that specific subject (*Suda* 4261: *Ἀστυάνασσα· Ἑλένης τῆς Μενελάου θεράπαινα· ἥτις πρώτη τὰς ἐν τῇ συνουσίᾳ καστακλίσεις εὗρεν καὶ ἔγραψε περὶ σχημάτων συνουσιαστικῶν*).[12]

Seen in this light, then, the epigram appears to have a more precise meaning, and Philodemus' mention of the number twelve is anything but fortuitous: the poet's pride in his choice of companion is completely justified, because, thanks to Lysianassa's abilities, he does not need to be content with just a single embrace, but can enjoy the 'full monty' of canonical sexual experiences: the twelve positions that had been surveyed and arranged by his contemporary Paxamus.

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[12] Since, as Sider remarks, 'names with the ending -*ανασσα* are rare', I wonder whether the notorious reputation of Astyanassa has led Philodemus to give his generous lover the name of Lysianassa.

FRAIL OR MONOLITHIC? A NOTE ON ASCLEPIADES' CORPUSCLES*

In memory of Hans B. Gottschalk

The doctrine of the physician Asclepiades of Bithynia (*fl.* second century B.C.?) which has attracted most attention in modern scholarship has arguably been that of his elemental bodies, the so-called *ἀνάρμοι ὄγκοι*. Were they atoms with a different name? Or were they a substantially different kind of particles, and, if so, what kind of particles? The controversy is so deep as to involve the very meaning of the expression by which Asclepiades is reported to have called them, in particular the adjective *ἀνάρμοι*. This is a very rare adjective, formed of privative *an-* and *armos* ('joint', 'fastening'). The basic idea is, thus, that of a lack of articulations ('jointless'), whatever that means when applied to elemental bodies. Since Asclepiades' corpuscles shatter into fragments on occasion, the mainstream interpretation is that the reference is to their lack of internal cohesion (transl. 'weak' or 'frail').[1] Gottschalk, by contrast, understands the adjective as indicating that nothing interrupts the corpuscles' cohesion, and proposes the very opposite meaning ('seamless' → 'rigid', 'monolithic').[2] It is not my intention to provide either a detailed *status quaestionis* or a comprehensive reappraisal of the body of testimonia.[3] My intention is, rather, to draw attention to a testimony which has not been considered so far, and which provides evidence to the contrary of the mainstream interpretation, and in favour of Gottschalk's own.

* This note has benefited from comments by David Sedley and Philip van der Eijk. I should like to thank the anonymous referee of *CQ* for suggestions for improvement.

[1] E.g., most recently, J. T. Vallance, *The Lost Theory of Asclepiades of Bithynia* (Oxford, 1990), 21–2.

[2] H. B. Gottschalk, *Heraclides of Pontus* (Oxford, 1980), 38–42, provides a close examination of usages of the adjective.

[3] Both can be found in Vallance (n. 1), 7–43. To my best knowledge, no later discussion of the topic has appeared.

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Vallance, in concluding his argument to the effect that ἄναρμος is a synonym of θραυστός, and that, therefore, it means 'frail', refers to a passage in which Calcidius describes Asclepiades' *moles* (Greek ὄγκοι) as *delicatae*, and which Vallance thinks provides additional evidence to that effect.[4] As I shall argue, the passage does not provide any such evidence; on the other hand, there is another passage, which I shall discuss below, in which Calcidius offers a translation of the adjective ἀνάρμοι, thus giving us a clue as to its actual meaning.

Let us start from the putative 'delicateness' of Asclepiades' corpuscles. The passage runs as follows:

> Either there are light, round, and very frail (or 'very tightly tied together') molecules, from which the soul is made up, and which is entirely breath, as Asclepiades thought, or there are atoms of fire, as in the account of Democritus … or, what is the same, there are atoms which run together by chance and without reason, and which create the soul, as Epicurus thought.[5]

Calcidius describes the soul's corpuscles (*moles … ex quibus anima subsistit*) as *leves* ('light', or 'smooth'?), *globosae* ('round'), and *admodum delicatae*, or *deligatae* (both readings appear in the manuscript tradition). Vallance opts for the reading *delicatae*, and translates 'frail'. This passage, he claims, provides yet another instance of the noun ὄγκοι being accompanied by an adjective connoting frailty in Asclepiades' jargon. This interpretation is questionable: Calcidius is here describing the soul's corpuscles according to Asclepiades, not Asclepiades' elemental bodies as such, and, therefore, all three features that Calcidius attributes to the *moles* are to be understood as referring to the soul's corpuscles alone.[6] Moreover, the reading *deligatae* ('tied together'), which Vallance rejects, is the *lectio difficilior*,[7] and, therefore, likely to be the correct one. The idea could be that the soul's particles, as distinct from others, are so tightly tied together that the soul needs to occupy only a tiny portion of the body for ensouling it.[8]

While this part of Calcidius testimony has no relevance to the question of the meaning of ἀνάρμοι as qualifying ὄγκοι, Calcidius in what precedes does refer to Asclepiades' elemental bodies as such, and it is in this other passage, I believe, that he gives us his translation of the adjective ἀνάρμοι, and hence a clue as to its meaning. The passage reads as follows:

[4] Vallance (n. 1), 23–4. The passage is at Chalcid. *In Tim*. 215, pp. 229–30 Waszink.

[5] *Aut enim moles quaedam sunt leves et globosae eademque admodum deligatae, ex quibus anima subsistit, quod totum spiritus est, ut Asclepiades putat, aut ignitae atomi iuxta Democritum … vel id ipsum atomi casu quodam et sine ratione concurrentes in unum et animam creantes, ut Epicuro placet…*

[6] Vallance (n. 1), 23, correctly observes that the ὄγκοι under discussion are those of the soul alone in respect of the description *globosae*, which cannot apply to all corpuscles alike, since corpuscles for Asclepiades have different shapes (except suggesting that *globosae* implausibly means 'clustered together', rather than 'round', for reconciling this description too with the frailty theme). As the argument goes on and touches the description *delicatae*, however, Vallance apparently forgets this consideration.

[7] Lat. *delicatus* finds parallels in every neo-Latin language and not only in them; Lat. *deligatus* is rarer, and has left no trace in derived languages.

[8] This reading does not conflict with Asclepiades' description of the soul's breath as *leptomeres*, because *leptomeres* ('composed by thin parts') does not refer to the distance between one and another corpuscles in a given object, but, as Vallance (n. 1), 60 suggests, to their small size. If this is correct, Calcidius' description of Asclepiades' soul-corpuscles as *leves, globosae* and *deligatae* reminds one of Lucretius' description of the soul atoms as *corpora parva et levia atque rutunda* (3.205), with *deligatae* picking up the idea of *parva*.

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Of those who believed that the substance of matter is discrete [that is, that it is not a continuum and a unity], some posited that the immense void is interspersed with partless bodies, others that it is interspersed with parts which are, however, undifferentiated and similar to each other, yet others that it is interspersed with atoms or compact molecules [*solidae moles*], and all of them attributed no certain and definite location to the ruling-part-of-the-soul.[9]

Asclepiades is not named, but the subsequent explicit reference to him makes it certain that, by the expression *moles*, Calcidius translates ὄγκοι, and refers to his elemental bodies. Moreover, the thesis that Calcidius reports, that the ruling-part-of-the-soul has no definite location, or indeed that it does not exist at all, is distinctive of Asclepiades (Cael. Aurel. *De morb. ac.* 1.115; Tert. *De an.* 15; Sext. Emp. *Math.* 7.202 and 380). While Calcidius attributes this thesis to all upholders of a particular theory of matter, and while this attribution finds no supportive evidence elsewhere, his listing of different versions of the idea that matter is discrete (in order, Diodorus' theory of partless bodies, Anaxagoras' thoery of homoiomeries, Democritus' and Epicurus' theory of atoms, and Asclepiades' theory of corpuscles) echoes, pretty much in the same terms, doxographical reports from several Greek sources.[10] As it happens, these sources are the same ones that identify Asclepiades' ὄγκοι as ἀνάρμοι. It is therefore a plausible inference that *solidae*, the adjective that accompanies *moles* in Calcidius, translates ἀνάρμοι. True, this is merely Calcidius' translation, and we cannot be sure that he got it right. Yet, to posit that he misunderstood the adjective defies the principles of both charity and parsimony. If he translated it thus, one may assume he had grounds for doing so, in the form of a hint from his Greek source. His source is probably identifiable either with Numenius of Apamea or with Porphyry.[11] Neither of them was merely a doxographer, and both proper philosophers, and it is, therefore, plausible to think that, whichever of the two was the source, he should have expanded the basic doxographical report in such a way that Calcidius understood what the ἄναρμος nature of Asclepiades' corpuscles was about.

But what does the 'solidity' of the corpuscles amount to? The *Lexicon Forcellini* paraphrases *solidus* as *nihil habens inanitatis*,[12] and the adjective appears in both Lucretius' and Cicero's descriptions of the atoms for indicating the absence of internal void which makes the atoms indivisible.[13] The idea would be, then, that corpuscles are internally so cohesive that no void interstice is to be found inside them. One recalls that corpuscles and void interstices (πόροι) provide the conceptual tools by which Asclepiades explains the human body and nature at large. This interpretation agrees with the meaning of the adjective ἄναρμος, as reconstructed by Gottschalk on independent grounds. As Gottschalk observes concerning the usage of

[9] Chalcid. *In Tim.* 214, p. 229 Waszink: *Qui dividam fore silvae substantiam censuerunt interponentes immenso inani modo expertia modo partes quidem, sed indifferentes, sui similes, tum atomos vel solidas moles, nullum locum certum definitumque principali animae parti dederunt* (my transl.).

[10] This has been conclusively argued by J. Mansfeld, 'Doxography and dialectic', *ANRW* 36.4 (1990), 3056–229, at 3113, n. 238. To the references given by Mansfeld, one may add Gal. *De propriis placitis* 14.2 (*CMG* 5.3.2 112), who establishes a connection between theories of matter and accounts of the soul, which in some respects anticipates Calcidius.

[11] J. H. Waszink, *Timaeus a Calcidio translatus commentarioque instructus* (Leiden, 1962), lxxiv–lxxvii, suggests that Porphyry is the source. O. Phillips, 'Numenian psychology in Calcidius?', *Phronesis*, 48 (2003), 132–51, argues in favour of Numenius.

[12] *Totius Latinitatis Lexicon Forcellini* (Prato, 1871), 5.549. The relevant volume of the *Thesaurus Linguae Latinae* is unfortunately not yet available

[13] E.g. Lucr. 1.538: *solida ac sine inani corpora prima*; Cic. *Fin.* 1.17: *corpora individua propter solidatem*.

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the noun ἁρμός, 'it is a term … which denotes the line or surface at which two bodies meet … When used in connection with doors, it means the line where the edges of the leaves meet. It was thought of as interrupting the continuity of things; smoke can penetrate the *armoi* of doors, people can look through them etc.'[14] It is not immediately obvious that the derived adjective ἄναρμος, transposed to elemental bodies, should indicate that no void interstices are found inside them. However, Calcidius' Latin makes this interpretation, as I believe, compelling.

Gottschalk himself does not bother to spell out the reference of this solidity. Maybe he took it for granted. Rather, he goes on to argue that, since corpuscles split on occasion, it is unlikely that the adjective in Asclepiades' original formulation referred to the corpuscles themselves; it should refer, rather, to the fragments, which are indeed indivisible and atom-like,[15] and those doxographical sources who make the opposite case misunderstood the point.[16] But I cannot go all the way with Gottschalk: *soliditas* in Latin Epicurean sources does indeed go together with indivisibility, but there is no reason to think that Asclepiades should have made the same association insofar as concerns Greek ἀνάρμοι. As he might have understood it, it could indicate merely that corpuscles are compact,[17] and do not shatter in normal circumstances. This interpretation gains support from Caelius' report that corpuscles shatter when hit from outside,[18] that is, not as a consequence of an internal and spontaneous process.[19] Although corpuscles split on occasion and are not indivisible, it nonetheless makes sense for Asclepiades to attribute a certain degree of compactness to them and to emphasize this feature in his description. For he identified them as elemental bodies, second only (if one accepts Gottschalk's interpretation) to the *fragmenta* into which they shatter, and which are the actual *primordia*.[20] Asclepiades' emphasis on the compactness of corpuscles makes still better sense if Vallance is right in suggesting that they are in fact the same thing as the fragments, and hence themselves the *primordia* of things.[21]

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[14] Gottschalk (n. 2), 40.

[15] Cael. Aurel. *De morb. ac.* 1.105 appears to identify these fragments with *atomi*, but the question is controversial, not least because of the textual problems that the passage raises.

[16] Gottschalk (n. 2), 47–8. His evidence is passages, such as Gal. *De elem.* K. 1.500 and *De nat. fac.* K. 2.39, in which Galen seems to distinguish between the ὄγκοι and ἄναρμα στοιχεῖα. However, Galen himself at least in one passage seems to identify the two (*In Hipp. Epid.* K. 17a.506: πόρους καὶ ὄγκους ἀναρμά τε στοιχεῖα), and in yet another passage he distinguishes not only between ὄγκοι and ἄναρμα στοιχεῖα, but also between those who posit ὄγκοι as primary bodies and those who posit ἄναρμα στοιχεῖα instead (*De san. tuenda* K. 6.15: κατ' ἄλλους δὲ [συμμετρία γὰρ δή τις ἡ ὑγεία] ὄγκων καὶ πόρων, κατ' ἄλλους δὲ ἀτόμων ἢ ἀνάρμων ἢ ἀμερῶν ἢ ὁμοιομερῶν ἢ ἀνομοιομερῶν ἢ ὅτου δὴ τῶν πρώτων στοιχείων). Galen is clearly no reliable source.

[17] I note that *compacta* is Pigeaud's proposed reading for MS *comitata* as referred to the corpuscles at Cael. Aurel. *De morb. ac.* 1.105 (cf. J. Pigeaud, *La maladie de l'âme: étude sur la relation de l'âme et du corps dans la tradition médico-philosophique antique* (Paris, 1981), 197).

[18] Cael. Aurel. *De morb. ac.* 1.105: *offensa mutuis ictibus in infinita partium fragmenta solvantur.*

[19] Here again I disagree from Vallance (n. 1), 21, who speaks of a 'continuing innate tendency' of the corpuscles to shatter.

[20] Gottschalk (n. 2), 46–8.

[21] Vallance (n. 1), 42–3.

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