

# The letters inked on Antonio Stradivari's moulds, and the 'analytical strategy' employed within *Antonio Stradivari: disegni, modelli, forme*<sup>1</sup>

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The seven Stradivari violin moulds identified and described by Count Cozio di Salabue in his inventory of 23 February 1823<sup>2</sup> are:

MS 21*	<b>PG</b> mould (4 June 1689)
MS 28	<b>S L</b> mould (9 November 1691)
MS 33	<b>B</b> mould (3 June 1692)
MS 38	<b>B</b> mould (6 December 1692)
MS 39	<b>.S.</b> mould (20 September 1703)
MS 44	<b>P</b> mould (25 February 1705)
MS 49	<b>G</b> mould

\* Museo Stradivariano/Museo del Violino (Cremona) catalogue numbering.

The eight Stradivari violin moulds investigated as part of the *AS:dmf* 'analytical strategy'<sup>3</sup> into the ink used for the moulds' block-capital letters and/or cursive annotations were:

MS1	<b>M*B</b> mould
MS2	<b>S</b> mould
MS6	<b>P B</b> mould
MS11	<b>T</b> mould
MS16	<b>Q</b> mould
MS21 (as above)	<b>PG</b> mould (4 June 1689)
MS39 (as above)	<b>.S.</b> mould (20 September 1703)
MS49 (as above)	<b>G</b> mould

Thus the investigative analysis of letter/annotation ink type(s) was carried out on only three of the moulds which had been owned by Count Cozio.

The descriptive entries within the *AS:dmf* catalogue for MS1, 2, 6, 11, 16, 28, 33, 38, and 44 contain identifications of individual responsibility for the creation of the moulds' letters and annotations despite (apparently) no analysis having been carried out into the ink(s) used.

## ***AS:dmf* 'analytical strategy'**

Within *AS:dmf* the analysis of the inked text found on 14 wooden items (8 violin moulds, 2 viola moulds, 4 wooden templates) generated 'paleographic attribution[s]'<sup>4</sup> – this expression apparently indicating that the certain identity (or was it only the *likely* identity?) of the person responsible for

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<sup>1</sup> *AS:dmf*; published by Museo del Violino, Cremona, 2016.

<sup>2</sup> Biblioteca Statale di Cremona, Libreria Civica [BSCr, LC], ms. Cozio 72.

<sup>3</sup> *Elenco dei reperti selezionati per la campagna analitica* ('List of items selected for the analytical strategy'), *AS:dmf*, p. 97.

<sup>4</sup> *Attribuzione paleografica*; pp. 97 and 98.

creating each text-item was established through studying the graphical elements which make up the item.

'Paleography, whose methodology is essentially based on the detailed examination of the hatching (number, sequence and directions of the segments) of each letter, is an historical discipline.'<sup>5</sup>

'Paleography aims to identify the chronological and geographical coordinates among an ensemble of graphic artifacts, as well as the morphological [form and structure?] characteristics of the writing.'<sup>6</sup>

It is unclear how the chronological and geographical shaping of a single block-capital letter – e.g. **P** – or **T** – or even a pair of letters – e.g. **SL** – can identify, with certainty, the specific individual who was responsible for inking the letter(s) on a wooden mould.

Within *AS:dmf* the different types of ink found on the wooden moulds are given identification codes of W01–W12, each numeral representing (it is assumed) a different chemical composition. No details of these chemical differences with respect to ink types W03-W12 are provided within *AS:dmf*.

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## Moulds for violins

### MS1 **M\*B**

*This mould is not mentioned by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the ink used for letters and annotations.*

Wooden mould, no date, block capitals **M\*B**

Ink type W01; paleographic attribution to 'Strad workshop'; the evidential basis for this attribution is not identified.

NOTE: According to *AS:dmf*, p.104, there is a block-capital letter **E**, 'inscribed with a knife tip, 19<sup>th</sup> c.?', on the *verso* of the mould. A photograph of this inscribed letter is not provided within the DVD which is included in the *AS:dmf* catalogue.

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### MS2 **S**

*This mould is not mentioned by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the ink used for letters and annotations.*

Wooden mould, no date, block capital **S**; without an inked dot on either side; cf. MS39.

Ink type W03; paleographic attribution to 'CCS' (Count Cozio di Salabue); there is no graphical element within the letter-shape which demonstrates a specific individual's authorship.

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### MS6 (and 7) **P B**

*This mould is not mentioned by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the ink used for letters and annotations.*

Wooden mould, no date, block capital **P**

Ink type W04; paleographic attribution to CCS; there is no graphical element within the letter-shape which demonstrates a specific individual's authorship.

NOTE: The attribution is supported, it seems, by the claim (*AS:dmf*, p.105) that the 'same hand' wrote the block capital **P** on each of four wooden corner/block templates; see overleaf, MS7).

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<sup>5</sup> *The Absolute Stradivari*, Museo del Violino, 2017, p.81: *La paleografia, la cui metodologia si basa essenzialmente sull'esame dettagliato del tratteggio (numero, successione e direzione dei tratti) di ciascuna lettera, è una disciplina storica. 'Hatching' is an artistic technique of indicating light and shade by drawing closely-spaced parallel lines; there is no hatching used within the block-capital letters on the Stradivari moulds.*

<sup>6</sup> *Ibid.*

Hand-drawn uppercase **B** with diagonal underscore

Ink type W04; paleographic attribution to CCS; the **B** is likely by Count Cozio – the letter-shape appears to comprise a ‘forward slash’ with a ‘3’ ‘pinned’ to the top of the slash; cf. MS33 NOTES.

*fondo* (hand-drawn, lowercase ‘print’)

Ink type W04; paleographic attribution to CCS; the shaping of the letters is very ‘rounded’ and ‘fair copy-ish’ – not really like Cozio’s handwriting, even allowing for the quill pen being used on a wooden surface rather than on paper. Apparently, there is another *fondo* written on the *verso* of the mould (an annotation which is also attributed to CCS).

NOTE: A photograph of the *verso* of the mould, showing the second *fondo*, is not provided in the DVD which is included in the *AS:dmf* catalogue.

MS7

Wooden upper-block template, block capital **P**

Ink type W05; paleographic attribution to CCS; there is no graphical element within the letter-shape which demonstrates a specific individual’s authorship. The chemical difference between inks W04 and W05 is not explained in *AS:dmf*, nor is it explained why CCS would (apparently) use ink W04 to write on the mould but use ink W05 to write on the upper-block template.

MS11 **T**

*This mould is not mentioned by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the ink used for letters and annotations.*

Wooden mould, no date, block capital **T**

Ink type W06; paleographic attribution to CCS; there is no graphical element within the letter-shape which demonstrates a specific individual’s authorship.

MS16 **Q**

*This mould is not mentioned by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the ink used for letters and annotations.*

Wooden mould, no date, block capital **Q** (lower case?)

Ink type W07; paleographic attribution to CCS; there is no graphical element within the letter-shape which demonstrates a specific individual’s authorship.

MS21 **PG**

*This mould is described by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the ink used for letters and annotations.*

Wooden mould, block capitals **PG** [N.B. *not* **P.G.**]

Ink type W04; paleographic attribution to CCS; there is no graphical element within the letter-shapes which demonstrates a specific individual’s authorship.

Incised date **A 4 GIV1689** [‘On the day of 4 Giugno [June] 1689’]

The person responsible for this incision is proposed as ‘ASJ?’ (Antonio Stradivari Junior, b. 1738).<sup>7</sup> It is not explained how ASJ would have known which date to incise.

Inked annotation in upper bout; *Antonio Stra*

*f<sup>a</sup> grande*

<sup>7</sup> *AS:dmf*, p.108. Antonio Stradivari Junior was the son of Paolo Stradivari (1708-1775) and thus the grandson of Antonio Stradivari through Antonio’s second marriage.

Ink type W08; paleographic attribution to CCS.

The chemical difference between inks W04 and W08 – used on the same mould – is not explained in *AS:dmf*; nor is it explained why CCS would (apparently) use both ink W04 and ink W08 to write on the mould.

Count Cozio's ms.72 description of the **PG** mould is:

*N° 2 forma, di cui pure se ne vede fatto molto uso scolpitavi in essa le lettere*

*PG. .A.4. SM.<sup>8</sup> 1689 (forma più grande - - - - [right-hand margin] PG*

No. 2: mould which has also clearly been used very often, carved in this the letters

*PG 'On the day of 4 June 1689' (larger mould - - - - [right-hand margin] PG*

## MS28 **S L**

*This mould is described by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was not used in the AS:dmf analysis. Nonetheless, individual attributions are specified in the AS:dmf catalogue.*

Wooden mould, block capitals **S L**

CCS is identified as the person responsible for the block capitals.<sup>9</sup> Block capitals **SL** are apparently also inked on the *verso* of the mould.<sup>10</sup> There is no graphical element within the letter-shapes which demonstrates a specific individual's authorship.

Incised and inked date of **ADI 9 Nob** [November] **1691**; Antonio Stradivari Junior (b.1738) identified in *AS:dmf* as the person responsible;<sup>11</sup> the justification for this identification is not demonstrated and it is not explained how ASJ knew which date to incise. The ink-type is not defined.

Count Cozio's ms.72 description of the **S L** mould is:

*N° 5 altra più tosto si vede usata poco più lunga ma più stretta nei CC della preced[en]<sup>te</sup>  
6 xbre) segnata con inchiostro S L e scolpitovi A DI 9 Nōb 1691. S. L*

No. 5: another, evidently used only a little; longer, but narrower in the C-bouts [compared to] the preceding [**B** mould of] 6 December [1692], marked with ink *S L* and carved 'On the day of 9 November 1691'. [right-hand margin] *S. L*

NOTE: the length of the 9.11.1691 **S L** mould is 350mm; the length of the 6.12.1692 **B** mould is 347mm; Count Cozio's identification of the **S L** mould as being the longer of the two is therefore correct. The C-bout width of the 9.11.1691 **S L** mould is 100mm; the C-bout width of the 6.12.1692 **B** mould is 102mm; Count Cozio's identification of the narrower C-bout width on the **S L** mould is therefore correct.

## MS33 **B** [3 June 1692]

*This mould is described by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was not used in the AS:dmf analysis. Nonetheless, individual attributions are specified in the AS:dmf catalogue.*

Wooden mould, incised and inked block capital **B**

'AS?' (Antonio Stradivari) proposed as the person responsible;<sup>12</sup> the ink-type is not defined.

<sup>8</sup> a mis-reading of **GIV**.

<sup>9</sup> *AS:dmf*, p.110.

<sup>10</sup> (also attributed to CCS)

<sup>11</sup> *AS:dmf*, p.110.

<sup>12</sup> *Ibid.*, p.111.

Incised and inked date of **1692 ADI 3 GIVGNO**; Antonio Stradivari Junior is identified in *AS:dmf* as the person responsible;<sup>13</sup> it is not explained how ASJ knew which date to incise. The ink-type is not defined.

Count Cozio's ms.72 description of this **B** mould is:

*N° 3 forma di cui si vede averne fatto pochissimo uso poco più lunga della sud[etta] PG  
ma più ristretta nelle parti superiori ed inferiori colla incisione dicente: 1692 A di  
3.GIVGNO B.* [right-hand margin] B

No. 3: mould which can be seen to have had very little use, slightly longer than the aforementioned *PG* but narrower in the upper and lower parts [bouts], with an incised [date] stating: '1692 on the day of 3 June B'. [right-hand margin] B

NOTES: the block-capital letter **B** on the mould follows the usual design wherein the inked lines which define the semicircular portions join together as they return towards the mid-point of the vertical stem. Count Cozio's two hand-drawn copies of this letter follow the design which is found on the mould but there is a feeling of calligraphic awkwardness, brought about, perhaps, because his personal design for an upper-case letter B comprised a dramatic 'forward slash' with the upper tip of what looks like a '3' 'pinned' to the top of the slash; the lower loop of the 3 does not join back to the lower end of the slash (cf. the hand-drawn uppercase **B** inked on the MS6 **P** mould).

The **B** mould of 3.6.1692 is 352mm in length; the **PG** mould of 4.6.1689 is 348mm; thus Cozio's comparison of length is correct. The upper- and lower-bout widths of the **B** mould are 153 and 194mm respectively; the equivalent widths of the **PG** mould are 161 and 200mm; Count Cozio's comparison of widths is correct.

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MS38 **B** [6 December 1692]

*This mould is described by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was not used included in the AS:dmf analysis. Nonetheless, individual attributions are specified in the AS:dmf catalogue.*

Wooden mould, incised and inked block capital **B**

Attributed CCS;<sup>14</sup> the ink type is not defined.

Incised and inked date of **A. 6 DIBR** [Dicembre] **1692**

Attributed Antonio Stradivari Junior;<sup>15</sup> it is not explained how ASJ knew which date to incise. The ink-type is not defined.

Scarcely legible text inked across lower bout; transcribed in *AS:dmf* (p.112) and attributed to CCS:

*F B di Ant.° Stradivario  
Se ne servì anche nel mio violino  
del 1736 con vigliettino del Sig. Cavallier  
dopo questo d'anni 92*

Forma B of Antonio Stradivari  
he also used it for my violin  
of 1736 with small label[,] of [belonging to?] Signor Cavallier[?],  
after this [i.e. written next to the date] *d'anni 92* ['of years 92']

NOTE: the block-capital letter **B** on the mould is incised so that there is a small gap between the horizontal lower line of the upper semicircle and the horizontal upper line of the lower semicircle – i.e. the two semicircles do not join together in the middle of the stem. This gap is carefully replicated – twice – by Cozio in his ms. 72 manuscript. It seems more likely that Cozio was following the letter-shape already present on the mould rather than drawing a block-capital B on his (ms.72)

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<sup>13</sup> *Ibid.*

<sup>14</sup> *AS:dmf*, p.112.

<sup>15</sup> *Ibid.*

manuscript – with a distinctive ‘gap’ – and then accurately cutting that same shape, with a knife or a chisel, into the wooden surface of the mould.

Count Cozio's ms.72 description of this **B** mould is:

*N° 4 forma di cui se ne vede fatto poco uso, però (su di essa vi fece al mio violino assai forte vernice gialliccia con l'agionta di carattere d'autore nel biglietto 1736 – danni 92) più corta di circa tre ponti della sud[ett]<sup>a</sup> B e di un sol ponto della P G. ma da q[uest]<sup>a</sup> anche più ristretta massime[?] nella parte superiore di due punti Segnata scolpita dicente A.6.DCBE 1692 B.*

No. 4: mould which, clearly, has been little used, however (it was used to make my very sonorous violin [with] yellowish varnish, also with the maker's handwriting on the label 1736 – of years 92) shorter by about three *ponti* than the aforementioned *B* [3 June 1692] and [shorter] by just one *ponto* than the *P G*. but this is also narrower, mostly[?] in the upper part [upper bout], by two *ponti*. Carved mark stating “On the day of 6 December 1692 B”.

NOTE: the length of the 6.12.1692 **B** mould is 347mm; the length of the 3.6.1692 **B** mould is 352mm; three *ponti* equals 6.8mm. Although the difference in length is 5mm rather than 6.8mm the essential point of Cozio's dimensional comparison is correct. The length of the 4.6.1689 **PG** mould is 348mm; one *ponto* equals 2.26mm. The upper-bout width of the 6.12.1692 **B** mould is 154mm; the upper-bout width of the 4.6.1689 **PG** mould is 161mm; two *ponti* equals 4.5mm.

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MS39 **.S.**

*This mould is described by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the inks used for letters and annotations.*

Wooden mould, block capital **.S.** (cf. MS2)

Ink W03; paleographic attribution to CCS. There is no graphical element within the letter-shape which demonstrates a specific individual's authorship.

Inked date (cursive), *Adi 20 i703 Settembre*, ink W03; paleographic attribution to CCS. The letters and numbers are not convincing as being from Cozio's hand:

1. Cozio's usual capital-letter *A* is much more akin to a lower-case *a* but writ large: *A*
2. the horizontal component of the numeral 2 is more firmly extended than one normally sees when this is drawn by Count Cozio
3. Count Cozio never draws a 'one' as *i*
4. the word *fondo* begins with a non-Cozio shaping of the letter *f*.
5. if the date on the mould was written by Count Cozio how could he have known which (very precise) date should be inked?

Count Cozio's ms.72 description of this **.S.** mould is:

*N° 6 altra più usata, quasi simile alla sud[ett]<sup>a</sup> S L,  
con lettera manuscritta S. e A di 20 1703 Settembre.* [right-hand margin] *S.*

No. 6: another, used more, almost the same as the aforementioned *S L*, with handwritten letter *S.* and ‘On the day of 20 September 1703’ [right-hand margin] *S.*

NOTE: in his manuscript Count Cozio draws an upper-case ‘A’ (‘A di 20 ...’) which, precisely because it is not his usual manner of shaping this letter, suggests that he was copying the shaping as he saw it in the inked annotation on the mould.

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MS44 **P**

*This mould is described by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was not used in the AS:dmf analysis. Nonetheless, individual attributions are specified in the AS:dmf catalogue.*

Wooden mould, block capital **P**

Attributed CCS;<sup>16</sup> the ink type is not defined.

Incised and inked annotation: **A 25 F<sup>b</sup> 1705**

Attributed 'ASJ?';<sup>17</sup> the ink type is not defined.

Inked annotation: *Antonio Stradivari*, attributed CCS;<sup>18</sup> the ink type is not defined.

Inked annotation: *F<sup>a</sup> Grande, Questa è un poco più corta ed in qualche parte più stretta della forma P.G.*  
attributed CCS;<sup>19</sup> the ink type is not defined.

Count Cozio's ms.72 description of this **P** (25.2.1705) mould is:

*N<sup>o</sup> 7 altra, che vi si vede moltissimo adoprata, con indicazione manuscritta P, e scolpitovi A 25. Fb. 1705, stata moltissimo usata, ed esse e forma grande, ma solo uno ponto sopra ed altro in fondo meno accosta[?] della P.G.*

No. 7: another, which can be seen to have had heavy use, with handwritten indication *P*, and carved 'On the day of 25 February 1705', very heavily used, and this is a large mould, but only one *ponto* [2.26mm] less in the upper [bout width] and another [*ponto* less] in the lower [bout width] when compared to the *P.G.*

NOTE: the large **P.G.** mould of 1687 – which is not the **PG** mould of 4.6.1689 – was owned by Count Cozio but subsequently lost. See the present author's *The case of the missing mould*, published in *The Strad*, June 2018.

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MS49 **G**

*This mould is described by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the inks used for letters and annotations.*

Wooden mould, no date, block capital **G**

Ink W03; paleographic attribution to CCS

(Scarcely legible annotation in upper bout; unknown writer.)

Inked annotation in lower bout: *Questa forma è un poco più lunga della forma P.G. dell Antonio G Stradivari*

Annotation identified as ink W10; paleographic attribution to CCS. The chemical difference between inks W03 and W10 – used on the same mould – is not explained in *AS:dmf*, nor is it explained why CCS would use both ink W03 and ink W10 in writing on the same mould. The handwriting of this annotation does not suggest that Count Cozio was responsible.

Count Cozio's ms.72 description of this **G** mould is:

*N<sup>o</sup> 1 Forma segnata con l'inchiostro colla lettera G (quale è un poco più lunga della seg[na]<sup>a</sup> PG senza che vi si possa più scoprire l'indicazione dell'epoca di sua formazione della quale se ne vede averne fatto molto uso.*

No. 1: Mould marked with ink with the letter *G* (this is a little longer than [the one] marked *PG*, without anything further which would indicate the date of its making, and which has clearly been used many times.

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<sup>16</sup> *AS:dmf*, p.113.

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

NOTES: the writer of the inked annotation on the mould appears to have inked a dot after the **P** and another after the **G**. Cozio, in his manuscript description, does not ink a dot after the **P**; the dot after the **G** may simply indicate the end of that line of text (and the end of that 'paragraph'). The first word of the next line – *senza* – clearly begins with a lower-case 's'.

The length of the **G** mould is 350mm which is 'a little longer' than the length of the **PG** mould (4.6.1689): 348mm.

MS182 *This arching template for a 1654 Nicolao Amati violin is not described by Count Cozio in his ms.72 inventory of February 1823. This template was included in the AS:dmf analysis of the inks used for letters and annotations.*

Inked annotation: *Larg<sup>a</sup> interna + del fondo: V<sup>o</sup> Amatis  
della Traversa C presa Nicolao 1654  
dentro i contra fajt[?]*

Ink W02; paleographic attribution to CCS. The same ink is also used (apparently) on the moulds MS205 and 229 (see below).

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## Moulds for violas

### MS205 CV

*This mould is mentioned by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was part of the AS:dmf analysis of the inks used for letters and annotations.*

Wooden mould.

Upper bout, inked annotation: *1690*

*Forma nova per il [Contralto] Fatta  
Ha posta per il Ser[enissi]mo Gran. Principe  
Di Firenze*

Ink W01; paleographic attribution to Antonio Stradivari.

Lower part of C-bout: block capitals, **CV**; ink W02; paleographic attribution to Antonio Stradivari. There is no graphical element within the letter-shapes which justifies a specific indication of responsibility. It is not explained why Stradivari should use two different inks on the same mould.

Lower bout, inked annotation: *Antonio Stradivari  
Adi 4 Ottobre 1690  
Forma nuova per il Contralto ossia viola a quattro  
corde fatta ha posta per il grañ principe  
di Toscana, ossia di firenze*

Ink W02; paleographic attribution to CCS. It is not explained why Antonio Stradivari and Count Cozio should both be using the same W02 ink approximately 100 years apart.

Lower bout, block capitals, **CV**

Paleographic attribution to CCS but admission that the ink type could not be determined because 'another ink was overlapped.'<sup>20</sup> There is no graphical element within the block capitals which can identify Count Cozio as the person responsible for their creation. An alternative attribution is to Antonio Stradivari.<sup>21</sup>

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continued overleaf

<sup>20</sup> AS:dmf, p.98.

<sup>21</sup> Ibid., p.143.

MS229 **TV**

*This mould is mentioned by Count Cozio in his ms.72 inventory of February 1823.*

*This mould was included in the AS:dmf analysis of the inks used for letters and annotations.*

Wooden mould.

Upper bout; inked annotation: **1690**

*Forme nova per il Contraldo Fatta Ha posta  
Per il ser[enissi]mo Gra[n] Principe de Fiorenza*

Ink W01; paleographic attribution to Antonio Stradivari.

Lower part of C-bout: block capitals **.T. .V.**

Ink W02; paleographic attribution to Antonio Stradivari; alternative attribution to CCS.<sup>22</sup>

Lower bout, inked annotation: *dell'Antonio 4. 8bre 1690 Stradivari  
forma Nuova per il ~~Contraldo fatta~~ Tenore  
fatta espressamente per il Seren<sup>ma</sup> Grande  
Principe di Firenze*

Ink W02; paleographic attribution to CCS. It is not explained why Antonio Stradivari and Count Cozio should both be using the same W02 ink approximately 100 years apart.

Lower part of lower bout: block capitals **.T. .V.**

Paleographic attribution to CCS but admission that the ink type could not be determined because 'another ink was overlapped.'<sup>23</sup> There is no graphical element within the block capitals which can identify Count Cozio as the person responsible for their creation. An alternative attribution is to Antonio Stradivari.<sup>24</sup>

Given the very particular size of this mould it might be wondered why Stradivari would have needed to ink two identification letters on it; the mould could hardly have been confused with any other.

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The annotations and block-capital letters on the face of the **TV** mould are affected by doubts with regard to their authorship and the date(s) when they were created; some of the same doubts apply to the **CV** mould:

In 1881 Giuseppe Rolando Dalla Valle allowed the Stradivari moulds and artefacts which he had inherited from Count Cozio's daughter, Matilde (d.1853), to be exhibited at the Royal Conservatory of Music, in Milan, as part of the National Italian Exhibition. A monochrome photograph of the Dalla Valle display cabinet at the Conservatory is included in Karel Jalovec, *Italian Violin Makers*.<sup>25</sup> The photograph shows seven moulds clamped to the back wall of the cabinet, each having what appears to be a blank, white, oval label fixed on the left of the upper bout. This blank appearance is deceptive since a close-up colour photograph of such a label shows it to have had a decorative blue border with, in the centre of the oval, a small drawing of a violin and bow.<sup>26</sup> A space is left at the top of the oval for a number to be inserted – '34' in this case (the calligraphy of the numerals does not suggest the hand of Count Cozio). A related commentary states:

<sup>22</sup> AS:dmf, p.150.

<sup>23</sup> *Ibid.*, p.98.

<sup>24</sup> *Ibid.*, p.150.

<sup>25</sup> Artia/Hamlyn, 1958, p.336.

<sup>26</sup> AS:dmf, p.32, Fig. 11.

A glued label is visible in a photograph of several exhibits in a case at the 1881 exhibition in Milan: it is oval with a blue frame, and embellished with a printed violin shape with a bow [...].<sup>27</sup>

The largest mould in the Dalla Valle display cabinet – top-centre on the cabinet's back wall – is of such a size that it would be plausible to identify this as the **TV** mould. However, the position and orientation of the white oval glued on this mould is not the same as is seen on the **TV** mould which is illustrated in the Hills' *Antonio Stradivari* monograph of 1902.<sup>28</sup> Karel Jalovec's 1881 photograph does not reveal any block-capital letters or cursive annotations on the mould. Conversely, it is *just* possible to perceive some inked or incised texts on two of the smaller moulds in the cabinet: these appear to be the **B** mould of 3 June 1692 and the **P** mould of 25 February 1705.

It is likely that these oval labels were applied to the moulds and other artefacts by Giuseppe Rolando Dalla Valle, or by a secretary, during the years between 1855 and 1880.

A repetition of the Jalovec photograph can be found in *AS:dmf*, p. 31, Fig. 10; this image, however, is smaller, has been cropped, and lacks tonal shading.

The smaller artefacts from the Cozio/Dalla Valle collection are displayed at the bottom of the exhibition cabinet in a jumbled and chaotic manner, with items seemingly scattered on top of each other. It is possible that the **TV** mould – if it is not the top-centre mould on the back wall – is located somewhere within the clutter. In the front corner of the cabinet, on the right, can be seen the large paper wrapper which is identified in *AS:dmf*, p. 261, as MS725; this wrapper contained patterns dated 1716 for the construction of a 12-string viola d'amore.

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In Volume III of the first edition of George Grove's *A Dictionary of Music and Musicians*<sup>29</sup> the article on Antonio Stradivari<sup>30</sup> was written by Edward J Payne who includes details of the moulds' inscriptions which he observed in the Dalla Valle cabinet at the 1881 exhibition. Payne's visit to the exhibition is confirmed by Federico Sacchi:

It was on this occasion that Mr. Payne copied from Strad's models the various inscriptions which he published in his article on Stradivari in Sir George Grove's Dictionary of Musicians.<sup>31</sup>

Payne reports what he saw written on the **CV** (contralto viola) mould:

Thus a mould for a long[?] tenor of the smaller pattern[?] is dated 'A di 4 Ottobre 1690', and marked CV. It is described, 'Forma nuova per il Contralto ossia Viola a quattro corde fatta alla posta per il Gran Principe di Toscana ossia di Firenze.'

Clearly, the Italian text is that which had been inked on the lower bout of the **CV** mould by Count Cozio (see earlier in this account). Payne continues:

The working drawings are dated four days later[?], and labelled thus:  
'1690 4 8<sup>bre</sup> in Cremona. Antonio Stradivario Misure p. li manici, occhietti, cantoni, topette, ponticelli, e cordili p. il Contraldo ossia Viola piccola fatta espressamente p. il gran Principe [sic] della Toscana sulla forma .C.V.'

The Italian text – written on the paper wrapper which contained the working drawings for the contralto viola – is in the hand of Count Cozio who, in the left margin of the wrapper, has added: *Le più giuste*

<sup>27</sup> *Ibid.*, p.32.

<sup>28</sup> p.194, Fig. 44.

<sup>29</sup> Macmillan and Co., 1883.

<sup>30</sup> pp.724-734.

<sup>31</sup> *Count Cozio di Salabue, a biographical sketch*, ed. Towry Piper; Dulau/Hart, London, 1898, p.22, note 15.

(‘The most precise’).<sup>32</sup> There is also one of the aforementioned white/blue oval labels glued to the wrapper with the (Dalla Valle?) number ‘24’ inked upon it. One of the drawings which presumably was stored inside the wrapper is an inked design for the centre bout of a contralto viola’s top plate, with compass-derived markings to show the placement of the *f*-holes. Written at the top of the sheet of paper, and clearly in Stradivari’s hand, is the following text:

*musura Giusta per il occhi del Contrato [sic] fatte  
Ha posta per il Grañ Principe [sic] Di Toscana Adi 4 Ottobre 1690*

Exact measurements for the eyes of the Contralto [viola] made especially for the Grand Prince of Tuscany, on the day 4 October 1690<sup>33</sup>

A copy of this document is listed in *AS:dmf*, p. 273, as MS771. The paper on which the copy was created has been identified, from its watermark, as having been produced by the Van Gelder Zonen paper factory in Amsterdam. The copying of both the inked design and the handwritten text is extraordinarily accurate; without the watermark there would be every reason to believe that this copy-document was entirely original, dating from 1690 in Cremona (the *AS:dmf* catalogue is unable to identify the person responsible for creating this copy). Towards its left edge the copy has glued to it not an oval label but a small white/blue octagonal label; on this label, in blue ink, is written the number ‘216’, the writer apparently using a ball-point pen. The associated commentary indicates that this octagonal type of inventory label was used in 1956:

These labels were probably applied in the run-up to the transfer of the entire collection [of artefacts] to the Violinmaking School [in Cremona], or at the time the delivery report was written in December 1956.<sup>34</sup>

See p. 14 of this account for the evidence from Ernesto Fazioli which suggests that these labels were in use earlier than 1956.

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For the **TV** mould E J Payne reports:

Concurrently with this contralto Stradivari designed a large tenor on a similar principle [...]. The drawings for the large tenor, dated the same day, are labelled thus:

‘1690 4 8<sup>bre</sup> in Cremona. Antonio Stradivario[:] Misure p. li manici, occhietti, cantoni, e topette, ponticelli tavolette e cordili p. il ~~Contralto~~ Tenore ossia Viola piu grande, fatta espressamente p. il Gran Principe della Toscana sulla forma .T.V.’

The paper wrapper which contained the drawings is identified in *AS:dmf*, p. 261, as MS 727 and the number inked on its oval label is ‘23’. As before, Cozio adds in the left margin: *Le piu* [sic] *giuste*. One of the drawings which presumably would have been stored inside the wrapper is an inked design for the centre bout of a **TV** viola with compass-derived markings for the placement of the *f*-holes. The following text appears at the top of the sheet of paper::

*musura Giusta per il Tenore de occhi fatte ha posa  
per il Grañ Principe De Toscana Adi 4 Ottobre 1690*<sup>35</sup>

Exact measurements for the eyes of the Tenor [viola] made especially for the Grand Prince of Tuscany, on the day 4 October 1690

<sup>32</sup> *AS:dmf*, p.263, MS731.

<sup>33</sup> *AS:dmf*, p.144; MS210.

<sup>34</sup> *Ibid.*, p.39.

<sup>35</sup> *Ibid.*, p.151; MS234.

Again, there is every reason to believe that this text was written by Antonio Stradivari. Again, there is a copy of Stradivari's document, made by an unknown hand on an unknown date, using Van Gelder Zonen paper.<sup>36</sup> Again, the text seen at the top of the copy is an extremely accurate replication of Stradivari's text. It is as if someone painstakingly traced Stradivari's designs and handwritten texts and then transferred the tracings onto sheets of Van Gelder Zonen paper. The copy has a small white/blue octagonal label on which is inked the number '215'.

The *AS:dmf* catalogue identifies at least fourteen drawings which are made on Van Gelder Zonen paper; the catalogue cautiously proposes that these copies date from the twentieth century.

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From the evidence of Karel Jalovec's 1881 photograph it seems rather remarkable if, within the disorder of the Dalla Valle exhibition cabinet, the complete descriptive text on the face of a paper wrapper could be seen and read by Payne. His ability to reproduce these texts suggests that he was either allowed to personally inspect the items in the cabinet at the 1881 exhibition (which seems unlikely) or was allowed to inspect the items at the Dalla Valle residence on a separate occasion.

Payne does not indicate whether the annotation which today is found inked on the lower bout of the **TV** mould, with its distinctive crossed-out text - *Contralto fatta* - was present on the mould in 1881 (it is perfectly possible that the annotation was present, and was reported by Payne, but Payne's information was edited out during the preparation of Grove's *Dictionary*).

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A good-quality photograph (8×14cms) of the **TV** mould appears in the Hills' *Antonio Stradivari* monograph of 1902.<sup>37</sup> The photo shows an entirely white oval in the top-left corner of the mould. The oval shows no sign of a decorative blue border, or a central drawing of a violin and bow; it is as if this oval area of the photograph was 'cleaned' of all text before printing. Below the mould's white oval is inked text which the Hills identify as 'The inscription written on the mould by the master.' The Hills add that the inscription 'has been touched over in the reproduction in order to render it more legible':

1690

*Forma nuovo per il Contralto Fatto Ha posta  
per il Ser<sup>mo</sup> Gran principe De Fiorenza*

This text is all-but impossible to decipher on the **TV** mould which is displayed today at the Museo del Violino in Cremona because the ink used for the lettering (?and the ink used when the lettering was 'reinforced' – see p. 13 of this account) has bled into the wood resulting in a 'blotchy' appearance. It can only be the case that, in 1902, those who were responsible for the preparation and printing of the Hills' photograph entirely erased from the negative the two original lines of text, replacing them with the 'touched over' version (which can easily be read from the Hills' image as published). The Hills' commentary is disconcertingly economical with the truth.

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A further issue is *how* the Hills obtained their photograph of the **TV** mould. It is known that the Hill brothers visited 'a' Marquis Dalla Valle, probably during the mid-1890s. In the Preface to the 1902 first edition of their *Antonio Stradivari* monograph they write:

To the Marquis dalla Valle we are under an exceptional debt of gratitude for having freely accorded us access to his unique collection of Stradivari relics.

<sup>36</sup> *Ibid.*, p.271; MS 764.

<sup>37</sup> p.194, Fig. 44.

Giuseppe Rolando Dalla Valle died in 1891; the moulds were passed to his youngest son Alessandro Dalla Valle (d.1905). In the 1909 second edition of their monograph the Hills amend their expression of gratitude:

To the late Marquis Alessandro Dalla Valle we are under an exceptional debt of gratitude for having freely accorded us access to his unique collection of Stradivari relics.

This revised text suggests that the Hills' visit to Italy took place between 1891 and 1902 (i.e. after Giuseppe Rolando had died but, obviously, before the Hills' monograph was published in 1902).

Either the Hills took a camera with them on their journey and were permitted to photograph the **TV** mould *in situ*, or Alessandro Dalla Valle summoned a local photographer to take a picture of the mould and the negative was then given to the Hill brothers; back in London the negative was manipulated and falsified as described above (and below).

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The Hills' 1902 photograph of the **TV** mould does not show any sign of the four-line text which is written across the lower bout:

*dell'Antonio 4. 8bre 1690 Stradivari  
forma Nuova per il ~~Contralto~~ ~~fatta~~ Tenore  
fatta espressamente per il Seren<sup>ma</sup> Grande  
Principe di Firenze*

The calligraphy points strongly towards Count Cozio as being the writer. If this identification of responsibility is correct then the annotation was present on the mould when it was in the possession of both Giuseppe and Alessandro Dalla Valle and should have been visible in any contemporary photograph of the mould. It seems that the Hills must have authorised the erasure of the four lines of text before including the amended image in their 1902 publication. It is disturbing that the Hills failed to acknowledge these manipulations yet indicated to the world's readership that they were greatly indebted to Alessandro Dalla Valle for allowing them access to his Stradivarian moulds. An alternative conclusion would be that the four-line annotation was inked on the **TV** mould by an unknown hand on an unknown date *after* 1902, but, if so, the writer would have needed to be able to mimic, accurately, the handwriting style of Count Cozio.

The Hills' 1902 photograph shows the block capitals **.T. .V.** in the lower part of the mould's C-bout. These two letters have subsequently been re-inked because there are clear differences between the slender letter-shapes (as in 1902) and today's much thicker dimensions of the vertical and horizontal components of the letters. The same thickening process can also be observed in the **.T. .V.** letters at the bottom of the mould's lower bout.

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Subsequent to the opening of Cremona's Sala Stradivariana some photographs of the room and its display cabinets were made by the Cremonese photographer Ernesto Fazioli; five of these photographs are currently (2018) available online at:

[http://www.aess.regione.lombardia.it/ricerca/ricerca\\_src/scheda\\_ril.php?idk\\_id=RIL-FAB01-0000051180&sigla=aess\\_view](http://www.aess.regione.lombardia.it/ricerca/ricerca_src/scheda_ril.php?idk_id=RIL-FAB01-0000051180&sigla=aess_view)

Information presented on this website appears to date all five photographs to the year 1937 (which was the year of the Stradivari Bicentennial exhibition in Cremona). From these images it can be seen that the Sala's central vitrine contained 25 moulds of varied sizes. Renzo Bacchetta provides his personal description:

Inside a large vitrine placed in the middle of the room, and arranged on a [long] lectern, there are 20 violin moulds, each one very slightly differing from the others [in size]; also a viola mould and two moulds for very small violins, the smaller of which (25 centimetres in length with the neck in proportion to this) is that which is identified as a 'pochette', an instrument that could easily be carried in the pocket and that, during the early eighteenth century, was used by dancing masters when giving lessons at their house. On one of the moulds there is an inscription which is thought to have been written by Stradivari: '1690: For His Royal Highness the Prince of Florence'. Another mould has the dates '1691' and '1736' [!] carved into the upper part. These 20 moulds belonged to Stradivari (but some he obtained from the workshop of his teacher, Nicola Amati) while the remaining moulds belonged to Cosimo Bergonzi (nephew of Carlo), to Guadagnini, and to the brothers Ceruti.<sup>38</sup>

The violin mould marked with the letters **P B** (and the word *fondo*) can easily be seen in the Fazioli photographs, likewise the **PG** mould of 1689; also visible (but with less certainty) is the **S L** mould of 1691. The mould which was used by Stradivari for his 1672 'Mahler' viola – a mould which has two longitudinal slots – can also be seen; this mould has a length of 403mm.<sup>39</sup> To the right of this mould is another, of equal length but without any slots. Transverse lines of writing on both the lower and upper bouts of this second mould can be discerned and thus the visual evidence firmly points to this being Stradivari's **CV** mould (which also has a length of 403mm<sup>40</sup>). Most, but not all, of the moulds can be seen to have a top-left oval label; a few seem to have a small square(?) label glued at the bottom of the mould but the photographs are not precise enough to see any details of these.

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At an unknown date Ernesto Fazioli (1900-1955) also produced an individual photograph of Stradivari's **TV** mould. This photo<sup>41</sup> shows the original two-line text in the upper bout as well as the four-line text in the lower bout; the top-left corner of the mould shows a white oval label on which can be seen, very faintly, the decorative blue border and a fragment of ink from the item's collection number; the label is in the exact same position as found in the Hills' 1902 photograph. Fazioli's photograph also shows one of the aforementioned small white/blue octagonal labels (of 1956? – see p.10 of this account) glued to the right-of-centre area of the mould's C-bout but no number can be seen on this label (and the label is no longer present on the mould).

Fazioli's photograph shows that the **TV** letters in the lower part of the mould's C-bout are of the same 'slender' type which are seen in the Hills' image (similarly with the **TV** letters which are found at the bottom of the mould's lower bout). If the octagonal label was in use during the first few years of the 1950-59 decade (Fazioli's photograph of the **TV** mould therefore dating from this same early-50s period) then the re-inking and thickening of the block-capital letters – as is seen today – was carried out at an even more recent date.

If Stradivari was responsible for any of the block-capital letters on the **TV** mould – his ink being covered over during the twentieth century by another in order to create the thicker stems and cross-pieces – it is difficult to see how a definition of the ink type (W02) could have been established by the 'analytical strategy' described in *AS:dmf*.

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<sup>38</sup> *Stradivari non è nato nel 1644*, Cremona, 1937, p.120. Present writer's translation.

<sup>39</sup> *AS:dmf*, p.118; MS55.

<sup>40</sup> *Ibid.*, p.143.

<sup>41</sup> *Ibid.*, p.32.

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