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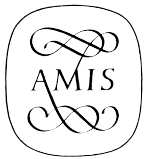


Woodwind Makers in Venice, 1790–1900

Alfredo Bernardini

Although the role of woodwind instruments in the musical life of Venice from the first years of the eighteenth century was one of intensive activity, we have no certain knowledge of any Venetian makers of woodwinds before the time of Andrea Fornari and Pellegrino De Azzi, the earliest woodwind makers of the new generation, whose workshops produced flutes, oboes, clarinets, bassoons and similar instruments. In addition to a large number of instruments of various sorts from their workshops, we now have new documentation to shed light on their lives and activity.

Andrea Fornari

Andrea Fornari (son of Liberal Fornari, born in Venice in 1753) married Angela Trentin (born ca. 1769), and by 1811 they had six children (their oldest son, Pietro Giovanni, born in 1793, was a "*suonator da clarinet*").[1] In 1805 the Fornari family lived at 2449 San Polo, and by 1811 they had moved to 2124 San Polo (now no. 2363, Calle Zane), where an old workshop with a dwelling above it still survives. Andrea Fornari lived in the same quarter of the city until his death, after an illness of several years, on October 26, 1841.[2]

This article is a translation and completion of the work entitled "Andrea Fornari (1753–1841), 'fabricator di strumenti' a Venezia," which first appeared in Italian in *Il Flauto Dolce* 14–15 (April–October 1986), 31–36.

1. The others were Marianna, born in 1789; Giovanni Battista, born in 1797; Angela, born in 1801; Antonio, born in 1803, and Giacomo, born in 1808. Most of the biographical information about Fornari comes from the Archivio Municipale of Venice (AMV); especially useful here were the two *Registri anagrafici,* the first compiled in 1805 during the Austrian occupation, the second in 1811 during the Napoleonic. These include a good amount of data such as name, age, religion, birthplace, address, class, trade and family relationships for the whole population living in Venice in these years. Some details have also been checked at the parish archives of San Stin and Santa Maria Gloriosa dei Frari.

2. AMV, *Rubrica dei decessi, 1841.* On the death certificate it is written that Fornari died aged 92, from which it might seem that he was born in 1749. But since the two *registri anagrafici* of 1805 and 1811 mentioned above agree on the birth date 1753, they have been considered more reliable.

An interesting document dated January 18, 1792 (*more veneto* 1791), recently found in the Archivio di Stato of Venice, is Fornari's request to the *inquisitorato alle arti,* a kind of committee for the supervision of craftsmanship in the city, for protection.[3] The craftsmen's guilds *(arti)* in Venice were very important at that time; and since there was no woodwind makers' guild (musical instrument makers sometimes belonged to the traders' guild), Fornari's work was apparently made very difficult by wood turners and craftsmen who belonged to other guilds—hence his appeal to the authority of the *inquisitorato alle arti* for protection.

From this document we learn that Fornari was not only a maker of musical instruments but also an expert at making navigational instruments and instruments for the study of mathematics and physics; that his education had included some study of mathematics; that at the time of writing he worked alone, at his home; and that when he needed to have wood roughly turned or tools made, he appealed to the proper guilds, paying them himself. There is also mention of the fact that woodwind instruments usually came to Venice from abroad.

The document is followed by a list of instruments "that I made myself, of my own invention, all improved":

Flauto traverso corista
the same *d'amore* a third lower than *corista*
the same *terzetto*
the same *ottavin*
all the above mentioned *traversi*
Flauto a becco corista
the same *terzetto*
the same *ottavin*
the same *da canarini*
Corno inglese
Clarinetto in resolfaut
a similar one in *beffà* with piece in *alamiré*
Piffaro
Salmuò altro istromento
Fagotto corista
Oboè

He lists the following as "completely inventions of my own":

3. This document from the Archivio di Stato of Venice was first found and published by Stefano Toffolo in his article "La costruzione degli strumenti musicali a Venezia dal XVI al XIX secolo," *Il Flauto Dolce* 14–15 (April–October 1986): 24–30.

Flauto traverso an octave lower than *corista*, owned by Monsieur Brunet who lives in Contrada San Felice.

Another instrument of considerable workmanship owned by Ser Marc' Antonio Mocenigo Kavalier.

Octant for the use of navigation ordered by Captain Nicolich now deceased, but it can be attested by Signor Antonio Dado who lives at Castello.

The gulf of Venice engraved on copper, difficult for the extension of the lines, made for Signor Furlanetto, who printed it.

Several machines for the study of physics, made on order of Father Don Lucchesi C.R.V., former teacher of philosophy at the College of San Ciprian at Murano, deceased; information about this is available from Father Don Federico Carli, former director of that college at that time, now Benedictine priest at San Giorgio Maggiore.

Machinery for the same use, which can become a disc for amusement, in which work I succeeded in finding the true and perfect spheric ball, attempted in vain by several cultured nations, this machine being owned by Signor Giuseppe Testori, shopkeeper in this square. . . .

Another invention for putting Spanish wax on a mirror's [silver] leaf according to the English use;

Another invention for reducing wood to resemble ebony without leaving any residue.

Finally, he concludes, "I reduced the whole *corno inglese*, however curved, to just one piece, whereas previously it was formed of several pieces. If Your Excellencies wish information about the quality of the woodwind instruments I have made, this can be attested by Professor Giovan Battista Delai, the brothers Pietro and Giuseppe Ferlendis, Luigi Vittorio Hughelot, and many others. I am always ready to execute accurately any work of mathematics, at any order."

Calling himself "Andrea Fornari, *veneziano dilettante*," he states that he has no assistants or workers, that he has his wood prepared by masters whom he pays himself; that he makes woodwind instruments without pretending to set a price "as masters of those instruments would do if there were any"; but that he is satisfied to receive in cash or other consideration "whatever reward is considered satisfactory by the courtesy of the one who has ordered."

Considering the large number (compared to other woodwinds) of surviving oboes and English horns from Fornari's workshop (see Ap-

pendix), we are surprised to read in this document that he made flutes, clarinets, bassoons, and even obsolete instruments such as recorders,[4] piffari, and salmuò in different sizes, apparently without any particular specialty. His specialization is made evident, however, by his mention of the four performers as guarantors of the quality of his work, for all of these were renowned oboists.

Giovanni Battista Delai, born in Verona ca. 1765, entered the chapel of San Marco in Venice November 10, 1789; in the mid nineteenth century he was still remembered as the last remarkable oboe virtuoso that chapel had known. Pietro Ferlendis (Bergamo 1748–Padua 1836) was the established first oboist of the chapel of San Antonio in Padua from 1780 to 1820; his brother was one of the most renowned oboe virtuosi of his time. The popularity of Giuseppe Ferlendis (Bergamo 1755–Lisbon 1810) derives from his intensive activity in several parts of Europe; in Salzburg in 1777–78, W. A. Mozart dedicated an oboe concerto to him, and in 1795 he took part in Haydn's concert series in London. His adopted home was Venice, where he was regularly engaged at the theaters of San Samuele, San Benedetto and La Fenice. Luigi Hughelot is probably the "Luigi Houzelot, professor of nine instruments at the College of Latisana" (between Venice and Trieste)," according to the writing on the back of a handwritten fingering chart for oboe dating from ca. 1790 (fig. 1);[5] in another paper from the same source, Houzelot wrote that he had been the pupil of "[Pietro] Ferlendis of Padua" among others, and later in Venice, of Giuseppe Ferlendis and Giovanni Battista Delai.[6]

Fornari's reference to Giuseppe Ferlendis is of particular significance, for both maker and virtuoso seem to have been especially devoted to the cause of the English horn. At least twenty-one of these instruments by Fornari survive today, and the performances of Giuseppe Ferlendis on the English horn, as a soloist or as an orchestral player, are well documented. Several sources even claim that Ferlendis was the inventor of the English horn—surely untrue, since the instrument was already

4. Such late use of the recorder in Venice is also attested by the *Sonatine* for two recorders and basso continuo by Carlo Cormier, written around 1790 (Milan: Ricordi, 1975).

5. Property of Giancarlo Rostirolla, Rome.

6. More information about these musicians can be found in Alfredo Bernardini, "The Oboe in the Venetian Republic, 1692–1797," *Early Music* 16, no. 3 (1988): 372–87.

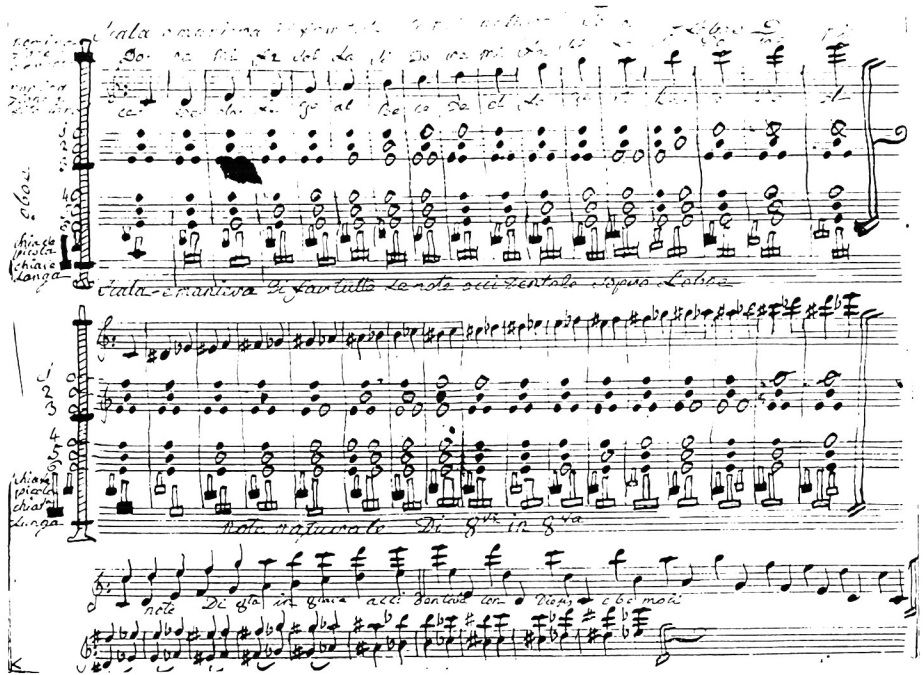


FIGURE 1. Luigi Houzelot's table of fingerings for oboe (ca. 1790), probably for a Fornari oboe. Rome: Giancarlo Rostirolla.

known before his birth.[7] Nevertheless, it is natural to believe that Ferlendis might have been in part responsible for Fornari's attention to this instrument.

Fornari's work is characterized by several original solutions: the typical shape of his keys; the replacement of the bulb at the upper end of the top joint with a slightly flared shape on his English horns and earlier oboes (fig. 2); the use of ivory for the keys; and the remarkable combination of several of the more valuable materials (such as ivory, horn, and ebony) on the same instrument. His instruments are all stamped FORNARI/A VENEZIA on all joints, and they are often dated.

Although in the *supplica* mentioned above Fornari speaks of his reduction of the English horn "however curved, to just one piece, whereas previously it was formed of several pieces," none of his existing English horns are in just one piece, a construction more characteristic of the earlier *oboe da caccia* (see fig. 3). The invention he mentions "for reducing wood to resemble ebony" could have been used for the maple bells of his English horns, all stained black. None of these various inventions, however, is a contribution to the technical development of the oboe or the other woodwinds. Even his latest oboes and English horns have essentially just two keys (if we do not pay attention to those added later by other hands), and the average diameter of the oboe bore at its narrowest point is about 4.8 mm (6.0 mm for English horns), parameters that can be found on similar instruments from ca. 1760. His *flauto d'amore* dated 1794 is also an example of such conservative practice, with its one key, narrow mouth hole (8 × 10 mm), and shape.

Nevertheless, some of Fornari's earliest surviving oboes might justify his self-given title of improver of instruments. These have a long C key for the left little finger (the E♭ key is for the right little finger, as usual). This rational solution avoids the use of two different keys for the same finger (the right little finger) and makes passing from C to E♭ and other fingerings more comfortable. This original feature, present only on instruments dated between 1791 and 1793 (one specimen having a C♯ key between those for C and E♭), apparently did not find enough favour; probably it was not appreciated by those professional oboists who could not bring themselves to adjust to an unfamiliar new fingering technique.

7. Reine Dahlqvist, "Taille, Oboe da Caccia and Corno Inglese," *Galpin Society Journal* 26 (1973).

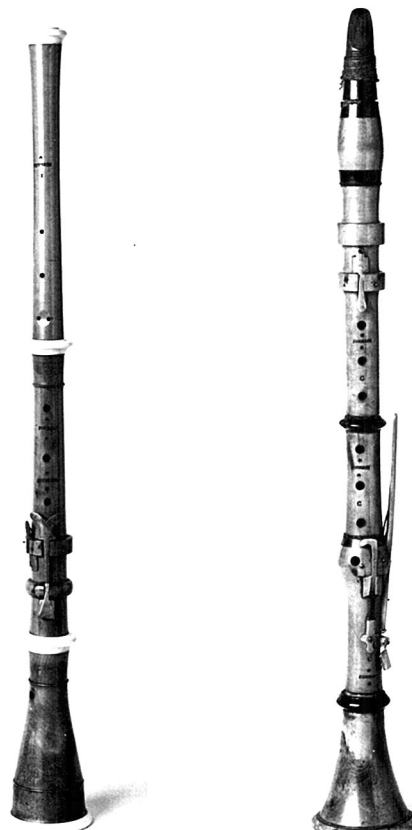


FIGURE 2. Oboe and clarinet by Andrea Fornari. The oboe is boxwood with ivory rings and brass keys (Appendix, oboe no. 13); the clarinet, in C, has five keys and rings of horn. Nuremberg: Germanisches National Museum MIR 380 and 437.

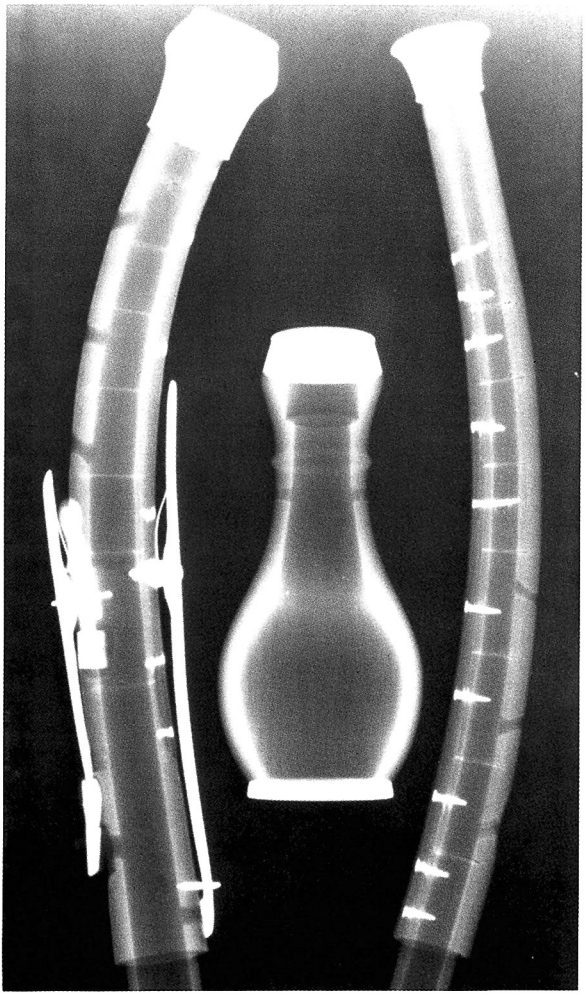


FIGURE 3. English horn by Fornari (Appendix, no. 8). X-ray photography by Luigi Cerroni, Rome. The curvature obtained by cutting thin wedges from the wood is reinforced on the inside by a lengthwise strip secured to the tube with nails; the whole is covered in leather, mainly for aesthetic reasons.

Fornari can also be considered as an inventor of the remarkable instrument with no less than ten ivory keys and characteristics of the baritone oboe and the *fagottino,* about which there has been much discussion without any agreement on a definition (fig. 4).[8] Like both the instruments it resembles, it has two parallel tubes, without boot, connected at the bottom by a U–shaped brass joint. It has the appearance and something of the construction of the baritone oboe, with the second tube shorter than the first; but it has the extended range in the low register of the fagottino, with six extra keys for the use of both thumbs and both little fingers. To define it as a baritone oboe is incorrect in view of the fact that the instrument is probably in F, like an English horn, with keys for the lower E, E♭, D, C♯, C, and B (since it has not been played in modern times, this conjecture is supported only by the only available measurement, the total length of 655 mm). While the instrument has two octave keys, it has not one key to avoid cross fingerings.[9]

While the lack of a bulb at the upper end of the top joint on Fornari's English horns and oboes might seem to be a personal innovation introduced by Fornari, we know from iconographical evidence that such oboes had already been in use in Venice since the 1750s. The earliest Italian straight and flared oboe top joints are, to my knowledge, by Anciuti (Milan, ca. 1740; example in the Victoria and Albert Museum, London), a maker who probably had his instruments sold in Venice. The latest Fornari oboes (from ca. 1810 onwards) have the more usual bulb-shaped top joints, and their resemblance to oboes by the Dresden maker Heinrich Grenser is striking. With regard to this, I must say that there are many oboes by Grenser present today in various Italian collections; they apparently were quite popular in Italy around 1800, and Andrea Fornari may have felt some pressure to imitate them. The reduction in the quality of the materials used for his later instruments, however, mirrors the disastrous economic decline that followed the fall of the Republic of Venice in 1797.

8. Jeremy Montagu and Anthony Baines in the *FOMRHI Quarterly,* no. 48 (July 1987), p. 9 and no. 49 (October 1987), p.3 respectively. Baines considers it "an extended cor anglais," adding, "You might call it a 'basset oboe'."

9. After World War II this instrument was moved from the Conservatorio to the Museo Teatrale della Scala in Milan, where it is still kept in storage. I am indebted to Massimo Gentili Tedeschi from Milan who rediscovered it and supplied information and photographs.

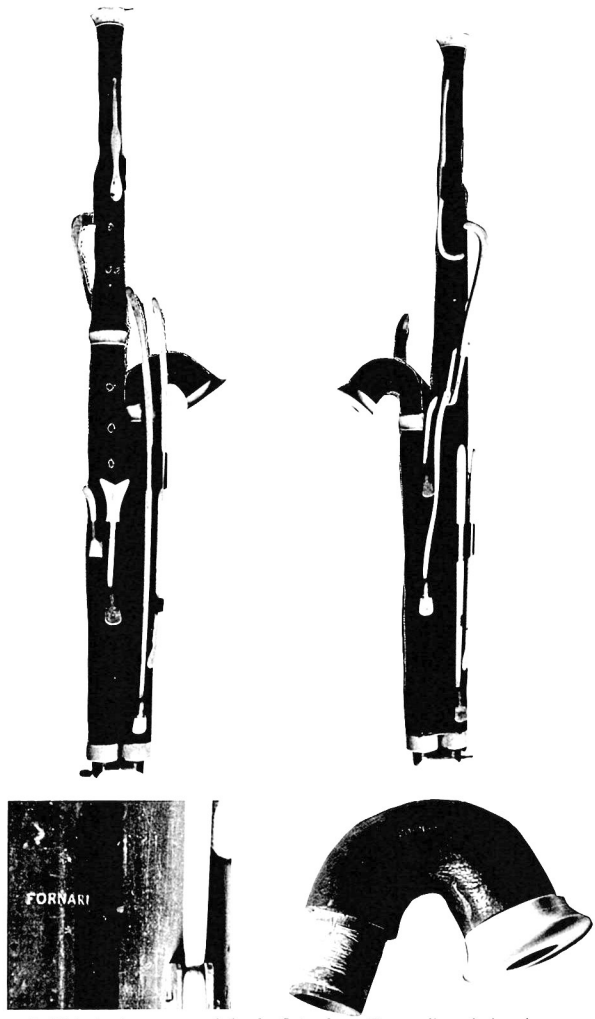


FIGURE 4. This is the most original of Andrea Fornari's existing instruments: a hybrid difficult to define that has characteristics of both the baritone oboe and the *fagottino*. Conservatorio G. Verdi, Milan (now located in the Museo Teatrale della Scala).

More than an innovative craftsman, Andrea Fornari, who apparently did not have an education in music, can be considered as an original personality in his field; and he was also one of the finest and most accurate Italian woodwind makers of his time.

The De Azzi Family

While Andrea Fornari was not followed in his profession by his children, another contemporary Venetian craftsman, Pellegrino De Azzi (born in Ferrara ca. 1772; died in Venice October 24, 1835[10]), was able to found a dynasty of woodwind makers that would survive through the whole of the nineteenth century. Pellegrino (also Pellegrin), the son of Asdrubale DeAzzi (D'Azzi, Deazzi, Diazzi, etc.), married Orsola Fortuna (born ca. 1772, also from Ferrara), and by 1805 they had three children, Vincenzo (born in 1800), Chiara (born in 1802), and Giuseppe (born in 1803).[11] Their son Pietro was born sometime after 1805, at which time the De Azzi lived at number 1199 San Polo in the Contrada San Silvestro, at the Calle di Mezzo.

It is difficult to tell why instruments of the same type by Fornari and De Azzi, who not only lived in the same city but for several years even in the same district, show no similarity whatsoever. While, for example, all English horns by Fornari are curved (by means of several cuts in the body) and covered with leather, the English horn by Pellegrino De Azzi is angled, with top and middle sections joined together with a wooden knee joint. De Azzi was apparently also more interested in the technical development of woodwinds, for we know a flute of his with six keys (stamped PELEGRIN/DE AZZI) and an oboe with three keys (C, E♭, and F, mounted on wood and therefore original). De Azzi's work is also distinguished for some fine features such as shell-shaped silver key flaps; again there is no similarity to Fornari's work.[12]

10. AMV, *Rubrica dei decessi, 1835.*

11. AMV, *Registro anagrafi, 1805, De.*

12. Surviving instruments by Pellegrino De Azzi are: a six-keyed flute at the Conservatorio of Venice; a one-keyed flute, three-keyed oboe, and five-keyed clarinet at the Conservatorio of Padua; a nine-keyed clarinet in the Museo degli Strumenti Musicali at Rome; an English horn at the Bate Collection, Oxford; a serpent with the coat of arms of the Republic of Venice (and therefore made before 1797) in the Caradeus Collection of the Boston Symphony, Boston (fig. 5).

FIGURE 5. Serpent by Pellegrino De Azzi. Caradeus Collection of the Boston Symphony. Photograph by John Koster.

De Azzi's openness to the development required for the instruments may have been the reason for the continuation of his activity by his son Pietro. Pietro De Azzi married Elena Fravarin in 1830, and among their recorded children are Francesco Giuseppe (b. 1830), Giovanni Paolo (b.

1831), Giosuè (b. 1835), G. B. Antonio (b. 1846), Giuseppa, Maria, Elena, Angela, and Rosa Orsola. By 1850 they lived at 2224 San Polo.[13] Pietro De Azzi died in 1849 or 1850 during the cholera epidemic that also killed many of his children. Very little is known of his career except that he worked in Padua as well as in Venice. He was the maker of a flute in ebony with sixteen keys (extension down to *a*) and silver rings stamped PIETRO / DE AZZI / PADOVA, and of a ten-keyed clarinet, both today in the Museo degli Strumenti Musicali at Rome. He probably also made the oboe in boxwood with horn rings and nine keys, all mounted on wood, stamped [star] / DE AZZI / VENEZIA / [lion of St. Mark], and the bass clarinet in C in bassoon shape in fruitwood with twenty-five keys, stamped [star] / DE AZZI /VENEZIA / [star], both today in the Stadtmuseum at Munich (fig. 6).[14]

The family relationship of the Antonio De Azzi who made woodwinds in Venice between 1855 and 1882 to the earlier makers of this name is as yet uncertain; he may have been a son of Pietro De Azzi. Some of his instruments are stamped "A. De Azzi e figlio / Venezia." In 1879 Antonio and his son Giovanni were given a prize for their invention of the *clarioboe*, an oboe supplied with mechanical system, extension, and reed of the clarinet, "which produces sounds with half the effort of the oboe."[15] In 1881 Antonio and Giovanni De Azzi exhibited their work at the National Exposition of Musical Instruments at Milan, where they displayed "two flutes, one common, the other improved" and "three clarinets, in B♭ and E♭."[16]

The Dal Secco Family

Another family in Venice almost parallel to the dynasty of the De Azzi also devoted itself to woodwind instrument making: the Dal Secco.[17]

The founder of this dynasty was a German, Giovanni Gressing (born in Zimern in the Grand Duchy of Baden on April 6, 1798; died in Padua

13. AMV, *Registro anagrafi, 1850, San Polo.*

14. Bruno Baldan (Venice) owns a boxwood oboe with eight brass keys and horn rings. The top joint is stamped PIETRO / DE AZZI; the middle joint is stamped GRUNDMANN / [swords], and the bell is unstamped.

15. Giovanni Masutto, "Un nuovo strumento," *Gazzetta musicale di Milano* 34 (1879), fasc. 38, p. 334; reprinted in Vincenzo De Gregorio, *Gli strumenti musicali nella "Gazzetta Musicale di Milano" (1842–1902)* (Florence: Olschki, 1989), 55.

16. G. Pelitti, *Relazione sugli strumenti musicali in legno, in ottone ad a percussione presentati dalle diverse fabbriche alla Esposizione Nazionale di Milano* (Milan, 1881), I–Rsc, b. 133–22.

17. The following data come from the parish registers of San Francisco in Borgo delle Nogare and of Santa Croce, both in the Archivio di Stato of Padua; and from the *Scheda anagrafica San Marco no. 1629* in the AMV.

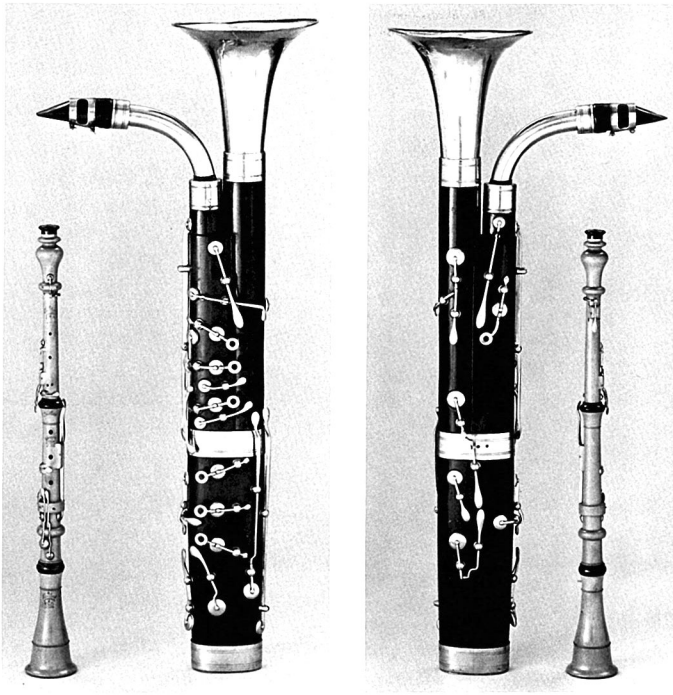


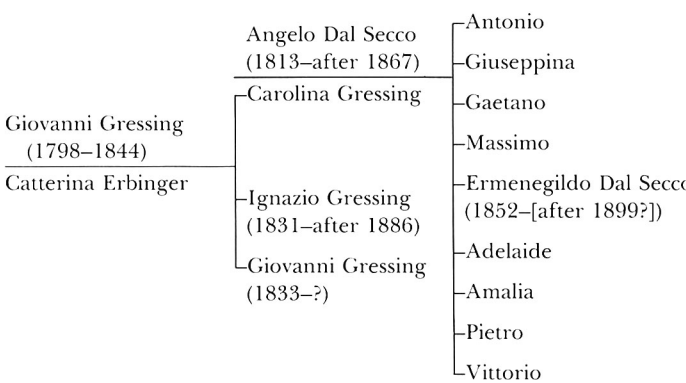
FIGURE 6. Oboe and bassoon-shaped bass clarinet both stamped DE AZZI/ VENEZIA. Musikinstrumentenmuseum, Stadtmuseum, Munich: oboe no. 65–28; bass clarinet on loan from a private collection.

March 7, 1844). In 1824 he came to Padua (part of the Venetian territory under Austrian domination after 1797) from Udine, and in the same year married Catterina Erbinger (b. 1793 in Vienna); he is recorded in the parish archives of Padua as a *fabbricatore d'istromenti.*

Giovanni Gressing was probably the maker of the one-keyed boxwood flute stamped GRESSING / PADOVA, now at the Museo degli Strumenti Musicali of Rome, no. 113, the fragment of another flute in the same collection, and an eight-keyed basset horn in boxwood with ivory rings now at the Conservatorio in Padua.

Two of Giovanni Gressing's sons, Ignazio and Giovanni (see table 1), followed their father's profession (though apparently none of the instruments they made is left); and a daughter married a woodwind maker. Ignazio Gressing (born in Padua August 12, 1831; still living there in 1886) is first recorded in the archives as a maker and later as a dealer; Giovanni Gressing the younger (born in Padua February 12, 1833) is also recorded as a maker. Carolina Teresa Gressing (born in Padua in 1828) married Angelo Dal Secco in 1845, and by 1847 they had moved to Venice.

TABLE 1
The Gressing/Dal Secco Family



Angelo Dal Secco (born in Oderzo in 1813, the son of Pietro Dal Secco) was recorded at Padua as a "carver, gilder, now also philarmonic," while in Venice he is first recorded as "philarmonic" and later as *fabbricatore d'istromenti*. In 1867 the family lived at 1629 San Marco, and there is no trace of them after this date. Angelo Dal Secco is probably the maker of a five-keyed flute stamped [crossed swords] / DAL / SECCO / VENEZIA / [flower], today in the private collection of U. Tamburini in Florence (fig. 7).[18]

18. An accurate study of this flute, including measurements, x-ray photographs, drawings, etc., is published in Vinicio Gai, *Organometria* (Rome: Edizioni Torre d'Orfeo, 1984).

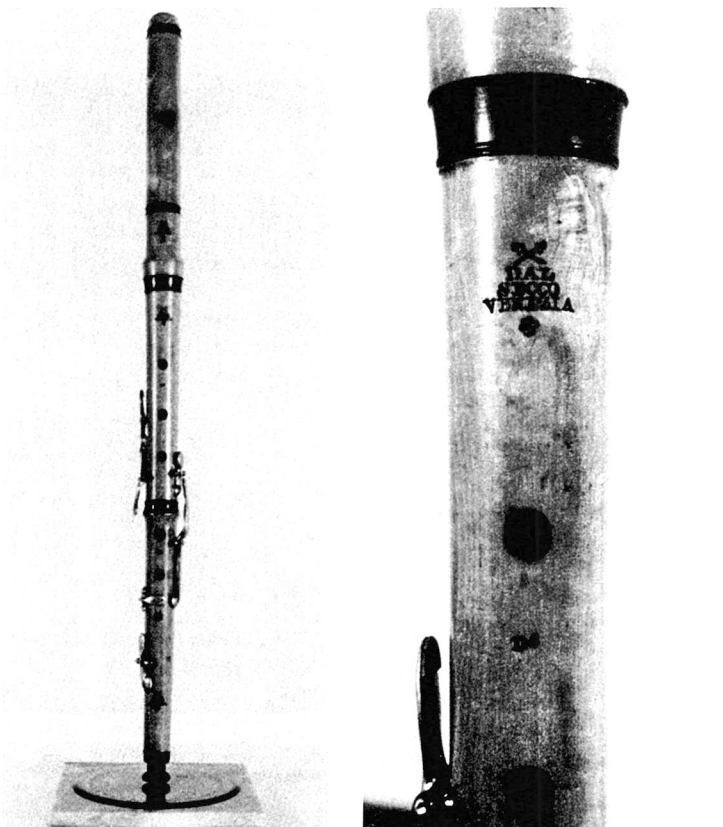


FIGURE 7. Flute by Dal Secco. Tamburini Collection, Florence. Photograph from Vinicio Gai, *Organometria* (Rome: Edizioni Torre d'Orfeo, 1984), figs. 3, 5.

Among the nine children of Angelo and Carolina, only Ermenegildo Dal Secco (born in Venice November 18, 1852) seems to have followed his father's profession. He displayed a "clarinet in ebony in B♭, with

pakfond mounts"[19] at the National Exhibition at Milan in 1881, and was probably the Dal Secco listed by the *Annuaire des artistes*[20] as living in 1899 at 3675 Rio Terà degli Assassini.

Usually one is persuaded to carry out research about an instrument maker through coming to know a certain number of his instruments. This is surely not the case for this study of the Dal Secco family; on the contrary, I am surprised at the scarcity of their surviving instruments. I came across the documentation mentioned above almost by accident, while searching for information on other subjects in the archives of Venice and Padua.

Five (or more) makers who left just two (and a half) flutes and a basset horn? Could there be many instruments yet to be found, or can the production of so many makers have been so completely destroyed in just one century's time? It makes one wonder how many makers of the past are still ignored, and whether it is true that instruments made by the best makers have a better chance to survive.

Rome, Italy

19. G. Pelitti, *Relazione*.

20. 2d ed. (Paris, 1899). Lindsay G. Langwill, *An Index of Musical Wind Instrument Makers*, 5th ed. (Edinburgh, 1977).

Appendix

List of the Instruments by Andrea Fornari in Public and Private Collections

For undated instruments, the chronological placement is based on conjecture supported by the comparative analysis of their characteristics.

Oboes

(All have the double hole for the G/G♯; if there are only two keys, they are for C and E♭.)

Collection	*Number*	*Date*	*Material*	*Keys*	*Total Length in mm*	*Rings*	*Bulb*	*Comments (u.s.= upper sections)*
1. Leipzig: Musikinstrumenten Museum	1328	1792	ivory	2 brass	559	4 brass	no	
2. Leipzig: Musikinstrumenten Museum	1327	—	ebony	2 ivory	559	4 ivory	no	long C key
3. Venice: Fondazione Querini Stampalia	400.2	1793	ebony	3 ivory	560/567/574	4 ivory +4 horn	no	long C key; C♯ key; 3 u.s.
4. Venice: Fondazione Querini Stampalia	400.1	—	boxwood	2 ivory	568	—	no	long C key
5. Rome: Museo degli Strumenti Musicali	1085	—	ebony	2 (missing)	561	4 ivory	no	
6. Vienna: Internationale Gesellschaft für alte Musik	—	1795	boxwood	2 ivory	563	3 ivory	no	
7. Copenhagen: Musik-Historisk Museum	C.458	1796	boxwood	2 silver	559	4 ivory	no	
8. Milan: Castello Sforzesco	379	—	ebony	2 ivory	560	4 ivory	no	not signed; attribution by the writer

(continued)

Collection	*Number*	*Date*	*Material*	*Keys*	*Total Length in mm*	*Rings*	*Bulb*	*Comments (u.s. = upper sections)*
9. Venice: Private Coll. of A. Fiabane	—	—	boxwood	2 brass	552	5 ivory	yes	
10. Cologne: Private Coll. of P. Westermann	—	1797	boxwood	2 brass	553	3 horn	no	
11. Mülhouse: Private Coll. Katz	—	1799	ebony	—	—	ivory and horn	no	
12. Parma: Conservatorio A.Boito	—	1802	boxwood	2 brass	550	horn	no	
13. Lisbon: Museu Instrumental do Conservatorio Nacional	108	1807	—	2 brass	560/549	—	no	2 u.s.
14. Nuremberg: Germanisches National Museum	MIR 380	1808	boxwood	2 brass	560/560/554	4 ivory	no	3 u.s.
15. Venice: Conservatorio B. Marcello	394	1808	boxwood	2 brass	554	—	no	
16. Venice: Conservatorio B. Marcello	393	1809	boxwood	2 brass	562	—	no	
17. Paris: Musée du Conservatoire	980.2.143	1813	boxwood	2 brass	559	—	yes	
18. Berne: Historisches Museum	36776	1814	boxwood	2 brass	559	ivory	yes	
19. Boston: Museum of Fine Arts	17.1906	1815	ebony	2 ivory	560/?	2 ivory	no	
20. Padua: Conservatorio C. Pollini	—	1817	boxwood	2 brass	551	3 horn	yes	

English Horns

(All are curved, have no bulb, are in maple covered with black leather, and have a bell of blackened pear and a double hole for G/G♯. The total length given is to be considered approximate because of the various possible systems of measurement, often not specified by the sources.)

Collection	*Number*	*Date*	*Keys*	*Total Length*	*Rings*	*Bridge Keys*	*Comments*
1. Venice: Fondazione Querini Stampalia	400.3	1791	2 ivory	767	3 ivory	brass	long C key
2. Parma: Conservatorio A. Boito		1791	2 ivory		3 ivory	wood	
3. Parma: Conservaorio A. Boito		—	2 ivory		3 ivory	wood	attrib: see oboe #7
4. Venice: Museo Correr	54	1792	2 ivory		3 ivory	brass	
5. Kilmarnock: Private Coll. de Walden		1792					
6. Turin: Museo Civico	3690	—	2 ivory	730	2 ivory		
7. Oxford: Bate Collection		—	2 ivory	751	ivory	wood	holes trimmed in ivory
8. Scarsdale: Private Coll. R. Rosenbaum		1795	2 brass	777	horn		ex Piguet
9. Padua: Conservatorio C. Pollini		1798–1819	2 ivory + 1 brass	776	4 ivory	wood, brass	two dates; keys added
10. Bergamo: Museo Donizettiano		1806	2 brass	790	2 horn	wood	
11. Modena: Museo Civico	47	—	2 brass	765	2 horn	wood	
12. Copenhagen: Musik-Historisk Museum	C.462	1809	2 brass	765	horn		
13. Richmond: Private Coll. Murray		1809					

(continued)

Collection	*Number*	*Date*	*Keys*	*Total Length*	*Rings*	*Bridge Keys*	*Comments*
14. Milan: Castello Sforzesco		1815	2+1 brass	760	2 horn		G♯ key added
15. Boston: Museum of Fine Arts	17.1920	—	2+4 brass	750	4 ivory		
16. Basle: Historisches Museum		—	2+4		3 horn	wood	
17. London: Royal Military Exhibition 1890		—	8				According to Michael Finkelman, same as no. 13.
18. Munich: Deutsches Museum	34503	1820	10 silver	760	3 ivory		
19. Rome: Accademia di S. Cecilia	42	1822	2+2 brass	776	2 horn	wood	
20. Nuremberg: Germanisches National Museum	MIR 396	1824	2+4 brass	785	2 horn	wood	
21. London: Tony Bingham sale 1983		1825					
22. New York: Metropolitan Museum of Art	89.4.889	1832	12 silver	774	4 ivory + 3 horn		keys not original?
23. Venice: Private Coll. M. Perini			2 brass		1 horn		fragment; top joint only. Keys added?

	Transverse Flutes					
Ottavino:	Munich, Bayerisches National Museum Mu 162	1819	boxwood	1 key	length 310 mm	rings: horn
Flauto d'amore:	Vienna, Private Coll. G. Stradner	1794	boxwood	1 key	length 740 mm	rings: none
	Clarinet					
Clarinet in C:	Nuremberg, Germanisches National Museum MIR 437	1808	boxwood	5 keys	length 602 mm	rings: 5, horn
	(The 1904 catalogue of the Crosby Brown Collection of the Metropolitan Museum, New York, states on p. 135 that bass clarinet no. 1636 "is said to be made by Fornari." Since this instrument is not stamped and does not present any similarity to others by the same maker, it has not been included in this list.)					
	Basset Oboe (?)					
Basset Oboe (?):	Milan, Conservatorio G. Verdi Now in the Museo Teatrale della Scala.		boxwood	10 keys in ivory mounted on brass	length 655 mm	rings: ivory