

THE LUTES IN THE MUSEO MUNICIPAL DE MUSICA IN BARCELONA

BY JOHN GRIFFITHS

In recent years both luthiers and lutenists have been discovering that the principles, methods, and materials employed in the construction of lutes in the sixteenth and seventeenth centuries not only result in instruments that are more responsive to the touch, but also more agreeable to the ear. Although the task of cataloging, measuring, and comparing surviving instruments is far from complete, much rewarding research has already been carried out in this process of rediscovery. Recent publications by Friedemann Hellwig, Robert Lundberg, Michael Lowe, Douglas Alton Smith, and Michael Saffle stand out among the leading examples of such scholarship.¹

¹Friedemann Hellwig, "An Example of Lute Restoration," *Galpin Society Journal*, Vol. XXIII (1970), pp. 64-68; Hellwig, "Lute Construction in the Renaissance and the Baroque," *GSJ*, Vol. XXVII (1974), pp. 21-30; Hellwig, "Makers' Marks on Plucked Instruments of the 16th and 17th Centuries," *GSJ*, Vol. XXIV (1971), pp. 22-32; Hellwig, "On the Construction of the Lute Belly," *GSJ*, Vol. XXI (1968), pp. 129-145; Robert Lundberg, "Sixteenth and Seventeenth Century Lute-Making," *Journal of the Lute Society of America*, Vol. VII (1974), pp. 31-50; Michael Lowe, "The Historical Development of the Lute in the 17th Century," *GSJ*, Vol. XXIX (1976), pp. 11-25; Douglas Alton Smith, "The Lutes in the Bavarian National Museum in Munich," *JLSA*, Vol. XI (1978), pp. 36-44; Michael Saffle, "Lutes and Related Instruments in Eight Important European and American Collections," *JLSA*, Vol. VIII (1975), pp. 22-47 and Vol. IX (1976), pp. 43-61.

One of the important museums housing original instruments, which has not been included in any previously published catalog or research study, is the *Museo Municipal de Musica* situated in the *Conservatorio Superior Municipal de Musica*, Calle Bruch 110, Barcelona, Spain.² The museum houses a rich collection of antique instruments from Europe and Latin America. In addition to twenty-eight guitars dating from the mid-eighteenth to the early twentieth century, the museum holds three lutes, two archlutes, and one chitarrone³:

Instrument	Catalog number	Maker	Place	Date
Archlute	403	Matteo Sellas	Venice	1641
Archlute	404	Magno Duffopruchar	Venice	Late 16th/early 17th cen.
False Chitarrone	406	Petrus Oliverius	?	1521 (?)
Lute	407	Hans Hovb Muler	?	Early 17th cen.(?)
Lute	408	Marx Vnuerdorben	Venice	Early 16th cen.
Lute	409	Matteus Bueckenberg	Rome	1613

The author regrets having been unable to supply adequate information regarding materials and internal construction. Both aging and the stains used in finishing timbers make unequivocal identification of woods impossible, but of the suspected materials, nothing was found that would disagree with the results of Robert Lundberg's investigations. It was not possible to examine the internal construction of the instruments, but Friedemann Hellwig's article on lute bellies is an abundant source of information.

²The museum is soon to be relocated; the future address was unavailable at the time this project was undertaken. I wish to acknowledge the kind cooperation of the museum staff who permitted the instruments to be measured and photographed.

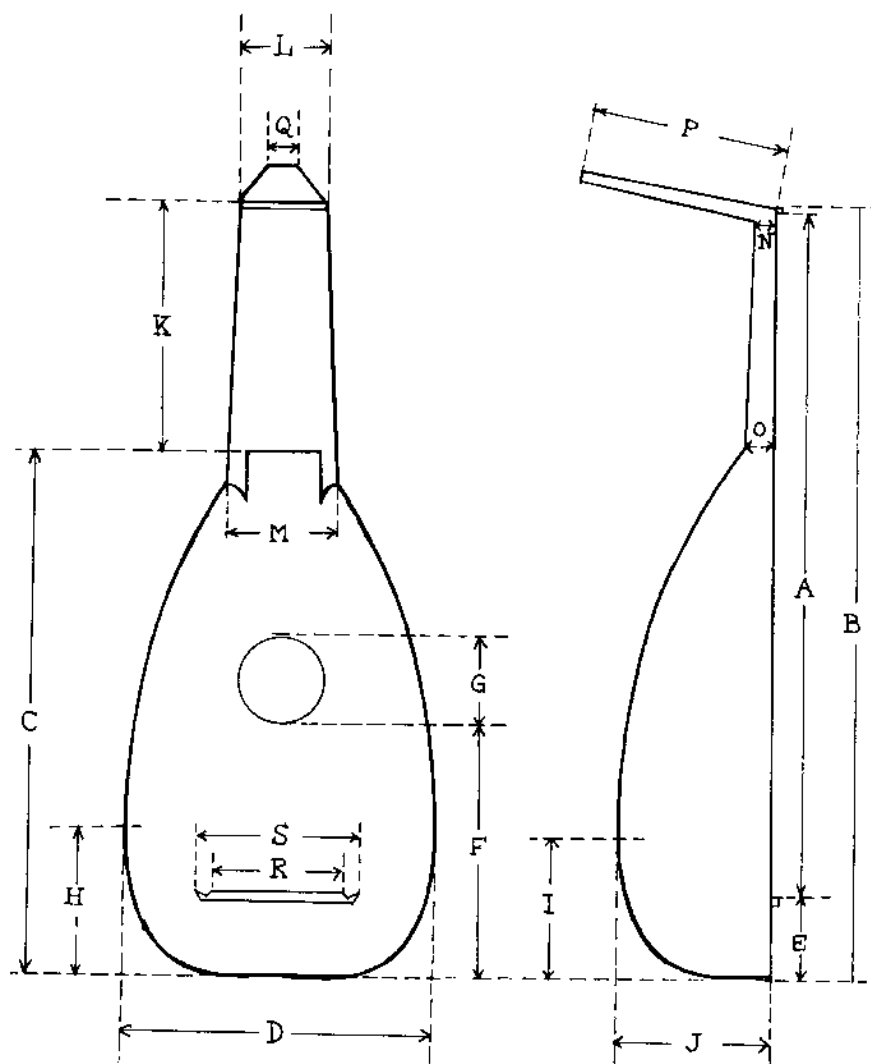
³*Editors' note: Until further research modifies the nomenclature, the word "archlute" as used in this Journal, with reference to Italian instruments of the 17th century, designates a lute with a string scale of 70cm or less (on the fingerboard) and double courses (in octaves) on the straight extension. A theorbo (or Giorba) is an instrument with single contrabasses on the extension; its fingerboard may in some cases be less than 70cm long. Chitarrone is a synonym for theorbo—in 17th century Italian terminology there is no distinction whatsoever between chitarrone and theorbo. In German theorboes of the late 17th and 18th centuries, the contrabasses are usually double in octaves as on the earlier Italian archlute.*

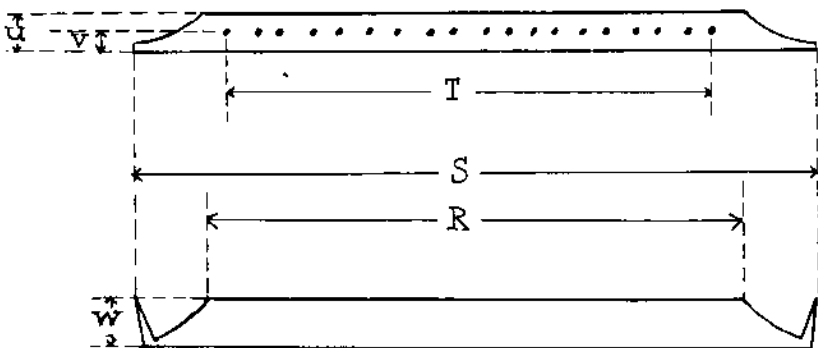
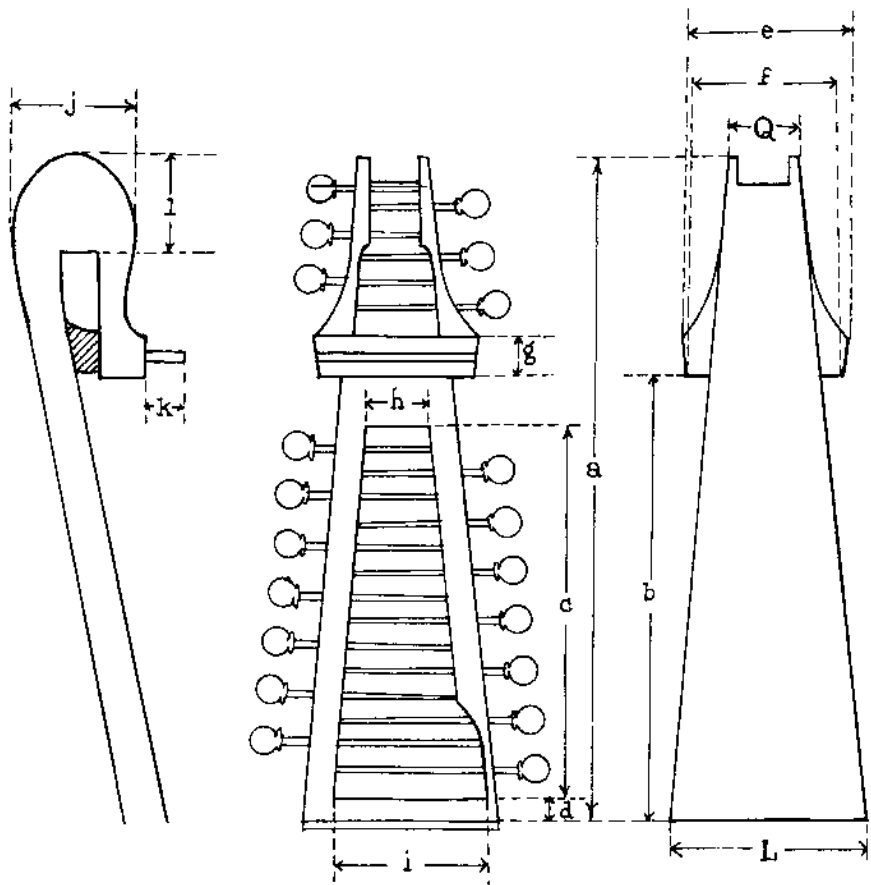
The following table summarizes the overall dimensions, body features, and stringing for each instrument. All dimensions are expressed in centimeters.

Type of Instrument	Maker	Total length	Belly (length x width)	Ribs	Mensur	Courses
Archlute	Sellas	112.5	44.0 x 32.4	31	64.0/86.8	14 (7x2;7x2)
	Tieffenbrucker	124.5	47.8 x 34.1	37	69.5/100.7	17 (10x2;6x2)
Chitarrone	Oliverius	176.0	53.0 x 30.5	?	59.5/139.3	12 (5x2;1x1;6x1)
Lute	Muler	76.5	45.4 x 31.0	13	67.0	10 (1x1;9x2)
	Unverdorben	77.3	50.3 x 32.4	13	68.1	7 (1x1;6x2)
	Buechenberg	81.9	53.1 x 35.8	37	72.7	10 (1x1;9x2)

To permit an economical presentation of the data, the diagrams below show the measurements taken of each instrument. The letters representing these dimensions correspond to those presented in the tables, one for each instrument, found on subsequent pages of this study. Measurement B is the total length expressed in the third column of the table above. In the case of the archlutes and chitarrone, measurement "B" includes the extension shown in measurement "a." Measurement C is taken from the top of the fingerboard rather than the top of the bowl. Measurements D, H, I, and J are all at the widest point. G is the measurement of the rose cut-out excluding other ornamentation. L gives the width of the fingerboard at the nut, not the nut itself. The measurement was taken below the nut (that is, on the fingerboard) because it allows for more accurate measurement. Measurements U and V were taken on the treble side. String holes were usually higher on the bass side, but often the bridge was not tapered.

The archlutes by Magno Duiffopruchar (or Magnus Tieffenbrucker as he is more commonly known and as he shall be referred to below) and Matteo Sellas in the Barcelona collection both represent fine examples by the most renowned Venetian luthiers. Both instruments appear typical of their makers' output and may, therefore, serve as good models for modern reproduction. The





Tieffenbrucker has no date,⁴ but was probably built more than 25 years before the Sellas, which is dated 1641. Ernst Pohlmann cites instruments by Magnus Tieffenbrucker built between 1575 and 1616.⁵ Sellas's archlute appears to be one of his later instruments, since 1612 to 1641 is the period of his working life discernible from dated instruments given in the same source.⁶ The most obvious difference between the two archlutes is in the belly outline. Tieffenbrucker and other luthiers of his time characteristically built instruments whose belly outlines are slimmer towards the neck than those built only a few decades later by Sellas and his contemporaries. Other features are more similar. Although the string length of each instrument differs, other proportional relationships accord. Both instruments have two-piece bellies of fine-grained spruce or fir, each stamped at the top with its maker's mark. The photographs of the instruments reveal their high level of decoration, another characteristic of much of both makers' work. Ivory was used in both cases to bind the belly and for rib spacers; the ribs themselves being either of a naturally dark hardwood or, as seems more likely, of light-colored wood stained black. This is particularly evident with the Tieffenbrucker. The veneer covering each instrument's neck and pegbox is also a light-colored wood stained black and decorated with ivory. Both instruments have attractive swan heads that form the upper pegbox. It is interesting to note that the inlaid necks and pegbox decorations of the two instruments are identical and that three large oblong pieces of ivory, chased with fine drawings, are inlaid into the fingerboard of the Tieffenbrucker. These facts suggest that the neck and/or the pegbox of the Tieffenbrucker are not original. Since the ivory oblongs that decorate its neck are features of at least eleven extant instruments by Sellas, it seems likely that the latter luthier either re-necked Tieffenbrucker's instrument or fitted the theorbo head to it and redecorated the neck.⁷ The possibilities that the original Tieffenbrucker neck and pegbox were merely

⁴ Anthony Baines, *European and American Musical Instruments* (New York: Viking Press, 1966), plate 182 shows the detailed neck decorations of this instrument.

⁵ Ernst Pohlmann, *Laute Theorbe Chitarrone*, 4th edition (Bremen, 1975), pp. 374-379. Pohlmann also acknowledges the existence of the Barcelona instrument. The Tieffenbrucker instruments ostensibly built in 1575 and 1584, however, are both at least partially fake. See W.L. Lütgendorff, *Die Geigen und Lautenmacher vom Mittelalter bis zur Gegenwart...* (Frankfurt am Main: Frankfurter Verlags-Anstalt, 1922; reprint New York: Broude Bros., 1967) for more reliable information on Tieffenbrucker.

⁶ Pohlmann, pp. 357-360. It should be pointed out that these dates are not necessarily inclusive of either maker's entire working life. Pohlmann's listings are not comprehensive.

⁷ I gratefully acknowledge Robert Lundberg's help in bringing this matter to my attention.

redecorated by Sellas, or that both instruments were re-necked or redecorated by some later craftsman, seem less probable. It is feasible, then, that the Tieffenbrucker was perhaps originally built as a normal lute and, therefore, possible that the bridge is not original. The Sellas archlute is in much better condition than the Tieffenbrucker, although a few repairs have been undertaken on several cracked ribs of the former instrument. The dimensions of each instrument follow. An asterisk denotes an approximate measurement (plus or minus 0.3cm).

Archlute: Matteo Sellas

Body	A 64.0 F 19.9	B 112.5 G 10.5	C 44.0 H 13.5	D 32.4 I 13.0*	E 8.5 J 15.5	
Neck:	K 28.9	L 8.8	M 11.9	N 2.4	O 3.5	
Pegbox:	P —	Q 2.3				
Bridge:	R 18.3	S 23.9	T 17.0	U 0.7	V 0.3	W 1.0
Pegbox extension:	a 39.6 g 2.0	b 22.8 h 1.7	c 18.5 i 4.6	d 0 j 5.8	e 7.6 k 1.1	f 7.4 19.1 to 0.9 (sloping)
Mensur:	64.0/86.8					
Pegs:	28 (14 plus 14)					
String holes in bridge:	28					
String spacing at lower nut:	7 double courses graduating evenly from treble to bass. First pair are 2mm apart, seventh pair are 3.5mm.					
Ribs:	31					

Archlute: Magno Duiffopruchar [Magnus Tieffenbrucker]

Body:	A 69.5 F 22.6	B 124.5 G 10.2	C 47.8 H 15.0*	D 34.1 I 16.0*	E 9.0 J 15.0*	
Neck:	K 31.2	L 9.5	M 11.2	N 2.2	O 3.0	
Pegbox:	P —	Q 2.7				
Bridge:	R 19.3	S 24.7	T 17.1	U 0.55	V 0.25	W 0.9
Pegbox extension:	a 46.0 g 2.1	b 29.5 h 1.6	c 23.3 i 4.5	d 0 j 5.9	e 8.0 k 2.0	f 7.8 19.7 to 1.6 (sloping)
Mensur:	69.5/100.7					
Pegs:	34 (20 plus 14)					

String holes in bridge:	32
String spacing at lower nut:	Ten double courses of approximately equal spacing
Stringing:	10x2; 6x2
Ribs:	37 fluted
Label:	Magno Duiffopruchar a Venetia

The false chitarrone in the Barcelona collection is a strange instrument by an otherwise unknown luthier. Since it is apparent that the instrument is not genuine, we need not discuss it in great detail. It is highly decorated in a reasonably skilled fashion, with ivory and pearl adorning nearly every part of it. The belly binding and rosette decoration is unusually broad, and the entire bowl is so heavily encrusted that no external evidence of the number of ribs is to be found. The label inside the instrument attributes it to "Petrus Oliverius, 1521" and external markings provide two additional dates: on the bowl is the inscription "Fecit 1573," and on the neck directly behind the lower nut is inscribed "Lucensis 1537." Additional identification is afforded by a maker's mark on the belly and two heraldic shields incorporated into the decoration on the bowl. The maker's marks are stamped into the base of the belly about one centimeter above the edge of the binding. The two symbols used for the marks are a fleur-de-lis and the letters XR. Investigation has failed to link any of the shields or marks with any other instrument. Dimensions of the instrument are given below.

Chitarrone: Petrus Oliverius

Body:	A 59.5	B 176.0	C 53.0	D 30.5	E 15.5	
	F 27.5	G 9.2	H 19.0	I 21.0	J 15.5	
Neck:	K 22.2	L 7.8	M 8.7	N 2.0	O 2.25	
Pegbox:	P —	Q 2.0				
Bridge:	R 12.5	S 20.3	T 11.5	U 1.1	V 0.7	W 1.0
Pegbox extension:	a 100.0	b —	c 28.5	d 2.5	e —	f —
	g 1.0	h —	i 4.0	j —	k 0.2	
Mensur:	59.2 / 139.3					
Pegs:	17 (11 plus 6)					
String holes in bridge:	17					
Stringing:	5x2; 1x1; 6x1					
Label:	Petrus Oliverius, 1521 [!]					

The 1521 dating is highly suspect; the history of musical style leads one to expect that the earliest chitarroni would not have been constructed until the latter part of the century.⁸ In addition to historical reasons, the Oliverius chitarrone is probably inauthentic on the following grounds: body shape, bridge design, bridge placement, style of decoration, and the self-contradictory dates on the instrument.

On the other hand, the three lutes in the Barcelona collection are all genuine instruments of high quality. Only one is difficult to identify. This is the one whose label identifies the maker as Hans Hovb Muler, but furnishes no additional information. The only known luthier with whom there may be any etymological connection of name is Laux Maler, though the lute is certainly not by him. The belly of the instrument appears too rounded to date from the early sixteenth century,⁹ and it is likely to be of early seventeenth century construction. Whatever its date and origin, it is a finely constructed light-weight instrument of elegant proportions. One minor inconsistency is that the number of string holes in the bridge exceeds the number of tuning pegs, suggesting that the bridge may not be original. The bridge has 22 holes arranged in eleven pairs; the pegbox is reamed to take 19 pegs, and the nut is scored to carry ten double courses. Therefore, the instrument was probably strung with ten courses including a single chanterelle. The bowl is constructed of thirteen ribs of flamed maple joined without spacers, and there is no binding of any kind along the joint of belly and bowl.

Lute: Hans Hovb Muler

Body:	A 67.0	B 76.5	C 45.4	D 31.0	E 8.5	
	F 23.3	G 7.8	H 13.0	I 17.0*	J 16.5*	
Neck:	K 30.0	L 8.2	M 11.2	N 1.7	O 2.5	
Pegbox:	P 26.5	Q 2.1				
Bridge:	R 14.4	S 19.3	T 13.8	U 0.8	V 0.5	W 1.2
Pegs:	19					
String holes in bridge:	22					
Ribs:	13					

⁸Giulo Caccini (c. 1570-1618) and Alessandro Piccinini (1566-1638) are the figures most readily associable with the early chitarrone. See Douglas Alton Smith, "On the Origin of the Chitarrone," *Journal of the American Musicological Society*, Vol. XXXII, no. 3 (Fall, 1979).

⁹The bellies of the Laux Maler lutes cited by Pohlmann (pp. 342-343) have lengths exceeding their widths by factors of 1.52, 1.68, 1.69, and 1.72. The Muler lute has a factor of only 1.46.

The lute cataloged by the Barcelona museum as "number 408, anonymous, Venice, seventeenth century," is in fact the work of the Venetian luthier Marx Unverdorben, thought to have been active between 1535 and 1570.¹⁰ The label is not fully clear and it was not possible to distinguish whether the surname is actually spelled "vnuerdower" or "vnuerdorben." The instrument is, thus, one of a relatively small number of instruments surviving from the early sixteenth century. Few other lutes by Unverdorben are known to be extant. The Barcelona instrument appears to be in original condition, and the fact that it has only seven courses suggests that its neck and pegbox are also original. It is a lightweight instrument and is remarkably well preserved, with only some slight damage to the most sensitive areas of the belly and to the finely carved rosette. The belly is of spruce or fir and no form of binding is used to protect its edges. No decorative border is inscribed into the belly around the rosette, which is of simple design based on nine small circles of equal diameter. The bowl, made of thirteen ribs, is constructed from bird's-eye maple. Inlaid strips of ivory edge the rosewood fingerboard, which displays the typical narrowness of those on early instruments. The neck and pegbox are stained black. It is a splendid instrument of great simplicity and beauty. The excellence of its construction recommends it as a historical model very deserving of the attention of contemporary luthiers.

Lute: Marx Unverdorben

Body:	A 68.1	B 77.3	C 50.3	D 32.4	E 8.7	
	F 23.4	G 10.0	H 16.0	I 19.0*	J 16.0*	
Neck:	K 27.2	L 5.8	M 8.0	N 2.0	O 3.0	
Pegbox:	P 21.0	Q 2.0				
Bridge:	R 11.0	S 19.3	T 9.2	U 0.6	V 0.3	W 1.2
Pegs:	13					
String holes on bridge:	13					
Stringing:	1x1; 6x2					
Ribs:	13					
Label:	Marx vnuerdorben in Venetia					

The lute by Matteo Buccenberg is a beautiful well-constructed example of the work of one of the most excellent luthiers active in

¹⁰Michael Prynne, "A Note on Marx Unverdorben," *The Lute Society Journal*, Vol. I (1959), p. 58.

Rome during the first decade of the seventeenth century. It is, therefore, a fine historical model. Spruce or fir is used for the belly, the ribs are of shaded yew, and the neck and pegbox are stained. Narrow stripes of ivory and blackened pear are inlaid into the back of the neck, and an overrider is provided on the pegbox for the chanterelle. The one unusual feature of the instrument is its asymmetrical belly shape. The belly is larger on the treble side in the area below the bridge, suggesting that a period of time elapsed between completing the construction of the bowl and fitting of the belly, sufficient to allow a distortion of the bowl shape to occur. Bowls frequently distort after being taken off the mold, and Buechenberg probably used no form of jig to straighten the distortion when he eventually glued the bowl to the belly. Hangers fitted to the middle of the clasp and the back of the pegbox permit the player to use a strap to help support the instrument.

Lute: Matteo Buechenberg

Body:	A 72.7	B 81.9	C 53.1	D 35.8	E 8.6	
	F 24.9	G 9.0	H 16.0	I 19.5*	J 16.0*	
		(plus 1.0 decoration)				
Neck:	K 28.7	L 7.5	M 9.2	N 1.5	O 2.2	
Pegbox:	P 26.3	Q 2.8				
Bridge:	R 15.2	S 21.9	T 14.0	U 0.7	V 0.5	W 1.4
Pegs:	19					
String holes in bridge:	20					
Stringing:	1x1; 9x2					
Nut details:	19 equally spaced grooves					
Ribs:	37					
Label:	Matteus Bueckenberg / Roma 1613					

The articles by Robert Lundberg and Friedemann Hellwig mentioned earlier contain a number of generalized statements about various features and proportions of a large sample of instruments. These amount to a set of guiding principles that a historically conscious luthier may embrace as part of his fundamental knowledge. The instruments discussed in this article have been compared to the findings of these writers and accord favorably with their conclusions. The following comparisons serve to furnish

additional information pertaining to the instruments studied.

Belly thickness: Measurements are in general agreement, although comprehensive detail was not available. Judging from thickness as taken at the rosette, along cracks, and at edges, all bellies were 2mm thick or less.

Placement of rosette: The centers of the roses on the Sellas, Tieffenbrucker, Unverdorben, and Buechenberg instruments were all located precisely $\frac{4}{7}$ th of the distance from the bottom of the belly to the neck. This relationship is $\frac{3}{5}$ on the Oliverius and Muler instruments. These accord exactly with two of the procedures for geometric belly design presented by Hellwig.¹¹

Diameter of rosette: Hellwig states that diameters of one third (0.33) and one quarter (0.25) of belly width at the widest point are common in many lutes. The following proportions are found in the present sample: Sellas 0.32; Tieffenbrucker 0.30; Oliverius 0.30; Muler 0.25; Unverdorben 0.31; Buechenberg 0.25. None of these proportions is greater or less than the figures given by Hellwig. The rose diameters, excluding decorative borders, range from 7.8 to 10.5 cm. Lundberg specifies a typical range of between 7.5 and 9.1 cm.¹²

Bridge placement: Quoting from the treatise of Henri Arnault of Zwolle (1440) and from Mersenne's *Harmonie Universelle* (1636), Hellwig supports his observation that bridges tend to be located at one sixth (0.166) of the distance between the base of the belly and the neck.¹³ Lundberg has given $\frac{1}{5.5}$ (0.181) as a commonly occurring proportion within an ambit of $\frac{1}{7}$ (0.142) and $\frac{1}{5}$ (0.200). Of the six Barcelona instruments, the Buechenberg lute has its bridge closest to the base of the belly, being located at 0.161 of the total belly length. The bridge placements on the other instruments are as follows: Unverdorben 0.172; Muler 0.187; Tieffenbrucker 0.188; Sellas 0.193; and the exceptional Oliverius 0.292. In practical terms, however, these differences are minimal. If the ratios of each instrument (except the Oliverius chitarrone) are applied to a standard belly length of, say, 50cm, the distance between the highest and lowest position would be 16mm.

Belly binding: Only the Muler and Unverdorben lutes have no binding. All the other instruments have the type of half bindings described by Lundberg.¹⁴

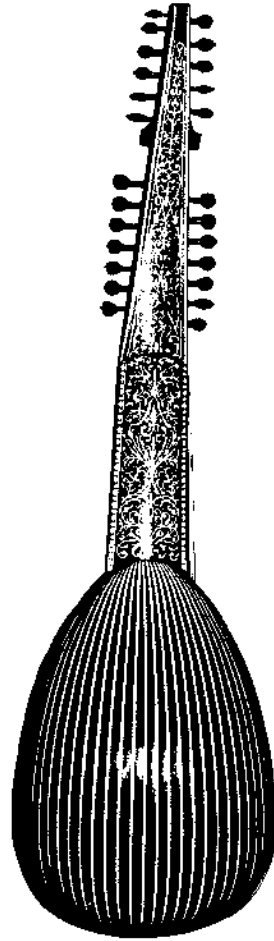
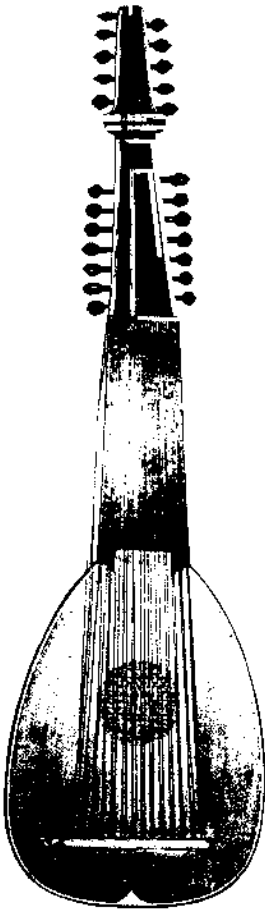
¹¹Hellwig, "On the Construction...", p. 139. See the discussion of the chitarroni by Buechenberg and Graill.

¹²Lundberg, p. 34.

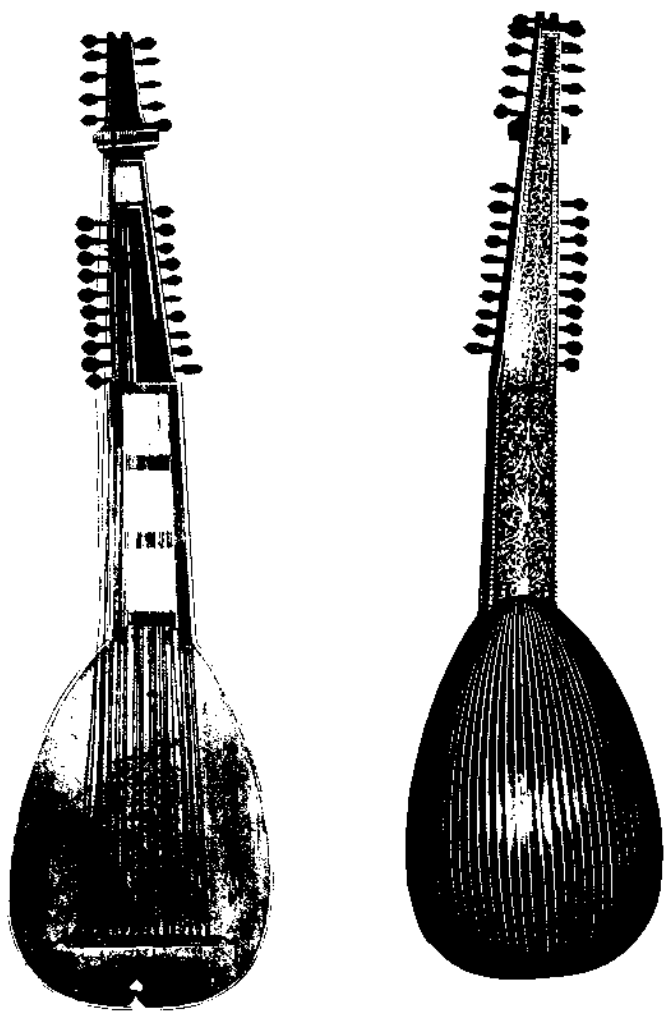
¹³Hellwig, "On the Construction...", pp. 129-130, 135.

¹⁴Lundberg, pp. 34-35.

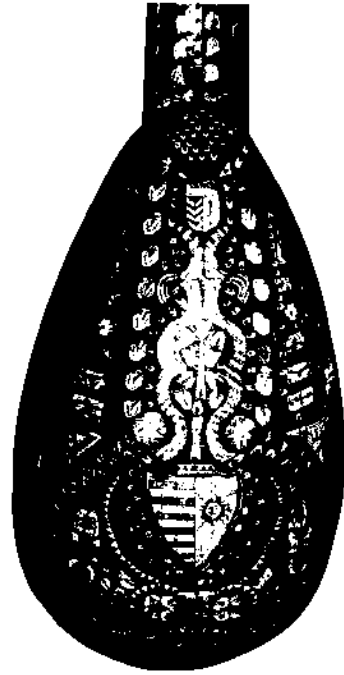
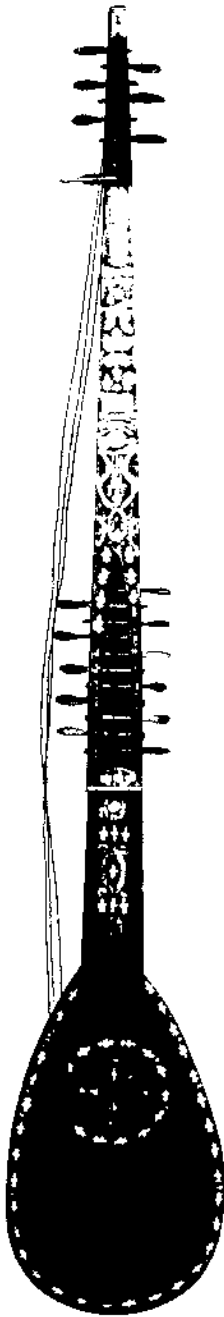
Bowl profile: The depth of the bowls on the three multi-ribbed instruments (Sclias, Tieffenbrucker, and Buechenberg) are all less than half the body width, that is to say, slightly flattened. These two measurements on the other instruments are approximately equal, except for the Muler, the bowl of which is a bit deeper than half-round. Other features specified particularly by Lundberg, including string height at the bridge, string spacing and neck thickness, are all in agreement with the present measurements.



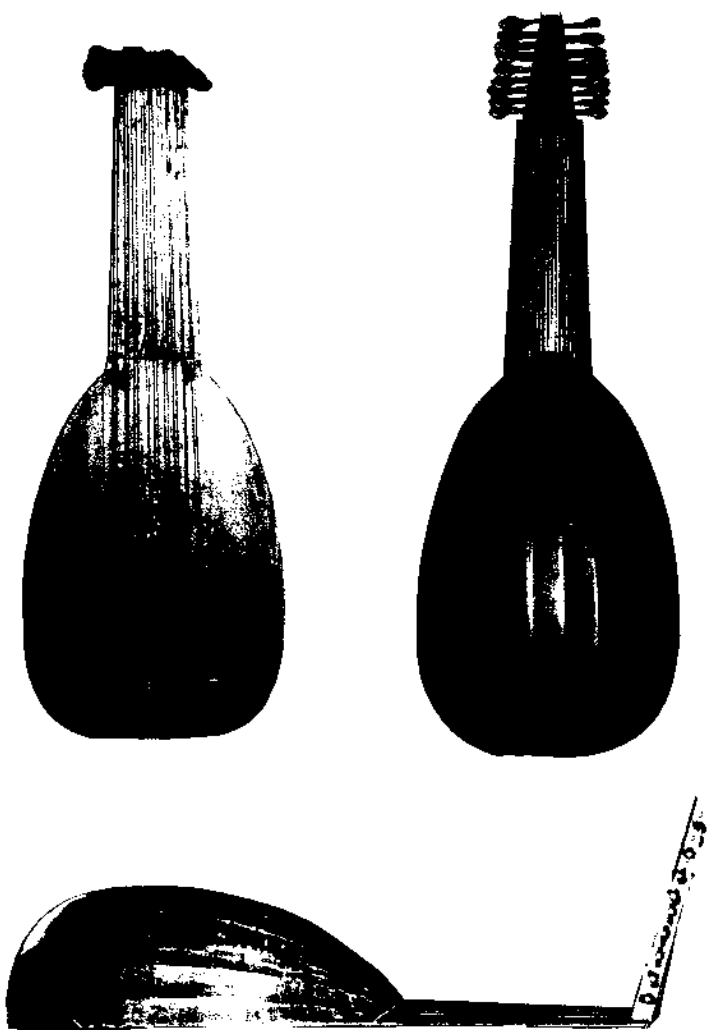
Matteo Sellas (Barcelona 403)



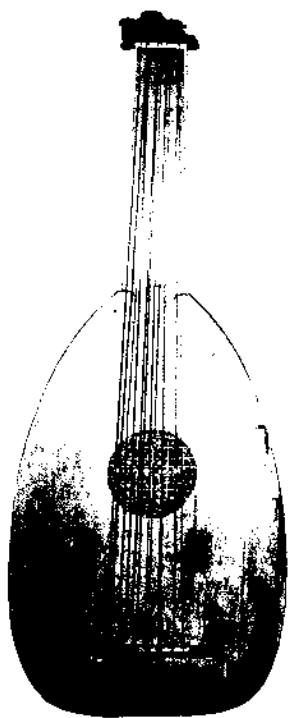
Magno Duiffopruchar (Barcelona 404)



Petrus Oliverius (Barcelona 406)



Hans Hovb Muler (Barcelona 407)



Marx Vnuerdorben (Barcelona 408)

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