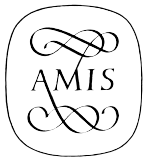
Journal of the American Musical Instrument Society

VOLUME XXVI • 2000



"Sweeter than Hautbois": Towards a Conception of the Schalmey of the Baroque Period*

BRUCE HAYNES

"We find each other in our similarities,
and we know each other in our differences."
—*Traditional saying*

IN A FORTHCOMING BOOK on oboe-type instruments in the seventeenth and eighteenth centuries, I suggest that the *hautboy* (the instrument usually called the "baroque oboe"[1]) was developed at the French court in two stages: a *protomorphic* model used from about 1657 until 1664, and the definitive model that made its debut in about 1670. Like all oboe-type instruments, the new hautboy's role was to be that of treble double-reed instrument in whatever music was in style at the moment (in fact, changes in the nature of its repertoire were the cause of its metamorphosis). The hautboy had of course developed out of its predecessor, the venerable shawm, which had fulfilled the same office. The renaissance shawm, as depicted by Praetorius and Mersenne at the sunset of its long and successful career (see fig. 1), had reached a steady form long before. But with the development of the new hautboy in the second half of the seventeenth century, the shawm's identity began to fragment. A newer type appeared: slenderer, and smaller in bore and tone holes. Aspects of this new shawm were discussed in two excellent articles that

*This article has benefitted from the suggestions of Thomas MacCracken and the two perceptive and knowledgeable anonymous readers of my original submission.

1. On this name, see the introduction to Bruce Haynes, *The Speaking Oboe: A History of the Hautboy from 1640 to 1760* (Oxford: Oxford University Press, forthcoming). My reasoning there is that the names "modern oboe" and "baroque oboe" can actually be turned on their heads: the revival of the early oboe is very much a modern phenomenon, whereas the symphonic oboe, bound to traditional concert repertoire, has changed so little precisely because it is a "historical oboe," an instrument that reached its present form in the 1860s and 70s. Just as we have spared the harpsichord the name "baroque piano," the hautboy deserves a name in its own right. In the baroque period, the standard English name for the oboe was "hautboy" (pronounced "O • Boy," or in the international phonetic alphabet, [*oboi*]).

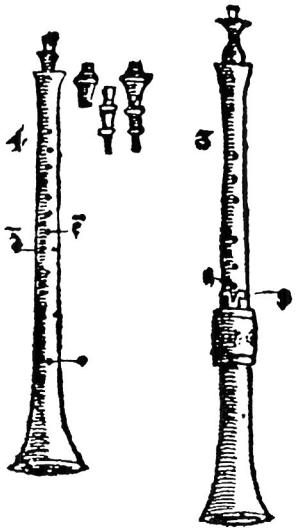


FIGURE 1. Praetorius, *Syntagma musicum,* 1620. Shawms in Plate XI: discant Schalmey (left) and Alt-pommer (right).

appeared in this journal last year,[2] and I would like to add to the picture that is gradually coming into focus of this later stage in the instrument's history.

At present our knowledge of shawms of any period is modest, but it appears unlikely that all shawmlike instruments made after about 1670 form a single instrumental type defined by specific physical characteristics. It seems clear that concurrently with the new type of shawm and the hautboy, the old-style shawm continued to be played into the eighteenth century rather than suddenly dying out as has traditionally been assumed. We will consider this in more detail below; but first, let us look more closely at the newer type of shawm.

The New Model Shawm

Among the notes on musical instruments that James Talbot made in about 1692–95,[3] the section dealing with treble double-reeds contains a

2. Susan E. Thompson, "*Deustsche Schalmei:* A Question of Terminology," this JOURNAL 25 (1999): 31–60; and Jan Bouterse, "The Deutsche Schalmeien of Richard Haka," ibid., 61–94.

3. Talbot was a Fellow of Trinity College and Regius Professor of Hebrew at Cambridge University from 1689 to 1704 and a friend of Henry Purcell. He called the

description of the "Schalmey," an instrument Talbot said was "Saxon, used Much in German Army, etc. Sweeter than Hautbois. Several sizes & pitches."[4]

In recent times the very existence of this instrument, to say nothing of its defining characteristics, was not generally noticed until the 1950s. Anthony Baines, one of the great pathfinders in the field of woodwind organology, drew attention to it and outlined its general attributes, calling it the "deutsche Schalmey."[5] This name was subsequently taken up as a convenient term for categorizing oboe-like instruments of late seventeenth century Europe that were neither quite renaissance shawms nor yet definitely hautboys. It was clear, however, that there were differences among these shawm/hautboys, and that at some later date, when enough historical material had been brought together, these various instruments would have to be sorted out according to the characteristics they had in common and the ways they differed.

As Susan E. Thompson explained in her article, the first problem is the name "deutsche Schalmey" itself. Thompson pointed out that "deutsche" was used as an adjective in early texts, so the proper name of the instrument did not include it.[6] And, for reasons to be explained below, the qualifier "deutsche" emerges as a singularly inappropriate word for this particular instrument. If we remove it, we have Talbot's original term, *Schalmey*. But since this was the usual German word for any kind of treble shawm, wherever there is any question we can be more precise and call it the *baroque Schalmey*. Baines noted that examples of such instruments "are commoner in museums than specimens of the standard shawms."[7] I know of twenty-nine extant examples, and I have no doubt there are others.[8] The most complete contemporary description of the

---

notes "*Musica,*" and they were probably intended for a book on music he was preparing but never completed; they are now generally known as "The Talbot Manuscript." See Anthony Baines, "James Talbot's Manuscript (Christ Church Library Music Ms 1187), I. Wind Instruments," *The Galpin Society Journal* 1 (1948): 9–26.

4. Ibid., 12–13.

5. Anthony Baines, "Shawm," *Grove's Dictionary of Music and Musicians,* 5th ed. (New York: St. Martin's Press, Inc., 1954), 7:747; and idem, *Woodwind Instruments and their History* (London: Faber and Faber, 1957), 285.

6. Thompson, "*Deutsche Schalmei,*" 40–44.

7. Baines, *Woodwind Instruments,* 285.

8. In addition to the instruments listed in Bouterse, "Haka," 65 and 90, there are the following: Anonymous, Munich, Deutsches Museum 17241 (photo in Andreas Masel, "Doppelrohrblattinstrumente, A. Europäische Instrumente," *Die Musik in*

Schalmey that has survived is Talbot's. There are also a number of pictures of the instrument, dating from the 1660s to the 1720s.[9]

Physical nature. Talbot described only two sizes of Schalmey, "treble" and "tenor,"[10] in implicit contrast to the many sizes of shawm known in Praetorius's day, some seventy-five years previously. "Schalmey" was the name Praetorius gave to the treble shawm; he wrote that "Only the highest treble size, which has no brass key, is called *Schalmeye.*"[11] It is curious that the treble baroque Schalmey had a fontanelle, although (like Praetorius's treble shawm) it normally had no key. Talbot wrote that the tenor did have a key under its fontanelle, while on the treble the seventh hole was "open," but "would add a Note if stopd."[12] Talbot's fingerings for the Schalmey were similar to the ones he gave for the Waits (the English name for the renaissance shawm), although the chart for the Waits only went up to b″, whereas that for the Schalmey covered two full octaves, c′ to c‴. Talbot did not offer chromatic notes in the Schalmey's scale except for B and B-flat (in both octaves). But judging from its small tone holes (which favor cross fingerings), as well as playing trials such as those reported by Jan Bouterse (pp. 83–84), it is quite likely the instrument played a scale with all the sharps and flats, like the hautboy.

Geschichte und Gegenwart: Allgemeine Enzyklopädie der Musik, 2nd ed., edited by Ludwig Finscher, vol. 2 (Kassel: Metzler, 1995), cols. 1349–1404, at col. 1360); Anonymous, Munich, Bayerisches Nationalmuseum 102Mu (seen by me, 1971); Anonymous, Nuremberg, Germanisches Nationalmuseum MIR 365 (see Martin Kirnbauer, *Verzeichnis der europäischen Musikinstrumente im Germanischen Nationalmuseum Nürnberg, Band 2: Flöten- und Rohrblattinstrumente bis 1750* [Wilhelmshafen: Heinrichshofen / Florian Noetzel Verlag, 1994], 122); Anonymous, Nuremberg, MIR 367, "tenor" size (see Kirnbauer, *Verzeichnis,* 124); "D." (= ? Denner), Berlin, Staatliches Institut für Musikforschung Preussischer Kulturbesitz, Musikinstrumentenmuseum 65 (see William Waterhouse, *The New Langwill Index* [London: Tony Bingham, 1993], 79); L. Walch I, Salzburg, Museum Carolino Augusteum A 12.1; and idem, Berlin, Musikinstrumentenmuseum 2931.

9. The only one not included either here or in Thompson's article is an anonymous painting of instrumental trophées on the 1716 Schnitger organ in the Christkirche, Rendsburg (Schleswig-Holstein).

10. Bouterse, 61, calls these "soprano" and "alto."

11. Michael Praetorius, *Syntagmatis Musici, Tomus Secundus: De Organographia* (Wolffenbüttel, 1618, revised 1619; facs. ed. Wilibald Gurlitt, Kassel: Bärenreiter, 1958), 37: "Allein der oberste Diskant, welcher keinen Missings Schlüssel hat, wird Schalmeye . . . genennet." (This and all subsequent translations are mine unless otherwise noted.) Larger sizes of shawm were called *Pommern.*

12. Baines, "James Talbot's Manuscript," 13.

Schalmeyen have thinner walls than renaissance shawms or even hautboys. Thinner walls are normally associated with smaller tone holes, and indeed Talbot's dimensions for the tone holes of the Schalmey were remarkably small.[13] The baroque Schalmey also had a narrow bore, as shown in Bouterse's fig. 10.[14] These physical characteristics allow us to infer that the sound of the baroque Schalmey was less direct than that of the renaissance shawm, and clarifies somewhat Talbot's observation that it was "Sweeter than Hautbois." The notion that any kind of shawm could be softer and gentler than an hautboy is at first a shock to our habitual ordering of things, but players who have tried Schalmeyen by Richard Haka find that they are indeed soft and sweet in tone. Confirming Talbot's remark that the Schalmey was "Saxon, used Much in German Army," in 1726 Hannß Friedrich von Fleming (a German army officer himself) described how regimental musicians played concerts to entertain the commander's guests; the other instruments he mentioned were violins and recorders, and he spoke of music "in der Nähe," i.e., heard near at hand.[15] Thus the association with the military did not necessarily mean the baroque Schalmey was used for loud and aggressive playing in the field.

As Baines wrote in 1957, Talbot's Schalmeyen were played with a pirouette, and one is shown in the picture of Schalmeyen which appeared about 1722 in J. C. Weigel's *Musicalisches Theatrum,* a series of

13. The top three were 4.2 mm (Talbot unfortunately neglected to record the diameters of holes 4–6), while the Waits had diameters of 6.4 mm for holes 1 and 2 and 8.4 mm (twice the size of the Schalmey) for hole 3. Bouterse's measurements of Haka Schalmeyen show even smaller holes, with those for the upper hand ranging from 2.7 to 4.0 mm (see his table 3, instruments 1–8); in comparison, the first three holes of Talbot's French Hautbois were 4.0, 4.2, and 4.0 mm (Baines, "James Talbot's Manuscript," 13). Because its tone holes were smaller, there was probably more difference in timbre between natural and cross-fingered notes on the Schalmey than on the renaissance shawm.

14. Bouterse, 78. The minimum bore is remarkably small (4.0 to 4.6 mm), and much smaller than that of most baroque hautboys (which average 5.95 mm); see Haynes, *The Speaking Oboe,* Appendix 2. Oboe-type instruments would not again approach a bore that small until the delicate and *empfindsam* classical model at the end of the eighteenth century (Halfpenny's Type D), whose minimum bore was at about 4.5 mm; it is interesting that the modern key-system oboe is again about 4.2 mm, like the baroque Schalmey.

15. Cf. Thompson, 41–43. Thompson quotes the article "Regimentspfeiffer, Regimentshautbois" from Johann Heinrich Zedler, *Grosses vollständiges Universal-Lexicon aller Wissenschafften und Künste* (Halle und Leipzig: Johann Heinrich Zedler, 1732–54), vol. 30 (1741), cols. 1844–45, whose text in this section is copied verbatim from Fleming.

plates of various instruments.[16] The fact that the Schalmey had a range of two octaves implies that its players used direct lip control by pinching and blowing harder; if a pirouette was used, it must have been a negligible one.[17] In fact, although Talbot says that the "brass Staple" passes through a "Fliew"—presumably his name for a pirouette—his dimensions show that the Schalmey reed was played with complete lip control. He gave the length of the Fliew as 1′7″, or $1\frac{7}{8}$ inch, which equals 47.6 mm.[18] The reed, when mounted on the brass staple, was 98.4 mm long, and extended 73.0 mm out of the instrument. Thus the amount of reed that extended beyond the Fliew was 25.4 mm. That is about as long as or longer than the cane part of hautboy reeds (I use 23 or 24 mm), and since not all the reed is taken in the mouth, Talbot's Schalmey reed would have been entirely controlled by the lips, regardless of the presence of a pirouette.

Pitch. In May 1996, I played the Haka Schalmey at America's Shrine to Music Museum in Vermillion, South Dakota. The counterbore (and minimum bore) did not allow the kind of reed (even narrow ones) I use on the baroque hautboy. I could only use my "classical" reed, which by coincidence had dimensions not unlike those given by Talbot for the Schalmey reed (7.9 mm width, compared to his French hautboy reed at 9.5). When the internal intonation was more or less consistent, the instrument played the two-fingered note at 416 Hz. We tend to think of the six-fingered note of treble woodwinds as d′, as it is on the traverso and hautboy; if that were true in this case, we could say that the Vermillion Haka plays at about A-416, like (we think) many hautboys of the

16. Baines, *Woodwind Instruments,* 285; Johann Christoph Weigel, *Musicalisches Theatrum* (Nuremberg, c. 1722; facs. ed. by Alfred Berner, Kassel: Bärenreiter, 1961), Blatt 28. The pirouette was a piece of turned wood that projected beyond the end of the instrument and surrounded the lower part of the reed. Its upper surface was used to support the lips.

17. Bouterse, 74, found only one pirouette among the ten extant Haka Schalmeyen, and it apparently did not come with the instrument.

18. Baines, "James Talbot's Manuscript," 13. Anthony Baines wrote me in June 1973 that "the English foot and inch were exactly as now in the 1690s." (See also W. J. Owen, *The History of the English System of Weights and Measures,* Miscellaneous Publication no. 272 [Washington, D.C.: U.S. National Bureau of Standards, 1966], 130–36.) In that case, an inch is 25.4 mm and $\frac{1}{8}$ inch is 3.175 mm. The care with which Talbot made his measurements is indicated by the exact correspondence, to the tenth of a millimeter, between the two different methods he used to measure the linear placements of the tone-holes of his French hautboy.

same period.[19] But in fact Talbot called the six-fingered note of the treble Schalmey c′, not d′. Thus, for him the two-fingered note that sounded at about 416 Hz was g′, and a′ would be obtained from the one-fingered note sounding about 467 Hz. So what was the Schalmey's pitch?

In either case, the absolute sounding pitch remains the same; the question is simply what to call the fingerings, and which one is a′. If we take Talbot at his word, the Schalmey was at A+1 (Praetorius's *CammerThon,* and a common standard in the seventeenth century).[20] But by changing the note-names of its fingerings it could easily have been played as if it were at A−1 (which was eighteenth-century *Cammerton*). Talbot in fact hints that this may have been done on these instruments, as he gives the lowest (seven-fingered) note of the tenor Schalmey as "*g* & *f*"; this could mean that tenors were made at two different pitches, but more likely indicates that out of practical necessity players called the note by two different names depending on the musical context.[21]

Regardless of note-names, in absolute pitch the treble baroque Schalmey probably sounded about a major third lower than the old

19. Having played the hautboy for over 30 years, I am uncomfortable with categorical statements on the pitches of the instrument, however (cf. Bouterse, 82–84). Different professional players can make the same hautboy and same reed play convincingly over a basic pitch range of about 40 cents, and the same player can vary the pitch of the same hautboy as much as a semitone with a different reed setup. I suggest that all statements on the pitches of hautboys and baroque Schalmeyen are best taken with a grain of salt, and should not be regarded as reliable evidence for the levels of historical pitches.

20. I notice a tendency on the part of a number of recent writers on the subject to use a terminology for pitch levels based on semitone intervals from a certain reference pitch. That is simple and clear, and is used here as well. It starts at A-440, since that is the modern reference (in fact, 440 or thereabouts was common in past centuries too: see Bruce Haynes, "Pitch Standards in the Baroque and Classical Periods" [Ph.D. dissertation, Université de Montréal, 1995]). One half-step lower is A–1, a whole step higher is A+2, etc.; A-440 itself is A+0. In identifying pitch standards by semitones, I am assuming a tolerance half that size (i.e., one-quarter tone, or about two commas).

21. Bouterse, 85, n. 31, suggests that the "g & f" Talbot gives for the tenor are the notes produced with and without the key, but that seems unlikely, since it is not the sense of Baines's statement, "Only the bottom note (7 fingers) is given, and this (in alto clef) as g & f." Bouterse further suggests that Talbot meant to give b-flat^0 for the lowest 7-finger note of the treble instead of b^0 as given; however, many double-reeds give a semitone when the seventh finger is added, and original treble hautboys are usually ambivalent between c′ and c♯′.

treble renaissance shawm.[22] The six-fingered note on the renaissance treble shawm was an e′, according to Praetorius; since that instrument was pitched at A+1, this would have sounded a modern f′. The same fingering on the baroque Schalmey (whatever name was given to the resulting note) probably sounded about modern d-flat′. That the Schalmey was low in pitch is also indicated by its acoustic length (the distance from the top to the middle of hole 6), which is actually longer than the usual hautboy's by about a tenth again (cf. fig. 2).

We could thus distinguish renaissance shawms from baroque Schalmeyen by calling them "high-pitch" and "low-pitch" shawms. The only problem with this is that for many hybrid types, a pitch difference would not be obvious, because in a different overall design there are several other parameters besides length that could influence pitch, such as bore and tone-hole sizes. And in any case, pitch difference is too subjective an element with double-reed instruments to be used as a standard gauge.

The baroque Schalmey was clearly no longer the same instrument as the renaissance shawm; it had a narrower bore and reed, smaller tone holes, and a lower pitch. But it retained some of the shawm's physical features, which thereby distinguished it from the hautboy:

- it had a pirouette (though it was apparently not always used)
- the treble member was without a key (like Praetorius's treble shawm)
- both sizes had a fontanelle
- the bell flared widely and was without an internal lip
- there were usually three resonance holes on the bell[23]
- all fingerholes were single (i.e., untwinned)

The baroque Schalmeyen I have seen are nicely turned and carefully worked (sometimes showing elaborate decoration, like the fontanelle of Nuremberg, Germanisches Nationalmuseum MI 146). The playing technique and basic reed design of the baroque Schalmey were so similar to that of the hautboy that the same players (most of whom were

22. Talbot's baroque Schalmey would probably have sounded a little higher than Haka's, because the tone-holes were larger than this instrument (4.2 mm for all three, compared to Haka's averages of 3.0, 3.3, and 3.5 mm).

23. Bouterse, 69, reports that Haka's Schalmeyen consistently have three resonance holes; other baroque Schalmeyen have two or three. The reduction in number of holes distinguishes the baroque Schalmey from the renaissance shawm, which normally had five.

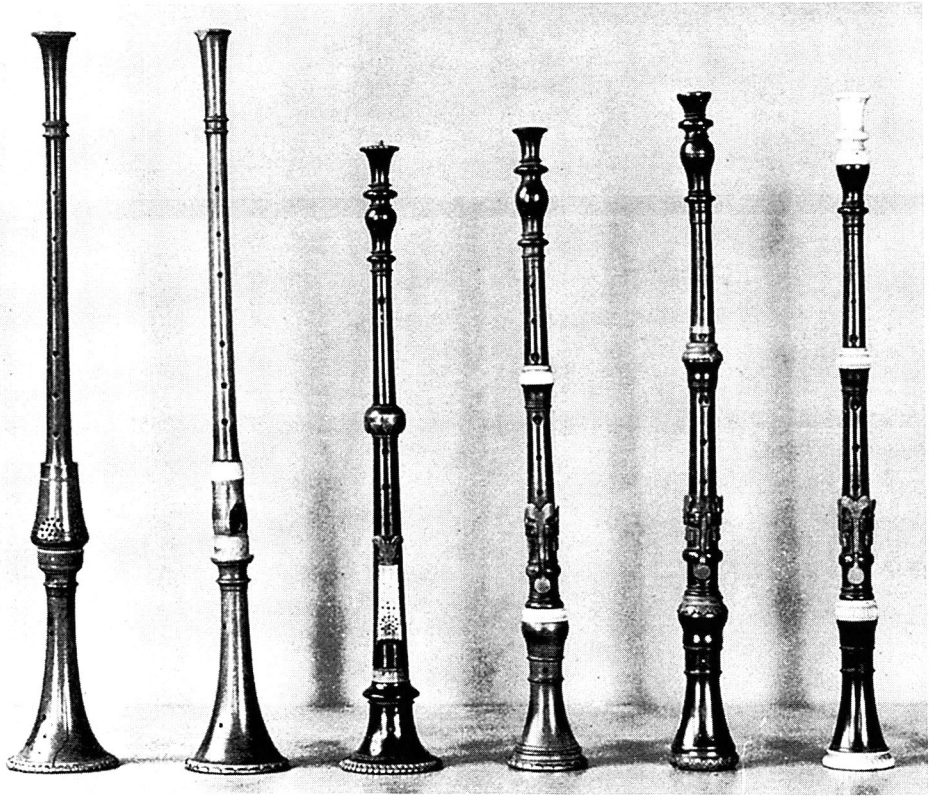


FIGURE 2. Instruments from the Gemeentemuseum, The Hague. From left to right: two baroque Schalmeyen by Richard Haka (Ea 21-x-1952 and Ea 18-x-1952), shawm-hautboy hybrid by Haka (Ea 20-x-1952), and later hautboys by Coenraad Rÿkel (Ea 6-x-1952), Anonymous (Ea 442-1933), and Hendrik Richters (Ea 286-1933).

comfortable on many kinds of instruments) could have played both, and probably did. (As an aside, it is interesting to observe that the tenor Schalmey apparently did not always use a narrow reed, at least to judge by a picture dated 1685 [fig. 3] which shows an instrument larger than a treble being used seemingly as a soloist rather than part of a consort.)

The shawm-hautboy hybrid, a separate type. The above definition of the baroque Schalmey begins to feel a bit procrustean, however, when we notice another similar kind of instrument that does not quite fit, being a shade closer to the true hautboy. I discussed this type in an earlier article and Thompson has also drawn attention to it, calling it a "shawm-oboe hybrid."[24] Figure 4 shows a painting of such an instrument, on a set of organ doors painted by Gerard de Lairesse in 1685; and fig. 2 shows a surviving specimen by Haka (The Hague, Gemeentemuseum Ea 20-x-1952), standing next to two baroque Schalmeyen by the same maker and clearly very different from them, most obviously in length.[25] Both Piet Dhont and I find that Ea 20-x-1952 plays for us at A+0; its acoustic length, 316.0, makes it slightly longer than hautboys thought to play at A+0 (289–314 mm), but its tone holes are unusually large for an hautboy, which would raise its pitch. Both of these instruments have a pronounced bulb that serves as a center baluster, and recalls the decorated ball that joins the third yard of a trumpet to its bell section.

Three other illustrations show shawm-hautboy hybrids of this same type: those by Laroon and Jan de Lairesse reproduced in my earlier article,[26] and Ignatius Lux's tradecard for the woodwind maker Coenraad Rÿkel, printed about 1705.[27] All these instruments show the ball baluster, and each has a small perforated metal box serving like the fontanelle to cover the lower part of the Great-key.[28] Figure 5 may show the same kind of instrument.[29]

24. Bruce Haynes, "Lully and the Rise of the Oboe as Seen in Works of Art," *Early Music* 16 (1988): 324–38, at 333–35; Thompson, notes 14–15.

25. This remarkably beautiful ebony instrument tipped in silver is described in Rob van Acht, Jan Bouterse, and Piet Dhont, *Dutch Double Reed Instruments of the 17th and 18th Centuries* (Laaber: Laaber Verlag, 1997), 122, as "one of the finest examples of turnery in Dutch instrument making"; an excellent photograph of it appears in their book, facing page 111.

26. Haynes, "Lully and the Rise of the Oboe," 334–35.

27. As noticed by Thompson, 38; see her fig. 3.

28. This is clear except in Laroon.

29. Georg Philipp Rugendas, the artist, was born in 1666 in Augsburg and died there in 1742.

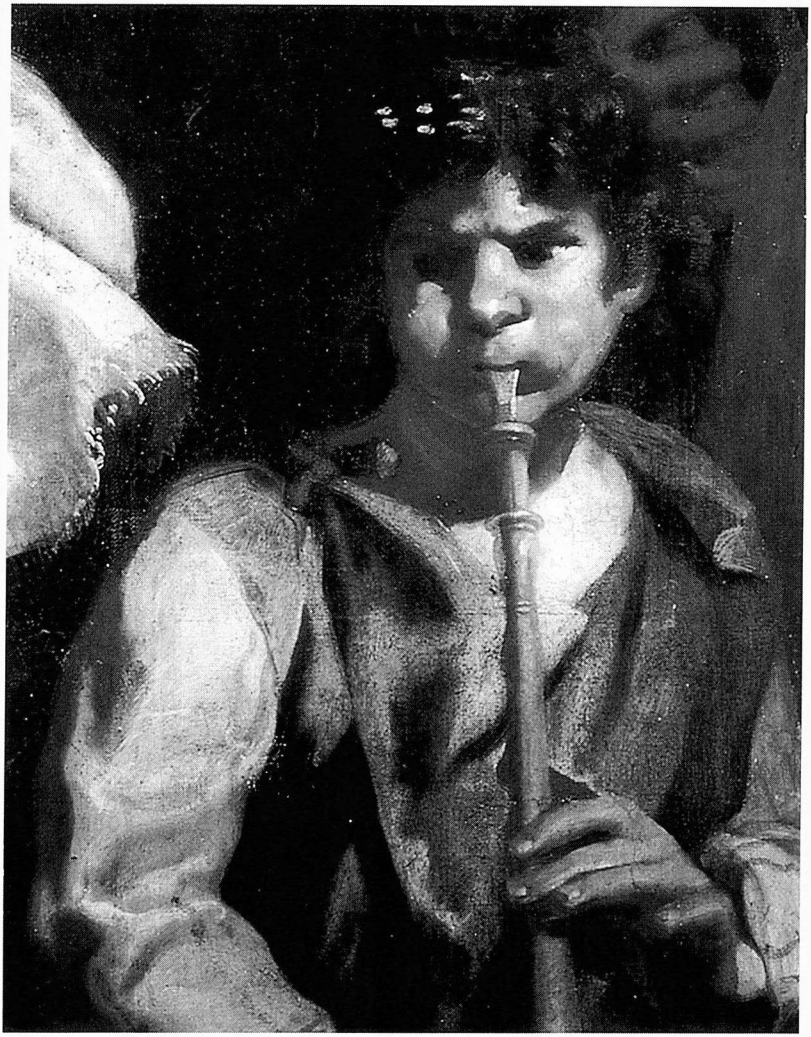


FIGURE 3. Gerard de Lairesse. Baroque Schalmey player on organ doors at the Westerkerk, Amsterdam, 1685 (detail). Oil painting on wood.

Use and repertoire. We know as yet very little about the Schalmey's role and the music it played. By the 1690s it was associated with Germany. From the 1670s, many pieces, mostly pastoral, appeared in Germany and the Habsburg lands for "Piffaro." Hans Oskar Koch has surveyed some

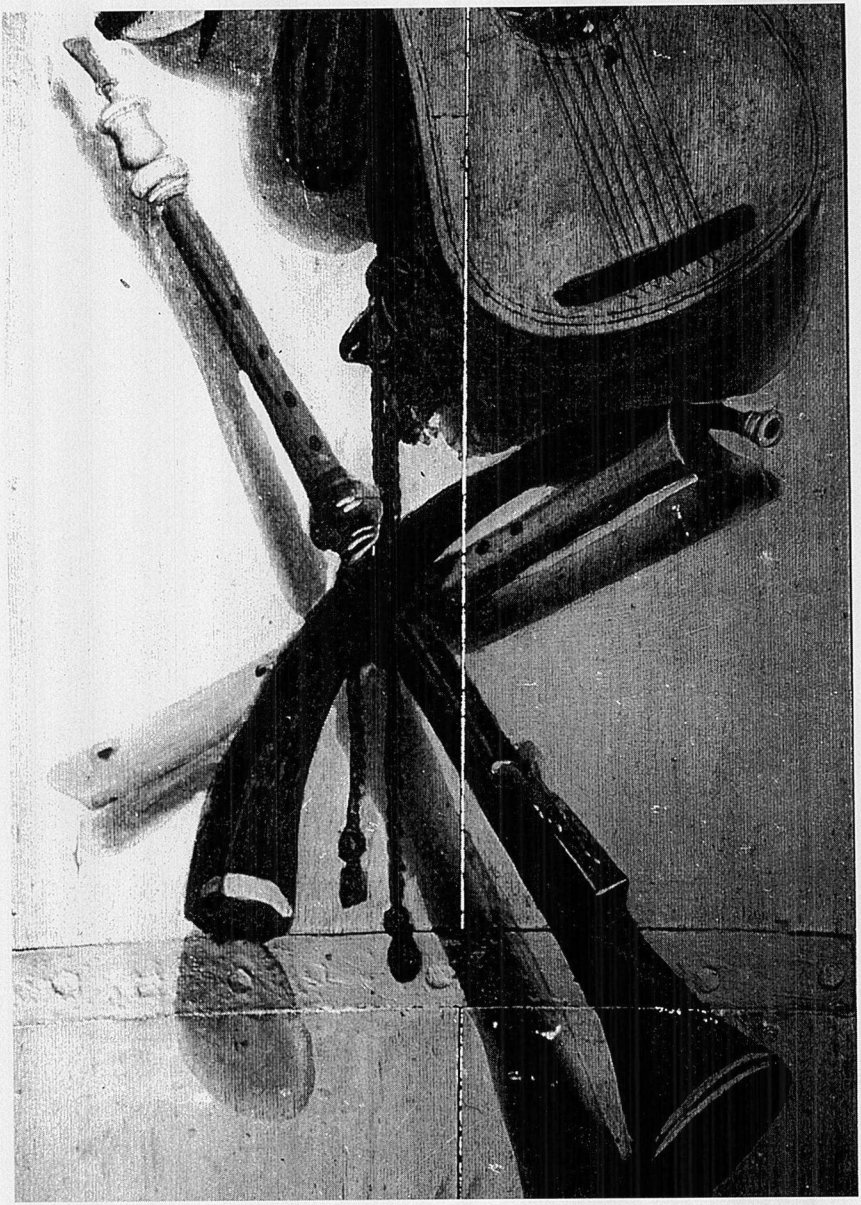


FIGURE 4. Gerard de Lairesse. Shawm-hautboy hybrid on organ doors at the Westerkerk, Amsterdam, 1685. Oil painting on wood.

FIGURE 5. Georg Philipp Rugendas. Mounted dragoon. Drawing, (? 1730s). Staatlichen Kunstsammlungen der Veste Coburg.

of this literature, which is for two or three treble or tenor parts.[30] Pieces for "Schalamia ô Piffara" from Kroměříž and Vienna were probably for renaissance shawms, to judge from their pitch and range.[31] The shawm parts are notated in the same keys as trumpets, trombones, violins, and organs, which means they were at the same pitch; and trumpets from at least Praetorius's time to Altenburg's[32] were at A+1. There are normally two "treble" parts and one "tenor," with a range of a ninth or tenth, the top part going up to written c''', the bottom part descending to g^0. It is unlikely that these parts were intended for baroque Schalmey, which was pitched lower and had a wider range.

The importance of the Schalmey in Holland is clear from the many surviving instruments of Haka as well as from the Lux tradecard, which shows both baroque Schalmeyen and hautboys. Lux's card is a curious echo of another pairing of the two types of oboe by Brakel on the title page of Douwes's *Grondig Ondersoek,* published in Friesland in 1699 (fig. 6, bottom left and right).

The baroque Schalmey was evidently played into the second decade of the eighteenth century, since Weigel's picture of one (reproduced as Thompson's fig. 6) was printed in the 1720s.

The Baroque Schalmey and the Protomorphic Hautboy

The existence of the true hautboy cannot be documented before 1672.[33] But Lully had begun using a type of oboe in the *Petite Bande* in the 1650s, and it is this mixture of shawm/oboe that is seen in two tapestries designed by Charles Le Brun for the royal Gobelins workshops in 1664 ("L'Air" from the series *Les Elémens* and "Le Printemps ou Versailles" from the series *Les saisons*). Le Brun, painter to Louis XIV and

30. Hans Oskar Koch, "Sonderformen der Blasinstrumente in der deutschen Musik vom späten 17. bis zur Mitte des 18. Jahrhunderts" (Inaugural-Dissertation, Heidelberg, 1980), 85ff., lists pieces, both sacred and secular, by Rittler (second half of the seventeenth century), Draghi (1695), Emperor Leopold I (1683), Schmelzer (n.d. and 1674), Steffani (1688 and 1687), Biber (before 1704), Knüpfer (1682–1719), Pezel (1675), Horn (1676 and 1680), Krieger (1688), Schulze, and Liebe.

31. I looked at Vejvanovsky's "Balletti per il Carnevale" and two pieces by Schmelzer, "Balletto di Centauri" (Schönbrunn, 1674) and "Balletto della Serenissima de more."

32. See Johann Ernst Altenburg, *Versuch einer Anleitung zur heroisch-musikalischen Trompeter- und Paukerkunst* (Halle, 1795; facs. Leipzig: VEB Deutscher Verlag für Musik, 1972).

33. See Haynes, *The Speaking Oboe,* section 1–1c.

FIGURE 6. G. Brakel. Title page to Claas Douwes's *Grondig Ondersoek van de toonen der musijk* (Franeker, 1699).

director of the Royal Academy of Painting and Sculpture, might be described as Lully's opposite number in the domain of the arts. The borders of these tapestries consist of trophies of many kinds of contemporary wind instruments, including nine oboes, presumably of the type current in 1664 (fig. 7 shows one of the panels).[34] The depictions in the borders are detailed and (to judge from the familiar instruments such as trumpets, drums, musettes, and recorders) reasonably accurate.

There are two distinct forms of oboe in this border (see fig. 8), which I call protomorphic hautboys. One is black, with a long bell, while the other is of a light-colored wood—probably box—with a short bell; in fig. 7 the latter appears laid across the former, whose bell points upward and to the right. The long-belled instruments resemble Mersenne's shawms (which he called simply *Haut-bois*) and the short-belled ones look very much like his *Haut-bois de Poitou.*[35] They are in a length ratio similar to later treble and tenor hautboys. Both types represent a mixture of elements of shawm and hautboy; traditional shawmlike elements are the fontanelle, the relatively long bell of the black instrument, and the largish tone-holes. Hautboy characteristics include thinner side walls (compare the proportions of these instruments with those of the shawms in fig. 1), complex turning on the upper part of the top joint, separation to a new joint between the hands, a bell lip, a Great-key on the long-belled "treble," a bell shorter than the shawm, and twin holes. On both types, the tone-hole center has been lowered; i.e., the six finger holes have descended longitudinally along the bore. Only a single pair of resonance holes appears to be present. Neither instrument yet has the Small-key. Somewhat later (1668– after 1680), Le Brun designed another tapestry, *Les mois: avril ou le Château de Versailles,* that portrays another protomorphic hautboy of the long-belled type (see fig. 9). Both types of protomorphic hautboy can also be seen in other pictures made in the decades between 1660 and 1680.

With due allowance for variations in details (the shape of the finial, the bell lip, the presence of a Great-key, and twin holes), the similarities between surviving baroque Schalmeyen and the instruments represented in these tapestries are striking (the fontanelle, the relatively long bell, thinner side walls, separation to a new joint between the hands, the

34. More of the panels can be seen in Haynes, "Lully and the Rise of the Oboe," 328–29.

35. Marin Mersenne, *Harmonie universelle* (Paris, 1636–37; facs. ed. François Lesure, Paris: Éditions du CNRS, 1965), *Traité des instruments,* Livre V, 295 and 305–07.

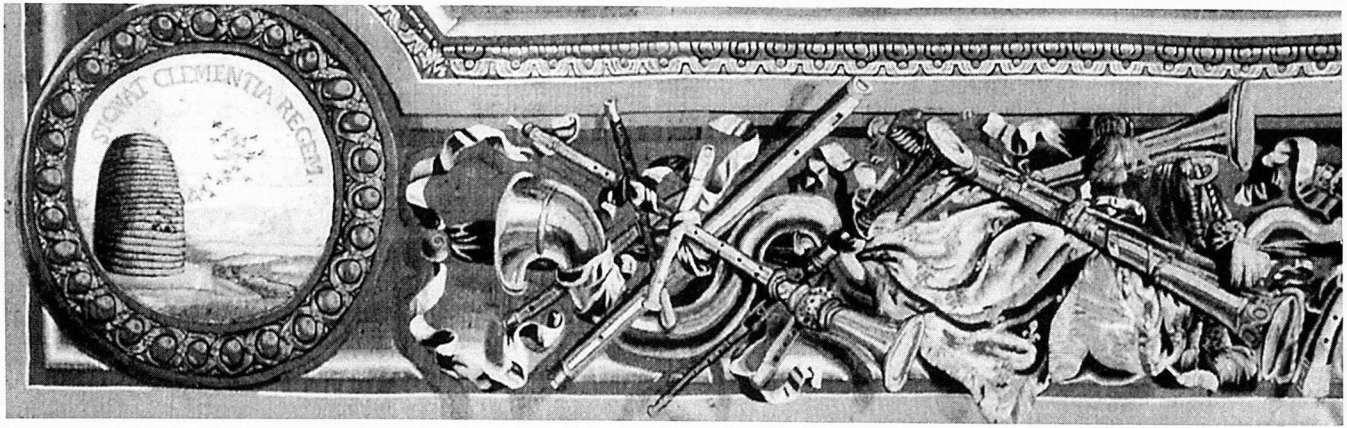


FIGURE 7. Panel F from the border of the "Arazzo" Gobelins tapestry "L'Air" (from a series called *Les Elémens,* after Charles LeBrun, 1664); 1669–before 1680. Florence: Palazzo Pitti (formerly Siena: Palazzo Pubblico).

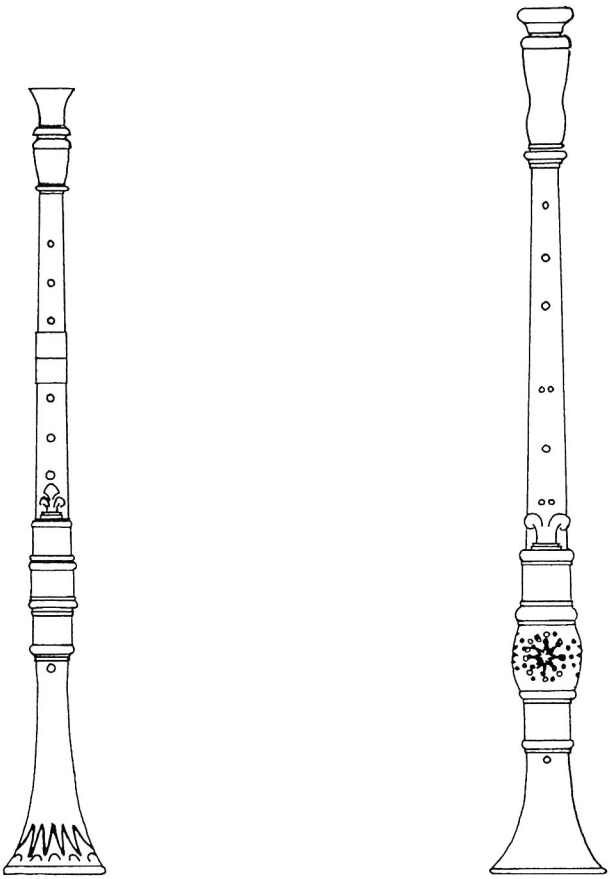


FIGURE 8. Schematic drawing by Marc Ecochard of long-belled and short-belled protomorphic hautboys, based on the borders of the "Arazzo" Gobelins tapestry and Le Brun's cartoon for the Gobelins tapestry *Les mois: avril ou le Château de Versailles.*

absence of the Small-key, and especially the lower tone-hole center). Judging by their forms and ornaments, at least five surviving baroque Schalmeyen can be considered variants of the long-belled protomorphic hautboys seen in figs. 7, 8, and 9; they all show the fontanelle and decorative turning at the top.[36]

36. These five instruments are The Hague, Gemeentemuseum Ea 19-x-1952 by Haka (shown in Acht, Bouterse, and Dhont, *Dutch Double Reed Instruments,* 118); three preserved at Nuremberg, Germanisches Nationalmuseum (MIR 364, 366, and 367: cf.

FIGURE 9. Le Brun, Charles. Detail from cartoon (preparatory painting) for the Gobelins tapestry *Les mois: avril ou le Château de Versailles.* 1668–after 1680. Musée National du Château de Versailles.

Kirnbauer, *Verzeichnis,* 125); and one at Munich, Deutsches Museum (see above, n. 8). Several surviving instruments have ornamental brass tipping on the bell rim (Nuremberg MIR 364, 365, 366; Munich, Deutsches Museum, 17241; and all Hakas), or separation to a new joint between the hands (Nuremberg MI 146).

Baines suggested that the baroque Schalmey was "possibly . . . a German attempt at a quick answer to the new French oboe,"[37] but it is unlikely that the instrument originated in Germany. It is difficult to imagine that an innovative instrument type could have been developed immediately after the devastation of the Thirty Years War (1618–48), which destroyed most of Germany's musical infrastructure. Alternatively, since Haka made outstanding examples of baroque Schalmeyen, he might have originated them; but at the time that the Gobelins tapestries showing these instruments were made, Haka had only been making instruments for about four years.[38] The way the instrument is featured in the Versailles tapestry (fig. 9) suggests a certain French pride in the instrument that would probably not have been accorded to a recent import. The most likely case, then, is that these instruments were first developed in France, where the models shown in the "Arazzo" Gobelins of 1664 already show innovations like twin tone holes and moldings at the finial and baluster.

Given the evidence (which, it must be said, is meager at the moment) it is not possible to distinguish the baroque Schalmey from the hautboys being used in France in the early 1660s. It is therefore possible to speculate that the baroque Schalmey represented a survival of the earliest form of prototypical hautboy developed in France. It had reached Germany by no later than the 1680s,[39] and both Talbot and Weigel indicate that the instrument found a musical niche and may have been used longer there than elsewhere.[40]

37. Baines, *Woodwind Instruments,* 285.

38. Waterhouse, *New Langwill Index,* 156. Bouterse, 92, considers the "uniformity" of Haka's baroque Schalmey design an indication that he did not invent the instrument.

39. Hieronimus Kynseker, who apparently made a baroque Schalmey (it is signed only with his initials), worked from 1662 to 1686; cf. Bouterse, 87, n. 39.

40. In Germany, besides the term "französischen Hautbois," there are a number of references to "französischen Schalmeien": Arnold Schering, "Die Leipziger Ratsmusik von 1650–1775," *Archiv für Musikwissenschaft* 3 (1921), 17–53, at p. 47, and idem, *Musikgeschichte Leipzigs II: von 1650 bis 1723* (Leipzig: Kistner & Siegel, 1926), 290 for the date 1698; Altman Kellner, *Musikgeschichte des Stiftes Kremsmünster* (Kassel: Bärenreiter, 1956), 291 for the date 1696; and Wolfgang Caspar Printz, [? Johann Kuhnau] *Musicus vexatus* [a novel] (Freiberg, 1690), 179. Muffat spoke of the "frantzösische Hautbois/oder Schallmey" in the introduction to his *Auserlesene Instrumental-Music* (Passau, 1701). The idea that the baroque Schalmey may have come from France (like the hautboy) raises the possibility that these terms could denote a distinction between the two instruments.

The Renaissance Shawm after c. 1670

Talbot stated that the baroque Schalmey was sweeter than the hautboy, a claim supported by the physical characteristics of surviving instruments of both types. But the words written by Fleming (1726) and Weigel (c. 1722, in a poem beneath his picture of an hautboy) do not appear to be describing such an instrument; rather, it seems more likely that these two early-eighteenth-century authors were still writing about the time-honored renaissance shawm. Fleming describes "teutschen Schallmeyen" in 1726 this way:

> Since [the German shawms] are difficult to play and when close by fill the ear in an unpleasant manner, French *Hautbois* have subsequently replaced them, and are at present in use almost everywhere.[41]

If the newer type of shawm was soft in character, perhaps even gentler than the hautboy because of its small tone holes and narrow bore and reed, it could not have been a loud enough instrument to be characterized as "filling the ear in an unpleasant manner when close by." The instrument that would have done that was the traditional German renaissance shawm, which was universally considered a loud instrument. Fleming also said of shawms that they "produce a sharp tone" ("einem hellen Laut von sich geben").[42] There is an advantage to such a tone in certain musical situations—mostly out of doors, such as parades, funeral processions, and military ceremonies. The word "hell" in German means "clear," "bright," "ringing," and (when referring to pitch) "high"; Fleming's "hellen Laut" is thus a very satisfying description of the sound of the renaissance shawm.

The same words also refer to the fact that renaissance shawms were built and played at the traditional high pitch (giving a seven-finger d′ at A+1, approximately a semitone above modern A-440) that had been used all over Europe before the arrival of the modish French instruments in the 1680s. (The name for the renaissance shawm in France, *Haut-bois,* was thus doubly appropriate, as "*haut*" means both loud and high in French.) Praetorius in 1618 had called this high pitch at A+1

41. Hannß Friedrich von Fleming, *Der vollkommene teutsche Soldat* (Leipzig, 1726), 181: "Nachdem sie aber schwer zu blasen und in der Nähe auf eine unangenehme Art die Ohren füllen, so sind anstatt der teutschen Schallmeyen nachgehends die Frantzösischen Hautbois aufgekommen, die nunmehro fast allenthalben im Gebrauch sind." Fleming's portrait is fig. 4 in Thompson, "*Deutsche Schalmei.*"

42. Fleming, *Der vollkommene teutsche Soldat,* 181.

CammerThon; it was the standard pitch of most instruments in his time. But with the introduction into Germany of the new instrumentarium from France, German instrumental pitch (i.e., *Cammerton*) dropped to A–1 and lower, and the name went with it (which is why Bach's *Cammerton* was a tone lower than Praetorius's *CammerThon*).[43] Another term was therefore needed to identify the older instrument types at A+1. Since the new instruments were French and the old ones were German, "deutsche" was a logical choice—one which in this context probably referred not only to pitch, but also to an older design of instrument, which by implication was pitched at A+1, as all such instruments normally were.

Among the instruments owned by the Stuttgart court in 1718 were "2 franztösischer [!] *Fagots*" as well as "1 Teutscher *Fagot,*"[44] the instruments presumably distinguished by pitch (among other characteristics); and in fact the theorist Martin Heinrich Fuhrmann, writing in 1706, explicitly makes just such a distinction: "Fagotto, or Dulciano, an 8-foot curtal at *Chorton.* Bassone, a French bassoon but at *Cammerton.*"[45] Five years earlier, the Czech lexicographer and organist Thomas Baltazar Janowka wrote under "Fagottum": "We can find two kinds: one is German, the other French, determined by their relation with the organ. The first is called *Zinck-thon* [Cornett-pitch]; the second *Chor-thon.*"[46] As late as the

43. For a discussion of Praetorius's pitch and the downward shift, see Haynes, "Pitch Standards," sections 5-1 and 5-2. This idea was already expressed in a germinal form in my "Questions of Tonality in Bach's Cantatas: The Woodwind Perspective," this JOURNAL 12 (1986): 40–67, at p. 41.

44. Samantha Owens, "The Württemberg Hof-Musicorum c.1680–1721" (Ph.D. dissertation, Victoria University of Wellington, 1995), 206.

45. Martin Heinrich Fuhrmann, *Musicalischer Trichter* ("Frankfurt an der Spree" [= Berlin], 1706), 92, quoted in Ulrich Prinz, "Zur Bezeichnung 'Bassono' und 'Fagotto' bei J. S. Bach," *Bach-Jahrbuch* 67 (1981), 107–22, at p. 110: "Fagotto seu Dulciano ein 8füßiger Dulcian ist Chor-Thon. Bassone, ein Frantzösischer Fagott aber Cammer-Thon." Cf. Johann Gottfried Walther, *Musikalisches Lexikon oder musikalische Bibliothek* (Leipzig, 1732; facs. ed. Kassel: Bärenreiter-Verlag, Kassel, 1953), 219 s.v. "Dulcino."

46. Thomas Baltazar Janowka, *Clavis ad thesaurum magnae artis musicae* (Prague, 1701; reprint Amsterdam: Knuf, 1973), 42: "Duplex autem reperitur utrumque; nam aliud cum Germanico, aliud cum Gallico quoad concordantiam convenit Organo. Priùs *Zinck-thon;* posteriùs *Chor-thon* passim compellatur." Similarly, on the following page he wrote about flutes that "As a matter of fact, they match the German or Bohemian organs, tuned to the *Zinck* or cornett at this pitch. Because they are in the same tonality [as these organs], they are called German, or C-flutes. Flutes with French or Italian fingering, since they are tuned a tone lower, will be in unison with our fingered B♭ when they play fingered C, and in unison with French and Italian organs" ("nam aliæ cum Organo Germanico seu Boëmico, quod *Zinck* seu Cornetti

1730s, the writer on music J. F. B. C. Majer (1732) described chalumeaux as ". . . some in French, some in German pitch,"[47] while in 1738 Johann Philipp Eisel said that the "Teutschen Basson" (the bass curtal) was "no longer played."[48] Thompson mentioned a set of instruments now at Berlin that came from the St. Wenzel Stadtkirche in Naumburg. These instruments were described in three different inventories; in the later ones, dating from the 1720s, instruments that had been normal in the mid-seventeenth century acquired the qualifier "teutsche."[49]

Even Quantz, in 1752, may have considered the difference in pitch between the "deutsche Schallmey" and the hautboy to be the principal element that separated them. He wrote in his *Versuch:* "In Rome . . . the hautboists had instruments that were pitched a whole tone higher. . . . [T]hese high instruments produced an effect like that of German shawms next to the others that were tuned low."[50] Earlier in the same paragraph Quantz also stated that "The result of the higher [Venetian] pitch would be that, though the outward shape of the instruments would remain, the traverso would become once more a German cross-pipe, the hautboy a shawm, the violin a *violino piccolo,* and the bassoon a bombard," adding the further thought that "the wind instruments, which are

---

tonum sonat, quoad claves conveniunt, & hæ Germanicæ, aut, ut passim auditur, ex C. vocantur. Aliæ cum Gallico aut Italico in Clavibus correspondent, quod unô tonô demissiùs concordatur, ità, ut palmula b in nostro cum palmula c in Gallico aut Italico Organo unisonum præbeant"). Janowka's *Chor-thon* was the same as Praetorius's (usually), a whole tone below Zinck-thon (see Haynes, "Pitch Standards," 9-1a).

47. Joseph Friedrich Bernhard Caspar Majer, *Museum musicum theoretico practicum* (Schwäbisch Hall, 1732, 2/1741; facs. ed. Kassel: Bärenreiter, 1954), 32, par. 6 ("theils mit dem Französischen, theils mit Teutschem Ton").

48. Johann Philipp Eisel, *Musicus autodidactus* (Erfurt, 1738), 104 ("nicht mehr im Gebrauch").

49. Thompson, 48, n. 39. The "Dulcian[en]" listed in the 1658 inventory are termed "teutsche Fagott" in the later one of c. 1720; the "Flöten" of the list made in 1658 are called "teutsche Flöden" in the inventories of c. 1720 and 1728. Cf. Dieter Krickeberg, "Die alte Musikinstrumentensammlung der Naumburger St. Wenzelskirche im Spiegel ihrer Verzeichnisse," *Jahrbuch des Staatlichen Instituts für Musikforschung 1977* (Berlin, 1978), 7–30.

50. Johann Joachim Quantz, *Versuch einer Anweisung die Flöte traversiere zu spielen* (Berlin, 1752; facsimile of the 3rd ed., 1789, ed. by Hans-Peter Schmidt, Kassel: Bärenreiter, 1953), chap. XVII, Abschnitt vii, §7 (p. 243): "In Rom . . . spieleten . . . damals die Hoboisten auf solchen Instrumentten, die einen ganzen Ton höher stunden. . . . [D]iese hohen Instrumente thaten, gegen die übrigen tiefgestimmeten, eine solche Wirkung, als wenn sie deutsche Schallmeyen wären." This and the following two translations are mine, based on Edward R. Reilly, *On Playing the Flute* (London: Faber, 1966), 268–69.

such a great ornament for an orchestra, would suffer too much. Indeed, their very origin is due to the low pitch."[51]

Thus the term "deutsche Schalmey" seems to have consistently evoked an older type of shawm at the old high pitch, in contrast to a low-pitched instrument like the newer Schalmey. Weigel's picture of an hautboy in the *Musicalisches Theatrum* defines the hautboy by what it is *not*, i.e., a "rustic Schallmeÿ":[52]

> Away rustic Schalmey! my tone must banish thee.
> Rightly do I serve at both war and peace,
> In church and court, whence thou art exiled.
> For me the juice of the vine; thine the yeasty beer.
> Thou stay'st in the village while I live in palaces and cities.
> Thou art held by a penny-band; a golden chain graces me.

Thus described, the "Schallmeÿ" hardly seems like the softer and more refined baroque model; again it appears to be a description of the old renaissance shawm, which (unlike the more refined and fashionable hautboy and baroque Schalmey) was not accorded a place in Weigel's book.

That shawms in more or less renaissance form continued to be made after 1670 is demonstrated by two instruments by the Denner family preserved in the Frankfurt Historisches Museum.[53] One (no. X436) is a renaissance shawm bearing the workshop stamp "I. C. Denner" and the master-stamp "D/I"; the other (no. X437), which bears Jacob Denner's stamp, borrows traits of an hautboy while remaining shawm-like. On the one hand, the six single finger holes are on one unseparated joint, and the bell is long and wide, as on a shawm. At the same time, there is a

51. Ibid., p. 242: "Der ganz hohe Ton würde machen, daß obgleich die Figur der Instrumente bliebe, doch endlich aus der Flöte traversiere wieder eine Querpfeife, aus dem Hoboe wieder eine Schallmey, aus der Violine ein Violino piccolo, und aus dem Basson wieder ein Bombart werden würde. Die Blas-instrumente, welche doch eine so besondere Zierde eines Orchesters sind, würden hiervon den größten Schaden haben. Dem tiefen Tone haben sie eigentlich ihren Ursprung zu danken."

52. Weigel, *Musicalisches Theatrum,* Blatt 8:

> Weg Bäurische Schallmeÿ! mein Klang muss dich vertrieben
> ich dien auf beede recht in Krieg und Friedens Zeit.
> Der Kirche und bey Hof, da du must ferne bleiben,
> mir wird der Reben Safft, dir Hefen Bier bereit,
> du bleibest auf dem Dorff ich wohn im Schloss und Städten
> dich ziert ein Pfening-Band und mich die Guldne Ketten.

53. Both are pictured in Plate X of Philip T. Young, *Twenty-Five Hundred Historical Woodwind Instruments* (New York: Pendragon Press, 1982).

rudimentary hautboy-like turning at the top, an exposed hautboy Great-key, and only two resonance holes between the beads at the bell waist. This second instrument is probably the very same "Bompart" that Jacob Denner supplied in August 1712 to the Frankfurt *Pfeifergericht*.[54]

Even the *Velt-schalmeyen* advertised by the Haka and van Heerde workshops in 1691 could have been renaissance shawms.[55] *Veld* in Dutch ("Velt" is a variant spelling, reflecting the way the word is pronounced), like "field" in English, has a whiff of the military about it; a *Veldheer* in Dutch is a general officer. Baroque Schalmeyen were played in the military, of course, but they would have been no more effective in field conditions than hautboys, whereas shawms were made to be well heard.

Another obvious milieu for the shawm was municipal music like that of the *Türmer,* or tower musicians, in combination with other traditional instruments such as the brass and cornetts at a pitch of A+1 (called in the eighteenth century *Cornet-ton* or *Chorton*). There are records of Stadtpfeifer playing shawms as late as 1709 (although it is unclear what kind of shawm was meant).[56]

Thus the renaissance shawm's high pitch and aggressive tone—its "hellen Laut"—were valued in certain settings and were probably the reasons for its continued existence. How long the instrument survived is difficult to say; Fleming in 1726 said that the French *Hautbois* had replaced shawms "fast allenthalben" (almost everywhere), thus implying that there may still have been some in use in his time. By 1718, however, an inventory of instruments at the court at Württemberg listed renaissance-type instruments like flutes, cornetts, and a curtal ("alter teütscher Fagot") among those that were "ohnbrauchbahr und nicht zutractiren" (useless and not playable);[57] and Eisel declared in 1738 that the shawm had long been obsolete.

Conclusion

Let us now reconsider the word "deutsche." What, in fact, did it mean? First, it apparently identified an instrument that was not of the

54. See Ekkehart Nickel, *Der Holzblasinstrumentenbau in der Freien Reichstadt Nürnberg* (Munich: Musikverlag Emil Katzbichler, 1971), 247.

55. See Thompson, 36–37, and Bouterse, 63.

56. Renate Hildebrand, "Das Oboenensemble in Deutschland von der Anfängen bis ca. 1720" (Diplomarbeit, Schola Cantorum Basiliensis, 1975), 58–59.

57. Owens, "The Württemberg Hof-Musicorum c.1680–1721," 399.

newer French kind; and hence, by implication, was not at French pitch. As applied to treble double-reed instruments in particular, a "deutsche Schalmey" is more likely to have meant a renaissance shawm, with the adjective calling attention to the difference between such a shawm and the newer model with origins outside of Germany (in France?), that played more softly, and at a lower pitch. If this is true, to use the term "deutsche Schalmey" for the newer model would have been an oxymoron, a contradiction.

As if to confirm this, a bill by Haka dated 1685 for a number of instruments made by him has recently come to light.[58] Under the rubric "Teutsche schalmeÿen" it includes "13 Stucks palmenhout discant Schalmeÿen *klarin trompettentoon*" (13 boxwood treble Schalmeÿen in clarino trumpet pitch). As noted above, clarinos or trumpets from at least the early seventeenth century to the late eighteenth were pitched at A+1. Baroque Schalmeyen like those of Haka could not have been pitched that high because of their dimensions and the way they play. It seems then that for Haka, the premier maker of baroque Schalmeyen, the name "teutsche schalmeÿen" meant something else.

From the foregoing, it appears that enough historical evidence is available to begin to establish a physical definition of the baroque Schalmey, to distinguish it from other oboe types that existed in the second half of the seventeenth century, and to establish its pitch and general tonal character. What its function and repertoire were is still unclear. Its resemblance to one of two types of instrument I have called the protomorphic hautboy, developed at the French court in the 1650s and 60s, suggests it may be the continuation of that instrument. A number of interesting sources dating from 1712 to at least the 1720s fail to agree with the definition of the baroque Schalmey, but sound convincingly like descriptions of the older renaissance shawm, an instrument that had some reason for continuing into that period. As for the "deutsche" part of the name "deutsche Schalmey," I suggest we lay it honorably to rest.

58. Kindly communicated by Jan Bouterse (see his "Communication" elsewhere in this volume).