ti was to be deleted. This F did; G wrote the con­
demned letters. They were only deleted later.

F and G share an ancestor not shared by D. They have
various errors not found in BDP: 9 puppibus V puppidus FG
14 semina semita 35 furta futura etc., while D has
various errors they, in common with B and F, do not have:
10 arma V ama D 11 nunc nuc 19 seruat ser etc.
DF or DG do not have any errors in common against the rest
of V.

BP share one errors against τ: 107 ortus τ orius BP,
but τ could easily have corrected orius, whether consciously
or unconsciously. This is not sufficient to show that BP
share an ancestor not shared by τ. While B and τ share
several errors against P, this could be because P has cor­
rected these errors by conjecture or from another MS source.
Thus it cannot be determined whether E, F and τ were separ­
ately derived from V or not.

μ subfamily

It remains to discuss the MSS of the μ subfamily,
whose existence has been demonstrated above. The stem­
matic division is often meaningless, as the group, like V
after 146, has only one member which conforms completely
to its stemmatic position, M and Μ is often missing. It
invariably omits the first line after a section of scholia.
It omits lines 1-17, 65, 70, 75, 90, 96, 147, 149, 157, 174, 184, 192, 207-8 (contracted into one verse in 0), 224, 234, 240, 251, 258, 273, 281, 287, 306, 318, 324, 331, 336, 342, 347, 359, 366, 437, 382, 396, 417, 429, 443, 462, 522-31, 535 and 582. Even when present, M has, of course, errors peculiar to itself.

As can be seen from the apparatus criticus in fragment iv, APS or AP (with τ added to them after iv 52) often have conjectures in common against BM or BMS, which have preserved the reading of 0: cf. 18 scorpion APS scorpioni BM 29 siccatis APS siocatis BM 71 grando APS T granda BM 79 pluualibus APS pluulibilus BM.

T agrees with M in omitting 70 and 96, but this is no proof of any special affinity, since both these lines are the first lines after scholia. Due to conjectures and/or contamination in the MSS of the μ group, it cannot be determined whether A, M, the common ancestor of S and V, and T share any common ancestors not shared by the rest of the group.

A was copied from no extant MS, as no other μ manuscript contains all the lines it contains and it is, in any case, earlier than all of them except M. No extant MS was copied from it, as it has many errors peculiar to itself, including the omission of 579.

S and V are copied from an ancestor not shared by the other extant MSS. Both omit 430 and have several errors peculiar to themselves: 32 uos OZ nos SV flexu flexo 54 orbes urbes etc. S was not copied from V, as V has no scholia and omits everything after 439. V was not copied from S, as S has many errors against V and the rest of the tradition: 17 fulgent OZ fulgore S 18 proprio proprio 27 quaternae quime etc.

U and the MSS derived from σ share a common ancestor T, for they omit 70, 96 and iv 1-51. U was not copied from σ, as it contains 431-514, missing in σ. σ was not copied from U, as U has several errors not in σ: uitet doctus σ uetet doctus U 33 caelo caelos 39 fulgent fulget 41 phenicas phenica etc.

The manuscripts derived from σ differ from all the rest in omitting 263 and contracting iv 126-7 into one verse. Their further relationships can be determined mainly on the basis of omissions.
U, X, and T are all independent (as shown below). T and X had a common ancestor not shared by U, for they omit 451-514, which U contains. In the following I cite from iv 52-113.

Sometimes X agrees with O against T or are nearer O: iv 67 flamina OUX flama T 80 flaminat O flamina XU (a correct conjecture) flamina T (a corruption of flamina) 88 spatisi OUX spaciosa T.

Sometimes U and T agree with O against X: iv 58 cum posuit OTU composuit X 74 Ingradiens ingreditur 83 apponi appenda 104 ruptis ruptos 107 praedicit UTU praedicit X.

Sometimes X and T agree with O against U: iv 53 tonitru O conitru U 84 soles O soles U.

There are other splits in the sample discussed:
73 labetum O om T feret XU. Perhaps the conjecture feret was written above the line in T, and labetum crossed out. Feret came into the text of XU, but not of T. iv 52: astros O austrum TU atrum X. T had austrum, atrum arose from the omission of us. iv 94: signo conspecta O signa conspecta T conspecta signa signa conspectaque U. T had the reading of T, X and U contain corruptions of it. 84: inducit OTU inducit X inducit T. T had inducit, corrupted differently in T and X.

I proceed now to examine the relationships of the manuscripts. Their relationships are difficult to establish with certainty except where omissions assist, as there is a certain amount of conjecture and contamination present.

There are three lines of descent, which I call $\alpha$, $\beta$, and $\gamma$. $\beta$ is distinguished by its contraction of 93-5 into one verse, $\gamma$ by its omission of 372. All of $\alpha$ except 6 and 7 omit iv 111. These lines of descent are also indicated by certain readings. I have ignored the readings of 1, 2, and 3 in tracing them, as the common source of these manuscripts has several conjectures of its own.

At 194, 4, 6, and 7 have refulget with the variant refulsit in the hand of the original scribe, $\beta$ has refulsit, $\gamma$ refulget. Evidently $\alpha$ had what is now preserved in 4, 6 and 7 ($=\alpha$). $\beta$ and $\gamma$ have chosen differently.
At 214 $\alpha$ has similarima, $\beta \gamma$ the similarima of $\theta$, in iv 107 fundes $\alpha$ fundens $\beta \gamma \theta$. At 198 stellis $\theta$ tellis $\alpha$ telis $\beta \gamma$. At 22 Grai was omitted in $\chi$ ($T$ omits the whole verse). $\beta$ had a blank, $\chi$ the conjecture uesteres, 6 has a blank, 4 cuius, 7 pars (i.e. $\alpha$ had a blank, variously filled in its apographs). At iv 113 6 and 7 have solitus, with an o above the u. Solitus is the reading of $\theta$, solitos a correct conjecture, evidently made above the line in $\chi$, an arrangement preserved only in $\alpha$. $\beta \gamma$ have solitos. At 71, where Germanicus wrote sacrata est, $\alpha \beta$ simply had stat, $\chi$ mended the metre with the conjecture propius.

Conjecture and contamination make it impossible to say whether two of the three have a common ancestor not shared by the other.

The 4 manuscripts derived from $\beta$ can be divided into 2 groups. 13 and 14 have an ancestor not shared by 11 and 12, one which contracted 125-6 into one verse. Numerous errors peculiar to individual MSS show that none was derived from another.

$\alpha$ also can be divided into groups. 6 and 7 do not have any peculiar omissions. 1-5 all omit iv 111, hence derive from a common ancestor not shared by 6 or 7. 5 is probably a copy of 4 (it is occasionally correct against 4, but these examples e.g. 76 membra 5 mebra 4, could easily be due to conjecture). 4 and 5 contract iv 84-5 into one verse.

1, 2 and 3 are derived from an ancestor not shared by 4, for they all omit 232. 1 is probably a copy of 2. The only thing that seems to contradict this is iv 52: Taurum $\chi$ thalamum 1 thalamum 2, but erased by a second hand and replaced by taurum. If 1 is a copy of 2, thalamum must have been erased after 1 had been copied from the MS. 2 and 3 have individual errors, showing that neither is a copy of the other.

$\chi$ and various parts of its tradition have certain conjectures; only true or plausible ones are mentioned in the apparatus criticus. ATSV contain many conjectures, some found in one only, some in several, either by contamination or coincidence in conjecture. I do not report all the false conjectures in all manuscripts (the reports are fuller in fragment iv, where $\theta$ is missing). Many of their conjectures are patently impossible.
The editors.

On the first editions of Germanicus (Bonincontrius, 1474; Valla, 1488; Aldus, 1499) cf. the section on the manuscripts. I have collated all the 16th century editions in the British Museum Library. All are based on Aldus. Only the edition of Morel (1559) has any conjectures of merit. I have obtained microfilm copies of the conjectures of the 16th century scholars Turnebus and J.J. Scaliger and quote those I consider worth mentioning.

Most of what survives of Germanicus was printed in 1600 by Grotius in his *Syntagma Aratorum* (earlier editions, deriving ultimately from $\chi$, printed only what was contained in $\lambda$). Grotius used Morel's edition and the manuscript L. His edition lacks the lines missing in both these sources, namely 70,555,568-71, ii 17-20, iv 1-51 and fragments v and vi.

The next editor, Schwartz (1715), printed many of the conjectures Grotius had proposed in his commentary but not put in his text. He also printed several conjectures of his own. He was the first to print fragment vi, found only in Priscian. He added to Grotius' commentary, which he reprinted, some notes of his own, citing other authors on various myths or expressing disagreement with Grotius on textual matters. I have not seen the edition of Schmidt (1728), but use Breysig's reports of it. Orelli states it is based on Schwartz, and it seems to have little original material.
iv l-51 was edited for the first time in 1769 by Iriarte (from M). It was edited from P in 1773 by Burman the younger. Iriarte's performance is much the better. Some of his emendations were repeated by Burman. I ascribe these to Iriarte, as the earlier. Orelli (1832) collated the three Swiss manuscripts (B, Bern and E) and hence was able to perceive the OZ division. He constructed the first apparatus criticus and first printed 70, 555 and 568-71 (from B). In his 1st edition (1867, reprinted 1967), Breysig first used P for the whole poem and cited selected readings of S and a few X MSS. Fragment v and ii 17-20 were printed for the first time by Baehrens, in the 1st volume of his Poetae Latini Minores (1879). Baehrens used Dahms' collation of C and first collated A, which alone contains fragment v. Breysig produced his second edition in 1899 (in the Teubner series).

In my opinion, the text of all these editions is very unsatisfactory and in many places incomprehensible and a new edition is badly needed.
The form of the present edition.

In constructing the text, I have followed these principles:

(1) When the manuscript tradition demonstrates clearly that a particular reading was the reading of the archetype at that place, I have printed this (with no entry in the *apparatus criticus*) if I think it could have been written by Germanicus.

(2) Verses I believe are spurious are placed in square brackets.

(3) When I have been unable to decide between the readings of Q and Z, I have printed that of Q, with the remark *nihilo deterius* after Z's reading in the *apparatus criticus*. Where both Q and Z are present Q is more often right than Z. Excluding doubtful cases, in verses 1 to 221 Z is right 36 times against 51 for Q.

(4) Where more than one attractive emendation has been proposed, I have printed the one I consider the best, but mention in the *apparatus* ones I consider nearly as likely as the one I have printed. Other emendations are mentioned only in the commentary.

(5) Where I consider no emendation sufficiently probable, I have retained the transmitted text, and obelized it.

In the *apparatus criticus* I usually only mention the sub variants of what is the archetype at a particular point. I mention the readings of individual manuscripts only when I consider their readings true or possibly true or where conjecture or contamination or other factors have made it impossible to discover the sub variants. Where Z only is present I have often ignored individual errors of E, which are very numerous.

I have mentioned only the earliest source or author of a conjecture. As some conjectures were repeated several times, the mention of everyone who proposed every conjecture would encumber the *apparatus* with a lot of information which may be of interest for the history of scholarship, but is of no value for the establishment of the text.

The commentary has several purposes:

(1) To justify the readings and conjectures adopted that need justifying.

(2) To discuss Germanicus' use of and divergences from Aratus (either from his use of other sources or his introduction of Roman or original material).
(3) To defend the transmitted text where I feel it needs justifying.

I have from time to time included other information I think might be of interest (for instance, on the influences of previous Latin poets).

I have only discussed conjectures where I believe the transmitted text is corrupt or where there is evidence for supposing that it may be corrupt. Many conjectures have been made where I consider there is no evidence of corruption. If I consider my translation is not an adequate demonstration that the text at these points makes good sense, I attempt to explain it in the commentary.

Many impossible or very improbable conjectures have been made in the text of Germanicus (many of these are mentioned in the apparatus criticus of the editions of Breysig and the edition of Baehrens). Where a convincing or very probable conjecture has been proposed, I have sometimes ignored these.

In general I have preferred unassimilated forms and attested spellings. Where I print is accusative plurals, one or both of the branches of the tradition exhibit them.

No conclusions should be drawn from my text about the spellings in manuscripts where they are not specifically given, for in many places I have tacitly altered or corrected them. Often I have ignored variations in spelling and have included manuscripts which have the same word but in different spellings all under the one sign such as Ω or Ω. Sometimes the spelling assigned to a conjecture in the apparatus differs from that in the text. In that case, the spelling in the apparatus is that which was used by the author of the emendation.

Editions employed of authors most frequently quoted.

<table>
<thead>
<tr>
<th>Author</th>
<th>Edition Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aratus</td>
<td>Martin, J., Florence 1956</td>
</tr>
<tr>
<td>Aratus scholia</td>
<td>Maass, E., Berlin 1898</td>
</tr>
<tr>
<td>Avienius</td>
<td>Holder, A., Innsbruck 1887</td>
</tr>
<tr>
<td>Cicero (Aratea)</td>
<td>Buescu, V., Bucarest 1941</td>
</tr>
<tr>
<td>Hyginus (Poetica Astronomica)</td>
<td>Bunte, B., Leipzig 1875</td>
</tr>
<tr>
<td>Manilius</td>
<td>Housman, A., London 1903–30</td>
</tr>
</tbody>
</table>

(5 volumes)

In the commentary 'Cicero' means 'Cicero's Aratea'. References for scholars mentioned in the apparatus criticus.

In the apparatus criticus the names of those who
have published their conjectures in books and articles are followed by the page number of their book or article. Those whose names are not followed by any page number are either editors, whose conjectures will be found in their text and/or commentary at the relevant place, scholars who have communicated their conjectures to me personally, or scholars whose conjectures I have discovered in manuscript.

List of editors mentioned

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BREYSIG, A. "Germanici Caesaris Aratea" (Ed.1) Berlin 1867 (Ed.2) Leipzig 1899
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HALMA, N. "Arateu Σωλήν Φαυνομένα et Germanici Caesaris Phaenomena" Paris 1821.
MOREL, G. "Arateu Σωλήν Φαυνομένα ..." Paris, 1559.
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LACHMANN, K. "T. Lucreti Cari de rerum natura libri sex" Berlin, 1850
MUNCKER, T. "Mythographi Latini" Amsterdam, 1681.
SABBADINT, R. "Sallustius...Germanicus...cum nouis codicibus conlati atque emendati" Museo Italiano di Antichità classica 3 (1890) (Germanicus on pp 87-96).
STAHL, F. "Dissertatio de Ausonianis studiis poetarum Graecorum" Dissertatio inauguralis, Kiel, 1886.
VOSS, J. "Des Aratos Sternerscheinungen und Wetterzeichen" Heidelberg, 1824.

Scholars whose conjectures I have discovered in manuscript.

The conjectures of TURNEBUS are contained in the edition of Aratus etc. by Morel (Paris, 1559) numbered Rés. v 980, in the Bibliothèque Nationale, Paris. They are in the same handwriting as Turnebus' signature in the front of the book. The catalogue falsely assigns them to Johannes Curterius.

The conjectures of SCALIGER are found on ff.149 sqq. of Codex Scalig. 61 of the Bibliotheek der Rijks-universiteit, Leiden, in the margins of a collation of L.

Scholars who have communicated their conjectures to me:

COURTNEY, E. Lecturer in Classics, King's College, London
DIGGLE, J. Fellow and Librarian of Queens' College, Cambridge
GOODYEAR, F. Professor of Latin, Bedford College, London.
KENNEY, E. Fellow of Peterhouse, Cambridge and Lecturer in Classics in the University of Cambridge.
SKUTSCH, O. Professor of Latin, University College, London.
Sources

Lines 1-725 of Germanicus' poem are based on lines 1-731 of Aratus, but with many omissions, expansions, contractions or additions. Germanicus usually paraphrases; he seldom follows Aratus almost word for word. Fragments 2-6, all that remain of the rest of his poem, are not based on Aratus. Their model or models, if any, are unknown.

I have noted in the commentary the most important omissions or additions by Germanicus, quoting or giving references to authors who have similar material.

Germanicus' astronomical statements often diverge from Aratus. There are no resemblances to Hyginus' Astronomica, Eudoxus or Attalus (whose fragments are found in Hipparchus op.cit. or the Anonymi Isagoga to be found in Maass' Commentariorum in Aratum Reliquiae).

There are, however, considerable resemblances to Hipparchus' commentary on Aratus (his only extant work), although Germanicus often agrees with Aratus, and not Hipparchus' corrections, and sometimes he corrects Aratus where Hipparchus is silent. I have discussed the passages where Germanicus does not follow Aratus in the commentary. I list below the passages where Hipparchus criticizes Aratus. The first column gives the reference to Hipparchus (ed. Manitius), the second the reference to the Aratus passage he is criticizing, the third the reference of the relevant passage of Germanicus. In the fourth, the symbol H means Germanicus agrees with Hipparchus, A that he agrees with Aratus. If A or H is bracketed, it means the agreement is by implication only or is partial. A blank means he agrees with neither, a ? that the matter cannot be determined, due to a lacuna in the text.

<table>
<thead>
<tr>
<th>Hipparchus</th>
<th>Aratus</th>
<th>Germanicus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.6</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>1.2.12</td>
<td>184-5</td>
<td>188-91</td>
</tr>
<tr>
<td>1.3.5</td>
<td>497-9</td>
<td>473-5</td>
</tr>
<tr>
<td>1.4.3</td>
<td>52-3</td>
<td>53-4</td>
</tr>
<tr>
<td>1.4.4</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td>1.4.15</td>
<td>85</td>
<td>81-2</td>
</tr>
<tr>
<td>1.4.16</td>
<td>77</td>
<td>76-7</td>
</tr>
<tr>
<td>1.5.1 ff.</td>
<td>147-8</td>
<td>147-9</td>
</tr>
<tr>
<td>Hipparchus</td>
<td>Aratus</td>
<td>Germanicus</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>1.5.14 ff</td>
<td>177-8</td>
<td>181-3 H</td>
</tr>
<tr>
<td>1.5.19</td>
<td>184-5</td>
<td>188-91 H</td>
</tr>
<tr>
<td>1.5.20</td>
<td>188</td>
<td>193 (H) A</td>
</tr>
<tr>
<td>1.5.20</td>
<td>270</td>
<td>271-2 A H</td>
</tr>
<tr>
<td>1.5.21</td>
<td>188-90</td>
<td>194 H A</td>
</tr>
<tr>
<td>1.6.6</td>
<td>228-30</td>
<td>231-2 H</td>
</tr>
<tr>
<td>1.6.8</td>
<td>239</td>
<td>241-2 H</td>
</tr>
<tr>
<td>1.6.12</td>
<td>254-5</td>
<td>255-6 (A)</td>
</tr>
<tr>
<td>1.6.14</td>
<td>258</td>
<td>259-60 A</td>
</tr>
<tr>
<td>1.6.15</td>
<td>276-7</td>
<td>279-81 (H)</td>
</tr>
<tr>
<td>1.7.1 ff</td>
<td>306-9</td>
<td>313-4 H</td>
</tr>
<tr>
<td>1.7.19</td>
<td>650-2</td>
<td>642-3 A</td>
</tr>
<tr>
<td>1.8.1</td>
<td>349-50</td>
<td>352-5 (A)</td>
</tr>
<tr>
<td>1.8.2</td>
<td>367-9</td>
<td>371-4 H</td>
</tr>
<tr>
<td>1.8.14</td>
<td>405</td>
<td>394-5 A</td>
</tr>
<tr>
<td>1.8.18</td>
<td>431-2</td>
<td>423-5 H</td>
</tr>
<tr>
<td>1.8.21</td>
<td>436-8</td>
<td>414-8 A</td>
</tr>
<tr>
<td>1.8.23</td>
<td>439-40</td>
<td>418-20 (H)</td>
</tr>
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<td>1.9.14</td>
<td>479</td>
<td>458 H</td>
</tr>
<tr>
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<td>481-2</td>
<td>459-62 (H)</td>
</tr>
<tr>
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<td>483</td>
<td>462 H</td>
</tr>
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<td>484-5</td>
<td>463-4 (H)</td>
</tr>
<tr>
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<td>487</td>
<td>464-5 H</td>
</tr>
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<td>487-8</td>
<td>465-6 H</td>
</tr>
<tr>
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<td>488-9</td>
<td>_____ (H)</td>
</tr>
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<td>515</td>
<td>501-2 A</td>
</tr>
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<td>519-20</td>
<td>504-6 A &amp; (H)</td>
</tr>
<tr>
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<td>520</td>
<td>507 A</td>
</tr>
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<td>573-88 H</td>
</tr>
<tr>
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<td>574</td>
<td>590 A</td>
</tr>
<tr>
<td>2.2.7</td>
<td>572</td>
<td>591 A</td>
</tr>
<tr>
<td>2.2.8</td>
<td>575-6</td>
<td>_____ H</td>
</tr>
<tr>
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<td>578</td>
<td>593 H</td>
</tr>
<tr>
<td>2.2.11 ff</td>
<td>581 ff</td>
<td>594 ff (H)</td>
</tr>
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</tr>
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<td>598</td>
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</tr>
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</tr>
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<td>629-30</td>
<td>640-1 H</td>
</tr>
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<td>633</td>
<td>643 A</td>
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<td>671-2 H</td>
</tr>
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<td>665-8</td>
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<td>671-3</td>
<td>673,677-8 A</td>
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<td>2.2.59</td>
<td>674-5</td>
<td>680 H</td>
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</table>
I see no way of determining the relationship between Germanicus and Hipparchus' extant commentary. From the many places where Germanicus does not agree with Hipparchus, it does not seem probable that he used it directly. It may be that he derived certain material from Hipparchus via an intermediary.

Sometimes Germanicus' statements agree with or resemble comments preserved in the Aratus scholia printed in Maass, *op. cit.* I discuss these passages in the commentary.
Identity of the author and date of the poem.

At Inst.1, 21, 28 and 5.5.4 Lactantius quotes verses from this poem, calling the author Germanicus Caesar. Saint Jerome (Comment. in Ep. Tit. 1, 12) says that one of those who translated Aratus into Latin was Germanicus Caesar. Firmicus Maternus 2, praef. 2 (Vol. i, 40, 13 ed. Kroll and Skutsch) mentions a translation of Aratus by Iulius Caesar. The author calls the emperor he dedicates his work to his genitor (2) and himself his natus (16). The author of the poem can be none other than Germanicus Iulius Caesar, the nephew and adopted son of the emperor Tiberius. His name after adoption was Germanicus Iulius Caesar, as is proved by many inscriptions (e.g. Dessau 107, 3).

The manuscript attributions of the poem are as follows: In Z A U M 2, 8, 10 and 14 it is anonymous. B and P ascribe it to Claudius Caesar Aratus, S, V to T. Claudius Caesar Aratus. T ascribes it to Germ. Caes. Aratus Romanus, 3-7, 11, 12 to Aratus, the 15th century editions to Germanicus, 13 entitles the poem 'Aratus a M. Tullio Cicero traductus'. From the loss of the author's name in U and its loss or variation in X MSS, it is evident from the stemma printed on page 7 that the ascription of it to Germanicus in certain MSS derives from Lactantius.
From B, P, S and V it appears that Q ascribed the poem to the emperor Claudius (Tiberius Claudius Caesar Augustus Germanicus, as he is called in Dessau 206 et al.). But Claudius was not adopted by Tiberius (unlike his brother he stayed in the Claudian gens), so could not have called himself Tiberius' natum. And the testimony of Lactantius, Jerome and Firmicus must count for more than that of a medieval manuscript. How is it that Q came to ascribe the poem to Claudius? I suggest that Q or an ancestor of Q ineptly abbreviated something like Germanici Iulii Caesaris fratris Ti. Claudii Caesaris Phaenomena ex Arato traducta into Ti. Claudii Caesaris Arati Phaenomena.

Verses 1-16 (the dedication to the emperor Tiberius) and 558-60 (which describe the death of the emperor Augustus - cf. my note on these lines) show that the poem must have been written some time between A.D. 14, the date of the death of Augustus and 19, the date of Germanicus' own death. As there is no way of telling in what order Germanicus wrote his lines, there is no way of telling at what date or dates he wrote the rest of the poem. Priscian introduces his quotation of fragment vi with 'Caesar in Arato', from which it is reasonably clear that fragment ii - vi form part of the same poem as the phaenomena. In the latter part of his poem Germanicus replaced Aratus' meteorology with astrology, some of it meteorological in nature.
Text and Apparatus Criticus
Germanici Caesaris Aratea

Ab Ioue principium magno deduxit Aratus. carminis at nobis, genitor, tu maximus auctor, te ueneror tibi sacra fero doctique laboris primitias. probat ipse deum rectorque satorque. quantum etenim possent anni certissima signa, qua Sol ardenti tem Cancerum rapidissimus ambit diversasque secat metas gelidi Capricorni quaue Aries et Libra aequant diuortia lucis, si non parta quies te praeside puppibus aequor cultorque daret terras, procul arma silerent? nunc uacat audacis ad caelum tollere uultus sideraque et mundi uarios cognoscere motus, nauita quid caueat, quid scitus uiet arator, quando ratem ventis aut credat semina terris. haec ego dum Latiiis conor praeedicere Musis, pax tua tuque adais nato numenque secundes. Cetera, quae totu fulgent uaga sidera mundo, indefessa trahit proprio cum pondere caelum. axis at immotus semper uestigia seruat libratasque tenet terras et cardine firmo orbem agit. extremum gennins determinat axem quem Grai dixere polon: pars mersa sub undas Oceanis, pars celsa sub horrifero Aquilone. 

Axem Cretaeae dextra laeuaque tuentur siue Arctoe seu Romani cognominis Vrae Plaustrae, quae facies stellarum proxima uerae: tres temone rotisque micant, sublime quaternae. si melius diisse feras, obuersa refugent ora feris; caput alterius super horrida terga alterius lucet; pronas rapit orbis in ipsos declinis ueneros. ueteri si gratia famae, Cresia uos tellus aluit, moderator Olympi donauit caelo. meritum custodia fecit.
quod fidae comites prima incunabula magni
fouistis louis, attonitae cum furta parentis
aerea pulsantes mendaci cymbala dextra,
uagitus pueri patrias ne tangeret auris,
Dictaeis texere adytis famuli Corybantes.
hinc louis altrices Helice Cynosuraque fulgent.
dat Grais Helice cursus maioribus astris,
Phoenicas Cynosura regit. sed candida tota
et liquido splendore Helice nitet; haud prius ulla,
cum Sol Oceano fulgentia condidit ora,
stella micat caelo, sepetem quam Cresia flammis.
certior est Cynosura tamen sulcantibus aequor,
quipe breuis totam fido se cardine uertit
Sidoniamque ratem nunquam spectata fefellit.
Has inter medios abrupti fluminis instar
immanis Serpens sinuosu uolumina torquet
hinc atque hinc supraque illas, mirabile monstrum.
cauda Helicen supra tendit; redit ad Cynosuran
squamigero lapsu. qua desinit ultima cauda
hac caput est Helices: flexu comprehenditur alto
Serpentis Cynosura; ille explicat amplius orbes
sublatusque retro maiores respicit Arcton.
ardent ingentes oculi, caua tempora claris
ornantur flammis, mento sedet unicus ignis.
tempus dexterius quae signat stella Draconis
quaeque sedet mento ........

lucetque nouissima cauda
extremumque Helices sidus micat. hac radiatur
Serpentis decline caput, qua proxima signa
occasus ortusque uno tanguntur ab ore.
Oceani tumidis ignotae fluctibus Arctoe,
semper inocciduis servantes ignibus axem.
Haud procul effigies inde est defecta labore.
non ulli nomen, non cognita causa laboris:
dextro namque genu nixus diuersaque tendens
brachia, suppliciter passis ad numina palmis,
Serpentis capiti fitque uestigia laeu.
Tum fessi subter costas atque ardua terga
clara Ariadnae sacrata est igne Corona;
hunc illi Bacchus thalami memori addit honorem.
Terga nitent sertis; at qua se uertice tollit
succiduis genibus lapsum et miserabile sidus,
hab Ophiuchus erit. longe caput ante notabis
et uastos umeros, tum cetera membra sequuntur.
illis languet honos; umeris manet integer ardo,
luna etiam mensem cum pleno diuidit orbe.
lux tenuis manibus, per quas elabitur Anguis,
pressus utraque manu, medium cingens Ophiuchum.
Serpentis capiti figit uestigia laeu.

Turin fessi subter costas atque ardua terga
Clara Ariadnae sacrata est igne Corona;
hunc illi Bacchus thalami memori addit honorem.
Terga nitent sertis; at qua se uertice tollit
succiduis genibus lapsum et miserabile sidus,
hab Ophiuchus erit. longe caput ante notabis
et uastos umeros, tum cetera membra sequuntur.
illis languet honos; umeris manet integer ardo,
luna etiam mensem cum pleno diuidit orbe.
lux tenuis manibus, per quas elabitur Anguis,
pressus utraque manu, medium cingens Ophiuchum.
Scorpios ima pedum tangit, sed planta sinistra
in tergo residet, uestigia dextra pendit.

Terga nitent sertis; at qua se uertice tollit
succiduis genibus lapsum et miserabile sidus,
hab Ophiuchus erit. longe caput ante notabis
et uastos umeros, tum cetera membra sequuntur.
illis languet honos; umeris manet integer ardo,
luna etiam mensem cum pleno diuidit orbe.
lux tenuis manibus, per quas elabitur Anguis,
pressus utraque manu, medium cingens Ophiuchum.
Scorpios ima pedum tangit, sed planta sinistra
in tergo residet, uestigia dextra pendit.
inpar est manibus pondus: nam dextra parum
partem Anguis retinet, per laeua attollit omnis
quantumque ab laeua distantia Serta notantur,
erigitur tantum Serpens atque ultima mento
stella sub aetheria lucet crinita Corona.
at qua se dorso sinuabit lubricus Anguis
insigni caelum perfundent lumine Chelae.

Inde Helicen sequitur senior baculoque minatur,
siue ille Arctophylax seu Bacchi ob munera caesus Icarus, ereptam pensauit sidere uitam. non illi obscurum caput est, non tristia membra, sed proprio tamen una micat sub nomine flamma: Arcturum dixere, sinuis qua uinacula nodant.

Virginis inde subest facies, cui plena sinistri fulget Spica manu maturisque ardet aristas. quam te diua, uocem? tangunt mortalix si te carmina nec surdam praebes uenerantibus aurem exosa heu mortale genus, medio mihi cursu stabunt quadrupedes et flexis laetus habenis teque tumque canam terris uenerabile numen.

Aurea pacati regeres cum saecula mundi Iustitia inuiolata malis, placidissima uirgo, siue illa Astraei genus es, quem fama parentem tradidit astrorum, seu uera intercidit aeuo ortus fana tui, mediis te laeta ferebas sublimis populis nec designata subire tecta hominum et pueros sine crimine, diua, penatis iura dabas cultuque nouo rude uulgus in omnem formabas uiiae sinceris artibus usum. nondum uesanos rabies nudauerat ensis nec consanguineis fuerat discordia nota, ignotique maris cursus, priuataque tellus grata satis, neque per dubios audivissimam ventos spes procui amotas fabricata naue petebat diuitias, fructusque dabat placata colono sponte sua tellus nec parui terminus agri praestabat dominis, sine eo tutissima, rura.

At postquam argentii creuit deformior aetas,
arius inuisit maculatas fraudibus urbis
seraque ab excelsis descendens montibus ore
uelato tristisque genas abscondita rica,

nulliusque larem,nullos adit ille penatis.
tantum, cum trepidum uulgus coetueque notauit,
icrepat "o patrum suboles oblita priorum,
degeneres semper semperque habitura minoris,
quid me,cuius abit usus,per uota uocatis?
quae randa est sedes nobis noua; saecula uestra
artibus indomitis tradam scelerique cruento".
haec effata super montis abit alite cursu,
attonitos liquens populos grauiora pauentis.

Aerea sed postquam proles terris data,nec iam
semina uirtutis utiis demersa resistunt
ferrique inueno mens est laetata metallo,
polluit et taurus mensas adsuetus aratro,
deseruit propere terras iustissima virgo,
et caeli sortita locum,qua proximus illi
tardus in occasu sequitur sua plastra Bootes.

Virginis at placidae praestanti lumine signat
stella umeros. Helicen ignis non clarior ambit,
quique micat cauda quique armum fulget ad ipsum
quique priora tenet uestigia quique secunda,
clunibus hirsutis et qui sua sidera reddit.
namque alii, quibus explentur ceruixque caputque,
uatibus ignoti priscis,sine honore feruntur.

121 inuisit AE inuasit OE
post 123 lacunam indicauit
Courtney p.139 123 rica Scaliger ripa OZ 124 nulliusque
O nullius E L nullus CE 125 notauit O notabit Z
127 semper semperque Z semperque O 128 abit usus per Z
habitus super O uocatis O precatis Z 134 demersa O
dimensa Z 137 attulit Lact.Inst.5,5 propere L XV
proprie OZ Lact.codices 140 praestanti O praestantis Z
142 qui ... qui O quid ... quid Z 143 om.Z post 134 et
post 142 habet O 144 qui O qua Z 145 alii Grotius
alie OZ explentur Breysig p xxx expletur iam O2
expuletum OZ 146 ignoti Z ignotis O u.146 finitur r
uersum 146 sequuntur in Z ad capiti suberunt gemini
prolemque tonantis ex 148 et
Qua media est Helice, subjectum respice Cancrum; at capiti suberunt Gemini. qua posterior pes, horrentisque iubas et fuluum cerne Leonem. hunc ubi contigerit Phoebi violentior axis, accensa in Cancro iam tum geminabitur aestas. tunc lymphae tenues, tunc est tristissima tellus, et densas laetus segetes bene condit arator. ne mihi tum remis pulset uada caerula puppis; dem potius uentis excusso uela rudente excipiamque sinu Zephyris spirantibus auras.

Est etiam Aurigae facies, siue Atthide terra natus Ericthonius, qui primus sub iuga duxit quadrupedes, seu Myrtoas demersus in undas Myrtilos. hunc potius species in sidere reddit: sic nulli currus, sic ruptis maestus habenis perfidia Pelopis raptam genit Hippodamian. ipse ingens transversus abit laeua Geminorum maiorisque Vrseae contra delabitur ora. numina praeterea secum trahit; una putatur nutrix esse Iouis (si uere Iuppiter infans ubera Cretaeae mulsit fidissima Caprae), sidere quae claro gratum testatur alumnunm. hanc Auriga umero positam gerit, at manus Haedos ostendit, nautis inimicum sidus, ubi illos orbis ab Oceano celsus rapit; haud semel Haedi iactatam uidere ratem nautasque pauentis sparsaque per saeuos morientum corpora fluctus. Aurigae pedibus trux adiacet ignea Taurus cornua fronte gerens et lucidus ore minaci. quamlibet ignarum caeli sua forma docebit

et caput et patulas naris et cornua Tauri.
fronter micant Hyades. quae cornus flamma sinistri
summa tenet, subit haec eadem uestigia dextra
Aurigae mediique ligat compagine diuos.
Myrtilos exoritur summo cum Piscibus ore,
totus cum Tauro lucet; ruit Oceano Bos
ante, super terras cum fulget Myrtilos ore.
Iasides etiam caelum cum coniuge Cepheus
ascendit totaque domo, quia Iuppiter auctor
est generis; prodest maestas saepe parentis.
ipse breuem patulis manibus stat post Cynosuran
diducto passu. quantum latus a pede dextro
Cepheos extremam tangit Cynosurida caudam,
tantundem ab laeuo distat; minor utraque iungit
regula Cepheos uestigia. balteus ambit
qua latus, ad flexum sinuosi respicis Anguis.
Cassiepia uirum residet sublimis ad ipsum,
clara etiam pernox caelo cum luna refusit,
sed breuis et paucis decorata in sidere flammis.
qualis ferratos subicit claucula dentes
succutit et foribus praeducti uincula claustri,
talis disposita est stellis. ipsa horrida uultu
sic tendit palmas, ceu sit planctura relictam
Andromedam, meritae non iusta picula matris.
Nec procul Andromeda, totam quam cernere nondum
obscura sub nocte licet; sic emicat ore,
sic magnis umbris candel nitor ac mediamb ambit

ignorum 0 sua 0 tua Z docebit Z docebat 0
178 hyades quae 0 hyadesque Z cornus Z cornua 0
179 haec 0 hac Z 180 ligat Turnebus ligant OZ
181 piscibus 0 fluctibus Z 182 totus 0 tutus Z
184 cepheus ZP cepheoeus E1 phaeuos B phebus Ἐ
185 quia 0 qua Z 187 breuem 0 breue Z stat 0 stans Z
188 passu Z passim 0 190 tantundem 0 tantumque Z
192 ad flexum L adflexum OZ respicis Maybaum p.38
respicit OZ 194 pernox V pernix 0 nox Z caelo cum 0
cum stellae Z 195 sed breuis et 0 est breuis Z
196 subicit 0 obicit Z 197 praeducti Z praeducit 0
198 disposita est Z dispositis 0 199 sit Z si OZ
200 meritae 0 meritam Z 201 andromeda μ andromedam Z
andromedae P andromede B nondum PVT nodum μ notum B posse Z
203 candet Z candit 0 ac 0 hanc Z mediam Fanske p.508
media OZ
ignea substricta lucet qua zonula palla.
sed poenae facies remanet districtaque pandit
brachia, ceu duri teneantur robore saxi.

Andromedae capiti Sonipes supereminent ales.
uervice et Andromedae radiat quae stella, sub ipsa
aluo fulget Equi; tres armos et latera aequis
distinguunt spatii, capiti tristissima forma,
et ceruix sine honore obscuo lumine sordet.
spumanti mandit sed qua ferus ore lupata,
et capite et longa ceruice insignior exit
stella nitens, armis laterique simillima magno.
 nec toam ille tamen formam per singula reddit.
 primo praestat equum, medio rupta ordine membra
destituant usus, rudis inde adsurgit imago.

Gorgonis hic proles in Pierio Helicone,
uervice cum summo nondum decurreret unda,
Museos fontis dexteri pedis ictibus haussit.
inde liquore genitus nomen tenet: Hippocrenem
fontes nomen habent; sed Pegasus aethere summo
uelocis agitat pennas et sidere gaudet.

Inde subest Aries, qui longe maxima currens
orbe suo spatia ad finem non tardius Vrsa
peruenit et quanto breuiore Lycaonis Arctos
axem actu torquet, tanto pernicior ille
distantis cornu properat contingere metas.
clara nec est illi facies nec sidera possunt,
officiat si luna, sua uirtute nitere.

sed quaerendus erit zonae regione micantis
Andromedae; terit hic medii diuortia mundi,
ut Chelae, candens ut balteus Orionis.

Est etiam propiore deum cognoscere signo,
Deltoton si quis (donum hoc spectabile Nili
diuitibus generatum undis) in sede notabit.
tres illi laterum ductus, aequata duorum
sunt spatia, unius breuius, sed clarior ignis.
hunc Aries iuxta. medium Deltoton habebit
inter Lanigeri tergum et Cepheida maestam.

Hunc ultra gemini Piscos, quorum alter in Austrum
tendit, Threiciium Borean petit alter et audit
stridentis auras, nueueus quas procreat Haemus.
non illis liber cursus, sed uincula cauda
singula utrumque tenent uno coeuntia nodo.
nodum stella premit. Piscis, qui respicit auras
Threicias, astra Andromedae cernantur ad ulnam.

Subter utrumque pedem deuotae virginis ales
Perseos effigies, seruatae grata puellae.
moles ipsa uiri satis est testata parentem:
tantus ubique micat, tantum occupat ab Ioue caeli.
dextera sublatae similis prope Cassiepiam
sublimis fulget; pedibus properare uidetur
et uelle aligeris purum aethera findere plantis.

Poplite sub laeuo, Tauri certissima signa,
Pleiades suberunt. breuis † est † locus occupat omnis,
nec faciles cerni, nisi quod coeuntia plura
sidera communem ostendunt ex omnibus ignem.
septem traduntur, numero sed carpitur una,
deficiente oculo distinguere corpora parua.
nomina sed cunctis seruauit fida uetustas:
Electra Alcyoneque Celaenoque Meropeque
Asteropeque et Taygete et Maia parente
caelifero genitae (si uere sustinet Atlas
regna Louis superosque atque ipso pondere gaudet).
lumine non multis Plias certauerit astris,
praecipuo sed honore ostendit tempora bina,
cum primum agricolam uernus tepor admonet agri
et cum surgit hiems portu fugienda peritis.
Quin etiam Lyra Mercurio dilecta, deorum
multum accepta epulis, caelo nitet ante labore
deuictam effigiem † cui planta erectaque dextra
tempora laeua premit torti subiecta Draconis
Contra spectat Auen, uel Phoebi quae fuit olim
Cycnus uel Ledae thalamis qui illapsus adulter
furta Louis falsa uolucer sub imagine texit.
inter defectum sidus Cycnumque nitentem
Mercurialis habet sedem Lyra. multa uidebis
stellarum uacua in Cycno, multa ignea rursus

257 faciles E facile λ 259 sed Z se O 260 deficiente Z
deficient O distinguere Z distinguere O 263 que om.Z
maia m P mala B (fac. ex maia?) mea Z parente O parentem Z
264 genitae si μ genita est ν genitas si Z uere O uero Z
266 certauerit Z certauerat O 267 om.Z 268 uernus
tepor admonet Haupt p.406 ventus super immouet O ventus
super imminet Z agri Z atri O 269-75 om.E 269 post
272 λ 269 et O at λ portu O ponto λ 270-2 om.O
271 multum Haupt p.407 plurimulum λ accepta Grotius
accepse λ epulis Burman prohs λ 272 diuellit Housman
p.52 eique medio inseruit 273, hemistichii insuersis
272 cui addidit Baehrens 273 torti O2 tortis λ porti O
274 post 628 transposuit Housman 275 quae O qui λ inhibi
276 illapsus Grotius lapsus OZ 278-80 om.O 280 cygno
Grotius cyncum E cignum λ
aut medii fulgoris erunt. penna utraque laeta, dexterior iuxta regalem Cepheos ulnam, at laeua fugit instantem sibi Pegason ala.

Piscibus interlucet Equi latus; ad caput eius dextra manus, latices qua fundit Aquarius, exit. quo prior Aegoceros semper properare uidetur Oceano mersus sopitas condere flammas.

tum breuis occasus ortusque intercipit hora, cum Sol ambierit metas gelidi Capricorni. nam neque perficiet cursus et uota breuis lux, et cum terresse auget nox atra marinos, multum clamatos frustra speculaberis ortus.

tunc rigor est; rabidus ponto tunc incubat Auster; pigra ministeria, et nautis tremor alligat artus. sed rationem anni temeraria pectora soluunt:

nulla dies oritur, quae iam uacua aequora cernat puppibus, et semper tumidis ratis innatat undis. in terra temptare undas iuuat; aspera sed cum adsultat lateri deprensa carinae, tunc alii curuos prospectant litore portus inuentasque acie terras pro munere narrat; aet alii procul a terra iactantur in alto:

interea examimat pauidos instantis aquae mons.

munit eos breue lignum et fata instantia pellit,

284-6 om.O  285 latices qua Grotius laticesque Z uersum 285 sequuntur 387-93 in Z, quos excipiunt 286 sqq. in \ 286-314 om.E  286 quo prior Grotius cum primum \ aegoceros Grotius egochero L ego chero C  286 tum breuis \ tumbres O hora \ ora O 289-90 om.O 290 nam neque C amneque L 292 speculaberis Baehrens spectaueris \ spectauerat O 293 rigor O rigora \ est Dahms p.273 aut O\ rabidus Baehrens rapidus O\ 294 pigra O nigra \ alligat O occupat \ nihilio detierius 295 sed \ et O temeraria O temeria \ soluunt \ soluent O 296 oritur quae O oriturque \ cernat O cernunt \ 298 in terra \ interratem \ iuuat O iuba \ aspera sed \ asperas et \ 299 post 301 habet L 300 om.\ alii Grotius alit O 301 acie Housman p.32 alii O\ 302-3 inter se transposuit Grotius 303 a \ e \ alto \ altum O 304 munit O punit \ eos \ hos \ hros B rhos P fata \B facta \P pellit O pellunt \
nam tantum a leto, quantum rate fluctibus, absunt. 305

Belligerum Titan etiam cum contigit Arcum
tendenteraque ferum sinuato spicula nero,
iam clausum ratione mare est, iam nauita portu
infestam noctem fugit at longasque tenebras.

signum erit exoriens nobis tum nocte suprema
Scorpios: ille micat supra freta caerula; caudam
insequitur grauis Arcus et in lucem magis exit.
tunc alte Cynosura redit, tunc totus in undas
mergitur Orion, umeris et uertice Cepheus.

Est etiam, incertum quo cornu missa, Sagitta
quam seruat Iouis Ales. habet miracula nulla,
si caelum ascendit Iouis armiger. hic tamen ardens
unguibus innocuis Phrygium rapuit Ganymeden
et telo appositus custos quo Iuppiter arsit
in pueru, luit excidio quem Troia furorem.

Delphin inde breuuis lucet iuxta Capricornum
pauciis sideribus: tulit hic Atlantida nymphen
in thalamos, Neptune, tuos, miseratus amantem.

Sidera quae mundi pars celsior aethere uoluit
quaeque uident Borean uentis adsueta serenis
diximus. hinc alius declius ducitur ordo,
sentit et insanos obsercis flatibus Austros.

Primus in obliquum rapitur sub pectore Tauri
Orion. non ulla magis uicina notabit
stella uirum, sparsae quam tuto corpore flammae:
tale caput magnique umeri, sic balteus ardet,
sic uagina ensis, pernici sic pede lucet;

306 etiam O magnum λ 307 tendenter co nieci ducentem O
lucentem λ ferum λ ferunt O 309 fugit at O fugiat λ
310 suprema O superba λ 311 caudam co nieci cauda O λ
313 reit Grotius repit O regit λ 314 mergitur O uergitur λ
315-7 om. O 317 ardens co nieci ardum Z 319 custos O
delphini L de C non liquet 324 quae om. O 326 declius O
de nis λ ducitur O dicitur λ 327 sentit et O sentiet λ
328-30 om. O 328 obliquum Grotius obliquo Z 329 ualla E
nulla λ 330 sparsae quam E spars ecum aut spars equm C
sparsae quum L sparsae quem L sparsae cum L? 331 tale Z
tela O humeri C2 humerus OZ ardet O exit Z 332 attulit
Mico Leuita u. 303 pernici O Miconis lemma pernicis Z
Miconis textus lucet O ludit Z
talis ei custos aderit Canis ore timendo.
ore uomit flammam, membris contemptior ignis.
Sirion hanc Grai proprio sub nomine dicunt.
cum tetigit Solis radios, accenditur aetas,
discernitque ortu longe sata: uiuida firmat,
at quibus adflectae frondes aut languida radix,
examinit. nullo gaudet maiusue minusue
agricola et sidus primo speculatur ab ortu.
Auritum Leporem sequitur Canis, et fugit ille:
sic utrumque oritur, sic occidit in freta sidus.
tu paruum Leporem rimare sub Orione.
At qua cauda Canis languenti desinit astro,
fulgent Argoae stellis aplustria Puppis;
puppe etenim trahitur, non recto libera cursu,
ut cum decurrents inhibet iam nauita remis
auersenaque ratem uotis damnatus ab ora
praeligat, optatam cupiens contingere terram.
seb quae pars uiolata fuit, coeuntia saxa
numine Iunonis tutus cum fugit Iason,
haec micat in caelo; lateri non amplior auctus
qua surgit malus; qua debe reddere proram,
intercepta perit nulla sub imagine forma;
puppe demisso tantum stat lucida clauo.
At procul expositam sequitur Nereia Pristis
Andromedan. media est Solis uia, cum tamen illa
terretur monstro pelagi gaudetque sub axe
diuerso posita et Boreae uicina rigenti:
Auster Pristin agit, duo sidera praelegit unum, namque Aries supra Pristin Piscesque feruntur. Belua sed ponti non multum praeterit Amnem, Amnem qui Phaethonta suas defleuit ad undas, postquam patris equos non aequo pondere rexit, uulnere redditem flammis Louis; hunc, noua silua, planxere ignotis uersae Phaethontides alnis: Eridanus medius liquidis interiacet undis. huius pars undae laeuum ferit Orionis lapsa pedem. procul amotis qui Piscibus unus uincula conectit nodus cristam super ipsam aequoreae Pristis radiat. sunt libera caelo sidera non ullam specie redditia formam, sub Leporis latus, auersam post denique puppim, inter et Eridani flexus clauumque Carinae. atque haec ipsa nota est nullam praebere figuram. sunt etiam totu sparsi sine nomine mundo inter signa ignes, quibus etsi propria desit forma, per appositi noscuntur lumina signi.

Est etiam a Geminis diversus Piscibus unus, qui Borean fugitat, totus rectus in Austros, uentre sub Aegoceri, Pristin conversus ad imam. infimus Hydrochoos sed qua uestigia fugit, sunt aliae stellae; qua caudam Belua flectit quaque caput Piscis, media regione locatae nullum nomen habent nec causa est nominis ulla:
sic tenuis cunctis iam paene euanuit ardor, 
nec procul hinc dextra defundit Aquarius undas 
atque imitata cadunt errantis signa liquoris. 
e quibus una magis sub cauda flamma relucet 
squamigerae Pristis, pedibus subit altera signi 
fundentis latices. est et sine honore Corona 
ante Sagittiferi paulum pernicià crura. 

Scorpios erecta torquet qua spicula cauda, 
Turibulum uicinum Austris sacro igne uidebis, 
Arcturum contra; sed quanto tardius ille 
Oceanum occasu tangit, tanto et magis artae 
Turibulo metae; uix caelum suspicit, et iam 
praecepti tractu uastis demittitur undis. 
multa dedit natura homini rata signa salutis 
uenturamque notis cladem depellere suasit. 

inter certa licet numeres sub nocte cauenda 
Turibulum; nam si sordebunt cetera caeli 
nubibus obductis, illo splendente, timeto, 
ne pacem pelagi soluat uiolentior Auster. 
tum mihi substricto spissentur cornua uelo 
et rigidì emittant flatus per inane rudentes. 
quosì deprensae turbauit linnea puppis 
icubuitque sinu laxo, uel mergitur undis.

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390 squamigeræ pristis O squamigeriustis EL squamiger
iustis Cl signi O signa Z 392 paulum E paululum λ
nullum O 393-5 om. O 393 erecteda E erepta λ 394-413
om. E 394 uicinum C uicinu L 396 occasu O occasum λ
tangit om. λ 397 turibulo O turibuli λ uix caelum λ
ui caelo O suspicit λ suscipit O 398 demittitur
Schwartz dimittitur O λ 400 et 402 om. V 402 cetera μ
temora λ 403 splendente timeto O splendenti metuendum λ
405 substricto spissentur Housman pp. 32-3 spissentur
substricto iam Grotius siccentur substricto I siccentur
substricto C siccentur abstricto O 406 rigidì emittant λ
rigittemittant O flatus λ latus O 407 deprensae λ
depressa O turbauit O turbabit λ
prona ratis sorbetque inimicum Nerea prora,
uei si respexit servator Iuppiter, aegre
ultima persoluunt iactati uota salutis.
 nec metus ante fugit quam pars effulserit orbis,
queae Borean caelum spectantibus indicet ortum.
Sunt etiam flammis commissa inmania membra
Centauri, capite atque hirsuto pectore et aluo
subter candelis hominum redemptia Chelas,
inde per ingentiis costas, per crura, per armos,
nascitur intacta Sonipes sub Virgine. dextra
seu praedam e siluis portat seu dona propinquae,
placatura deos, cultor lous admoet Aae.
hic erit ille plus Chiron, iustissimus omnis
inter nubigenas et magni doctor Achillis.
hic, umero medium scindens iter aetheris alti
si tenuem traxit rubem stellasque recondit,
toto clarus equo, uenientis nuntiat Euros.
Nec procul hinc Hydros trahitur, cui cauda superna
Centaurum mulcet; tractu subit ille Leonem,
peruenit ad Cancrum capite et tria sidera tangit.
huic primos tortus crater premit, ulterioris
uoacali rostro Coruus forat. omnia lucent,
et Coruus pennis et paruo pondere crater.

409 sorbet Grotius soluet 0 seruet λ  410 uel si θ el si L
celsi C respexit λ perspexit 0 aegre λ aeger 0
411-4 iactati Grotius iactatae 0 λ  412 effulserit orbis 0
perfulserit omnis λ  413 quae 0 qua C ua L ortum 0
orbem λ  414-6 om. 0 418 dextra CE XL dextera E dexter 0
419 e μ om. Z  421 iustissimus S tutissimus O Z
423 hic O hinc Z scindens Z scandens 0 scandit Z
alti Z alii 0  424 stellasque recondit Z stellasq. uerecondit
0 426-8 om. 0 426 superne Grotius superni Z  427 mulcet
Housman p. 33 lucet Z tractu C² tractus Z  428 capite C²
capiti Z tria Scaliger tristia Z  429 huic C² hic OZ
primos PU primo est Z primo 0 tortus Grotius ortus OZ
430 forat Z foret 0 lucent Z lucet 0  431-2 om. 0
et spatio triplicis formatus sideris Hydros.

Sub Geminis Procyon fulgenti lumine surgit.

Hic caelo ornatus traheit noctemque diemque sors sua cuique data est, semel assignata tuentur inmoti loca nec longo mutantur in aeuo.

Quinque aliae stellae diversa lege feruntur et proprio motu mundo contraria uolumunt curricula exceduntque loco et uestigia mutant. haud equidem possis alio contingere signo qua diuis sedes. hinc atque hinc saepe uidentur occasus ortusque. neque anfractus breuis illis, annosaque uias tardus uix perficit orbis. hoc opus arcana an credam postmodo Musis, tempus et ipse labor, patiatur fata, docebit.

Signorum partes, quorum est praedicta figura, annum expleturi praecedunt quattuor orbes. interualla trium transuersus colligat unus. nec par est illis spatium: duo namque feruntur inter se aequalia, quorum extat maxima forma; et totidem ...

.... inter se, praedictis ante minores. hi semper distant, illos communia signa committunt. qua se tangunt, pars aequa rotarum diuiditur, binos ut si quis desecet arcus. dissimilis quintus liquida sub nocte uidetur: sidera cura reddunt sinceros eminus ignis,

432 triplicis Grotius tripli Z 433 fulgenti lumine O fulgentia lumina Z 434-6 om.O 436 inmoti L^X inmorti Z
437 quinque aliae O at quinque Z 439 curricula Z curriculo O 440-2 om.O 440 possis Grotius possim Z
441 qua diuis sedes conieci quae diuis sedes E que diuisa dies 1 quediu sa di es fac.ex quedius sasdis es L quae diuisa die C 443 annosae Z annonas O 444 an O si Z nihilO
deterius 445 patiatur O patiatur Z fata Z facta O 446 est om.\ post figura posuit E 447 praecedunt Scaliger praedicunt OZ 448 colligat OC?E\ colligit EL 449 par Z pes O illis U illi OZ duo namque Z quoniamque O 450 extat C est et O est EL 451 inter totidem et inter lacunam Courtneyio praeeunte indicaui 452 distant O dictant C\w EL de C non lique 453 qua Z quae O 454 quis Z qui O 455 quintus O cunctis Z
lactis ei color est. mediis uia lucet in umbris; lacteus hic orbis nullo minor orbe rotatur.

Celsior ad Borean qui uergit circulus, altos et peragat tractus uicinis haud procur Vrsis, per Geminos currit medios, uestigia tangit. Aurigae plantamque terit Perseida laeuam; transversae Andromedae latera utraque persegat actus et totam a cubito dextram; summa ungula pulsu acris Equi ferit orbis iter. tum candidus ora effugit at Virgo; totus Leo, totus in ipso Cancer. ab aduersis omnem secat ille Leonem clunibus hirsutique iubam per pectoris exit. Cancro fulgentes oculi, seu regula currat per medios, sic diuidui latera utraque tangunt. hunc octo in partis si quis diui serit orbe, quique super terras semper fulgere notabit, abdi tres undis breuibusque latere sub umbris. hoc Cancrum tetigit cum Titan orbe, timeto aestatem rapidam et soluentis corpora morbos. tunc habet aeterni cursus fastigia summa erectoque polo propius non adplicat umquam.
candentis currus. aduerso nititur orbe
dum tangat metas; pronus deoolutur inde.
Aegoceros metas hiemis glacialibus astris
aestatisque tenet flagranti sidere Cancer:
hic Boreae propior, contrarius excipit Austros.
hoc medium sidus findit deuexior orbis,
fundentis latices genua implicat, alligat illum
intorta Pristis cauda; uelocia crura
contingit Leopris, Canis aluum desecat imam.
desecat et sacrae speciosa aplustria Puppis
Centaurique uumeros et Scorpion ultima cauda
spicula torquentem; magnus micat Arcus in illo.
de Austro propior Sol est Aquilone relictus
et gelidas hiemis hebetato lumine portat.
huius tres caelo partes adsurgere cernes,
quinque latent undis et longa in nocte feruntur.

 Hos inter medius nullo minor orbis agetur,
in quo cum Phoebus radiatos extulit ignis,
diuidit aequali spatio noctemque diemque.
bis reedit haec facies, librat quae sidera mundi,
cum uer fecundum surgit, cum deficit aestas.
signa Aries Taurusque aequo tanguntur ab orbe
sed princeps Aries totus fulgebit in illo;
Tauri armum subit et flexi duo sidera cruris.
at medium Oriona secat spiramque priorem
Hydri, tum Cratera leuem Coruique sedentis

480 currus AEPSU cursus λ BM aduerso O auerso Z
481 pronus ZBKP proneus μ B 483 astris Z austris OZ
484 flagranti sidere E fraglanti sidera λ flagrantia sidera O
482 post 484 transposuit Housman p.33 482 hic Grotius
hinc OZ propior AESU proprior BMΛE 1? proprior P
487 pristis Z pristi O 488 contingit APSU contigit BMΛ
contegit et E canis O canem Z aluum O iam Z
imam O imum Z 491 arcus O orbis λ om.Z 492 propior Z
propior O 494 tres Z pres O cernes Z cernis O
495 om.Z 496 medius Z medios O 497 radiatos extulit Z
radios intulit O 499 librat quae Anon. apud Breysig
librato Z libato O sidera O sidere Z 501 taurusque
aequo Z taurus quae quo O 502 totus AB^2PU toto BMS toto Z
illo O orbe Z 503 subit Z subit O 505 tum Courtney p.140
et OZ cratera O crateram Z sedentis Baehrens ferentis V
ferentes μ querentis Z forantis Frey p.412
ultima, deficiunt nigra qua sidera cauda.
ilic et Chelas transverso lumine quaeres
et celsi medium partem Anguis et ...

...... a medio Ophiuchum
nec procul inde Aquilam; toto capite incubat ardens
Pegasus et longae spatio cerucis inhaeret.

hos orbis, quorum tractus et signa notamus,
rectus per medios percurrens traicit axis.
tres interuallis paribus sine fine rotantur
nec mutare uias possunt nec iungere sulcos.
quad in obliquum tres unus colligat orbis,
partibus extremis diversos implicat; unum
inter utrumque secat medium desectus ab illo.
non si Palladia doctus formaret ab arte,
distantis orbis melius religasset ab uno.

sed tribus idem ortus omni nascentur ab aevu
atque eadem occasus remanent certissima signa.

Quartus ab Oceano tantum uestigia mutat,
obliquo currens spatio, quantum Capricornus
aestifero distat Cancro; quam latus ad auras
aetherias surgit, tam sacris mergitur undis.

[ nec tamen humanos uisus fugit ultimus orbis.]

haec uia Solis erit bis senis lucida signis.
nobilis hic Aries aurato uellere, quondam qui tulit in Tauros Phrixum, qui prodidit Hellen, quem propter fabricata ratis, quem perfida Colchis sopito uigile incesto donavit amori. 
corniger hic Taurus, cuius decepta figura Europe, thalamis et virginitate relicta, per frete sublimis tergo mendacia sensit, litore Cretaeo partus enixa marito.
sunt Gemini, quos nulla dies sub Tartara misit, sed caelo, semper nautis laetissima signa, Ledaeos statuit iuuenis pater ipse deorum. 
te quoque, fecundam meteret cum comminus Hydram Alcides, ausum morsu contingere uelle, sidere donavit, Cancer, Saturnia Iuno, nunquam oblita sui, nunquam secura nouerca. 
hinc Nemeaeus erit iuxta Leo, tum pia Virgo; Scorpios hinc duplex quam cetera possidet orbe sidera, per Chelas geminato lumine fulgens, quem mihi diua, canet dicto prius Orione. 
inde Sagittifero lentus curuabitur Arcus, qui solitus Musas uenerari supplice plausu acceptus caelo Phoebeis ardent in armis. 
cochlidis inuentor, cuius Titania flatu proelia commisit diuorum laetior aetas, bellantem comitata louem, pietatis honorem ut fuerat, geminis forma, sic sidere, cepit.

532-4 om. O 535 uigile Grotius uigiles Z uigiles O amori Grotius amore OZ 539acrete OZ acetae O 540 quos nulla dies Z quoseulladiei O 541 nautis Z natis O 542 ledeo Z ledeo O 544 ausum morsu Z ausus morsus O 
uelle Housman p.34 bello OZ 545 cancer Scaliger cancrum OZ 546 secura Z secura O nouerca L2 nouercae OZ 547 hinc Z hic O nemeus Scaliger nemeus OZ 549 lumine Z flumine O 550 dedi ex O sed suspectum habeo quae mihi dicta canat (E canant λ) magnum sidus orionis Z 552 plausu Z plausus O 554 cochlidis Scaliger cochlitis O poplitis Z 555 om. Z
hic, Auguste, tuum genitali corpore numen
attonitas inter gentis patriamque pauentem
in caelum tuit et maternis reddidit astris.
proximus infestas, olim quas fugerat, undas
Deucalion parum defendens indicat urnam.
annua concludunt Syriae duo numina Pisces
tempora. tunc iterum praedictus nascitur ordo.
[lanigeri et Tauri, Geminorum, postea Cancri,
tunc Leo, tunc Virgo, tunc Scorpios, Arcitenensque
et gelidus Capricornus et imbrifer et duo Pisces.]
in sex signiferum si quis diuiserit orbem
aequales partes, succumbet regula binis
inferior signis, spatii tantumque tenebit
lunatus lateris quantum a tellure recedit.
nullaque nox bis terna minus caelo trahit astra,
nullaque maior erit, quam quanto tempore in auras
orbis perfecti diuisus tollitur arcus.
Saepe uellis quantum superet cognoscere noctis
et speuenturae solari pectora lucis.
prima tibi nota Solis erit, quo sidere currat;
semper enim signo Phoebus radiabit in uno.

559 pauentem O parentem Z 561 infestas O infectas Z
562 parum E parum Q λ
563 numina O nomina Z 564 tempora tunc Q temperat hunc Z
deleuit Grotius 565 tempora tunc Q temperat hunc Z
565-7 deleuit Grotius 565 tauri geminorum Z aurige minorum
566 que om. O 567 gelidus Z geminus Q imbrifer et Q
imbriferi Z 526-9 post 567 transposui 527 partes Grotius
aries OZ succumbet Grotius succumbet Z occumbit O
528 spatii O spatii Z 529 lunatus Housman p.33 una tui O
una suis Z 568-71 om. Z 571 auras Orelli au \ ν austros \ μ
572 orbis O aeui Z arcus O orbis Z 573 noctis Z noctibus O
574 uenturae O uentura Z 575 quo Z quod Q 576 signo
phoebus O phoebus signo Z nihil deterius radiabit AP
radiauit O radiantis Z
cetera tum propriis ardentia suspice flammis, quod cadat aut surgat summoque feratur in orbe, quantoque exiliant spatio, cum caerula lingunt; namque aliis pernix saltus, maiore trahuntur mole alia, Oceanum tardo linquentia passu. quodsi nube caua Solis uia forte latebit, occulet aut signum conscendens vertice caelum altus Athos uel Cyllene uel candidus Haemus, Gargaron aut ingens superius habitatus Olympus, tum dextra laevaque simul redeuntia signis sidera si noris, nunquam te tempora noctis effugient, nunquam + uentus + Tithonidis ortus. Cum primum Cancrum Tethys emittit in auras, excipit Oceanus Minoae serta Coronae, occidit et dorso Piscis, caudaque priore. mergitur in totos umeros Ophiuchus, et Anguis ultima cauda micat; tortus habet unda timendos. + nec multo Arctophylax his longe subiacet astris, lumine qui primo cum Scorpios occidit undis occultur pedibus; durat tamen arduus ore dum rigidum Aegoceri signum freta lucida terret. sidera uix tum satiatus luce Bootes in terras abit et noctis plus parte .......... ............ relinquit.
at contra, nullo defectus lumine, totus
Orion umeris splendebit magnaque diui
uagina et claro caelatus balteus igni,
cornua et Eridanus liquido feret utraque caelo.
   At cum prima iuba radiarit flamma Leonis,
quicquid parte micat, Cancro nascente, sub undas
omne abit atque feri uenientis defugit ora.
tota Iouis mersa est pennis stellantibus Ales,
quiue genu posito defessus conditur undis
 crure tenus; rebit in caelum uasti caput Hydri
et pernix Lepus et Procyon et Sirius ipse
 totiusque Canis rapidi uestigia prima.
   Accipe quae uitent exortae Virginis ora:
Delphinus notis iam tum defluxerit undis
et Lyra dulce sonans et flammis cincta Sagitta
et nieueus Cygnuus properarit tangere fluctus;
utraque penna volans caudam uix lucet ad ipsam;
nigrescitque Padus, terrae qui proximus amnis.
tum caput abscondet Sonipes, tum tota latebit
ercuix; et contra sublimior Hydra feretur
Creterra tenus et surgent aplustria Puppis
Argoae totusque Canis; pede cum pia Virgo
nascitur, illa ratis media plus arbore lucet.
   Surgentes etiam Chelas sua signa notabunt:
exilit Oceano tum toto crine Bootes,

605 cancro Schaubach caelo Z 606 omne E omnem λ
feri Grotius fert Z ora Scaliger hora Z 607 iouis C
ex corr., E ionis λ 611 rapidi L2CE rabidi L nihil deterior
612 exortae Burman exorsae Z 613 notis Grotius
motis Z defluxerit Grotius deflexerit Z
618 abscondet Grotius abscondit Z tum Grotius cum Z
620 cratera tenus et surgent aplustria Grotius
terra tenus traxit surgentia plustria Z creterra
primus scripsit C.F. Kinch, Quaestiones Curtianaæ Criticae,
Hauniae 1883, p. 29 621 pede Housman p. 34 sed Z
624 exilit Grotius exilem Z tum Baehrens nunc Z
quem claro ueniens Arcturus nuntiat ore, 625
celsaque Puppis habet, cauda minus attamen Hydra. 626
nixa genu species flexo redit ardua crure.
partibus haud aliis noctem eluctata supremam, 628
summa genus subuersa tenet qua se Lyra uoluit. 274
bis solet illa una caelo se ostendere nocte, 629
nam si Phoebeos currus, dum longa uenit nox, 630
occasu sequitur, rursus fugit Oceanum ortu.
crure simul Chelae fulgent; cum Scorpios exit tergo obstipa suo caelo profertur imago.
At Philyra cum natus auitis surgit ab undis 634
iam totis radiat membris miserabile sidus. 633
imperfecta redit caelo tum torta Corona et Chiron plius ad caudam cognoscitum imam;
Pegasus abscondit toto cum corpore pennis nec lucet cauda praemersus pectore Cyclus.
abdit et Andromeda uultus et maxima Pristis occasu insequitur uementi virginiis ora:
crista super caelo fulget. caput abditur ipse regalis Cepheus alias intactus ab undis.

626 habet suspectum hydra Grotius illa Z 628 eluctata
Grotius fluctuata Z supremam Z suprema L^x 274 post 628
collocauit Housman p.32 uersum om. E genus O genu λ
subuersa λ suborsa O uoluit O uersat λ nihilo deterius
629 illa Grotius ille Z nocte E noctem λ 631 occasu
Grotius occasus Z ordinem uersuum 633-5 mutauit Housman p.35 ,633 post 635 iam Grotius 635 tergo obstipa Housman p.35
argosipia λ argosiria E profertur Housman p.35
refertur EL referetur EL^2 634 philyra cum natus auitis
Housman p.35 cum tantus abit quantum lyra Z (loco lyra
li*ra C, b ut uidetur in ras) surgit C surgat EL
633 iam EL tum C 636 tum Grotius cum Z torta Ellis p.240
tota Z 637 plus Grotius prius Z imam Grotius ima Z
638 cum corpore Maybaum p.49 tunc pectore Z 640 abdit et
andromede Schwartz ardet et andromedae Z abditur andromedae
iam Grotius 641 occasu Schwartz occasum Z insequitur
Grotius sequitur Z uementi Housman p.35 uenientis E marg.
loco uentis an uentis et, non liquet uentis et E in textu
uenientis et λ 642 ipse Voss p.ill ipsi Z 643 alias
Voss p.ill altis Z
Non prius exorients quam clarus fluxerit Amnis, Scorpios Oriona fugat; pauet ille sequentem. sis uati placata, precor, Latonia Virgo; non ego non primus; ueteres ceclinere poetae, urginis intactas quondam contingere uestes ausum hominem diuae sacrum temerasse pudorem. deuotus poenae tunc impius ille futurae nudabatque feris augustas stipite siluas pacatamque Chion dono dabat Oenopioni. haut patiens sedenim Phoebi germana repente numinis ultorem media tellure reuulsa scorpion ingenti maiorem contulit hostem. parcite, mortales, nuncuam leuis ira deorum. horret uulnus adhuc et spicula tincta ueneno flebilis Orion et tamquam parte relicita poenae tela fugit; tamen altis mergitur undis, Scorpios ardenti cum pectore contigit ortus. nil super Andromedae, nil Pristis luce fruetur; in caput atque ueremos rapit orbis Cassiepiam declinemque trahunt aeterni ponders mundi corruptaque cadi forma, certauerat olim qua senis aequorei natis, cum litore Canchli Doridos et Panopes spectasset stulta choreas. illa abit Oceano; totius serta Corone in caelum redeunt, totum se liberat Hydrus. cruribus expectat Chiron obscurior Arcum, corpore iam toto, iam toto uertice clarus. tum fera, quam dextra portat Centaurus, in auras exilid et claris aperitur flexibus Anguiss.

644 non prius Housman p.35 scorpios EL scorpion C fluxerit Steinmetz p.472 fulserit Z 646 sis Grotius si Z 651 augustas Housman pp.35-6 angusto Z ambusto Orelli 653 haud Grotius at E ad sedenim Grotius etenim Z 658 tamquam conieci quamquam Z 659 poenae tela conieci teli paene iam Grotius coeli poene Z 662 cassiepiam Grotius cassiepia Z 663 aeterni ponders Grotius aeterno pondere Z 664 cadit Grotius cadunt Z certauerat Grotius certauerit Z 665 senis Grotius sinus Z cancri Grotius cancri Z 667 totius ... coronae Grotius totiensque ... corona Z 669 arcum Grotius arcu Z 670 iam toto iam totu Baehrens iam uasto iam toto iam Grotius iam toto uastus et Z
innixusque genu laeua minus aequora linquit.
At cum prima subit facies remeabilis Arcus,
iam sicca Oceano Chiron pernicia crura
extulit et celsis Ophiuchus fulget in astris.
nil trahit obscurum Serpens et trunca recepta
desinit esse manu membris deformis imago.
iam Lyra cum superis et Cycni dextera penna;
radit tellurem rediens tum sidere Cepheus;
tum Canis abscondit totius corpore ignis
et latet Orion et semper tutus in undis
est Lepus Argolaque ratis, qua flexile signum
in puppim formatur, adhuc aplustria lucent.
mergitur et Perseus et Caprae nobile lumen.
Aurigam totum abscondit ueniens Capricornus
atque omem ornamentum uenerandae numine Puppis.
tum Procyon obscurus abit; redit armiger uncis
ungubus, ante omnis gratus tibi, Iuppiter, Ales.
omnia et stellis Cynicus redit et leue Telum
et paruus Delphinus et apta Altaria sacris;
et minus exsurgit Minoa nota Corona.
Hydrochoos caelum scandens simul euocat ore
et cerulce tenus fidentem Pegason alis.
auersum Chirona trahit nox atra sub undas,
Oceanus caudam tinguit, nondum capi ora,
on vastos umeros, non pectora tristia saetis.
Hydram plus mediam condit, pars tertia lucet.
Hanc Piscem abdunt orti totumque biformem.
cum geminos Piscems Aquilonis prouocat aura,
ille etiam surgit, qui tristes respicit Austros;
Piscibus ille simul surgit; † et liberat ortus cum pernix Aries in caelum cornua tollit. Pisces educunt Cepheida; laetior illa Nereidas pontumque fugit caeloque refertur. Ortus Lanigeri properabunt condere sacrum Turibulum; patrio fulgebite in aethere Perseus


Persea cum pinnae reddunt, iam Plias ab undis effugit et dextro Tauri cognoscitur armo. fixus et in cornu trahitur sine curribus ullis Myrtilos. haud totum cernes; non integer ipse in caelum redit; pars dextera mergitur undis; uertice lucebit, teneros manus efferet Haedos laeuam, Iouis nutrix umero radiabit in ipso; proxima telluri nascetur planta sinistra: cetera cum Geminis perfecto sidere surgent. Tauro Pistriceis pariter cristaque refulgent caudaque; uicinum terris iam cerner Booten.

At cum se genibus demisit pars Ophiuchi, signum erit Oceano Geminos remeare relicto. totaque iam Pristis lucebunt squamea terga; Eridani et primos deprendat nauita fontes, caelum consicpiciens, dum claro se mouet ortu Orion; habet ille notas quae tempora noctis significant, uentosue truces fidamue quietem.
Fragmentum 2.

Vna uia est Solis, bis senis lucida signis.
hac rapitur Phoebe, per idem Cythereius ignis
fertur iter, per idem cristatus uertice Mauors
Mercuriusque celer, regno caelique uerendus
Iuppiter et tristi Saturnus lumine tardus.

omnia bis gemini motus, quorum alter ab ipsis
nascitur et proprios ostendit sidere nisus
(tum mundum subeunt lento pede), concitus alter
inuitos rapit et caeli circumrotat orbe.
annua Sol medius designat tempora, Phoebe
menstrua, namque anno Solem remere videbis,
mouerit unde suos currus per signa volantis.

hoc peragit spatium breuiores citatior orbe
mens expleturis Phoebe contenta diebus.

annuus est Veneri cursus neque tardior illa
Mercurius, bimos Graduus perficit orbis.
per duodena pater superum dum signa feretur,
bis senos Phoebus iam tunc compleuerit annos

cursus inaequalis cunctis: nunc igne citato
festinare putes, nunc pigro sidere sumpto ...

Fr. 2 solus praebet Z (post fr. 3) 2 hac Grotius ac Z
phoebe Grotius phoebee Z 4 caeli Schwartz caelo Z
8 concitus om. E 9 circumrotat Grotius circumnotat Z
orbe conieci orbem Z 10 tempora EL tempore λ
phoebe Grotius phoebee Z 11 namque Grotius namqua E
nam qua λ 13 spatium breuiores Grotius spatio breuior Z
14 contenta Grotius contenta E contenta λ 15 annuus EL Z
annus λ 16 bimos Stahl p. 47 binos Z uersum 16 sequuntur
Auieni uersus 1741-62, 1769-70, 1773, 1870, 1877, 1878 (ed. Holder)
tum in E uersus 17-20, quos non habent CL 17 per Baehrens
er E feretur Baehrens feruntur E 18 compleuerit
Baehrens compleferat E post 18 lacunam indicaui, in qua
excidit Saturni mentio 19 inaequalis cunctis Baehrens
inequatis cuncti E 20 sumpto E sompno Baehrens
Fragmentum 3.

Grandine permixtos Aries niuibusque caducis uicina aspargit tristis supra iuga nimbos. Taurus portat aquas et uentos excitat acres; fulmina tum crebro iaculatur Iuppiter et tunc intonat emissis uiolentior ignibus aether. at Geminis leuiter perstringunt caerula uenti, rarus et in terras caelo demittitur humor. omnia mitescunt tranquillo sidere Cancri. siccus erit Leo, praecepue cui pectora feruent. Virgo refert pluuias et permouet aera uentis. lenius est Librae signum; uix rorat in illo. Scorpios adsidue caeli minitabitur ignis atque truces uenti densa niue saepe rigebunt. ram Sagittifero descendunt flamina terris; lentior in pluuias, magis inuenit arua quieta. Aegoceros alias parcit, sed frigora durat, instabilita gelu falli uestigia passus. Qui fundit latices caelo quoque permouet imbris. omnia miscentur cum Piscibus; aspera uentis aequora turbatos voluunt ad sidera fluctus; imbribus incumbit caelum solemque recondit; grandine pulsatur tellus, niue condita dura est.
Haec ut quisque deus possedit numine signa adiungunt proprias uires. torpere uidentur omnia Saturno; raros ille exprimit ignis et siccas hiemes adstrictis perficit undis. grandine durantur pluuias, niue grando putrescit et rigor accedit uentisi. lentissimus ille: Iuppiter est illo laetis magis. hic ubi Solis uitauit flammis proprio bene lucidus ore

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commissas Gereri fruges spectabis in herbis pomaque purpureo primum nascentia flore; nec pecus in fetu fallet, nova turbæ repente mugiet e stabulis; alto balabit ouili. idem, ne tellus nimium siccata tepore destituas sata, cum tetigit fera cornua Tauri dat pluuias, sorbetque datas cum Pliada fugit atque adit Geminos. Cancro placidissimus idem
dat modicas uires, rapidos et temperat aestus. et Leo terribilis, sub te, pater, ipse repellit instantis morbos et Ditis limina cludit. incipis agricoli in Virgine soluere uota.
iam tum maturae segetes et spicæa pendet ante laerem primum perfecta messe corona. Libra tumescentis musto bene percoquit uuas. Scorpion ingrediens, tua, Liber, munera condit; iamque Sagittiferum scandens sua sidera reddit

24 torpere L² torpore Z 28 lentissimus Housman p.36 mitissimus Z fr.4 solus praebet O (ABMPS 1-51; ABMPS1 52-163) fragmenta iunxit Housman 1 laetus Iriarte laeto Q solis P solus Q 2 proprio P proprior O post uersum 2 lacunam indicavi 3-4 om. ∨ 5 fallet Iriarte falet B falit M fallit APS 6 e P et A om. BMS alto O arto Orelli balabit Iriarte balaut P ualebit O ouili AMP obili BS 7 tepore Iriarte repente O 8 destituat Iriarte destituit A distituat Q 9 datas AP data BMS pliada Orelli pliade Q 10 adit Iriarte adit AP adid BM ad id S 11 aestus APS aestu BM 14 incipis Housman p.36 incipit Q soluere AS sorbere BMP 15 pendet Iriarte pendent Q 16 perfecta messe AP perfectam esse BMS corona Iriarte coronam Q 17 percoquit μ perquoquit ∨ 18 scorpion APS scorpioni BM liber μ libra ∨ 19 sidera Iriarte munera Q reddit APS redit BM
nunquam laeta hiemi, modice tamen in Capricorno.  
Hydrochoon Piscesque agitat saeuissimus idem.  
si statuit currus quocumque in sidere fessos,  
Lanigero tonat et Poeni per terga Leonis  
omniaque hibernis permiscet mensibus astra.  
At cum Phoebeos Mauors effugerit ignes,  
siue Aries Geminique deum siue acre Leonis  
sidus et aequatae librato pondere Chelae  
aut arcu pollens aut imbris fusor habebit,  
spissatis caecus nebulis hebetabitur aer  
nullaque praecipites agitabunt aequora uenti.  
his idem lentos signis cum supprimet ignis  
Belliger et pigra cursus statione tenebit,  
tum crebro magnus tonitru pulsabitur aether,  
tum resoluta dabit nimbos cum grandine nubes;  
sed magis, hibernae steterit cum sidere partis,  
effundet totas violento numine uires.  
at modicos imbres, proni cum cornua Tauri  
frugiferamque Deam uel brumalem Capricornum  
attigerit, liquido non saeuus ab aethere fundet.  
inuectus Cancro, terras cum letifer ortu  
Sirius adflauit, nocturos temperat aestus.  
Scorpios at rimans qua tollit acumina caudae  
frigidaque extremi iam claudunt sidera Pisces,
Martia non illos turbabit stella neque imbre
aut ulla condet nitidos caligine soles.
sed si forte diem uictus mutauerit aer
et uentos adfundet aqua, gelidissimus undae
tum rigor et toto Boreas dominabitur orbe.
At faciles glebas astringit frigore uerno
alma Venus, pecudis claro cum uellere fulsit
sub lucem exoriens, eademque, ubi tempore eodem
aetherium uenit Taurum super, imbris atris
et tonitu crebraque abscondit grandine terras.
temperat in Geminis annum. nec crede sereno,
nubila nec diuturna puta, cum sidere Cancri
fulserit ardentis: nil hoc in tempore certum.
flagrantis placide lucens haec temperat aestus
cum posuit sedem Nemeaei finibus astri.
Virgineque et Libra semper pendentia tantum
nubila continua magis in statione manebunt.
tum quoque nulla fides caelo, cum Scorpion acrement
stat super, incerta namque omnia lege feruntur.
heu quantis terras tum Iuppiter imbribus omnis
obruet! aut glomerata cadet quam densa per auras
inmitis grando! caelum quam saepe sonabit!
cum spatium attigerit tendentis spicula signi,
non terris imbres, ponto non flamina deerrunt.
et caeli terret sonitus mortalia corda
cum sedem Aegoceri Cythereius attigit ignis.
umidus at gelidos portendit Aquarius imbris,
hibernaeque cadunt pluuiae concretaque grando
Fiscibus a geminis, ubi prima recurrerit in astra.
Phosphoros haec tibi signa dabit cum + lucifer Aurora
ingrediens Venus alma polum; sed, ubi Hesperos ignes
provacat aetherios et noctem inducere terris
incipit, exoriens haec te Cytherea monebit.
uere cauere imbres et fulgura + comamenalto.
Phrixae rutilo pecudis radiauerit astro,
nubila erunt mixtusque fragor pluuiabilibus undis
flaminaque adsiduo terris instantia pulsu
et dirae caelo deicti grandinis ictus,
uere magis nitido Tauri cum sidere fulsit
adponi Geminis eadem inconstantia perstat:
cum dederit soles, inducet nubila caelo;

66 spicula signi Grotius singula signis 0 70 gelidos µ
caelidos 0 imbres Grotius ignis 0 71 concretaque
grando APS 0 concreta atque granda M concratque granda B
72 ubi Ellis p.244 sub 0 recurrerit Housman p.37
recurret 0 73 phosphoros Schaubach hesperos 0 dabit
cum P labitum cum A labe tum cum M labetum cum A labentia S
feret cum T aurora P curora M cur ora B orta A ora 74
hora S lucifer Aaurora Housman p.37 lucifer deleuit
Courtney 75 inducere Orelli ducere 0 76 haec te falso
Parisino attribuit Breysig haecte P haec cae B ecce AM
ece haec St monebit P mouebit 0 77 fulgora P fulgera 0
comamenalto 0 torta memento Ellis 78 erunt mixtus Housman
p.37 cum mixtus BM commixtus APS 0 pluuiabilibus APS T
pluuiabilibus BM 0 80 flamina 0 flaminat 0 instantia
Grotius tum stantia 0 81 et add. Grotius post 82 lacunam
indicaui 0 83 adponi BFP 0 adpone P ad poni S apponi AM
inconstantia Grotius constantia 0 perstat AU perestat M
peristat B praestat PS σ 84 nubila T nebula 0
nubila cum fuerint, subitos mirabere soles
et modo de uento, gelido modo protinus imbre
lucet et alterna variabit nube serena.
sin leuis ingressa est spatiosi sidera Cancri,
pacem mundus habet: non ulli corpora soles
pestiferi incendunt, non sidera densa solutos
astringunt artus; alieno tempore lenis
omnia pacato tum sidere temperat aer.
at rapidis eadem ne solibus aestuet orbis
efficiet, magni signi specta Leonis.
Virgine erunt pluiae plenique in nube fragores,
concaua quos reddunt inclusu nubila uento.
detrahent autumno pluuias eademque replebit
nubibus adsiduis, Chelae dum frigore primo
extremum autumni superent glaciante teporem.
Scorpios at raris, ne quid caua terra grauetur,
horrebit pluuiis. at diris omnia nimbis
continuisque ruet, cum per sinuosa feretur
cornua Centauri rapida distincta sagitta.
Aegoceros imbris et crebro fulmine ruptis
nubibus elidet sonitus tremuloque nitore
flagrantis teli mortalia lumina uincet.
haec eadem fundens praedicit Aquarius imbrem.
extremi saeuis maria increbrescere uentis

86 de Schwartz te O  gelido modo μ gelido ν  87 alterna
variabit Iriarte alternabit M altern. a A alter nauit B
alternat P alternat S alterna superabit τ  89 ulli
Bonincontriuius nulli O  93 aestuet μ aestuat ν
95 plenique Grotius plerique O  97 detrahent Orelli
detrahit Q replebit μ repleuit ν  98 chele Grotius
caelum O dum Housman p.37 ob O primo falso Matritensi
attribuit Iriarte prima O  99 glaciante teporem Housman
p.37 glaciante rigore iam Baehrens glaciaterroe )O
100 quid Grotius quis O  101 pluuiis APT pluuiis BM
pluuiis S nimbis Grotius nimbos O  102 sinuosa μ sinua ν
feretur Schwartz tenetur O 105 elidet 2 eludef μ etludef ν
106 lumina Schwartz numina O uincet P uincent O
107 praedicit μ praedicit ν  108 extremi B extremis O
saeuis τ saeui B aeuis M aeui P eius AS increbrescere BMS-
increbrescere APSU
ostendent Pisces, Veneris cum stella notarit.

Est quoniam certis ea iam tibi cognita signis, 110
accipe quid moueat mundo Cyllenius ignis
si modo Phoebei flammis effugerit axis,
matutina ferens solitos per sidera cursus.
cum pecudis uillos aurati fulserit astro
uentorumque graues et dirae grandinis irae
non intermisso patiendae tempore surgent.
quin aliqua pluuias etiam in regione notabis
adfore; non omni namque est tunc imber in aruo.
ast ubi se Tauri sinuatis cornibus affert,
grandine significat. Geminis tranquilla serenti
et placidum nautis spondet caelumque fretumque

............................

nubilaque atque imbres, aestus ac frigora miscet.
certus at ardor erit, quamuis iuuet aura Fauoni,
cum uasti calida radiabit sede Leonis.
templa sed Astraeæ simul ac possederit ignis,
omnia mixta feret, pluuias tantum modo Libra.
Scorpios et pluuias meditabitur; undique uenti,
undique grando uenit, rumpuntur fulmina nimbis.
Centauri attigerit cum iam Cyllenius Arcum,

109 quom Baehrens quae AM que BPS quos t notarit t
notarint 0 110 ea iam tibi Housman p.38 ratuiiam O
dea iam tibi W.Morel p.107 paphie iam Courtney
111 mundo A mundu B mundum P mundus MS 112 phoebei μ
phoebet ν 113 solitos σ solitus O 114 pecudis Grotius
pecum μ pricum ν 115 dirae P dira O 117 aliqua conici
alias O 118 aruo P aruis μ arui B 119 tauri sinuatis MS
taurus sinuatis APT tauris inuatis B affert Breysig
afert B^ effert O 120 serenti Schwartz sereni O
uersum excidisse suspicatus est Schwartz, sed utrum ante
122 an post non indicauit. quem secutus lacunam ante 122
indicaui. lacunam post 122 indicauit Baehrens, nihilo det-
eriis. 122 ac frigora APT afrigore BMS 123 at add. Orelli
iuuet AMT iuuet BPS 124 radiabit τ radiavit AP
rabiabit MS rabiauit B 125 astraeae Grotius extraeis O
127 scorpios et μ scorpio sed ν 128 fulmina nimbis
Wakefield ad Lucr.1,1013 culmina nimbis μ culminant
imbres B fulmina et imbres P 129 arcum Grotius arcus O
idem ubi consurgit Capricorni sede biformis, aut subitos caelo deducet crebrius imbres fulminis aut iactu magnum perrumpet Olympon. nulla serenato Phryx rorans nubila caelo conparat, at gelidos flatus caelique fragores non allo melius signo praedicere possis, Piscibus haec eadem quamuis cognoscere detur. quandoquidem exoriens ignis modo Cyllenaeus quid faceret primo docui cum lumine Solis, tempus, et occasu moueat quid, discere, Phoebi: uer erit hibernis totum exsecrabile nimbis et crebro tonitu; uincet florentia rura spesque nouae segetis quartientur grandinis ictu uurenturque gelu, magni cum regna Tonantis ingrediens pecudis conscenderit aurea terga. hinc et Agenorei stellantia cornua Tauri quidue ferant Gemini, rabido quid sidere Cancer, si pentitus quaeres, Taurum saeurei uidebis grandine nec contra ferri ratione probanda aut Cancro aut Geminis. / saeuiseque caloribus ardet hic qua ficta Leo / calidus uestigia seruat. flatibus at gelidis miscet tranquilla serena spicifera Dea iusta manu, nec Libra tenenti.

130 idem Baehrens aut idem consurgit Grotius capricorni sede biformis Baehrens capricornisetde biformis P capricornisetdebi formis M capricornius sede biformi S capricornis et debiformis AB capricornus et ipse biformis T 131 subitos μ subito, 133 phryx rorans Housman p.38 capricornus 0 134 at Grotius aut 0 135 melius σ medius 0 137 exoriens modo Housman p.38 exoritur quoque 0 138 docui Schwartz modo cui 0 139 occasu Grotius occasus 0 moueat Baehrens moueat 0 quid Housman que 0 discere BPT discedere ABMS 140 uer erit uerserit 0 141 uincet conieci iunget 0 143 gelu magni Baehrens caelum agni B caelo magni P caelum magni μ 146 rabido Orelli rapido 0 148 nec τ nrt A ntit B ntit BXMP tunc S 149 diuelli eique medio inserui 150 hemistichiis inversis 150 hic μ hinc qua conieci quo 0 ficta Baehrens dicta 0 151 flatibus Grotius flatus 0 serena Iriarte serenis 0 152 iusta Housman p.38 aut mita aut muta B nuta μ nuda P libra Iriarte libera 0 tenenti Housman p.38 tendenti 0
69
dissentit diuae sed, ut haec, uentura serena
nuntiat; a uentis cessat mare, cessat et aer.
Scorpios in pluuias rarus, sed nubibus atris
creber agit nimbos et saeua tonitrua portat,
clara Sagittiferi tetigit cum lumina signi.
Aegocero semper caelo leuis excidit imber,
frigidus at rabidis horrebit Aquarius Euris
brumalesque dabit pluuias atque igne perenni
cum sonitu quaet nubes. si cura sagace
non frustrata animum certo me limite ducit,
haec eadem tibi signa dabunt non inrita Pisces.

5
Astrorumque globos et sidera maximus Atlas
protulit in populos, numeris uersutus, et omnes
stellarum motus certa ratione notauit;
quae Pharii Tyriique uiri commenta sequentes
aequora uere nouo .........................
.......................... uentos et flamina cuncta
Aeolus in partes diuisi rettulit orbis:
quo premeret Boreas, Notus unde attolleret imbres
quaque Euris Zephyrusque domo procederet undis
et circumpositos armaret in aequora fratres.

6
+ cur diuite lingua
Graecia praecurram potiusque triangula dicam.

153 dissentit τ dissensit O  154 a Iriarte ad O
155 atris τ astris O  159 at Aπ ad B ac U a MS
rabidis conieci rapidis O  160 brumales τ brumatus O
161 si cura Grotius secura V securas μ sagacem P sagem B
agem aut ageni M ageni A sagitta S laboris τ  162 frustrata
Iriarte frustrat AS frustat EM frustratum P frustrans τ
fr.5 sine interstitio post iv 163 solus praebet A 1 que
add. Baehrens 2 numeris uersutus Baehrens numeris uirtutis A
4 tyrii Baehrens syrii A  5 inter nouo et uentos lacunam
indicauit Baehrens uentos et Baehrens uento sed A
6 rettulit Baehrens rettulit A  8 procederet Baehrens
proce**** A fr.6 debetur Prisciani de figuris numerorum
libro (GLK 3,417) 1 cur libri quidni te Housman p.39
Translation
Aratus began with mighty Jupiter. My poem, however, claims you, father, greatest of all, as its inspirer. It is you that I reverence; it is to you that I am offering sacred gifts, the first fruits of my literary efforts. The ruler and begetter of the gods himself approves. What power would there be in the points which mark for certain the seasons of the year, the one where the violent sun turns around in the sign of the burning Crab, the one where he grazes the opposite turning post in chill Capricorn, or those where the Ram and the Balance make the two divisions of the day equal, if the gaining of peace under your leadership had not allowed ships to sail the level sea, the farmer to till the land and the sound of arms to recede into distant silence? At last there is an opportunity to lift one's gaze boldly to the sky and learn of the celestial bodies and their different movements in the heavens and discover what the sailor and the canny ploughman should avoid, when the sailor should entrust his ship to the winds and the ploughman his seed to the soil. May your presence and the peace you have won aid your son; grant your divine power, to favour me as I attempt to tell of this in Latin verse.

The stars which gleam throughout the heavens move ceaselessly, for the sky causes them to rotate with its own mass. The axis, however, does not move, but always stands in the one place, holding the earth in equilibrium and making the sky rotate about its steady pivot. Twin poles, as the Greeks call them, bound it at each end; part of the axis is sunk in the waters of the Ocean, part is high up under the terror-bringing North Wind.

The Bears of Crete, called Arctoe, or, in Latin, Ursae, guard it on the right hand and on the left. They are also called Ploughs, and the shape of a plough is the closest to the real shape formed by their stars: Each has three stars at the pole and the wheels, four in the upper part.
If you prefer to call them animals, these gleaming animals face away from each other; the head of one shines above the shaggy back of the other; the sky carries them down headfirst, their bodies pressing upon their shoulders. If the old tale is acceptable, the land of Crete nurtured them; the ruler of Olympus granted them a place in the sky. They earned this by their guarding of him, inasmuch as they faithfully tended great Jupiter in his earliest infancy. His terrified mother had stolen him from his father's jaws and the Corybantes, her servants, hid him in a cave on Mt. Dicte and clashed bronze cymbals together with their hands to distract his father and prevent the sound of the baby wailing from reaching his ears. Because they were the nurses of Jupiter, Helice and Cynosura shine in the sky. The Greeks set their course by Helice, its stars being brighter; the Phoenicians are guided by Cynosura. All of Helice is shining and gleams with a clear radiance; no constellation begins to shine after the sun has hidden his gleaming countenance in the Ocean before seven-starred Cretan Helice. Cynosura, however, is the surer guide for those cleaving the level sea, since it is short and all of it turns around at the pole, a reliable guide. It has never been known to deceive Phoenician sailors guided by it.

In the middle of them, like a branch of a river, a monstrous Snake twists its winding coils in this direction and that and above them, a strange portent. Its tail extends above Helice; it stretches its scale-bearing body towards Cynosura. The head of Helice lies where the tip of its tail ends; Cynosura is contained within a high coil of the Snake, which then stretches out further, and, sweeping back and up, looks back at the larger Bear. Its huge eyes and hollow temples are illuminated by bright stars; only one star sits on its chin. (The line joining) the star which marks the Snake's right temple to that which sits on its chin (points to the place where)
the tip of Helice's tail and her last star shine. Where
the head of the setting Serpent gleams, the nearby points
of rising and setting are touched by the one face. The
Bears are unknown to the rolling waves of the Ocean and
guard the pole continually with their never-setting stars.

Not far from her is a being worn out with toil. No one
knows his name or the cause of his toil. He kneels
on his right knee and stretches out his arms in different
directions, his palms stretched out in supplication to the
gods. His left foot treads the Serpent's head.

Beneath the sides and lofty back of this weary being lies
the bright Garland, placed in the heavens on account
of Bacchus' passion for Ariadne. He granted her this
honour because of their marriage.

This wretched constellation is sunk on failing knees.
His back is lit by the Garland; the Snake-Bearer lies
where his head is uplifted. You will notice the head
and monstrous shoulders of the Snake-Bearer long before
the rest of him, in which there is little to please. The
shoulders' radiance, however, remains undiminished, even
when the moon's orb is full at the middle of the month.
The light in his hands is feeble. The Snake slithers
through them; he grasps the Snake in both hands; it
coils around his middle. The Scorpion lies near the
soles of his feet. His left foot lies on its back, his
right foot unsupported. The weight borne by his hands
is unequal. His right hand holds only a small part of
the Snake; the Snake is entirely lifted up by his left
hand. It rears up from the left hand of its Bearer as
far as the Garland. Its last star gleams on its chin,
its rays like hairs, just below the Garland of the sky.
But where this slippery Snake writhes around his Bearer's
back, the Claws pour forth their clear light into the sky.
An old man, threatening his animals with a goad, follows Helice. He is either the Guardian of the Bears or Icarus, slain because of his services to Bacchus and compensated by stellification for the loss of his life. His head is by no means faint, nor is his body gloomy; only one of his stars, however, has its own name. Men call it Arcturus. It lies where his garment is fastened by a knot.

Then comes the Maiden. A full and ripe ear of wheat shines in her left hand. What shall I call you, goddess? If you are affected by the poems of mortals and do not, in hatred of the human race, turn a deaf ear to those who venerate you, I will halt my steeds in mid career and rejoicing in my control of the reins, tell of you and your divine power, reverenced by the world.

When you ruled the golden age and gave peace to the world, O Justice untouched by evil, O Maiden most serene, whether you are of the line of Astraeus, who, according to tradition, is father of the stars, or whether the true story of your origin is lost in time, it was your custom to walk proudly and joyfully in the midst of the people. You did not disdain to enter the houses of men, which were then untainted by crime. You delivered judgements and taught the populace, untaught before, educating them in virtue in all the activities of their life. Men were not yet so savage as to bare their swords in rage against each other; discord among blood relations was unknown; no one sailed the seas, men's own lands were satisfaction enough. Greed for wealth from far away did not cause them to build ships and entrust them to the hazards of the winds. The peaceful lands bore fruit unaided for those that dwelt on them. There were no boundary stones marking off their owners' small domains, for they were quite safe without them.
However, when the age of silver, less attractive than that before, arose, Justice rarely visited the cities, tainted with crooked dealing, but came down from the high mountains only late in the day, her head veiled and the lower part of her face wrapped in gloom. She accepted the hospitality of no one's hearth and home. She merely chided the frightened crowds when she saw them: "Offspring forgetful of your fathers that have gone before you, destined to have a progeny that is becoming ever more degenerate, why do you call upon me with your vows when you have ceased to follow me? I must go elsewhere; I will leave this generation of yours to its own devices and to bloody crime". When she had finished speaking, she flew away over the mountains, leaving the people thunderstruck and expecting even worse fate than their present one.

But when the offspring of the bronze age came to the earth, the seeds of virtue were overwhelmed by vice and could no longer resist it; men were delighted by the discovery of the metal iron; the ox, accustomed to the plough, defiled their tables; the most just maiden swiftly left the earth and gained a place in the sky, very close to the Herdsman who slowly follows his setting waggon.

A star of outstanding brightness marks the shoulders of the gentle Maiden. No brighter star surrounds Helice: the one that shines in her tail is no brighter, nor is the one which gleams in her shoulder, the one in her forefeet or the one in her hind feet, nor the one that forms her sign at her shaggy buttocks. The other stars, which complete her at the head and neck, were unknown to the poets of old and travel on unhonoured.

You will discover the Crab lying below the middle of Helice, the Twins beneath her head. Below her hind feet you will find the shaggy mane of the tawny Lion.
When the violent chariot of the sun touches this sign the heat of summer, which began in the Crab, is doubled. Then water is scanty and the earth in a wretched plight; the farmer rejoices at his luxuriant crops and carefully stores them. I would not then use oars on the azure sea, but would rather free the sail ropes and entrust the sails to the wind, receiving the puffs of the West Wind in the billows of the sails.

There exists also the semblance of a Charioteer; he is either Ericthonius, born in the land of Attica, who first yoked horses, or Myrtilos, sunk in the waters of the Myrtoan sea. The appearance of the sign suits the latter better; you will observe that he has no chariot and, his reins broken, is sorrowful, grieving that Hippodamia has been taken away by the treachery of Pelops. This huge sign sets at an angle to and on the left of the Twins and opposite the head of the larger Bear. Moreover, he carries with him divinities: one is considered to be the nurse of Jupiter (if the infant Jupiter really did suck the breast of the faithful Cretan goat); the brightness of the star is witness to the gratitude of her nursling. The Charioteer carries her on his shoulder; his hand displays the Kids, which, when the sky above has lifted them from the Ocean, are a most unfavourable sign to sailors; more than once the Kids have seen a ship tossed about, the sailors trembling and bodies of the dying scattered over the cruel waves.

Near the Charioteer’s feet lies the fierce Bull, his brow bearing fiery horns, his threatening head illuminated. His very shape will tell anyone, however ignorant of the sky, that here is the head, flaring nostrils and horns of a Bull. The Hyades gleam on his brow; the fiery star
occupying the tip of his left horn enters from below the right foot of the Charioteer and binds these gods together, providing the connection between them. Myrtilos rises as far as the top of his head when the Fishes rise; all of him is visible with the Bull; the Bull sets in the Ocean in front of him, when Myrtilos' head is still shining above the earth.

Cepheus, descendant of Iasus, also climbs the sky, as does his wife and his whole family, seeing that Jupiter is the founder of his line; the kingly nature of one's father is often an advantage. He stands behind the short Cynosura, his hands open and his feet apart. The line joining Cepheus' right foot to the tip of Cynosura's tail is the same length as a line from his left foot; the line joining Cepheus' feet is shorter. Where his belt girds his flanks, you are looking towards a coil of the winding Snake. Cassiepia sits on high near her husband. She is clearly visible, even when the moon has been shining all night. She is short, however, and her constellation is adorned with few stars. The disposition of her stars resembles a key whose iron teeth are placed under the bar before a pair of doors to remove it. Her face contorted in agony, she stretches out her hands as if bewailing the abandoned Andromeda, unjustly atoning for the sin of her mother.

Andromeda lies not far away; you can see all of her when the night is not yet dark, so great is the brightness which shines in her face and large shoulders and surrounds her middle, where her fiery belt gleams and her dress is tied. Nevertheless, the signs of punishment remain: her arms are stretched far apart as if she were held by the weight of a hard rock.

A flying Steed shines above Andromeda's head. The star which gleams on her crown also shines under the Horse's
belly; three stars, set an equal distance apart, mark his shoulders and flanks. The shape of his head is dim indeed; his neck too is marred by the feebleness of its light and remains unhonoured. However, where this animal chews the bit, his mouth foaming, a gleaming star appears, brighter than those on his head and long neck and of very much the same brightness as those on his shoulders and large flank. The individual stars do not, however, represent the whole of his shape; the first lot show a Horse, in the middle the image disappears and the body is broken off; thence his image is unformed. He is the offspring of the Gorgon. He stood on the summit of the Boeotian mount Helicon at a time when water did not yet flow down from it and drew out the water from the fountain of the Muses with a blow from his right foot. It was from this that the water so formed derived its name: the spring is called Hippocrene (Horse spring). Pegasus, however, beats his swift wings in the topmost circle of the sky and rejoices in his stellification.

The Ram follows; he travels over by far the longer arc, but completes the circle just as quickly as the Bear; his swiftness as he hastens to touch the distant turning post with his horns compensates for the shortness of the orbit in which the Bear, daughter of Lycaon, travels, turning the sky round by her movement. His shape is not clear, nor are his stars bright enough to be seen if the moon prevents it. His position should be fixed by reference to the nearby gleaming belt of Andromeda; the Ram treads the line in the middle of the sky that sundered its two hemispheres, as do the Claws and the gleaming belt of Orion.

There is an even nearer constellation by which you can discover the position of this god — mark the positi-
ion of Deltoton (that striking gift of the Nile, owing its origin to its divine waters). It has three sides, two equal, one shorter, but brighter. The Ram is near this last side. Deltoton is midway between the Ram's back and the sorrowing daughter of Cepheus.

Beyond the Ram lie the twin Fish, of which one stretches towards the region of the South Wind, the other seeks the region of the North Wind, that comes from Thrace, and it hears the harsh sound of the winds blowing from snow-clad Haemus. Their movement is not free, but each is held by a chain at the tail, the chains joined at the one knot. A star lies on this knot. The stars of the Fish which looks towards the blast from Thrace may be seen at Andromeda's elbow.

Underneath both feet of the Maiden vowed to destruction lies the winged form of Perseus, pleasing to the girl he saved. The size of the hero is in itself sufficient evidence of his parentage - he shines so huge in all his parts, so much of the sky does the son of Jove occupy. His right hand resembles a hand lifted up; it shines on high near Cassiepia; his legs seem to be hastening and he seems to be desirous of cleaving the clear sky with his wing-bearing feet.

Under his left knee lie the Pleiads, a most reliable sign of the Bull. A small space contains them all, nor would they be easily visible, except for the fact that they lie together and present to the eye the combined radiance of them all. Tradition has it that there are seven; one, however, has been taken away from this number because the eye cannot separate such small bodies. Despite this, antiquity has faithfully preserved all their names: Electra, Alcyone, Celaeno, Merope, Asterope, Taygete, and Maia, all begotten by a father who carries the heavens (that is, if Atlas really carries the gods and the kingdom of Jove and rejoices in this weight). The Pleiads
do not rival many stars in brightness; it is, however, their special honour to mark two periods, the time when the warmth of spring first reminds the farmer of his fields and that when winter arises; the experienced know that it should be avoided in the safety of harbour.

There is also the Lyre, the delight of Mercury, most welcome at the banquets of the gods. It shines in the sky before the figure worn out with toil, whose left foot treads the head of the winding Serpent and whose right hand is held aloft.

On the other side, the Lyre looks on the Bird which was either formerly Phoebus' Cycnus or the winged adulterer who came down to Leda's bedroom, concealing Jupiter's deceit under a false appearance. The Lyre of Mercury has its abode between the failing sign and the gleaming Swan. You will observe that much of the Swan is without stars, much on the other hand, bright, much in-between. Both his wings are bright, his right wing, which lies near the elbow of King Cepheus, and his left, which flees Pegasus, who presses upon it.

The flank of the Horse shines between the Fishes; the Water-Carrier's right hand, with which he pours out water, stretches out beside the Horse's head. Capricorn is submerged in the Ocean before him and his fiery stars always seem to be hastening to their hidden place of rest. When the sun is travelling around the turning point in chill Capricorn, only a short time intervenes between its rising and setting. The brief period of daylight does not allow sailors to complete their journey and so fulfil their vows; when black night increases the terrors of the deep and you loudly invoke the dawn, your watch for it will be in vain. Then comes numbness; the raging South Wind seethes over the sea; the sailors are slow at their tasks and trembling locks their limbs together. Nevertheless, rash men show no proper regard
for the time of year. No day dawns that sees the sea at
last free from ships; there is always a ship floating on
the swelling waves. When on land, the thought of daring
the waves is pleasant, but, when the ship is caught with
the bitter briney foam leaping up at its sides, some men
look at the curved harbours on the shore and talk of the
lands they have found by the keenness of their gaze as if
they have received a gift; others, however, are tossed on
the deep far from the land; sometimes they are scared
out of their wits by the mountain of water towering over
them. Only a thin wooden plank protects them and wards
off the fate threatening them, for in their ship death is
as near to them as the waves.

The sea is already closed to those who are wise even
when the sun has touched the war-waging Bow and the Beast
who threatens to shoot arrows from his curved bowstring.
The sailor escapes the hostile night and the long period
of darkness in harbour. The Scorpion is the sign that
we then mark as rising at the end of night; he then
shines above the azure sea; the heavy Bow follows close
on his tail and comes forth further into the light of day.
Then the little Bear returns aloft; all Orion is immersed
in the waves, Cepheus as far as his head and shoulders.

There is also an Arrow, guarded by Jupiter's Bird. It is uncertain what bow it was sent from. It should be
no source of wonder that Jupiter's weapon-bearer has come
into the sky, for he it was that snatched away Trojan Gan-
ymede (although he was burning with eagerness, his talons
did not harm him) and was made guardian of the weapon that
was the cause of Jupiter's passion for the boy. Troy paid
for Jupiter's madness by its destruction.

Then there shines the short Dolphin, which has few
stars and lies close to Capricorn; it carried the nymph
and daughter of Atlas to Neptune's marriage bed, taking pity on a lover.

We have told of the constellations which turn through the ether in the upper part of the sky and look upon the north and are accustomed to gentle breezes. Now another order of signs is arrayed. It lies near the horizon and feels the hidden blast of the raging South Wind.

The first is Orion, who is whirled along beneath and at an angle to the breast of the Bull. No other star in the figure of a man is closer to us than the stars scattered throughout his body, so bright is his head, mighty shoulders, fiery belt, scabbard and swift lucent foot, so bright is the Dog which guards him with its fearsome mouth. It belches forth fire from its mouth, its body is not so bright. The Greeks have given the star in its mouth its own name, Sirius. When it lies near the sun's rays, summer blazes; when it rises, it affects crops in two very different ways: the healthy it strengthens, but that with wilting foliage or feeble roots, it kills. There is no star the farmer likes more or hates more. He starts to observe it from its first appearance.

The Dog pursues the long-eared Hare, and it flees. Both signs rise and set in the sea in this way. You will find the small Hare under Orion.

Where the Dog's tail, whose light is feeble, ends, the stern of the Argo gleams with stars. It does not travel freely forwards, but is dragged by its stern, as happens when sailors approaching land hold their ship stationary by pulling on the oars and, now bound to fulfill their vows, tie the ship's stern to the shore, in their eagerness to touch the longed-for dry land.

The part of it which was smashed when Jason escaped...
the clashing rocks through the divine power of Juno shines in the sky; there is no further extension of the sides where the mast rises; its form is cut away where the bow should be and there is nothing. Only the stern, with its rudder lowered, gleams.

From afar off the Sea Monster sent by the daughters of Nereus pursues Andromeda, exposed on the rocks. The path of the sun lies between them. Despite this, she is terrified by the monster of the sea. She rejoices, however, in her position in the other hemisphere near the stiff North Wind. It is the South Wind that drives on the Sea Monster. This one sign stretches alongside two: for the Ram and the Fishes are carried along above the Sea Monster. The Sea Monster does not extend much beyond the River which wept over Phaethon, who, having lost control of his father’s horses, had fallen into its waters, Jupiter’s flames issuing from his wound. His sisters, changed into a new type of tree, elms, and forming a new forest, also mourned him. Eridanus flows in the middle of them with its limpid waters. Part of this river flows along and strikes Orion’s left foot. The knot which alone connects the Fish, which lie far apart, shines above the crest of the Sea Monster. There are also free stars in the sky, which do not, by their appearance, represent any shape. Some lie under the flank of the Hare, others behind the Ship that travels stern foremost, others are situated between the coils of Eridanus and the helm of the Ship. And this itself is an indication that they form no figure. There are, furthermore, stars which form no part of the named constellations scattered throughout the sky between them. Although they lack their own constellation, they can be found with reference to the stars of one nearby.

There is also a Fish that swims alone, apart from the twin Fishes. It shuns the north and is turned entirely to
the south; it lies under the belly of Capricorn and looks towards the lowest part of the Sea Monster. There are other stars, at the lowest point of the Water Pourer, where he places his feet. The group of stars which lies between the place where the Sea Monster's tail and that where the head of the Southern Fish turns, has no name, nor any reason for having one, so slight is the brightness of all of them that it is all but lost. Not far from here the Water Carrier pours out water with his right hand and stars resembling splashing water fall from his pitcher. One, under the tail of the scaly Monster, shines brighter than the rest, another lies under the feet of the sign pouring forth water. There is also a little-known Garland a short distance in front of the Archer's swift legs.

Where the Scorpion turns the sting in his erect tail, you can see, near the South point and opposite Arcturus, the Altar with its sacred fire. The space between the incense-bearing Altar's turning posts becomes ever more restricted, the slower Arcturus travels to the point at which he touches the Ocean as he sets. The Altar has scarcely appeared in the sky before it is cast headlong in steep descent into the immense, seething Ocean. Nature has given man many sure signs to protect him and has persuaded him by means of them to avoid disaster that is pressing upon him. The Altar can be numbered among the sure signs of trouble at night. If the other constellations of the sky are dimmed by a covering of clouds, but the Altar is gleaming, you should then be afraid of a violent South Wind destroying the calmness of the sea. Then the yard-arm should be thickened by wrapping the sail around it, so as to allow the taut ropes to let the wind through the void left by the sails. If, however, the wind catches the ship's slack sail and flaps it about, either the ship will tilt forwards and sink, sucking in the hostile sea at its bows, or if Jupiter the saviour looks
favourably upon them, the men who have been tossed about on the sea will just manage to fulfil their last vows for safety. Their fear will not leave them until the part of the sky which shows men gazing upon it that a North Wind has sprung up, is visible.

There exists also the huge body of a Centaur, whose parts are joined by stars. His head, shaggy breast and belly are those of a man and lie under the gleaming Claws. Beneath the Virgin there rises the huge sides, legs and shoulders of a Horse. In his right hand he either carries game from the woods or, being a worshipper of Jupiter, is bringing to the nearby Altar gifts to appease the gods. This is that famous Chiron the pious, the most just of all those born from a cloud and the teacher of great Achilles. If a thin cloud accompanies him when his shoulder lies at the midpoint of his journey in the sky above and hides his human parts, all his equine parts being visible, he announces the arrival of the East Wind.

Not far from here the Snake is drawn along. Its tail grazes the Centaur from above, its body lies under the Lion, its head extends towards the Crab. It adjoins three signs. The Mixing Bowl weighs down its first coils, the Crow pecks at its further coils with its squawking beak. All of these constellations shine, the Crow with its feathers, the Mixing Bowl with its light weight and the Snake, extended over the space of three signs.

The Forerunner of the Dog rises with his gleaming light under the Twins.

These adornments of the sky are carried in it night and day. Each constellation is allotted its place; all keep their positions once allotted and they do not change over a long period of time.

There are five other celestial bodies, which travel under a different law; they have their own movements and
in their courses they sweep around in a circle in the opposite direction to the sphere of the fixed stars; they wander from the constellations they are in and change their positions. You cannot find any other constellation where these gods have a permanent abode. They are often seen, rising and setting in continually changing places. The circular journey they have undertaken is long; travelling slowly, they only just complete their journey, which lasts many years. Time, and the amount of effort involved, will show whether, fate permitting, I can afterwards direct this work into those erudite studies.

Four circles which, between them, indicate the divisions of a year, cut the zodiac, whose nature has been revealed. One, lying at an angle to the others and running between them, binds them together. They are not of the same length. Two of them are equal to each other, and larger; there is another pair (also equal) to each other, but smaller than the aforementioned. The latter pair always lie apart, the former are joined by points they have in common. These wheels bisect each other, just as if someone were cutting off two bows from each of them. A fifth circle is seen in the clear night. It is unlike the others. While the stars, being nearby, emit a pure light, this circle is the colour of milk. It shines, a road in the middle of the darkness. This milky way which revolves around in the sky is exceeded in length by none of these circles.

The circle which faces the north and travels through regions high up near the Bears, runs through the middle of the Twins, touches the feet of the Charioteer and crosses Perseus’ left foot. Its passage cuts both the flanks of Andromeda, who lies at a slant across it, and the whole of her right arm from the elbow. The tip of the hoof of the spirited Horse strikes this road in the sky. The gleam-
ing white Swan's head follows closely; the part of the kneeling figure from the elbow shines above it, as do the Snake's first stars. The Maiden, however, escapes it. The Lion and the Crab lie entirely on it. It cuts the Lion's body right through from the loins, which lie on opposite sides of it and comes out at the mane on his shaggy breast. The Crab's gleaming eyes are divided from each other as if a ruler ran between them and each belongs to a separate side. If a man were to divide this circle into eight parts, he would note that at any one time five would be shining above the earth, three be hidden in the waves and concealed briefly by the shadows. When the sun touches the Crab on this circle, fear a devouring summer and diseases that weaken the body. At that time the sun reaches the topmost point of his everlasting journey. At no time does he drive his gleaming chariot closer to the zenith. He struggles against the sky's hostility while he is attempting to reach his goal; from then on he is swept swiftly downwards. Capricorn holds the turning point of the sun's journey in winter within his icy stars, the Crab holds within his blazing sign that of summer.

The latter is nearer the North Wind, the other feels the blast of that of the South. The circle that lies down in the South divides Capricorn in the middle and joins the knees of the Water Pourer; the Sea Monster holds it fast in the coils of its tail; it touches the swift feet of the Hare and cuts the lowest part of the Dog's belly. It also cuts the ornamented stern of the sacred Ship, the Centaur's shoulders and the Scorpion at the point where the tip of its tail, containing its sting, writhes. The large Bow gleams on it. There, the sun has left the north and is nearer the south. With his feeble light, he brings cold winter. You will perceive three parts of this circle stre-
tching in an arc across the sky; five are hidden in
the waves and carried in the long night.

Between and in the middle of these circles there
travels a circle second to none in size. When the sun
carries his gleaming fires on it, he apportions an equal
period to night and day. This arrangement, which makes
the sky's signs evenly balanced, occurs twice a year, at
the beginning of fertile spring and when summer is fail-
ing. Both the constellation of the Ram and that of
the Bull are touched by this just circle, but all of
the Ram, the leader of the signs, shines on it; only
the Bull's shoulder and two stars of its bent leg lie
on it. It cuts Orion through the middle, the first part
of the Snake's coils, the light Mixing Bowl and the end
of the sitting Crow, where its stars fail in its black
tail. You will find the Claws there, their stars forming
a figure extending across it. You will also see there
the middle of the lofty Snake and ... in the middle,
the Snake Bearer, and, not far from it, the Eagle. The
whole head of burning Pegasus lies on it, and the circle
adheres to its long neck. The axis runs straight along
in the middle of and at right angles to these circles,
whose courses and constellations we are noting. Three
of them revolve forever equidistant from each other.
They can neither change their courses nor join their
furrows. The fourth lies at an angle to them and by
itself binds together these three circles. It ties to-
gether the two opposite ones at its extremities; it
bisects and is bisected in turn by the one between them.
Not even if a man skilled in the arts of Pallas had fash-
ioned these circles would the separate circles have been
better joined by the one circle. Three of them always
rise in the same places; there are always the same fixed points where they set.

The fourth varies its place of rising from the Ocean (travelling at an angle to the others) by as much as Capricorn is distant from the Crab, bringer of heat. The variation in its place of rising into the ethereal breezes is as wide as that of its place of setting in the sacred waters. The last circle does not, however, escape mortal sight. This circle is the sun's path, illuminated by the twelve signs.

The well-known Ram with the golden fleece is here. He it was who once carried Phrixus into the land of the Tauri and betrayed Helle. It was because of him that the ship Argo was fashioned. The treacherous Colchian Medea, putting its guardian to sleep, gave his fleece to the object of her illicit passion. Here too is the horned Bull. Deceived by his appearance, Europa was bereft of her home and her virginity. Carried through the sea on his back, she realized his deception. She bore him offspring in the land of Crete. Here too are the Twins, who never went down to the underworld, but will always remain, a most favourable sign for sailors, in the sky where the father of the gods himself put these young sons of Leda. The Crab too has been made a constellation, by Juno, daughter of Saturn, because it dared to bite Hercules, descended from Alceus, when he was cutting down the prolific Hydra in close combat.

Juno's character never changed; she was ever a jealous mother-in-law towards him. Then, next to the Crab, comes the Lion of Nemea, then the dutiful Maiden; the next sign is the Scorpion, which occupies twice as much of the zodiac as the other signs; with the addition of its Claws, it gleams with a doubled radiance. The goddess will sing to me of the Scorpion after Orion has first been mentioned.
Coming after it, bent in an arc, lies the pliant Bow of the Arrow-Bearer, whose custom it was to entreat the Muses' favour by clapping; received into heaven, he carries the same gleaming weapons that Phoebus carries. There follows the discoverer of the conch; the happier age of the gods, accompanied by its blast, followed warring Jupiter into battle against the giants. It received the reward of its support of the just cause in stellification, with the same double form it had on earth. In the midst of an awestruck, quaking throng of foreigners and his own people, Augustus was carried into the sky on the body of this sign, under which he was born, and returned to his mother stars. The next sign, Deucalion, pours forth water, that hostile element he once fled, and in so doing draws attention to his small pitcher. The Fishes, twin gods of Syria, complete the year. Then the order I have already given begins again.

[The Wool-Bearer, the Bull, the Twins, then the Crab, the Lion, the Maiden, the Scorpion, the Bow-Bearer, cold Capricorn, the Water-Carrier and the two Fish.] If one were to divide the zodiac into six equal parts, the length of each straight line so formed would be found to be less than that of the arc encompassing two signs and equal to the distance between the circumference and the earth. As much of the zodiac shines in the clear air above as lies sunk in the deep waters of Ocean below. Every night six signs, never fewer, are being drawn through the sky at any one time; no night is longer than the time taken for a bow cut off from the complete circle of the zodiac to travel into the air above.

You must often wish to know how much of the night remains and console yourself with the thought of the coming light. The first indication of the sun's position is the sign it is travelling in, because Phoebus always shines in only one sign. Look then at the other signs, noting what
stars belong to each and which of them are rising, setting or culminating and how long each takes to rise when it leaves the azure sea (some leap forth swiftly, others are carried up more sluggishly and leave the Ocean at a slow pace).

If the zodiac, the path of the sun, happens to be hidden by a hollow cloud, or the sign in its ascent into the sky is concealed by the peak of lofty Athos, of Cyllene, snow-white Haemus, huge Gargarone or Olympus, abode of the gods, then, if you know the constellations that are rising with it, on the right and the left, you will always know what time of night it is and ... the appearance of the dawn.

When it is beginning to allow the Crab out into the air, the Ocean receives the platted Cretan Garland; the Southern Fish sets, tail first, as far as its back; all of the Serpent-Bearer's shoulders are submerged; only the tip of the Snake's tail shines; the sea, its fearsome coils. The Guardian of the Bears does not lie near these constellations for a long time by much. His feet are submerged when the Scorpion's stars are just beginning to sink beneath the waves; nevertheless, his head stays aloft while the Goat, stiff with cold, brings terror to the clear sea. Even then the Herdsman, sated with the light of the stars, scarcely manages to set and more than half the night ... leaves ... The whole of Orion, lacking none of his stars and with glittering shoulders, lies in the opposite part of the sky; the god has a large scabbard and a belt engraved with brilliant light. There too Eridanus lifts both its branches into the clear heavens.

When the first star on the Lion's mane shines, all those constellations which were partly visible when the Crab was rising, entirely set beneath the waves and flee the jaws of the rising beast; Jupiter's bird, with its
star-studded wings sets completely, but the kneeling figure worn out with toil is immersed in the waters only as far as his shank; the head of the monstrous Snake, the swift Hare, the Forerunner of the Dog, Sirius himself and, of the whole of the swift Dog, the forefeet, return to the sky.

Learn now the constellations which shun the Maiden as she rises; the Dolphin will then have already sunk into the waters it knows so well, likewise the sweet-sounding Lyre and the Arrow, girt with flames. The snow-white Swan will have hastened to touch the waves; scarcely even the part of its flying wings near the tail is illuminated. The River Po grows black, for it is very near the earth. Then the Steed hides its head and all its neck; in the opposite quarter, the Snake is carried higher, to where the Mixing Bowl is placed. The stern of the ship the Argo and the whole of the Dog arise; when the dutiful Maiden has risen as far as her feet that famous ship shines, mainmast and all.

The rising of the Claws will also be marked by its own signs. Then the Herdsman, with all his hairlike rays, leaps forth from the Ocean; Arcturus, by the brilliance of his countenance, announces his coming; the Ship occupies the regions above the horizon, as does the Snake, though minus its tail. The kneeling figure returns aloft as far as his bent shank. The rest of him has not yet struggled forth from the borders of invisibility and he keeps the upper part of his knee inverted alongside the Lyre. He shows himself in the heavens twice in the one night. He follows the sun's chariot as it sets, while the long night is beginning and flees from the Ocean as it rises. His shank is visible when the Claws begin to shine; when the Scorpion comes forth, this bent form is brought forth into the heavens as far as his back.

When the son of Philyra is rising from his grandfather's waters, then the whole of this wretched sign gleams.
Part only of the twisted Garland then returns to the sky, and the tip of the tail of noble Chiron can be recognized. Pegasus hides his wings and all the rest of his body. The Swan's tail no longer shines, but follows its breast, which has already set. The maiden Andromeda hides her face; the huge Sea Monster sets, fiercely pursuing it. His crest still shines in the sky. King Cepheus hides his head, but is otherwise untouched by the waves.

The Scorpion does not begin to rise before the famous River has disappeared; it puts Orion to flight and he fears its pursuit. Look favourably upon a poet, I beseech you, Diana. I am not the first to write of this; poets of old have done so before me. They have told how a man once dared to touch the undefiled garments of the maiden goddess and so defiled her sacred virginity: this impious man was then doomed to punishment and tried to kill off all the wild creatures in the sacred woods with a tree-trunk and hand over Chios, thus tamed, as a gift to Oenopion. But the sister of Phoebus could not endure this, and caused the earth to split open suddenly and bring forth an avenger of her injured deity, a scorpion, which she set against the huge Orion as an even more formidable foe.

Desist, mortals, the anger of the gods is never mild. Wretched Orion still fears being wounded by the poisonous sting of the Scorpion and, as if part of his punishment were still to come, flees its weapon; nevertheless, he is already setting when the Scorpion is touching the eastern horizon with its burning breast. None of Andromeda is left, nor does any of the Sea-Monster enjoy the light. The mass of the ever-revolving sky draws Cassiepia down and drags the rest of her after her head and shoulders, and she falls into the sea, her beauty spoiled. With it, she once vied with the daughters of the old man of the sea, when, in her folly, she had looked upon the ritual performances of Doris and
Panope from the Canehifan shore. She sets in the Ocean. The whole Garland returns to the sky and all the Snake frees itself from the darkness. Chiron's feet are still somewhat obscure and he awaits the rising of his Bow. His whole head and body are already visible. Then the Beast which the Centaur carries in his right hand comes forth into the sky, the Snake is revealed and his coils are clearly visible and all of the kneeling figure, except for his left hand, leaves the sea.

When the Bow begins to return from beneath the waves Chiron has already lifted his swift feet, now dry, from the Ocean and the Snake Bearer is gleaming among the stars above. None of the slithering Snake is invisible and, recovering his hand, the mishapen figure lacks none of his parts. Already the Lyre and the Swan's right wing are with the stars above the horizon. Then Cepheus just scrapes the earth with his sign in his return. The Dog conceals all its stars, Orion is hidden and the Hare, ever safe, lies in the waves. But the rear part of the ship the Argo, where the sign is fashioned into a curved stern, still shines. Perseus and the well known Goat-star set.

All the Charioteer sets when Capricorn begins to rise; so too all the ornamented stern of the Ship, which holds the tutelary deity for which it is reverenced. Then the Forerunner of the Dog departs into darkness; the Bird with curved claws, that carries weapons and is more pleasing to Jupiter than all the others, returns. All the Swan's stars, the light Arrow, the little Dolphin and the Altar equipped for sacred rites, return: the Garland less renowned than the Cretan one also rises.

The Water Pourer, in his ascent into the sky, summons Pegasus, who trusts in his wings, to rise up with him as far as his mouth and his neck. Chiron is drawn backwards beneath the waves into the black region of invisibility;
his tail is dipped into the Ocean, which has not yet received his head, monstrous shoulders or breast marred by bristles. It hides more than half the Water Snake; a third of it still shines.

The rising of the Fishes hides all the Water Snake and the twy-formed Centaur. When the South Wind summons the twin Fishes, the Fish which looks upon the gloomy South also rises. It rises with the Fishes, ... frees ... when the swift Ram lifts his horns into the sky. The Fishes bring forth Cepheus' daughter. Joyfully she escapes the sea and the daughters of Nereus and is carried into the sky. The Wool-Bearer at his rising hastens to hide the sacred Incense Bearer; Perseus shines in his native element, the air ...........

When his wings are restoring Perseus to the air, the Pleiades escape from the waves and can be recognized in the Bull's right shoulder. Myrtilos is carried along stuck on the Bull's horn, and without any chariot. You cannot see all of him; the whole of him has not yet returned to the sky; his right side is still immersed in the waves. His head shines, his left hand carries the tiny Kids; Jove's nurse shines at his shoulder; his left foot rises nearest to the earth; the rest of him appears with the Twins, completing his constellation.

The Sea-Monster's crest and tail alike gleam when the Bull rises; then you can see the Herdsman near the earth.

The setting of the Snake Bearer as far as his knees will be a sign that the Twins have left the Ocean and returned. All the Sea-Monster's scaly body then gleams; let the sailor then perceive the source of the river Eridanus as he gazes at the sky, while bright Orion lifts himself from the eastern horizon. He gives an indication of the time of night and whether the winds will be fierce or there will be a calm one can trust.
Fragment 2

The sun has but one path, lit by the twelve signs. Along it the moon too is hurried; Venus is carried along the same path, as are Mars with his plumed helmet, swift Mercury, Jupiter, to be reverenced because of his rule over the sky and slow Saturn, whose light is dismal. Two forces affect all of them, one is innate and shows that the planets have their own proper motions in a sign (under its influence they travel around the heavens at a slow pace), the other force seizes upon them against their will and carries them around swiftly in the sky. The sun, which is in the middle of them, defines the length of the year, the moon that of a month. You can see that the sun takes a year to return to the place from which he began his journey throughout the signs in his flying chariot. The moon travels this distance more quickly and the period of a complete revolution is shorter for her; she is content to add day to day to make a month. The period Venus takes to complete her journey is a year. Mercury is no slower than her. Mars completes one revolution every two years. While the father of the gods above is travelling through the twelve signs, the sun will have already completed twelve annual journeys. All change their velocity: at one time you would think they were hastening and had speeded up, at another that they had become sluggish.

Fragments 3 and 4

The Ram is dreary and scatters rain mixed with hail and falling snow over the nearby ridges. The Bull carries water and arouses violent winds; under him Jupiter often casts his thunderbolts, the sky is violent, fires are sent.
from it, and it thunders. Under the Twins, winds gently caress the azure sky and moisture seldom travels down from sky to earth. Everything grows mild under the peaceful sign of the Crab. The Lion is dry, seeing that his breast is particularly hot. The Maiden returns water and stirs the air into activity with winds. The Balance is a gentle sign; scarcely even dew falls under it. The Scorpion continually threatens to send fire from the sky, and under him winds are often boisterous and stiff from the dense snow. Under the Bow-Bearer breezes seldom descend to earth; he is milder as regards rain and finds the earth quieter. Capricorn spares in other respects, but hardens the cold, permitting men's feet to become unsteady and slip on the ice. The being who pours forth water also excites rain in heaven. Under the Fishes everything is mixed together: the sea, churned up by the wind, rolls its seething waves towards the stars; the sky is heavy with showers and hides the sun, the earth is smitten by hail and covered by hard snow.

The god who occupies a particular sign at a particular time adds his own influences: everything seems to be torpid under Saturn. He seldom draws lightning from the clouds, but makes the winters dry throughout, covering the waters with ice. Rain congeals into hail; from the presence of snow, hail is dissolved and the winds become harsher. He is the most sluggish of the gods. Jupiter is more propitious than he is. When he has escaped the sun's flames and his own countenance is visible ..., you will see the crops that were entrusted to Ceres springing up and fruit beginning to form from its brightly coloured flower; your cattle will not disappoint you in their breeding; suddenly there will be a great many calves lowing in their enclosures and lambs bleating in the high-
fenced fold.

When he touches the horns of the savage Bull, Jupiter will grant rain, so that the earth does not become too dry and deprive the crops of moisture. When he leaves the Pleiads and enters the Twins, he draws up the moisture he has given. In the Crab he is very mild; his influence is moderating, and tempers the consuming heat. Under the father of the gods the terrible Lion himself wards off imminent diseases and closes the gates of the underworld. Jupiter begins to take the burden of their vows from the farmers when in the Maiden. Then the crops are already ripe and a garland made of ears of wheat hangs before the first household god, when the harvest has been completed. The balance ripens well the clusters of grapes, swelling with juice. Entering the Scorpion, Jupiter stores the gifts of Bacchus; while climbing the Archer, he makes this wintry sign perpetually gloomy; he makes the wintry sign of Capricorn, however, mildly attractive. He is very harsh when exercising sway over the Water Pourer and the Fishes. If he halts his chariot, wearied, in one of the signs - if in the Wool Bearer or the African Lion, he thunders - to all the signs he gives months of wintry weather.

When Mars has escaped the sun's fires, whether it be the Ram, Twins, the fierce Lion, the Claws with their level balance, the being skilled with the bow or the Pourer of Water who contains the god, the air will be covered in a thick blinding mantle of dense clouds and there will be no headlong winds to churn up the sea. When the War Bearer brings his fiery orb to a standstill and holds his chariot locked in immobility in one of these signs, then the expanse of the sky will be shattered by frequent thunderclaps; clouds will burst and discharge rain and hail. But it is especially when he has come to a halt in one of the signs of the wintry part of the zodiac that he will pour forth all the powers that his violent godhead can command. Nev-
ertheless, he will not be harsh, but will pour forth from the gleaming sky only a moderate amount of rain, when he touches the horns of the Bull with head held low, the wheat bearing Goddess or wintry Capricorn. Carried into the Crab, he will moderate the baneful influence of Sirius’ heat when Sirius at his rising breathes his deadly influence over the earth. When he is placed in the Scorpion, which lifts up the sting in its tail in its search for victims, or in the Fishes, which conclude the cold signs of winter, he does not disturb them, nor does he hide the sunlight of the sparkling days with showers or any obscuring medium. If, however, the prevailing atmosphere is overcome and changes the day’s weather, and pours winds onto the water, the sea will then be bitingly cold and the North Wind will dominate the whole world.

Nurturing Venus, shining in the sign with the gleaming fleece and rising before dawn, binds the soil, normally easy to work, into clods, under the influence of the cold of spring. Rising at the same time and climbing onto the Bull of the sky, she hides the earth with black rain, thunder and frequent hail. She makes the weather more moderate when she is in the Twins. Neither clear skies nor clouds will last long when she gleams in the sign of the burning Crab: nothing is certain at that time. Shining mildly, she moderates the burning heat when she takes up her abode within the borders of the Nemean sign. In the case of the Maiden and the Balance there are clouds which tend to stay more in the one unchanging place, always merely threatening. The sky is also unreliable when Venus lies above the fierce Scorpion, for nothing then follows a fixed law. With what violent rain does Jupiter then overwhelm all the lands! The pitiless hail then comes down through the atmosphere in a dense, continuous stream and it...
thunders frequently.

When Venus enters the territory of the sign which threatens to shoot its arrows, rain falls on the earth and winds agitate the sea. The sounds of the heavens terrify the hearts of men when Venus touches the abode of the being with goat's horns. The watery sign of Aquarius preages cold showers and wintry rains and hard hail fall down from the twin Fishes while she is travelling back to the first sign of the zodiac. Nurturing Venus gives these effects when, as morning star, she rises ... dawn ..., but when, as the evening star, she summons the fires of the sky and begins to bring night upon the earth, she will, in her appearance, give you the monitions that follow. In spring ... beware of rain and flashes of lightning .... When she shines in the golden sign of Phrixus' Ram, there will be clouds and thunder mixed with rain and winds battering the world with their never ending blasts and an attack of pitiless hail from the sky above. When Venus shines in the Bull at a time that spring is more attractive .... The same unsettled weather persists in the Twins: after giving periods of sunshine she brings clouds into the sky; when clouds have gone, you will look in wonder on the sudden appearance of the sun. Now it will be windy, now there will be cold showers and immediately afterwards it will be fine. Venus will vary fine with overcast weather. If the goddess, fickle though she is, enters the extensive territory of the Crab, the world will be peaceful: the sun will not burn men with its pestilential heat, nor will signs densely packed with stars shrivel their weakened frames: the atmosphere will be mild at a time when it shouldn't be and will temper everything under the influence of this tranquil sign. Venus prevents the world from being parched by the burning sun when she is visible in the sign of the mighty Lion.
Under the Maiden there will be rain and the mighty sound of thunder in the clouds, emitted from these hollow bodies due to the wind locked in them. Venus will deprive autumn of rain but fill it with unbroken clouds, when the Claws are overcoming the last of autumn's mildness with its first icy cold. The Scorpion, however, is seldom marred by rain - so that the hollow earth will not be troubled by 100 anything. But Venus overwhelms everything with hard and incessant rain when she is carried across the curved horns of the Centaur's bow, which is fitted with a swift arrow. The being with goat's horns brings rain and forces out a sound from clouds burst by frequent thunderbolts and overwhelms men's vision with the shimmering brilliance of Jupiter's burning weapon. Aquarius, who pours forth showers of water, predicts the same. When Venus marks its position, the last constellation, the Fishes, shows a sea swelling from its buffeting by cruel winds.

Since you know now the exact effects Venus produces, learn now what effects Mercury, the god of Mount Cyllene, produces in the world, when he has just escaped the flames of the sun's chariot and is travelling in his accustomed path through the constellations of the morning. When he shines in the sign of the Ram with the golden fleece, there arise violent and angry winds and merciless hail, that must be endured without a break. You will notice that there is also rain coming in some region or other; it does not fall then on every field. His journey to the curved horns of the Bull is indicated by hail. In the Twins he promises fine weather for the sower and a tranquil sea and sky for the sailor. In the Crab... clouds and showers; he mingles heat and cold. But it will be consistently hot, despite the cooling effect of the West Wind, when he shines in the fiery abode of the monstrous Lion. But when his fire has taken possession of the sacred dwelling place of
Astraea, he brings all kinds of weather mixed together; in the Balance, however, rain only. The Scorpion threatens rain; everywhere there is wind and hail; thunder bursts from the clouds. When the god of Mount Cyllene has touched the Bow of the Centaur or climbed into the abode of twyformed Capricorn, he will either bring sudden and frequent showers down from the sky or burst the mighty heavens by hurling a thunderbolt. The Phrygian youth who pours forth water brings no clouds into the serene heavens. There is no other sign under which you can be more sure of cool winds and sounds in the sky, although one can recognize the same phenomena under the Fishes.

Since I have told you what the fire of the god of Mount Cyllene effects when just risen with the first light of the sun, it is time to learn also what it effects at the setting of the sun. There will be a spring entirely cursed with winter rains and frequent thunder; this will overcome the flourishing countryside and the hope of a new harvest will be flattened by the force of the hail and blighted by frost, when, while entering the realms of the mighty thunderer, he climbs onto the golden back of the Ram. Following on this, if you diligently enquire what the star-studded horns of Agenor's Bull, the Twins, or the Crab with his raging sign effects, you will perceive that the Bull rages with hail and that Mercury proceeds in the Crab and the Twins in the same discreditable manner. But he will burn with cruel heat when he lies where the fiery Lion has planted his feet. The just goddess with an ear of wheat in her hand mingles tranquil calm with cold winds. The Balance does not dissent from the goddess who carries it, but, like her, announces that calm will return and the sea and the sky are free from the effect of wind. The Scorpion seldom brings showers, but when Mercury touches the bright stars of the Bow Bearer, he often brings rain.
down from the black clouds and carries cruel thunder. Under the being with goat's horns, gentle showers fall continually from the sky. Cold Aquarius shivers from the effects of the raging East Wind; he causes winter rain to fall and clouds to be smitten with a rending sound and perpetual fire. If my labours do not deceive my enquiring mind, but are leading me along a reliable path, the Fish will certainly exhibit the same signs.

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**Fragment 5**

Mighty Atlas, skilled in calculation, made the stars and celestial spheres known to all peoples and calculated exactly all the movements of the planets; men from Egypt and Tyre, using his discoveries, ventured onto the sea at the beginning of spring. Aeolus divided the world into parts, allotting all the winds and breezes their own. He showed in what direction Boreas drives down the rain clouds, from what direction Notus drives them up, from what abodes Eurus and Zephyrus proceed against the waves. He arrayed these brothers in a ring against the sea.

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**Fragment 6.**

+ .................
Commentary
1-16. Germanicus has romanized Aratus' invocation of Zeus into an invocation of the princeps Tiberius, his genitor (line 2), i.e. his father (by adoption), he himself being Tiberius' son (nato: line 16). See also the section on the "Identity of the author and the date of the poem" (p. 28).

5. The daret and silerent in line 10 require Z's possent here, not O's possint.

6. Sol...rapidissimus. No need to emend to rabidissimus. Rapidus is used as an epithet of sol in Verg. Georg. 1.92; 1.424 and 2.321.

11. I have preferred Z's ad to O's in, for tollere ad caelum (aethera)...uvultus (ora, oculos) is the regular expression. At Ou. Fast. 4.315: ter tollit ad (in) aethera palmas, the manuscripts are divided between in and ad. In favour of in, it could be argued that in is sometimes used as an equivalent of ad (cf. TLL 7.1.738,50 ff) and that in could have fallen out after is and the gap been filled in with ad in Z.

12. While Z's agnoscere may be possible here (cf. The Oxford Latin Dictionary on the use of the word), cognoscere is clearly suitable, and is the reading of O, which is more often right than Z, where they can be compared with each other (cf. p.24 on the construction of the text). I have always printed O's reading in preference to Z's where I can see nothing to choose between them, for, as O is more often right than Z, it is reasonable to expect one will be more often right than wrong if one follows it where there is no other criterion of choice than O's authority available.

15. O's cogor is unsuitable, as nothing is forcing Germanicus to write in Latin rather than Greek, unless it is Tiberius' liking for others to use Latin rather than Greek (Suet. Tib. 71), and if that were so, it would
be most impolitic for Germanicus to state it.

Conor is very suitable, especially as it agrees with the preludes of other didactic poems: Lucr. 1,25 conor, Ou.Fast.1,15 conanti, Manil.3,4 conor, Gratt.22 nisus, Aetna 24 molimur (all quoted by Housman, op.cit. p.29).


26. Plaustra is an alternative to Vrsae, hence ne, not que, is required.

26. Quae facies stellarum proxima verae: the order is quae facies <est> proxima verae <faciei> stellarum, stella-rum going with uerae <faciei>, not with facies, for ploughs are not "shapes consisting of stars".

Z's uero is to be rejected as (1) stellarum must, with it, be construed with facies (2) although uerum is used to mean "the truth" in a philosophical sense (cf. Lewis and Short s.u. uerum (uerus B)) it is not suitable in this concrete context.

26. The words from quae facies up to the end of line 27 are additions to Aratus. 26:cf. Arat.schol. p 345,11-12: ἢ Ἀράτης μὲν καθ' ἑαυτὴν Ἀρκτικὸς σὲ μοβικὸς

27: cf. id. p 345,15-6: τῶν τεσσάρων ἀστέρων ἀντι τροχῶν ... τῶν σὲ τριῶν ... ἀντὶ ρωμῶ.
The Aratus scholia, however, assigns stars, as can be seen, a little differently from Germanicus.

30. *Orbis* and *axis* are both suitable. *Axis* often means "the sky" (cf. e.g. Verg. Aen. 6, 535-6 *Aurora.../ iam medium aetherio cursu traiecerat axem*).

31. The dative case *ueteri...famae* seems to me better than the transmitted genitive *ueteris...famae*. *Veteris si gratia famae* (= "if the charm pertaining to the old tale really exists") puts the emphasis on *gratia* and seems to imply that this charm can have some sort of objective existence outside the mind of the hearer. *Veteri si gratia famae* (= "if there is charm in the old tale", i.e. "if you are prepared to accept the old tale") gives the right emphasis. *Est* is understood with the clause. *Veteri* became *ueteris* by the addition of an *s*, under the influence of the following word, *si*.

35. The transmitted *fourerunt* (3rd person) refers to *uos* (2nd person); the persons should be the same, hence one or other of the words requires emendation. Either *fourerunt* should be emended to *fouristis* (Housman) or *uos* (line 32) to *eas* (referring to *feras* in 28), as Schmidt, in his edition of 1728 (test Breysig). But Housman's *fouristis* for *fourerunt* is much better than Schmidt's *eas* for *uos*, as (1) *istis* could easily fall out before *iouis* and the gap be filled with *erunt* (2) The change of *eas* to *uos*, whether accidental or deliberate, is not a likely one (3) Masculine and feminine plurals of *is* are rare in poetry of Germanicus' period. The only form to be found in his poem is *eos* (at 304).

36-7. are an addition to Aratus. Callimachus Hymn.1, 51-4 gives the same story as Germanicus, but mentions shields, not *cymbala*.

38. The passage of Aratus corresponding with Germ. 34-8 (Arat. 32-5) reads: ὅ τε μὲν τότε κοιρὶς ὄντα / Δίκτη ἐν εὐὼσεῖ, ἵππος σέξειν ἵσαν οὐκ ἀντρίκ ἐξκατέβεντο καὶ
A point should be cleared up before the text is discussed. There is no reason to suspect Corybantes in 38 because the word Aratus uses is Κόρητες. Germanicus has plainly taken these two as synonyms (cf. Strabo 10,3,7 τῶν μὲν τῶν αὐτῶν τῶν Κορητῶν τῶν Κορύβαντας... ἀποφαίνοντον).

Dictaeae texere deae could be got from the readings of μ and ν, line 38 with this reading meaning "the Corybantes, servants of the goddess of Dicte, hid him". The goddess of Dicte would be Rhea, or Cybele, mother of Jupiter. The Corybantes were her famuli (cf. Serv. on Aen. 3, 111 Corybantes Salmoves sunt, ministri matris deum).

Cybele is nowhere else, as far as I know, called Dictaea, although she is called Idaea mater by Lucr. 2,611, Verg. Aen. 9,619-20, (who, however, insist on her Phrygian connections with Phrygiasque caterras (Lucr.), Phryges (Verg. line 617)), Idaea parens by Ou. Past.4,182. But this mention of Cybele corresponds with nothing in Aratus, and Z's datis is a strange corruption if it arose from deae or dei.

I feel it far more likely that Germanicus wrote Dictaeis texere adytis, corresponding closely with Aratus' Δίκτων ἐν ἐφώει... ἀντρῷ ἐγκατέθεντο (33-4). The rare word adytis is liable to corruption and datis and dei could both have arisen from it (deae is probably a deliberate alteration of dei to make it agree with dictaeae).

49. I can see nothing, except Z's authority, to choose between torquet and uersat. Versat could have been written by Germanicus in imitation of Verg. Aen. 5, 407-8 magnanimusque Anchisiades et pondus et ipsa/... uolumina uersat or Aen. 11, 753 saucius at serpens sinuosa uolumina uersat or it could have been interpolated from a memory of these lines. Torquet is used of a snake's coils by Ou. Met. 3, 41-2 ille uolubilibus squamosos nexibus orbes/torquet. Volumina uersat introduces alliteration, a
device used not infrequently by Germanicus (cf. e.g. mirabile monstrum at the end of the next line and 431 et Coruus pennis et paruo pondere Crater), but this does not seem a sufficient reason for preferring it to O's torquet.

50. Germanicus' mirabile monstrum is used parenthetically of Serpens, as μέγα θαύμα is of Δράκων in the corresponding passage of Aratus (46). Mirabile monstrum is also used parenthetically in Verg. Aen. 9,120-2: hinc virgineae - mirabile monstrum - / reddunt se totidem facies pontoque feruntur.

51. Cauda is nominative, not ablative, which involves the elision of a long vowel before a short syllable, which is a feature not found elsewhere in Germanicus.

Redit was omitted in O because of the similarity of its letters with the preceding tendit. After its omission, tendit was taken with ad Cynosuran and superat fashioned out of supra to provide a verb for cauda Helicen. Supra also occurs in the line above, but this is no objection to it here. Cf. my note on the instantis/instancia repetition (302 & 304).

51-5 are explained by the accompanying diagram.

58ff. The corresponding passage of Aratus (58-60) reads: Λοξέν δ' εστὶ καρυνεύωνι δὲ πάμπαν θοικεν/άκρην εἰς Ελίκης οὐρήν μάλα δ' εστὶ καρπώθω/καὶ στόμα καὶ κρεσάφοιο τὰ δεξιὰ νεώτισι οὐρή. Germanicus' text as transmitted mentions the stars of the Serpent and Great Bear mentioned by Aratus, but not that the Serpent's stars seem to point to the Bear. As the sense is incomplete without this, I have followed
Courtney in printing a lacuna between _mento_ and _lucetque_.

60-2. Aratus 61-2 reads: *κείνη που κεφαλὴ τῆς νίσσεται, ἡχὶ περ ἄκραμ/μύςγυναι δύσιές τε καὶ ἀντόλα ἄλληλησον.* 'Its head travels where the most extreme points of rising and setting blend'. The further north a star is, the nearer to the north, and the nearer to each other are the points at which it rises and sets. When a star is 37° from the pole, it never sets at latitude 37° north (about the latitude of Aratus: cf. Hipp. 1, 4, 8), but just touches the horizon. Its points of rising and setting have become one.

_Hac...qua_ can be restored from Aratus' *τὸ...ἡχί (61)._ L's _utque_ in 61 arose from a dittography of the preceding _ut_ in _caput_. The quae of OE is an alteration of _qua_ to agree with the following _proxima signa_. _Proxima signa/occasus ortusque_ = 'the nearby points of rising and setting' (cf. 521: _atque eadem occasus remanent certissima signa:_ 'there always remain the same fixed points where they set'). The whole sentence means 'Where the head of the setting Snake shines, the nearby points of rising and setting are touched by the one face', i.e. almost all of the Snake never sets, only the part of its head furthest from the pole (that is, as Hipparchus 1, 4, 8 shows, its crest and temples) sets. Its face never sets, but, when the upper part of its head has set, one part of its face occupies the point where it sets, another, the point where it rises. Aratus does not mention the setting of any part of the Snake, but Cicero's text is similar to Germanicus' (Fr. 10: _hoc caput hic paulum sese subitoque recondit/, ortus ubi atque obitus parte admiscentur in una:_ 'a little bit of this head unexpectedly sets, in the region where rising and setting are mingled together').

The text can be brought into agreement with Aratus by emending _uno tanguntur ab ore_ to _imo iunguntur in orbe_ (orbe is found in manuscript 13 and was conjectured by Grotius). _Imus...orbis_ = 'the horizon', as in Manil. 1, 32:
sublimis aperire uias imumque sub orbem, 2,849-50: quae
pars occasus infra est imumque sub orbem/descendit. In
could easily have been omitted after ur and the gap filled
with ab.
63-4 are an expansion of Aratus 48: Ἀρκτος Κλανέου
πεφυλαγμέναι ἔκβελλε. Sunt is to be supplied, as Breysig remarks in his apparatus (ed.2).
66. This constellation is not distinguished from the
others by its lack of a numen, but of a nomen (cf. the
passages of Aratus and Auienius quoted below), hence
Morel's nomen is required. But the text non illi nomen,
non magni causa laboris is still not satisfactory. Housman
(p.31) remarks: 'This is a bold and strange assertion,
that the labour of Engonasin has no cause. Aratus
says nothing of the kind; he says that its cause is un-
known: 64 sq. ἡ ὁδόν, τὸ μὲν ὡς ἐπίστατα ἀμφαδᾶν εἶπεν,
ὡς ἐνα μεῖκνο: κρέμαται κεῖνος πέμψει. 173 sq. "expertem quam
quondam dixit Aratus/nominis, et cuius latuit quoque causa
laboris", Manil. i 315 "nixa uenit species genibus, sibi
conscia causae." magni therefore is only an attempt at
correcting agni, and Germanicus wrote non cognita causa
laboris, 12 cognoscere 0, agnoscere Z. But this change,
though necessary in itself, renders illi ambiguous, so Dr
Postgate corrects uilli: "non uilli nomen, non cognita causa
laboris". In the line above the MSS have unde for inde'.
Illi is ambiguous, as the sense could be either 'it has no
name' or 'it does not know its own name' (non illi nomen
cognitum (cognitum understood from cognita.)

67. dextro...genu nixus. Aratus 66-7 says he is crouching on his knees (pl). Cicero (X1) agrees with Aratus. Neither Hipparchus nor the Aratus scholia has a note on Aratus here.

68. V's passis, not μ's pansis, is attested as the supine of pateo by Priscian 11,7,27 S 926 pateo, passus et a patior tamen passus, and is found in the manuscripts of Vergil at Aen.2,403 and 3,263. Germanicus' passis ad numina palmis is probably in imitation of Verg.Aen.3,263-4 pater Anchises passis de litore palmis/ numina magna vocat.

69. Aratus (70) states his right foot treads the Serpent. Germanicus agrees with the correction by Hipparchus 1,2,6.

69 Laeua Grotius, scaeuua Buhle, but poets of Germanicus' time avoided short vowels before initial consonant collocations such as sc, nor does the word scaeuus occur in Germanicus (laeueus occurs 14 times).

70. Super does not scan. Subter agrees with Aratus 71-3 Στέφανος...νώτης διοςτρέφεται κεκληρος εςσώλος.

73. The words from at (73) to 75 show that the first 3 words of 73 must state what sign lies near Engonasin's back. This the transmitted terga nitent stellis does not do, hence emendation is required. The sense required is found in Arat.74: νώτης μὲν Στέφανος πέλαε, from which Breysig derived the conjecture I have printed. Dahm's conjecture Serta nitent tergis, (misreported by Breysig) is further from the transmitted text.

74. Both lapsum and lassum suit succiduis genibus. Lassum is supported by 65 effigies...defecta labore. If correct, lapsum has the sense "failing", not "fallen". This mild use of labor (contrasted with cado) is found in Cic.Phil. 2,21,51 labentem et prope cadentem rem publicam fulcire. Cf. also Manil.4,588 nascentem lapsumque diem (two of the four parts of the sky- the eastern and western regions.)
81-2 Aratus 84-5 states that Ophiuchus treads the Scorpion with both his feet and stands on its eyes and breast. Germanicus agrees with the correction by Hipparchus 1,4,15.

83 μ's nam explains the preceding inpar est manibus pondus. v's iam does not have any point here.

87 Elsewhere stella crinita (sidus,astrum crinitum) = "a comet" (cf. TLL 4,1205,66-75). But toto crine (= "with all his stars"; cf. my note on this verse) is transmitted in 624. Crine and crinita seem to support each other. From the variant crinata Maass (quoted in TLL l.c. 76) conjectured clinata, a word found in Cic. 53, 86 and 259. A star, a point of light, cannot lean, but I think clinata here may be defended on the grounds that Germanicus is thinking of the inclination to the Garland of the Snake's chin, the area represented by this star. Cicero uses the word of the inclination of the Horse's hoof to the Swan in 53-4: iam uero clinata est unguila uemens/ fortis Equi propter pinnati corporis alam.

I have also thought of the palaeographically less attractive coniuncta. Coniuncta sub Corona = "just below the Garland" (cf. Manil.2,867-8: par erit,aduerso quae fulget sidere sedes/iuncta sub occasu). coniuncta could have developed into crinita via ciuncta.

89 I have adopted Z's insigni. "Germanicus uses lumine twelve times, never without an epithet, except at 266, where it means "in respect of brilliancy" and to add an epithet would be impossible" Housman p.28. Aratus 90 says the Claws are faint (so also at 607). Here Germanicus calls them bright; at 416 he gives them the epithet candentis. He omits an epithet at 623 (which corresponds with Aratus 607). Perhaps in making the Claws bright (falsely), Germanicus is following Cicero 323: claro
cum lumine Chelae. This is Cicero's fill-up. At 393 he correctly renders Arat.607 with obscuro corpore Chelae.

90. Inde and ipsam seem to me equally good. A similar elision to ipsam Helicen is found at the beginning of 5: quantum etenim.

Baculo. Surely the senior would not need to threaten Helice with a javelin (iaculo). Baculo is entirely appropriate; Cf. Col.7,3,26: tum qui sequitur gregem...baculo minetur, Apul.Met,3,28: duos asinos...minantes baculis exigunt.


92. The use of penso here is the same as in Vell.2,88,3: praematuram mortem immortali nominis sui pensauit memoria (there is no need to resort to conjecture such as is found in the Teubner edition). The construction of compensating for a disadvantage (acc.case) with an advantage (abl.case) is also found in Tac.Agric.22,3: hostes soliti plerumque damna aestatis hibernis euentibus pensare. v's munera came from munera in the same place in the line above. μ's munere is a correction to restore the construction.

98-102 are an addition to Aratus.

101. Flexis laetus habenis = "rejoicing in my control of the reins". Flectere habenas = "control the reins", as in Verg.Aen, 12,471-2, Stat.Silu.5,1,37-8: notat ista deus, qui flectit habenas/orbis et humanos propior Ioue digerit actus. The control exercised consists in halting, as in Aetna 345: cum rexit uires et praeceps flexit habenas. Germanicus halts his horses (i.e. has a break in his description of the constellations) in order to relate the story of
Justitia, which occupies lines 103-139.

103. *Regere* (and *es* in 105) is needed to agree with the *te* of 98.

103 ff. differ from Aratus. Aratus (98-101) says that either she was (whether a descendant of Astraeus or of someone else) always in the sky, or she was once on earth as Dike. Germanicus says she was either the daughter of Astraeus or of someone else, but in either case dwelt on earth as Justitia.

105. *siue illa Astraei genus es* is rough, but is an unusually close rendering of Aratus, who has in 98: εἴτε Άστραεος ἡ γενεσία τινής ἔνας.

109 penatias: a Roman addition.

110-111. I can see nothing to choose between O's *omnem... usum* and Z's *omnes... usus*. Both singular and plural are used with *uita*. Cf. Ou.Fast.2,291 *uita feris similis nulos agitata per usus*, Cic.D.N.D.2,41 *ignis quem usus uitae requirit*.

114. Germanicus here contrasts *mare* which is *publicum* (Lachmann, on Lucr.1,360 (pp.37-8), quotes Martianus 1,2 and 4 pr.D.de diuis rer.1,8 *naturali iure omnium communia sunt illa, aer, aqua profluens et mare* and Hor.Od. 3,24,3-4 *caementis licet occupes/ terrenum omne tuis et mare publicum*) with *tellus*, which is divided among private owners (*priuata*). Schwartz's *proauita* is thus not necessary.

119. The transmitted *signo* is corrupt, for a *terminus* is a *signum*, hence *signo* cannot be contrasted with it. Housman p.30 quotes in evidence that *terminus* is a *signum* Ou.Fast.2,640, describing *Terminus* as "separat indicio qui deus arua suo" and 2,663, addressing *Terminus* "si tu signasses olim Thyreatida terram". In defence of *sine eo tutissima* (Lachmann proposed *sine eo* without any supporting argument), he quotes Ou.Fast.2,660 "omnis erit
sine te litigiosus ager" (addressing Terminus) and Met.1,93 (of men in the golden age): "erant sine uindice tuti".

Terminus is a Roman touch. The whole passage 108-119 is Roman, and adapts Aratus freely. In particular, a Greek custom of giving judgement (Aratus 105-7) is omitted. Germ.117-9 contain a reference to private ownership of land in the golden age, of which Aratus makes no mention.

123-4. Rica and larem are Roman additions by Germanicus. Varro de L.L.5,130 contrasts rica with mitra et reliqua fere in capite postea addita cum uocabulis Graecis.

124. "Que in 124 connects nothing with nothing", Courtney p.139. Courtney suggests two remedies. The first is to write nullius (us)que for nulliusque (us lost by haplography). In a letter to me Courtney tells me that he was vaguely considering the possibility of usque as an adverb (nullius usque larem adit = "she never approaches anyone's house" = usque non adit cuiusquam larem), but feels far from confident that this is correct Latin, as I do. Vsque could perhaps be taken as governing larem, the construction being adit usque larem. Adit can either take an accusative or a construction with ad (and ad usque). TLL (s.u. adeo) quotes no example of its use simply with usque in the list of structurae (1,628,59-65). I doubt the Latinity of this too.

The second solution Courtney suggests (which I have printed), is that a line has been lost before 124 containing a clause which was connected to 124 by the que of nulliusque. In a letter to me, he suggests something like incolit in tescis, hominum uestigia uitans, was lost.

The grammar could also be remedied by emending descendens to descendit, but I can see no good reason why descendit should have become descendens.

128. In abit the last syllable is lengthened in imitation of Greek practice. Cf. Verg. Ecl.3,97: ipse, ubi tempus erit, omnes in fonte lauabo and Luc.7,75: quo tibi
feruor abit aut quo fiducia fati. There is no mention of uota in Aratus.

128 precatis seems to have arisen from a reminiscence of Verg.Aen.9,624, which ends: per uota precatus.

130. Artibus is often a colourless noun. At 111, sinceris artibus means "virtue" (all the meaning is found in the adjective). Similarly here the adjective indomitis carries all the meaning, artibus indomitis tradam signifying that, since Iustitia will be leaving them (quaerenda est sedes nobis nova,129), she will relinquish control of them— they will become indomiti; this resulting in scelus cruentum. There is no need to emend the text.

Artibus has nothing to do with the arts of civilization, which does not come into Germanicus’ account at all.

135. Aratus mentions only the bronze age. But Cicero 17.1 talks of the ferrea...proles.

138. Aratus 136 simply says "near the far-seen Herdsman". Germanicus is probably basing his image on Aratus 581-5, which describe the slow setting of the Herdsman.

140. Placidae praestanti lumine correspond with nothing in Aratus or the extant portion of Cicero’s rendering.

145. The subject is ignes, understood from ignis in 141. Ignis is masculine, hence Grotius’ alii is required in place of the transmitted aliae.

145. Germanicus’ alii are not mentioned by Aratus. Germanicus calls the alii nameless; Aratus 145-6 calls the stars Germanicus mentions in 140-4 nameless.

149-56 adapt Aratus freely.

152. Ζ’s hinc is unacceptable. O’s tunc is required to balance the following tunc.

157-62. These myths are an addition to Aratus. That about Ericthonius is given a similar form in Eratosth.13: τοῦτον θεοῦ δῆμος Ἰσρούν πρῶτον ἐν ἀνθρώποις ἰέρμα Ἑρέμαντα ἐποιεῖ ἰπαυρ. That about Myrtilos is mentioned in Hyg. Astron.2,13 (48,4-6, ed.Bunte) and briefly by Hygin.Fab.
224, 4 and Eratosth. 13 (at end).
158. Ericthonius: That this, not Erichthonius, (which is transmitted here) is the form used by classical writers, is shown by the many examples from old manuscripts collected by W. Schulze, "Orthographica" (p. 78 of the 1958 reprint).
165. Numina. Stars and constellations are called deities here and at 180, 234, 265 & 601. These are additions by Germanic. Aratus 188, however, calls Cassiopeia Σαμαρνή.
165. The illa of Lactantius' codices probably comes from Lactantius himself. While misquotation is possible, Lactantius probably deliberately altered the text in order to make a sense unit of his quotation.
169. Neither Ο's totum or Ω's portans is at all good. Totam is pointless, portans introduces a clumsy redundancy. Positam reconciles the variants. On the corruption of positus to totus, cf. Housman on Manil. 1. 830 "positum et potum (Prop. 1V, 6, 75) potum et totum (Ouid. fast V 335) facile commutantur". Positam to portans is not difficult, as r and s are practically indistinguishable in some early minuscule scripts.
176. "Sua, standing in agreement with the subject of the verb, refers to the verb's objects caput and naris and cornua... Ou. Fast. 6, 413: aquas sua ripa coercet", Housman p. 31. Cf. also Housman's note on Manil. 2, 72 (nec sua dispositos seruarent sidera cursus), which is explained by Housman in his Germanicus article p. 31 as "dispositi cursus sua sidera desiderarent, acciperent aliena". 181-3. Here Germanicus is not following Aratus 177-8, who states the Bull and the Charioteer rise together, but the Bull sets first. Germanicus probably derived his
text either from Hipparchus' extant commentary or one of his lost works. In 1,5,14 ff. Hipparchus states that Ar­
atus is incorrect, for only the Charioteer's feet rise with the Bull, the rest of him with the Fish and the Ram, while the Charioteer's right foot rises before the Bull, but sets before it. In 2,5,16 he states that the stars in the Char­
iooteer's head are the first of his stars to rise, in 2,6,16 that they are the last to set.

186. Malestas is a Roman notion introduced by Germanicus. Is it a coincidence that the statement prodest maiestas
saepe parentis is appropriate to Germanicus himself?

188-91. Here Germanicus is not following Aratus 184-5, who states that the distance from either of Cepheus' feet to
the tip of the Little Bear's tail equals the distance be­
tween his feet, but agrees with the correction by Hipparchus 1,2,12.

188. Latus is used to signify a mathematical line, as in
529. That this is the sense intended is made clear by the regula used in line 191.

188-90. The transmitted text of the words from quantum to
distat is difficult, perhaps corrupt. If it is to be retain­
ed, quantum latus tangit must, as Kenney points out to me, be taken as the equivalent of quantum est latus quod tangit.
The subject of tantundem ab laeuo distat can then be un­
derstood from the previous clause to be latus ab laeuo Cepheos
ad extremam Cynosurida caudam. This involves an illogicality,
as every point on this side is a different distance from Cepheus' left foot. But, if we can accept that Germanicus
meant that the end of the line from Cepheus' left foot to Cynosura's tail tip is separated from Cepheus' left foot by a distance equal to the length of the line from Cepheus' right foot to Cynosura's tail, then the transmitted text can be retained.
Perhaps Germanicus wrote *sed qua* where the transmitted text has *quantum*, *sed* being used as a particle of transition to a new statement, as in line 222. If *sed* were written *s*; it could have been omitted after *su*.

191. *Cepheus*: *κηφής* is, as the metre shows, the form used here (this is the form used by Aratus at 179, his only use of the genitive of *κηφής*). At 189 and 282 Germanicus uses the form *κηφής* (*Civēs* is found from *Civēs* in Fragmenta Hesiodea, ed. Merkelbach and West 280, 10 and *Νηρέος* from *Νηρέος* in Eur. Ion. 1082, Germanicus has *Perseōs* at 249, as does Aratus 249).

192. *Respicit*: Cepheus' belt cannot look at the Snake, nor can Cepheus look at the Snake from his belt. Aratus has *μεταβλήτευσας*. Emend therefore to *respicis*, with Maybaum.

194. *Refulsit*, if correct, is a gnomic perfect, used of a customary action or state. *Z*’s variant *cum stellas*, however, seems inexplicable with *refulsit*. Hence, on the assumption that *Z*’s reading is correct, Baehrens proposed the conjecture *retundit* for *refulsit*. This is worthy of consideration. Housman p. 28 quotes in its support Auien. 1753: *sidera luna retundit*, 514 sqq. *astra ... aciem quibus luna retundit*. *Cic.* 247 *pleno stellas superat cum lumine luna*.

194. Aratus 189–191 states that Cassiopeia is faint on a night of the full moon. Hipparchus 1, 5, 21 says that this is a misleading statement. Germanicus has altered Aratus.

198. *Talis* (like the preceding *qualis*) is used adverbially. *Talis disposita est stellis* = 'she is arranged in this way by her stars'. *O*’s variant *dispositis* seems, as Kenney points out to me, to have arisen from *disposita est* under the influence of the following *stellis*. With *dispositis, talis*
is left hanging on its own, and *sic* needs to be supplied with *dispositis stellis* (its omission is odd).


201. The *a* ending of *Andromeda* is long in the original Greek.

*Nondum* goes with the following verse. It is a little ambiguous. Germanicus often, however, has sense pauses near the end of lines. Cf. in particular 418.

*Aratus* 198-9 states that Andromeda is very bright at night. Germanicus states that she is entirely visible even before night has fully fallen.
203. Sic governs the ambit clause as well as the candet one, hence O's ac is required, not Z's hanc. I know of no use of media = "the middle regions of the body" in classical Latin (it occurs in late Latin - cf. Titi 8,587,9-13). Hence I accept the simple change to mediam.

213 Exit: the star is represented as so close to the Horse's mouth that one can say of it that it is actually "coming out".

218-222 contract Aratus somewhat. The only detail not in Aratus that Germanicus gives is that Pegasus struck the ground with his right foot (220). Aratus says (220): προτέρου ρος

224 Maxima here = "greater" (of two). Cf. Liu.1,3,10: is Numitorem atque Amulium procreat; Numitori, qui stirps maximus erat ... & Germ. 449-51: duo ... quorum stat maxima forma et totidem ... minores.

232 Z's summi probably arose by conjecture after the loss of dii from medii (dii diuortia shrank to diuortia).

234 Z's motu is difficult to explain, unless the similarity of scere (end of cognoscere) and signo was sufficient to cause the loss of signo.


236 As in sede is weak and tautologous, Goodyear has suggested to me that Germanicus may have written insigne. However, Deltoton is not at all bright, though Aratus does say of one of its sides: (237): ἔρεν ἡφ πολέων εὐστέρεσ εἴστεν.


239 hunc Aries iuxta: This detail is not found in Aratus, who says in 238: τον (sc. ἁπτρων τοῦ Δελτωτοῦ) ἀλίγεον χριεόν νοτίωτερον ἀστέρεσ εἴσεν, nor is it correct, as in fact one of the longer sides of this isosceles triangle is the nearest to the Ram. Germanicus seems to have used the scholia to Aratus (p. 380, 21-2 ed. Maass): ἄσ χαρ κατιφύσας πλευρᾶς ἀνά ἐκεί, τὴν δὲ κάτωθεν ὑποτείνωσαν βραχυτέραν ἐκείνων.

If κάτωθεν equals "in the south", this statement is misleading, as the shortest side of Deltoton is barely further south than one of the others. Germanicus appar-
ently made the assumption that the side furthest south must ipso facto be nearest to the Ram, and hence produced his statement hunc Aries iuxta.

241-2. Germanicus is not following Aratus 239-40, who states that both the Fish are south of the Ram. Hipparchus 1,6,8 states that only one is, the other being north. Germanicus has omitted Aratus' statement.

241. Austrum and austros are equally good. Cf. TLL s.u. auster.

243. Niueus quas procreat Haemus is an addition by Germanicus.

247. Astra Housman, dextram OZ. ' Arat. 246 ff. says the left shoulder (so too Eudoxus ap. Hipparch. 1,2,13 and Cicero 18: Andromedae laeuo ex umero)... Piscis is genitive; -as as shrank to as and tra suggested dextram. I do not even write cernuntur: compare 722 "Eridani et primos deprendat nauita fontes", σκέψατο κε Arat.729. For ulnam alone = ὑμος ἀρ.στερὸς compare 282 iuxta ulnam = κατὰ δεξιὰ χειρὸς(279), 169 umero = σκαὶ ὑμω (162). There is no more need to say of the Fish on which side of Andromeda he lies than to say it of the Ram, 231 "zonae regione ... Andromedae", Arat.229 ' Housman p.31.

251. Ab Ioue = 'the son of Jupiter'. For this usage of a phrase as the equivalent of a noun cf. the examples collected by Housman on Manilius 2,552-3.

252. Germanicus calls the dextera sublimis and also sub-
latae similis, i.e. both 'raised up' and 'similar to a hand raised up'. There is a similar passage in Aratus (66-7: Τὸ ἑαυτόν ἔν γόνατι νάμυναν ἐν κλάζοντε ἐκείνην which virtually means 'The being on his knees is like one on his knees'.

254. As Perseus is already touching the sky, 0's tangere is unsuitable. As Z's findere makes good sense, I have adopted it.

255. Hipparchus 1,6,12 says that Aratus 254-5 is wrong in stating that the Pleiades are very near the part above Perseus' left knee. Germanicus' text does not exactly represent Aratus, but that does not show he had Hipparchus or a similar statement in mind here.

256. breuis ... locus occupat omnis is an odd expression, produced by an overclose adherence to Aratus 255-6: ὅς ὅς μάλα πολλὸς ἀπάσας / χῶρος ἐχει.

Est introduces a verb too many. Et, conjectured by C², would be a suitable substitute, so too at or ast, contrasting the fact that the Pleiades are a clear sign of the Bull with the fact that they occupy a small space. Has, suggested to me as a possibility by Kenney, is also suitable, has omnis referring back to the Pleiades, as hos omnes in Ou. Fast. 3,97: Romulus hos omnes ut uinceret ordine saltem refers back to Sabinis in 95. Has could have changed to est through the intermediate stage ast.
259. **Carpitur:** a metaphorical use, as in Plin. Ep. 3,9,11:
erat in consilio Sertorianum illud exemplum, qui robustissimum
et infirmissimum militem iussit caudam equi — reliqua
nisti. Nam nos quoque tam numerosum agmen reorum ita demum
uidebamus posse superari, si per singulos carperetur.

263. Aratus, Cicero, Germanicus and Auienius all list the
Pleiades in their verses in different orders. The prose
writer Hyginus (Fab.192) has the same order as Germanicus,
probably indicating that his catalogue was copied from him.

264. O's si uere is paralleled by the si uere transmitted
by both O and Z at 166, where precisely the same scepticism
is expressed. Z's si uero seems to me to be too colourless
and noncommittal.

264-5. The caveat 'si uere' etc. is an addition to Aratus
by Germanicus. Sustinet Atlas ... superos: cf. my note on
165 and cf. also Iuu. 13,46-9: nec turba deorum / talis ut
est hodie, contentaque sidera paucis / numinibus miserum
urguebant Atlanta minori / pondere.

267-9. The corresponding passage of Aratus reads (264-7):

ονομασται / ἵππι καὶ ἔσπερας, Ζεὺς δίαιτοις, εἰκόνοις τις,
ο οφυς καὶ θέρες καὶ κείματος ἀρχομένου / σημαίνειν ἐπένευ-
σεν ἐπερχομένου ἔρντον. The scholia (ed. Maass) ad loc.
explains that the Pleiades rise just before sunrise at the
beginning of summer (in April: they then mark the time to
harvest); they set just before sunrise at the beginning
of winter (in November: they then mark the time to sow).

Hesiod op. 383-4 states: Πληγάδων Ἀτλαχενέων ἐπετελλομενῶν
ἀρχεόθ’ Ἀνήλιος ἀρὸν ἀφέναι δὲ Συσκευενῶν.

Germanicus 269 has omitted the reference to sowing found in Arat. 267 and added a reference to beaching ships at the setting of the Pleiades at just before sunrise, found in Hes. 619-22: Εὐτρόπιον ἀποτελεῖν ὑπὲρ ὅσπιν ἠνέκτο

In 268 neither O's uentus super immouet atri nor Z's uentus super imminet agri makes sense. From what I have expounded above, it is clear that a reference to the beginning of the summer half of the year (or preferably, to spring), is required. Grotius conjectured ueniens super imminet aetas. But super imminet aetas, implying the full blaze of summer, does not fit ueniens...aetas (implying the weather is still mild). Haupt's uernus teper ademonet agri gives excellent sense (if it is right, Germanicus is thinking of Hesiod 383-4, quoted above, which mentions the spring harvesting).

270-1. This is an addition by Germanicus, who omits Aratus' statement (268-9): τὴν ἀργητὴν καὶ παρὰ λίμνῃ ἐπηρεῖν ἐστὶν ἀργητῇ.

270-1. Haupt defends deorum/multum accepta epulis with Hor. Carm. 1, 32, 13-4 o decus Phoebi et dapibus supremi/ grata testudo Iouis. Housman explains the change from it to the transmitted text as follows: multum accepta epulis: "After the false division acceptae plis this last word or no-word was mistaken both for prolis (plis) and for pluris (pl'is): the former stands in our MSS as prohs, the latter wandered to the margin, adhered to multum and engendered plurimulum" Housman p. 27. No other conjecture proposed is nearly as good palaeographically.

272-3. Line 272 has a syllable too few, but the metre can be cured by adding cui before planta (so Baehrens). The words from cui to the end of 273, as they are presented
in the transmitted text, are nonsensical. Planta and dextra are both subjects of premit (should be premunt) and thus the kneeling figure is made to press upon the same spot with his foot and his upraised right hand. In another arrangement, obtained by transposing the second half of 272 with that of 273, namely torti subiecta Draconis/ tempora laeua premit cui planta erectaque dextra (= cui planta laeua premit subiecta tempora torti Draconis <cui> que erecta <est> dextra) they make good sense. ' Aratus indeed at verse 70 and Eudoxus also, say that it is the right foot, but Hipparchus 1,2,6 and 4,9 contradicts them ... and Germanicus as usual follows Hipparchus, 69 "Serpentis capiti figit uestigia laeua". For erecta dextra see Auien.191 sq. "en manus ipsa dei uiolenta in uerbera pendens/erigitur", Hygin.astr. 2,6 "dextra manu sublata" ' Housman p.32.

If Housman's transposition is correct, I suggest a scribe copying the verses slipped from the EMT of effigiEM Torti to the EMIT of preMIT in the verse below. He then wrote out the line below correctly, but then noticed that he had made a mistake, and wrote the omitted half line in the margin. The scribe copying out the manuscript put it back into the text, but in the wrong verse, so giving the transmitted text (the cui was lost either from the line being crowded in the margin, or later).

Housman's text exhibits a postponement of cui and a coordination of premit and erecta. Both these features can be paralleled individually, although they cannot, as far as I know, be paralleled in combination. My note on iv 137-9 lists some unusual word orders in Germanicus; cf. also the word order in 561-2 (with translation). ' With the coordination "premit...erectaque" compare 137 sqq. "deseruit...et sortita", 318 sq. "rapuit...et appositus": a very similar verse is Manil.5,551: "astrinxere pedes scopulis, iniectaque uincla" ' Housman p.32. Cui is also
postponed and refers to two clauses in Manil. 1,390-1: 
*singula fulgentis umeros cui lumina signant* et tribus obliquis demissus ducitur ensis.

274. I comment on this line together with lines 627-8.

275. O's que and λ's qui (assimilated to the gender of the following Cycnus cf. Lewis & Short s.u. qui II A3) are equally possible.

275-7. The mythological details are an addition to Aratus. The first story, of Cycnus, son of Phoebus, is given by Antoninus Liberalis 12 (with the information: ἰσχυρὰς Ἐπεροτευμένων γ' καὶ Ἀρεὺς ὣς Λάκων ἐν ᾿Οὐρανίῳ Κύκνῳ. The second is very common. Cf. e.g. Manil.1,337-40.

277. Volucer is a particularly otiose epitheton ornans. Hence Goodyear has suggested to me that Germanicus may have written uolucris.

279-81. Here Germanicus is not following Aratus 276-7, who states that part of Cycnus is faint, part has moderately bright stars, but agrees with the observations by Hipparchus 1,6,15: Πολλός καὶ λαμπρός ἀστέρας ἔχει ὥσπερ ὥσπερ ὀρνισ. Penna utraque laeta is a detail not found in Aratus. It could be derived from a catalogue such as is found in Hygin. Astron. 3,5 (p.83, 9-14 ed. Bunte), which assigns 10 out of the Swan's 13 stars to its wings.

288-9 are an addition by Germanicus. 288-305 treat Aratus freely.

292. Both Grotius' exspectaueris and Baehrens' speculaberis give the right sense, but Baehrens' conjecture is superior as (1) the word speculare and the future tense suit this vivid description much better than exspectare and the future perfect tense. (2) The heavy effect of the molossus in exspectaueris and the lack of a 4th foot caesura are not as good as the effect of speculaberis.

293. Aut is unsuitable, as rigor is conceived of as continuous.

Baehrens wrote rabidus, comparing 327: sentit et insanos obscuris flatibus austros. Cf. also Luc. 6, 27:
Ioniumque furens, rabido cum tollitur Austro (where the MSS vary between rapido and rabido).

I can see nothing to choose between alligat and occupât. Tremor occupât artus is found in Verg. Aen. 7, 446; 11, 424 and Ou. met. 3, 40. But alligat can be defended from Sil. 3, 124: tremor implicat artus. Germanicus may have used occupât, in imitation of Vergil or Ovid. But a scribe may have replaced implicat with occupât from Vergil or Ovid (the clausula occupât artus occurs in Ou. met. 1, 548 & 14, 757 and Verg. Georg. 4, 190).

295 corresponds with nothing in Aratus. Cf., however, Hesiod Op. 684-5 (of spring sailing): ἀλλά νῦ καὶ τὰ ἀνθρώπων ἔξω, ἀνθρώπω νόοι. 295 is contrasted with the preceding, hence sed is better than et. Moreover, the corruption of sed to et is more likely than the converse.

300. 'Litore is ambiguous, as it could very naturally be taken with prospectant, with the meaning "from the shore". Germanicus may have written this verse in the way he did under the influence of Cat. 64, 52: namque fluentisono prospectans litore Biae' Goodyear.

301. Of the text with alii Housman p. 32 says: 'This is a foolish distribution, to say that some of the sailors look out for the land and others (who are not looking out) descry it. "alii narrant" would be reasonable but not elegant: I hardly doubt that he wrote "inuentasque acie terras".'


307. Sagittarius is represented as threatening to shoot arrows from his curved bow string (cf. Manil. 1, 269-70; 4, 347). As ducentem cannot mean 'threatening to shoot' I have substituted, from iv 66 (tendentis spicula signi) a word which does. ten was lost before den and dentem expanded to ducentem to restore the metre and a semblance of sense.
307. The neroe, bowstring, is ordinarily straight, but when an arrow is fitted and about to be fired, is drawn back in the middle, and so curved (sinuatus).

311. The manuscript cauda gives the sense "The Scorpion shines above the azure sea as far as his tail" and is wrong, as the Scorpion's tail is the last part of him to appear, and lies nearest the Archer, which follows it. (Cf. Arat. 305-6: μέγα Τόξων ἀνέλυτον ἐξχώθη κέντρον / Τᵒξεωτής.) From this I have conjectured caudam. A full stop is to be found before the last word of another line, 418. Cf. also the end of 516.

313. Z's regit makes no sense, O's repit does not scan. Winterfeld (Hermes 30,560) proposed transposing so that it will, to tunc repit Cynosura alte. Transposition of two words is an easy change, transposition across Cynosura here not so easy to account for. It is easier to write reedit with Grotius. Alte reedit = in altum reedit, as in Cic.77 emergit Scorpions alte and 403 hic genus et suram cum Chelis erigit alte. The Little Bear never actually sets, but is returning from its position near the horizon as the Scorpion begins to rise, as Germanicus correctly states. Germanicus is not following Aratus 308-9: κεφαλὴ Κυνοσουρίδος ... ὃς μάλα τρόχας ... who, Hipparchus 1,7,12 states, puts the Little Bear more than three signs ahead of its true position, but is probably following some lost work of Hipparchus, either directly or through an intermediary.

314. Germanicus is not following Aratus 310, who states that the part of Cepheus from his hand to his belt sets, but agrees with the correction by Hipparchus 1,7,20. 316-20 are additions by Germanicus.

The story of Aquila is mentioned by Hygin.Astr.2,16 (p.55, 12-3 ed.Bunte) Aquila: haec est quae dicitur Ganymedem rapuisse et amanti Iouei tradidisse.

Housman p.32 quotes to illustrate quo (sc. telo) in 319 Hor.Carm.1,27,12 qua pereat sagitta and continues,
"Germanicus identifies the Arrow as one of Cupid's, and the Eagle, who carried Ganymede off, is appropriately set to guard it. 315 "incertum quo cornu missa Sagitta" is only a translation of Aratus' ἀτερπ ἐς οὐ ("missore uacans" Cicero) and signifies that this arrow, unlike that of Sagittarius, has no bow belonging to it in the starry heavens".

There is no word ardum. Emendation is needed. I suggest ardens: "burning with eagerness". Although burning with eagerness to do Juppiter's bidding (the same word is used of Aquila's zeal to provide Juppiter with weapons in Stat. Theb. 3, 506-7: non fulminis ardens/ uector adest), Aquila does not harm Ganymede when he snatches him away (unguibus innocuis...rapuit). Tamen ardens/ unguibus innocuis...rapuit = "quamuis ardens tamen unguibus innocuis...rapuit." This use of tamen is illustrated with a large number of examples by Housman on Manil. 4, 413. He includes among them Prop. 2, 34, 49-50 nec tu tarn duros per te patieris amores:/ trux tamen a nobis ante domandus eris ("quamuis trux, tamen domandus" Housman). Hor. Serm. 2, 6, 80-3 has tamen before the adjective: fertur/ accepisse.../...ut tamen artum/ solueret hospitiis animum (="quamuis artum, tamen solueret").

Orelli conjectured Catamitum for tamen ardum. But Catamitus comes from the Etruscan form of Ganymede, and is used instead of Ganymede by Plaut. Men. 144, Acc. trag. 653 and Apul. Met. 1, 12. Hence it is not a suitable word to have in apposition to Ganymeden.

Ellis conjectured aptum for ardum. But aptum with unguibus innocuis usually means "equipped with harmless talons", an absurd thing to say of Ganymede. It would have to be taken as "held by unharming talons". I know only one example of aptus used with a part of another person's or animal's body- Auson. 16, 27, 85: tunc ego te ut nostris aptum complecterer ulnis, and there one person
is almost regarded as part of the other. Nor is the con- 
trast "hic quamuis aptum unguibus innocuis...tamen rapuit" 
very good.

318-9 rapuit...et appositus. Cf. the first part of Hous- 
man's note on 272-3 (quoted in my commentary).
322-3 tulit etc. is an addition by Germanicus. Cf.Hygin. 
324-7 are much more picturesque than Aratus 319-21.
328-35 treat Aratus freely, expanding him.

335. Of Breysig's hanc for hunc Housman, p.27, remarks that 
"perspicuity requires the alteration, though grammar does 
not", i.e.- the reference must not be back to Canis. But 
hunc could refer either to Canis or ignis. Hence hanc is 
required, for it refers unambiguously to flammam. It is 
this flamma which is called Sirius.
338. Z's cernis arose when radix had been omitted after 
languida. The -as in adsuetas was interpolated to provide 
an object for cernis.
338. Languida makes it plain that a word indicating blight 
is needed in place of the adstete/ adsuetas that is trans- 
mittted.

An examination of the Oxford Latin Dictionary entries 
will show that none of the conjectures proposed is suitable. 
Grotius' adsutae (assutae) "sewn on", is ludicrous. Burman's 
adfectae "affected" introduces a word which no more describes 
a harmful than a favourable effect (a word is needed with 
it to describe in what way the foliage is affected). Baeh- 
ren's adstrictae is suitable of the effect of cold (cf. OLD, 
section 6, Germ.4.49 at faciles glebas astringit frigore 
verno, 4.90-1 non frigora densa solutos/ astringit artus). 
The effect of great heat on frozen things would be to revive 
rather than destroy (exanimat). Ellis' adflatae (p. 237) 
is suited to the effect of Sirius (Germ.4.41 terras cum 
letifer ortu/ Sirius adflaut) but too strong to describe 
the condition before his arrival. If the frondes were
already adflatae then Sirius could not kill them (exanimat).

I suggest Germanicus wrote adflictae (or afflictae, possibly changed to adflictae in the archaizing era of Fronto). Affligo is sometimes used in the sense weaken (cf. OLD section 4). OLD quotes Col. 2,16,2:- quod <pratum> nec tempestatibus adfligeretur ut aliae partes ruris.

347. The process mentioned is that described in the corresponding passage of Aratus (346-7): τὴν Ἀρακέταν ἀνακάπτειν ὑπὸ σιδήρου, παλιπροβία. The ship is reversed; the sailors row as if to take it out to sea again, but the force of the water drives it slowly backwards towards the land. The transmitted remos makes the sailors stop rowing, but they do not do that, they stop the ship from hitting the shore too hard by rowing against the direction of travel (inhibet remis). The process is described by Cic. ad Att.13,21,3: inhibere...est uerbum totum nauticum...arbitrabar sustineri remos, cum inhibere essent remiges iussi: id non esse eiusmodi didici heri...non enim sustinent, sed alio modo remigant.

348. Votis damnatus: can be defended from Verg,Ecl.5,80: damnabis tu quoque uotis. Pareus (mentioned by Breysig,) conjectured uoti damnatus as this is the usual expression (cf. TLL 5,20,31 ff). Votis damnatus is an addition to Aratus by Germanicus.

348-9 ab ora/ praeligat. Neither ore nor perlegit make any sense here. A reference to tying up a ship is entirely appropriate. Grotius conjectured perligat, but the verb does not occur elsewhere, nor does the intensifying per suit ligat. The ligo ab use is paralleled by Luc.7,860 nullus ab Emathio religasset litore funem.

350-2. It is the rear half of the Argo which gleams in the sky (Germ.353-5). Aratus states Argo travels stern foremost (342-4) and that the part up to the mast is starless (349-50, 605), but he does not make it clear which part is missing, although Ελκεταὶ Ἀργῷ προθυμός Ἐνέα (342-3) strongly implies
the stern half is present. Apollon. Rhod. 2,601-2: (ἐμπής ὑπὸ ἀφλάστως παρέθρισαν ἀμφαὶ κόρυμμα / νωλεμὲς ἐμπλῆσαν ἑναντίαν) states that when the Argo was passing through the Symplegades, the high-pointed stern (ἄμφας κόρυμμα) was shorn off (cf. also Luc. 2,717: rappate puppe minor subducta est montibus Argo). Germanicus states that this stern was then placed in the sky. None of the other authors quoted in P.W. 2,762,10-22 (which gives references to authors mentioning the Symplegades in connection with the Argo) makes this statement. Valerius Flaccus 4,691-2 (saxa sed extremis tamen increpuere corymbis / parsque (nefas) deprensam iugis; nam cetera caelo / debita) seems to mean that the stern was caught in the rocks, the rest placed in the sky. This contradicts Germanicus.

I do not think that 0's quia in 350 is satisfactory, because of the difficulty it creates with haec, which then refers back to Argo (understood as the subject of trahitur (346) from the Argoae ... Puppis in 345). But 344-5 already give the information that Argo gleams in the sky. It would be strange to repeat it here. Z's quae makes haec refer to pars. The construction is similar to that in Verg. Aen. 12, 48-9: quam pro me curam geris, hanc, precor, optime pro me / deponas.

352-3. Z's aucta (agreeing with pars) leaves lateri with no connection with the rest of the sentence. O's actus allows lateri to be possessive dative. But actus (movement) is not in question. Sense can be restored, and the variants reconciled, with Orelli's auctus. Lateri non amplior auctus / qua surgit malus = 'there is no further extension of the side at the point where the mast rises'. The expression is explained by the following. The singular lateri is used, as only one side is visible, the Argo being represented in profile.

Z's amplius in 352 arose from the verbal form aucta
and led to maius for malus in 353 (malus is clearly correct in view of Arat. 605 \(\Delta \rho \chi \alpha \varepsilon \alpha \gamma \) \(\lambda \delta \tau \chi \omega \sigma \alpha \) \(\kappa \alpha \tau \alpha \omega \tau \nu \))

Quam arose from the amplior preceding it. It does not introduce any comparison. The easy change to qua restores sense.

355. O’s lucida gives perfect sense:— only the rear half of the ship is illuminated (lucida). Z’s roscida is just conceivable, "only the rear half is moistened" (i.e. because only the rear half exists). Roscida is used in this way in Verg.Aen.7,683-4: roscida riuis/ Hernica saxa.

357. Cum tamen = "nevertheless", cum being simply a connective. The same use of cum tamen is found in Liu.27,20; 11-12: de imperio abrogando eius agebat, cum tamen necessarii Claudii obtinuerunt ut...

359. No sense of lego is appropriate. Housman (p.32) defends rigenti from Manil. 1,315: proxima frigentis Arctos Boreanque rigentem.

360. Perlegit "scan thoroughly" is unsuitable. Praelegit is supported by the praeterit in 362.

363-6 are an addition to Aratus, who refers to the legend only in the epithet \(\tau \omega \lambda \varsigma \kappa \lambda \alpha \omega \tau \nu \) he applies to Eridanus (360). Cicero 146-8 had already mentioned the legend Germanicus recounts. Hygin.Fab. 154, which recounts this story, has the heading "Phaethon Hesiod;". J.Diggle, in his édition of Euripides’ Phaethon (Cambridge 1970) pp. 15-27, discusses this attribution, concluding (p.27) "That the story of Phaethon the charioteer was recorded by Hesiod, whether in an extended narrative or in the briefest allusion, must remain unproven". More reliance can be placed on Pliny, N.H.37,2,31-: Phaethontis fulmine icti sorores luctu mutatas in arbores populam lacrimis electrum omnibus annis fundere iuxta Eridanum amnem, quem Padum uocauimus, electrum appellatum quoniam sol uocitatus sit Elector, plurimi poetae dixere primique, ut arbitror, Aeschylus Philoxenus Euripides Nicander Satyrus.

365 uulnere reddentem flammam Louis: "e uulnere suo etiam
tunc fumante quasi reddentem, efflantem flammas louis" Orelli. I do not know of any parallel for this striking thought. However, the idea of pouring out the soul with the blood, and so dying, is common. Cf. Carmen pap. Herc. (Anth. Lat. Ries 1,49-50) laqueis pars cogititur artis/ intersaeptam animam pressis effundere uenis, Verg. Aen. 2,532: multo uitam cum sanguine fudit.

366. The transmitted planxere ignotis...ulnis, "they bewail him with their unknown elbows" is nonsensical. Sense can be restored by changing maestae to uersae and ulnis to alnis. Ignotis is here used of something that did not exist before, as in Ou. Met. 1,87-8: sic, modo quae fuerat rudis et sine imagine, tellus/ induit ignotas hominum conversa figuras. The presence of noua silua in the previous line makes the meaning clear. Versae is followed by the ablative as in Ou. Met. 10,157-8: nulla tamen alite uerti/ dignatur. Most authorities record they were changed into poplars. Alnis, however, agrees with Verg. Ecl. 6,62-3: tum Phaethontiadas musco circumdat amarae/ corticis atque solo proceras erigit alnos.

367. Vndis. Astris is unsuitable, as the Phaethontides were not made constellations around Eridanus. The undis/.. undae repetition is unobjectionable. Cf. the manibus..manu repetition at 79-80 and my note on 302-4.

368. Laeuum ferit Orionis corresponds with Arat. 361 Ρίωνς ὑπὸ τοῦ καλοῦ ποσεμερέως. Z's medium tenet was interpolated after the loss of the LAE of laeuum after the DAE of undae.

369. Procul amotis. This is a detail added by Germanicus. The Fish are far removed from each other, for the flank of Pegasus lies between them- (Piscibus interlucet Equi latus, Germ. 284).

Vsus makes no sense; unus refers to nodus (cf. the uno. ..nodo of Pisces in 245).

371-8. Germanicus leaves almost all of Aratus 367-85 (whose
significance was first perceived by Kidd, *Antichthon* 1, 1967,12-5) untranslated. Cicero 155-66 renders some of it. Arat. 369 & 384 talks of the unnamed stars lying under the Hare (Germ.373). The rest of Germanicus has no counterpart in Aratus. Hipparchus 1,8,2 states that Aratus 367-9 is wrong in talking about unnamed stars between Cetus and Argo and under Lepus, he should talk of unnamed stars between Eridanus and Argo. Germanicus 374 agrees with Hipparchus. 375. O's nota si does not scan, with Z's nota est the line means ' and this itself is an indication that they form no figure'. But there is nothing in the preceding that is an indication that they form no figure. Hence emendation is required. Perhaps there is a lacuna before this line. Perhaps Germanicus wrote nonne haec ipsa notas nullam praebere figuram (notas was suggested to me as a possible correction by Goodyear). Then haec ipsa would refer back to the sidera of 372. This injunction to one's readers with nonne is found in other didactic poems, 17 times in Lucretius, 3 times in Vergil's Georgics. The word nonne does not occur elsewhere in Germanicus, but he does have an injunction to his readers in 343: tu paruum Leporem rimare sub Orione. Another possibility is that 375 and 376 should be transposed, 375 thus forming a parenthesis (although a rather awkward one). Then the fact that these stars are sine nomine (376) becomes the indication that they form no figure. 399. Aratus (419) talks of night giving signs to men; in this verse Germanicus talks of natura giving them. 402. Z's tempora arose after the omission of CETera before
138

ČELi.

403. Z's splendenti metuendum arose when the te of splen-denTE was omitted before Timeto. Meto was expanded to met-uentum to restore the metre and a semblance of sense. 405-6 and sinu laxo in 408 are additions by Germanicus. 405. Siccentur is unsuitable. Drying the sails are the last thing the sailors should be doing when a storm is about to burst. Hence Grotius' spissentur. The line means literally, "Then, I tell you, the yard arm should be thickened by the sail bound around it", i.e. the sails should be furled. Cf. Ov.Met. 11,480-3: coepit/...spirare ualentius Eurus/"ardua iamdudum demittite cornua", rector/clamat "et antemnis totum subnectite uelum", (cornua = antemnae). Housman's transposition is necessary, as poets of Germanicus' period avoid short open vowels before initial collocations of consonants such as sp.

411. Iactatae...salutis ("boasted safety") does not suit the context. Hence I accept Grotius' iactati, referring to the sailors.

Ultima uota = "vows made in their extremity", as in Ov. Ex Pont.4,14,5-6 (of his state of mind in exile) ipsa quoque est inuisa salus suntque ultima uota,/ quolibet ex istis scilicet ire locis.

414-8. Aratus (437-8) says the human parts of the Centaur lie beneath the Scorpion, the equine beneath the Claws. Germanicus agrees with the correction by Hipparchus 1,8,21. 419-20. Germanicus has added to Aratus 439-42, who states the Centaur resembles a man stretching out his arm to the Altar, and holds a Θηρ' in it. Germanicus gives two stories, the first expanding Aratus' Θηρ', the second similar to that in Eratosth.40 ad.fin:τινὲς δὲ ἀσώκνα φασὶν αὔτὸ ἐπεναλ ὡνομένης τοὺς θεὸς ἐπὶ τὸ Θυνήριον. 421-2 are additions by Germanicus. iustissimus is defended by Ov.Past.5,413: iustissime Chiron, Hygin. Astron. 2,38 (p. 75, 9-11 ed. Bunte): Chiron...qui non modo ceteros
Centauros, sed homines quoque iustitia superasse...existimatur; schol. Arat. p. 424, 12-3: τόν Χερωνα τον πάντων Κενταύρων δικαλέτερον. Burman proposed mitissimus. But Chiron was not especially renowned as mitis, as he was for being iustus.

425 toto clarus equo. Arat. 431-2: Εἰ δὲ τοι ἐσπερίς μὲν ἀλὸς Κενταύρων ἄπειθ'/ἀριστον προτέρης, ὅληγη δὲ μὲν ἐκλύσοι ἄχλος. Aratus envisages a shoulder as clear, but the rest of the Centaur (μὲν...αὐτὸν) as enveloped in mist. Schol. Arat. p. 423. 4-5 offer two interpretations of μὲν...αὐτὸν: "ἡτοι τὸν ὃμον ἥ τὸν Κένταυρον. Germanicus has adopted the first (impossible though it is) - (from the margin of his copy of Aratus?).

427. Of the text with the transmitted lucet Housman remarks "as if lucet or superne could govern the accusative!" (p. 33) Mulcet. He quotes in support of mulcet the corresponding line of Cicero (218: Centaurum leui contingit lubrica cauda), also Cic. 56 (huic ceruix dextra mulcetur Aquari, 88 mulcens tremebundis aethera pennis)

I think ille (referring to Hydros) defensible. The subject of the previous clause is cauda (426). Germanicus wishes to make it clear it is Hydros, not his tail, which lies near these three signs. Courtney (CQ 1969, 139) conjectured inde, quoting in support its use in 217 and 417. This may be right.

431 pennis et paruo pondere. Aratus 448-9 has no epithets for these signs. Paruo pondere is based on Aratus’ ἐλαφρός at 519. "Germanicus here has obviously been influenced by a desire for alliteration". Goodyear.

432. Z's spatio triplici...sideris "The threefold space of a sign" does not have any meaning. The addition of s to triplici (s fell out before f, which it so much resembles in minuscule), gives spatio triplicis...sideris "the space
of three signs" (cf. the use of *triplex* in Verg. Aen. 10, 202, where *gens illi tripexus = gentes illi tres*).

436. *Nec longo mutantur in aeuo* is an addition by Germanicus. 438 has also been added by Germanicus. Cf. Manil. 1, 805: *sunt alia adverso pugnantia sidera mundo.*

440. *Equidem* usually goes with the first person singular. Hence a scribe has changed *possis* (corresponding with Aratus' *εἰς τὴν ὁμήρον* in 456) to *possim.*

*alia..signo* is not used in the same way as Aratus' *εἰς ἀλλακτινος σφων* (456) (where Aratus says "you won't find the planets' positions by reference to the other kinds of celestial bodies (i.e. the stars)"). It refers back to *loco.* The planets slip out of the constellation they are in (*exceduntque loco*). It will be no use looking at another constellation (*alia...signo*), and expecting them to stay in that, says Germanicus, as they are changing their position in the zodiacal constellations all the time, (441-2). Schwartz suggested *ullo* for *alia.*

*Diuis* is used of the planets, contrasted with the zodiacal constellations (*signo* 440). *Deus* is used similarly in 3,23 *haec ut quisque deus possedit numine signa.*

441. *Quae* is corrupt. If retained it would have to be taken as introducing a clause dependent on *contingere,* *alia..signo* being ablative (="by means of another sign"). But there are no examples of clauses dependent on *contingere* (cf. TLL and OCD s.u. *contingere*) and it would be odd if *alia...signo* were ablative and not dative.

Hence I have emended to *qua* (*qua* is constantly corrupted to *quae* – cf. Germ. 8, 61, 212, 382, 383 etc.). Germanicus 138 talks of *caeli locum,* *qua.*

444. Both *an* (cf. Oxford Latin Dictionary s.u. *an* 6) and *si* (cf. Lewis and Short s.u. *si* 5 ii) are used to introduce indirect questions. Nor can I see anything to choose between *AN* and *SI* from palaeographical considerations. The presence of *ANIS* before them does not seem sufficient to explain the
omission of either.

444-5. Here Germanicus changes Aratus' statement that he will not treat the planets (460-1) to a promise to do so, if he has time. This treatment is contained in the second part of his poem, of which Fragments 2-6 are all that remain.

444. *Arcanis Musis* = poetry about *arcana* (astronomy-astrology). In 15 *Latiis Musis* = poetry in the Latin language.

446. *signorum partes* = "the region where the signs are placed", i.e. the zodiac. Cf. Cic. 97: *partes gelidas Aquilonis*, 142 in *partibus Austri*.

446. It seems that Z omitted *est*, but placed it in the margin at the end of the line. It was ignored altogether by λ, but adhered to the end of the line in E.

449-54. expand Aratus 468: ἄταρ μέτρῳ ἔσθε Ἑξ γεω μυρων ἀντ.φέροντες.

450. *Et in est et* has no function, hence I have accepted C's *extat*, as a synonym of *est* (cf. Cic. de l. agr. 2, 88 extant litterae...publicae, sunt senatus consulta complura). From the agreement of EL in *est*, it seems *extat* is a conjecture to restore the metre; it is a good one. *Stat* is also possible. Sometimes it too virtually = "est" (as in Hor. Carm. 1, 16, 17-19 irae.../...altis urbibus ultimae/ stetere causae, cur perirent, Serm. 1, 8, 10 hoc miseræ plebi stabat commune sepulchrum, Lucr. 5, 199 tanta stat praedita culpa).

451. *Inter se in the transmitted text goes with minores.* But two things cannot be less than two others "among themselves". Grotius suggested replacing *inter se* with *rursus* (= "on the other hand"). This makes excellent sense (*inter se aequales feruntur* can be understood from the preceding) but it is hard to see how *rursus* could become *inter se*, and hard to see how *inter se* could have been repeated from the previous verse (as Grotius suggested), displacing *rursus* in the process. *Inter se aequales* may have been written above *rursus praeditis* to explain the construction and *inter se* displaced *rursus* (this explanation was wrongly ascribed to
Grotius by Baehrens, but it is sufficient to posit a single error, namely the omission of two half lines. In a letter to me Courtney suggested something may have fallen out between se and praeditis. I think it more probable something has fallen out between totidem and inter se, as inter se will then be further removed from the same words in line 450. I suggest the lines originally went something like this:

et totidem pariter quos aequos esse notabis ipsos inter se, praeditis ante minores.

The top line may well have contained a word resembling inter se or the bottom one one resembling totidem, which would explain the omission on palaeographical grounds.

Baehrens suggested writing aequales in place of inter se, (inter se written above the second aequales, to explain the construction, and taken as a correction of aequales, so ousting the word). I have preferred what I have printed to Baehrens' and Grotius' suggestions, as they involve two stages.

454 Si quis is found in both branches of the tradition at 235, 473 and 526. Si quis is common, si qui rare. Thus, according to Packard's index, si quis (without a noun) occurs 47 times in Livy, si qui (sing.) 3 times. Hence I have preferred si quis.

457. I have preferred Z's est, as O's et joins mediis ut lucet in umbris too closely with the preceding. The cum clause in 456 contrasts the stars with the milky way (457); mediis etc does not continue the contrast.
458. Hipparchus 1, 9, 14 criticizes Aratus 477-9. Germanicus is not open to his objection, either because he has taken account of it or because he is severely compressing Aratus in any case.
459-72 gives the information required to discover the
approximate position of the tropic of Cancer. Aratus' account (480-96) - derived from Eudoxus - is wrong for his own period but right for a much earlier period. Either Eudoxus calculated the position of the tropic wrongly or his account is based on an old map of the constellations, whose positions had altered due to precession. Germanicus has corrected Aratus from a map or another account. Hipparchus (1,10) points out Aratus' errors, without giving the true position. From line 468, Germanicus' account is the same as Aratus', which is nearly true for these signs. The effect of precession on these signs is slight.

462. Terit is used in the opposite way in 232 ⟨Aries⟩ terit ...medii diuortia mundi (the equator). Z's tegit is not suitable, as the tropic, a line, could hardly be said to cover Perseus' left foot.

463. Z's secat utraque latera tactu does not scan, and the "touch" of the tropic can hardly be said to cut Andromeda's flanks. Z's reading arose by conjecture after the omission of per from PERsecat after the preceding QVE (on the confusion of que and pe cf. Housman on Manil. 2,5.)

464. et totam ab humero dextram. Line 463 supplements Aratus from another account. The words quoted above (the transmitted text here), however, are very close to Arat. 484-5: ἀνδρους ἀρχαίων οὔπερθεν/σεκετερην τὸν ἀρμον ἡματικον (the tropic runs along the middle of Andromeda's arm up to a point below the elbow), except that the shoulder is mentioned. (persecat/...dextram means the same as Aratus' μεσον .../σεκετερην τὸν ἀρμον). But ab umero does not scan. Schwartz proposed abs umero. But the form abs is not found before vowels and was completely obsolete in Germanicus' time. Orelli proposed aque umero totam, which involves considerable rearrangement and que added to a, which poets avoid. It seems then that umero must be emended. From Aratus, Maybaum suggested cubito. Housman (p.27) suggested
a cubito became abucito, leading to abumo and so ab umero (ab humero).

464. Pulsu. The ungula is not travelling, hence cursu is unsuitable. Cursu arose by interpolation by someone who took ungula as accusative plural (the same person who wrote the spurious verses found in Z after 472 - quoted in the apparatus, where ungula seems to be meant as acc.pl.). With ungula accusative, the interpolator wrote his own verse after 464 (printed in the apparatus), with diuidit governing ungula and made extensive alterations to the beginning of 465. The mention of the Southern Sagittarius (found in the spurious verse) here is ridiculous.


476-84 are additions by Germanicus.

479. I know of no examples of beuius = propius (cf.TLL). Here the transmitted breuius would inevitably mean "for a shorter time", giving an absurd sense.

482. Housman's transposition is necessary, for, in the transmitted text, hic and contrarius, which refer to Cancer and Capricornus in 484 and 483, have no antecedents. A scribes
eye slipped from *austris* (the transmitted text in 483) to *austros* (in 482) and he wrote 482 first. Realizing he had omitted verses 483-4, he added them. His transposition marks for 482 were ignored by the next scribe, and verse 482 remained in the wrong place. *Aestatis* in 484, like *hiemis* in 483, depends on metas.  

485-91 gives the information required to establish the approximate position of the tropic of Capricorn. Germanicus differs considerably from Aratus (501-6), whose account is very wrong. With the exception of two details (the mention of the Sea Monster's tail - 502 - and the Dog's feet - 504 -) it suits a much earlier period. Cf. my note on 459-72.  

499. O's text *libato sidera* is meaningless, Z's *librato sidere* gives the sense to the line 'this appearance returns twice to the balanced constellation (or heavenly body) of the sky'. This does not seem to me to give any sense either. The conjecture *librat quae sidera*, which I have printed, suits the context, for when the sun is at the equator, the zodiacal signs are balanced evenly about it, half north, half south.  

501-9 give the information required to establish the approximate position of the equator. Aratus' account (513-24) suits a much earlier period than his own, with the exception of his mention of the belt of Orion, (518), which is very inaccurate for that period, less so for his own time, and only now roughly correct. Germanicus has corrected Aratus from a map or another account, except that his statement about Aries in 502 is wrong (he has not followed Hipparchus' correction in 1,8,10). Cf. also my note on 459-72.  

505. The corresponding passage of Aratus (519) has *ZΛαφρός*
as an epithet of Crater. Hence leuem, not leuem, is required. In a letter to me Courtney quotes in defence of his conjecture tum in the sequence in 504-5 (Oriona spiram-que tum Cratera Coruique) Manil.2,211-3: namque Sagittari signum ravidique Leonis/et sua respiciens aurato uellere terga./tum Pisces et Cancer et acri Scorpios ictu.

Another possibility is Hydri Creterramque leuem (the form Cratera, first declension, seems to be a vulgar form avoided by poets. See Clausen,CQ 1963,85-6). Cretermram was conjectured by Kinch (Quaestiones Curtianae Criticae, Hauniae,1883,p.29). But the form of the verse is unparalleled in Germanicus. 284,439,470,645 and 683 have no second foot caesura and only a weak third foot caesura, but all of them begin with a dactyl.

505. Frey's forantis is defended by 429-30: tortus ... ulterioris/ uocali rostro Coruus forat. Foro is used intransitively in Cels.7,14 (p.280,31 ed. Daremberg) tum acus admouenda est acuta ut forat and 8,3,2 (p.331,5-6) estque quidam premendi modus, ut et forat et circumagatur. Ellis (p.239) conjectured terentis. But tero can hardly = 'peck'. Baehrens conjectured sedentis. As this is closer to the transmitted ferentis (f and s in minuscule being virtually indistinguishable), I have preferred it to forantis. The Crow is represented as sitting on the Snake (cf. Hyginus Astron.2,40 p.76,3-4 ed. Bunte): HYDRA: in qua Coruus insidere ... existimatur. The corresponding passage of Aratus (520) simply mentions Κόραξ Ζ's querentis is an unmetrical conjecture made by a man who had ferentis in his text.

508. Here too, as in deficiunt etc above (506), Germanicus is correcting Aratus, whose error Hipparchus 1,10,20 points out. The transmitted text of 508 has one foot too many for one line; this strongly points to the loss of 5 feet of a line (something like ignea terga/qui manibus ualidis tenet) for there seems to be no reason why any of the words should have been interpolated. A medio, whose removal does not
restore the metre, has no grammatical connection with the preceding words, hence I have marked a lacuna before a medio.

Possibly the 5 feet were omitted by a scribe whose eye slipped from the et to the et ending a verb in the next line. I suggest the verb may have been tenet. Tenet a medio is paralleled by Plaut. Men. 1011: eripe oculum isti ab umero qui tenet, ere, te, obsecro.

My reconstruction involves a postponement of the antecedent of qui. Cf. Verg. Ecl. 3,21-22: non redderet ille/ quem mea carminibus meruisset fistula caprum. It also involves the relative pronoun following certain words of its clause. Both features are found in Verg. Ecl. 5,13-15: in uiridi nuper quae cortice fagi/ carmina descripsi.../ experiar, Germ. 58 tempus dexterius quae signat stella Draconis.

The transmitted text exhibits a hiatus between the ò of medio and the ò of Ophiucus. I can quote no precise parallel, although Vergil exhibits similar hiatus of ò before other caesurae, e.g. si pereo/hominum manibus periise iuuabit (Aen. 3,606) inclusum buxo/aut Orcia terebintho (Aen. 10,136) promissam eripui genero/arma impia sumpsi (Aen. 12,31) concilia Elysiumque colo/huc casta Sibylla (Aen. 5,735) Maeonia generose domo/ubi pinguia culta (Aen. 10,141). Germanicus himself has a hiatus of a long ò before a noun of the form ò -- at the end of the line, as here, in 23: horrifero Aquilone, although this is a different type, an adjective agreeing with a noun (this a common hiatus in Greek, imitated in Latin, usually before a Greek noun, although at 23 before the Latin Aquilo).

509 nec = et non. Cf. Housman on Manilius 1,656.

511. Z's docemus is defended by a similar use of docui in 1v.138, O's notamus by notabis in 75, notantur in 85.

512. Z's decurrens is defended by the passages in the Oxford Latin Dictionary article on decurro 5b, O's percurrrens by Caes. B.G. 4,33,3 per temonem <currus> percurrere.
514 sulcos: the metaphor is an addition by Germanicus.
522. Quartus: the ecliptic. Ab Oceano: the point at which the ecliptic touches the eastern horizon shifts from the declination of the tropic of Cancer to that of the tropic of Capricorn, the two extremes of the zodiac. οὐχ ὠκεανῶ λ Τὸ θεν παραμεθεταὶ οὐσώρ (Aratus 537). Ab Oceano uestigia mutat by itself could most naturally be taken to mean "The circle travels away from the Ocean". The OLD quotes no example of the use of ab = "at" with a verb of motion. However quam latus etc. (525-6) makes it clear what Germanicus means.
525 tam. Latus is understood.
526-9 are discussed after 567.
530. This verse makes no sense after 526-9 or any extant line of Germanicus' poem. But I can see no motive for interpolating it; I suspect it refers to the sphere of the fixed stars, which can appropriately be called ultimus orbis (i.e. the furthest away from the earth of the celestial spheres), and belongs to a lost description of the celestial spheres (the astrorum globos mentioned in v. 1).
531-64 expand Aratus 545-9, which simply list the zodiacal signs. Cicero 320-331 had already expanded these lines somewhat. Aratus, followed by Cicero, begins his numeration from Cancer, Germanicus begins from Aries, the first zodiacal sign. 531 is discussed in the note on 526-9 (after verse 564).
539. Marito here = "person with whom she has had intercourse", (not "husband"), as in Hor.Carm. 2,5,15-6: proterua/ fronte petet Lalage maritum; maritum = "person to have intercourse with". The verse is similar to Col. 10,202-3: caeruleo partus enixa marito/ utraque. Creteaeo can easily be understood with marito (from Creteaeo litore), Juppiter himself
being Cretan, and taking her to his homeland. Grotius conjectured litora for litore. O's acretae may support this, (perhaps litore was corrected litora, a ignored in Z, giving rise to litore a in O. But perhaps acretae rose from transposition of cretaeo to acretae and corruption to acretae). mendacia then goes with litora. That mendacia...litora = Crete, is to be gathered from the following Cretaeo...marito. Crete is called deceiving, as it was the home of the deceiver Juppiter. This seems a little obscure; it is better to retain the transmitted text. 544. Z's morsu..bello is unsatisfactory, as bellus ("pretty, fine") is not a suitable adjective either with morsu, or sidere in 545. O's morsus..bello "a war of biting", is not suitable either. Goodyear advanced the objection to it that, while it would be suitable of a fight where both the belligerents were biting (e.g. a fight between two crabs), it is not suitable when only Cancer, not Hercules, is biting. Emendation seems to be required. Housman p.34 tentatively proposed "austrum morsu contingere uelle" Velle here contributes nothing to the sense; it is superfluous, as in Ov.Met. 10,132 (quoted by Housman) uelle mori statuit.


548. Duplex = "altero tanto maius" (used as a substantive). It is used in this way frequently in Livy (cf.TLL, 5,1,2271, 6-9).


550. The verse is transmitted in very different forms in O and Z. Z exhibits many clumsy interpolations (e.g. the spurious verse after 464 and the alterations to 464 to 465 to fit it in). Hence it is probable Z's text is derived from interpolation. I suggest O's prius first became sidus. Orione was changed to Orionis and magnum interpolated to fit it, and the dicto transferred before canet/ canat, dis-
placing *diua*, but acquiring *diua's a ending* in order to scan. While Z's text is unmetrical and meaningless, O's may be translated "which the goddess will sing to me when she has first spoken of Orion". "The goddess" can be taken as Germanicus' Muse (cf. Ilias Latina 1 1ram pande mihi Pelidae, *diua*, *superbi*, Stat. Achill. 1,3 .../ *diua*, *refer,-* imitations of θεά (in A 1 and α 10). Germanicus, if the text is sound, is promising to tell of the Scorpion, when he has first spoken of Orion. In fact he does this; after telling the story of Orion's defiling Diana (648-652), he then tells of the Scorpion raised up against him (653-60). But why Germanicus should choose to write 550 in its present form is a mystery. Why does he suddenly address his muse with *dea?* (Homer calls her θεά only at the beginning of the Odyssey and Iliad). Why should he give such precise details of what he intends to do? What interest can they have? It may be 550 is an interpolation by someone who wished to provide a cross reference to the story later on.

It may be Germanicus' work, but corrupt in O. dicto differs in only a letter from icto. Perhaps what Germanicus is saying is that the Scorpion threatens Orion, whom he has stung before (icto prius) -cf. Arat. 643 ff: οκροπίου, ὃς ἑταύς ὅτα.../τούνεκα δὴ καὶ φασὶ περαιὸθεν ἐρχομένου/ Σκορπίου ορίωνα περὶ χθενὸς ἐσχατα φεύγειν.

Perhaps Germanicus wrote something like this:-

quem mini (taris, uti memorantes Carmine uates, Delia) *diua*, canunt, icto prius Orioni.

A scribe's eye slipped and he omitted the words in brackets; mini, now meaningless, became mihi, and canunt was changed to agree with *diua* preceding it. Delia *diua* = "Diana" (cf. Hor. Carm. 4, 6, 33); the present tense is used of the writings of poets, as in Flor. Ep. 2, 19, 2 (p. 84, 3-4 ed. Rossbach, Teubner) sicut poetae canunt. The construction *minitor aliquid* (aliquem) alicui (rei), the person or thing threatened being in the dative, is illustrated in TLL 8,1025,
The same construction with minor is illustrated in TLL 8,1029, 31 ff.

If a lacuna is not assumed, I can think of nothing closer to the transmitted text than quern uitare canunt ictum prius Oriona or quas instare canunt icto prius Orioni, canunt equalling poetae canunt, although I know of no example of canunt used this way.

554: cochlidis: \(\kappa\omicron\chi\lambda\dot{\alpha}\nu\varsigma\) is the diminutive of \(\kappa\omicron\chi\lambda\varsigma\), used by Eur. Iph. Taur. 303 of a shell used to produce a sound in battle.

558-60. Capricorn was Augustus' natal star, i.e. the star the moon was in when he was born (cf. Suet. Aug.94: tantam mox fiduciam fati Augustus habuit, ut thema suum uulgauerit nummumque argentum nota sideris Capricorni, quo natus est, percusserit, Smyly, Hermathena 38,1912, 156-9 and Housman's addenda to pp lxix-lxxii of Manilius Book 1).


565-7 were rightly deleted as spurious by Grotius. Postea does not scan. It could be emended to postmodo, but neither of these words are used in Germanicus' time to = et.

566. Chelae are omitted, as they are reckoned as part of Scorpio (cf. 548-9).

567. Capricornus is not geminus (as Gemini and Pisces are) for it is half fish, half goat. Manil.2,659 calls it caper ...genitusque ad frigora piscis and in 2,155 ff distinguishes between the twin signs Gemini and Pisces and (170-1) ex diverso commissis corpore membris,/ut Capricornus. Germanicus calls it biformis in 4,130. Gelidus on the other hand is a common epithet of Capricornus (cf.Germ. 7 and 289, also 483 glacialitus astra, 597 rigidum Aegoceri signum). Hence I believe the interpolator wrote the gelidus of Z, not the geminus of O.
526-9 Housman (p.33) says of these verses in the place they are transmitted: "That Germanicus did not place them here in his phaenomena is evident from the abruptness of signiferum orbem". I have placed them after 564, the only place in the extant part of Germanicus' poem that they fit. After 531-64, the fact that the quartus orbis of 522 is the signifer orbis is well established. The oldest manuscript B has written verses 526-31 in tiny letters and two columns (it writes the other verses of Germanicus in one column). This suggests its scribe did not find them written in the same way as the rest of the verses. I suggest they were written in the margin at the bottom of the page in the archetype by a corrector. On this practice, cf. Lachmann's Lucretius (introduction) and G.P. Goold's article "De Fonte Codicum Manilianorum" (RhM 97,1954,359-72). Verse 530 is either spurious or (far more likely) belongs elsewhere (cf. my note on it). 531 is unobjectionable in its present place but not necessary to the sense. It may have been copied from i l (Vna uia est Solis bis senis lucida signis) or may be misplaced.

Signiferum...orbem in 526 is taken up by huius...orbis in 568. Verses 526-9 correspond, as Housman remarks, with Arat. 541-3, Cic.313-6, Manil.1,552-5 and Auien. 1034-45. 529. Vna tui and Vna suis being nonsensical, emendation is required. Housman's lunatus gives the sense required and is very close. Lunatus lateris = "the curvature of the circumference" (Housman p.33). "The words latus and regula are used again at 188 and 191 to signify mathematical lines. The substantive lunatus is not in the lexicons, and many of these verbal nouns are δπαξ ηευεκενα, mactatus (Lucr.1,99) for instance, and effectus (Grat.406)" Housman p.33.

573-81. Here Germanicus is not following Aratus 559-63, who leaves out the fact that the signs take different times
to rise, but, in agreement with the observations by Hipp. 2,1,2 ff., Germanicus has added 579-81.

578. The antecedent is signum, understood from signo in 576. Hence the adjectival quod (referring to an antecedent), not the substantival quid, (referring to no antecedent), which is transmitted, is required. On quis/ qui cf. Kühner - Stegmann 2,1,655-7.

579. Quanto exiliant spatio is an additional fact to note, not an alternative. Hence I have printed que. The ue of uZ (and hence the archetype) probably arose from the preceding ue. The que of v was an alteration of the less common ue into the more common que, an alteration which stumbled onto the truth.

583. From this verse onwards only one family is present, from 583 to the end of fragment 3, only the inferior family Z. Hence more conjectural emendation is required than before.

585. C and L present no-words, E's Iden is unsuitable, as the accusative has no construction. Hence Grotius conjectured Ide. But this introduces what Housman (p.34) calls a "disagreeable asyndetop" between Gargaron and the other names of mountains. Grotius' conjecture also presupposes Gargaron and Ide are two separate mountains; while another Ide- in Crete (cf. Martin on Aratus 33), and another Gargara (e.g. inland from Ide, Plin. N.H.5,122) are mentioned, when these words are presented by themselves, only the famous Gargaron and Ide can be meant.

I had thought of Gargaron aut Ides (= "Gargaron belonging to Ide") but I do not think this is a defensible use of the genitive. Expressions such as ad Cynum Locridis (Liu. 28,6,12) - cf. Kühner-Stegmann 1 p.414- are not parallel, as the genitives there are the names of regions or peoples.

Housman's ingens supplies an adjective which suggests Gargaron is likely to conceal a constellation behind it, (as do altus in 584 and superis habitatus in 585).
I know of no evidence that the gods shake Olympus. (agitatus). Habitatus is an easy correction.

Tempora noctis is used the same way as in 724. The transmitted uentus tithonius ortus: 'the springing up of the Tithonian wind' is clearly corrupt. The sense required in line 588 is: 'nor will the time of dawn escape you'. Grotius conjectured ueniens Tithonius ortus, but 'the Tithonian rising, as it appears, will never escape you' can hardly mean 'the appearance of dawn will never escape you'. Veniens is odd with ortus and the natural way of taking Tithonius ortus is 'the rising of Tithonus; whereas the sense requires 'the rising of the wife of Tithonus'. Moreover, the appearance of the dawn could not fail to be noticed by anyone viewing the sky (as readers are told to do in 585-6). It is the time the dawn will appear that these observations are designed to give. The sense required is given by tempus Tithonidis ortus. Tithonidis is the genitive of Tithonis, used as an equivalent of Aurora by Stat.Silv.5,1,34. I do not think the repetition tempora tempus is objectionable in Germanicus. I can find no exact parallel, but cf. the repetitions of manu manibus in 79-80, nomen nomen in 221-2, qui qui quem quem in 533-4. If tempus is correct, ortus is genitive. Ortus was taken as nominative and Tithonidis altered (consciously or unconsciously) to Tithonius to agree with it. Tēpus now had no construction, and changed to a word close to it, (uētus) which seemed to satisfy both grammar and sense. P and T are close; they are constantly confused in the manuscript B.

589-725 detail the constellations which are rising or setting when the first degree of each of the zodiacal constellations is rising, as does Aratus 569-732 (cf. Hipp.2,1,23 ff).

Excipit Oceanus: cf. Hygin.Astron.1,8 (p.27,7-9 ed.)
155

Bunte): Oceanus ... prope totius orbis alluit fines; itaque et signa occidentia in eum decidere existimantur.

591. Dorso = "as far as its back", as genibus in 719 (at cum se genibus demisit pars Ophiuchi) means "as far as his knees".

Germanicus read the transmitted text of Aratus 575-6: Αὐτῷ ὃς ἐξοπλιθεὶς τετραμμένος αὖλα μὲν σύμω/χαοτέρῳ νεκρῷ, τὰ δὲπέρτερα νυκτὶ φορεῖται and referred ὅγι, as it must be referred, to ἰχθυῖς at 572 (it is also taken this way by Cicero 355 and the Aratus scholia in Maass: Hipparchus refers ὅγι to Engonasin). Germanicus rendered Aratus 575-6 simply by caudaque priore, as the rest of their contents is fully represented by his rendering (591) of Aratus 572: Νάγει. Σὲ κατὰ πάχων ἵχθυῖς.

592. At here = "whereas", a sense illustrated by OLD s.u. at lb. Grotius conjectured et.

592-3. Anguis ultima cauda micat. Here Germanicus is not following Arat. 578: κατὰ χεὶς Σίθοφιν αὐχένοις ἔχος, but agrees with the correction by Hipparchus 2,2,10 (ἡ σῷρα μένον ὑπὲρ χῆς ἐστὶν). Tortus... timendos cannot refer to the Snake's tail, which is too short to have coils (it is the paruam partem of dextera paruam/partem Anguis retinet in 83-4) but to the Snake's body, which is medium cingens Ophiuchum, (80), i.e., has tortus. Since only the tail is visible, Germanicus must be stating that the coils are not visible. Hence I have accepted Thierfelder's unda for illa. Habet unda: cf. Cic. 381-2: mergitur unda/Delphinus, Auien.1256-7: haec habet occidui plaga gurgitis, ista sonoro/ supprimit unda salo. I had thought of tegit ille (Grotius had already conjectured ille for illa, so as to refer back to anguis) but this is further from the transmitted text.

594. Arat. 579-80 read: οὔσιν ἐν ἄρκτοφυλακὶ εὐη πολὺς αὐφατέρωθεν, μεῖν ἡμάτιος, τὸ δὲπί πλέων ἐνυχχος ἡς. Hipparchurus 2,2,15 says that Aratus is correct in this statement. It seems then, that Germanicus 594 must originally have been equivalent in sense to these verses of Aratus.
In the transmitted text his...subiacet astris ('it is close to (or below) these constellations') does not correspond with Aratus, nor is it correct, and **multo...longe** is meaningless. **Multo** requires a following comparative or superlative. Hence I suggest Germanicus wrote **longius**, the **su** in **subiacet** being an inversion of the **us** of **longius**. But I can think of no convincing emendation of **subiacet**. **Emicat** is possible (cf. sic **emicat ore, /sic magnis umeris candet nitor, of Andromeda at 202-3), so **emicat**. The word **enitei**, however, seems to be used of excelling, not light shining (cf. TLL s.u. **eniteo**). **Manet** makes good sense, but the metre requires an extra syllable, and the only **manet** compounds which satisfy both metre and sense are **admanet** and **immanet**. The former is only found in the Not. Tir., the latter only in late Latin.

595-7. Here Germanicus is not following Aratus, who states Bootes sets with four zodiacal signs. In 2,2,14 ff Hipparchus states Aratus is in error in this statement. Germanicus seems to have derived 595-7 either from Hipparchus 2, 6,1 or (more likely) a similar account. Hipparchus states there that Bootes begins to set with the 6th degree of the Scorpion and completes the process with the 18 1/2 degree of Capricorn, and that the most northerly star in his crook is the last to set (as his crook is raised above his head, **ore** in Germ.596 is roughly equivalent to this). Germ.598-9 return to Aratus (582-3: δ ἰτην ἁκος κορέωτας, / βουλωτι ἔπέχει πλείον δ' ἀντι νυκτός ιούσης).

597. **freta lucida terret:** this he does by threatening to set.

599. **noctis plus parte relinquit** does not make any sense. The required sense is given by Arat.583: βουλωτι ἔπέχει πλείον δ' ἀντι νυκτός ιούσης (he tarries in the unyoking of his oxen – i.e. setting – while more than half the night goes by). Aratus is following Homer Π 779 ἦλιος μετένιστο βουλωτόν δ' (= 'the sun travels towards the place
of unyoking - i.e. of setting'). I do not see how the required sense can be obtained in Germanicus by emending this half-line. Hence I believe there is a lacuna, in which some such words as moratus/dimidia, tandem caeli conuexa have fallen out.

603. cornua...utraque: a picturesque way of rendering Aratus' πάντα (589), suggested by his κέρασ το άλλον.

604-5 correspond with Arat. 590-1: 'Ερχόμενω δέ Λέωντι Τὰ μὲν κατὰ πάντα φέροντα / Καρκίνω εὖς ἐξέβληστα. Schaubach's Cancro supplies the mention of Cancer missing from the transmitted text.

610. Sirius ipse is an addition by Germanicus.

611. Totius contrasts the Dog itself with Sirius, a part of the Dog.

Both L's rabidi and CE's rapidi are good (on rapidi/ rabidi applied to Canis cf. Housman on Manil.1,396). The agreement of CE may mean that Z read rapidi, but both C and E could easily have changed rabidi to rapidi independently.

612. Exorsae (from exordior) can hardly be used by itself, with no indication of what the Maiden has begun to do. Burman's simple change to exortae makes good sense. Exortae = 'while rising' (cf. its use in Manil.5,631-2).

613. The sense required is 'the Dolphin sets' (cf. Arat.598). The transmitted motis...deflexerit undis ('he will have turned aside from the moved waters') gives, if motis makes any sense at all, a meaning opposite from that required. The change of two letters, to notis...defluxerit undis, gives the sense required. 'Notis, quia Delphinus est θυεσ ' Grotius, quoting Manil.5,394: at cum se patrie producens aequore Piscis defluxerit: cf. Auien.754-5: Sirius alto/defluit ab caelo. Notis undis is dative.

616. This line corresponds with Arat.599-600: 'Ορνήθος πρῶτα πτερά μέσοφα παρ’ αὐτὴν / οὐρήν ... στιόντων. 'The first part of the Swan's wings, up to the part of them alongside the tail, is obscured'. πρῶτα = 'first part',

Both L's rabidi and CE's rapidi are good (on rapidi/ rabidi applied to Canis cf. Housman on Manil.1,396). The agreement of CE may mean that Z read rapidi, but both C and E could easily have changed rabidi to rapidi independently.
as in 747 πρώτης...νυκτός = "in the first part of the night" and in 660 Στεφάνοι τε δεύτερα κύκλα = "the second part of the Garland". Germanicus uses volans of the wings, for they are stretched out in flight (nunc quoque diductas uolitat stellatus in alas, Manil. 1, 341).

617. nigrescitque Padus, terrae qui proximus amnis is a little different from the corresponding line of Aratus (600: Ποταμοῖο παρηρήματος κυκλώματος). Eridanus is near the western horizon, hence its stars are fainter, for more of their light is absorbed by the atmosphere than when they are high in the heavens (so Germanicus). Aratus states that the edge of the River has set. Nigrescit was suggested by σκιόσωματα, but does not correspond to it. Cf. my note on cornua in 603.

620. Creterra tenus corresponds to Aratus 602-3: ἔχρος παρ' αὐτῶν/Κρητῆρα. Cratera tenus is also possible for the transmitted terra tenus, but is inferior, as creterra is more likely than cratera to have been corrupted into terra, for the ending of creterra immediately suggests terra. The similarity of cre and ter could also have helped the omission of cre.

Aplustria corresponds with Aratus' πρύμναν (604)

621. "Mr Maybaum, whom I am glad to praise when I can, very justly says on p. 47 'uuehementer displicet "sed cum pia Virgo nascitur". nam quae antecedunt ipsa referuntur ad ortum incipientem Virginis (612 accipe quae uitent exorsae Virginis ora). necessarie flagitatur aliquid, quod totam
Virginem ortam esse significet. cf. Arat. 605 sq. ή δε θεόν
γαῖς ὴον διχώσα κατ' αὔτην, / Παρθένες ἦμος ἐμπροσ περ-
αιόθεν ἄρτι χένηαι , Cic. 391 "cum iam toto processit
corpore Virgo" Auien. 1127 "cum iam virgineos aether uehit
altior artus" expectes e sententia nata est tota, ratis etc".
To this objection Mr. Winterfeld, who in Herm. xxx pp. 557 sqq.
has well defended "media plus arbore" as meaning "mainmast
and all" replies that "cum pia Virgo nascitur" means "wenn
die Jungfrau ansteigt". But it cannot; nascitur in astr-
onomy always means "aufgeht" and not "ansteigt"; it is
a synonym of surgit and oritur; so in 605 and 715, Auien.
1027, 1167, 1293, 1314, 1588, Manil. ii 791, 940, iii 403, 483,
537 (read caeli nascentis ab ora: horae MSS), 603, 608,
iv 518, v 219, 634, Luc. iii 231, vi 336, Verg. buc. viii
17. "Virgo nascitur" describes a process which lasts about
two hours and a half, beginning when Leo has finished rising,
and ending when Libra begins to rise. At the commencement
of the process, when Virgo "nascitur ore", the "aplustria"
of Argo appear; at the end of the process, when Virgo
"nascitur pede" Argo is visible as far as the mast:

 pede cum pia Virgo

 nascitur, illa ratis media plus arbore lucet.

E absorbed by c and p corrupted to s. This last error is
not so common in Germanicus as it is in Auien, but see
74 lapsum O, lassum Z, 412 and 527 p omitted after s. For
"pede nascitur" compare 596 "occulitur pedibus", Auien.
1138 "pede proferat ortum". I had also thought of this:

 sed, cum pia Virgo

 nascitur ipsa, Ratis media plus arbore lucet.

For ipsa signifying the main body of a constellation as
opposed to a part of it see Cic. 403 sq. "hic genus et
suram cum Chelis erigit alte, /ipsae autem praeceps obscura
nocte tenetur". But ipsa next to ratis is a trifle ambigu-
ous, and so would ima be." Housman p. 34.

624. Crine is used of the rays of a constellation's stars,
as in Auien. 81 and 253. Cf. also Germ. 87 stella...crinita, (if the text is sound there).

626. The transmitted text celsaque Puppis habet can be taken as "the Ship occupies the regions above the horizon" (habet = occupat in 478 tunc habet...fastigia summa, 239 medium Deltoton habebit. Germanicus uses celsa astra of the stars above the horizon in 676: celsis Ophiuchus fulget in aistris). But the noun celsum does not occur elsewhere until late Latin (e.g. Claud. 28,20: caelicolae cum celsa tenent).

Cf. TLL 4, 774, 63 ff. Hence both Courtney and I have thought of emending habet to adest, taking celsa as feminine agreeing with Puppis (Dahms p.273 suggested that there is a lacuna after Puppis, in which he supplied the word adest).

Cauda minus = "minus his tail". Cf. 673 and the use of plus in 622. Grotius' Hydra corresponds with Aratus' <γρη in 611.

628. Noctem = "the region of invisibility" - the part of the sky below the horizon, as in 695. An unknown hand has altered suprema in L to suprema. Grotius conjectured nocte eluctata suprema. But TLL s.u. eluctor quotes no uses of eluctor + ablative. Hence I retain the transmitted noctem ....supremam. Eluctor is also followed by the accusative in Sil. 13,741-2: <Hannibal> Alpis/ eluctatus adest.

274. As can be seen from the translation, this verse makes no sense where it is transmitted. It makes good sense here. 627, 628, 274 render Arat. 612, 614, 615: μόνον δ' ἐπὶ Χηλαί ἄρχουσιν/δεικτῆσαν κύμην, αὐτῆς ἐπιχειροῦσα ἄχρις, ἀεί γυώξ, αἰεὶ δὲ Λύροι παρατετηῶτος. Crus in 627 must thus mean "the shank" (the part of the leg below the knee). By itself crus could also mean "leg". The meaning must be made clear (cf. OLD s.u. crus ). Hence 274 is required after 267-8. The shank is the part of Engonasin between the stars τ and χ Herculis and is bent at an angle of about 90° to the thigh, the part between τ and γ. τ and χ Herculis rise before the rest of the sign, hence only the right shank is
visible when the Claws begin to rise. The next part to rise is the upper part of the right leg (Germanicus mentions part of it, the summa genus, i.e. the upper part of the knee—the part above the joint). Val. Flacc. 3,525 talks of summo palla genu; a neuter pl. + genitive of the part of the body is used in Germ. 81 ima pedum). This, and all the rest of the sign lie, with the Lyre, below the horizon, waiting to rise.

In the lines corresponding with Germ. 270 ff., Aratus has the statement (271-2): ἐνεπὶ σκέλεσον πέταλον/ ζώνατι σι σκάλιω πελάει (the left foot, represented by the stars ι, θ, π is in fact the nearest part of Engonasin to the Lyre). To make 274 correspond to this, would require considerable rewriting. Moreover, 274 in its transmitted form is necessary where Housman places it (as I have shown above). Housman is mistaken in his statement that Grotius transposed 274 to follow 627. In fact he transposed it to follow 608, where it makes no more sense than where it is transmitted. Thus Housman deserves all the credit for his transposition.

Both O's voluit and λ's uersat are suitable. Cf. Cic. Rep. 6,17,17: orbis summus in quo...uoluuntur stellarum cursus sempiterni. huic subiecti sunt septem qui uersantur retro contrario motu atque caelum.

633-5 correspond with Arat. 620-3: αὐτὸς .../Συνορπίων ἀντέλ- λοντα μένει καὶ ἵπποραΤῶβεο/οἱ ἔρη μεν φορέων, ὃ μέν μέσον ἄλλα τε πάντα,/χεὶρα δὲ οἱ σκαλῆν κεφαλὴ ἀμα τῶβεο ἄγινει. But 633 states Engonasin has entirely risen. That is true only under Sagittarius. Hence, if the verse is to be retained in its transmitted form, it must be transposed. It must be replaced by a verse which completes cum Scorpios exit (632). A mention of Sagittarius, missing from the transmitted text, must also be introduced. Grotius proposed the following:

cum Scorpios exit, 632

haud cunctatus abit; cum Chiron surget ab undis 634

Arcusque ipsa pio caelo referetur imago, 635
iam totis radiat membris miserabile sidus 633.

But abit (= "leaves the sky") is unsuitable. Grotius would have done better to write adest. The transmitted suo caelo would be an improvement on the odd pio caelo.

Even with these improvements, the objections remain

(1) How much of Engonasin rises with Scorpio is not stated.

(2) Arcus ipsa ... imago is not a very happy expression, especially when joined to Chiron.

Breysig produced the following:

\[ \text{cum Scorpios exit} \]
\[ \text{non totis radiat membris miserabile sidus;} \]
\[ \text{at cum tantum abeit, quantum Lyra surgit ab undis,} \]
\[ \text{Arcus ipsa suo caelo referetur imago.} \]

But an assertion that Lyra and Engonasin have risen as much as each other does not tell how much each has risen. Nor is \text{non totis ... membris} satisfactory, as Engonasin does not come forth minus a bit of each of his four limbs.

Ellis' and Maybaum's conjectures may be found in Breysig's apparatus. They do not even give a semblance of sense.

Sense is restored by Housman's suggestions, which I have printed. The statement that under Scorpio Engonasin has risen as far as his back (635), is equivalent to Aratus' statement that only his head and (upraised) left hand remain below the horizon (623). Engonasin is obstipa , for he is \( \mu \omega \chi \varepsilon \omega \nu \tau \ldots \alpha \nu \delta \rho \tau \varepsilon \quad \varepsilon \omicron \kappa \kappa \varepsilon \varepsilon \quad \) (Arat.63), defecta labore (Germ.65). Of his reconstruction Housman p. 35 remarks: "Suo in 635 of course agrees with tergo. 634 must once have worn this shape: \text{at si lyra cum tantus abitisurgit ab undis,} which was reduced to metre by transposition, omission and insertion: \text{quantum} was suggested by tantus. For the caesura see 23,442.

One point remains obscure. Some writers, as Sen. Thy. 861 and Luc.9,556, identify Sagittarius with Chiron, who was as everyone knows the son of Philyra and the grandson of Oceanus. Germanicus however elsewhere identifies Sagittarius
with Crotus and Chiron with the Southern Centaur, and he 
calls that Centaur by the name of Chiron in this same con­
text, verse 637. Now Crotus, like Chiron, was a grandson 
of Oceanus, for the scholia (Breysig ed.l pp.90 and 159) 
call him "Oceani nepos" on the authority of Nigidius; but 
his mother's name is generally given as Eupheme. Whether 
others held Philyra to be his mother, or whether Germanicus, 
having read in Nigidius' astronomical works that Crotus and 
Chiron were both grandsons of Oceanus, jumped to the con­
clusion that they were both sons of Philyra, I cannot det­

ermine. Philyra has other sons than Chiron: Hyginus mentions 
Dolops, Suidas makes her the mother of Aphrus, king of Libya". 
633. Aratus 623 specifies the parts of Engonasin which rise 
with the Archer; Germanicus simply states that he rises 
entirely with it, as Aratus 620-1 implies. 
636. Tota is unsuitable for a Garland which has only 
partly risen (imperfecta). Ellis' torta is defended by 
Prop. 3,20,18: testis sidereae torta Corona deae (where 
some MSS have tota). Breysig suggested nota. But the 
"known Garland" is poor. 
638. All of Pegasus, not just his breast (pectore) and wings 
set, according to Aratus 627: "τόμος ἀπεξομένην κεφαλήν 
μέτα Σεταλ Ἐπιμοσ". Hence I have accepted Maybaum's 
corpore. Pectore comes from a repetition of the same word 
in the same place in the following verse. 
640. Andromeda: cf. my note on line 201. 
641. Insequitur: Arat. 629-30 has: μέχα Σεῖμα/Κῆτεος,, 
ἐπάχει νότος. Sequitur is too weak for this. Moreover, 
insequitur explains the preceding occasum (occasu insequitur 
became occasum sequitur). Vementi: "at Plaut. rud. 71 
Arcturus says uehemens sum exoriens, cum occido uhementior" 
Housman p.35. If correct, uementi is transferred to occasu 
from Pristis, as in 723 claro is transferred from Orion to 
ortu. Orelli suggested metuentis (cf. Auien. 1157-8: 
formidatam.../ speciem)
crista super caelo fulget: the crest on the Sea-Monster's back (λοφίς: Arat. 632) still shines. His head has set, for he sets head first (ἐς λοφίνιν τετραμμένον, Arat. 632).

642-3. Caput etc. Here Germanicus is not following Aratus 633, who states that Cepheus' head, hand and shoulders set, but agrees with the correction at Hipp. 2,2,50. If Cepheus' head has set, he cannot be altis intactus ab undis (the transmitted text). He is alias intactus ab undis.

644. Non prius: ' Grotius alters quam to quum for the sake of sense; but the repetition of Scorpios has no point' Housman p.35. Fluxerit can be defended by Luc. 8,172-4: fluunt labentia caelo ... / sidera. Cf. also Germ.613 Delphinus ... defluxerit undis. Grotius' fugerit is further from the transmitted fulserit.

647. Non ego non primus, the transmitted text, contains one non too many. For palaeographical reasons, I think haec ego non primus the most attractive substitute (HECEGO was reduced to HEGO and non interpolated in place of the H). Another possibility is hoc ego non primus. In both cases cano should be understood from cecinere. Burman suggested non ego sum primus (the same order non ego sum is found in Prop. 3,11,32: non ego sum stultus). But the similarity of SVM and PRIM seems barely sufficient to explain the omission of sum, leading to the interpolation of non. Goodyear suggested to me as possibilities either non ego nunc primus or (further from the transmitted text) non ego nunc primum.

651. Housman p.36 remarks that 'Angustus stipes is a cudgel affording insufficient room for a colony of white ants which have eaten it hollow' and defends his emendation augustas from Auienius' imitation of Germanicus (1180 sqq.): 'Cum sacrata Chii nemora et frondentia late / bracchia lucorum, cum siluae colla comasque / deuotae tibimet (i.e. to Diana) manus impia demolita est, / audax ut facinus donum foret Oenopioni'. He continues: 'when the s was lost the change of
gender was inevitable". Orelli's ambusto has merit, (cf. Sil. 8,549: gestabant tela, ambustas sine cuspide cornos). 658-60. The transmitted quamquam parte relictta/ caeli poene fugit, tamen altis meruitur undis (taking poene as a medieval spelling of paene) means in effect "although he almost sets, nevertheless he sets". The absurdity of this is evident. Orelli suggested pone for poene, but "although he sets, nevertheless he sets" is just as absurd as the transmitted text.

If fugit is to be retained, it must refer to something other than Orion's setting. I suggest Germanicus wrote something similar in sense to horret uulnus adhuc et spicula tincta ueneno/ flebilis Orion (found in 657-8), namely: et, tamquam parte relictta/ poenae, tela fugit. Relinquo is used with the abstract poena. A similar usage is found in Cic.Rep. 2,37,62: non prouocatione...relictta. Relinquo is used with the notion of a part being left in Cic. Post red. ad sen. 9, 24: exiguum reliquae uitate tempus...ad commemorandam gratiam mihi relictum putarem. The sting in the tail of the Scorpion is referred to by the plural tela (also used of it by Auien. 671: Germ. 393, 491 and 657 uses the plural spicula of it).

My conjecture was suggested by Grotius' quamquam parte reiecta/ teli paene fugit. Grotius' conjecture does not remove the absurdity of the transmitted text, and adds a very odd reference to part of Scorpio's sting being uncovered.

I suggest the following sequence leading from my conjecture to the transmitted text: tamquam became quamquam under the influence of the following tamen; poenae tela became tela poen(a)e by transposition (cf. 78: mense cum pleno O pleno mense(m) cum Z 576 signo Phoebus O Phoebus signo Z) and tela became teli to fit the metre. It is a small step from teli to celi (caeli).

Lines 657-60 expand Arat. 643 ff: σκόρπιον, ὃς ἐὰν μὲν ὀντα.../Τοῦ καὶ φασὶ περαισθεν ἐρχομένου/ Ἔσκοπτιον Ἐρινα περὶ Χθενὸς ἑσχάτα φεύξεως. Tamen in 659 contrasts Orion's fears (mentioned in 657-9:}

165
horret uulnus etc.) with his real safety (659-60).

661 ff. Germanicus omits from his account Aratus' statements about Cepheus (lines 649-52), as they are incorrect. Cf. Germ. 642-3 and my note on these lines.

665. Canchli. A scribe has altered this unfamiliar word to cancri, which occurs passim. Plin.N.H.5,65 describes Arabia Petraea. It appears from his description that a tribe called the Canchlei occupied the north-east of this area. Hence the litore Canchli mentioned by Germanicus lay on the shore of the Mediterranean just south of Palestine. Konon, whose floruit is placed by Photius (Bibl. 186 p.130 b 25: Jacoby, F.Gr.Hist.1,190) in the reign of Archelaus (36 B.C.-17 A.D.) relates (Konon Fr.40, Fr.Gr.Hist.1, 204, 35 ff): Ἐν τὰ τῆς ἀρχής ἡ ἱστορία τῆς πατρίδος καὶ τῆς ἐποχῆς τῆς ἀρχιτέκτων ἡ ἐξονσιά μὲν ἔριδεν Ἀράβων τῶν πρῶτον ἔριδεν ἡ ἐξονσιά μὲν ἔριδεν. Germanicus is following this account of the locality of Cepheus' kingdom.

667 totius...Coronae: Arat. 660: οὐρανὸς θεοθεστής ἡ κύκλα (i.e. the remaining half).

669. Chiron = the Southern Centaur (not Sagittarius, the zodiacal constellation). Germanicus states that the Southern Centaur is Chiron in line 421.

670. Vastus et is an interpolation added after the loss of the second iam toto by haplography.

673 & 677-8. Arat. 672-3 states Engonasin's head as well as his left hand rises with the Archer. Germanicus omits the mention of his head. In this he is correct. Hipp.2,5,3 (p.188, 10-11 ed. Manitius) states that the star in the tip of his left hand is the last to rise. Germanicus may have made the alteration from this, or may be following a lost source. Hipparchus 2,2,58, criticizing Aratus, is wrong and self contradictory.

675 + extulit (676) render Aratus 663-4 (τολ θ' etc.).

676. Extulit: Effero is very commonly used of the rising of stars (cf. TLL 5,146, 81 ff.). Expello is not so used;
It is too vigorous a word; cf. TLL s.u. expello.

676  celsis astris. cf. my note on 626.

676. Ophiuchus. This line and 677 (to the word serpens) represent Aratus 665-8. Germanicus has omitted the detail that both Ophiuchus' hands rise with the Scorpion, declared wrong by Hipparchus 2,2,55.

677  trunca recepta + 678  "The construction...is recepta manu desinit esse trunca membris" Housman p.27.

679. Cycni dextera penna is an addition by Germanicus (cf. Hipparchus 2,3,3). Germanicus seems to have used a fuller source than Hipparchus, however.

680. Germanicus is not following Aratus (674-5), who states that Cepheus rises as far as his breast, but agrees with the correction by Hipparchus 2,2,59.

It passes belief that Germanicus could say "Cepheus returning with his constellation (i.e. himself)". Nor do I think it possible to take cum as a conjunction, when it comes just before sidere and so far from the beginning of its clause. Tum is an easy correction. Grotius corrects cum to tum at 636.

Radit...sidere: in Manil. 1,365 Haedi cludentes sidere pontum, sidere is equally otiouse.

682. Semper tutus in undis/ est Lepus "the Hare, ever safe <from Orion>, lies in the waves (i.e. has set)" makes good sense, but is not close to the corresponding passage of Aratus (667-8): Σύνωσεν .../ πάντα χε μήν ἄτελε ἐστα ... κομένος Λαγώς. Hence I suggest Germanicus may have written:

et semper <tutus ab illo sed semper metuens instantem> totus in undis est Lepus.

Totus corresponds with Aratus' πάντα and also supplies a palaeographical explanation of the omission, from its similarity with tutus in the same place in the line above. Semper is used in a way similar to Aratus' ἄτελε στα.

685. Aratus 685-8 says that all Perseus save his right knee
and foot set with the Archer. Germanicus agrees with the correction by Hipparchus 2,2,60.


690. Omnibus et stellis Cygnus reedit: this is stated, since part of it has risen before. Cf. 679 and my note on that verse.

691 paruus Delphinus. An addition by Germanicus. The information is given by Hipp. 2,3,10.

692. This Garland is the Southern Garland; it is not mentioned at all in Hipparchus' extant commentary on Aratus. Aratus does not mention it here, but mentions its stars in 399-401: ἀλεστέρι τοῦ μεν ἄλλου/νυκτὸς ἔπεσον ὄψιν ἐπρότερον ἔλεγον/ἀλεστέρι κύκλῳ περιηγείτε εὐλογοντα. In the passage corresponding to this (391-2) Germanicus says: est et sine honore Corona/ ante Sagittiferi paulum pernicia crura. The stars of this Garland lie between 9° 10' and 17° of Sagittarius, according to the star catalogue in Ptolemy's Almagest (2nd. vol., pp.164-7 of the Teubner edition of J.L.Heiberg). Hence Germanicus is correct in placing the Southern Garland among the constellations that rise when Capricorn begins to rise (i.e. that rise between the 2nd. degree of Sagittarius and the 1st. of Capricorn).

693-4. ore/ et ceruice tenus: as far as its head and its feet, according to Aratus 694.

698. Hydram plus mediam condit: "it hides more than half the Water Snake". Cf. Liu. 34,1,3: ne qua mulier plus semunciam auri haberet; 36, 40, 5: plus partem dimidiam ex quinquaginta milibus hominum caesam.

Germanicus is not following Arat. 697-8, who states only its head and neck set; Hipparchus 2,3,5 states Hydra begins to set a sign earlier than Aratus states. Germanicus has corrected Aratus from another source.

702-3. Se liberat etc. render Arat. 703: δὲ μὲν ἄδην ἔφεσα,
The transmitted et liberat ortus: 'it frees its process (or place) of rising' is not satisfactory in sense. The metre surgit et might, however, be defended from abit in 128, and the passages I cite on that verse. There are various possible corrections: se for et (Goodyear). Se liberat ortus cum = 'it frees itself, having risen when'. (Goodyear also suggested ortu for ortus. Se liberat is paralleled by 668 totum se liberat Hydrus). Another is sed (Grotius) liberat ora (Thierfelder); although the fact is not mentioned by Aratus, the mouth is the last to rise.

704-5. Germanicus is not following Arat. 704-9, who states that part of Andromeda rises with the Ram, but agrees with the correction by Hipparchus 2,3,17.

705. Nereidas ... fugit. By coming out of the sea, she escapes the sea nymphs, who had her chained to a rock.

707. If Perseus is still rising when the Pleiades appear (708-9), he cannot have already risen under the Ram. Hence a line or lines must have been lost after 707, in which it was stated how far Perseus has risen under the Ram. If Germanicus followed Aratus (711): Περσέας αντέλλοντος ή σώματος χειρόν ἐπὶ καὶ ὄμης, the line lost meant 'as far as his head and shoulders'. If, however, he followed the correction by Hipp. 2,3,26-7: ὃνοι σχεδὸν ὁ Περσέας πλὴν τοῦ θρήσκευτον ποδὸς καὶ τοῦ γανατοσῖτι meant 'except for his left knee and foot'.

709. I can see nothing to choose between Tauri and Taurus in sense. Dextro Taurus cognoscitur armo = 'Taurus can be perceived as far as his right shoulder'. Tauri, however, is closer to the transmitted text.

710. This line is an addition to Aratus. Sine curribus ullis: Germanicus also states that he has no chariot in 161 (sic nulli currus). The transmitted text cannot be retained, as, if he has no chariot, he cannot be fixus in currus.

Halma suggested *ut* for *et* (*fixus ut in curru* = "stuck as if in a chariot"). *Fixus* being unsuitable (what is the Charioteer stuck to?) Goodyear suggested *flexus*, Kenney nixus. But there is no evidence that the Charioteer is still practising his arts in a phantom form in heaven, indeed Germ. 161 (*ruptis maestus habenis*) states he has given them up. Nor is he represented as bent in the sky, but as upright, facing the observer.

718. Of Arat. 721-3 Germanicus renders only the first three words; the information given by Aratus that Bootes sets with four signs is incorrect. Cf. Germ. 595-7 and my note on these verses.

719. I have changed *et* to *at*, as all the other sections in Germanicus describing the *σωματεκλαυμα* which begin with a particle, begin with *at* in the transmitted text (604, 634, 674) and the transmitted text of Auienius 1308 (in a passage - 1308-10 - closely modelled on Germanicus: *at cum iam pedibus repetit fluctus Ophiuchus/ ut genua Oceanus uasto procul aequore condat,/ signum erit eoa Geminos procedere parte*) has *at*, and *at* is much more likely to have been corrupted to *et* in Germanicus than *et* to have been corrupted to *at*.

721 *terga* = body. Cf. the passages cited by Housman on Manil. 1,340 and in his addenda to that line.

722 *deprendat* : σκεψιτό κε Arat. 729.
Germanicus concludes his rendering of Aratus at Arat. 731. The fragments 2-6 that remain of the rest of his poem are not based on Aratus.

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**Fragments 2-6**

Germanicus' model or models for this part of his poem, if any, are unknown. Fr. 2, 10-11 (Designat tempora Phoebe/ menstrua) however, appears to derive from a Greek source (Greek months were based on the moon's cycle, Roman were not).

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**Fragment 2**

This fragment, found only in Z, describes the motion of the planets and is an introduction to the discussion in fragments 3 and 4 of the astrological effects of the planets.

Z exhibits fragment 3 before fragment 2. I offer the following theory to account for the dislocation in Z and loss of the lines from 583 to the end of fragments 2 and 3 from Q. The lines lost in Q occupied one gathering in the archetype. The second last leaf of this gathering contained fragment 3, the last, fragment 2. The binding of the quire was weakened and these leaves became detached. They were put back loose in the book, but got into the wrong order; Z, or an ancestor, copied them in the wrong order. Subsequently the whole quire became detached, and was lost, together with the two detached leaves. Hence the omission in Q of the lines it contained. The loss of a quire was, of course, quite evident to the scribe, who left several blank lines between 582 and iv 1 (a blank preserved in several of its descendants).

Fragment 4 follows on directly from fragment 3, as one would expect from this theory. Fragment 2 may or may not follow directly on the adaptation of Aratus (lines 1-725).
If it does not, something must have been lost either prior to the archetype or prior to copying (more detached leaves, which were lost, not put back in the book?) Something is lost also between fragments 2 and 3. That may be due to the fact the lines were becoming increasingly illegible in Z (λ has lost 4 lines, preserved in E). If my theory is correct, the lines were probably present in the archetype, for fragment 3 has 28 lines. One would expect fragment 2 to have had about the same. The detachment of the page containing it perhaps led to its progressive deterioration, making its final lines illegible. The verses of Auienius found in Z after ii 16 were interpolated subsequent to the archetype.

1. This verse asserts that the sun never varies in the path it travels, among the constellations. Germanicus (following Arat. 452-3) has a similar sort of assertion in 435-6, of the constellations: sors sua cuique data est, semel adsignata tuentur/ inmoti loca nec longo mutantur in aevo.

This verse is similar to 531:

haec uia Solis erit, bis senis lucida signis.

Two other verses are also similar, although not so strikingly:

473: hunc octo in partis si quis diuiserit orbem and 526 in sex signiferum si quis diuiserit orbem.

2. Cythereius ignis = Venus. Venus is so called from the island of Cythera, sacred to her. Cythereius ignis is also used of the planet Venus in 4, 69; Sil. 12, 247, Anth.Lat.ed. Riese 941, 6.

3 cristatus uertice: because he is the god of war. Cf. Sid.carm. 5,13-4: bellatrix...Roma/ cristatum turrita caput.

4 celer. Mercury is celer both as a messenger and because he is the swiftest of the planets. Cf. Luc.1, 662 celer Cyllenius, Hor. carm. 2,7,13 Mercuriusque celer.

5 tristi...lumine tardus. Saturn is the god of old age and gloom. Cf. Manil.2,931-5: media sub nocte iacet, Saturnus in illa/parte suas agitat uires, deiectus et ipse/ imperio quondam mundi solioque deorum,/ et pater in patrios exercet
numina casus/ fortunamque senum. It is also the slowest of the planets known to the ancients.

6 omnibus his gemini motus. "Verses 8 and 9 distinguish between the proper motion of the sun and moon and planets through the zodiacal signs from west to east and their diurnal motion about the earth from east to west in common with all the heavens" Housman p. 37, footnote. The first motion is described in 6-8 (up to the word pede), the second in 8-9.

7-8 nisus...lento pede. Lento pede continues the metaphor of a man travelling begun in nisus.

9. The transmitted concitus alter/ inuitos rapit et caeli circumrotat orbem is a clumsy way of saying concitus alter, qui caeli circumrotat orbem, inuitos rapit. I feel it much more likely Germanicus wrote what I have printed. The sun, moon and planets are then the object of both clauses. The change of orbe to orbem, by someone who saw in it the object of circumrotat, is readily understandable.

10. Germanicus is referring to the nine celestial spheres (cf. astrorum globos in 5,1). These nine are, in order: that of the fixed stars, of Saturn, Jupiter, Mars, the sun, Venus, Mercury, the moon, the earth (Cic. Rep.6,17). The sun is medius, for it is the middle one of the whole nine, and the middle of the seven spheres of the planets.

17-20 exist only in E and have never been printed before in the main body of a text (Baehrens and Breysig printed them in the apparatus). Following Housman (p.37 footnote) I have assigned them the numbers 17-20. Their existence only in E is no reason for regarding them as spurious. A glance at the stemma codicum shows that they could simply have been omitted by \(\Lambda\) (common ancestor of C and L) and hence been preserved only in E. Breysig rejected them on the grounds (1) that a mention of Saturn is missing. I have met this objection by marking a lacuna after 18, in which a reference to Saturn has been lost (2) 19-20 mean the same as 8-9. As Housman (p.37 footnote) points out, this is untrue.
"Verses 8 and 9 distinguish between the proper motion of sun and moon and planets through the zodiacal signs from west to east and their diurnal motion about the earth from east to west in common with all the heavens. Verses 19 and 20 refer to the periodical acceleration and retardation of the former of these two motions".

20. I think the transmitted sumpto may be sound, pigro sidere sumpto equalling pigritia sumpta (cf. for sumo + abstract, Hor.Carm. 3,30,14-16: sume superbiam/ quaesitam meritis.../...Melpomene, Ep. 2,2,110: cum tabulis animum censoris sumet honesti). Baehrens' somno may well be right, the words completing the sense being lost in the lacuna.

Fragments 3 and 4

Fragment 3, preserved only in Z, and 4, preserved only in 0, are continuous, as Housman was the first to perceive. They describe the meteorological effects of a planet in a sign of the zodiac the sun has just left. Naturally, in many cases, the effects Germanicus assigns to particular signs correspond with the weather at the time of year when the sun has just left this sign.

1-2. An interpolator has been busy at work here, adding unnecessary references to signs. He has written Pisces at the end of 2 (changing the verb to the plural spargunt to fit a plural subject). Pisces are mentioned by Germanicus in their proper order in 19-22. At the end of 3 he has, in defiance of the metre, introduced a further reference to Aries. 1-2. In these lines as they are transmitted, permixtus is unmetrical, as is uicina (unless it is ablative), and Piscis do not belong. The subject is Aries, hence spargunt is the wrong number. Nor does spargunt have any object. To remedy these defects Grotius proposed:

grandine permixtas Aries niuibusque caducis
spargit uicinas supra iuga tristia nubes.
Vicinas... nubes refers to clouds lying suspended above the ridges. A reference to clouds mixed with hail and falling snow is odd; one would expect a reference to rain. (cf. iv 34: tum resoluta dabit nimbos cum grandine nubes). I have examined Kühner-Stegmann and other works, but can find no examples of two attributive adjectives such as permixtas and uicinas placed in the order permixtas uicinas nubes. Examples such as Germ. iv 64-5: aut glomerata cadit quam densa per auras/inmitis grando are not relevant, as glomerata is used predicatively. Ellis’ suggestion:

grandine permixtos Aries niuibusque caducis
aspargit (or dat spargens), uicina supra iuga tristibus, imbres (Noctes Manilianaæ, p. 241) removes these faults, but tristibus is unsatisfactory. More than just this word is required in order to introduce a reference to men affected by this weather. Since it does not seem possible to find a plausible conjecture in which the second last word ends in a consonant, the word imbres would seem to be excluded. This leaves the word nimbos, which Germanicus uses in iv 34, quoted above. I have printed:

grandine permixtos Aries niuibusque caducis
uicina aspargit tristis supra iuga nimbos.
The picture is of clouds lying near the ridges, and rain, snow and hail falling from them.

The loss of the a of aspargit after uicina is an easy corruption. The spelling aspargo is found in several early MSS (cf. the beginning of the TLL article on aspergo). The transposition of uicina and spargit is not difficult. Cf. my note on Germ.651. Permixtos became permixtus under the influence of the next word Aries. Tristis is nominative with Aries. It would not make any difference to the sense if it were taken as acc.pl. with nimbos, but the resultant permixtos tristis nimbos is very implausible (cf. my discussion of permixtas uicinas nubes above).
Aries is called tristis. The effect of the sign on the weather is transferred to the sign, as in iii 9: siccus erit Leo.

For the clausula cf. 312, 370, 466, 570 and 609.

6. Perstridunt does not occur elsewhere. If sound, it = stridunt per. But Germanicus has no similar uses of compound verbs elsewhere, nor does he show any fondness for grammatical oddities. One could write stridunt per, but the transposition of per is not readily understandable. Hence I have adopted Housman's easy change to perstringunt.

9. The weather will be hot under the Lion, as his breast burns with rage. (cf. Auien. 395: adsiduis ardet Leo viscera flammis).

12. Caelo minitabitur ignis = 'threaten the sky with fire'. (this construction is illustrated with this, and other examples, by TLL 8,1025,51-67). But the context requires the sense 'threaten fire from the sky'. This is given by caeli minitabitur ignis. I believe that someone, well aware that minitor takes the dative, altered caeli to caelo (consciously or unconsciously), giving excellent grammar, but a sense inappropriate to the context. Similarly, in ii 4, caeli has been altered to caelo to be the same case as regno, to which it appears to be coordinated with que. The alternative, that Germanicus chose to write caelo (ablative; = 'from the sky'), despite the fact that the natural way to construe caelo is dative, seems to me less probable. I have accordingly written caeli. Caeli minitabitur ignis simply means that lightning flashes (cf. Sen.N.Q. 2, 12, 1: fulguratio ... comminatio est et conatio sine ictu).

13. E's ctur probably arose out of quieta by the omission of q after a and corruption of eta to ctu and then ctur. E has numerous mistakes and omissions of letters in fragments 2 and 3. With L's quieta, this line makes good sense in itself (a very similar use of inuenire is found, as Courtney points out to me, in Val.Flacc. 4, 724: utque uel inmotos Vrsae
rigor inuenit amnes) and the present inuenit between the futures minitabitur (12) and rigebunt (14) can be defended from the tenses in 616-22. But in its transmitted place magis inuenit arua quieta is strange. With lightning, strong winds and snow, the arua are anything but quieta. Hence Courtney transposes it to follow 15, remarking that 'magis quieta seems a reasonable correspondence to 14, just as rara in 15 contrasts with adsidue in 12'. I have accepted this, as the verse does not seem to fit anywhere else.

14. I do not think that uentos can be retained (as object of minitabitur). Lightning flashing is "threatening fire", but how is "threatening fierce winds" demonstrated? Hence I have adopted Grotius' uenti.

15. Pluluia does not scan. Something must be substituted which will. Grotius proposed flumina, used nowhere else, as far as I know (cf. TLL s.u. flumen) by itself, to mean 'rainwater'. I proposed, in a seminar at the Classical Institute in London, either fulgura or fulmina. While both are used with cadunt (cf. TLL 3,19,7 ff), I can find no examples with descendunt. Skutsch objected to these conjectures that descendunt implies too slow a rate of descent (cf. against them Sen. dial. 5,1,4: fulmina... non eunt, sed cadunt N.Q. 2,13,1: ignis, quem natura sursum uocat... Non descendit ignis, sed praecipitatur et deducitur).

The only suitable word seems to be flamina, which Skutsch proposed. It is used with descendere in Val.Flacc. 7,25: grataque iam fessis descendunt flamina remis. Cf. also Val.Flacc. 1,686: molli Zephyros descendere lapsu/aspiciunt.

17. The transmitted instabilique gelu falli uestigia passus = 'and permitting men's steps to be deceived by the unstable ice' (i.e. causing the ice to crack and men to be thrown into the water). This contradicts frigora durat in the line above.

TLL s.u. instabilis adds three passages where the word is said to have the meaning ubi facultas standi non est, this passage and two others. But in the two other passages (Sen.Oed.909-10: quidquid excessit modum/pendet instabili loco and Tac.Ann.1,64,2: locus uligine profunda, item ad gradum instabilis, procedentibus lubricus) instabilis need mean no more than vacillans (i.e., liable to give way under one), a sense illustrated by TLL with numerous examples in B2 above. The meaning required for instabili, if the transmitted text of Germanicus is to yield the right sense, is 'slippery'. TLL adduces no evidence that it can have this sense.

Elsewhere (137-8; 318-9 and, by Housman's conjecture, 272-3, also Manil.5,551: astrinxere pedes scopolis iniectaque uincla) a participle is used as the main verb of a clause, coordinated to the previous clause with et or que, but in 138,319 and Manilius the participle follows a verb in the past tense, in 273 (erectaque dextra) it indicates a state. I doubt very much whether these passages can defend que here.

As instabili gelu and que both appear unsatisfactory, I suggest Germanicus wrote instabiliTA gelu falli uestigia passus (= 'permitting men's feet to become unsteady and slip on the ice'). Instabile uestigium is found in Plin. Paneg.22,4: locum qui non nisi suspensum et instabile
uestigium caperet. The word instabilio is used by Hygin. De Munit. Castr. 54: angulos castrorum circinari oportet, quia coxas efficiunt instabiliumque opus (et oppugnationem magis quam) propugnationem tutant (= 'you should round off the edges in your camp, for they form "hips" (points where the sides meet, as bones meet at hips) and so weaken the structure, protecting the attack more than the defence'). I have marked a lacuna after opus, which I have filled from Vitruv. 1,5,2: angulus magis hostem tuetur quam ciuem. The omission can be explained by the similarity of et oppugnationem and propugnationem.

The change from instabilita gelu to instabilique gelu is easy. On the confusion of a and q. (= que) cf. Housman on Manil. 4,610. The change is the easier as it is from a rare to a common word and to a case agreeing with that of the following word. I suggest Germanicus used instabilita, as the normal instabilia does not scan.

Goodyear suggested in a seminar at the Classical Institute, London, that Germanicus may have written instabilique gelu (or gelus) fallit uestigia passu (taking gelu as nom.). In a letter to me Diggle advanced the objections to this that "it seems to suggest that it is Frost who is treading unstably" and "gelu nom. is inadequately attested". TLL s. u. gelu (introduction) states that all forms of the nominative and accusative are attested in late Latin, and individual forms in the following authors: nominative: gelus in Cato, Afranius and Accius; gelu in the poem Nux, line 106 (a work transmitted among the poems of Ovid, but of uncertain date and authorship); gelum in Varro R. R. 1,45,2: accusative: gelum (masc.) in Cato; gelum (neut.) in Lucretius. It looks as if the nom. and accusative were avoided in literary works of Germanicus' time. The ablative gelu is, however, common.

Diggle very tentatively suggested instabilisque gelu fallit uestigia passus (taking gelu as ablative and taking
instabilis...uestigia passus as 'the steps of an unstable tread', which he described as 'sense of a sort', expressing, however, grave doubts whether this periphrasis is acceptable. I share his doubts, and far prefer my conjecture, which I have printed.

I suggest that falli passus, not fallit, is used here as men slipping is not, like the weather conditions described elsewhere in iii 1-22, something a sign brings, but only something that is liable to, although it does not necessarily, happen as a result of the weather.

22. Niue moenia durant seems corrupt. The sense 'the city walls endure owing to the snow' is absurd in itself, the sense 'the city walls grow hard because of the snow' is all right in itself. But why city walls should be singled out in this context is inexplicable. There is a further difficulty in this interpretation, namely that durant has to be taken in the sense durescunt. There seems to be only one parallel for this, Aetna 497: flumina...frigore durant, and this poem has been transmitted in a very corrupt state (so, e.g., flumina might be the object of durant, the subject being lost in a lacuna). At Verg. Ecl. 6, 33-6: ut ex his exordia primis/omnia et ipse tener mundi concreuerit orbis;/ tum durare solum et discludere Nerea ponto/ coeperit et rerum paulatim sumere formas it is perfectly satisfactory to take mundi orbis as the subject of durare, and solum as its object, not its subject.

Conjectures for moenia which give durant (intransitive) the sense 'become hard' - germina and gramina Kroll WKPh (loc. cit.), mollia W. Morel, flumina (a hand in the British Museum Library copy of Schwartz's edition), nimbi Courtney (in the order nimbi niue durant) - que omnia might also be proposed - are ipso facto suspect, and are all unsatisfactory in other ways. Why germina or gramina (or any other feature: compita would be better palaeographically) should be singled out, is not clear. The identity of the mollia is hard to discover. Niue flumina durant
is not satisfactory, as rivers do not become hard because of the snow, but because their waters turn to ice. Nimbi niue durant: falling snow can hardly be said to be harder than rain, and fallen snow does not freeze rain, rain turns the snow into slush (in a temperate climate). Niueque omnia durant does not seem to give a very good sense either, as rivers and the sea do not become hard because of the snow. Moreover, the two clauses comprising 122 are better without que joining them. Que joined to e can be partly defended by Germ. iv 59 Virgineque et Libra, Prop. 3, 21, 13 iungiteque extremo, Tib. 1, 3, 34 reddereque antiquo. A que added to a pyrrh is found elided in this position in the verse in Verg. Aen. 3, 156 nos te Dardania incensa tuaque arma securi, 9, 273 corpora captivuosque dabit suaque omnibus arma, 10, 672 quid manus illa uirum qui me meaque arma securi, 10, 791 hic mortis durae casum tuaque optima facta. Kenney observed that the difficulties of que and of duro used in the sense 'be hard' could be met by writing nix omnia durat. It is conceivable that nix could have been changed to niue to correspond with grandine at the beginning of the line.

Because of the difficulties in the proposals mentioned above, I believe another approach is required. I suggest durant should be dura est (durast). Moenia should be emended to some suitable adjective or participle agreeing with tellus. I have looked through all the words ending in enus eus inus itus ius and ulus in Gradewitz's reverse index of Latin words (Laterculi uocum Latinarum). The only suitable word is condita, which I have therefore printed. I suggest the following as a possible sequence of corruption: durast became durant; niue became niuem to provide durant with an object. An incorrect division of words then followed, leaving condita or a corruption of it with the m and this sequence of letters was altered to the Latin word moenia. Alternatively, the sequence dita was omitted before
dura and the gap filled with the interpolation moenia. Niue dura (snow which has become hard on the ground) is contrasted with snow which has just fallen. Cf. Sen. N.Q. 4,5,3: minus algere aiunt pedes eorum qui fixam et duram niuem calcant quam eorum qui teneram et labefactam. There is snow, rain and hail in Pisces, as in Aries. The passage 1-22 has grandine at the beginning of its first and last line.

28. Mitissimus is, as Housman p. 36 says, an absurd epithet to apply to Saturn, especially after rigor accedit uentis. Housman suggested in its place lentissimus. If this is correct, lentis fell out after the preceding uentis and an interpolator filled the gap with the first thing that came into his head, giving mitissimus. Housman suggested two other words, tristissimus and maestissimus, both of which are reasonably close to mitissimus. But neither is quite as attractive palaeographically as lentissimus.

As Housman p. 36 observes, there is no break between iii 28 and iv 1 in sense. Hence there is no reason for supposing that anything has been lost between the verses. I offer a theory to explain how fragments 2 and 3 are preserved only in Z, fragment 4 only in Q, in my introduction preceding fragment 2.

iv 2 ff. A mention of Aries being missing, and the happenings in 4-6, unlike all the following ones, not being assigned to the presence of Jupiter in any sign, I have marked a lacuna after verse 2, in which a verse such as et stetit in signo mundi quod continet arcem was lost. A glance at the surrounding context will show that the lacuna could only have occurred here. The word stetit in my suggested verse is from sisto. Cf. my note on iv 35. Manilius calls Aries the sign mundi quod continet arcem in i 262.

6. The transmitted arto is satisfactory. Talking of
leporaria (but he cites a case in which this enclosure was used for pregnant ewes) Varro R.R. 3,12,3 says: quis enim ignorant saepta...ita esse oportere...ut...sint alta? ...ne lupus transilire possit. Ellis (Noctes Manilianae p.242) quotes Maximus Περὶ καταρχῆς 514-5 (ed.Ludwich): ἀλλὰ σὺ μοι τίμεσθε βάλοις περιμήκεα σημεῖα/ἀρνασὶν ἔριφοιοι. Orelli's arto may be right. It is close, and gives a picture of lambs bleating because confined in a narrow space.

11. Rapidos...aestus. No need to emend to rabidos, with Orelli. Cf.Verg.Ecl.2,10: rapido...aestu and my note on Germ.6 (in the part of the poem adapted from Aratus).

14. Jupiter, not Leo, is the subject of this line, hence, as Housman p.36 says 'incipit, which is due to repellit and cludit, must be incipis: the return to the third person is managed at 18 by means of a new vocative "tua, Liber, munera condit".'

From the agreement of v and M, it seems that sorbere was the reading of O. Soluere of AS seems to be a conjecture (these manuscripts have many). Sorbere neither scans nor makes sense. I think soluere can be accepted, the line, with it, meaning 'you begin to take the weight of their vows from the farmers'. The construction is that in Verg.Aen.1,566: soluite corde metus. Jupiter is represented as freeing the farmers from the oppressive weight of their unfulfilled vows. This he does when the farmers fulfil their vows to him. It is true that uota soluere is regularly used to mean 'fulfil one's vows', the god to whom one fulfils them, if mentioned, being put in the dative case. But this sense is obviously inappropriate here.

I have thought of sumere for sorbere. Incipis agricoli...sumere uota could conceivably be taken as 'you begin to exact fulfilment of their vows from the farmers', the use of sumere being similar to that in poenas sumere.
(= 'exact punishment'). The person from whom punishment is exacted is put in the ablative case, preceded by ex, de or ab (cf. Lewis and Short s.u. sumo 1B2). I know of no example with the simple ablative, but this might be defended on the grounds that poets often use constructions without prepositions where prepositions would be used in prose. But as the use and construction of sumere I posit here seems unparalleled, I prefer the conjecture solvere, which is in any case closer to sorbere.

16. The transmitted primum seems to me to be satisfactory. Cf. Prop. 4, 8, 49-50: cum subito rauci sonuerunt cardine postes/ nec leuia ad primos murmura facta Lares. The first household gods had their statues beside the pair of doors at the front of the house; they are called primi to distinguish them from the Lar or Lares at the hearth (mentioned in Cato R.R. 143, 2 and elsewhere). Why Propertius uses the plural Lares, Germanicus the singular, is not clear. Perhaps, while the more luxurious city house Propertius is talking of had two or more statues at the front, the average country farm house had only one. But perhaps the variation in number has no significance.

Orelli suggested patrium for primum. This can be defended from Tib. 1, 10, 15: sed patrii seruate Lares; 1, 3, 33-4: at mihi contingat patrios celebrare penates/reddereque antiquo menstrua tura Lari. Kroll (RhM 1905, 557) conjectured priscum, which is defended by Tib. 1, 3, 33-4 quoted above, 2, 1, 59-60: rure puer uerno primum de flore coronam/fecit et antiquis imposuit Laribus and 1, 7, 58: antiquo... Lari.

Germanicus seems to have modelled himself on Tib. 1, 1, 15-6: flaua Ceres, tibi sit nostro de rure corona/spicea, quae templi pendeat ante fores.

'while climbing the Archer, Jupiter gives his sign (i.e. the sign he is in) to winter, making the sign perpetually gloomy; when in Capricorn, however, he gives to winter a sign which is moderately attractive'. If sidera is right, sid probably fell out after sua and the missing syllable was interpolated from the munera of the previous verse. I find the expression, with Iriarte's conjectures, rather odd. Perhaps the corruption is deeper.

23-5. The punctuation adopted is due to Housman. Before him, editors placed a comma at the end of 21 and a full stop at the end of 22. This punctuation is expounded and criticized by Housman (p. 36) as follows: "That is: the planet Jupiter causes tempests in Aquarius and Pisces, supposing that he comes to a halt in either (quocumque must mean utrolibet) of those signs. But we have not yet been told what weather he causes there when he does not come to a halt. Then follows the information that he creates thunderstorms in Aries and Leo. But his doings in Aries and Leo have already been related in 3-6 and 12 sq. Therefore the punctuation must be altered". Housman expounds the text with his punctuation as follows "In Aquarius and Pisces he causes tempests. Supposing he comes to a halt in any of the twelve signs already enumerated, the result is thunder if the sign be Aries or Leo, wintry weather in every sign without exception. The literal translation of 24 is "he confounds all the signs alike with months of a wintry sort", instead of allowing them to preside over months of seasonable weather: bruma assidua atque alienis mensibus hiemps, in fact. For quicunque thus used compare Prop. ii 1 15, Cic. Phil. xii 13".

29. Siccatis is unsuitable. When their rain has fallen, clouds disappear. Spissatae is used of nubes in Luc. 4, 77.
32. 'Statio is ἀπομεῖνα, the halting of the planet: Vitruvius uses the same term in the astronomical chapters of his ninth book [cf. 9,1,6], while Cicero Tusc.i 62 translates the Greek by institio. "lentos supprimet ignes" means not "quench his fire" but "bring his fiery orb to a standstill"; and a statio is not nigra but pigra. So 22 "statuit currus...fessos" ii 19 sq. "nunc igne citato (compare lentos ignis)/ festinare putes, nunc pigro sidere somno". At phaen.294 the MSS are divided between pigra and nigra' Housman pp. 36-7.


40. In place of incertus a word is required meaning that Mars has entered Cancer. The closest appropriate word is, I believe, inuectus. This is suited to Mars, as he is borne in a chariot (cf. currus...fessos used of Jupiter in iv 22 and the language applicable to one borne in a chariot used of Mars in iv 31-2). If correct, inuectus became incetus and so incertus by transposition of two letters across an intervening space and further change (on this cf. Housman, Manilius, Vol 1, p lviii; cf. especially the examples under the lemma "with further change"). Inueho is followed by the dative indicating the place into which one goes in Tac. Annal. 2, 23, 2: Caesar (legiones) per flumen Amisiam Oceano inuexit and Suet. Aug. 41, 1: inuecta urbi...regia gaza.

An alternative, not as close, is ingressus (INGRESSUS could have become INGERSSUS by interchange of letters and so INCERTUS). Ingressus is followed by the dative in Verg. Aen. 10, 148 castris ingressus Etruscis. There the accusative castra does not scan. I can see no reason why Germanicus should have written Cancro instead of Cancrum, if he wrote ingressus. Ingressa is used of Venus in Germ iv 88: sin leuis ingressa est spaciosi sidera Cancri.
Iriarte proposed *insertus*. This seems to me to imply that Mars has suddenly been placed by some force in some part or between some parts of the Crab (for the sense of *insero* cf. TLL 7,1,1869 ff.), whereas in reality it is his own proper motion (on which cf. ii 6-8) that brings him into it.

42. Since the Scorpion possesses only one tail, the transmitted *primae...caudae* cannot be taken as 'of his first tail', but must be taken as 'of the first part of his tail', i.e. 'of the tip of his tail', as a Scorpion's sting is at the end of his tail (cf. 490-l: Scorpion *ultima cauda*/spicula torquentem, Auien.682: telum trahit ultima cauda). In Cat.2,3 *primus digitus* = 'tip of the finger', Plin.N.H. 11,65,172 *prima lingua* = 'tip of the tongue', Ou. Am.3,2,64 *primi...pedes* = 'tips of the feet'. But the end of the tail is elsewhere called *ultima cauda* (52,593), *nouissima cauda* (59), *extrema cauda* (189), *cauda ima* (637), the place qua *cauda...desinit* (344). Nor is it conceived of by anyone else, as far as I know, as the place where the tail begins. In the passages quoted above, *primus* refers to what is commonly regarded as the front of the fingers, tongue or feet. I do not see how anyone could conceive of the tip of the tail as the front. Hence I believe *primae* is corrupt.

A possible replacement would be *summae*, as the sting lies at the top of the tail, the tail being raised up (cf. 393: Scorpios erecta torquet qua spicula cauda, and tollit later on in the verse). But *summae* is not very close to *primae*, nor does there seem to be any suitable epithet any closer. Hence I suggest Germanicus wrote *rimans*. On *rimor* used of exploratory movements cf. Forcellini-Corradini s.u. *rimor* II. It is used without any object in Verg. Aen. 7,507-8: quod cuique repertum/rimanti. *Rimans* could have suggested the far more common *primas*, later changed to *primae* for the sake of the grammar.
With *rimans*, the sense of the line is similar to Plin. N.H.11,30,87: *semper cauda in ictu est nulloque momento meditari* (= "practise") cessat, ne quando desit occasioni. Manilius uses *rimans* of Scorpio's activity with his tail, although in a different context, in 4,217-9: *Scorpios armata violenta cuspide cauda/quae, sua cum Phoebi currum per sidera ducit, rimatur terras et sulcis semina miscet.*

While the transmitted *cauda* is conceivable (as ablative, going with *rimans*), the transmitted *primae* shows that the reading *caudae* stood in the text prior to *cauda.*

47. The transmitted *et uentos aut fundet aqua* is plainly corrupt. *S* has the conjecture *aquas* for *aqua*, but this contradicts 44 *Martia non illos turbabit stella...imbre.* Hence I believe *aut* should go. I have printed *et uentos adfundet aqua* (taking *aqua* as ablative, as the metre requires). *Adfundto* is used of *uenti* in Sil.17,218-9: *affusis puppes procedere uentis/...coepere.* TLL quotes no examples of it followed by the ablative, but only a few clear examples of it followed by the dative (the form for most of the examples could be either dative or ablative). Tac. Annal. 13,16,2 has *frigida in aqua adfunditur uenenum.* I have retained *aqua*, as I think it conceivable that Germanicus could have used the ablative. He may, of course, have written *aquae*. Goodyear suggested *effundet* for *aut fundet.* While this word is further from the transmitted text, it is followed by the ablative in Verg. Aen.12,276: *<hasta iuuenem>...fulua...effundit harena.* The word is used of winds in passages quoted in TLL 5,2,222,81 ff. On the use of *aqua* equalling 'the sea' cf. Cic. Verr.3,36 and 3,192.

There is a chiasmus here. Line 46 refers to *et toto etc.* in line 48, *uentos adfundet aqua* (if this is what Germanicus wrote) to *gelidissimus undae/tum rigor* (i.e. the form is al,bl,b2,a2).
48. _Tum_ seems preferable to _hinc_, on palaeographical grounds. The corruption _rim_ seems to be anticipatory. A scribe looked at the following word _rigor_, and wrote _rim_ instead of _tum_.

56. The transmitted text of this verse lacks a syllable. As changeable weather is described in 54-5, the missing syllable seems to be the word _nil_. _Nil certum_ suits changeable weather excellently.

_Litore_ makes no sense here, as there is no shore associated with the Crab in the sky. A scribe has probably unconsciously replaced the original with _litore_, so strong in his mind was the association of crabs with the sea-shore. For _litore_ Grotius conjectured _sidere_, but this is unlikely, as _sidere_ occurs in the same place in the verse above. Baehrens proposed _fulgore_. If this is from _fulgor_, it does not scan, if from _fulgur_, I can make no sense of it. Ellis proposed _limite_. _Hoc in limite_ would have to be taken as 'in the path of the sun in the Crab'. But the path of the sun in the Crab has not been mentioned before. _Hoc_ is thus inappropriate. Hence I believe Germanicus wrote _tempore_.

_Hoc in tempore_ = 'at that time'. The preposition _in_ is found with _tempore_ in Manil.5,719: _tempore in omni_, Liu. 22,35,7; 24,28,1; 25,3,12; 30,37,8; 34,27,6 (in tali _tempore_).

57. The conjecture _estus_ of an ancestor of _S_ is modelled either on iv 11 or iv 41 (both of which end with _temperat aestus_) or both. Perhaps a scribe omitted _aestus_ because he accidentally repeated _certum_ from the verse above (his eye slipped from _temperat_ to _tempore_) and _certum_ was later rightly expunged as a repetition from the previous verse.

_T_ has the conjecture _annum_ (from _temperat ... annum_ in iv 54). This requires the change of _flagrantis_ to _flag-
rantem. Baehrens conjectured auras, but "burning breezes" is strange.

57. *Haec:* The transmitted *hic* cannot refer to the feminine Venus, nor can it have the sense "here," as "here" would = Cancer, whereas this line talks of Venus' activities in Leo. *Hic* (= "here") might be just tolerable, if 57 were transposed to follow 58, although it would be otiose. The simplest remedy, which I have adopted, is to write *haec*, printed by Breysig in his first edition (1867), but not even mentioned in his second (presumably because he did not like the repetition *hoc* (56), *haec* (57). But cf. iii 28-iv i: *lentissimus ille:/Juppiter est illo laetus magis* and my note on 302 & 304).

Grotius conjectured *lucis uis* for *lucens hic*. Baehrens retained *lucens*, adopting *uis*. Both *lucis uis* and *lucens uis* are strange, especially the former. What is the significance of "the force of the light"? Baehrens' text is better, but *uis* is a strange way of referring to Venus. Far better than either, indeed, a serious possibility, is to write *uim* for *hic*. *Aestus* and *flagrantis* would then be genitive. *Vis aestus* is found in Liu.25,26,7: *intoleranda uis aestus, flagrantissimo aestu* in Liu.44,36,7 and Plin.N.H. 12,58. Another possibility is Kroll's *tunc* (WKPh 1918,307). I have preferred *haec* to these conjectures only because closer to *hic*.

59-60. In Cancer the clouds are always shifting (*nubila nec diuturna puta 55*), in Virgo and Libra they tend to stay more in the one place (*continua magis in statione manebunt*). These clouds never bring any rain, they always merely threaten it (*semper pendentia tantum*).

62. **Super** governs Scorpion *acrem*. It is postponed as in iv 52: *aetherium uenit Taurum super*. Schmidt, in his edition of 1728 (testé Breysig) proposed *Scorpios* for Scorpion, retaining *acer*. But *super* = "in the north" or "north of". Venus is always north of the Scorpion, which is, with the
exception of a few faint stars, entirely south of the ecliptic. Thus Scorpios acer is inappropriate.

64. There is no word astra. The astra of Ar is unsuitable, as hail does not fall through the stars. Grotius conjectured aethram, but this word seems to refer to the upper air, or imply a clear sky (cf. OLD). It seems inappropriate when a thick hail storm is being described. Ellis conjectured austros. But it is odd that dense hail should be described as falling only in the south, there being none elsewhere, whereas there is rain and thunder everywhere.

I believe Germanicus wrote auras (conjectured by Housman, who posited corruption to aitras and so to astra). On confusions of u in Carolingian minuscule cf. Havet, Manuel de Critique Verbale 628-30. Aitras could have been altered to astra to give a Latin looking word, the similarity of i and s helping; cf. the corruption of stella to itella at iv 44. Cf. for the use of aurae = "the atmosphere" OLD s.u. aura 4.

66. Tendentis spicula signi: cf. 307 tendentemque ferum sinuato spicula neruo. (tendentem ego ducentem O lucentem \)

70. The transmitted ignis is a repetition from the previous verse.

72. 'The subject of recurrit is Cythereius ignis in 69 and not Aquarius in 70: for this negligence compare 17 sqq., 100 sqq., 155 sq;' Housman p.37.

73. Hesperos is transmitted here; but this is Venus' name when an evening star; here name when a morning star is required, for lines 49-72 describe the effects of Venus sub lucem exoriens (51). The word required is Phosphoros. R and S can be practically indistinguishable in Carolingian minuscule; it seems, then, that phos has been omitted before phor and phoros made metrical by alteration to Hesperos (probably suggested by the Hesperos of 74).

Housman (p.37) rightly remarks 'there is no reason why all the editors should alter Aurora', for Aurora is
appropriate. Housman suggests that Germanicus wrote *lucifera* Aurorā. This makes good sense (the adjective *lucifer* suiting Aurorā; cf. e.g. Verg. Aen. 4.584-5: *et iam prima nouo spargebat lumine terras/Tithoni croceum linquens Aurorā cubile*) and is very close to the transmitted text. Courtney argues against this emendation on p. 140 as follows: 'The few post-Virgilian hypermetric lines, none of them in Germanicus, all end with -que (they are listed by J. Soubiran, *L'Elision dans la Poésie latine* 467, where incidentally Hor. Sat. i 6 102 should be eliminated as certainly corrupt). But the fact that Germanicus has no hypermetric lines elsewhere tells us little about his attitude to them. His extant lines amount to 943½, an insufficient sample. Courtney is not quite correct in saying that all post-Vergilian hypermetric lines end in -que (Soubiran confined his list to Silius and earlier). Ausonius 7,16,7 ed. Peiper ends *aureus altero/autumni*.

A further objection to Housman's emendation is, as Courtney points out in a letter to me, that, except for the line in Ausonius, no examples of a long syllable at the end of a hypermetric line have been transmitted. Vergil has *em* at Georg. i 295 *umorem/et* and *um* at Aen. vii 160 Latinorum/ardua. Courtney objects further to the emendation that the other elision [of Aurorā] can barely be defended by 631 oceanum ortu, Virg. Aen. xii 26 haec animo hauri! A conceivable defence of *lucifera Aurorā* would be to suggest that Germanicus may have thought that a hypermetric line added elegance and distinction to a passage (Vergil uses it for special effect in Aen. 2.745: *quem non incusauis hominemque deorumque*, where he could have written *deumque*).

I have not adopted Housman's conjecture, for I feel that there is a more likely alternative, namely that *Lucifer* is a gloss. Courtney suggests that *lucifer* was an explanation of *Phosphoros* (cf. C. G. L. vi. 657a) before that word was corrupted. But it is odd that a gloss on the
first word of this line should have been incorporated into the text here. I believe lucifer was written as a gloss on the word immediately below in the next line (hesperos) and thus incorporated into the text here. The line became so long or so obviously unmeterical that the last word was either lost or omitted. Hesperos is not lucifer, but that is no reason why a medieval reader should not have so glossed it. Hesperos is glossed as stella matutina at C.G.L. iv 350 32 by MSS ab (stella uespertina by MSS de); the entry at C.G.L. iii 242 22 is: Ἐως ἀπὸ ἔστερος, ἔστερος lucifer.

Courtney suggests that 'the original may have been something like cum aurora (rubescit). The elision is exactly paralleled at 629 se ostendere and probably at 276 qui illapsus (Grotius: lapsus the manuscripts)'. The present rubescit is satisfactory. Cf. Manil. 3, 252-3: haec erit... cum.../incipitunt and the variations between present and future in 711-6. Other possibilities are rubescet and rubebit. TLL s.u. Aurora cites these verbs several times, but no others at all of the form - - .

75. The transmitted ducere implies that Venus herself is falling upon the earth in the same way that night is; inducere avoids this implication. Induct is used similarly in iv 84: inducet nubila caelo. In 75 in was omitted after the m of noctem.

76. The manuscript tradition points to an original haec te, of which all the manuscript variants are corruptions except for the ecce haec of ST, a conjecture based on the ecce (= hecte) of μ. 77. For the corruption comamenalto Ellis proposed the conjecture torta memento. To explain how memento became menalto Housman posits (on p. 27) the loss of me by haplography, the corruption of n to al, the correction of the corruption superscript and the absorption of the superscript n into the text. He expresses this all by = ME-MEALTO
Fulgura torta = 'jagged flashes of lightning'. Cf. the use of tortus in Plin. Epp. 6,20,9: tortis vibratisque discursibus rupta ...fulguribus illae et similes et maiores erant. Another possible substitute for coma is crebra. If this is correct, Germanicus states uere cauere...fulgura crebra memento because (as Pliny N.H. 2,136 says) uere autem et autumno crebriora fulmina. Fulgura and crebra are combined in Luc. 1,530. Cf. also Germ.iv 104-5: crebro fulmine ruptis/nubibus and iv 65 caelum quam saepe sonabit. On the perpetual exchange of e and o in minuscule cf. Munro's Index (s.u. 'letters interchanged') to his 'Criticisms and elucidations of Catullus'. The alteration of crebra into coma is not difficult, especially as it is an alteration of the meaningless into the meaningful.

For comamenalto τ has the conjecture culmine ab alto, Iriarte conjectured culmine in alto. I doubt if culmen altum by itself will do as a paraphrase for the sky. When culmen is used of the sky the use is usually metaphorical or else caeli is added (cf. TLL 4,1292,55 ff). Culmine in alto has the further disadvantage of suggesting the meaning for the line 'In spring beware of rain and lightning in your roof-top'.

Kroll (WKPh 1918,308) conjectured cum tamen illa. But line 77 is applicable to Aries: thus there is no contrast between 77 and 78-81 and tamen has no point. Nor is the corruption of illa to alto easily understandable. Memento has the advantage of requiring no alteration of cauere. The other conjectures require the alteration of cauere to cauendi/cauendum or caueto (the last is found in τ). An imperative in this line is satisfactory. Germanicus also imparts information in the form of an order in line 343.
78. Si is understood before radiauerit. Cf. Hor. Serm. I, 1.45–6: milia frumenti tua triuerit area centum,/non tuus hoc capiet uenter plus ac meus (etsi understood).

79. Housman's conjecture supplies the verb necessary for the apodosis.

82–3. Line 83 summarizes lines 84–7, which describe inconstantia, hence Grotius' inconstantia is required in 83 in place of the transmitted constantia. In was omitted after m. From the word eadem it is clear that a condition of inconstantia was described in Taurus (eadem cannot refer to conditions in Aries, for there the weather is uniformly bad). Vere magis nitido in 82 prepare for a description of more favourable weather under Taurus, but this description is given nowhere. Adponi could be emended to nil certum to give it but (1) nil certum is very abrupt after the full line introduction (82) (2) Adponi makes excellent sense with the rest of the line (3) nil certum is not close to it; nor can I think of anything suitable any closer. It seems to me then that there is a lacuna of one or more lines after 82, in which the weather under Taurus was described.

86. This sense of de is illustrated by OLD s.u. de 3.

87. The loss of uaria from the sequence alternauariabit is readily understandable.

90. Sidera densa: the Crab, which is a moderately large sign with few stars, and those faint, is called spatiosus (88). The other signs of the zodiac are by contrast densa (packed with stars). I do not know of any other passage where signs are said to reinforce the harmful effects of the sun's heat. The star Sirius is, however, often said to do so. Cf. e.g. Manil. 5,206 ff, particularly 208 geminatque incendia solis.

Kroll (WKPh 1918, 308) proposed forigora for sidera. But the time when the sun has just left the Crab (not long after the summer solstice) is the hottest in the year. Cold that numbs and weakens bodies would be inconceivable.
then.

93. *At* is used as a particle of transition to a new statement with no contrast with the previous statement, as in 88,140,344 etc. The *ac* of MS 2 is unnecessary.

95. *Plerique* (= 'very many') makes good sense, but the word is rarely used in poets; according to Axelson 'Unpoetische Wörter' p.75 three times in Lucretius [2, 681; 6, 46 and 1221], once in Juvenal, in Horace (Satires, Epistles, *Ars Poetica* only [once each]), and three times in Silius [10, 396; 17, 99 and 401]: in none of these places in Silius with a noun. But the chief objection to *plerique* is the asyndeton. Hence I have adopted Grotius' *plenique*. Quint. 11, 3, 41 (giving advice on delivery) talks of a low note as *sonus parum clarus nimiumque plenus*. Thus *plenus* seems suited to the low rumble of thunder.

96. Cf. the explanation of thunder given in Sen. N. Q. 2, 27, 3 ... *cum conglobata nubes* dissoluitur et *eum quo distenta fuerit spiritum* emittit. hic *proprie fragor dicitur*. Thus *plenus* seems suited to the low rumble of thunder.

97-9. The transmitted text lacks a mention of *Libra* and has several obvious corruptions. Housman restores sense with a few easy changes. *Chelae dum* (= *CELEBVM*) became *caelum* (*CELV* *M*) by the omission of ED after EL. Housman plausibly conjectures that *ob* is derived from *ab*,'an attempt, by a scribe who did not mind hiatus, to give the verse its complement of syllables'. *TE* was omitted from the sequence *GLACIANTE* *TE* *POREM* in the next verse by haplography. Someone looking at POREM changed it to the Latin word ROREM; then someone else looked at TEROREM and changed it to the Latin word TERROREM. With the loss of the marks of suspension for N and M we have the transmitted *glaciaterre rore*.

Housman quotes to illustrate the sense Lucr, vi 371 sq. 'et *calor* extremus primo cum *frigore* mixtus *uoluitur*, autumni quod fertur nomine tempus'. The collocation *frigore primo* / *glaciante* is unobjectionable. Cf. Kühner-Stegmann
2, 1 p. 240, from which I take Caes. B. G. 2, 29, 3: locum dup-
lici altissimo muro munierant, Liu. 2, 53, 3: duae poten-
tissimae et maximae finitimae gentes 27, 22, 12: naius
longas triginta ueteres.

Baehrens suggested ... eademque replebit/nubibus
adsiduis caelum sub frigore primo, /extremum autumnum super-
ans glaciante rigore, but this text is impossible, as a
mention of Libra is required, and autumnum is required in
place of autumni. Breysig modified it, retaining superent
and marking a lacuna after line 98. This is conceivable,
(assuming some such words as dum Chelae ... teporem to have
been lost in the lacuna). But Housman restores sense with-
out the need to assume a lacuna.

102. The transmitted ruet is satisfactory, Venus, not
Scorpios, being the subject. For this, cf. the note on iv
72. Venus 'will beat everything flat with storms of rain,
sterenet sata laeta boumque labores [cf. Verg. Aen. 2, 306], '
Housman p. 37. Schwartz's ruent may be right, but is not
necessary.

104-5. crebro fulmine ruptis/nubibus: cf. Verg. Aen. 9, 670
-1: cum Iuppiter horridus austris/torquet aquosam hiemem
et caelo caua nuibila rumpit 8, 391-2: haud secus atque
olim tonitru cum rupta corusco/ignea rima micans percurrit
lumine nimbos, Val. Flacc. 4, 661-2: sic ubi multifidus
ruptis e nubibus horror/effugit, Petr. 122 lines 122-3
fulgure rupta corusco/intremuit nubes.

110. 'The sense must be: since you have heard all about
Venus, now hear about Mercury. "Veneris stella" is in the
preceding verse 109: write then: est quoniam certis ea
iam tibi cognita signis' Housman p. 38. The corruption
Housman assumes is that eaiamtibi was transposed to
eatibiiam and corrupted to ratiuiam (u and b are very close;
ii could easily become i). Ea is unobjectionable; Defer-
rari's index lists 34 occurrences of the form in Ovid.

Morel suggested dea iam tibi, which is not quite as
close, Kroll (WKPh 1918, 309) et ... Paphia est iam, (et τ)
but L. and S. do not quote any example of η Παφία = Venus, nor does Perin's Onomasticon quote any of Paphia. The forms Παφί and Paphie are quoted (the later from Mart.7,74,4 and Ausonius; he uses it at p.348,3 and 410,21 ed. Peiper). Hence the form Paphie is to be preferred. This removes the metrical necessity of est where Kroll places it; it can be restored to its transmitted position. The result, Paphie iam, was suggested to me by Courtney. PAPIE is not very far from RATIV, and Paphie goes well with Cyllenius ignis in the next line. Housman's suggestion, however, seems to me a little closer.

117. The lack of sense of the transmitted text is apparent. Schwartz conjectured alia for etiam, but 'you will notice that different rain is coming in different places' seems merely to state the very obvious fact that the individual particles of water that comprise the rain in one place are different particles from those that comprise the rain in another place. A different remedy is required. I have printed aliqua for alias. I suggest an s was added to make the word agree with the nearby pluuias and aliqua was corrupted to alia (or aliquas to alias), a rarer into a more common word.

119. Breysig falsely reports 'affert ex effert A' (his A is my B). In fact the correction is to afert. There are dots under the first two letters. Affert is thus his own conjecture. It seems satisfactory (cornibus is dative, ad cornua. Cf. Verg.Aen.3,310: uestane te facies, uerus mihi nuntius adfert? No need for Kroll's conjecture offert (WKPh 1918,309). Taurus is represented as carrying the sun on his horns in Manil.4,144: ille suis Phoebi portat cum cornibus orbem.

120. Grandine significat: 'grandine id significat. There is an ellipse of id' Goodyear. The signatur of T makes sense; I think it is, however, simply a conjecture, made after the loss of ific after ign in significat.
120. U has the conjecture serena for the transmitted sereni. The expression tranquilla serena occurs at 151; but, with serena, two synonymous expressions (tranquilla serena and placidum caelumque fretumque) both refer to nautis. There is no similar tautology in this fragment. Thus I have accepted Schwartz's serenti.

122. A mention of Cancer is missing. As there seems no plausible way of emending the text to introduce it, and the grammar and sense of the clauses transmitted, taken individually, is satisfactory, it seems that a line, whose sense was 'when Venus is in Cancer', must have been lost. Baehrens suggested a line is missing after 122 (falsely ascribing this suggestion to Schwartz). 122 must have been qualified by this missing line, for it cannot refer to conditions under Gemini, which are tranquilla and placidum...caelumque fretumque. It is equally possible that a line is missing before 122. As it would be misleading to print the text as if nothing were missing, I have printed one of these suggestions, but can see nothing to choose between them.

123. At was omitted before ar.

125. Schwartz conjectured Astraei (intending it as an adjective agreeing with the genitive ignis). But I do not think Germanicus would have referred to Astraea as 'the Astraean fire'. A constellation consists of several stars (ignes). Where is it called ignis (sing)? Hence I have printed Grotius' Astraeae. With it, ignis refers to Mercury (called Cyllenius ignis in iv 69, 111, ignis Cyllenaeus in iv 137). When ASTRAEE had acquired an S from the following SIMUL the change to ASTRAEIS would have been almost inevitable. The confusion of x and a is perpetual (cf. note on iv 137). xstraeis became extraeis.

128. Wakefield's conjecture merely consists of combining words from different manuscripts. The use of rumpor
in rumpuntur fulmina nimbis is, as Goodyear points out to me, the same as in Verg. Georg. 3.428: amnes rumpuntur fontibus ('streams burst forth from their sources').

129. The transmitted arcus has arisen from the assimilation of arcum to the case of the preceding cyllenius.

133. Capricornus is mentioned here and in 130 in the transmitted text, Aquarius nowhere. Hence Capricornus here must conceal a reference to Aquarius. How did Capricornus come to be written? Perhaps (1) it has taken the place of a word or words whose letters are similar (2) it is a perseverationsfehler from Capricorni in 130 (3) A scribe's eye slipped to Capricorni in 130 and he wrote Capricornus. (2) and (3) are incompatible; (1),(2) or (3) could be the sole cause of corruption, but, more likely, (1) and (2) or (1) and (3) could both be operating. The most likely conjecture is thus the one whose letters most closely resemble capricornus. Hence I have printed Housman's Phryx rorans (Aquarius is identified with Ganymede in Ampelius 2.11; Hygin. Astr. 2.29 and is called rorans iuuenis by Manil. 5.487). If this conjecture is correct, pricxrorans became pricarorans (Housman refers to Gronovius Obs. 4.4 for illustrations of the confusion of x and a, also phaen. 122, where v has ea for the excelsis of μξ). This is gibberish, hence liable to correction, and the first five letters are the same as those of ca-pri-cornus.

Winterfeld (De Germanici codicibus) suggested Ganymedes, but of this only the initial GA bears any resemblance to CAPricornus.

134. Caeli fragores are present, even though the sky is clear (133: nulla nubila). 'The phenomenon of thunder in a clear sky, always ominous, often appears in ancient literature' Pease on De Diu. 1.18 (p. 109), quoting many examples.

137-9. As Housman observes, the sense of these lines must
be 'since I have told you what Mercury effects as a morning star, now learn what he effects as an evening star'. Ellis' conjecture quotiens Cyllenius ignis in 137 for the transmitted ignis quoque Cylleneus makes good sense, but the trajectory of ignis away from Cyllenius, with which it agrees, and into the middle of the line, is difficult to understand. More probable is Housman's exoriens ignis modo Cyllenaeus (exoriens changed to the finite verb by someone puzzled by the construction, a hyperbaton, and ο confounded with ο; Housman quotes Ou. her. xvi 375, trist. v 3 52, ex Pont. i 8 65, Prop. ii 26 44 as places where modo and quoque have been confused). He explains modo exoriens as 'just risen' (for 'just now rising' = 'just risen') and continues 'Thus the close of this passage recalls the opening, iii sqq. "accipe quid moueat mundo Cyllenius ignis/si modo Phoebi flammas effugierit axis,/matutina ferens solitos per sidera cursus". ... The construction, as Orelli says, is an hyperbaton, "quando quidem, exoriens ignis modo Cyllenaeus/quid faceret primo, docui, cum lumine solis, / tempus et, occasu moueat quid, discere, Phoebi" = quandoquidem docui, quid faceret mane, tempus est discere etiam, quid uesperi moueat. In Germanicus, as in most other authors, similar examples can be found: phaen. 595 "Arctophylax, lumine, qui, primo cum Scorpios occidit undis, occulitur pedibus" (qui occulitur cum Scorpios lumine primo occidit), 573 "saepe uelis, quantum superet, cognoscere, noctis"'.

141. The transmitted iunget makes no sense. Grotius proposed ninget, joining it to crebro tonitru. But snow and thunder are not found together. It would also be strange if crebro tonitru were not governed by exsecrable, but instead left hanging in a loose relationship with the following verb. Kroll (WKPh 1918, 309) suggested punctuating before ninget, giving ninget florentia rura (= it snows on the flourishing fields) and stated that ninget
like νεφεων, can be used transitively. Forcellini-Corradini give no examples of ninget with an object, L.S.J. quote νεφω with an object only in Philo Iudaicus 1,617: Ὅδε νεφελη ῥεφας ἡν' εὐφανε Cảnh (God snows manna from heaven). The object in Philo is what is snowed, in Germanicus, according to Kroll, what is snowed upon. In the absence of any evidence that ninget can be used this way, I think a different conjecture is required. Almost as close to the transmitted iunget is uincet, which I have printed.

Cf. iv 101-2: at diris omnia nimbis/continuisque ruet and my note there.

143-4. regna Tonantis/ingrediens refers to Mercury's return to visibility at sunset (cf. the use of exoriens of Venus, as an evening star, in iv 76). It does not refer to rising, as these planets are then near the western horizon.

146. Rapido...sidere = 'with swiftly moving constellation' (cf. Manil.3,503-4: sic erit ipse tibi rapidis quaerendus in astris/natalis mundi). But the Crab moves no faster than any other constellation. Rapido is pointless here. Rapidus is used in the sense 'devouring' of Sol (phaen.6) and aestus (iv 11) - cf. my notes on these lines - but heat is alien from this passage; there is nothing here to suggest the meaning 'devouring' for rapido. Hence I have printed Orelli's rabido. Rabidus is used of Cancer by Stat.theb.4,783 (ed.Klotz): rabidi sub limite Cancri (where certain inferior MSS have rapidi). Of rabidus Housman on Manil.1,396 remarks 'raro librarii intactum relinquunt'.

148. The subject of ferri is Mercury, not Taurus. On this, cf. the note on iv 72.

149-50. The transmitted calidus uestigia servat/hic (hinc) quo dicta Leo saeuisque caloribus ardet is corrupt. Vestigia servare = 'keep to the footprints', in phaen.19: axis
at inmotus semper uestigia seruat, by remaining immobile
and so always in one's own footprints, in Verg. Aen. 2, 711:
longe seruet uestigia coniunx, by treading in someone else's.
Vestigia seruat makes no sense here by itself; it does
make sense if dicta is emended to ficta (so Baehrens) and
ficta referred to uestigia. Ficta is an old spelling of
fixa. If Germanicus wrote it, he is thinking of Lucr. 3, 3-4:
inque tuis nunc/ficta pedum pono pressis uestigia signis.
Vestigia seruat...ficta = 'he keeps his footsteps rooted
in the one spot'. From the position of ficta, Leo must be
the subject of seruat. No sense of quo is suitable here.
The sense 'at the place where' is appropriate, but it ap­
pears that, by itself, quo cannot have this meaning (cf. For­
cellini-Corradini s. u. quo). Qua is an easy change. hic
qua = where. TLL calls this hic 'hic praeparatiuum' and
illustrates it with examples at 6, 3, 2762, 37 ff. Calidus
uestigia seruat (referring to Leo) can precede qua but not
hic qua, so, if hic is right, these words are misplaced. In
the text as so far emended the sense is incomplete (it
=, in effect, 'where the burning Lion is'). It seems, then,
that the 2nd half of 149 should be transposed with the 2nd
half of 150, giving: saeuisque caloribus ardet/hic qua ficta
Leo calidus uestigia seruat: 'But Mercury burns with cruel
heat when he lies where the burning Lion keeps his foot­
steps rooted'. Nec contra ferri ratione probanda in 148
prepares for the description of Mercury as causing heat by
being hot himself (cf. iv 57: (Venus) placide lucens...tem-
perat aestus). Que in 150b = 'but', as in other places
after a negative (cf. Housman on Manil. 1, 877, L. and S.
s. u. que 6). Germanicus uses que in an adversative sense
in iv 9.

152. 'Write iusta, corrupted to iuita just as stella at
iv 44 is corrupted to itella... The Virgin is Astraea or
Iustitia and is called "iustissima virgo" phaen. 137.

tendenti is altered by Iriarte and subsequent edit-
ors into metenti: it is at once easier and more pointed to write tenenti; the Balance is not at odds with the goddess who carries it, Astraea or Virgo. Ancient coins and calendars sometimes put Libra in the hand of a male or female figure, the latter apparently Justitia: see Thiele, Antike Himmelsbilder p. 71; Housman p. 38.

154. Cessat ab is illustrated by TLL 3,962,54 ff.

159. Rabidis makes excellent sense here. Cf. Auien. 2, 1693 duri... Euri, 3.847 qua lene Notus spirat, qua perstrepit Eurus, Ou. met. 15,603 ubi trux insibilat Eurus, Ep. 11,9

Macareus multo... suis truculentior Eurus, 11,14 imperat et pennis, Eure proterue, tuis Verg. Georg. 2,441 quas siluas animosi Euri adsidue franguntque feruntque 2,107: nauigiis violentior incidit Eurus. Rapidis is pointless. In Verg. Aen. 8,223 Cacus fugit ilicet ocior Euro 12,733 Turnus fugit ocior Euro a mention of the swiftness of Eurus has an obvious point. Of rabidus Housman on Manil. 1,396 notes 'raro librarii intactum relinquunt'.

Fragment 5

This fragment was first published by Baehrens, in RhM 1877,323 and subsequently in his edition and in Breysig. It is preserved only in A. I examined the lines under ultra-violet light on 18th October 1968, but could not read the letters Baehrens rightly noted have disappeared after proce in line 8, nor did I discover any mistakes in his collation.

Breysig (p. xxviii) declared the verses spurious, on the grounds that an expression such as humeris uirtutis (= humeris uirtute praeditis) does not occur before Minucius Felix. It seems, however, that these words are merely a textual corruption of numeris uersutus (cf. note on line 2), in which case there is no reason to suppose the lines were not written by Germanicus.
1. The astrorum globos are mentioned by Cic. R.P. 6,17: nouem tibi orbibus uel potius globis conexa sunt omnia. 1 Atlas ... 6 Aeolus: Plin.N.H.7,203: adiecit...astrol-giam Atlans Libyae filius...uentorum rationem Aeolus Hellenis filius.

Maximus Atlas: This clausula is also found in Ou. Met.6,174; Verg.Aen.1,741; 4,481; 8,136.

Vergil (Aen.1,741 ff.) talks of Iopas, docuit quem maximus Atlas, singeing of astronomy to Tyrii (747).

2. Baehrens' conjecture numeris uersutus is strongly supported by the uigore animi sollertiaque of Vitruvius 6,7,6: Atlas enim formatur historia sustinens mundum,ideo quod is primum cursum solis et lunae siderumque omnium uersationum rationes uigore animi sollertiaque curaut hominibus tradendas. Humeris uirtutis is the alteration of one ignorant of Atlas' teaching astronomy, but well aware that he supported the sky on his shoulders.

4. Tyrii, not Syrii, uiri were famous for seafaring. Cf. phaen.41: Phoenicas Cynosura regit, Manil.1,300-1: (Cynosura) iudice uincit/maiorem Tyrio, Val.Flacc.1,17-20: neque enim Tyrii Cynosura carinis/certior aut Grais Helice servanda magistris, /tu si signa dabis; sed te duce, Graecia mittet/et Sidon Nilusque rates (Nilus: of Pharii in Germanicus).


7. 'For quo Baehrens conjectures and Breysig accepts qua, quite wrongly. quo matches unde just as premeret matches attolleret, and premeret, like attolleret, governs imbres: "whither Boreas drives the rainclouds down and whence Notus drives them up", i.e. what is the direction of the winds called Boreas and Notus. The north wind is said premere and the south attollere because the north pole is overhead and the south pole is underfoot.' Housman p.39.

8. The war of the four winds is described in Verg.Aen. 1,84-6.
The original sense must have been, as Housman says, 'I do not see why I should not use the word triangula instead of the Greek Τη滠να', not 'I do not see why I should etc'. Germanicus is reacting against the excessive use of Greek. Greek may be a diues lingua, he says, but at least we have a perfectly good word triangulum that I can use. Tiberius, to whom he dedicates his poem, also objected to the excessive use of Greek words in Latin (Suet. Tib. 71).

Graecia is vocative, hence te is required before diuite lingua. It would be awkward if it did not come immediately before; if Germanicus wrote it there, however, there seems no particular reason why it should have fallen out after cur. If cur is right, Germanicus must have written something meaning 'this is the reason' or 'there is a good reason' before it, in which case one presumes he defended his practice before or after this fragment. It seems more probable to me that this fragment is simply a parenthesis in a passage about trigona (on which in astrology cf. Manil. 2, 274 ff). Hence I prefer Housman's quidni te diuite lingua; diuite could easily have been absorbed by diuite and qui changed to cur (which TLL s.u. cur says legitur CORP 1 1454, praetera saepissime in codd. manuscr., giving examples).