The 17th-Century Oboe Reed

In an attempt to recapture the original character of the baroque oboe, contemporary performers have been playing instruments (or copies thereof) which have not been used for several hundred years. But the quest for both historical authenticity and performing feasibility has not been without its stumbling blocks. One of these concerns the reed, probably the most intriguing unsolved mystery of the baroque oboe. What reeds were used with these instruments? With only iconographic material and a few battered remains of reeds surviving from the Baroque era, we have resorted to a combination of experimentation, guesswork, and luck.

For the most part, the present-day 'solution' has been a reed with a staple much longer than that used for the modern oboe (Fig. 1). This consensus notwithstanding, we have been both mystified and fascinated by the illustration of an oboe reed with a much shorter overall length (Fig. 2) in Diderot’s Encyclopédie (1751–52).¹ This reed, henceforth referred to in this article as the Diderot reed, is easily recognized, since only the uppermost section can be seen when the reed is inserted into the oboe, i.e. no staple is visible. It is bound by a short section of wrapping thread over what is, according to the Encyclopédie article on the oboe, a brass staple. The Encyclopédie reed is reinforced by wire, which is especially necessary for a cane section of such length (this reed’s ratio of cane to staple is approximately 21 to 1). Other reeds with the same approximate overall length (Fig. 3) have much shorter cane sections, balanced in turn by longer staples (cane-to-staple ratio

![FIG. 1. A typical present-day baroque oboe reed (for use with a Denner oboe).](image1)

![FIG. 2. Oboe reed from Diderot’s Encyclopédie (original size of drawing).](image2)
approaching \(1 \text{ to } 1\)\). While short in comparison to the long baroque oboe staples in general use today, the staples for these reeds are clearly visible after being inserted into the instrument. I should mention that staples like the one shown in Fig. 1 are in reverse proportions to those of the Diderot type reeds. Their staple-to-cane ratio is approximately \(2\frac{1}{2} \text{ to } 1\), whereas the Diderot reed’s cane-to-staple ratio is \(2\frac{1}{2} \text{ to } 1\). Given these diametrically opposed styles of reedmaking, we can see that the differences between the Diderot and other short-stapled reeds are not as great as they may at first appear to be. Consequently, the Encyclopédie reed should not be interpreted literally, but only as an illustration of a general type of reed making which existed with several variants. Could they conceivably be typical 17th-century oboe reeds? And if so, why are we using something so different when we play the earlier baroque oboe?

I believe that the Diderot and other short-stapled reeds represented the historical mainstream, and were the only reeds used with the baroque oboe during its first half-century (c.1650–1700). This theory is supported by several arguments: 1. the superior playing characteristics of these reeds; 2. the fact that the long-stapled reed creates performance problems which are not encountered with the Diderot reed; 3. the overwhelming historical documentation for the Diderot and other short-stapled reeds; and 4. the lack of persuasive counter-evidence for any other type of reed. Since the historical documentation for the short-stapled reed—however convincing—is probably of secondary importance to the performer, the reed’s playing abilities will be noticed first.

PLAYING CHARACTERISTICS OF THE DIDEROT AND OTHER SHORT-STAPLED REEDS
The playing qualities of these reeds are far superior to, and easily distinguished from, those of the long-stapled reed. Above all, the Diderot reed does not squeak, one of the most annoying problems associated with the long-stapled reed. Expressivity no longer need be tempered by the terror of the squeak. The Diderot reed also has a
wider dynamic range, and its disarmingly soft low register is particularly impressive. The tone quality is generally more robust, if sometimes less focused, than that of the long-stapled reed.

The Diderot as well as other short-stapled reeds also solve another frustration encountered when one uses the long-stapled reed. I have often wondered why so many baroque oboes have an identical defect, i.e. an unreliable middle D, D♯ and E; in fact, there are original instruments on which these notes will not respond at all when played with this reed. It is inconceivable that instrument-makers throughout Europe all made exactly the same mistake, especially one of such magnitude. Far more likely the long-stapled reed is the culprit, a contention supported by the fact that the reeds I have described play these notes securely, with no risk of squeaks.

HISTORICAL EVIDENCE FOR THE DIDEROT AND OTHER SHORT-STAPLED REEDS

The Diderot reed is, of course, named here after the well-known Encyclopédie drawing. However, there are many other illustrations of this reed type, some of which antedate its Encyclopédie appearance by as much as seventy years. The Diderot drawing was, it seems, a late commentary on a well-established style of reed-making. I will focus on these earlier examples from the 17th century, since they show conclusively—and to the best of my knowledge for the first time—that the Diderot and other short-stapled reeds were the only ones used with the baroque oboe during its first half-century.

The first instances of the Diderot reed known to me occur in prints and paintings of the Dutch artist, Gerard de Lairesse (1641–1711). The very earliest appears in a 1679 print which portrays a wide Diderot reed in an instrument represented only by its upper section (Pl. VII a). The turnery at the top of the instrument suggests that this is a baroque oboe, though more than that it is impossible to say (Fig. 4). It is also impossible to tell whether the reed has a staple. (Acoustically speaking, this is an unimportant point for the de Lairesse or any other reed: so long as proper internal dimensions are maintained, it does not matter what a staple is made of, or even if one is present at all.) Another print, undated, shows an instrument, similar to the one in the first de Lairesse print, also with a Diderot reed (Figs. 5 and 6). Looking at these instruments, one is struck by their resemblance to those made by Richard Haka (c.1645–1705), ‘father’ of the Dutch oboe. The same is true of de Lairesse’s 1682 title-page for a Lully opera (Fig. 7), which

FIG. 5. *Oboe with reed from* de Lairesse's *Coelo Musa Beat.*

FIG. 6. *Detail of reed from* Coelo Musa Beat.

FIG. 7. *Oboe from* de Lairesse's *title page for Cadmus.*

depicts a bottom joint identical in shape and proportion to a late 17th-century transitional Haka oboe (Ea-x-1952) in the Musical Instrument Collection of The Hague Gemeentemuseum (Pl. VII b).

But de Lairesse's most detailed examples of oboe reeds are found on a set of two doors painted in 1684 for the organ case of Amsterdam's Westerkerk.7 These doors—two of four completed—were later removed from the organ and are located today at the rear of the church. In them, de Lairesse portrayed many late 17th-century musical instruments, including two oboes with reeds, drawn to approximate natural size.

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The instrument on the left door (Pl. VII c) is portrayed in two pieces, with one key (a C key enclosed in a key cover) identical to that on the Haka oboe mentioned above. This striking resemblance suggests that de Lairesse may have copied a Haka oboe. If so, the reed depicted can be linked with the first baroque oboes made in Holland. De Lairesse’s reed, apparently with a wire around it, measures 41 mm. overall, with a tip of c.15 mm. wide (Fig. 8). The cane could continue into the body of the oboe, for no wrapping thread can be identified. More likely, though, this is an example of a short-stapled reed (cane-to-staple ratio of 1 to 1), rather than the Diderot reeds depicted in the other de Lairesse examples. I say this because of the proportional similarities between this and other short-stapled reeds (Fig. 3).

While the width of the reed on the right door (Pl. VIII a and Fig. 9) is identical to that on the left (c.15 mm.), it is much shorter (c.33 mm.), and closely resembles de Lairesse’s other Diderot reeds. And while this
reed also has no wrapping thread, it does not appear to be wired. These two reeds would suggest the concurrent usage of both the Diderot and the short-stapled reeds in 17th-century Holland. The reed on the left door has an overall length of 32 mm. above its wire; the reed on the right door measures 33 mm. before disappearing into the oboe. It could be argued, therefore, that the reeds are virtually identical, the only difference being that one is of the Diderot style, and the other is a short-stapled reed. (Since both instruments and reeds were painted at an angle, the actual original sizes were probably slightly larger.)

The next example, the only English 17th-century Diderot reed I know of, appears in an illustration by Randle Holme III (Fig. 10). Dated by the British Library to 'before 1688', his manuscript affords a short description and a small drawing of a baroque oboe and reed. The instrument is in three pieces, and seems to have only one key, like the Haka oboe already mentioned. The baroque turnery, while typical, is exaggerated, and the G and F holes are split in the usual baroque fashion. If the drawing is expanded to the scale of a turn-of-the-century English oboe (in this case a Stanesby senior oboe with an overall length of 590 mm.), the reed's dimensions become as extravagant as the turnery. Although the reed is unquestionably a wide triangular Diderot affair, when so reproduced the width at the tip becomes a staggering 54 mm. Clearly this reed captures the spirit, but not necessarily the letter, of the Diderot reed.

FIG. 10. Oboe with reed from Holme's Academy of Armory.

FIG. 11. Oboe with reed from Derosier's title-page to La fuite du roi à Angleterre, à trois instruments.
A Derosier title-page of 1689 (Fig. 11) provides one more instance of the short-stapled Dutch reed. It shows a three-keyed baroque oboe with a very flared bottom joint and a short-stapled reed (cane-to-staple ratio approximately 1 to 1). The proportions of reed and staple are quite similar to those of the de Lairesse reed painted on the first panel of the Westerkerk organ doors (Pl. VII e). I believe that the Derosier oboe and reed are of Dutch origin. Printed in Amsterdam, this title page portrays an oboe with a manifestly Dutch shape: the uppermost turnery on the top joint flares out at the top in characteristically Dutch style, whereas the turnery of the French oboe of that time is usually straight. The shape of Derosier's oboe corresponds, furthermore, to that of several baroque oboes in the Gemeentemuseum collection by Dutch makers: Coenraet Rykel (Ea-440-1933), Thomas Boekhout (Ea-x-1952) and, most especially, Jan Steenbergen (Ea-x-1952).

A series of Gobelins tapestries provide what are probably the first French examples of the baroque oboe and reed. One such tapestry (New York, Metropolitan Museum of Art) woven for Louis XIV in the workshop of Jean Lebèvre the Elder (1630-1700)9 and dated 1689-1692, depicts an enormous Diderot reed with wrapping thread (Fig. 12). It comes to a full 35.3 mm across, and 40.1 mm in length.

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**FIG. 12.** Detail of reed from Shepherds Dancing.

**FIG. 13.** Detail of reed from Danse des Nymphes.
The illustration of the instrument is not particularly realistic and can perhaps best be described as a caricature of a late 17th-century transitional oboe (Pl. VIII b). While the turnery itself is acceptable, its location is not; and since turnery usually identifies the location of an instrument’s joints, these are incorrectly placed. Nonetheless, the instrument does bear some likeness to several late 17th-century French oboes. The outside walls of the top joint’s uppermost section are almost parallel, a French trait which occurs in an anonymous French transitional oboe (Paris Conservatoire, Musée Instrumentale, E108), as well as a Hotteterre oboe (Brussels Museum of Musical Instruments, No. 2320). A second feature of the Gobelins oboe is a set of rings at the base of the bottom joint. This, too, is found on the anonymous instrument mentioned immediately above. Finally, the tapestry portrays an unmistakable fontanelle, a characteristic shared by two French oboes—a late 17th-century ‘petit hautbois musette’ (Paris Conservatoire, E1180) and the Dupuis oboe (Berlin, Staatliche Institute für Musikforschung, Musikinstrumentensammlung, Sachs 2933).

Another Gobelins tapestry,10 one of a series dated between 1684 and 1690, displays a short-stapled reed mounted on a staple (Fig. 13), with a cane-to-staple ratio of 1 to 1. Extraordinary in its detail, this reed supplies lucid evidence for the existence of the short-stapled reed in 17th-century France.

The instrument depicted is a three-jointed oboe with only one visible key—a C key (Pl. VIII c). It has typical baroque turnery and ivory at all joints, plus two tuning holes on the bottom joint. The upper section of the top joint is squared off like the instrument shown in the first Gobelins tapestry, and is nearly identical to that of the late 17th-century transitional oboe mentioned earlier (Paris E108).

A final Gobelins tapestry11 provides another example of a baroque oboe and reed. It also pictures an instrument with a fontanelle, a wide bottom, and baroque turnery. The detail of the reed, though, is not clear enough to warrant any conclusions.

To the best of my knowledge, these tapestries provide the only iconographic documentation for both the reeds and instruments of late 17th-century France. It is reasonable to assume that, since these tapestries were woven for Louis XIV in the national tapestry factory under his control, the instruments and reeds depicted were based on models from his court. If so, we are able, for the first time, to establish what instruments and reeds might have been used by the most famous oboe band in Europe, the Grand Ecurie.
Before leaving the iconographic evidence for the Diderot and other short-stapled reeds during the 17th century, one additional—and astonishingly detailed—example remains. Above the keyboard of a late 17th-century Flentrop organ by the Flentrop family, Santpoort Zuid, Holland, is a woodcarving showing a baroque oboe and a flauto traverso (Pl. VIII d). With characteristic Dutch turnery, the oboe is trimmed in ivory and has three keys. A fairly wide short-stapled reed is visible, secured to its staple by wrapping thread. Both the oboe and reed seem to be carved to exact size. The oboe is 584 mm. in length, and closely resembles a boxwood Haka oboe dated c.1680, with three copper keys (Gemeentemuseum Ea-6-1952). Measuring 578 mm. in overall length, this oboe is within 6 mm. of the length of the Flentrop carved oboe. Coincidentally, the cane section of this reed—measuring 24 mm.—is identical to that of the aforementioned short-stapled Gobelins reed in Danse des Nymphes (Fig. 13). However, the tip of the Flentrop reed is wider than the Gobelins reed by almost 4 mm., and the amount of staple extending out of the Flentrop instrument is 8 mm. shorter than that of the Gobelins reed. Nevertheless, the similarities and detail of these two reeds are remarkable.

FIG. 14. Detail of reed from Flentrop organ carving.
HISTORICAL EVIDENCE FOR THE LONG-STAPLED REED

The case for the long-stapled reed during the late 17th century rests, to the best of my knowledge, on two turn-of-the-century items—a Dutch drawing and James Talbot's incomplete measurements for an oboe reed. Neither of these survives careful scrutiny. All other examples of the long-stapled reed known to me date from the 18th century. This near complete absence of documentation for the long-stapled reed during the period under consideration surely strengthens the case that the Diderot and other short-stapled reeds were the only ones used during the 17th century.

The lone remotely plausible illustration of a long-stapled 17th-century reed is Dutch. In 1696, Jan de Lairesse (1674–1724), one of Gerard’s two sons, drew a title-page for a score by Henrik Anders. Here we find a cherub holding a one-keyed (enclosed in a key cover) three-jointed oboe (Fig. 15), with a triangular reed about the size of the cherub’s fist. For the first time, we can actually see a 17th-century staple apart from the oboe. But was this a short or a long staple? Regrettably, the question cannot be answered, for the cherub’s thumb

![Cherub with oboe and reed from Jan de Lairesse’s title page for Les Trioos, Allemande, Courante...](image-url)
covers the spot where cane and staple are joined. Depending on where they meet, the ratio of staple to cane could be roughly two to one—i.e. a fairly long-stapled reed—or alternatively, the one-to-one ratio characteristic of the short-stapled reed. If the latter, we have a typical late 17th-century short-stapled reed; if the former, one of the first examples of the long-stapled reed. My own guess, based primarily on the instrument depicted in the drawing, is that this is a short-stapled reed. The cherub's instrument is even closer to the Haka oboe (Ea-x-1952) than the oboes illustrated by Gerard de Lairesse. Like those in his father's drawings, Jan de Lairesse's oboe has only one key, enclosed in a key cover, as well as characteristic Dutch turnery at the top of the instrument. But whereas the Westerkerk oboes are in two sections—a characteristic associated with the earliest transitional oboes—here the instrument, like the original Haka, is in three pieces. Surely, it is unlikely that the instrument which resembles the Haka most of all would be played with a reed so different from that on which other Haka oboes appear to have been played.

But there are several problems associated with this print. The late date—1696—makes it a dubious example of 17th-century practice. Quite possibly, this reed belonged to another instrument altogether—the schalmey. Two facts suggest this idea. First, the drawing mentions West Friesland. We know from Claus Douwes' treatise of 1699 that at that time, both the schalmey and the new 'hautbois' were being played in Friesland. Second, while Douwes' careful description of each instrument mentions (p. 114) that schalmey reeds are 'put over a little copper pipe', his account of the oboe makes no reference at all to staples. Although this evidence is by no means conclusive, it does leave open the possibility that some oboists in provincial Holland were still using old-fashioned schalmey reeds with the new oboe.

The only other example of a 17th-century long-stapled reed known to me comes from Talbot in England. He provided an incomplete set of measurements for an oboe reed (c.1699), describing a reed of c.98 mm. in overall length (Fig. 16). But this late (and approximate)

![FIG. 16. Author's reconstruction of an oboe reed based upon Talbot's measurement.](image-url)
(a) Oboe with reed from de Lairesse’s Casp: Bartholinus de Tibiis Veterum; (b) Haka transitional oboe (The Hague, Ea-x-1952); (c) Oboe with reed found on left panel of de Lairesse’s organ doors
PLATE VIII

(a) Oboe with reed found on right panel of de Lairesse's Westerkerk organ doors;
(b) Oboe with reed from Gobelins tapestry, Shepherds Dancing;
(c) Oboe with reed from Gobelins tapestry, Danse des Nymphes;
(d) Carved oboe with reed from Flentrop organ
date renders Talbot as irrelevant as Jan de Lairesse. Since Talbot mentions a Bressan oboe—of which none are extant today—in connection with this reed, we can only speculate about the properties of the instrument. Nonetheless, Talbot’s measurements for both oboe and reed show that this was indeed a baroque oboe, and that his reed would have fit satisfactorily into the top joint. Yet Talbot’s staple was of such extraordinary length (33") that it would render any oboe unplayable. Regardless of this, there is no doubt that Talbot sought intentionally to describe a long staple, however inaccurate and incomplete his measurements might have been.

CONCLUSION

The playing abilities of the Diderot and other short-stapled reeds together with the strong supporting historical documentation (and the near-total absence of convincing evidence for any other type of reed) permit only one conclusion: these were the reeds in use during the oboe's first fifty years. As such they must have been the reeds associated with the baroque oboe at the time of its 'invention' in the court of Louis XIV.

Contemporary performance with 17th-century oboes has been a mixed proposition for two reasons: 1. only a small number of instruments have survived; 2. we have not had the appropriate reeds. One concluded that these oboes were probably inferior to the 18th-century instruments which we have managed to make negotiable with long-stapled reeds. From a belated realization that the 17th-century oboe was played with a Diderot or other short-stapled reed, not only do we gain better understanding of the instrument but, equally important, performance with 17th-century oboes could begin to attain the ease and security which has thus far been the exclusive province of the 18th-century oboe.

Having confined myself to the 17th-century oboe, I have not considered one obvious and important question: what became of the Diderot and other short-stapled reeds during the 18th century? I believe that as the oboe's bore changed during that century, these reeds were supplanted by longer-stapled competitors. Consequently, while the Diderot reed can be documented as late as the 1790s, its only claim to exclusive use was the 17th century. But the topic of the transition from the Diderot and other short-stapled reeds to the long-stapled reed is a complex one, which I plan to take up in a later article.
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NOTES


2 Lairesse, Gerard de, Casp. Bartholinus de Tibis Veterum, 1679. (Amsterdam: Rijksmuseum Prentenkabinet, T 101.)

3 Arthur Benade, Fundamentals of Musical Acoustics (New York, 1976), p. 500. Baroque oboe staples, when present, have been made from material as diverse as copper, brass, silver, and quills. Benade maintains that the difference between these and other materials is less than the two-percent change that most musicians are able to detect.

4 Lairesse, Coelo Musa Beat, n.d. (Amsterdam: Rijksmuseum Prentenkabinet, Le. Bl. 2811 in. nr. 32: 226.)

5 Lairesse, Title page to Overture avec tous les airs de L’Opera de Cadmus / Fait à Paris par Monsr. Jean Baptiste Lully sur Intendant de la Musique du Roy, 1682. (Amsterdam: Rijksmuseum Prentenkabinet, T 106.)

6 ‘Transitional’ will be used to refer to those late 17th-century oboes which share characteristics of both the schalmei and the baroque oboe. These ‘in-between’ oboes illustrated styles of instrument building which were later supplanted by what we call the typical baroque oboe.


The original placement of all four organ doors is shown in a print, ‘La representation de la belle Orgue de l’Eglise du Westerkerk à Amsterdam’, reproduced in Amsterdam in de Zeventiende Eeuw, with a Foreword by P. J. Blok (The Hague, 1897), p. 14.

9 Jean Lebèvre headed the second of five Gobelins workshops (see W. G. Thomson, *A History of Tapestry*, 3rd ed., 1973, p. 428). The Gobelins tapestry works was founded by Jehan Gobelin, a dyer from Rheims, and member of a Flemish family which settled in Paris during the 15th century. Taken over by the government in 1662, the Gobelins has been a national institution since then (see *Encyclopedia of Textiles*, by the editors of *American Fabrics Magazine*, 2nd ed., 1972, p. 550).

10 Danse des Nymphes. From four tapestries, The Louvre, room 16, 'Salle Cressent'. [Tenure des Amours de Psyché ou Sujets de la Fable, sur cartons de différents peintres d’après Jules Romain, 1684. Manufacture de Gobelins.] Coincidentally, one of these four tapestries is a near-duplicate of the tapestry in the Metropolitan Museum of Art. In it, however, the measurements of the reed are not as large as those of the Metropolitan tapestry. The reed is 27.2 mm. wide (rather than 35.3 mm).


12 The de Lairesse family tree is a subject of some ambiguity. While it is generally believed that Jan was the son of Gerard, Christiaan Kramm states that there were two Jans, as well as two Gerards. He provides the following diagram:

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    Renier
    /     \
  Ernest   Gerard
     |       \
   Abraham Jan  Gerard
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(Christiaan Kramm, *De Levens en Werken der Hollandsche en Vlaamsche Kunstchilders, Deelhouwers, Graveurs en Bouwmeesters*, vol. 2, Amsterdam, 1859, p. 934.)

