TWO TRUMPET MUTES RECENTLY ACQUIRED BY THE GERMANISCHES NATIONALMUSEUM, NUREMBERG

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Historical trumpet mutes are rarities in the field of musical instruments. Formerly, only one item of this description existed in the musical instrument collection of the Germanisches Nationalmuseum in Nuremberg–this particular specimen not owned by the museum but on loan from the Reichsstadt-Museum in Rothenburg o.T. In 1993, however, the museum was fortunate enough to acquire two early mutes from private hands. Both originally came from a cloister in Middle Franconia, and we may assume that they were produced in one of the famous Nuremberg workshops. The dates of manufacture are very difficult to determine: they may be from the 17th or the 18th century–or even the end of the 16th.

J.F.B.C Majer wrote,

Wenn man die sogenannten Sordinen (welches Kleine ausgehöhlte Hölzlen sink unten in die Trompete stecket, so klingen sie ganz sanfte, als wenns von weitem gehört würde, und dabey um einen ganzen Ton höher.[1]

When someone puts a so-called *Sordine*–which is made of a small hollowed out [piece of] wood–in the end of the trumpet, it sounds very soft, as if coming from far away, and a whole tone higher as well.

The damping of the sound comes from the concentration of the airstream; the rise in pitch may be the result of the fact that the trumpet has been shortened in a certain way: the mute, when placed in the trumpet, narrows the air column before it reaches the end of the instrument–seen from the player's point of view–and then expands it again. It is difficult to say whether the rise in pitch originally was intentional, or merely a side-effect. In the introductory "Toccata" of his opera *Orfeo* (1607) Claudio Monteverdi calls for mutes; apparently because otherwise the trumpets would drown out the other, softer instruments. He advises,

Toccata, che si suona avanti il levar de la tela tre volte con tutti li stroment, e si fa un Tuono più alto volendo sonar le trombe con le sordine.[2]

Toccata, which must be played three times by all instruments before raising the curtain. It must be played one tone higher if the trumpets are blown with mutes.

J.E. Altenburg offers the following advice on the mutes:

1. If they are used for military purposes they serve to soften the sound in order to make the signal for departure inaudible for the enemy.
2. They are used for noble funerals.
3. "Sollen sie bey täglicher Uebung einen guten und dauerhaften Ansatz machen." ("They are reported to foster a good and durable embouchure when used for practising every day.")
4. Bad players can use them to suppress their "shrieking" sound.
5. One can play in many different keys together with other instruments, meaning that trumpets can also be used for pieces that are not written in the principal keys of the instrument (C major and D major). Under these circumstances the damping of the sound, not the change of the key, is the side-effect–which nevertheless was welcome because the sound of the other instruments of the ensemble normally was weaker.[3]

Interesting in this context is the *Sonata Sancti Mauritii*, composed by Pavel Josef Vejvanovský in 1666.[4] The ensemble consists of two trumpets, two violins, viola alt., *tenore* and *basso* (= viols) and organ. The parts for the viols can be doubled by three trombones. A section in which the trumpets play *per sordini* is written in D major. With the ensuing change of tempo *pura tuba* is requested (i.e., trumpet without mute), and the key is C major again. Both with and without mutes, the trumpets play with the other instruments.[5]

According to Altenburg there were different kinds of mutes. The first type has the same diameter at both ends of the bore. In this case the most important thing was the damping of the sound. These mutes probably were used with the trumpets that were played at the funerals of nobles (trumpets–normally without mutes–and kettledrums were the instruments of the high nobility). Our illustration of the Jesuit's procession of Good Friday shows this type of mute: trumpets indeed represented also the Prince of Heaven, and they had to be muted in memory of his earthly death. The second type of mute has what might be called a bell at one end. Here the tone is softened only to a degree that balances of the sound when the trumpet is played with other instruments. The third type probably was something of a multi-purpose mute...

...wo am Ausgange, vermittelst eticher kleiner hölzerner Ringe, die man nach Belieben hinein stecken und wieder heraus nehmen kann, der Klang stärker und schwächer gemacht wird.[6]

...where you can make the sound more or less intense with the help of several small wooden rings that you put into or take out of the opening.

The mutes which our museum recently has acquired have small bells and therefore seem to belong to the second type, that is to say they are primarily intended for musical compositions, and not for funerals or military use. Trial use of the mutes demonstrated that the pitch was raised by a semitone. Such attempts are of only limited use because we do not

know for what trumpets the mutes were meant.

Both mutes are of extremely fine workmanship and represent the high quality of the Nuremberg wood-turners. They have a very similar outside profile in an ornate Baroque style with decorative turnings on the body, so the part that is visible while the mute is in use remarkably resembles a mouthpiece of that period. The length of both is 128 mm, the largest outer diameter 37 mm.

The principal difference between the two mutes is in the type of wood: one (Inv. No. MI 603) is made of plumwood, the other (Inv. No. MI 604), of boxwood. There are also some dissimilarities of the inner bore that can be seen clearly in a computertomographical longitudinal section.[7] The cylindrical canals between the widenings have almost the same diameter, 9-9.5 mm, but begin at different depths–56 mm from the upper edge at the plumwood mute, 48.5 mm from the edge at the boxwood mute, forming different shapes of the cups. The canals seem to have been simply drilled by hand, whereas the widenings seem to have been created by rotation of the mute, although they are not absolutely symmetrical. A CT-scan reveals woodworm holes in the boxwood. The inner walls are quite rough and polished only at the very end.

The third mute (Inv. No. MI 510)–on loan to the Germanisches Nationalmuseum from the Reichsstadt-Museum Rothenburg o.T.–is made of boxwood. With its wave-shaped shaft, it reminds one to some extent of the recorders of Hieronymus Kynsecker, and seems at first glance to represent another type of mute altogether. However, the inner bore does not diverge much from the other two, apart from the ending funnel. Its length is 132.5 mm, the largest outer diameter is 40 mm. The canal is slightly conical, considerably widening toward the bell (35.2 mm inner diameter) in an elegant curve. The cup of this mute is much shorter, only 38.2 mm. In terms of wood-dimensional-change, we can see the perfect roundness has become considerably oval in the boxwood mutes. The Rothenburg mute shows at its outside old knife-cuts applied in order restore its circular form.

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NOTES

1 . Johann Friedrich Bernhard Caspar Majer, *Museum musicum* (Schwäbisch Hall, 1732), p. 40.

2 . Claudio Monteverdi, *L'Orfeo* (Venice, 1609; ²1615).

3 . Johann Ernst Altenburg, *Versuch einer Anleitung zur heroisch-musikalishen Trompeter- und Pauker-Kunst* (Halle, 1795; written before 1770).

4. We are grateful to Dr. Konrad Ruhland, Niederalteich, for the reference to this composition.

5 . For further information on historical mutes, see Gerhard Stradner, ed., *Die Klangwelt Mozarts. Eine*

Ausstellung des Kunsthistorischen Museums Wien (Vienna, 1991), p. 18, p. 20 (photo), p. 302 (cat. no. 213); and Konrad Ruhland, *Musikinstrumente aus Ostbayern vom 17.-19. Jahrhundert. Begleitheft zur gleichnamigen Sonderausstellung im Stadtmuseum Deggendorf* (Deggendorf, 1993), p. 151.

6. Altenburg, *Versuch.*

7. The computertomographies were made at Friedrich-Alexander-University, Erlangen-Nürnberg, kindly assisted by Dr. Seegenschmiedt, Dr. Grabenbauer, and Mrs. Triebe. Concerning the method of computertomography see Klaus Martius, "Computertomographie und ihr Einsatz bei der Dokumentation von Musikinstrumenten," in *Arbeitsblätter für Restauratoren,*1992/I, pp. 13-16.

Figure 1
Trumpet mutes, 17th/18th century. Nuremberg, Germanisches Nationalmuseum MI 603 and MI 604.

Figure 2
Trumpet mute, 17th/18th century. Rothenburg o.T., Reichsstadt-Museum, GNM 510.

Figure 3
Great Procession of the Jesuits in Augsburg, Good Friday 1746 or 1747. Detail. Frieze on paper. First group of the procession showing the drummers and trumpeters of the Prince-Bishop. Nuremberg, Germanisches Nationalmuseum HB 26542.

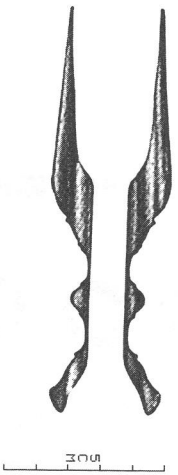

Figure 4
Trumpet mute. Nuremberg, Germanisches Nationalmuseum MI 603. Computertomography.

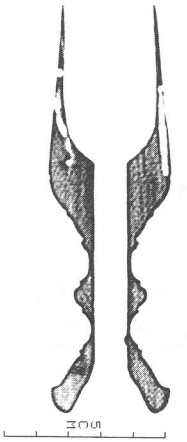

Figure 5
Trumpet mute. Nuremberg, Germanisches Nationalmuseum MI 604. Computertomography.

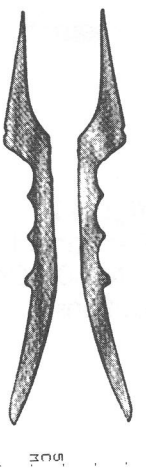

Figure 6
Trumpet mute. Rothenburg o. T., Reichsstadt-Museum; No. of the Germanisches Nationalmuseum, MI 510. Computertomography.

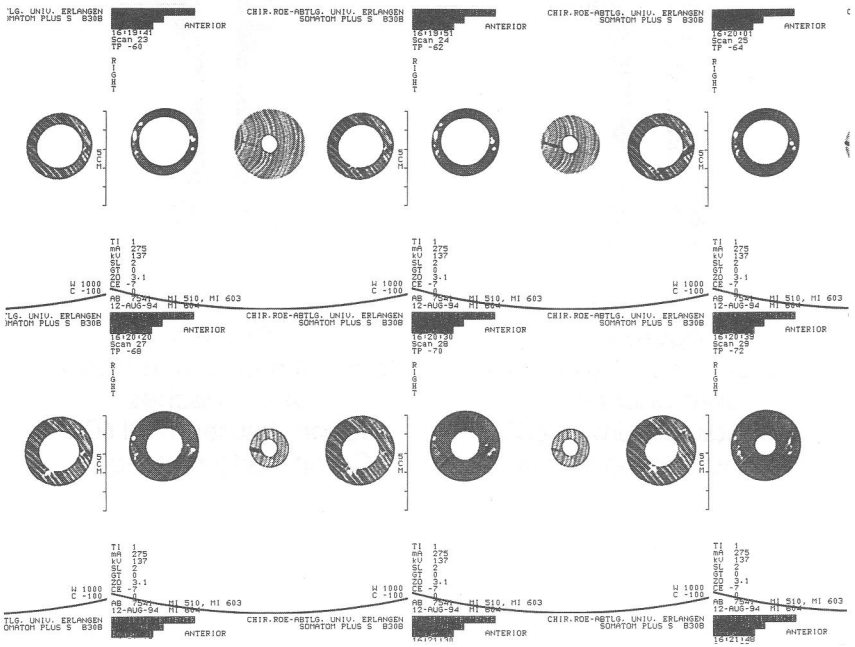

Figure 7
Trumpet mutes. Nuremberg, Germanisches Nationalmuseum, each segment showing MI 603, MI 510, MI 604. Computertomography (cross-sections).