VERGIL'S AVENA AND THE PIPES OF PASTOR AL POETRY

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Despite the simple ethos of pastoral music, there are many difficulties in the instrumental terminology of Greek and Roman bucolic poetry. Some of the problems result from gaps in our understanding of ancient musical practice. Others may stem from a conflict between historical fact and poetic convention, or may be caused by the differing usage of individual poets within the tradition. Overlapping terms of technical vocabulary, both Greek and Latin, create further ambiguities. Because the difficulties are interlocking, none can be fully explained without a complete analysis of bucolic music; an apparently isolated problem may require a review of the entire bilingual tradition from Theocritus to Nemesianus.¹

A problem of this type is Vergil's avena (silvestrem tenui musam meditaris avena, Ecl. 1.2; cf. Ecl. 10.51). Why did Vergil choose the oatstraw pipe for his first musical reference in the Eclogues? How are we to visualize Tityrus' instrument? Is the word meant to suggest a distinctive musical timbre? What is the total esthetic effect of the image?

Although the ethical and artistic connotations of the epithet *tenui* have often been pointed out,² scholars have generally ignored or lightly dismissed the instrument itself. This was not true of Servius, who found the term *avena* distinctive and meaningful (see below,

¹ Principal sources are Theocritus, ed. with trans. and comm. by A. S. F. Gow² 2 (Cambridge 1952); Moschus, Bion, et al. in Bucolici Graeci, ed. A. S. F. Gow² (Oxford 1958); Vergil, Eclogues, text of Sir Roger Mynors (Oxford 1969); Appendix Vergiliana, ed. Clausen et al. (Oxford 1967); Calpurnius Siculus and Nemesianus in the Loeb Minor Latin Poets, ed. J. Wight Duff and A. M. Duff² (London 1935).

² See especially Viktor Pöschl, *Die Hirtendichtung Virgils* (Heidelberg 1964) 11–12, and notes 4–6.

p. 506). In the Scholia Bernensia, however, it is explained merely as a synonym for the Panpipes (the gloss reads AVENA, fistula³); and the equation (pipe of straw = pipe of reeds) has been accepted by major commentators such as Heyne, Conington, and Forbiger. Conington is loftily dogmatic: "'Avena,' not a straw (which would be absurd), but a reed, or a pipe of reeds, hollow like a straw." But surely, unless the Latin language was strangely imprecise, Vergil must have had good reason to choose this conspicuous word. Even though his intention may remain somewhat elusive, we can improve our understanding of his purpose if we study the problem in the context of its literary tradition.

I

In bucolic poetry, there are two distinct categories of wind instrument. The predominant instrument of the literary tradition is the syrinx or Panpipes (G. $\sigma \hat{v} \rho \iota \gamma \xi$, L. fistula), which may properly be called a flute. In basic contrast is the aulos (G. $\alpha \dot{v} \lambda \delta s$, L. tibia), an instrument which a musician today would call a reed (in modern usage, a term referring to the mouthpiece rather than to the total material). If one is to appreciate the contrast between the two types, syrinx and aulos, the characteristics of each must be clearly understood.

A. Syrinx

The $\sigma \hat{v} \rho \nu \gamma \xi$ or *fistula* is a vertical flute made usually of reed. There is no vibrating mouthpiece: the musical note is created by the vibration of the air column within the tube when the musician blows across the

- ³ Scholia Bernensia ad Vergili Bucolica atque Georgica, ed. H. Hagen (Leipzig 1867) 80-A variety of glosses is collected in ThLL 2.1309, s.v. avena.
- 4 Cf. T. E. Page ad loc.: "as an oat-straw could not be made into a musical instrument, avena must be used for 'a reed' or something of the sort; Milton however (Lycidas 33) ventures to talk of the 'oaten flute."
- 5 The most useful ancient sources for this aspect of musical theory are Pollux and Athenaeus, cited below. Modern studies include Hermann Abert, "Syrinx," RE 4A (1932) 1779; Anthony Baines, Woodwind Instruments and their History³ (London 1967); Heinz Becker, Zur Entwicklungsgeschichte der Antiken und Mittelalterlichen Rohrblatt-instrumente (Hamburg 1966); A. A. Howard, "The Aðλόs or Tibia," HSCP 4 (1893) 1–60; Carl v. Jan, "Aulos," RE 2 (1896) 2416–22; Théodore Reinach's articles in Daremberg-Saglio, Dictionnaire des Antiquités, "Syrinx," 4 (1911) 1596–1600 and "Tibia," 5 (1919) 300–32; Kathleen Schlesinger, The Greek Aulos (London 1939); Walther Vetter, "Tibia," RE 6A (1936) 808–11. Roman practices are examined by Günther Wille, Musica Romana: Die Bedeutung der Musik im Leben der Römer (Amsterdam 1967).

sharp edge of its open upper end.⁶ In the terminology of the bucolic poets, syrinx/fistula denotes a compound vertical flute; that is, a series of reed pipes joined with wax (and generally reinforced with cord or other binding⁷) so as to form a raft-like shape. The process of construction is described by such verbs as $\pi\eta\gamma\nu\nu\mu\iota$ and $(\sigma\nu\nu-)\delta\epsilon\omega$, rendered in Latin by compingo and (con-)iungo:

Theoc. Id. 1.128–29: τάνδε . . . πακτοῖο . . . ἐκ κηρῶ σύριγγα
Theoc. Id. 4.28: χἀ σῦριγξ . . . ἄν ποκ' ἐπάξα (cf. Longus 2.35)
Verg. Ecl. 2.36–37: Est mihi disparibus septem compacta cicutis / fistula
Verg. Ecl. 2.32–33: Pan primus calamos cera coniungere pluris / instituit

Wherever there is a literary reference to the joining of reeds with wax,⁸ we can be confident that the syrinx is always the instrument involved. (We may note that wax was originally used also to stop each pipe at the length desired for a given note; in the Roman era the same effect was achieved by cutting the pipes into successively shorter lengths,⁹)

We are told by Pliny (HN 16.164) that one species of reed was particularly useful for Panpipes because of its clear, hollow bore (calamus vero alius totus concavus, quem vocant syringian, utilissimus fistulis, quoniam nihil est ei cartilaginis atque carnis). We may assume, however, that the instrument was made from any substantial reed of sufficient diameter to provide strong resonance. In poetic usage,

⁶ The technique is described by Schlesinger (above, note 5) 320: "The Panpipes must be held vertically in front of the mouth—not obliquely—so that the lower lip rests against (not over) the edge, the upper lip compressed above the lower—neither encroaching over the edge. A narrow slit is thus left between the lips; the breath-stream is directed across the diameter of the open end, and impinges on the sharp opposite edge, forming a node at that point for the sound-wave—as happens by analogy when a string is plucked."

⁷ See Pollux 4.69 (ἡ μèν οὖν σύριγξ καλάμων συνθήκη λίνῳ καὶ κηρῷ συνδεθεῖσα), and cf. Longus 2.35 (ἴνα κεκήρωτο χαλκῷ πεποίκιλτο).

⁸E.g., Aesch. *PV* 574; Eur. *IT* 1125; Theoc. *Id.* 8.18 = 8.21, *Epig.* 5.4; *Anth. Pal.* 5.206; Tib. 2.5.32; Ovid *Met.* 1.683-84; 1.711-12; 11.154; 13.784; Mart. 14.64(63).1; Calp. 1.18; 3.26; 4.19; Nemes. *Ecl.* 1.58, 3.14; Longus 1.10; 2.34; 2.35.

⁹ For the contrast between the Greek and Roman syrinx, see Gow on Theoc. *Id.* 1.129 and his Theocritus vol. 2, p. 554.

¹⁰ The most likely plants are the common reed (*Phragmites communis* Trin.) and the giant reed (*Arundo donax* L.). See John Sargeaunt, *The Trees, Shrubs, and Plants of Virgil* (Oxford 1920) s.v. harundo (50-51); and Elfriede Abbe, *The Plants of Vergil's Georgics* (Ithaca 1965) 37-39, with illustration.

the words of material are normally interchangeable in meaning: $\kappa \acute{a}\lambda a\mu os$, $\delta \acute{o}\nu a \xi$, calamus, harundo, and canna are synonymous in denoting unspecified reeds. The cicuta or hemlock is not a reed, but a tall umbelliferous plant of totally different form; till, for the purpose of the Panpipes, it would provide hollow tubes with musical properties closely similar to those of the reed pipes.

Because of its compound form, the instrument was sometimes described as the syrinx polykalamos: one flute with many reeds. ¹² The number of tubes was not fixed: although the only specific reference in Theocritus (Id. 8.18 = 8.21) is to a "nine-voiced" syrinx, the seventube instrument was evidently the more common, and it was given sole prominence in Latin pastoral poetry. ¹³ Despite its many components, the instrument was felt to have a collective unity: the name was $\sigma \hat{v} \rho_i \gamma \xi$ or fistula, never $\sigma \hat{v} \rho_i \gamma \gamma \epsilon s$ or fistulae. By a natural metonymy, this collective denotation could be extended to the singular words of material— $\kappa \hat{a} \lambda \alpha \mu o s$, $\delta \hat{o} \nu \alpha \xi$, harundo, and the like. However, there was no consistency in this usage; and when Latin poets refer metonymously to the syrinx they show a preference for the plural forms calami, harundines, cicutae, and cannae.

One minor complication is created by this inconsistency of number. Is it possible that a singular word of material may denote a syrinx consisting of only one tube? In the technical literature there are sporadic references to the *syrinx monokalamos*, presumably a simple vertical flute (i.e., one syrinx tube) akin to the ancient Egyptian instrument now called the *nay*. ¹⁴ Some understanding of this instrument apparently existed in Greece: we are told that when the performer

- ¹¹ The Roman *cicuta* was probably poison hemlock (*Conium maculatum*) rather than cowbane or water hemlock (*Cicuta virosa*); see Sargeaunt (above, note 10), s.v. *cicuta* (31–32). It was apparently Lucretius who discovered its value as a musical term in hexameter poetry (5.1383).
 - 12 See Diodorus 3.58.
- ¹³ See Verg. Ecl. 2.36; Ovid Met. 2.682; Calp. 4.45; Sil. Pun. 14.471; Sid. Apoll. Epist. 2.2.14. The seven-reed syrinx is the wind counterpart of the seven-string lyre, and is related by Servius (on Ecl. 2.31) to the harmony of the spheres. According to Gow (on Theoc. Id. 8.18), there is archaeological evidence for every number of pipes from four to twelve; Reinach (above, note 5) 4.1597, gives an archaeological range of from five to thirteen pipes. Longus mentions only the nine-reed syrinx (1.15). Ovid's Polyphemus has a hyperbolic instrument of one hundred reeds (Met. 13.784).

¹⁴ For the syrinx monokalamos and its alleged invention by Hermes, see Athenaeus 4.184A. For the simple vertical flute or nay, see Curt Sachs, The History of Musical Instruments (New York 1940) 90–91.

Midas of Agrigentum broke the reed mouthpiece of his aulos on one occasion, he proceeded to blow upon the aulos tube $\tau\rho\delta\pi\omega$ $\sigma\delta\rho\nu\gamma\rho\sigma$. The Mowever, this isolated tour de force is inconclusive; and there is no evidence to prove that the syrinx monokalamos played any role in the musical traditions of bucolic poetry. The only single-tube wind instrument generally familiar to the Greco-Roman world was the monaulos, to be discussed below.

B. Aulos

The avidos or tibia is a pipe (usually a pair of pipes) played with a vibrating mouthpiece, either double-reed or beating-reed. It is not a flute, and its timbre is quite unlike that of any flute (such as the syrinx); it is related to either the oboe or the clarinet, depending on the type of mouthpiece used. Although it was associated primarily with other literary genres, and although it was the instrument of the concert virtuoso, the aulos was not excluded from pastoral poetry. Theocritus and Vergil both mention it explicitly. It can be found often on the periphery of the pastoral tradition, from the bucolic epigrams of the Hellenistic poets to the prose romance of Longus. Perhaps significant for Latin poetry was the fact that tibia and fistula were given equal prominence by Lucretius in his two discussions of pastoral music (4.580 ff.; 5.1382 ff.):

et zephyri, cava per calamorum, sibila primum agrestis docuere cavas inflare *cicutas*. inde minutatim dulcis didicere querellas, *tibia* quas fundit digitis pulsata canentum, avia per nemora ac silvas saltusque reperta, per loca pastorum deserta atque otia dia. (5.1382–87)

15 Schol. to Pindar Pyth. 12 praef. Midas' feat is discussed in detail by Schlesinger (above, note 5) 79–80. In his note on Theoc. Id. 5.7, Gow implies that there was a regular reedless instrument known as αὐλὸς ὁ ἄγλωττος, for which he cites Pollux 2.100 and 2.108; but as Pollux himself makes perfectly clear in 4.73, the αὐλὸς ἄγλωττος is simply a useless aulos, one in which the reed mouthpiece or γλῶττα is either defective or completely missing (cf. Aeschines Contra Ctes. 229).

16 Theoc. Id. 5.7, 6.43-44, 7.71, 10.34, 20.29, Epig. 5.1; Verg. Ecl. 8.21 etc. (refrain).

17 The instruments of the Hellenistic epigrams are not always easy to identify because both the Panpipes and the auloi appear indiscriminately as δόνακες (sing. or plur.). However, if one understands the form of each class of pipe, the context will usually produce a definite identification. See Gow on Theoc. Epig. 2.3; A. S. F. Gow and D. L. Page, The Greek Anthology: Hellenistic Epigrams 2 (Cambridge 1965) [cited as "Gow-Page"], notes on verses 115, 3400. The aulos is mentioned six times in Longus (1.4, 2.35, 3.23, 4.26, 4.38, 4.40).

Although the form of the concert aulos was complex and variable, it can be stated that every pipe normally had at least two essential components, the main resonance tube and the vibrating reed mouthpiece. 18 The tube could be made from a wide variety of material, including reed, bone (=tibia), lotus, boxwood, and silver. The vibrating mouthpiece (G. γλωττα, L. lingula) was more restricted. The ideal material was a reed known as auleticos or calamus tibialis, to be found only in Lake Orchomenus; the intricacies of its preparation can be learned from Theophrastus and modern theorists. 19 Less satisfactory than this special reed, but apparently acceptable for amateur performers, were various forms of straw mouthpiece;20 for although straw is too thin and flimsy to be blown as a flute, it can be cut or pinched so as to produce relatively sophisticated "reed" vibrations. A straw squeaker of this type is commonly used by children around the world as an independent musical instrument (that is, without insertion into a resonance tube). As such, it is the primitive ancestor of all pipes in the aulos category.21

Unlike the syrinx, the aulos was provided with finger-holes (G. τρήματα or τρυπήματα, L. foramina) along the length of the tube. The earlier instrument had only three or four openings—Horace's tibia...tenuis simplexque foramine pauco (Ars P. 202-3). The fully evolved aulos might have as many as fifteen.²² Kathleen Schlesinger believes that even the most primitive form of aulos—the straw squeaker described above—was normally pierced with lateral finger-holes;

- ¹⁸ The additional components of the concert aulos, controversial in interpretation, are not relevant to this enquiry. For contrasting descriptions, see Howard and Schlesinger (above, note 5).
- ¹⁹ For auleticos, see Theophrastus Hist. Pl. 4.11.1 and Pliny HN 16.164 and 16.169; the preparation of the mouthpiece is described in Theophrastus Hist. Pl. 4.11.4-7.
- ²⁰ Pollux refers to the use of barley-straw auloi among the Egyptians (4.77). Traces of the original straw mouthpieces have survived in pipes now in the British Museum and the museum at Turin; see Howard (above, note 5) 23.
- ²¹ Cf. Baines (above, note 5) 189–90: "The reed instrument in its simplest forms is necessarily of vegetable material, since the vibrating reed is made by cutting, or flattening out, one end of the pipe itself. These simplest forms, which no doubt represent the ancestral forms, are still made by village boys all over the civilized world from corn stalks, rice stalks, or thin river reeds, either by flattening one end to make a double reed, or by cutting a tongue in the side of the stem below a knot (which closes the top end) to make a single reed."
- ²² Howard (above, note 5) 4-6. On the foramina of the ancient aulos, see ps.-Acro on Hor. Ars P. 202.

and she describes oaten pipes from Finland that have rough finger-holes as well as a beating-reed mouthpiece cut in the straw itself.²³ The Greek and Latin poets were fond of referring to these finger openings as the typical characteristic of the aulos, much as they typified the syrinx by its "wax-joined reeds." Some expressions became almost formulaic: τοὺς τρητοὺς δόνακας, Theoc. Epig. 2.3 (see Gow's note), Anth.Pal. 6.78, Anth.Pal. 6.177 (= Gow-Page 3400); cf. Anth.Plan. 8.2 (= Gow-Page 115); cf. also Manetho 5.160; αὐλήσαντι πολυτρήτων διὰ λωτῶν, Anth.Pal. 9.266; δονάκεσσι πολυτρήτοισι, Anth.Pal. 9.505. In Latin, we may compare Lucretius' tibia . . . digitis pulsata canentum, quoted above, and Ovid's boxwood aulos: longave multifori delectat tibia buxi (Met. 12.158).²⁴

As we have observed, the concert aulos was normally played in pairs: two pipes, each complete with mouthpiece, were linked by a device known as the $\phi o \rho \beta \epsilon i \alpha$ or capistrum. However, we may assume that the primitive straw pipe was a single instrument; and in the Hellenistic age it again became fashionable to play the aulos individually. This practice is reflected in the term "monaulos" (μόναυλος, discussed at length in Athenaeus (4.175E-176E).25 The monaulos or single aulos was apparently a distinct musical instrument, perhaps imported from Egypt, and seems to have been composed entirely of reed (cf. καλαμαύλης, Athenaeus 4.176c). Because both hands rested on one tube, there could be a more complex system of fingerholes. It is quite likely that some of our τρητοί δόνακες or unspecified κάλαμοι/δόνακες should be interpreted as monauloi. Closely related to the monaulos was the plagiaulos (πλαγίαυλος, tibia obliqua) mentioned in Theocritus (Id. 20.29) and the bucolic epigrams; this was a small pipe held like our modern transverse flute, with the vibrating mouthpiece fitted to a lateral opening in the manner of the bassoon.26

²³ Schlesinger (above, note 5) 46 and note 1.

²⁴ Cf. Howard (above, note 5) 6, notes 1 and 2.

²⁵ See Walther Vetter, "Monaulos," RE 16 (1933) 74-75. That the Roman tibia could be blown as a monaulos is proven by Martial 14.63(64).

 $^{^{26}}$ E. Bernert, "Plagiaulos," $R\dot{E}$ 20 (1950) 1997–98. Howard (above, note 5) 14–17 divides the plagiaulos into three varieties, of which only one is blown by means of a vibrating reed. Howard states, however, that the reed-blown variety is the best attested, and it is this bassoon-like instrument that Reinach (above, note 5) 5.314 and Schlesinger (above, note 5) 79 regard as the true plagiaulos.

Despite its diversity of form and its range of sophistication, the aulos continued to be regarded as a unified class of instrument. This unity, which derived entirely from the common factor of the vibrating mouthpiece, kept the category quite distinct from that of the flutes: unless one was careless or musically ignorant, there was no likelihood of confusing $a \hat{v} \lambda \delta s$ (tibia) with $\sigma \hat{v} \rho \iota \gamma \xi$ (fistula). And even a Greek or Roman without musical experience would have recognized the contrast in sound.

II

We are now in a position to return to our original problem, Vergil's use of the term avena.

As a preliminary approach, let us consider a special type of primitive aulos that recurs in bucolic poetry with an obvious pejorative force—Milton's "scrannel pipes of wretched straw" (*Lycidas*, 124). Its first occurrence is in Theocritus *Id.* 5.5–7, where Lacon is attacked for aspiring to play the syrinx and is told to make popping noises on his straw aulos:

τὰν ποίαν σύριγγα; τὰ γάρ ποκα, δῶλε Σιβύρτα, ἐκτάσω σύριγγα; τί δ' οὐκέτι σὰν Κορύδωνι ἀρκεῖ τοι καλάμας αὐλὸν ποππύσδεν ἔχοντι;

The scholiast's note on this passage is worth consulting: we are given the plausible explanation that $\kappa a \lambda \acute{a} \mu \eta$ is harvest stubble on which the shepherd can pipe in the fashion of children $(a \mathring{v} \lambda \epsilon \hat{v} v \mathring{o} s o \mathring{v} \pi a \hat{v} \delta \epsilon s)$. In his note on Theoc. Id. 5.7, Gow identifies this rustic pipe as a single vertical flute or syrinx monokalamos, an almost certain error. Not only are the words $a\mathring{v} \lambda \acute{o} s$ and $a\mathring{v} \lambda \epsilon \hat{v} v$ applied in Greek consistently to the vibrating reed,²⁷ but also we can see that the childish instrument makes musical sense only as a vibrating reed—a primitive monaulos. We should visualize it as a single piece of straw in which the usual fingerholes have been bored. Vergil's counterpart of this instrument is the stridens stipula of Ecl. 3.27, where the rustic banter (Ecl. 3.25–27) is closely parallel:

²⁷ To this consistent usage there seems to be only one extant exception, where Pollux (4.69) applies the plural $\alpha \partial \lambda o l$ to the tubes of the syrinx; otherwise the evidence is unequivocal through six centuries of Greek usage.

Cantando tu illum? aut umquam tibi fistula cera iuncta fuit? non tu in triviis, indocte, solebas stridenti miserum stipula disperdere carmen?

Here also it is a mistake to assume (as does Forbiger, for example) that the *stipula* is merely a single-tube version of the *fistula*: it is an instrument generically remote from the vertical flute.

Apart from the *stipula*, there is only one certain reference in the *Eclogues* to an instrument of the aulos type. This, of course, is the *tibia* of Damon's refrain (*Ecl.* 8.21, 25, 28a, 31, 36, 42, 46, 51, 57, 61):

Incipe Maenalios mecum, mea tibia, versus.

Even this tibia may raise some doubts, in that Damon (or the persona of Damon's song) refers also to a fistula (8.33; cf. 8.24); one could argue that Vergil here intended us to accept the word tibia as a synonym for fistula, choosing the more euphonious of the two words for his refrain. However, because there is not a shred of evidence in Republican and Augustan Latin that the word tibia can ever suggest any kind of syrinx,²⁸ we must identify Damon's refrain instrument as some species of vibrating reed. The stipula and the tibia, therefore, can be accepted as definite occurrences of the aulos in the Ecloques.

Vergil's references to the syrinx are much more frequent. Not only do we find the explicit term *fistula* (Ecl. 2.37; 3.22; 3.25; 7.24; 8.33; 10.34); we meet also many examples of quite unambiguous metonymy:

- I. Reeds or other tubes (calami, cicutae) joined by wax: Ecl. 2.32, 2.36 (cf. 3.25-26)
- 2. The plural *calami*, which in bucolic poetry is likely to suggest only the syrinx:
 - Ecl. 5.2 tu calamos inflare levis
 - Ecl. 5.48 nec calamis solum aequiperas, sed voce magistrum
 - Ecl. 6.69 hos tibi dant calamos, en accipe, Musae
 - Ecl. 8.24 Panaque, qui primus calamos non passus inertis

²⁸ Lewis and Short, s.vv. *fistula* and *tibia*, suggest that these Latin musical terms were loosely synonymous. But we discover from *ThLL* (s.v. *fistula*, esp. 829.83–830.4) that the two were carefully distinguished even in the later Empire.

3. At least one use of the singular calamus, which in its context is clearly a syrinx: Ecl. 2.34, calamo trivisse labellum.

The six remaining instrumental references are all singular in number and include the two uses of avena:

Ecl. 1.2 silvestrem tenui musam meditaris avena

Ecl. 1.10 ludere quae vellem calamo permisit agresti

Ecl. 5.85 hac te nos fragili donabimus ante cicuta

Ecl. 6.8 agrestem tenui meditabor harundine Musam

Ecl. 10.51 pastoris Siculi modulabor avena

In view of the dominant position in the *Ecloques* held by the rustic Panpipes, we might naturally conclude that these six expressions are all variations on an identical theme, and that the instrument in question is the syrinx in every case. It is clear that the Latin poets were troubled by the lack of a verb equivalent to the Greek $\sigma v \rho i \zeta \epsilon v \nu$ (a deficiency that gave rise to devices such as *meditari* and *modulari*). It is clear also that they felt the need for a musical instrument that could occupy the final position in the dactylic hexameter. We might therefore argue that the requirements of metre, cuphony, and variety led Vergil to create a number of formulaic phrases all similar in meaning.

But how then are we to explain avena, a word that Vergil seems to have pioneered as a musical term?²⁹ The oatstraw (whether Avena sativa L. or Avena fatua L.) is impossible as a syrinx tube, whereas it makes excellent sense as a monaulos—the stipula or straw squeaker of Ecl. 3.27, without the pejorative connotation. This natural interpretation is acceptable to Servius: TENUI AVENA culmo, stipula, unde rustici plerumque cantare consuerunt: alibi [III 27] stridenti miserum stipula disperdere carmen. That Vergil may have intended an instrument of the aulos type receives further support from statements in Athenaeus (4.176C and 182D) and Eustathius (on Iliad 18.495) that the reed monaulos (καλάμινος αὐλός οτ μόναυλος κάλαμος) was known among the Italian Dorians as "tityrinos" (τιτύρινος).³⁰ If Vergil was aware

²⁹ I am assuming a post-Vergilian authorship for the *Dirae*, where both *avena* (7 and 97) and *avenis* (19) occur with apparent reference to *mea fistula* (75).

³⁰ See Walther Vetter, "Tityrinos," RE 6A (1937) 1609 and Ernst Wüst, "Tityroi," ibid., 1609-10. Cf. schol. to Theoc. Id. 3.2.

of this fact, he would have found it irresistible to have the musical goatherd ("Tityros" also = "Satyros") play his eponymous instrument.

We shall underrate the subtlety of Vergil's style if we insist that Tityrus' avena must be literally an oatstraw monaulos. It should, I believe, evoke the visual and musical qualities of the monaulos, as opposed to the syrinx; but its role is less descriptive than symbolic. By suggesting the most primitive of country instruments at the opening of his Ecloque book, Vergil intensifies the archetypal setting in which Tityrus is placed. Moreover, the oatstraw is in many ways a "slender" pipe: esthetically it is a link to the preface of Callimachus' Aitia (at least, when juxtaposed with the phrase silvestrem musam);31 morally it is akin to Horace's tibia . . . tenuis simplexque (Ars P. 202-3, quoted above). Therefore we may be justified in thinking that Vergil's purpose is to invent in his First Ecloque a personal and literary musical instrument, an instrument that may symbolize the creative process of pastoral composition without violating musical commonsense. As we read the other poems, we discover that this instrument coexists in Vergilian pastoral with the more traditional Panpipes, and we are actually invited to blur the distinction between the two. Together, the tenuis avena, the calamus agrestis, the fragilis cicuta and the tenuis harundo all become emblematic of the bucolic mode. vagueness and ambiguity of the singular references suggest that Vergil intended the literal meaning to yield to the symbolic.³² Though the term avena was first introduced with a clear and distinct musical purpose, it acquired almost at once the quality of an abstract literary emblem.

Ш

It is interesting to watch the continuing evolution of this instrumental terminology in Vergil's Latin successors.

³¹ Cf. the deductum carmen and tenui harundine of Ecl. 6.5 and 6.8. For the relationship between the Eclogues and Callimachus, see Wendell Clausen, "Callimachus and Latin Poetry," GRBS 5 (1964) 181–96; and Michael C. J. Putnam, Virgil's Pastoral Art (Princeton 1970) 196–97; cf. Pöschl (above, note 2) loc. cit.

³² We must keep in mind the secondary meaning of calamus and harundo as writing instruments: even if Vergil does not establish an explicit ambiguity, there remains the possibility of a symbolic double entendre (cf. the Scholia Bernensia on Ecl. 10.51; AVENA, calamo, pro scriptura).

Tibullus mentions the pastoral pipes on three occasions. In decribing the shepherd's ex-voto offering of a garrula fistula, he provides a succinct description of the Roman Panpipes:

fistula cui semper decrescit harundinis ordo: nam calamis cera iungitur usque minor. (2.5.31-32)

However, in his two other references to bucolic musicians, there is no explicit indication that the fistula is meant; on the contrary, we are left with the impression that Tibullus understood Vergil's *tenuis avena* to be a form of aulos:

agricola adsiduo primum satiatus aratro cantavit certo rustica verba pede et satur *arenti* primum est modulatus *avena* carmen, ut ornatos diceret ante deos, agricola et minio suffusus, Bacche, rubenti primus inexperta duxit ab arte choros. (2.1.51–56)

Here the epithet *arens* reinforces the image of the pinched-straw squeaker, whereas the references to Bacchus and the dance support the *avena* = *tibia* equation.³³ In Tibullus' other use of *avena*, the epithet *perlucens* is even more compelling:

sed *perlucenti* cantum meditabar *avena* ille ego Latonae filius atque Iovis. (3.4.71-72)

Surely this is the $\tau\rho\eta\tau$ òs δόνα ξ of the Greek tradition, a rustic version of Ovid's multifori tibia buxi (see above).³⁴

Propertius is seldom concerned with bucolic music. He does mention Panpipes as calami (3.3.30 and 4.1.24), as calamo hiante (3.17.34), and as attritis harundinibus (2.34.68), a mild innovation; but his only use of avena, in alluding to Vergil's Eclogues (2.34.75), does not allow us to interpret his understanding of this word.

Perhaps because his interest in novelty makes him dissatisfied with conventional formulae, Ovid shows a rich variety of musical terminol-

³³ Therefore it appears that K. F. Smith (commentary on Tib. 2.1.53) is wrong in identifying this *avena* as a syrinx. For the association between Bacchus and the rustic aulos, cf. the *dulcis tibia* in the apostrophe to Bacchus-Osiris, Tib. 1.7.47.

³⁴ One could conceivably interpret *perlucens* as describing the vertical bore of the syrinx tubes; but the tubes of the Panpipes were normally stopped by wax or the reed knot. Lewis and Short must be right in rendering *perlucens avena* "with many holes."

ogy: the plural *avenae* makes its first appearance,³⁵ the word *cannae* is introduced as an additional hexameter ending, and other innovations are apparent:

Met. 1.677	structis cantat avenis
8.192	fistula disparibus paulatim surgit avenis
Trist. 5.10.25	sub galea pastor iunctis pice cantat avenis
Met. 2.682	alterius dispar septenis fistula cannis
11.171	Pana iubet Tmolus citharae submittere cannas
1.706	corpore pro nymphae calamos tenuisse palustres
1.711–12	atque ita disparibus calamis (conpagine cerae / inter se iunctis)
11.161	calamis agrestibus insonat ille
1.683-84	iunctisque canendo / vincere harundinibus
13.784	sumptaque harundinibus conpacta est fistula centum
11.154	et leve cerata modulatur harundine carmen

What does emerge strongly from these examples is the fact that Ovid's avenae, cannae, calami, and harundines (and his one harundo) are all semantically identical, if not metrically interchangeable. Ovid's only bucolic instrument is the syrinx.

The bucolic aulos does not completely disappear in the later tradition. Once in the *Einsiedeln Eclogues* (2.19) there is mention of the *tibia laeta* during a village sacrifice. Much later, in Nemesianus *Ecl.* 1.22, the *praedulcis tibia* is invoked in a context of bucolic lament.³⁶ Otherwise, however, the syrinx is the ubiquitous instrument of imperial pastoral poetry; and *avena* or *avenae* are indiscriminate synonyms for *fistula*, *calami*, and the like. The choice of term is governed almost entirely by the metrical demands of the dactylic hexameter:

³⁵ I am again assuming that the *Dirae* had not yet been written (see above, note 29).

³⁶ Tityrus urges Timetas to perform with the words dicat honoratos praedulcis tibia manes (1.22); when Timetas later states sed quia tu nostrae laudem deposcis avenae (1.27), it is tempting to assume that he plays the aulos. However one can only conclude from 1.80 (mea fistula) that Timetas' instrument is the syrinx.

CALPURNIUS SICULUS (30 syrinx references)

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Hexameter foot
  T: nil
1-2: nil
2-3: calamos, 7 (1.16, 3.58, 4.19, 4.23, 4.59, 4.76, 4.131)
3-4: calamos, 2 (3.26, 6.20); calamorum, 1 (6.10)
  4: fistula, 2 (1.17, 2.92)
4-5: harundine, 1 (1.18)
  5: fistula, 5 (2.31, 4.26, 4.60, 4.74, 7.8)
5-6: avenae [gen. sing.], 1 (3.60); avenā, 3 (1.93, 4.63, 4.65); avenas, 1
      (2.28); avenis, 1 (4.149); canales, 1 (4.76); cicutā, 1 (7.12); cicutis, 1
  6: cannā, 2 (2.31, 4.45); buxo, 1 (4.74)
NEMESIANUS (24 syrinx references)
Hexameter foot
  1: fistula, 1 (3.9)
I-2: calamos, 1 (I.58); calamis, 1 (I.25)
2-3: calamos, 3 (1.16, 2.39, 4.15); calamis, 3 (1.11, 2.53, 4.2)
3-4: calamos, 2 (1.4, 3.7); calamis, 3 (2.19, 2.82, 3.17)
4-5: harundine, 1 (1.3)
  5: fistula, 3 (1.14, 1.80, 3.5)
5-6: avenae [gen. sing], 2 (1.27, 3.11); avenā, 3 (1.63, 1.71, 2.82); cicutas,
       1 (3.13)
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In their contexts, these terms are seen to be interchangeable in meaning. The subtle connotations of Vergil's original oatstraw monaulos have been lost: the vocabulary of the pastoral pipes has now become entirely formulaic.³⁷

³⁷ Though *avena* appears to lose its original meaning as a vibrating reed, it continues to have the inevitable effect of recalling Vergil's *Eclogues*, just as Tityrus becomes firmly established as Vergil's posthumous mask. The process can be followed through Prop. 2.34.75, Calp. 4.63 and 4.65, Nemes. *Ecl.* 2.82.