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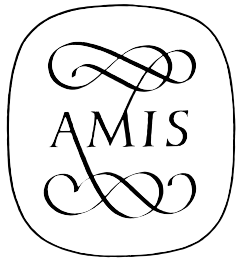

COMMUNICATION

Smaller than Hautbois: A Fresh Look at James Talbot's Schalmeye*

Susan E. Thompson

Since the publication of my article about *Schalmei* terminology in this Journal in 1999,[1] I have learned that some of the information presented there in connection with the James Talbot manuscript (Oxford, Christ Church Library, Music MS 1187) is in error. Two visits to the Christ Church Library during the summers of 1999 and 2001 have enabled me to confirm that Talbot does not describe the Schalmeye as being "Sweeter than Hautbois" (as stated on page 45 of my article) but rather as "smaller than Hautbois" (see figures 1 and 2 herewith). This discovery is significant, for it establishes that Talbot's comparison between Hautbois and Schalmeye is a quantitative rather than qualitative one. In other words, he was comparing the Schalmeye's size or dimension with that of the Hautbois, and not its tone.

Additionally, the range of the Tenor Chalmeye (or Shawm) does not extend from "*g* & *f*" (as communicated in footnote 32, page 46, of my article) but solely from low *g*. This is evident from the instrument's tablature where, on a stave in alto clef, Talbot plainly indicates the instrument's lowest sounding pitch by way of a whole note and its related fingering (see figure 3). Just to the right of this whole note he has penned the abbreviation "&c" (*et cetera*) which, given the lack of ascending notation, can be interpreted to mean "and so forth upwards through

*These observations would not have been possible without the assistance of Darryl Martin (Edinburgh) who provided me with photocopies of relevant portions of the Talbot manuscript prior to my visit to Oxford in 1999, and who later (along with Thomas G. MacCracken) proved a sounding board in matters paleographic. Nor would they have been feasible without the assistance of Janet McMullin, Assistant Librarian at Christ Church Library, and her colleague, Matthew Phillips, who permitted me to examine Mus. MS 1187 at great length and were generous in supplying the photographs reproduced herein. Lastly, Charles Mould made possible my stay in Oxford, while offering advice and encouragement.

1. Susan E. Thompson, "*Deutsche Schalmei:* A Question of Terminology," this Journal 25 (1999): 31–60.

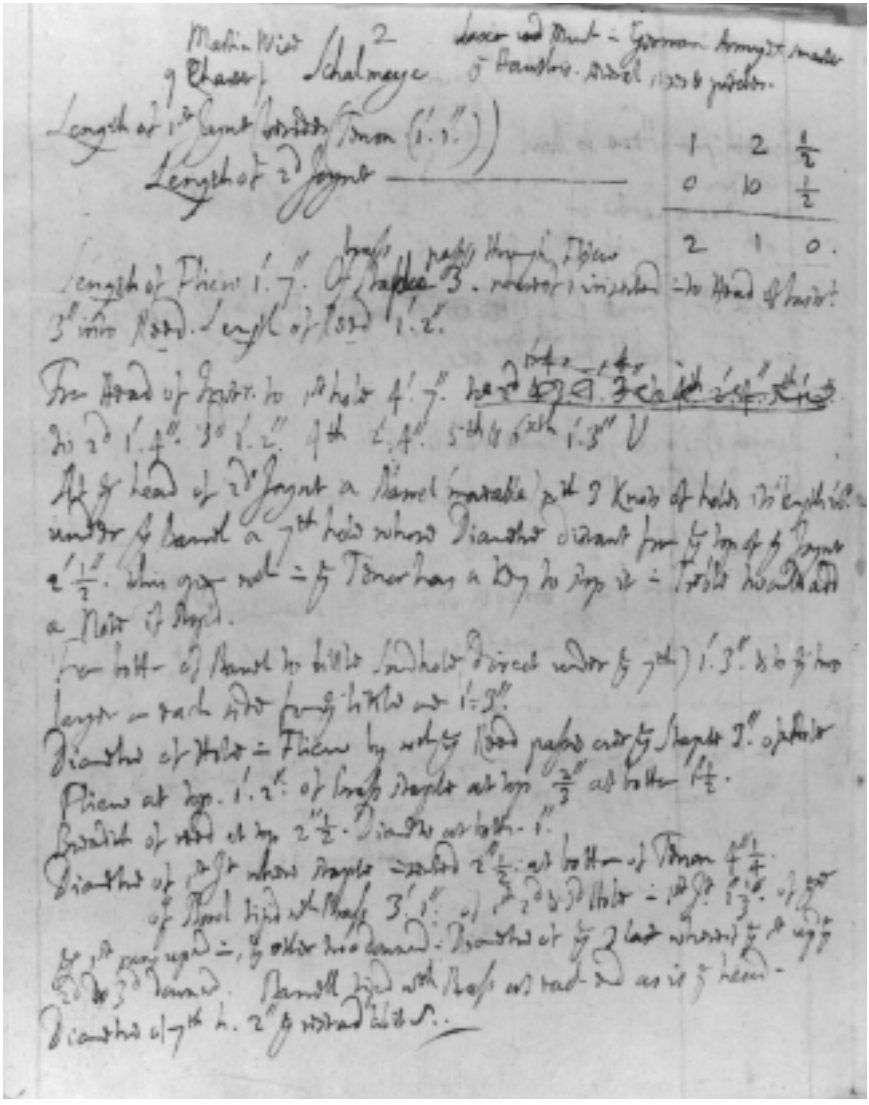

Figure 1. Talbot's page devoted to the Schalmeye, from Oxford, Ch. Ch. Mus. 1187 (Fascicle 7, page 2). Courtesy of Christ Church Library, Oxford.

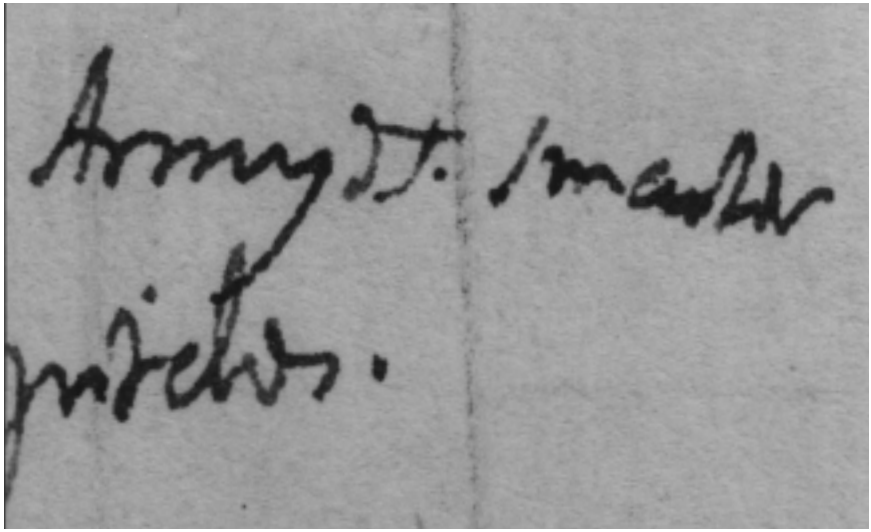

Figure 2. Detail of the word "smaller," from Oxford, Ch. Ch. Mus. 1187 (Fascicle 7, page 2). Courtesy of Christ Church Library, Oxford.

the gamut." At first sight, the "c" in "&c" appears to be a note head—namely, *f* on the first line of the stave. But closer examination reveals that it is indeed the letter "c," which, when paired with an ampersand, renders an abbreviation for *et cetera* commonly used at that time.

Presented here are my transcriptions of Talbot's pages devoted to the Schalmeye, English Hautbois, French Hautbois, and Hautbois in general, together with a facsimile of the first of these. Although they closely resemble transcriptions published by Anthony Baines in 1948,[2] they contain some readily discernible differences. It is hoped that scholars of oboe history will find this fresh reading of Talbot's notes to be of interest. Insofar as possible I have remained faithful to his spelling and wording, even retaining his use of the thorn (the runic letter þ = "th," repre-

2. Anthony Baines, "James Talbot's Manuscript," *The Galpin Society Journal* 1 (1948): 9–26. Readers familiar with Mr. Baines' article may wish to note that as cited herein his Source X corresponds to fascicle 7 of the manuscript; Source Y, to fascicle 10; and Source Z, to fascicle 8.

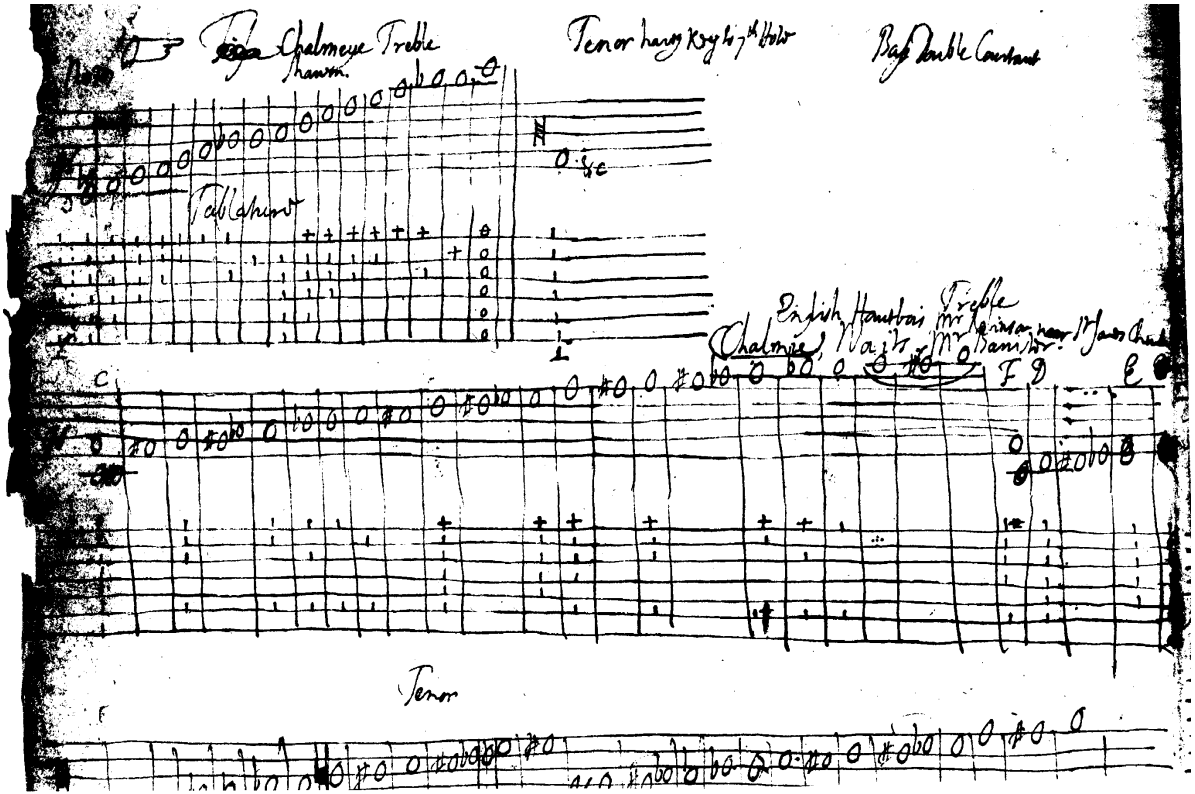

Figure 3. Tablatures of Chalmeye Treble / Shawm and its Tenor, and of English Hautbois Treble / (Chalmie) Waits, from Oxford, Ch. Ch. Mus. 1187 (Fascicle 10, page 8). Courtesy of Christ Church Library, Oxford.

sented herein by the letter "y").[3] The transcriptions themselves are diplomatic in the sense that they reproduce the physical layout of the text as it appears on Talbot's pages. They are accompanied by a discussion of several pertinent points brought to light by this new examination.

Discussion

On the page devoted to the Schalmeye (figs. 1 and 4), the numeral 2 at top center is a page number, designating this as page 2 in fascicle 7 of the manuscript. The script to the left of the word "(Charter)," which looks like the numeral 9, is most likely an abruptly terminated thorn. It would appear that in moving from the first line of text to the second, Talbot began to write the phrase "y^{n} Hautbois" at the left margin. If the words "(Charter)" and "Schalmeye" had already been in place, he could have terminated the thorn midstroke and moved beyond these words to continue the comparison "y^{n} Hautbois" at page right. The symbol following the word "Army" (fig. 2) is somewhat easier to decipher. It appears to be a pair of eighth notes, which Talbot may have used as a type of shorthand to denote the word "music." If so, then the phrase reads: "Saxon used Much in German Army [music]."

The meaning of the newly deciphered comparison—i.e., "smaller y^{n} Hautbois"—is open to interpretation. In the first place, it is not clear whether the Hautbois to which Talbot is referring is a French or English example. Both types are included in his notes,[4] and thus either could have been the object of his comparison. Secondly, the word "smaller" is itself ambiguous.

"Hautbois": French or English? Previous scholarly commentary on this comparison has interpreted the word "Hautbois" in different ways. Anthony Baines believed the instrument to be of the English variety, but

3. Talbot is consistent in his use of the thorn, using it in words such as *the* (y^{e}), *that* (y^{t}), and *than* (y^{n}), for example in fascicle 7, p. 17, where in the penultimate sentence of his description of the "Sackbutt. Bass" he writes, "The Tenor Sackbutt seems to bear y^{e} Proportion of 8/11 so y^{t} it appears to be about 4 f[eet] shorter y^{n} y^{e} Bass."

4. See, for example, fascicle 6, p. 5, where members of the French Hautbois ensemble (Treble, Tenor, and Basson) are distinguished from members of the English (Treble, Tenor, and Double Courtaut); fascicle 7, where detailed accounts are given for the English Hautbois or Waits Treble (page "a"), the Schalmeye (p. 2), and the French Hautbois (p. 8); fascicle 6, p. 4, where "Weights" are mentioned in connection with Ban^{r} [Banister], and "Species[?] of Haut-bois. Shawms. / French & English" in connection with a M^{r} A[shbury?]; and fascicle 9, p. 4, where the "Chief use of [the] Sackbutt . . . in England" is described as "in consort wth our Waits or Engl. Hautbois."

this was in the context of the supposed comparison "sweeter than Hautbois."[5] In contrast, Bruce Haynes views the instrument as being akin to the French species,[6] as does Jan Bouterse.[7]

If consideration is given to the way Talbot organized his descriptive material, however, a case can be made for the instrument's being English. Talbot's account of the Schalmeye lies on page 2 of fascicle 7, immediately following accounts of the English Hautbois or Waits Treble (page a) and the Waits Tenor (page 1), but well removed from those pertaining to the French Hautbois and its Tenor (pages 8 and 9). (For complete transcriptions of the texts found on pages 2, a, and 8 of fascicle 7, see figures 4, 5, and 6.) By the same token, his tablature of the "Chalmeye Treble / Shawm" with its corresponding Tenor (in fascicle 10) lies directly above his tablature for the "English Hautbois Treble / (Chalmie) Waits," as if the two were in some way linked (fig. 3).[8] Could the proximity of Schalmeye material to English Hautbois material be an indication of how Talbot viewed these two instruments in relation to one another? And could the terminology he used imply that he regarded both as types of "Chalmeye" or "Chalmie"? If so, then "smaller than Hautbois" is a comparison between distinct types of Chalmeye, not between the German military shawm and the French (or quasi-French) hautbois.

Further, in fascicle 7 both the English Hautbois and the Schalmeye are associated with Charter Star & Garter in Swallow Street, Pickadilly,[9] whereas the French Hautbois is linked to the French immigrant wind instrument maker Peter Bressan. It is not clear from Talbot's notes whether Charter was the maker of the English Hautbois and Schalmeye or merely the lender; similarly, it is not clear whether Bressan was the maker of the French Hautbois or merely its lender.[10] But since the two Charter instruments seem to have been in Talbot's possession at the

5. Baines, 24.

6. Bruce Haynes, " 'Sweeter than Hautbois': Towards a Conception of the Schalmey of the Baroque Period," this Journal 26 (2000): 57–82, at pp. 61, 70, and 77.

7. Jan Bouterse, "The Deutsche Schalmeien of Richard Haka," this JOURNAL 25 (1999): 61–94, at p. 92.

8. Fascicle 10, p. 8.

9. Charter Star & Garter may have been the name of a firm located in Swallow Street, Pickadilly. Or, Charter, singly and alone, could have been the name of an individual or shop situated at the sign of the Star & Garter, Swallow Street, etc. Cf. Thompson, 45, n. 27; and William Waterhouse, *The New Langwill Index* (London: Tony Bingham, 1993), 62.

10. Bruce Haynes is of the opinion that the French Hautbois was made by Bressan: see his "Bressan, Talbot and the 'Galpin' Oboe," *The Galpin Society Journal* 43 (1990): 112–23, at p. 113.

Martin Wise 2 Saxon used Much in German Army ♫ . smaller
y (Charter} Schalmeye y^n Hautbois. Several sizes & pitches.

Length of 1^st Joynt (~~besides~~ (Tenon (1'.1".)) 1 2 ½
Length of 2^d Joynt ---------- 0 10 ½
2 1 0.

brass pass[in]g through Fliew
Length of Fliew 1'.7". Of Staple 3'. whereof 1' inserted into Head of Instr^t.
3" into Reed. Length of Reed 1'.2".
From Head of Instr. to 1^st hole 4'.7". ~~to 2^d 1'.4. & 3. 1'.3[4]". to 4^th 2'.4". 5^th 1'.2".~~
to 2^d 1'.4". 3^d 1'.2". 4^th 2'.4". 5^th & 6^xth 1'.3"
At y^e head of 2^d Joynt a Barrel (moveable) w^th 3 Knots of holes its length 2'.6".
under y^e Barrel a 7^th hole whose Diametre distant from y^e top of y^e Joynt
2' ½ ". this open w^ch in y^e Tenor has a key to stop it in Treble twould add
a Note if Stop'd.
From bottom of Barrel to little Soundhole (direct under y^e 7th) 1'.3". & to y^e two
larger in each side from y^e little one 1'.3".
Diametre of Hole in Fliew by w^ch y^e Reed passes over y^e Staple 3". of whole
Fliew at top. 1'.2": of brass Staple at top ~~⅔~~" at bottom 1" ½.
Breadth of reed at top 2" ½. Diametre at bottom 1".
Diametre of 1^st J^t where Staple inserted 2" ½ : at bottom of Tenon 4" ¼.
of Bowl tip'd w^th Brass 3'.1". of 1^st 2^d & 3^d Hole in 1^st J^t 1" ⅛. of y^ese
y^e 1^st runs up^wd in, y^e other two down^wd . Diametre of y^e 3 last whereof the 1^st up^d y^e
2^d & 3^d down^wd . Barrell tipd w^th Brass at each end as is y^e head –
Diametre of 7^th h. 2" y^e rest ad libitum ~. .

Figure 4. Transcription of Talbot's page devoted to the Schalmeye, from Oxford, Ch. Ch. Mus. 1187 (Fascicle 7, page 2).

same time (having been described within a page of one another), it is not unreasonable to view them as the intended subjects of his comparison.

Generic Use of the Term Hautbois. To complicate matters, Talbot sometimes uses the term Hautbois in a generic sense. This does not occur in fascicle 7, however, but rather at the end of fascicle 8, where he devotes one full page and part of another to instruments of the "Haut-bois" family (see figure 7).[11] Although references are included to the Hautbois

11. Fascicle 8, pp. 29–30. The creation of this fascicle may actually pre-date that of fascicle 7, as the paper comprising the two fascicles does not share the same watermark, and the numbering of all Talbot's fascicles is not his own.

a Engl. Hautbois or Waits Treble Charter Star & Garter
in Swallow. Street. Pickad[i]lly

Head
~~Bowl~~ Bowl
Length (w^th^out Fliew & Reed) from ~~Head~~ to ~~Pavillion~~ 2 1 6.

From Head to centre of 1^st^ hole 3'. 7" ½. to 2^d^.3^d^.5^th^ & 6^xth^ 1'.2".)
from 3^d^ to 4^th^ 1'.4". from 6^xth^ to 7^th^ (oblique) [error scribbled out] 1'+.
Other Holes may be made below (not for fingers) but Tuning to y^e^ proper Pitch.
Heighth of Fliew 1'.1"., It's Diametre at top. 1'.3"
Length of Brass Staple 2'.3" (whereof 1'. 1" ½ inserted into y^e^ Bore of Instr^t^) 1'. 1" ½ into Fliew
In y^e^ Fliew at top a hole (4" diametre 2" deep to open a way for y^e^ passage of y^e^ Staple
through y^e^ reed: Diametre of Staple at top $^1/_{10}$'. at bottom $^1/_5$' (top 3". ⅔.
Length of Reed 1'. 1" ½. wher[e]of 2" inserted into y^e^ Fliew's hole at top: breadth at [top 3". ⅔.]
Diameter of Reed at bottom 1".
Diametre of head at top. 1'.5". of it's bore (into w^ch^ Staple inserted) 2" ½.
of 1^st^ & 2^d^ & 7^th^ hole 2". 3^d^ & 4^th^ 2" ⅔. 5^th^ & 6^xth^ 3".
Diametre of Pavillion 3'.5"+.
From 6^xth^ h. to 1^st^ Tun[in]g hole 2'.4": to y^e^ two next (oblique) 3'. [error scribbled out] ~~to y^e^ 2~~
last from y^e^ 1^st^ Tun[in]g hole to y^e^ 2 last (direct & opposite one above &c) 6'. 1" ½

This Instr' 1 entire piece

Figure 5. Transcription of Talbot's page devoted to the English Hautbois or Waits Treble, from Oxford, Ch. Ch. Mus. 1187 (Fascicle 7, page a).

described by Praetorius and Mersenne, most of the material contained on these two pages concerns members of the late seventeenth-century French Hautbois family, as confirmed by remarks such as "The present Hautbois not 40 years old and an improvem[en]t of y^e^ great French hautbois w^ch^ is like our Weights";[12] and "The Tenor Hautbois differs not from Treble in shape[,] only in size & bore of holes w^ch^ being at greater distance are bored more slanting downwards y^t^ y^e^ tops may be covered w^th^ Fingers. The Tenor I've seen is entire made by Ashbury."[13] No mention is made of the English Hautbois (except by implication through reference to "our Weights"), yet its absence from this context can hardly be regarded as evidence enough to preclude it from having been the object of Talbot's comparison on page 2 of fascicle 7, as will be seen below.

12. Fascicle 8, p. 29, col. 1 (and fig. 4).
13. Fascicle 8, p. 30, col. 2.

8

Fr.[ench] Hautbois Treble (Bressan)

	F	I.	L.
From y^e^ head of 1^st^ Joynt } Tennon to ~~small end~~	0	8	3 ½
2^d^ Joynt}	0	8	3 ½
Length of 3^d^ Joynt	0	5	5
	1	10	4
Length of ~~sm all end~~ of } 1^st^ Joynt} & cons[equently]. of Socket {in 2^d^ Tennon ~~Fe~~	0	1	0.
} 2^d^ Joynt} { 3^d^	0	1	1 ⅓

From head of 1^st^ Joynt to 1^st^ Hole. 5' 2" ⅔: to 2^d^ 1'.1": to 3^d^. 1'.-2": to end of 1^st^ Joynt 2": from beginn[in]g of 2^d^ Joynt to 4^th^ hole 1'. 6" ⅓ (in all from 3^rd^ to 4^th^ 2'+.) from 4^th^ to 5^th^ 1'.1"+: to 6^xth^ 1'. ½": to hole under great Br. Key. [error] 3' : from 6xth to hole under little side-key. 1'. 6" ¾: from [error] great hole under Br. K to sound-hole in each side 2'. 2". ⅓: Length of great br. Key. 2' ½": of little Key. 1'.4": Diametre of bore in 1^st^ Joynt above 3": below 4": of 2^d^ Joynt below [error] 5" ⅔ of 3^d^ Joynt below 1'. 7" ⅓.

Diametre of 1^st^ & 3^d^ & 4^th^ Holes 1" ¼ of 2^d^ 1" ⅓ of 5^th^ 6^xth^ 7^th^ & 8^th^ 1" ⅔. of Sound-holes 2": Distance between y^e^ little holes of y^e^ 3^d^ & 4^th^ Rank ½": Thickness of 1^st^ Joynt above 2" ½+ below 1":

Breadth
~~Diametre~~ of Reed at Mouth 3": Length 3'.7". whereof 5" ½ inserted.
Diametre at brass end. -2":

Figure 6. Transcription of Talbot's page devoted to the French Hautbois, from Oxford, Ch. Ch. Mus. 1187 (Fascicle 7, page 8)

"Smaller than Hautbois"? What was it about the Schalmeye that Talbot found "smaller than Hautbois": its overall length? narrowness of profile? bore dimension? tonehole size? From the data provided, only three of these criteria can realistically be considered as the bases for the comparison; not enough information is present to draw any firm conclusions about the three instruments' profiles.

Talbot's measurements reveal that the Schalmeye is longer than the French Hautbois and shorter than the English (tables 1 and 2). Even his apparent miscalculation of the Schalmeye's overall length[14] does not

14. As explained by Bouterse, 85, n. 32, Talbot's total of "2 1 0" (i.e., 2 ft., 1 in., 0 ligne, or 25 inches; one ligne equals 1/8 inch) should instead read 2 ft 0 in 1 ligne (24 1/8 inches).

Germ Pommer Bombart
Bo Pommender[?] Schalmeien.

Haut-bois

Bombardo, Bombardone.
Tibia Decumana Mers.

See Figure[s] Mersenne l. Gall. pag. 295 & 303.
Lat 84. & 88.

Describ'd Mers. Gall. 1.5 Prop. 31. p. 295.
Lat. Lib. 2. Prop. 7.

loud low & high.

Matter.
Bore [wood is?] Ebony. [Pr.? or Bx?]

Figure & Parts.
[text scribbled out...

...] [y^e^ 2 Holes
in y^e^ lower part are to convey y^e^ Sound
but don't vary it being out of y^e^ reach & y^e^ fing[er]s..

The present Hautbois not 40 years old
and an improvem[en]t of y^e^ great French hautbois
w^ch^ is like our Weights.

The reed must be well moistened before y^e^ Instr^t^
will sound well to preserve y^e^ Wind w^th^in
itself.

Great Brass Key stops it's hole w[hen?] pressed by Finger
little opens it w[hen] press'd ditto. by y^r^ y^e^ different
use as well as size. both covered lin'd w^th^ leather where
cover y^e^ hole to prevent noise

It has 8 Holes whereof 7 plac'd in direct order viz.
3 on y^e^ 1^st^ Jt 3 on y^e^ 2^d^ 1 on y^e^ 3^d^ w^ch^ is stop'd by a great
brass Key by reason of Distance: y^e^ same Joynt an 8^th^
Hole on each side for right or left hand ~~stop'd~~ open'd wth a brass
Key (otherwise stop'd w^th^ wax[?]) y^e^ 3^d^ & 4^th^ holes are
double for taking of half Notes upon one otherwise
both stop'd: in this Instr^t^ contrary to Flute 1^st^ Joynt
let into 2^d^, y^r^ into 3^d^ y^e^ bore &c increasing down-
wards so y^r^ y^e^ Pavillion very large w^ch^ shrills y^e^ sound.
hav[in]g small passage at reed.

Compass

[staff: C clef on first line and the note c',
followed by a G clef on the second line and the note c'''']
{hence, c' - c'''}

w^th^ all intermediate Tones & Semitones.

It's Compass more proper for Consort than
most Wind Instr^ts^. It's sound lively & not ~
much Inferior to Trumpet: w^th^ a good reed &
skillful hand it sounds as easy & soft as y^e^ ~
Flute. y^e^ 7 last Notes from d. to cc are kept
as their 8^ve^ below ~~& only~~ allowing a ~~double~~ greater heighth [???]
of Breath & pressing y^e^ reed closer w^th^ y^e^ lips.

Tenor Hautbois 4 notes lower
finger as Basson.

[staff: C clef on third line {*i.e.*, alto clef}
only one note {the lowest} given: g]

Basson or Bass Hautbois
touch or Finger y^e^ same as Flut[e].

[staff: F clef on topmost line
only one note {the lowest} given: BB♭]

Figure 7. Transcription of Talbot's page devoted to Haut-bois, from Oxford, Ch. Ch. Mus. 1187 (Fascicle 8, page 29)

Table 1. Comparison of linear dimensions of Talbot's treble double-reed instruments (1′ = 1 inch; 1″ = 1/8 inch)

	English Hautbois or Waits Treble	Schalmeye	French Hautbois
Overall Length	2 ft 1′ 6″ *(the entire in 1 piece)*	2 ft 1′ 0″ (MS: 2 ft 0′ 1″)	1 ft 10′ 4″
1st Joynt		1 ft 2′ 1/2″	8′ 3 1/2″
2d Joynt		10′ 1/2″	8′ 3 1/2″
3d Joynt			5′ 5″
Tennon 1st Joynt		1′ 1″	1′ 0″
Tennon 2d Joynt			1′ 1 1/2″
Length of Barrel		2′ 6″	

Table 2. Comparison of fingerhole placement of Talbot's treble double-reed instruments (1′ = 1 inch; 1″ = 1/8 inch)

	English Hautbois or Waits Treble	Schalmeye	French Hautbois
to 1st hole	3′ 7 1/2″ *(from Head to centre of 1st hole)*	4′ 7″ *(from Head of Instr. to 1st hole)*	5′ 2 2/3″ *(from Head of 1st Joynt to 1st Hole)*
to 2d hole	1′ 2″	1′ 4″	1′ 1″
to 3d hole	1′ 2″	1′ 2″	1′ 2″ −
to 4th hole	1′ 4″ [?]	2′ 4″	2′ +
to 5th hole	1′ 2″	1′ 3″	1′ 1″ +
to 6xth hole	1′ 2″	1′ 3″	1′ 1/2″
to 7th hole	1′ +	2′ 1/2″	3′ *(to hole under great Br. Key)*
from 6xth			1′ 6 3/4″ *(to hole under little side-key)*
from bottom of Barrel to little Soundhole		1′ 3″	
then to the two larger holes in each side		1′ 3″	

alter the facts at hand: whether 25 or $24^{1}/_{8}$ inches long, the Schalmeye under his scrutiny was longer than the French Hautbois ($22^{1}/_{2}$ inches) but shorter (and in this way smaller) than the English ($25^{3}/_{4}$ inches).

The Schalmeye's bore (excluding Joynt 2) could be narrower than the French Hautbois' (excluding Joynt 3) and may very well be narrower than that of the English (table 3), but the absence of critical data makes reliable assessment impossible. Certainly, the diameter of the Schalmeye's "Pavillion" is smaller than that of the English and greater than that of the French (its dimension of $1' \ 7^{1}/_{3}''$ being suggestive of the bell's internal rather than external diameter).

Talbot's data for fingerhole size is surprisingly substantial (table 3). Analysis shows that the Schalmeye's upper three fingerholes are definitely smaller than those of the English Hautbois but are more or less equal in size to those of the French, the difference in their dimensions being nominal ($1^{1}/_{4}$ ligne = $^{5}/_{32}$ inch; $1^{1}/_{3}$ ligne = $^{4}/_{24}$ or $^{1}/_{6}$ inch).

Based on the limited data given, one is reluctant to say which Hautbois Talbot viewed as being larger than the Schalmeye. The English Hautbois is clearly longer and wider in bell, whereas the French Hautbois may have had a slightly wider bore. Without more technical information we are at a loss to know the true basis for his comparison. Notwithstanding, the earlier points about English versus French remain. Talbot's description of the English Hautbois (Treble Waits) is located but two pages away from his description of the Schalmeye in fascicle 7; and these two instruments share a common bond with Charter.

Unreliability of Measurement. Because little is known about Talbot's approach to measuring and even less about the tools or devices he would have used, his figures must be viewed with caution.[15] No two individuals have the exact same approach to measuring, nor do they use their tools in the same way. Moreover, unit demarcations, though theoretically standard, vary from one tool to the next. Thus, even though the standard of measure known as the English foot has remained constant (i.e., virtually

15. As Baines points out, ". . . the interpretation of Dr Talbot's figures is no simple matter. He does not say whether he took all the measurements himself, and indeed it looks as though two methods of measuring have been used, one being the normal one of measuring between hole centres, . . . the other reckon[ing] from the lower edge of one hole to the upper edge of the next below" (Baines, 22).

Table 3. Comparison of bore and fingerhole diameters of Talbot's treble double-reed instruments (1′ = 1 inch; 1″ = 1/8 inch)

	English Hautbois or Waits Treble	Schalmeye	French Hautbois
head at top	1′ 5″		
bore at top	2 1/2″	2 1/2″	3″
bore in			
1st Joynt below		4 1/4″	4″
bore in			
2d Joynt below			5 2/3″
bore in			
3d Joynt below			1′ 7 1/3″
Pavillion / Bowl	3′ 5″	3′ 1″	
1st hole	2″	1 1/3″	1 1/4″
2d hole	2″	1 1/3″	1 1/3″
3d hole	2 2/3″	1 1/3″	1 1/4″
4th hole	2 2/3″		1 1/4″
5th hole	3″		1 2/3″
6xth hole	3″		1 2/3″
7th hole	2″	2″	1 2/3″
8th hole			1 2/3″
Sound-holes			2″

unchanged) from the time of Elizabeth I to the present,[16] it cannot be assumed that the inch imprinted on a present-day measuring device is equivalent in length to the inch imprinted on Talbot's.[17] In other words, the musical instruments that Talbot was measuring could have been slightly larger, slightly smaller, or exactly the same size as described; we

16. See Ronald Edward Zupko, *British Weights & Measures: A History from Antiquity to the Seventeenth Century* (Madison, Wisconsin: University of Wisconsin Press, 1977), 92; and R. D. Connor, *The Weights and Measures of England* (London: Her Majesty's Stationery Office, 1987), 243.

17. As Jane Ness, Curator of Mathematics and Astronomy, The Science Museum, London, has observed, "The [foot] standards held at the Royal Society and the Exchequer differed only by about 0.01 inches in several hundred years. However, more variation is found when looking at contemporary products. For example, I noticed that a set of 18th century scientific instruments were all slightly bigger [i.e., larger] than they had been described as being [in contemporary sources], by about 2% if I remember correctly. So these measures can be taken to be only approximately correct" (personal letter to the author, November 14, 2001). Similarly, Talbot's measurements must be regarded as being "only approximately correct"; for when realized with modern measuring devices, discrepancies (of *x* per cent) may occur between an instrument's actual size and the dimensions given.

shall never know. Though his measurements seem precise, they must be regarded with a certain degree of skepticism, particularly if they have been realized with modern tools and then employed in comparative contexts.

"Several sizes & pitches." Talbot writes that "Several sizes & pitches" of Schalmeyen are known to exist. Aside from the Treble, he refers to a Tenor, though he offers no measurements for it. No mention is made of descant or bass sizes except in a lengthy passage copied from Praetorius.[18] So what is meant by "several sizes and pitches"? It could be that Talbot regarded the Bass Double Courtaut[19] as the bass of the (German) Schalmeye ensemble in that he reserves a space for its tablature next to that of the Chalmeye Treble and Tenor in fascicle 10 (fig. 3). But it should not go unnoticed that elsewhere in the manuscript he groups the Double Courtaut with members of the English Hautbois family.[20] Because he does not elaborate, the meaning of the phrase is unclear.

"Saxon used Much in German Army." Of all the phrases used by Talbot to describe the Schalmeye, "Saxon used Much in German Army" is by far the most intriguing because it suggests and perhaps even confirms the existence of a continental *Schalmei* in England at the end of the seventeenth century. Its presence in Talbot's instrumentarium raises a number of questions, however. Who made the instrument? What was its connection with Martin Wise and Charter? Had it really been made in Saxony? Or had it been made somewhere else (being only similar to instruments played in Saxony)? Finally, if truly Saxon, what was it doing in England?

As Jan Bouterse has shown, "*Teutsche Schalmeijen*" were exported from Richard Haka's Amsterdam shop to Sweden as early as 1685, presumably for use in the military.[21] Could such instruments have been exported to England for similar employment there? Possibly, but no concrete evidence (such as a bill of sale) has yet surfaced to substantiate this conjecture. Nor has any evidence been uncovered to suggest that German Schalmeyen were ever used in late seventeenth-century British regiments.

18. Fascicle 8, p. 30.
19. Baines, 15–16.
20. Fascicle 6, p. 5; and fascicle 7, table of contents preceding page "a."
21. Jan Bouterse, "Communication," this Journal 26 (2000): 243–50.

Might a Haka Schalmey (or two) have landed on Britain's shores with the invasion of William III's army in November 1688? Possibly, but to date my investigations have failed to establish that Schalmeyen even accompanied William III to England, let alone that Haka was responsible for their manufacture. More plausibly, a type of German Schalmey could have reached England in 1691, when five London-based "hautboyes" accompanied William III to Holland in January of that year, only to return home several months later.[22] Though Bressan was apparently among them,[23] any of the five could have come into contact with Dutch or German Hautboists and effected an exchange of instruments while abroad. Or, they could conceivably have had direct dealings with Richard Haka or the heirs of Jan Juriaensz van Heerde, whose advertisements in the *Amsterdamse Courant* of April 1691 and May 1691, respectively, included offerings of military or "field" *Schalmeyen—Velt-Schalmeyen* and *Velt-Schalmayen* (possibly *Velt-scharmayen*).[24]

But, lacking reliable evidence to support a specific Dutch-English or German-English transaction, I am obliged for now to take the broader historical perspective, observing that as anti-French sentiment grew through the course of the 1680s, ties between William III and the Electors of Brandenburg, Saxony, Bavaria, and the Palatinate strengthened. With the intermingling of countless armies, it is certainly not beyond the realm of possibility that a German Schalmeye—perhaps even one of Saxon origin—might have found its way into English hands by virtue of military engagement or diplomatic assignment.

22. They were appointed to attend the King (on his intended voyage to Holland) in December 1690 and released from service on April 13, 1691. Each was to receive a stipend of £20 from Dr. Nicholas Staggins, Master of the Musick. See Maurice Byrne, "Pierre Jaillard, Peter Bressan," *The Galpin Society Journal* 36 (1983): 2–28, at p. 5; and Henry Cart de Lafontaine, ed., *The King's Musick: A Transcript of Records relating to Music and Musicians, 1460–1700* (London: Novello, 1909), 403.

23. Susi Jeans, "Bressan in 1690," *The Galpin Society Journal* 11 (1958): 91.

24. Thompson, 36–37; and Bouterse, "The Deutsche Schalmeien," 63.