The Musical Instruments in Nebuchadnezzar’s Orchestra

T. C. Mitchell and R. Joyce*

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The aim of this paper is to investigate the possibilities of identifying the musical instruments named in ‘Nebuchadnezzar’s orchestra’ in the third chapter of the book of Daniel, and at the same time to show that a date in the sixth century BC for the use of these instruments cannot be ruled out on the present evidence. To do this the method will be to assume a sixth-century date as a working hypothesis, and to examine the extra-biblical sources for any light they may have to throw on the musical instruments of the Ancient Near East.

The passage in question, which is four times repeated, in Daniel 3:5, 7, 10 and 15, runs as follows: qāl qarnā’ mašrōqītā’ qayfīrōs šabbākā’1 p’santērin sūmpōn’yā w’kōl zînē z’mārā’. It may be of interest to append a table giving some of the translations of these terms which are given by various versions.2

<table>
<thead>
<tr>
<th>MT</th>
<th>geren</th>
<th>mošrōqi</th>
<th>qayfīrōs</th>
<th>šabk</th>
<th>p’santērin</th>
<th>sūmpōn’yā</th>
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<tr>
<td>LXX</td>
<td>salpinx</td>
<td>syrinx</td>
<td>kithara</td>
<td>sambākē</td>
<td>psaltērion</td>
<td>symphōnia</td>
</tr>
<tr>
<td>Vulg.</td>
<td>tuba</td>
<td>fistula</td>
<td>cithara</td>
<td>sambāca</td>
<td>psaltērium</td>
<td>symphōnia</td>
</tr>
<tr>
<td>Knox</td>
<td>cornet</td>
<td>flute</td>
<td>harp</td>
<td>zither</td>
<td>dulcimer</td>
<td>pipe</td>
</tr>
<tr>
<td>AV</td>
<td>cornet</td>
<td>flute</td>
<td>harp</td>
<td>sackbut</td>
<td>psaltery</td>
<td>dulcimer</td>
</tr>
<tr>
<td>RV</td>
<td>cornet</td>
<td>flute</td>
<td>harp</td>
<td>sackbut</td>
<td>psaltery</td>
<td>dulcimer</td>
</tr>
<tr>
<td>RSV</td>
<td>horn</td>
<td>pipe</td>
<td>lyre</td>
<td>trigon</td>
<td>harp</td>
<td>bagpipe, mg.</td>
</tr>
<tr>
<td>Luther</td>
<td>posaune</td>
<td>drommete</td>
<td>harfe</td>
<td>geige</td>
<td>psalter</td>
<td>laute</td>
</tr>
<tr>
<td>Pléiade</td>
<td>trompette</td>
<td>flûte</td>
<td>cithare</td>
<td>sambuque</td>
<td>psaltērion</td>
<td>cornemuse</td>
</tr>
<tr>
<td>GBA §46</td>
<td>horn</td>
<td>pipe</td>
<td>zither</td>
<td>sambuke</td>
<td>psaltery</td>
<td>symphony</td>
</tr>
</tbody>
</table>

Unfortunately for most of these words the evidence of context provides nothing since, except for geren, they occur in the Bible only in this one phrase. All that the context indicates is that they have to do with music.

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A. INSTRUMENTS KNOWN FROM ANTIQUITY

The monuments and actual examples from excavations provide illustrations of many different ancient musical instruments. The only drawback is that in many cases it is impossible to be certain what particular instruments are represented. The following list of types of instrument known is drawn from a study of the material from Mesopotamia, Syro-Palestine (particularly

* The bulk of this paper is the work of T. C. Mitchell; R. Joyce has supplied the section on psaltērion and symphōnia, pp. 25-27.
1 Spelt sabbākā’ in verse 5; see below.
the so-called Neo-Hittite states), Anatolia, Cyprus, and the Aegean. Egypt is less extensively drawn on since it is not so directly relevant in the present enquiry, and since it duplicates to a large extent the evidence of the other areas. Taking the instruments in the general order, percussion, wind, strings, those found are: clapper, cymbals, sistrum, tambourine, drum, horn, trumpet, flute, double pipe. It would seem reasonable to choose


The principal example is in a relief of Sennacherib from Nineveh, H. R. Hall, *La sculpture babylonienne et assyrienne au British Museum* (1928), pl. XXXVIII.2 (= *MAO*, no. 98 = *ANEP*, no. 202).

Best known from Egypt from the early second millennium on (*MAO*, nos. 19, 20, 41); fairly certainly represented on Mesopotamian cylinder seals of the third millennium (*UE*, II, pl. 105, p. 260; L. Delaporte, *Catalogue des Cylindres… Musée du Louvre* (1920), no. A.172, pl. 74, p. 113; *MS*, pl. II.3); on a carved steatite vessel from Crete (H. Bossert, *Alktreta* (1923), no. 95 (= *MAO*, no. 42)) and in a bronze example from Horoztepe in Anatolia, c. 2000 BC (no. 81 in the catalogue of an exhibition held in London, *Hittite Art and the Antiquities of Anatolia*, 1964).

This occurs both with and without disc jingles in its rim, but when without it could be interpreted as a small hand-drum. In default of clear evidence however all representations are treated here as tambourines. There are third millennium representations in Mesopotamia (A. Parrot, *Textures, Tels*, 1948, figs. 37, 49; *NB*, fig. 383); examples in the Assyrian reliefs (*AS*, pl. XVI; *NI* pls. XVI, XVII; H. R. Hall, *La sculpture babylonienne et assyrienne au British Museum*, pl. XXXVIII.2); and the Neo-Hittite reliefs (*AK*, pl. XV.75; *ASD*, III, fig. 259b; pl. LXII; cf. *MAO*, no. 80); and on bronze dishes from Cyprus and Olympia of the seventh century (*HCC*, no. 1006; *MAO*, no. 84; *AOTB*, II, no. 457).

UE, II, pl. 105, p. 259; *MS*, pl. 113; *NB*, fig. 367; *MS*, pl. 111.2; *NB*, fig. 392, show examples of all periods in Mesopotamia. *C*, II, pl. B.18.b; *AK*, pl. XI.55, show Neo-Hittite examples, and there are specimens in pottery from Ras Shamra and from Beycesultan in western Anatolia of the early second millennium (S. Lloyd and J. Mellaart, *AS*, VI, 1956, pp. 128, 131, fig. 3, no. 18), but they do not appear in Greek art of the early first millennium.


It represented on the Nimrud ivories of the eighth century BC (*NI*, pls. XVI-XVII, CXIX) and on the reliefs of Ashurbanipal in the seventh century BC (*SA*, pls. 40, 42; *NB*, fig. 392). A twelfth-century carved ivory from Palestine (W. M. Finders Petrie, *Beth Pelet*, 1 (1930), pl. LVa), the eighth-century Neo-Hittite reliefs (*C*, II, pl. B.17.b = *MAO*, no. 66 = *ANEP*, no. 200; *AK*, pl. XI.55; XIII.68; XV.74), and an eighth-century bronze dish from Cyprus (*MAO*, no. 83; cf. *HCC*, nos. 1027, 1264) all depict double pipes. In the Aegean it is found in the Cycladic figurines of the third millennium BC (*MAO*, no. 23), on a late second millennium painted sarcophagus from Crete (H. T. Bossert, *Alktreta*, nos. 71, 72), and in numerous representations, mostly on pottery, from the
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from these in any attempt to identify the components of the orchestra described in Daniel 3. The great gaps in time when types are unattested serves to highlight the paucity of the evidence for most periods, particularly that of the Neo-Babylonian Empire, for which recourse has to be had to the Assyrian monuments. One significant fact is the apparent wide distribution, especially in the first millennium BC, of particular types of instrument, for in many cases the instruments on those isolated islands of evidence we have—the Assyrian reliefs, the Neo-Hittite monuments, and the Greek vase paintings—are surprisingly similar. It seems from this that the transfer of musical instruments, perhaps through the agency of musicians’ guilds, may have been taking place over long distances. That there was intercourse between the civilizations of the Aegean and of the Tigris-Euphrates plains has
eighth to sixth centuries BC in the Greek world (DAB, pl. 23.2, pp. 59-60; pl. 43.2, pp. 86-87; HGB, pp. 82-83, 144-145, 216, 262-263, 280-281, 300-301, 343, 362-363; M. Wegner, Das Musikleben der Griechen (1949), pl. 4a, p. 56; AOTB, II*, no. 457).

13 In the second millennium it was known in Babylonia (A. Parrot, Tello, fig. NB, fig. 380; MAO, no. 63) and in the seventh century in Assyria (S4, pl. 40), while it is found a little earlier in an Imperial Hittite relief from Alaca Hüyük (MAO, no. 43, pl. 10a) and several times in the Neo-Hittite sculptures (C. II, ph. B.17.b = ANEP, no. 200 B.30.b; ASD, III, fig. 119, pl XXXVIII.a; AK, pl. XV.76) and in a Mycenaean context in Cyprus (HCC, no. 1574).

14 The harp is very frequently depicted in Sumer in the third millennium (UE, II, pp. 249-258; L. Delaporte, Catalogue des Cylindres... Musée du Louvre, no. A.172, pl. 74, p. 113; NB, figs. 372.B, 373.B, 374) and in the second millennium in Mesopotamia (NB, figs. 376, 379; H. Frankfort, The Art and Architecture of the Ancient Orient, pl. 59.B). It appears in the Assyrian reliefs from the ninth to the seventh centuries BC, often played with sticks, making it perhaps more correctly a dulcimer (A3c, pls. XVI.2, XIX.1, 2; S4, pl. 22 = R. D. Barnett, Assyrian Palace Reliefs (1960), pl. 90 NB, fig. 392). See also in general, W. Stauder, Die Harfen und Leierm in Babylonischer und Assyrischer Zeit (1961). A sixth-century occurrence may be noted from Cyprus (HCC, no. 1265), but it is only found in Greece in third millennium marble statuettes from the Cyclades (MAO, no. 22).

15 This is very well attested in third millennium Sumer (UE, II, pp. 249-258; NB, figs. 366, 372; A. Parrot, Tello, pl. XX.a, pp. 174-176 = MAO, no. 26, pl. 6.b) and later (NB, fig. 376), and in different forms in the Assyrian monuments (NI, pl. CXIX; S4, pls. 20 (= ANEP, no. 202), 25, 42; NB, fig. 391; see also the works of W. Stauder, n. 14); also in Asia Minor in the second millennium (H. Goldman, Excavations at Gözlü Kule, Tarsus, II (1956), pls. 394.35; 400.35; cf. an unpublished cylinder seal from Mardin in the British Museum, B.M. 134306), in Cyprus (E. Gjerstad, The Swedish Cyprus Expedition, I (1934), pl. 76.67, p. 474) and at Megiddo on an ivory (G. Loud, The Megiddo Ivories (1939), pl. 4.2 = MAO, no. 61, thirteenth century, with nine strings) and on a Philistine pot (G. Loud, Megiddo, II (1948), pl. 76.1, same date, four strings). Examples also occur from the tenth to the seventh century in Cilicia (H. Goldman, Excavations at Gözlü Kule, Tarsus, III (1963), pls. 162.10; 165.10, pp. 351, 357, and see E. Porada in S. S. Weinberg (ed.), The Aegean and the Near East (1956), pp. 185-211), Cyprus (HCC, no. 2166; MAO, no. 81), and the Neo-Hittite carvings (A. Moortgat, Tell Halaf, III, Die Bildwerke (1955), pls. 100, 101 = MAO, no. 70; ASD, III, pl. LXII; AK, pls. XI.55, XV.74). The Aegean, Crete and mainland Greece have produced second millennium examples (H. R. Hall, Aegean Archaeology (1915), pl XXVIII = R. W. Hutchinson, Prehistoric Crete (1962), pl. 20; H. L. Lorimer, Homer and the Monuments (1950), p. 456) and then there are various forms from the ninth to sixth centuries, mainly on painted pots (DAB, pl. 36.1, pp. 77-78, 43.2, pp. 86-87; B. V. Head, A Guide to the Principal Coins of the Greeks (1959), pl. II, no. 1.A.35, p. 35 (Calyrna); H. Payne, Necrocorinthia, fig. 44A, p. 119; 34.3; HGB, pp. 55-56, 300-301, 406-407; M. Wegner, Das Musikleben den Griechen (1949), pl. 1.a, b, p. 29; MAO, no. 82; AOTB, II*, no. 554, pl. CCXVI, pp. 159-160; H. Lorimer, Homer and the Monuments, p. 456. Another instrument which appears once on an eighth-century Nimrud ivory (NI, pl. XVI-VII) is a rectangle with strings of equal length stretched across its shorter dimension. This is sometimes identified as a ‘psaltery’ (NI, p. 191).

16 Some of the common elements in the early first millennium representations from Nimrud (ivories), Cyprus, Crete and sometimes Greece are perhaps due to the distribution of artistic motifs by the Phoenicians, but it seems reasonable in general to assume the presence of musical instruments in the areas where representations of them are found.
been made clear by the remarks of K. A. Kitchen (below, pp. 44-48). Though in the earlier inscriptions the *ia-man-a-a* may have come from Cicilia, they pro-

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bably came ultimately from the west, and in Achaemenid times *Yauna* fairly clearly refers to the Ionia of the Greeks.17

### B. THE TERMS IN DANIEL 3

Turning now to the biblical terms, etymology is a doubtful aid to meaning, but it is possible that some hints may be found there. Since there are no discernible Semitic etymologies for most of these words, the hopeful enquirer, having in mind the presence of musical instruments in the Neo-Hittite, the Hittite, and the Aegean monuments, will turn to the word-stores of the Hieroglyphic Hittite, the Hittite, and the Mycenaean Greek texts. An examination of these, however, yields no clear connections. The remaining source is the Classical Greek literature, and it is here that connections have been found, which will be considered. It must be borne in mind that these texts, like the monuments, only provide islands of evidence in the sea of languages which must have been spoken in the area in antiquity, and most of which are now lost.

1. *qeren*. As to the individual words, *qeren* presents little difficulty since it seems clear that its primary meaning was ‘horn’ (of an animal), and, by extension, the wind instrument formed from a horn.18 The Akkadian word *qarnu* does not appear to be used of a musical instrument in the texts drawn upon by the available lexicons,19 although this is one area of evidence only. Most of the versions and recent translations take the sense to be ‘horn’, ‘cornet’, ‘trumpet’, or something of the kind (see p. 19), and this is the most reasonable type of instrument, so far as can be judged. In view of the rarity of trumpets in the monuments the translation ‘horn’ is probably to be favoured.

2. *mašrôqi*. In the absence of contextual evidence, the only clue to the meaning of the term *mašrôqi* is through the possibly cognate Hebrew verb *šāraq*, ‘to hiss’, suggesting some kind of whistling instrument. If this straw of evidence is accepted, the choice would be between the ‘flute’ or the ‘double pipe’ with the ‘flute’ perhaps being the more likely, in spite of its rare representation in the later monuments, since its note might perhaps be nearer to a hiss than

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the full-bodied note of the reed pipe. There is not sufficient evidence to go further than this.

3. *qayfros*. The word *qayfros* is translated *kithara* by the Septuagint, and, though it also employs this term to translate *kinnôr*, ‘lyre’, *nēbel*, ‘harp’, *nūgūnā*, ‘song with string

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18 *BDB*, p. 901.
accompaniment’, and ‘ūgāb, ‘flute’.\(^{20}\) it seems reasonable either to follow most commentators in taking qayṭārūs as a loan-word from kithara itself;\(^{21}\) or to take them both as borrowings from an unknown common ancestor, since kithara is considered by some to be a foreign word in Greek.\(^{22}\) The word occurs in the form kitharis in Homer,\(^{23}\) though here it cannot be closely defined from the contexts, and in numerous examples in later Greek literature where it is clearly a type of lyre,\(^{24}\) in later times, at any rate, an elaborated form of the simpler lyra.\(^{25}\) The variety of lyre types attested in the Aegean, not only in the second millennium, shows the possibility of such elaboration by then. It might, of course, be asked why the Babylonians should borrow a lyre from the Aegean, if lyres were already well-attested in Mesopotamia. The answer could be that the kithara was a special variety, not known to the Mesopotamian cultures.\(^{26}\) This opens the possibility that one of the other terms used in this passage in Daniel might refer to another type of lyre, and indeed, one of the reliefs of Ashurbanipal from Nineveh shows two musicians together, one with an eight-stringed and one with a five-stringed lyre.\(^{27}\)

4. šābk. The term šābk, occurring only in this one context, is spelt with šin in verses 7, 10 and 15 but with samek in verse 5, a variation which may point to a foreign origin. It is commonly connected with Hebrew šēbākā, ‘lattice work, network’, and the supposed verb šābak, ‘to interweave’, suggesting a stringed instrument,\(^{28}\) but this seems unsatisfactory since no musical instrument can be strung in a network manner. The Septuagint translates it by sambukē, and a connection is suggested with this term in classical Greek,\(^{29}\) where it is considered to be a foreign word, and indeed to have been possibly a loan from Aramaic.\(^{30}\) Since it has no acceptable etymology in either language, however, it may be that both šābk and sambukē came from a third, unknown source, perhaps like qayṭārūs

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and kithara.\(^{31}\) Even if this is so, the meaning of the Greek sambukē, a four stringed triangular harp, or something similar, may give a clue to the meaning of šābk, though it need not necessarily be expected to have precisely the connotation of the later classical term. There are a number of triangular harps in the monuments, and in the Assyrian reliefs these seem usually to be horizontal,\(^{32}\) so in the absence of other evidence the meaning ‘horizontal harp’ can be reckoned a plausible guess for this word. Just as more than one type of lyre is depicted on the monuments, so is this true of harps,\(^{33}\) so such an identification as this need not rule out the possibility of a different sort of harp among the other instruments.

\(^{22}\) M. Ellenbogen, *loc. cit.*
\(^{23}\) *Iliad* 13. 731; *Odyssey* 1.153.
\(^{24}\) *LSJ*, p. 950.
\(^{25}\) *OCD*, p. 588.
\(^{26}\) Such modern parallels as the Stradivarius violin come to mind.
\(^{27}\) *NB*, fig. 391, p. 310.
\(^{28}\) *BDB*, p. 1113.
\(^{29}\) *Ibid.*
\(^{30}\) *LSJ*, p. 1582; E. Boisacq, *Dictionnaire Etymologique de la Langue Grecque* (1938), s.v. ‘asiatique’.
\(^{31}\) As is suggested by H. H. Rowley, *AOT*, p. 146.
\(^{32}\) E.g. *ASc*, pls. XVI.2; XIX.1, 2; *SA*, pl. 22.
\(^{33}\) Cf. those cited in n.36 with *SA*, pl. 22. On harps from Babylonia and Assyria in general, see W. Stauder’s works, n.14.
5. *p' santērin*, *sûmpōn'yā*. The last two items of the list show slight variants in the several passages. *sûmpōn'yā* is omitted in 3:7 in 3:10 the Qērt has *w*sûmpōn'yā and the copula is actually found in the Kethib of 3:15. These variants may be due to scribal carelessness, but alternatively it may be that the last word was considered to be less important than the others and that its syntactical relationship to the rest of the sentence was uncertain.

These two words are generally regarded as borrowings from Greek, in which they do not appear until some time later than the sixth century BC. The fact that the words do not occur earlier does not mean they did not exist, however, and could have been made known in Babylon by traders, mercenaries or deported artisans (see below, pp. 44-46) at the time in which Daniel’s life is placed.

There is general agreement as to the identification of the *psaltērion* (*p' santērin*), ‘a stringed instrument of triangular shape’. The word is not found before Aristotle, although the verb *psallō* is used earlier in musical contexts. The absence of the noun may be due to the fact that it was not used in serious music.

The identification of *symphōnia* (*sûmpōn'yā*) poses several problems. According to S. R. Driver it denotes in later Greek ‘a bagpipe, an instrument consisting essentially of a combination of pipes...’. The noun is first recorded by Plato, and in more than one sense, e.g.

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| ‘harmony of several notes’ | *Cratylus* 405D |
| ‘harmony of two notes’ | *Rep.* 531A |
| ‘agreement’ | *Legg.* 689D |

Later Polybius used the word describing the activities of Antiochus Epiphanes (26.10:31:4), but here it could mean ‘orchestra’. It is not an instrument in Luke 15:25.

Consequently it appears that, if *sûmpōn'yā* is a borrowing of *symphōnia* in the sense of an instrument, then its use in Daniel is consonant with a late date for the composition of the book. Perhaps, however, an alternative explanation may be found by considering, *sûmpōn'yā* to be a transliteration of a dialect form of *tympanon*, which occurs in the later sixth century BC if not before (Aeschylus, frag. 57). This is supported by the following:

(1) The exchange of *t* for *s* before *l* and *y* is a feature of East Greek dialects, e.g. the Doric pronoun *ty* is *sy* in East Greek, and the syllables *-si* and *-ti* sometimes interchange in Mycenean texts. 34

37 Heroclotus I.155.
40 *LSJ*, p. 1689.
43 M. Ventris and J. Chadwick, *Documents in Mycenean Greek* (1956), p. 73; cf. possibly Philistine *seren*, Greek *tyrannos*.
(2) *tympanon* sometimes appears as *typanon*. Confusion over this may be reflected in the Kethib *sipōn*ʾyā (3:10).

(3) The changed vowel in the second syllable is paralleled by Ionic *glassa* for *glōssa*.

(4) The presence of at least one percussion instrument would have been appropriate in the orchestra.

(5) If *sūmpōn*ʾyā represents *symphōnia* in the sense of ‘bagpipe’, its separation from the other wind instruments in the list must be explained.

Another alternative is hinted at by the textual confusion at the end of the list, pointed out above. The adjective *symphōnous* occurs in *Hymni Homerici, ad Mercurium* 51 (probably early sixth century BC) in a musical context, and it is not impossible that it is so used in Daniel to qualify the whole clause, signifying ‘in unison’.44

If these suggestions are accepted—and it must be stressed that, in the state of the evidence, some of them are extremely uncertain—some such tentative rendering as this might be proposed:

‘At what time you hear the sound of the horn, flute (?), lyre, triangular harp(?), harp(?), drum(?), and all kinds of music, you shall fall down and worship.’

With such scanty material for any identification of these instruments, it may equally be argued that a sixth-century date for the orchestra cannot be categorically denied.

**ABBREVIATIONS**

For standard reference works and journals, the abbreviations adopted by *The New Bible Dictionary* (1962) are employed. Other abbreviations are:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>AK</strong></td>
<td>Die Ausgrabungen auf dem Karatepe (Erster Vorbericht) (H. T. Bossert), 1950</td>
</tr>
<tr>
<td><strong>AOT</strong></td>
<td>The Aramaic of the Old Testament (H. H. Rowley), 1929</td>
</tr>
<tr>
<td><strong>AOTBI</strong></td>
<td>Altorientalische Texte und Bilder zum Alten Testament Vol. 2 (ed. H. Gressmann), 1927</td>
</tr>
<tr>
<td><strong>AP</strong></td>
<td>Aramaic Papyri of the Fifth Century B.C. (A. E. Cowley), 1923</td>
</tr>
<tr>
<td><strong>ASc</strong></td>
<td>Assyrian Sculptures in the British Museum, Reign of Ashur-nasir-pal, 885-860 B.C. (E. A. Walls Budge), 1914</td>
</tr>
<tr>
<td><strong>ASD III, IV</strong></td>
<td>Ausgrabungen in Sendschirli III, IV (F. von Luschan), 1902, 1911</td>
</tr>
<tr>
<td><strong>BMAP</strong></td>
<td>The Brooklyn Museum Aramaic Papyri (E. G. Kraeling), 1953</td>
</tr>
<tr>
<td><strong>C II</strong></td>
<td>Carchemish II (C. L. Woolley), 1921</td>
</tr>
<tr>
<td><strong>DAB</strong></td>
<td>The Development of Attic Black-Figure (J. D. Beazley), 1951.</td>
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These musical instrument coloring pages are fun activities to use after teaching your instrument families lessons, or unit on instruments of the orchestra. Brass, woodwind, percussion, string and keyboard families are included and students are free to color each printable as they choose. This leads to some creative and colorful sheets for kids that will look amazing on a music bulletin board.