

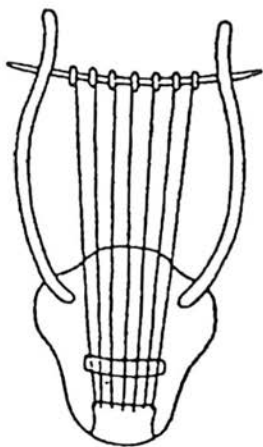
Warren D. Anderson

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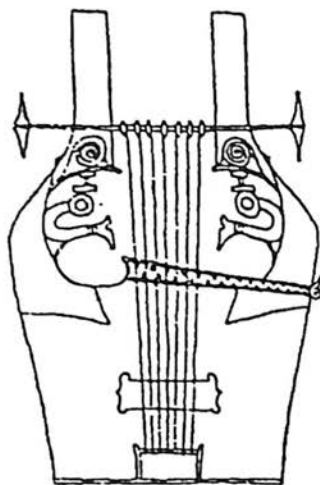
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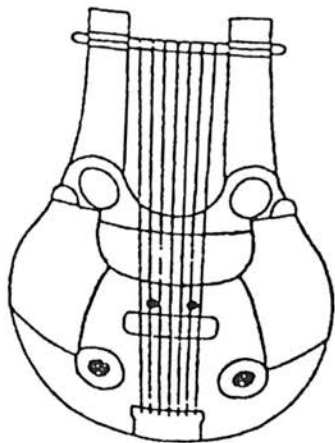
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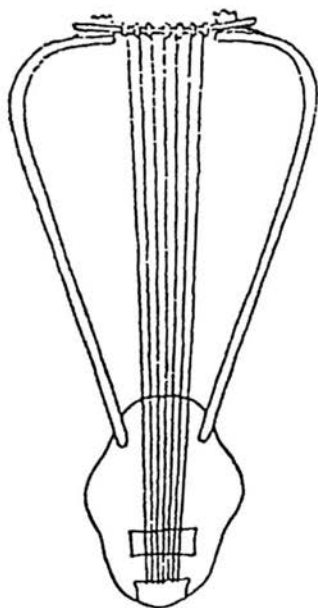
a. Lyre



b. Kithara



c. Cradle Kithara



d. Barbitos

Fig. 20. Various stringed instruments: a, lyre; b, kithara; c, cradle kithara; d, barbitos; the kithara is closely modeled after the exceptional instrument shown on a red-figure amphora (see pl. IV); the other instruments are generalized representations. (Reprinted by permission of the publishers from *Ethos and Education in Greek Music* by Warren Anderson, Cambridge, Mass.: Harvard University Press, Copyright © 1966 by the President and Fellows of Harvard College.)

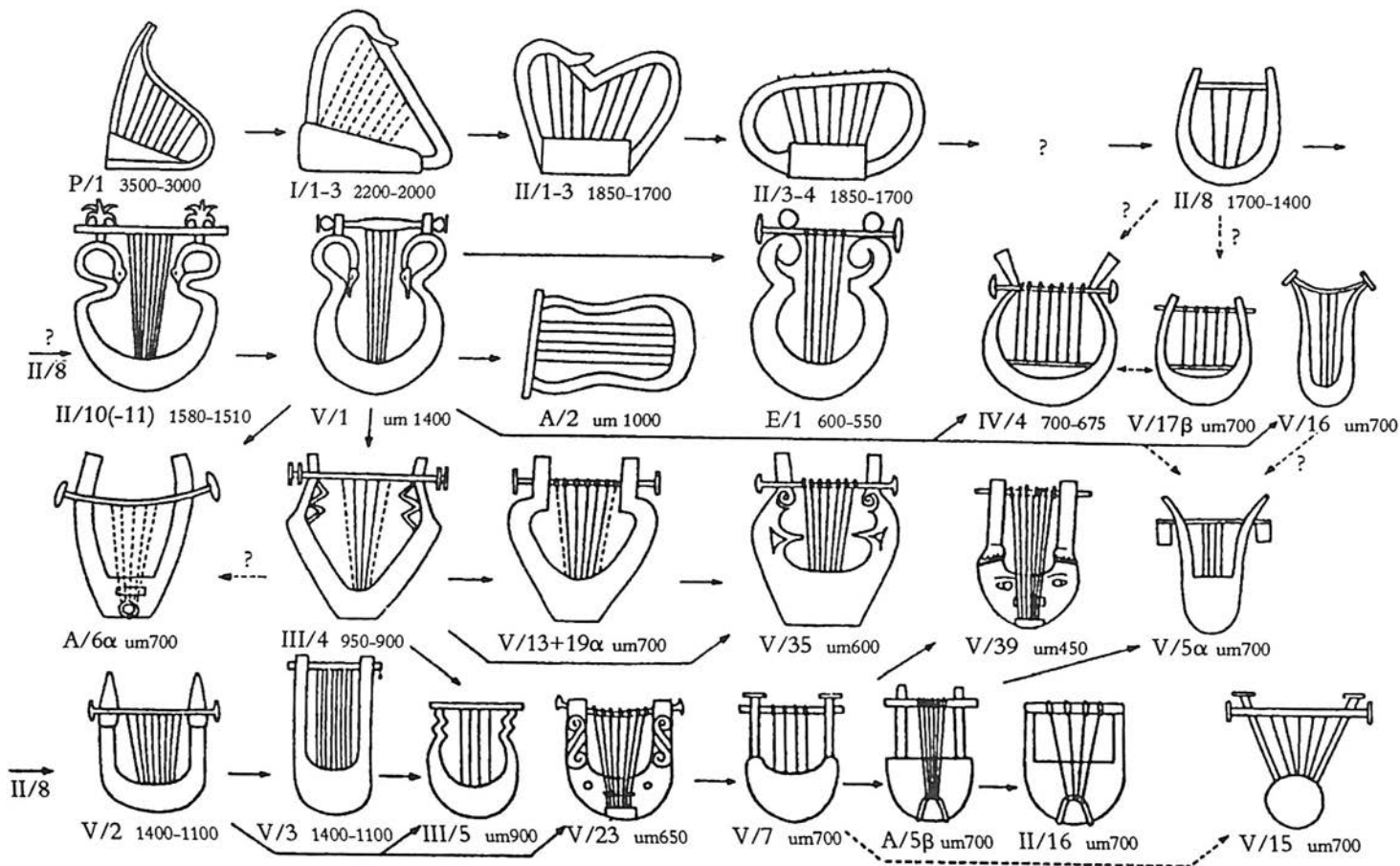


Fig. 19. Development of the Greek lyre: the first instrument shown is from the Middle East, a harp on a stone engraving from Megiddo, Palestine. (Reprinted from Aign 1963, 380; Megiddo harp: see Aign 1963, 118, fig. 75.)

Appendix A

Fifth-Century Instrumental Resources

The following survey includes most, but not all, of the musical instruments that formed a part of the fifth-century scene; others are discussed in the text or the notes. For more extensive coverage, the index may be consulted. The fullness of detail that characterizes the relevant articles in the *Dictionnaire des antiquités grecques et romaines*, especially those by Reinach, has never been equaled, though some later treatments in *Die Musik in Geschichte und Gegenwart* repay attention. General works on ancient Greek music have not usually devoted sufficient attention to instruments: the outstanding exception is the most recent of such studies, West's *Ancient Greek Music* (1992b). Barker's two volumes (1984a and 1989), particularly the first, contain much helpful commentary on instruments. Wegner 1963, Paquette 1984, and Maas and Snyder 1989 provide a comprehensive range of illustrations. The material accompanying Paniagua's lp recording *Musique de la Grèce antique* (see the discography), which has serious faults as a presentation of the surviving fragments, does offer a detailed listing of instruments, with photographs.

I. Stringed instruments (Chordophones, in Mahillon's system of classification as revised by Sachs and Hornbostel; for a detailed scheme of the development of the lyre, see fig. 19).

A. Lyre proper (*lura*, *chelus*; see fig. 20a; pls. II, VII).

1. Size: about 1 by 2 1/2 feet.
2. Materials: wood and hide, in the classical period; sound chest originally the carapace of a mountain tortoise, arms (*pēcheis*) origi-

nally animal horns (*kerata*) and sometimes so today in Africa (the two stages: Blümner 1969, 2: 376, 389–90).

3. Construction: moderately convex arms of solid wood, fastened to a circular sound chest, with a crosspiece called a yoke (*zdugon*) joining their upper ends (untenable theory proposed by Roberts 1974, 79; 1979, 63–75, 67; corrected by Lawergren 1982a, 165–66). String holder (*chordotonion* or *chordotonos*; both terms post-Hellenic) at bottom of sound chest, bridge (*magas*) a few inches above it. A yoke wrapping (*kollops*; see pl. III) appears for each string, clearly distinguished from it (*Od.* 21.406–9), often with a wooden peg inserted in the wound string; no parallel with modern pegs (see the *New Grove Dictionary of Music and Musicians* 2:482, on the Burmese bowed harp).

4. Strings: gut (the strict meaning of *chordē*), a sheep's intestine and thus originally cylindrical, or sinew (Homeric *neurē* or *neuron*), a tendon, a cord or band of closely packed fibers attached to a muscle. A gut lyre string had to be composite; so also, very probably, one made from sinew. Cf. *Il.* 4.122: *neura* [plural] *boeia*, "a bowstring of bull's sinew"; from Homer onward, sinew for bows, gut for lyres. String making: Roberts 1974, 89–91; no detailed account since Bachmann 1975, 140–53, first published in 1925. Composite violin strings: excellent short treatment in Gill 1984, 37–43. Possible types of composite lyre strings: (1) interwoven strands, (2) lengths tied end to end, or (3) a combination. Ancient evidence favors (1), leaves (2) unexplained: Homeric *eustrephēs* (*neostrephēs* once), "well (newly) twisted"; *strephein* is clearly "intertwine" in the *Homeric Hymn to Hermes* (early sixth century?); this verb is used interchangeably with *plekein* throughout Greek literature to describe braiding or plaiting, whether literal or figurative. Thus variations in string diameter may have occurred from earliest times; vase painters could not show them.

5. Tuning: mechanism seems primitive, but modern counterparts (see fig. 21) prove astonishingly precise (Lawergren 1982a, 166, on a Gambian *kora* player retuning to within 1/200 of a semitone, as checked by strobe tuner; *The New Grove Dictionary of Music and Musicians* 7: 535–36, s.v. Gora [D. K. Rycroft]). Scale systems as patterns of tuning: scarcely any evidence until the fourth century (Pl. *Phlb.* 17C11–d3, on boundary notes); then much detail on a two-octave sequence (Aristox. *Harm.*); finally a set of gapped scales, presented by Aristides Quintilianus as those discussed in Plato's *Republic*. The stan-

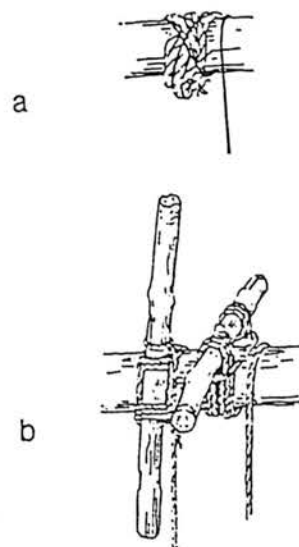


Fig. 21. Two tuning mechanisms used on lyres in Africa today. (Reprinted by permission of the publisher, from Wegner 1984, 104.)

dard seven strings of the Hellenic lyre sufficed even for the double octave of Aristoxenus, except for a single note. Additions to the gamut through the use of harmonics are a possibility, but most harmonics are faint, and they exclude microtones. No clear evidence that a string produced more than its fundamental note and perhaps the first harmonic. Tuning of the early lyre probably not uniform; the variants embodied modal individuality. The early heptachord: traditionally a stepwise sequence such as B C D E F G A. Vase paintings offer almost no evidence that another instrument figured in the process of tuning; but an aulos or pitch pipe (*tonarion*) may have been used. (See below, C.3.e.)

6. Accessories: *telamōn*, a strap of leather to steady the left arm; used only occasionally. Vastly more important is the plectrum (*plēktron*), first shown on a seventh-century Melian amphora (Athens, National Museum 911; Wegner 1963, 42, fig. 19; for a portion of this vase painting see above, fig. 13). References to use of the plectrum: *Hymn. Hom. Herm.* 53; Hdt. 1.155.4: *kitharizdein te kai psallein*; Pl. *Lysis* 209b7: *krouein tōi plektrōi* (contrasted with *psallein*). It was long, rectangular, and quite thick, made of hard wood or ivory; its tip extended for about an inch beyond thumb and fingertips, functioning as an extension of the hand (see pls. I, III). This could be hooked, but more often it had the shape of a knob or a heart: see Phaklaris 1977, 230–31, with fig. 11, a detail from the Pelion krater; cf. his fig. 12 for a

strikingly similar plectrum from modern Greece. At times the tip was oblong, at right angles to the shaft: Aristides Quintilianus (2.25, p. 130.11–12 W-I; Barker 1989, 531) speaks of the plectrum as shaped like the letter tau and goes on to note that wise men call Apollo the plectrum of the universe. Parallel from modern Ethiopia: a lyre player shown on a postage stamp holds just such a plectrum, grasping it in the manner described here; many representations in Attic vase painting. More significant is the fact that Greeks today hold it in the same way as their Hellenic ancestors (hand position in Phaklaris). Of necessity, the stroke was made toward the body, not away from it, with a progression from high to low. The cosmic parallel is the westward movement of the sun (Apollo as sun-god).

7. Performance capacities: with a plectrum, no note-for-note performance of any but the slowest melodies. Little fullness of sound or carrying power; a role confined to preludes, interludes, and solo work (a rarity). Playing with the fingers alone (*psallein*) was thought old-fashioned in Plato's time (Moutsopoulos 1959, 181–82). Hypothesis of left-hand plucking: no corroboration from the vase paintings, which almost always show the left hand. In all but a few cases, thumb and fingers are straight (see pls. I, IV); they cannot be plucking. The description of a lyre player by Philostratus (*Imag.* 6) proves this; Michaelides (1978, 191–92) completely misinterprets it. Neither will the Latin phrases *intus canere* and *foris canere* support the hypothesis of left-hand plucking, acoustically a disadvantageous procedure in any case; they prove nothing. The true function of the left hand: to damp in advance the strings not meant to sound; so among present-day Nubian tribesmen—and the working principle of the Autoharp today.

B. Kithara (*kithara*; *kithara* is not found in Homer's poetry; *kitharizdein* (verb) and *kitharistus* (noun) occur there, referring to the act of playing; *kitharin* in *Il.* 13.731 is an interpolation; *phorminx*, the term for its simpler predecessor in Homer and various early poets, survives into the fifth century, most notably in Pindar; see fig. 20b; pl. IV).

1. Size: much larger, heavier, and more massive than the lyre proper, and much more nearly square in outline; it often projects above the player's head (see pls. I, IV).

2. Materials: made entirely of wood, with inlay work of gold, silver, ivory, or other substances. Such phrases as *chrusea phorminx*, "golden lyre," can mislead.

3. Construction: square-bottomed, seen from the front (the view afforded by vase painters, almost without exception); a convex underbody, with triangular bottom and spined rear profile (convexity: Schneider 1946, 166; Cirlot 1991, 48)—a fact discovered only recently by classicists. Large, hollow arms greatly extended the area of resonance, amplifying the string sound to an unknown extent (in the violin, this sympathetic vibration produces an enormous increase). No separate sound chest: the whole of the kithara's interior constituted one.

4. Strings: under far greater tension than those of the lyre and undoubtedly thicker, but normally the same seven in number.

5. Tuning: not known to differ from that of the lyre, though the kithara's massive structure would have allowed strings having the same approximate length and diameter as those of a lyre to be tuned higher.

6. Accessories: a stronger supporting strap (*telamōn*) than for the lyre; also a cloth band that anchored the left wrist (see pls. I, III, IV). A plectrum was needed to bring out the instrument except in the rare instances of *psilē kitharisis*, solo playing at a competition.

7. Performance capacities: assured a role in public life to which the lyre could not attain. Goddesses might play the kithara; mortal women did not (Wegner 1949, 36–37), though maenads are shown with it on black-figure vases. "Kitharode," *kitharōidos*, was one of Apollo's most revered epithets. Kithara players all appear to be free men, socially above most auletes. Their costume, ceremonious and distinctive, sets them apart (see pls. I, IV).

C. Related instruments (among these, only the so-called cradle kithara and the barbitos have importance and an established identity).

1. Cradle kithara (see fig. 20c; pls. IIb, VII): named *Wiegenkithara* by German scholars (apparently first in Wegner 1949, 31). Actually an oversized lyre; vase painters show it played by girls or women.

2. Barbitos (*barbitos*; *barbiton* a late form; an alternative name, *barmos*, in Alcaeus frag. 70.3 Campbell, 12.70.4 Page; see fig. 20d): discovery ascribed to Terpander by Pindar (frag. 110a Bowra, 125 Schroeder, Snell) and to Anacreon by Neanthes of Cyzicus (*Annals*, in Ath. 175e; Maas and Snyder [1989, 224 n. 121] give the reference as 637b). Supposedly associated with Sappho, but she uses only the terms *lura*, *chelus*, and *chelunna*. The Silenus followers of Dionysus are often shown with it; the Muses played it, as did mortal women in

everyday life. Its music was often a feature of symposia. It had long, delicate arms, and so—except for the harp—the greatest “speaking” string length of any instrument played by the Greeks. The result: lower pitches than on a lyre or kithara, apparently an octave or more below them; the reason remains a puzzle.

3. Magadis (*magadis*), pektis (*pēktis*), skindapsos (*skindapsos*), and trigonon (*trigōnon* or *trigōnos*), and sambuca (*sambukē*): the first two were part of the world of private music making by girls or women; the rest probably belonged to it as well; this may account for our lack of information about them.

a) Alcman and Anacreon use the term *magadis*; Anacreon may refer to it as having twenty strings (the text is corrupt). Sophocles (frag. 238 Pearson) clearly speaks of it as a musical instrument; we cannot be sure that anyone else does. The consensus now is that it was a kind of harp. According to later sources, it sounded in octaves and had twenty strings, a most unlikely number for the age of Alcman. In the pseudo-Aristotelian *Problems* (19.19, 918b40; 19.39, 921a12), the verb *magadizein* does mean “to sing in octaves.” Aristoxenus (*Fr. hist.* 66) says it was played without a plectrum; he identifies it with the pektis. The claim in LSJ that *magadis* denotes a wind instrument in the fifth-century tragic poet Ion of Chios (frags. 22, 23 Nauck, Snell, *Tragicorum Graecorum Fragmenta*² 736; cited in Ath. 634f, c) has no foundation (see Barker 1984a, 294 n.170). Typical of late writers, Athenaeus (634c) does not know what it was, “whether a kind of aulos or a kind of kithara.”

Recent scholarship shows disagreement continuing; the differences, however, are now more radical. Comotti (1983) argues for a harp with two registers of ten strings, tuned an octave apart. Against this view is Barker’s contention (foreshadowed in 1984a, 297 n.187 and 300 n.26) that *magadis* denotes the performance technique of playing in octaves, not an instrument.

b) Sappho (frag. 156 Campbell, Lobel-Page; also, in line 11 of frag. 22 Campbell the incomplete form . . . *ktin*, for *pēktin*, must represent the first recorded mention of the pektis. Plato (*Rep.* 399c10–d1) condemns this instrument for making available too many notes, which means that it had more than seven strings—the assumption that it was a harp is safe for the Hellenic and Hellenistic periods. Graeco-Roman writers, however, sometimes refer to it as if it resembled the syrinx.

So Aristid. Quint. 2.5, p. 58.14 W-I; Barker 1989, 462 and n.24. West (1992b, 71) sums up the evidence from Hellenic sources: the pektis “was a plucked chordophone with many strings, characterized by the playing of octave concords, or the echoing of the melody at octave intervals, and strongly associated with the Lydians.”

c) Even less is known about the skindapsos, not mentioned until about the middle of the fourth century; references in West 1992b, 60 n.56. The few details that supposedly describe it are either vague or incredible (for example, that it had four strings).

d) The name of the trigonon (originally *trigonos*) shows that it is a harp, probably the type with a spindle-shaped sound box. Plato (*Rep.* 399c10–d1) condemns it along with the pektis; this justifies the same conclusion. Aristotle (*Pol.* 1341a40) mentions it, along with the sambuca, as being among the instruments that fell into disfavor; no other significant references.

e) Some later writers seek to identify the sambuca with the *lurophoinix*, an obscure type of lyre, or with the magadis. Fortunately, we have a wall painting—late, but possibly from a Hellenistic original—that shows a sambuca being used together with a lyre (Landels 1966, 76–77; Maas and Snyder [1989, 184] add little), perhaps being tuned to it. Like the trigonon, it belongs to the harp family. Its boatlike frame seems to have been unique in antiquity; musical cultures of the present-day Orient provide several parallels, most notably the Burmese bowed harp. Its strings may have had the octave relationships attributed to the magadis. *Sambukistriaia*, women who played the sambuca professionally, no doubt were often prostitutes, but all we can say with certainty is that the sambuca, as a variety of harp, was a woman’s instrument.

II. Wind instruments (Aerophones)

A. Aulos (*aulos*, plural *auloi*; see fig. 22; pls. III, V, VI, VII).

1. Size: Hellenic *auloi* less than two feet.
2. Materials: double-reed pipes, made of wood, cane, bone, ivory, or metal (but not precious metal), separately or in combination; the tone was not affected.

3. Construction: each tube (*bombux*; see Michaelides 1978, 52–53) was cylindrical, less often oval, and almost always had a cylindrical bore. A kind of bell, curving upward from the left-hand pipe, marked the so-called Phrygian aulos, a deviant type though well known—it is

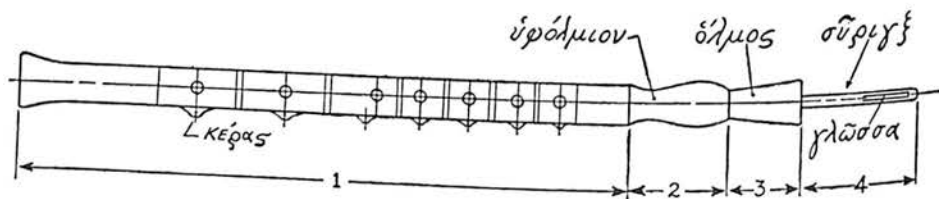


Fig. 22. Essential features of the double-reed pipe or aulos, shown here on a Graeco-Roman monaulos reconstructed from fragments found at Meroë in Egypt and dated to about 15 B.C. (Reprinted, by permission of the publisher, from Bodley 1946, 224.)

shown on the Hagia Triada sarcophagus. Figure 22 (from Bodley 1946, 224) shows a reconstruction of a monaulos (played with both hands) from fragments found at Meroë in Egypt and dated to about 15 B.C.

The length of this instrument is estimated to be a little less than 2 feet, longer than Hellenic auloi, which also had fewer finger holes and no rotary sleeves but basically resembled it. The terms given here in Greek are *holmos*, the socket into which the reed was fitted; *hupholmion*, the “bulb” fitted beneath (*hupo*) the socket (see pl. VII); *surinx*, the reed mouthpiece with a slender tongue (*glōssa* or *glōtta*; *glōttis* in late writers) cut out of its length; and *keras*, a small knob for easier handling of the pierced rotary sleeve fitted over each finger hole (one band is off center).

The actual fragments discovered at Meroë come from at least nine instruments. They represent a number of different types and show how an early, simple form with only three finger holes came eventually to quadruple its original compass. From the period around 500 B.C. we have two pipes—the Elgin auloi, in the British Museum—and major portions of a third—the Brauron aulos, discovered in 1961. The former are not a matched pair; the latter consists of (possibly) two-thirds of a single tube. Bélis (1984a) does not prove her claim, accepted by West (1992b, 100, but see n. 84), that two Hellenistic aulos tubes in the Louvre collection are the two parts of a double aulos. All three specimens sound at least six notes. Two double reeds have been preserved separately (Baines 1957, 193, fig. 41; see pl. III); we do not have a single example of the fragile beating reed, shown above in fig. 22.

4. Unison playing: normally, Greek vase painters portray a pair of

matched pipes; the piper’s fingers rest on the same portion of each, apparently performing the same tasks (see pls. IIa, V, VI). This raises the question of unison playing vis-à-vis heterophony. Polyphony need not be considered, despite the claims of Sanden 1957. Heterophony originates, as *heterophōnia*, in a passage of Plato’s *Laws* (812d1–e6; careful discussion by Görgemanns and Neubecker 1966). Plato speaks of the dangers of playing on the lyre anything other than a doubling of the vocal melodic line; but this must have been selective; see Anderson 1966, 96–97, 251 n.65; Maas and Snyder (1989, 169) hold a not dissimilar view (see Maas and Snyder 241 n.25, on my comments). Plato is laying down rules for elementary education, in which the aulos never had a part; yet it was chiefly blamed for the real or supposed decay of musical standards.

A simple and unvarying unison, therefore, cannot be supposed. This would also mean ignoring the scattered references indicating that fourths or fifths occasionally were used. Neither can the use of a drone be dismissed. Nevertheless, the position taken here is that unison playing, though less than strict, was the usual practice.

The great advantage of unison aulos playing is its power to reinforce the sound and to make it “more vibrant, interesting and self-supporting” (Baines 1957, 194, of such playing on early reed instruments in general). This hypothesis goes far toward explaining Socrates’ reference in the *Crito* (54d2–5) to the imagined voice of Athens’s laws as resembling aulos music. For the affective force of the Hellenic aulos, comparison should be made to the shawm played today by French and Spanish Catalans: Baines (1957, 113) calls its sound “unbelievably exciting” and “fierce and penetrating.” Ahrens (1976) attempts to show that the music of the launeddas and of several similar Middle Eastern woodwinds mirrors certain aspects of aulos melodies. Baud-Bovy (1983) is more convincing in his comparable treatment of Eastern European folk tunes.

5. Support devices: the skilled *aulētēs* might wear a leather muzzle, the *phorbeia* (see pl. VI), strapped around mouth and cheeks to preserve his embouchure. When conditions of performance were less demanding, lip pressure against the *holmos* would have sufficed, and auloi played without the *phorbeia* appear frequently in vase paintings. Normally they were angled downward, to a limit of about 45 degrees. Whenever possible, the little finger supported the pipe; the

thumb gave added support. Performers used the pads of the middle joints of their fingers to cover the holes (see pl. V).

6. Interval measurement: the music played by these double reed pipes lies very largely, but not entirely, beyond our knowing. A certain amount of conjecture is possible, and it has been undertaken by Landels (1963, 119) in his study of the Brauron aulos. With a bassoon reed, spacings between finger holes yield the following sequence of intervals in terms of cents (1/100 of an equally tempered semitone): 231, 267, 151, 165, 182. Neither pitch nor modality can be determined, but the intervals are identical with five of those in Schlesinger's basic modal series. For example, she gives the Phrygian *harmonia* on an aulos with six equidistant finger holes as 151, 165, 182, 204, 231, 267 (1970, 42, fig. 22). But the Brauron aulos has no interval of 204 cents, the major second that invariably forms the "tone of disjunction" between tetrachords. Moreover, its ascending order constitutes a very different arrangement: 182, 165, 151, 167, 231. Schlesinger's Phrygian ought not to embody a sequence radically different from that of an aulos that is older than the Persian Wars. Possibly an explanation may be sought in the fact that the Brauron aulos is jointed. Fragments of jointed auloi were found at Meroë in 1914 (Schlesinger 1970, 78–79; Bodley 1946 does not refer to them); it was conjectured that the sections might have been fitted together in a different order at different times (Southgate 1915, 14). Something similar may have occurred when the Brauron aulos was placed in the tomb, perhaps by someone unfamiliar with the assembling of jointed auloi.

All of this is complicated by the fact that in a later article (1968), Landels gives tentative figures for a newly discovered aulos having five finger holes, which he dates not earlier than the fourth century: 156, 140, 202, 236. The two instruments prove to have not a single interval in common. During any such inquiry, one must remember that the notes actually sounded by a piper remained subject to a number of modifying influences. Late writers, classical and post-classical, were of course ready to produce the *harmoniai* of the "really oldest" Greeks, or to describe the scale that Terpander devised for accompanying libation melodies.

During and after the late decades of the fifth century, artists continued to show auloi with no more than five finger holes. Often they had

only three or four, despite the many indications that technical refinements had been introduced into the craft of aulos making. It seems probable that vase painters were merely being faithful to the facts of ordinary life, where the "unimproved" aulos maintained its dominance. The new models, with their auxiliary finger holes and varied apparatus, would thus have been concert instruments, never intended for the ordinary piper. In much the same way, Boehm during the middle 1830s introduced a revolutionary keywork system for the transverse flute; yet during the remainder of the century, ordinary players—Gerard Manley Hopkins was one—continued to use instruments scarcely more developed than the Meroë auloi described by Bodley (Bate 1969, 112 and pl. 6, I).

7. Ensemble playing: a related point concerns the lyre. While it had increased to seven strings by Terpander's time, the aulos underwent no comparable extension. This disparity might well trouble anyone who contends that the two instruments sounded at the same moment and therefore needed to be matched. The near silence of the Greeks on the subject of ensemble playing should have suggested caution.

It is true that Pindar always mentions lyres and auloi together (the exception, *Olympian* 5.21, has therefore been thought suspect); also that vase painters often show them being played together. Here the evidence has been misread: Pindar never claims simultaneity. As for the vase painter, he was a resident alien, with no experience of the lyre-centered system of elementary schooling; he had an extremely limited working surface; and he was subject to a patron's wish for a visible inventory of household possessions.

This does not mean that the Greeks had no ensemble playing whatsoever. Certain occasions could call for both lyres and auloi; and there is no reason to doubt that the two sometimes sounded in unison. Nevertheless, we may suppose that such instances were exceptional. The fifth-century aulos would have overpowered the kithara, not to mention the smaller and weaker *lura*; it must usually have alternated with them, rather than competing.

B. Other forms of the aulos (the term itself is generic, as is noted in Becker 1966, 21; both the monaulos and the plagiaulos had minor roles).

1. Monaulos (*monaulos*): before the fourth-century writers of Middle Comedy at Athens, only Sophocles (frag. 241 Pearson) mentions

the monaulos, associating it with the lyre and, less closely, with the pektis. Like the pektis, it was regarded as foreign except for a pastoral version called the *aulos titurinos*, a native instrument of the Dorian Greeks who had settled in southern Italy. (Compare Vergil's prominent use of Tityrus in the *Eclogues* as a shepherd's name, and once even as a generic term for "shepherd," 8.55.) Despite the counterarguments of Reinach (in the *Dictionnaire des antiquités grecques et romaines* 5:313, s.v. *Monaule*; see Barker 1984a, 259 n.3, 264 n.20), we may conclude that, in some instances at least, it was the *surinx monokalamos*, or "single-reed syrinx."

The monaulos became common during the Hellenistic period. It appeared on a variety of occasions, sometimes as a part of funeral ceremonies. These normally called for the *epikēdeios aulos*, which provided dirges (see Matt. 9:18–25, on Jairus' daughter); Plutarch (*Quaest. conv.* 3.8.2, 657a) speaks of its power to rouse grief and cause tears. Fragments of monauloi, dating to about 15 B.C., were found at Meroë in 1921 (Bodley 1946, 230–33; fig. 22).

2. *Plagiaulos* (*plagiaulos*, sometimes called *plagios aulos* and perhaps also *plagiomagadis*; called *tibia obliqua* by the Romans): no evidence links the *plagiaulos* with Hellenic music; even a supposed reference to it in Theocritus (20.29) comes from a poem produced by a later writer. Eventually, in the second century A.D., it appears as part of the liturgy of Serapis, and it may originally have been part of Egyptian ritual (so *RE* 20 (1950) 1998, s.v. *Plagiaulos* [E. Bernert]). During the many intervening centuries, however, it never achieved a respected place in community life. The chief reason for this neglect probably was the fact that it belonged to the class of instrument (usually a flute of some kind rather than an *aulos*) prized for diversion and companionship by shepherds or farmers, but looked down upon by townspeople.

3. *Syrinx* or panpipe(s) (*surinx*; see pl. IIa). Played by a stylized Cycladic piper, a figurine from Keros dated to the period 2700–2500 B.C. (Thimme 1977, 302, 496–97; Haas 1985, 36–44). A pair of cowherds divert themselves with it in the *Iliad* (18.526); it appears next in two Homeric *Hymns*, those to Hermes (4.511) and to Pan (19.14–19, 24). Throughout the classical period, it continues to be associated with Pan himself and also with his kindred wood spirits, the *Sileni* and *satyrs*. It comes finally to be trivialized into a mere accessory for

the little winged *Erōtes* shown in countless Graeco-Roman statuettes and earrings.

The rectangular form of the *syrinx* played by the Keros piper was retained throughout the archaic period and also the classical; individual pipes varied in number between four and nine or ten, the average being six. This instrument followed its own course of development, related only minimally to that of the lyre or *aulos*. The chief and almost the sole musical instrument of the countryside, it had no importance for town life.

III. Percussion instruments (Membranophones and idiophones; the similarity in the forms is evident).

A. Hand-held drum (*tumpanon*, plural *tumpana*).

1. Size: seldom more than 2 feet in diameter.
2. Materials and construction: hide stretched over a wooden hoop.
3. Performance and use: beaten with the right hand (varying techniques; cf. the *tabla* in northern Indian music). Played only by women; no drumstick was used. Sometimes it merely provided diversion (Wegner 1949, 65, too limiting); most often, it figured in the ecstatic rites of deities from Asia Minor—Dionysus (along with his fifth-century epiphany, Sabazius, whose worship underlies Euripides' *Bacchae*; see *Bacch.* 120–34 and Dodds 1944 on *Bacch.* 78–79, 126–29), Rhea, Cybele. Like the *aulos*, it was considered exotic, an import from Phrygia.

B. Cymbal (*kumbalon*, usually as plural *kumbala*).

1. Size: votive or funerary examples vary in diameter from about 3 inches to 6 inches
2. Materials: made of bronze, as it is today
3. Performance and use: played only by women, like the drum, but more strictly limited to cult use. As part of the worship of Cybele, it became a symbolic chalice (*The New Grove Dictionary of Music and Musicians* 5:III, s.v. *Cybele*). This may explain St. Paul's scornful reference to a "tinkling cymbal" (1 Cor. 13:1: *kumbalon alalazon*), where the inadequate rendering "tinkling" conceals a possible relationship with Cybele's cult.

C. Clappers (*krotala*, only in plural as a musical term).

1. Size: larger than castanets.
2. Performance and use: like castanets, these often accompanied the dance but were held differently from castanets; most like the percus-

sionist's slapstick. First in the *Homeric Hymn* 14.3 ("To the Mother of the Gods"), as part of a liturgy. This liturgical function continued, extended especially to the worship of Dionysus. Also highly secular uses, at drinking parties; there, exceptionally, young men rather than a hetaera might play them. Clappers accompanied such low dances as the kordax. On the *kroupezdai*, see Bélis 1988.

Plates