

The Music of the Old Testament Reconsidered

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Surviving examples of musical instruments and representations of them show that during the first half of the first millennium B.C. a considerable range of types was in use in Mesopotamia and Egypt, as well as in north Syria and south-east Asia Minor. Since there are numerous references in the Old Testament to music and musicians it is a reasonable assumption that, though there are few representations from Palestine, similar types were in use. The corpus derived from outside sources comprises: I. Strings: (a) harp, (b) lyre, (c) lute; II. Wind: (d) vertical flute (end blown like the modern recorder), (e) double-pipe, (f) horn, (g) trumpet; III. Percussion: (h) drum, (i) tambour (like a tambourine without the jingles), (j) cymbals, (k) clappers, (l) sistrum, (m) vibro-frame (see Wegner 1959 with useful folding chart illustrating instruments by date and area; Mitchell and Joyce 1965, 20-22; Pritchard 1969, nos. 191-211; Stauder 1975; Rashid 1984; and Hickman 1961 for Egypt and Wegner 1963 for Greece).

ANCIENT NEAR EASTERN EVIDENCE

The range of instruments attested from Mesopotamia may be seen most conveniently in the book by S. A. Rashid (1984). The types represented are tabulated below by his figure numbers. The third and second millennium evidence is included since individual types may have 'hibernated', so to speak, and might still have been present without being represented in the first millennium record. The types are grouped in four major periods representing: A. The Early Dynastic period, c. 2500 B.C.; B. The Akkadian, Neo-Sumerian and Old Babylonian periods, c. 2330-1600 B.C.; C. The Middle Assyrian period, c. 1400-1200 B.C.; D. The Neo-Assyrian and Neo-Babylonian periods, c. 900-539 B.C.

	A. c.2500	B. 2330-1600	C. 1400-1200	D. 900-539
(a) Harp	28-35	44, 62-8, 71-5	108	114-5, 134-8, 141, 145-7, 151-2
(b) Lyre	2-7, 12, 23-4, 36	41-3, 45-8, 59, 78-80		120, 142, 145, 148-50
(c) Lute		38-9, 57-8, 81-4	105-7, 110-111	113
(d) Vertical flute		85-7		119
(e) Double-pipe	13-14	88-9		122, 151
(f) Horn				
(g) Trumpet	37			143-4
(h) Drum	26, 50	49, 51, 54-5, 60, 96		147, 151-2
(i) Tambour		56(?), 58-9, 91-5		116-8, 122, 140(?), 149-50
(j) Cymbals				124-7, 140
(k) Clappers	15-6			
(l) Sistrum				
(m) Vibro-frame				

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The types known in Egypt and Greece are well illustrated in works by H. Hickman (1961) and M. Wegner (1963) respectively and are not separately specified here. Those from the Near East other than Mesopotamia and Palestine are tabulated below, the numbers referring to the list which follows. In this tabulation 'Syria' embraces the area of north Syria and south-east Asia Minor, notably Tell Halaf, Carchemish, Zincirli and Karatepe, and also (nos. 11, 24, 37) the so-called 'Lyre-Player group' of seals, which have been found as far afield as Greece and Italy, but which were probably made in Syria or Cilicia in the eighth century B.C. (Buchner and Boardman 1966, especially 48-50). 'Anatolia' refers to the remainder of Asia Minor.

	2nd millennium		9th-6th century B.C.		
	Cyprus	Anatolia	Syria	Anatolia	Cyprus
(a) Harp					1
(b) Lyre		2-4	5-11		12
(c) Lute	13	14	15-18		
(d) Vertical flute					
(e) Double-pipe			19-24		25, 26
(f) Horn			27		
(g) Trumpet				28, 29	
(h) Drum		30	31, 32		
(i) Tambour			33-37		38
(j) Cymbals					
(k) Clappers			39		
(l) Sistrum		40, (41)			
(m) Vibro-frame			42		

Harp

1. Myres 1914, no. 1265 (Cyprus)

Lyre

2. Goldman 1956, pl. 394.35 (Tarsus)
3. Goldman 1956, pl. 400.35 (Tarsus)
4. Frankfort 1939, fig. 81, p. 250, n. 2 (probably Cappadocia)
5. Rimmer 1969, pl. VIII.a and fig. 6 (Mardin)
6. Moortgat 1955, pl. 100 (Tell Halaf)
7. Moortgat 1955, pl. 101 (Tell Halaf)
8. von Luschan 1911, pl. LXII = Pritchard 1969, no. 199 (Zincirli)
9. Bossert 1950, pi. XI.55 (Karatepe)
10. Bossert 1950, pl. XV.74 (Karatepe)
11. Buchner and Boardman 1966, 48-50 (seals)
12. Myres 1914, no. 2166 (Cyprus)

Lute

13. Myres 1914, no. 1574 (Cyprus)
14. Garstang 1929, pl. X lower = Wegner 1950, pl. 10.a (Alaca Hoyuk)
15. Woolley 1921, pl. B. 17.b = Pritchard 1969, no. 200 (Carchemish)
16. Woolley 1921, pl. B.30.b (Carchemish)
17. von Luschan 1921, pl. XXXVIII.a, fig. 119 (Zincirli)
18. Bossert 1950, pl. XV.76 (Karatepe)

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Double-pipe

19. Barnett 1975, pls XVI, XVII= Pritchard 1969, no. 203 (Syrian from Nimrud)
20. Woolley 1921, pl. B.17.b = Pritchard 1969, no. 200 (Carchemish)
21. Bossert 1950, pl. XI.55 (Karatepe)
22. Bossert 1950, pl. XIII.68 (Karatepe)
23. Bossert 1950, pl. XV.74 (Karatepe)
24. Buchner and Boardman 1966, 48-50 (seals)
25. Myres 1914, no. 1027 (Cyprus)
26. Myres 1914, no. 1264 (Cyprus)

Horn

27. Woolley 1921, pl. B. 18.b = Pritchard 1969, no. 201 (Carchemish)

Trumpet

28. Rimmer 1969, pl. VIII.c (Phrygia)
29. Rimmer 1969, pl. VIII.b (Caria)

Drum

30. Lloyd and Mellaart 1965, fig. P.8.17, p. 93 (Beycesultan)
31. Woolley 1921, pl. B.18.b = Pritchard 1969, no. 201 (Carchemish)
32. Bossert 1950, pl. XI.55 (Karatepe)

Tambour

33. Barnett 1975, pls XVI, XVII = Pritchard 1969, no. 203 (Syrian from Nimrud)
34. von Luschan 1911, pl. LXII= Pritchard 1969, no. 199 (Zincirli)
35. von Luschan 1911, fig. 259.b (Zincirli)
36. Bossert 1950, pl. XV.75 (Karatepe)
37. Buchner and Boardman 1966, 48-50 (seals)
38. Myres 1914, no. 1006 (Cyprus)

Clappers

- 39. Woolley 1921, pl. B.17.b = Pritchard 1969, no. 200 (Carchemish) Sistrum
- 40. Ozguc and Akok 1958, pl. XII, pp. 48-49 and *cf.* pl. XVII.1-3 (Horoztepe)
- 41. Bossert 1923, no. 95 (Crete—third millennium)

Vibro-frame

- 42. Barnett 1975, pls XVI, XVII = Pritchard 1969, no. 203 (Syrian from Nimrud)

This survey is not exhaustive, but aims to include the main evidence.

In 1965 (Mitchell and Joyce 1965, 22 n. 15) I referred to, but did not identify, a rectangular instrument with strings of equal length across its shorter dimension, two examples of which are depicted on a Syrian ivory of the ninth or eighth century B.C. from Nimrud (British Museum WA. 118179; Galpin 1937, pl. VIII.5; Barnett 1975, pls. XVI, XVII; 1982, pl. 45c, p. 43; Rimmer 1969, pl. VIIa; Rashid 1984, fig. 122). Galpin (1937, 36) had identified this as a 'psaltery', and connected it with the *pěsantērîn* mentioned in the book of Daniel (on which see below), but Wegner (1950, 37), rightly pointing out that the cross-pieces were both too short and too similar in length for it to represent a convincing stringed instrument, suggested that the cross-pieces were more likely to have been something like wood or metal rods, placing it more in the sistrum family. He also specifically rejected Galpin's 'psaltery' identification (Wegner 1950, 62 n. 27).

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The stringed instrument interpretation was still maintained by Rimmer (1969, 40) who identified the object as a 'zither', and by Rashid (1984, 108), who favours 'Psalterien'. Possible illumination of this type of instrument is supplied by two flat bronze rectangular objects (with simple spiral ornamentation at the corners), probably of the eighth or seventh century B.C., one from Macchiabate near Francavilla Maritima in modern Calabria (ancient Bruttium), the toe of Italy, and the other of unknown provenance, measuring 19.8 x 11.3 cm. and 17.5 x 13 cm., and originally with 15 and 13 wooden cross-pieces respectively, bound round with bronze spirals (Montuoro 1977, 27-40, quoting several other similar fragments; Gehrig and Niemeyer 1990, no. 128 with colour photograph; and see Trendall and Cambitoglou 1978, 315). Another possible example is an object usually assumed to be a pectoral, now in the British Museum (GR.1872.6-4.1005), dating from about 700 B.C., from an Etruscan tomb at Praeneste (Garrucci 1867, 205 no. 2, pl. 7.1; Marshall 1911, 108 no. 1256, pl. XV; Strom 1971, 63, fig. 45; De Puma 1986, 384, figs. 11, 12). This measures 21 x 10.2 cm., but differs from the examples mentioned above in apparently lacking a complete rectangular frame and comprising two side members (decorated with embossed sheet silver) joined only by 15 cross pieces. These cross pieces originally consisted of copper tubes, formed of bent-round sheet, with silver wire wound round them in spirals, and possibly containing rods of some other material, perhaps wood. The state of preservation is not such as to make it clear how the cross pieces were joined to the side members, but it is possible that they were sufficiently firmly fastened for the whole to be rigid except for

the spiral wire and even perhaps the copper tubes (information from Marilyn Hockey), in which case it could well have been another vibro-frame with jingling spirals and possibly tubes. Further similar examples include one of unknown provenance consisting of two bronze side pieces, 17.8 cm. in length, each pierced with fifteen holes, and with incurving spiral decoration at the ends, together with eleven bronze tubes, presumably cross pieces (Classical Auctions 1991, no. 43); and fragments of two other examples in the J. Paul Getty Museum (Jentoft-Nilson 1980). It is likely that a later version of this type of object is depicted as a ladder-like object, conventionally referred to as a 'xylophone', on red figure vases of the fourth century B.C. from South Italy (e.g. Trendall 1989, pls. 147, 172, 184, 194, 257, 314, 325, 386, and 402), and also on Hellenistic terracottas (Montuoro 1977, pl. XV). That the object was some kind of musical instrument is clear from both the Nimrud ivory and one of the vase paintings (Trendall 1989, pl. 147), which show the players each with a hand on the cross-pieces. The bronze examples bear out Wegner's suggestion that these cross-pieces were more likely to have been rods than strings (Wegner 1950, 37). It may be that the instrument was an ancient equivalent of the washboard used in some popular modern music, perhaps with the addition of jingling elements in the form of the bronze spirals, the sound being obtained by the musician strumming his fingers (perhaps with finger guards) across the rods. An apparent example of the same sort of instrument is illustrated and defined as a psalterium in a letter allegedly from Saint Jerome (A.D. 330-420) to Dardanus (Sachs 1940, 118 and fig. 34), but actually probably a ninth century forgery dating from the time when the zither was in any case becoming current in Europe (Remnant 1978, 27). This does not therefore constitute sufficient evidence for identifying the ancient instrument as a zither. It has been added to the above tables as number (*m*), and tentatively labelled 'vibro-frame' for want of a better term (Montuoro calls it a 'calcofono' (Gehrig and Niemeyer 'chalkophon') but this is too much linked to the material to be satisfactory).

ARCHAEOLOGICAL EVIDENCE FROM PALESTINE

Of the above listed instrument types a small number are attested by representations from Palestine. A clear depiction of a twelve-stringed lyre occurs on a Hebrew seal of the eighth

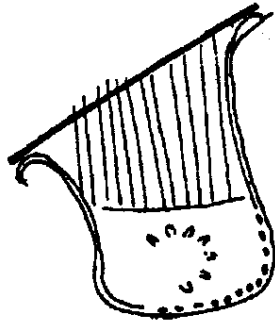


Fig. 1. Twelve-stringed lyre on a Hebrew seal, eighth century B.C. (from Avigad 1985, 9 and fig. 3)



Fig. 2. Lyre player on a pottery vessel from Kuntillet Ajrud, eighth century B.C. (from Meshel 1978, fig. 12)



Fig. 3. Clay figurine showing a lyre player from Ashdod, eighth century B.C. (from Dothan 1975, 115)



Fig. 4. Clay figurine showing a woman playing a hand-drum or tambour, eighth-seventh century B.C. (from Weippert 1988, fig. 4.67)

century B.C. (fig. 1; Avigad 1985, 9 and fig. 3), the painted decoration on an inscribed pottery vessel of the ninth to eighth century B.C. from Kuntillet Ajrud shows a lyrist (fig. 2; Meshel 1978, fig. 12), and a very crude clay figurine of the eighth century from Ashdod shows a lyre player from this closely adjacent Philistine city (fig. 3; Dothan 1975, 115). A bas-relief from Nineveh depicts what may be three Judean captives playing simple five-stringed oblique lyres (British Museum WA. 124947; Gadd 1936, 176, pl. 20; Pritchard 1969, no. 191; Rimmer 1969, pl. XI; Wafler 1975, 61-62, pl. 3.3; Rashid 1984, fig. 142). A number of terracotta figurines depict women playing what appear to be hand-drums or tambours, that is to say circular hoops with membranes, probably of leather, stretched over them (fig. 4; e.g. Macalister 1912, II, 414 and fig. 499; III, pl. CCXXI.2; May 1935, pl. XXVIII, p. 30; Crowfoot 1957, pl. XI, p. 79 no. 6; Elgavish 1978, 1103 = Weippert 1988, fig. 4.67; and in general Mazar 1990, 501-02). Other representa-

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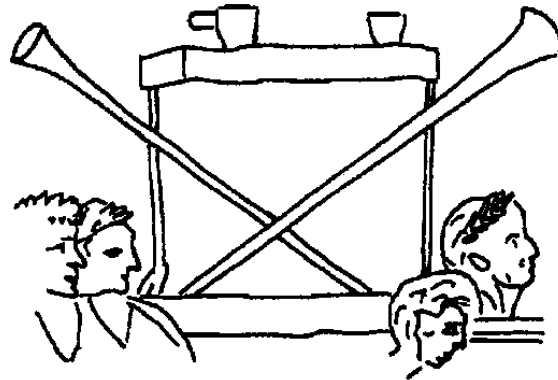


Fig. 5. Relief on the Arch of Titus in Rome illustrating part of the Temple treasure taken from Jerusalem in A.D. 70 (from Driver 1911, 273)

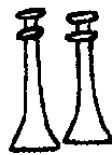


Fig. 6. Trumpets on a Jewish coin of the Second Revolt, A.D. 132-35 (from Hill 1914, pl. xxxv.5)



Fig. 7. Lyre on a Jewish coin of the Second Revolt, A.D. 132-35 (from Hill 1914, pl. xxxviii.3)



Fig. 8. Lyre on a Jewish coin of the Second Revolt, A.D. 132-35 (from Hill 1914, pl. xxxvi.5)

tional evidence comes from a much later date, and though the possibility of changes in tradition arising from Hellenistic and Roman influence means that care must be taken in using this material as an indication of what was in use in earlier times, it is worth mentioning. The carved relief of the first century A.D. on the Arch of Titus in Rome illustrates, among the Temple treasure taken when he sacked Jerusalem in A.D. 70, two long bell-mouthed trumpets, presumably of metal (fig. 5; Hanfmann 1967, pl. 295; Driver 1911, 273 [eighteenth-century line illustration]). In that these trumpets were so closely connected with the Temple it is probably safe to take them as an earlier type continuing in use. What were probably the same trumpets are represented in more stylised form, but with distinctly represented mouthpieces, perhaps adapted to assist the player to obtain his note with vibrating lips, on Jewish coins of the Second Revolt, A.D. 132-35 (fig. 6; Hill 1914, pls. XXXIV.15-16; XXXV.5-8). That this kind of mouthpiece was known at an earlier period is shown by a Greek seal of about the fifth century B.C., which depicts two mouthpieces like those of a modern trumpet with ridged stems for insertion into the tubular portion of the instrument (Boardman 1970, fig. 206 (p. 199), p.283). Coins of the Second

Revolt also depict two types of lyre, a rather elegant, probably Greek, instrument with a narrow soundbox and three strings (fig. 7; Hill 1914, pls. XXXIV.1, 11-14; XXXV.1-4 [three or four possibly local variations]; XXXVIII.3-5), and a cruder, perhaps more native, type, with a wider soundbox and up to six strings (fig. 8; Hill 1914, pls. XXXIII.8; XXXVI.4, 5; XXXVII.5). The number of strings shown on these coins was, of course, limited by the space available and it is reasonable to suppose that actual lyres of the period had a larger number of strings, like those of earlier periods (cf. fig. 1).

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The identification of the Hebrew names of instruments in the Old Testament with those represented in the actual corpus is inevitably a matter of uncertainty (see bibliography in Rowley 1967, 207 n. 4). Taking them in descending order of probability, it is reasonable to start from the likelihood, derived from representations, that metal trumpets played some part in the cultus of the Temple. According to the Old Testament the *ḥāšōšērâ*, in the Septuagint most commonly *salpinx*, 'trumpet' (English renderings of Greek terms are here taken from Mountford and Winnington-Ingram 1970, 709-10), and nearly always referred to in the plural, was made of hammered silver (Numbers 10.2) and was used by priests (2 Chron. 5.12; 13.14), so its identification as a metal trumpet is plausible, and this is indeed assumed by Josephus, who describes what he calls the *asōsra* as like a silver trumpet (*salpinx*; *Antiquities* 3.291; see in general Finesinger 1926, 61-63; and Yadin 1962, 87-113; Koehler, Baumgartner and Stamm 1967-90, 1, 331). There can be little doubt that a related instrument was the *šôpâr* or shofar, which was made from a curved animal's horn. This is clear from the mention *šôpêrôt hayyôbêlîm*, 'horn of rams' (Josh. 6.4, 6, 8, 13), in a context which also refers to them by the designation *qeren yôbêl* (Josh. 6.5; cf. Finesinger 1926, 22, 56-61).

For the next type of instrument specially attested for Palestine, the lyre, there are two possibilities among those mentioned in the Old Testament, the *kinnôr* and the *nēbel*. Both are described as made of special wood (1 Ki. 10.12; 2 Chron. 9. 11), and both were used in the worship of the Temple (1 Chron. 15.16). The wooden construction of the *kinnôr* is further attested in an Akkadian text from Ugarit listing the names of gods, one of whom is *ki-na-rum*, written with the determinative used with objects of wood. A parallel tablet inscribed in alphabetic cuneiform listing the same gods in the same order gives the spelling *knr* (Nougayrol 1968, 45, 59). The cognate form *kinnāru* only occurs rarely in Akkadian texts, evidently as a foreign loan-word (Oppenheim 1971, 387; von Soden 1959-79, 480), the probable Akkadian words for 'lyre' (and 'harp') being quite different (Stauder 1975, 214-18; Schmidt-Colinet 1981, 24-25). Josephus describes both *kinnôr* and *nēbel* as stringed instruments (*Antiquities* 7.305-06), and this is also indicated in the Old Testament, by implication of the *kinnôr* (1 Sam. 16.23), and specifically of the *nēbel* (Ps. 33.2; 14.4.9). The Septuagint renders *kinnôr* most frequently by *kithara*, 'lyre' (20 times out of 42; and the transliteration *kinura* 17 times), and *nēbel* most frequently by the transliteration *nabla* (14 times out of 27; *psalterion* 8 times, on which see below). It seems clear, therefore, that both were stringed instruments, and though some doubt must exist as to whether the Septuagint translators really understood what the Hebrew names represented, there is a fair possibility that the Septuagint translation of *kinnôr* as *kithara*, 'lyre', preserves a correct tradition, and that *nēbel* may reasonably be rendered 'harp' (cf. Finesinger 1926, 22, 26-4.4; Koehler,

Baumgartner and Stamm 1967-90, 4.60-61, 627). That the *nēbel*, in at least some cases, had ten strings is indicated by references to a *nēbel* 'āsōr, 'harp of ten', in the Psalms (33.2; 144.9), and it is probably reasonable to interpret a passage describing the accompaniment to praises of God in Psalm 92.3 (Hebrew 4) 'on a ten ('āsōr) and on a harp (*nēbel*) to the sound of a lyre (*kinnōr*)' as indicating two types of harp, one with ten strings, and, since ten was apparently worthy of special mention, the other with fewer strings.

The third instrument type specifically attested from Palestine, the tambour, is possibly to be identified with the Hebrew term *tōp* on the ground that the apparent use in Nahum 2.8 of *tāpap*, the verb derived from it, to describe women beating their breasts in mourning, suggests that the *tōp* was played by beating. This is supported by the Septuagint tradition where, out of its fifteen occurrences, it is rendered in all but one instance by *tumpanon*, 'tambourine'. This need only indicate that it was some kind of drum, but the pictorial evidence for the widespread use of the tambour favours this identification (see Finesinger 1926, 63-66).

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Of the other instruments, the *hālil* is rendered by the Septuagint in five of its six Old Testament occurrences by *aulos*, 'double-pipe', and is equated by implication, in the second to third century A.D. Mishnah, with the 'abûb which is there described as existing in 'bronze' (*nhšt*) and 'reed' (*qnh*) varieties (Arak. 2.3; Danby 1933, 545; Hebrew text conveniently quoted in Finesinger 1926, 49n.46), suggesting wind instruments. On this basis a very tentative identification as 'double-pipe' is plausible (see in general Finesinger 1926, 48-52; and Koehler, Baumgartner and Stamm 1967-90, 305 [where, however, a doubtful connection is made with Akkadian *halhallatu*, a percussion instrument]).

The word *mēsiltayim*, grammatically a dual form, suggests an instrument with two similar parts, and this is reflected in the Septuagint which renders it in all but one of its thirteen occurrences by *kumbala*, 'cymbals'. A broad clue to the identification of this instrument is found in a Ugaritic text where it is described as 'in the hands of (*mšltm bd*) a singer before Baal (Ba'al and Anat, V AB, A.i. 19; Gordon 1965, 253; Gibson 1978, 46; Caquot, Szyner and Herdner 1974, 155-56) This suggests an instrument in the string or percussion rather than the wind group, but does not provide more clarification than this. The identification as cymbals is supported by the information in 1 Chronicles 15.19 that they were made of bronze, and the probability of derivation from the base *šll*, 'to ring, quiver', or the like. It is a reasonable assumption that the related *šešēlīm* (also from *šll*), rendered *kumbala* by the Septuagint in two of their three occurrences, were also cymbals (see in general Finesinger 1926, 66-68; Koehler, Baumgartner and Stamm 1967-90, 962 [*šll* I], 590 [miles], 966 [*mšltym*]; Gordon 1965, 474 no. 2164). The possibility that there might be a chronological distinction between *mēsiltayim* and *šešēlīm* is examined below.

For the identification of *mēna'an'im*, mentioned only once, together with other instruments (2 Sam. 6.5), the evidence is still more tenuous. The Septuagint translates this word *kumbala*, an identification which, as has been suggested above, is more likely to be appropriate for *mēsiltayim*. The Latin Vulgate rendering *sistra*, however, provides a possibility in view of the form of the

word which is a participle of the verb *nw'*, 'to shake', in a reduplicated stem (Koehler, Baumgartner and Stamm 1967-90, 570) expressing rapidly repeated movement. Against this identification is the fact that, though the sistrum is well attested from various periods in Egypt, the evidence for it in the Levant (and Mesopotamia) is very meagre, consisting, in fact, only of a probable representation on an Old Akkadian cylinder seal (c. 2250-2150 B.C.) (Boehmer 1965, 119, 170 no. 957, and fig. 385; Stauder 1975, 183; Hartmann 1960, fig. 33), a possible representation on a Sumerian shell plaque (c. 2500 B.C.) from Ur (Woolley 1934, pl. 105; Hartmann 1960, fig. 27), and third millennium examples from Asia Minor (Ozguc and Akok 1958, pls. XII, XVII.1-3). Such an identification therefore can only be very tentative (see in general Finesinger 1926, 69-70; Koehler, Baumgartner and Stamm 1967-90, 570).

Two other instruments, the *'ûgāb* and the *šālîšîm*, are mentioned in the Old Testament, the former four times and the latter only once, in contexts which show they were used for music, but which give insufficient evidence for identification (Finesinger 1926, 52-53, 68-69; see however on *'ûgāb* Koehler, Baumgartner and Stamm 1967-90, 751).

These very tentative identifications suggest that the Hebrews used seven or possibly eight of the twelve instruments mentioned above as the types known in the ancient Near East in general, namely: (a) harp—*nēbel*, (b) lyre—*kinnôr*, (e) double-pipe—*hālîl*, (f) horn—*šôpār*, (g) trumpet—*hāšoṣērâ*, (i) tambour—*tōp*, (j) cymbals—*mēšiltayim/šelṣēlîm*, and possibly (l) sistrum—*mēna'an'îm*.

It will be useful here to set these possible identifications out in tabular form, with the degree of probability indicated by stars: **** for most and * for least likely. The traditional Authorised Version renderings are recapitulated in the right hand column for general orientation, but, since

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the translators chose instruments known to them in their own time, this also brings out the degree to which the corpus of musical instruments in use in western Europe has changed over only half a millennium. No doubt music in the ancient Near East was more conservative than it has been in Europe over recent centuries where the changes have been immense, but this does emphasise the uncertainty of identifying items in the Hebrew lexicon with actual objects found 'in the sphere of music, and illustrates one of the limitations on the reconstruction of the material world from ancient texts alone.

Hebrew name	Identification		AV
(a) <i>nēbel</i> —	harp	***	psaltery/viol
(b) <i>kinnôr</i> —	lyre	***	harp
(e) <i>hālîl</i> —	double-pipe	*	pipe
(f) <i>šôpār</i> —	horn	****	trumpet/cornet
(g) <i>hāšoṣērâ</i> —	trumpet	****	trumpet
(i) <i>tōp</i> —	tambour	**	timbrel
(j) <i>mēšiltayim/šelṣēlîm</i> —	cymbals	**	cymbals



Fig. 9. Nine-stringed lyre on an ivory plaque from Megiddo, thirteenth century B.C. (from Barnett 1982, pl. 19.a)



Fig. 10. Double-pipe on an ivory plaque from Tell el-Far'ah (South), thirteenth century B.C. (from Barnett 1982, fig. 10.a)

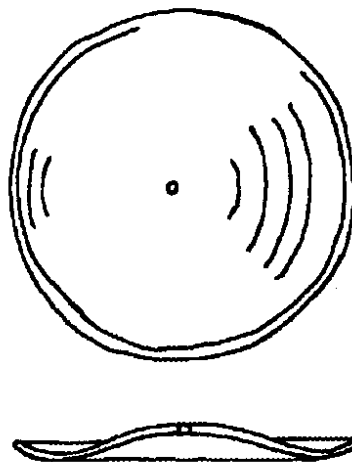


Fig. 11. Bronze cymbal from Tell Abu Hawam, thirteenth-twelfth century B.C. (from Hamilton 1935, 60, no. 369)

representation of the same general type of lyre occurs in the painted decoration on a Philistine strainer-spouted jug from Megiddo Level VIA (Loud 1948, pl. 76.1; Amiran 1969, 266-67, photo 273; Mazar 1976; Aharoni 1977, 843; Dothan 1982, fig. 28 and pp. 150-53; and see Davies 1986, pp. 42, 46). An incised ivory plaque from Tell el-Far'ah (South) showing a woman playing a double-pipe (fig. 10; Petrie 1930, pl. LV; Watzinger 1933, fig. 72; Barnett 1982, fig. 10.a), and a bronze tripod figure from Megiddo (probably Level VI(A)) in the form of a nude woman playing a double-pipe (Schumacher 1908, fig. 117, pp. 85-86; Watzinger 1929, fig. 20, pp. 26-31; Watzinger 1933, fig. 88 and pp. 106-07; and on the dating see Davies 1986, 45) perhaps support

this identification for the *ḥālīl*. Three pairs or sets of bronze cymbals, measuring in the region of 10 to 12 cm. in diameter, one from Tell Abu Hawam Level V (fig. 11; Hamilton 1935, p. 60.

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no. 369; and Maisler 1951 for general confirmation of the dating (Level v, 1300-1180 rather than 1400-1230 B.C.) and two from Megiddo Levels VII and VI (Loud 1948, p l. 185.6-7; the sets in pl. 185.4-5, though of the same form, are rather small for cymbals (c. 5 and 3.8 cm, in diameter), but are clearly in the same family and might have been played with the fingers like castanets rather than one in each hand), presumably show what the *mšltm* would have looked like. The three instrument types represented by these finds are all attested, together with the tambour, on a Philistine pottery offering stand from Ashdod, dating from the Late Iron Age I period, c. late eleventh century B.C., in Biblical terms, the time of the Judges (Dothan 1970; Dothan 1982, pl.33, pp. 249-51). These musicians, rather crudely formed in half relief, are shown facing outwards on the base of the offering stand. Five are represented, one, larger than the others, playing a double-pipe, and the smaller figures playing a lyre (damaged but probable), a double pipe, a tambour, and a set of cymbals. This consort lends colour to such Old Testament combinations, as those mentioned in the passages cited below from 1 Samuel, 2 Samuel and 1 Chronicles.

While there is evidence in the Old Testament that music, particularly singing, was used on secular occasions (Rowley 1967, 203-04), the majority of references suggest it played a significant part in religion, particularly in the worship of the Jerusalem Temple (Rowley 1967, 204-12).

The actual music played on the instruments available to the ancient Hebrews and sung to their accompaniment is largely unknown (see Werner 1962, 457-66, 469), but some passages in the Old Testament show that they were on occasion used in groups or consorts. According to 1 Samuel 10.5 Saul encountered a group of prophets following a *nēbel*, a *kinnôr*, a *ḥālīl*, and a *tōp*. In various accounts of David's bringing the Ark to Jerusalem, the *nēbel* and *kinnôr* are grouped either with the *tōp*, *šeššēlīm* and *mēšiltayim* (2 Sam. 6.5), with the *ḥāšošērâ*, *tōp* and *mēšiltayim* (1 Chron. 13.8) or with the *šōpār*, *ḥāšošērâ* and *mēšiltayim* (1 Chron 15.28), in the latter two instances together with singing. The use of *šeššēlīm* in Samuel in a passage generally regarded as early (see e.g. Eissfeldt 1965, 279) and *mēšiltayim* in Chronicles might appear to point to a chronological distinction between the two terms, particularly since *mēšiltayim* occurs otherwise in the Old Testament only in Chronicles, Ezra and Nehemiah. The other occurrences of the two terms do not bear this out however, since as already mentioned *mēšiltayim* is found also in Ugaritic (*mšltm*) and *šeššēlīm* in Mishnaic Hebrew (*šššl*; Dalman 1938, 364). S. R. Driver (1913, 266) was probably right, therefore, in treating them simply as variant forms. Psalm 68.24-25, (Heb. 25-26) speaks of a procession to the sanctuary (of the Temple) of 'singers' (*šārīm*), 'maidens playing the top' (*tōpēpôt*, the feminine plural of the active participle of the verb *lāpap*, 'to play a *tōp*') and 'instrumentalists' (*nōgēnīm*, the masculine plural of the active participle of the verb *nāgan*, 'to play (an instrument)'); Psalm 81.1-3 (Hebrew 2-4) speaks of shouting and singing to God accompanied by the *tōp*, the *kinnôr*, the *nēbel* and the *šōpār*; and Psalm 98.4-6

speaks of singing praises to Yahweh with the *kinnôr*, more than one *ḥāšoṣērâ* (*ḥāšoṣērôt*, plural), and the *šôpār*.

THE INSTRUMENTS IN DANIEL 3

While this paper has mainly dealt with the music of the Hebrews in Palestine, it provides an occasion for re-examination of the instruments attributed in the book of Daniel (chap. 3) to the time of Nebuchadnezzar in Babylonia. Twenty-five years ago Mr R. Joyce and I published a discussion of this matter (Mitchell and Joyce 1965, in which Joyce contributed section 5 on the *pēsantērîn* and *sûmpōnēyâ*, and I wrote the rest). At that time I began by listing the types known from the monuments, repeated in modified form above, as a corpus against which to set the

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presumed meanings of the names of musical instruments, and just as I have suggested that this is a valid approach for Palestine, *a fortiori* it must be appropriate for instruments said to have been used in Babylonia.

It is necessary to begin by eliminating from consideration the dulcimer, the related zither (basically sounding boards with strings stretched across parallel to them) and the bagpipe, which have sometimes been brought into the discussion of this passage, the former two still appearing in different roles in recent translations. Thanks to a nineteenth-century misunderstanding of the damaged representation of a horizontal harp in a relief of Ashurbanipal at Nineveh, it was thought for some time that the Assyrians knew the dulcimer, albeit a rather odd one. This was already rejected by Galpin (1937, 37), a judgement I have supported elsewhere (Mitchell 1980), and since the dulcimer was only a developed form of the psaltery (Remnant 1978, 1; 6-77), which was itself a form of zither, and none of these is properly attested until about the ninth century A.D. (Remnant 1978, 27), I believe all three of these types may be eliminated from the discussion. The monochord, said to have been invented by Pythagoras in the sixth century B.C., which is mentioned as early evidence of this type of instrument (Remnant 1978, 27), is scarcely relevant since even if it does date from that time, it had only a single string and was intended for experiment and demonstration. The alleged evidence for an early bagpipe is a Hittite relief of about the fourteenth century B.C. from Alaca Hoyuk in Asia Minor, showing a man holding an animal-shaped object in front of his face (Garstang 1929, 137 and pl. XXX lower; Wegner 1950, pl. 10.a). The figure might appear to be a musician, playing the animal-shaped object, so to speak; because he is shown between a lutenist and a man with an object to his lips which has been taken by some to be a wind instrument. The latter has an incurving crescentic end, however, and is better interpreted as a dagger, thereby reducing the likelihood of the middle figure being a musician, and K. Bittel is probably right in interpreting the figures as a sword-swallower and the bearer of an offering in the form of an animal-shaped vessel (Bittel 1976, pis. 218, 219, and p. 201; Cf. Galpin, 1937, 19, 'a performing bear cub'). Apart from this sculpture, there is no evidence for the bagpipe before the beginning of the Christian era (Remnant 1978, 135). It may therefore likewise be eliminated from consideration.

The list of instruments in the Aramaic portion of the book of Daniel names the following: *qeren*, *mašrôgî(t)*, *gaytērōs*, *pēsantērîn*, and *sūmpōnēyâ*. The passage runs *garnā' mašrôgîṭā gaytērōs šabbēkā pēsantērîn sūmpōnēyâ*, repeated four times in Dan. 3:5, 7, 10, and 15, with some variations as follows, quoted (without vocalization to bring out the differences) from the Leningrad Codex used in *Biblia Hebraica Stuttgartensia* 1976:

3:5	3:7	3:10	3:15
qrn'	qrn'	qrn'	qrn'
mšrwgyt'	mšrwgyt'	mšrgyt'	mšrwgyt'
qytrws	qytrs	qytrs	qytrs
sbk'	šbk'	šbk'	šbk'
psntryn	psntryn	Psntryn	psntryn
swypnyh	-----	sypnyh	swypnyh

The variations between *mšrwgyt'/mšrgyt'* and *qytrws/qytrs* are simply matters of vocalization, but those between *šbk'/sbk'* and *psntryn/psntryn* are clear indications that they are foreign loan words, and that between *swmpnyh/sypnyh* also points in this direction. It has already been pointed out by Rosenthal (1961, 24) that the ancient author made a distinction between the *qeren*, *mašrôgî(t)* and

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šabk' which have the termination *-ā'* of the Aramaic determined state, presumably indicating that they were regarded as part of the standard Aramaic vocabulary, and the *gaytērōs*, *pēsantērîn* and *sūmpōnēyâ*, which are in the absolute state, and were therefore evidently seen as foreign. These three words are indeed commonly taken by commentators as Greek loan-words deriving from *kitharis*, 'lyre', *psaltērion*, 'stringed instrument', and *sumphōnia*, '?', respectively.

The general background against which Greek loan-words in the Near East may be seen was already outlined by K. A. Kitchen in 1965 (1965, 44-46), and has been discussed subsequently by P. W. Coxon (1973-74), E. Yamauchi (1970; 1981; 1990, 379-82), and T. F. R. G. Braun (1982). Of particular relevance in the present context are a number of references to individuals from the Greek world receiving rations in Babylon in the time of Nebuchadnezzar. An archive of tablets excavated at Babylon mentions men from the 'land of Ionia' (KUR *ia-man-na*) or the 'land of the Ionians' (KUR *ia-man-na-a-a*) and in several cases 'Ionian' carpenters (Weidner 1939, 932-33 and see Brinkman 1989, 57-59, 66), and in another document of Nebuchadnezzar's time from a different source there is reference to a quantity of purple wool of 'Ionia' (KUR *ia-a-ma-nu*; Brinkman 1989, 57). While to the Babylonians in the sixth century B.C. 'Ionia' and the 'Ionians' cannot be assumed to have been simply 'Greece' and the 'Greeks', Greek colonists had been established in Ionia since well before this time (Jeffery 1976, 207-36), so it is reasonable to take them as referring to the area of Greek culture. There were also Lydians, neighbours of the Greeks in western Asia Minor, among those receiving rations in Babylon (Weidner 1930, 934), and it is

also relevant to observe that in this archive there is a record of rations issued to a number of Ashkelonite musicians, LÚ.NAR. MEŠ (Weidner 1039, 928, pls. IV line 23 with V line 26), *nāru* meaning either a singer or an instrumentalist according to the context (Oppenheim 1980, 376-79). That the Philistines had musical instruments is demonstrated by the eleventh-century pottery offering stand decorated with players of the lyre, double-pipes, tambour and cymbals, and the eighth century terracotta showing a lyre player, mentioned above, both from Ashdod, about ten miles from Ashkelon. It is thus clear that there were foreign musicians, perhaps with their own instruments, at that time in Babylon, and the fact that *nabla*, probably *sambukē* and possibly *tumpanon* (from Semitic *tp*, Yamauchi 1981, 45; Braun 1982, 26) were loan-words into Greek suggests some kind of interchange of instrument types.

In this context there is no problem in seeing the *qaytērōs* as a lyre from the Greek world, the final *-s* suggesting that the name represents *kitharis*, the Homeric form, rather than *kithara* which was derived from it only in the late sixth century B.C. (Maas and Snyder 1989, 30-31; see also Kitchen 1965, 48; Coxon 1073-74, 31; Yamauchi 1981, 37). The most recent Greek etymological dictionaries do not regard *kitharis* as a native Greek word (Frisk 1960, 454-55, 'LW aus unbekannter Quelle'; Chantraine 1983-84, 530, 'Inconnue. Empruntoriental probable'), but if it had originated in an area such as Asia Minor, it could still have come to Babylonia together with the instrument it applied to by way of the Greek world. The simpler type of lyre, the *phorminx*, is mentioned more frequently than the *kitharis* in Homer, and indeed in the *Odyssey* where Phemios is described as playing the *kitharis* for the suitors of Penelope, the verb is *phormizein* (1. 153-55) rather than *kitharizein*, which, however, does occur elsewhere in Homer.

In the surviving Greek sources the words *psaltērion* and *sumphōnia* are not attested of actual instruments until the fourth and second centuries B.C. respectively, but in considering words and the objects they refer to it is appropriate to recognize that the limitations of the surviving evidence mean that the name and the object are not always attested in the texts and the archaeological record in parallel, so to speak. Maas and Snyder point out that the *magadis* and *pektis* are already mentioned in the texts before the end of the seventh century while their presumed representations are not found until the second half of the fifth century, and, per

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contra, the *kithara*, assuming, somewhat less certainly, that it was a distinct and more developed form of the Homeric *kitharis*, is not attested in the texts until the late sixth century while its presumed representation is already attested in the eighth century (Maas and Snyder 1989, 201-02). Thus while *psaltērion* and *sumphōnia* are not attested in the Greek texts until after the sixth century this does not necessarily mean that the instruments they represented were not known at that time (this point was already made by Kitchen 1965, 48-49).

A further look at the evidence, mostly pictorial, for musical instruments in the ancient Greek world has led me to take a different view of the probabilities of Greek loans abroad. There are now convenient volumes by Paquette (1984), which groups the instruments by type, and Maas and Snyder (1989), which deals with stringed instruments, and the extensive collections of illustrative material given in the useful and easily accessible handbooks of Athenian Black and

Red Figure Vases by John Boardman (1974, 1975, and 1989), chosen, it is true, for art historical reasons, but nevertheless representing a reasonable sample. In this latter source I have been struck by the large number of representations of lyres of different kinds (10 in Boardman 1974; 33 in 1975 32 in 1989), as against only one harp (Boardman 1989, pl. 144; and frequently reproduced elsewhere, Wegner 1949, pl. 19; 1964, pl. 22; Cook 1972, pl. 46A; Roberts 1980, pl. 31; Paquette 1984, pl. IB; Maas and Snyder 1989, pl. 5 (p. 102)), an impression confirmed by the relative space devoted to the two types in the volumes of Paquette (1984, 101 pages (84-185) as against 7 (186-92)), and Maas and Snyder (1989, roughly 145 (2-147) as against 9 (147-55)). There is already substantial evidence for lyres in the pre-classical period in Greece (Maas and Snyder 1989, chapters I and II), and by the seventh century the range included the basic form consisting of a tortoise-shell soundbox or a wooden version of the same thing with shorter (*lura*) or longer (*barbitos*) arms, as well as a large and often very elaborate instrument (*kithara*), an idea of which can be gained not only from vase paintings and relief sculptures (e.g. Roberts 1980, pl. 40) but also from a carved ivory figure from Samos which was probably part of one of the uprights of a seventh-century lyre (Boardman 1978, pl. 54; Barnett 1982, p. 62.a-c and p. 59). The loan of a harp type from the Greek world to Mesopotamia seems doubly unlikely in view of the number of harps attested in the latter region (see the numerous entries under (a) in the table on p. 124 above).

Maas and Snyder (1989, 153-54), while recognizing that the harp does not appear in the Greek sources until the late fifth century, point out that it was apparently a woman's instrument and was therefore seldom represented. They further suggest that one type of harp with no apparent Near Eastern antecedents might have been in use for some time, even centuries, before it is first represented in the monuments. It is doubtful whether this is relevant in the present context, however, since, if it was used mainly by women in seclusion, it is unlikely to have been a type borrowed abroad.

This evidence leads me to think that the *pēsantērîn*, if it was a loan-word from Greek *psaltērion*, is perhaps more likely to have been some kind of lyre than a harp as we suggested in 1965. The Greek word *psaltērion* could refer to a specific instrument, but it was also used as a generic term for stringed instruments played with the fingers without a plectrum (cf. *psallein*, 'to pluck') and could be applied in this sense to several instruments, many of which are usually considered to have been harps (Michaelides 1978, 276 and svv.). Maas and Snyder appear to assume that the verb *psallein*, from which *psaltērion* is derived, always implies a harp, and that *kronēin* ('to strike') always implies a lyre, all instruments in the psalterion class therefore being harps (1989, 151), but elsewhere they mention occasional plucking of instruments of the lyre type (1989, 170), and Roberts has argued that plucking played a significant part in the playing of lyre-type instruments (1980). It thus seems possible that the term *psaltērion* could apply to a lyre.

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Concerning the third Greek loan-word, *sūmpōnēyâ*, I still find Joyce's suggestion that it could be derived from a dialectal form of *tumpanon*, 'drum' or 'tambour', appealing (cf. Ellenbogen 1962, 122 n. 2, and Hartman and Di Lella 1978, 157, who quote Isodore of Seville as defining Latin *symphonia* as a kind of drum), but just as I have been struck by the proliferation of

representations of lyres in the Greek sources I have to recognize that while drums are well attested in first-millennium Mesopotamia there is no such clear evidence in the Greek representations. Moreover the tambour, also well attested in Mesopotamia, is not found until the latter part of the fifth century in Greece (e.g. none in Boardman 1974 or 1975, and in 1989 only pls. 177, 229, 285, 294, 324; see also Remnant 1978, fig. 144), and was in any case possibly borrowed the other way if *tumpanon* is a loan-word from Semitic *tp*. Another possibility, that the *sumphōnia* might have been a metal flute, was favoured by Finesinger (1926, 54-56) who drew attention to a passage in the Mishnah in which it is associated with the *ḥālīl* as susceptible to uncleanness if made of metal (Kelim 11.6; Danby 1933, 620; text quoted in Finesinger 1926, 55 n. 57). This suffers, however, from the objection that there are no wind instruments shown in the Greek monuments which were not already present in the Near East. The Mishnah is, moreover, for present purposes, a late source, and needs to be treated with reserve. The matter therefore remains uncertain, and, pending better evidence, some special variety of tambour may still be postulated.

Of the other three instruments, there is nothing material to add concerning the *qeren* and *mašrōgī(t)*, which are generally agreed to be a horn and some kind of whistle-like instrument, technically an end-blown flute.

The remaining term *śabk* is probably cognate with Greek *sambukē*, which is generally taken to be a loan-word from some oriental source (Frisk 1970, 674; Chantraine 1983-84, 986). The uncertain initial consonant *ś/s* already noted indicates that it is also a foreign loan-word in Aramaic, so both may be presumed to derive from a third common source. The usage of *sambukē* might nevertheless give some indication of the meaning of *śabk*. J. G. Landels (1966) has discussed the *sambukē*, particularly in the light of a number of texts which use the same word to describe a military siege engine, rather, he suggests, in the way of a serviceman's joke, and therefore probably indicating only a very crude similarity (for similar linguistic jokes see Burn 1960, 133). All this seems to indicate, therefore, is that it was in some way triangular in shape. The texts which refer to the *sambukē* as a musical instrument are mutually inconsistent, describing it variously as having four or many (*poluchordon organon*) strings, but there does seem to be agreement to the extent of describing it as triangular and high in pitch, suggesting short strings and relatively small size. Landels, with some reserve, favours the idea that it might have been a four-stringed lute, *poluchordon organon* being a reference to the many notes which could be obtained by use of a fingerboard, and the triangle being the shape of the strings rising over the bridge as seen from the side. He acknowledges the rarity of lute-type instruments in the Greek world, where they do not seem to appear before the late fourth century B.C. (Higgins and Winnington-Ingram 1965; Maas and Snyder 1989, 185-86), a problem which also applies, though less so, to the harp. If the triangular shape was a particularly significant feature, this seems to point more to a harp than a lute. Landels wisely ends on a 'note of regrettable uncertainty', and this must be the conclusion. It was clearly a stringed instrument, perhaps a harp.

Many of the new translations of the Bible which have appeared since 1965 have continued to produce unsatisfactory renderings of the names of the musical instruments in Daniel, and few of the commentaries have had anything very useful to say. Most of them are limited by the fact that

they have to use an existing version as their basis, usually the RSV (Wood 1973, Baldwin 1978, Ford 1978, Hartman and Di Lella 1978, Russell 1981 and Whitcomb 1985), occasionally

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the NEB (Hammer 1976), and even the AV (Walvoord 1971), and are not obliged to settle on any precise rendering. A. Sendrey (1969) deals at some length with the six instruments. He includes useful citations of Hebrew, classical, and more recent sources, and his conclusions follow fairly traditional lines: 'horn' (implied), 'pan pipe' (implied), 'lyre', 'horizontal angular harp', 'dulcimer' ('could very well be conceivable'; citing in support the Assyrian relief referred to above), 'full consort' (1969, 365-68, 324.-25, 299-300, 294-96 296-99, and 325-32 respectively; and in general 430). P. Grelot has devoted an article to the subject (1979), but while he has collected a wealth of useful information in it, much of the paper consists of a survey of the opinions of others, ancient and modern, and the rather disjointed consideration of the archaeological evidence does not lead to convincing results. K. Beyer includes the words in the *Wörterbuch* portion of his compendious and valuable volume, but likewise with not very convincing results (1984, 687, 719, 683, 700, 669, and 644 respectively). O. Betz (1974, 307) deals briefly with *sumphōnia*, quoting 'double flute', or 'bagpipe' as possible meanings, the latter in spite of his citation of an early article 'Sumphonia not a Bagpipe' by G. F. Moore (1905).

Tabulated below are the renderings of the main post-1865 English Versions and commentators, beginning with the Authorised Version, the Revised Standard Version which is still widely used, and our 1965 suggestions, and ending with my very tentative current suggestions, the last three of which need question marks.

	<i>qeren</i>	<i>mašrôgî(t)</i> ,	<i>qaytērōs</i>	<i>šabk</i>	<i>pěsantērîn</i>	<i>sūmpōněyâ</i>
AV	cornet	flute	harp	sackbut	psaltery	dulcimer
RSV	horn	pipe	lyre	trigon	harp	bagpipe
M&J	horn	flute	lyre	triangular harp	drum	harp
NEB	horn	pipe	zither	triangle	dulcimer	music
TEV	trumpet	oboe	lyre	zither	harp	other instruments
NIV	horn	flute	zither	lyre	harp	pipes
Grelot	cor	syrinx	cithare	sambuque	psaltier	double-flute
Beyer	Horn	Flöte/Pfeife	Zither	Sambuke	Harfe	Doppelflöte/ Sackpfeife
Goldingay	horn	pipe	cithara	trigon	psaltery	ensemble
REB	horn	pipe	zither	triangle	dulcimer	full consort
TCM	horn	flute	lyre I	harp	lyre II	tambour

(RSV = Revised Standard Version 1952; M&J = Mitchell & Joyce 1965; NEB = New English Bible 1970; TEV = Today's English Version ('Good News Bible'; 1971; NIV = New International Version 1978; Grelot 1979; Beyer 1984; Goldingay 1889; REB = Revised English Bible 1989).

In the versions, apart from 'dulcimer' and 'zither', which I have argued are anachronistic, 'triangle', if it is intended to indicate some kind of harp, is simply misleading because it refers properly to a plain metal triangle struck with a beater, which was not known until the second millennium A.D. (Remnant 1978, 170). 'Oboe' is also an anachronistic term since it is an instrument not known until the seventeenth century A.D. (Remnant 1978, 124), though its use is perhaps not so inappropriate in the TEV as it would be in other versions, since the aim was to be comprehensible to those without any academic background.

Recent commentators have followed more or less traditional lines in expounding the six words. Some explanations are rather obscure: Hammer and Wood, for instance, explain the *pēsantērîn* as a triangular stringed instrument with the sounding board above the strings. The

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term which has produced the greatest variety of interpretations is *sūmpōnēyâ*. Apart from the long known possibility that it simply means 'ensemble' or something of the kind, 'drum', or some kind of percussion instrument is favoured by Whitcomb and by Hartman and Di Lella, and is mentioned as a second possibility by Baldwin and Goldingay. Walvoord favours 'wind instrument', also listed as a secondary possibility by Goldingay, and unfortunately Wood thinks 'bagpipe' remains the most likely.

The book of Daniel purports to relate to Babylonia in the sixth century B.C., but many commentators place its date of composition in the second century B.C. This is not the place to enter into this debate, and the evidence discussed above is capable of being interpreted in either way, though the form *qaytērōs* rather than *qaytērâ* perhaps points to the earlier date. If the second-century date were correct the renderings 'harp' for *pēsantērîn* and 'tambour' for *sūmpōnēyâ* would be more likely, but this would simply be a matter of translation once the dating was settled on other grounds:

NOTE

The main part of the present paper is a modified version of a section prepared for Chapter 31 of the revised *Cambridge Ancient History*, In. 2, 1991, but omitted through lack of space. The discussion of the musical instruments named in the book of Daniel has been added at the suggestion of the Editor. In the transliteration of Hebrew and Aramaic I have not indicated the spirantization of the *begadkepat* consonants, and I have used the circumflex simply to indicate the presence of *mantes lectionis* with long

vowels. For Greek I have represented upsilon by *u* and not *y*, and have followed the usual convention of transliterating gamma (*g*) as *n* when it is followed by *g*, *k*, *x* or *ch*. I am grateful to Brian Cook and other former colleagues in the Department of Greek and Roman Antiquities of the British Museum, particularly Donald Batley, Lucinda Burns, Judith Swaddling, and Veronica Tatton-Brown, for information and help in finding publications.

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