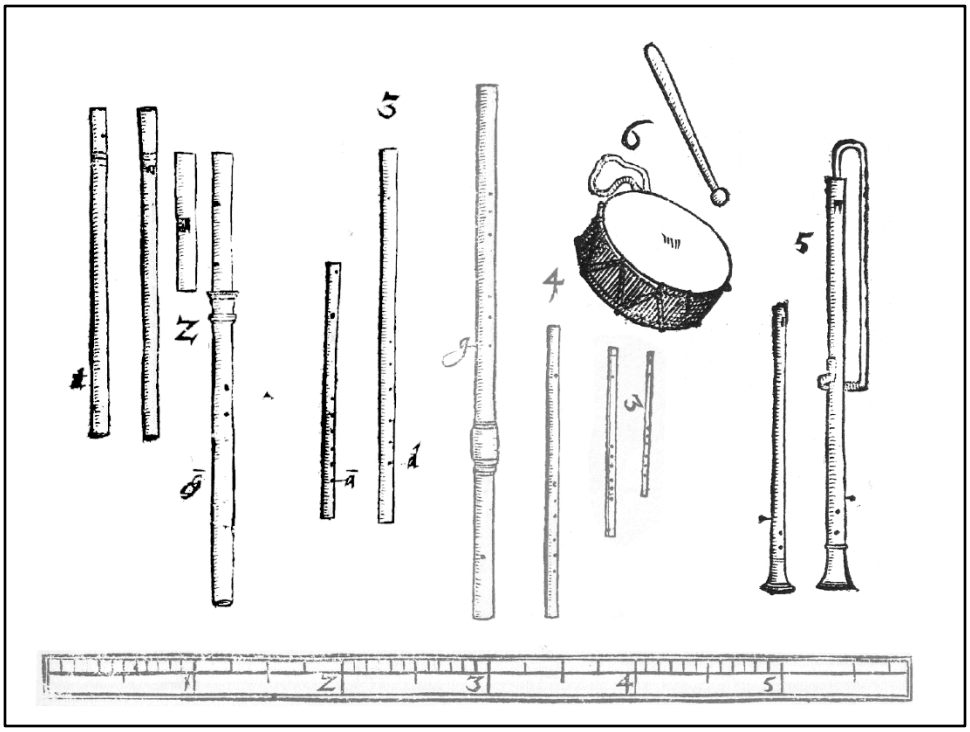
Instruments of the Renaissance

Presented by Aaron Drummond

Refer hoc theatrum ad tomum secundum &c.

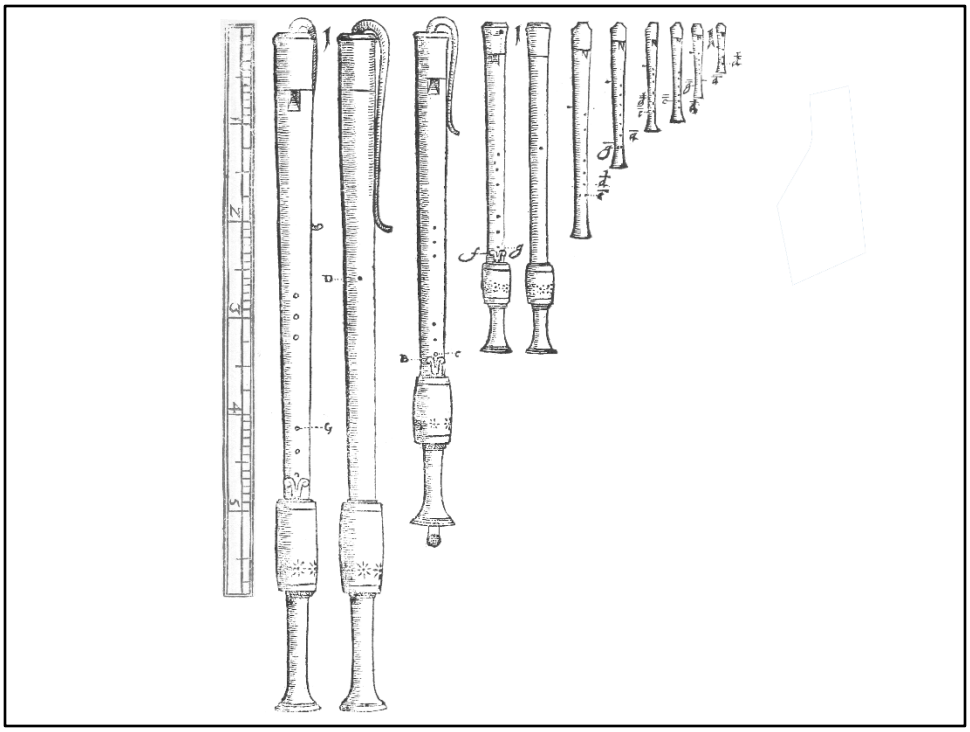


2:Dolzflöts. Basically a flute with a blockflute/whistle head on it.

3 (L): Complete set of transverse flutes (Soprano in A, tenor/alto in D, and bass in G.)– 6 holed, cylindrical bore. Known from antiquity, but not popular in the middle ages. Used from early renaissance to classical era. Modern flute patented in 1847.

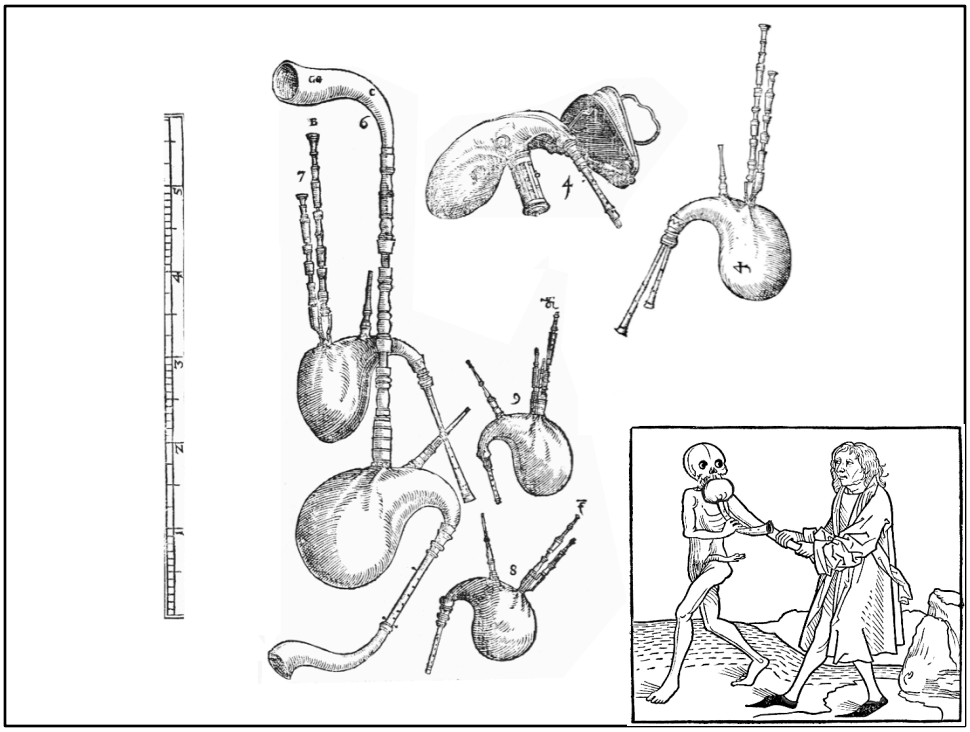
4: Swiss fife. Played with military drum.
3(R):Small Swiss Fifes

6: Tabor – drum played with tabor pipe. Cognate with 'tambourine'
5: Tabor pipe – only 3 holes, played with one hand through harmonic series



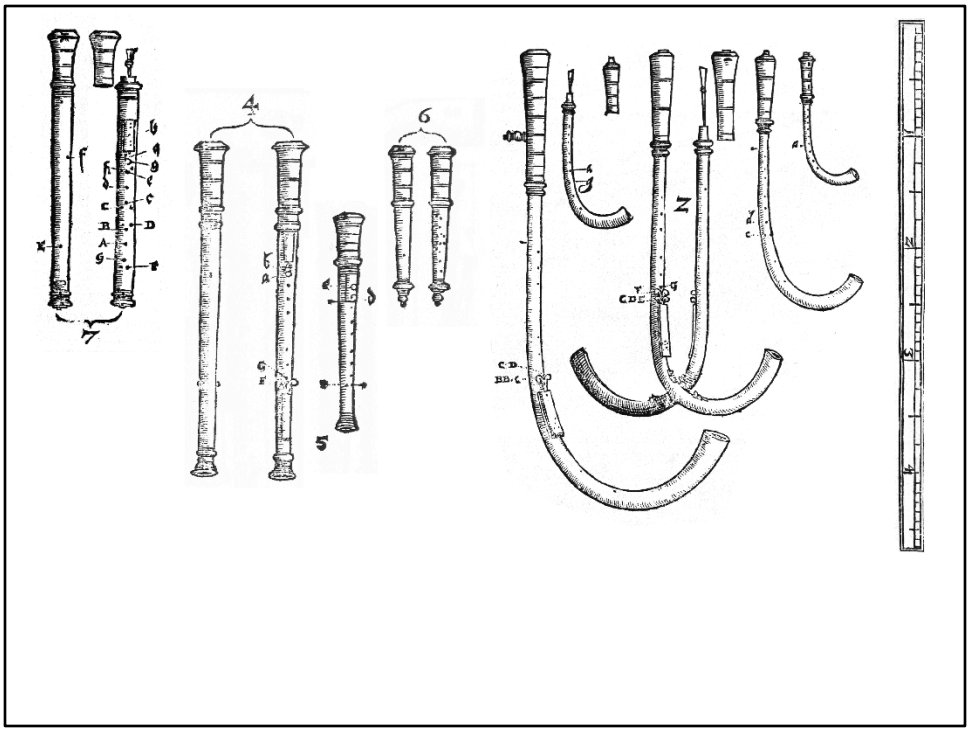
Complete set of recorders. From L to R:Contrabass in E, Great Bass in Bb, Bass in F, Tenor in C, Alto in G, Soprano in C, Soprano in D, Sopranino in G, Garklein in D

Inverted conical bore; 7 holes plus thumb ‘register’ hole. First recorders appear in the 14th century. Baroque recorders have narrower bore, sweeter sound; better upper range but worse lower range. Use declined after the 18th century.



(L to R, top to bottom) 7: Shepherd's Pipe
6: Large Bock
4: Bagpipe with Bellows
9: Dudey
8: Hümmelchen
4(R): Magdeburg Bagpipe – two chanters!
Lower right (not to scale): Death playing a bladder-pipe. From *Heidelberger Totentanz,* c. 1488

Known since medieval times, possibly much older. Bladder-pipe is a droneless bagpipe that probably evolved into capped double reed instruments.

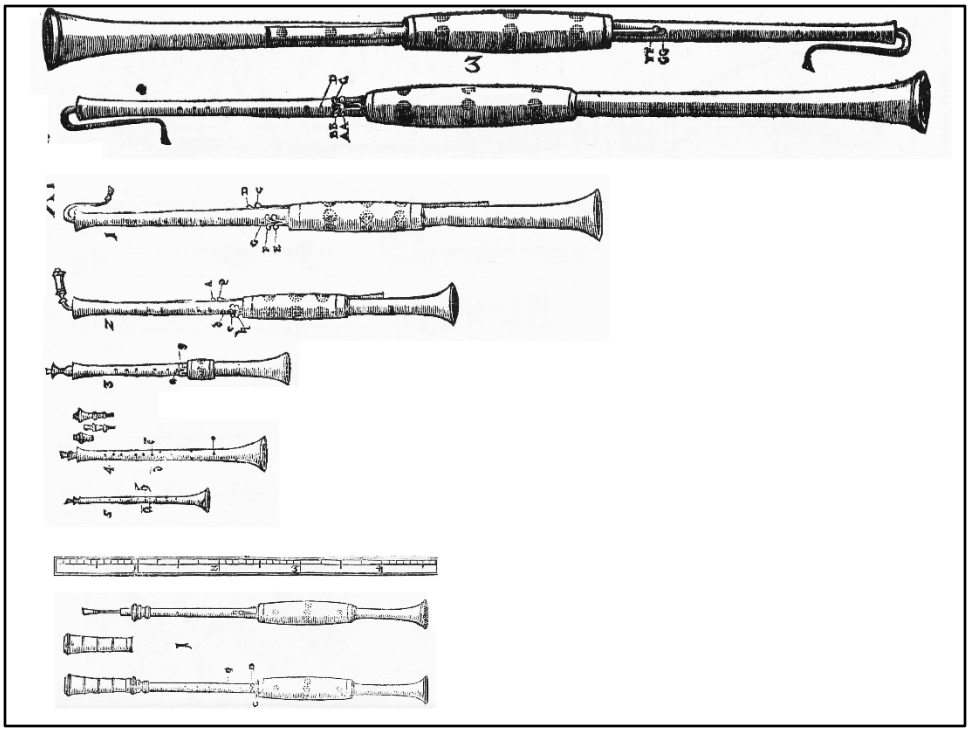


7: Kortholt (or Short Pipe) – Cylindrical double bore; capped reed like crumhorn. No surviving examples, but some reproductions have been attempted.

4: Bass schryari
5: Tenor/alto schryari
6: Descant Schryari
No surviving examples. Internal bore unclear, inverse conical suggested from shape of instrument. Extra fingerholes on descant probably an error.

2:Crumhorn: Great Bass, Bass, Tenor/Alto, Soprano, shown with and without reed caps. Capped reed limits control of pitch and volume. 1 hole underneath; 6 on top plus two keys. Cylindrical bore. Fingering similar to recorder. The curve does not affect the tone. Cornamuse (not pictured) is straight and the bottom is covered over and perforated; sound softer and sweeter than crumhorns.

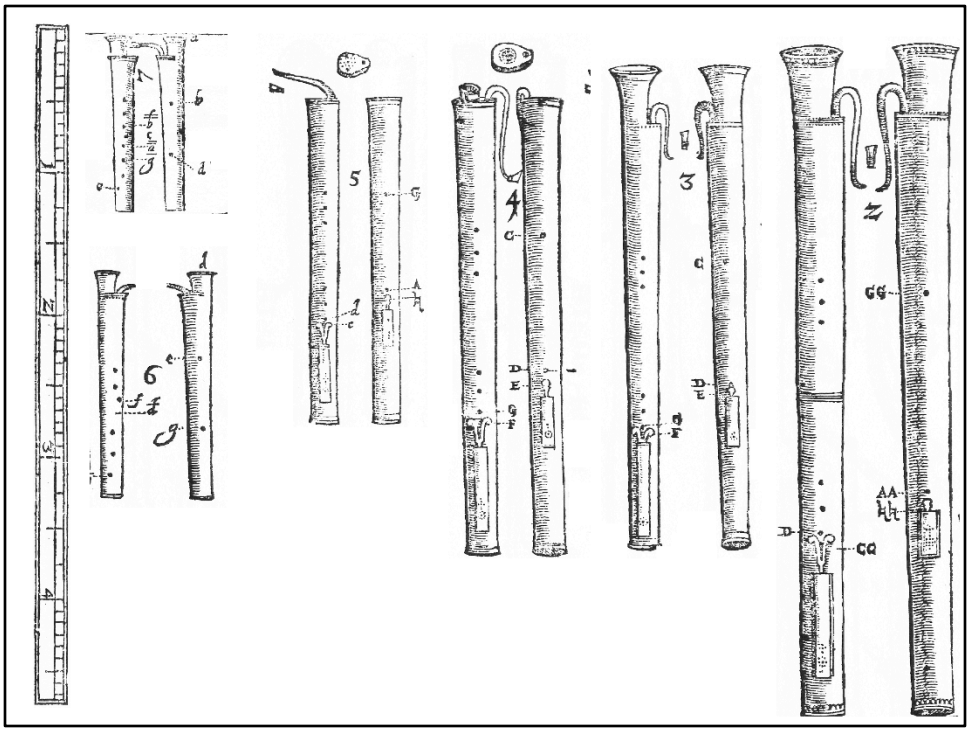
Rauschpfeife (not shown): another capped double reed, but with a conical bore, which makes the instrument louder and allows overblowing an octave.



3(top): Large double Quint-Pommer (great bass shawm),
1(top): Bass shawm.
2. Basset or Tenor Shawm. Extra keys at the bottom allow playing bass parts.
3(middle): Descant Shawm.
5. Small Shawm.
1(bottom):"Nicolo Bassett". Many errors in drawing. Should have only one key, drafter seems to have kept crumhorn head.

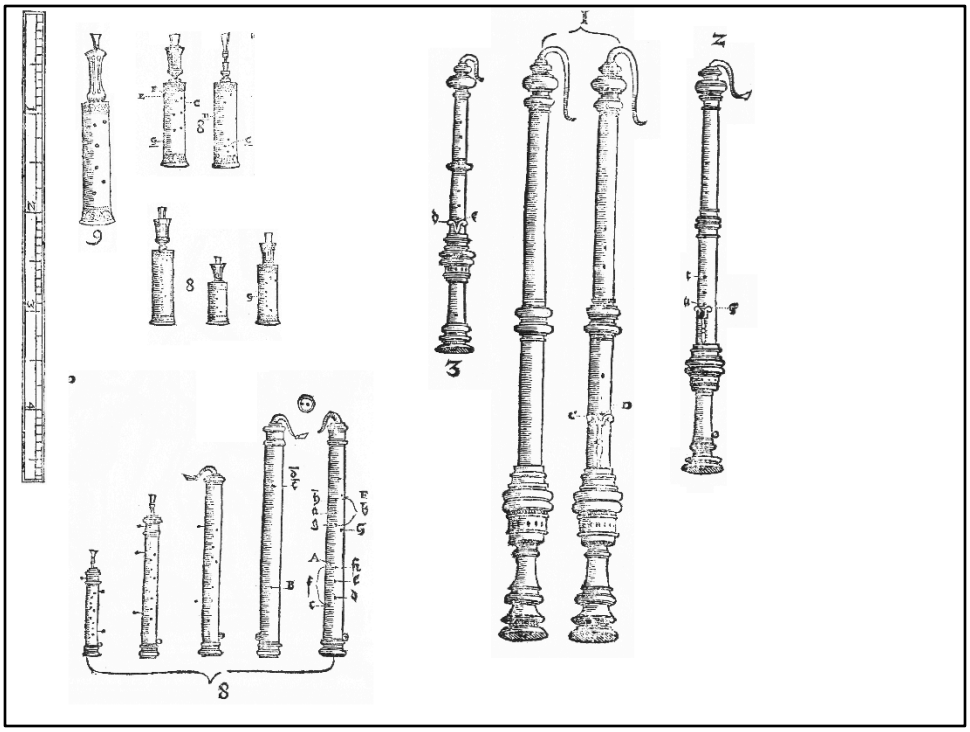
Appeared in the late 13th century, probably imported to Europe from the Arab world. Lips supported by "piroutte" - a small cylindrical piece of wood covering part of the reed - so still limited control of dynamics. Gradually evolved into the modern oboe.

Different sizes pitched a fifth apart. Praetorius talks about difficulty of playing many sizes together in consort because of this and suggests fifths and fourths instead (as in modern recorders.)



7: Descant or Soprano to the Chorist Dulcian in A
6: Alto in D
5: Single Kortholt. Tenor to the Chorist Dulcian,
4: Closed Chorist Dulcian,
3: Open Chorist Dulcian,
2: Double Dulcian, down to G

Dulcian, Curtal, Faggott, Bassoon all refer to the same instrument. Double conical bore makes it possible to play lower notes without an unwieldy instrument. Played without pirouette, so more control over dynamics. Gradually evolved into modern bassoon.

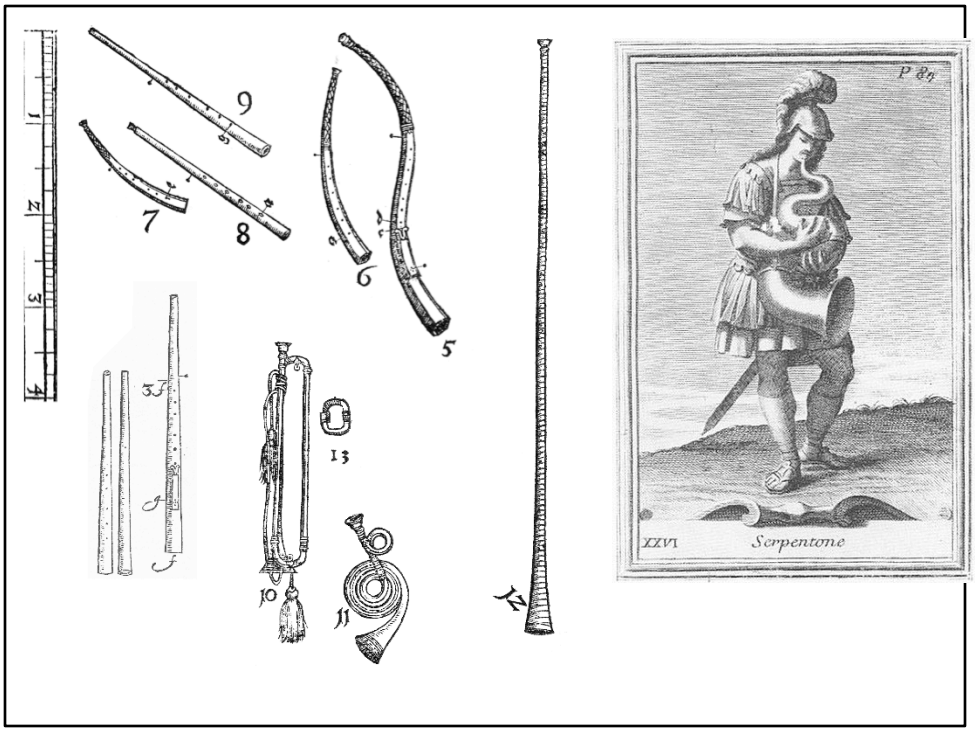


9: Large Rackett, as low as the very large Bass Bombard, CC, in 16-foot pitch.
8: (top) Set of Racketts.

Folding the bore back once wasn't enough.. So the Rackett has 9 parallel bores (cylindrical though, not conical.) Often used as a bass to other instruments; Praetorius thought there was "no great beauty" about the effect of a rackett consort... Which means they were sometimes played that way as well.

8 (bottom): Complete set of Sordunes. Conical double bore, which makes it sound an octave below the dulcian of equivalent size. No surviving examples.

3: Descant Bassanello.
1: Bass bassanello.
2: Tenor/alto bassanello
No surviving examples. Allegedly invented by Johann Bassano. Rather ornate for a Renaissance instrument. Supposedly sounds like a subdued dulcian or shawm.



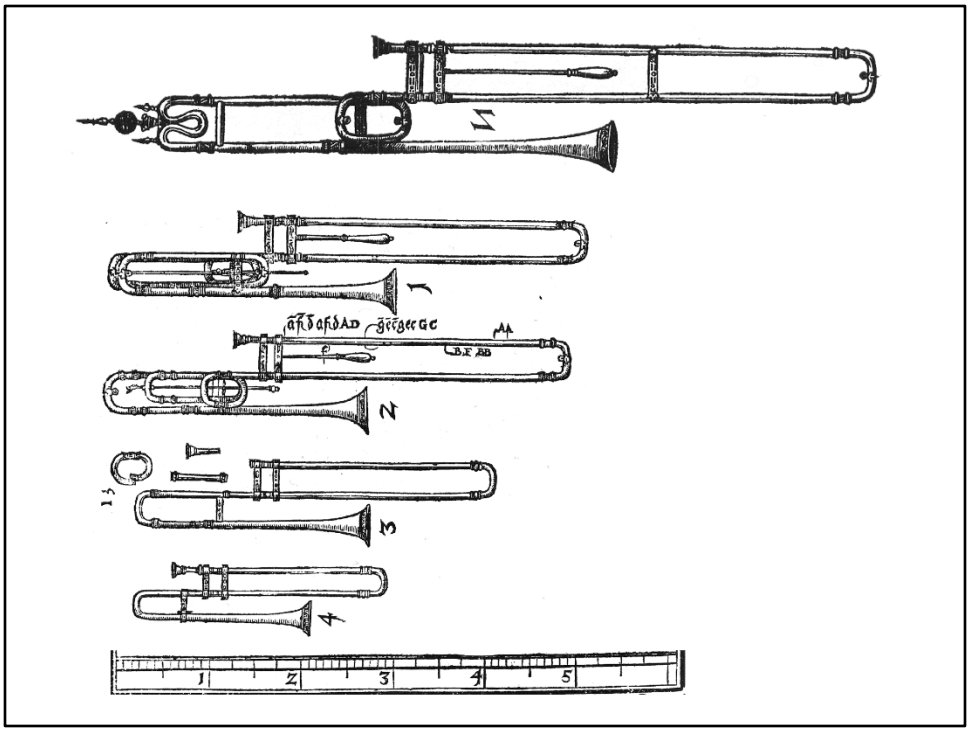
9: Soft cornett (or Zink)
8: Straight cornett with mouthpiece
7: Small descant Cornett, a fifth higher.
3: Mute cornetti
6: Common cornet
5: Large tenor cornet (or Lizard)

Brass-style mouthpiece, but made of ivory or wood and has finger holes. Often considered interchangable with the violin.

10: Trumpet
13: Whole-tone crook
11: Hunting trumpet
12: Wooden trumpet

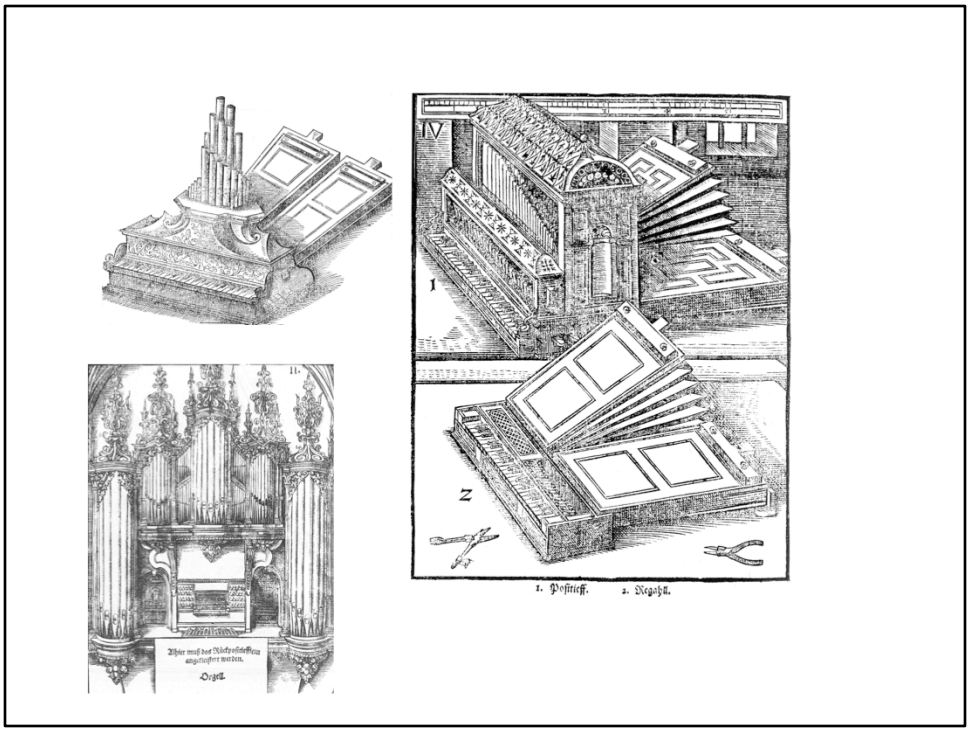
Dates to at least 1500 BC. Valve trumpet not invented until the 1800s.

Right (not to scale): Serpent. Invented in 1590 as a bass to the cornett family. Popular until the 19th century when it was replaced by the ophiclede and eventually the tuba. Unusual fingering.



Top: Octave-Sackbut
1,2: Bass sackbut
3: Ordinary Sackbut
4: Alto sackbut

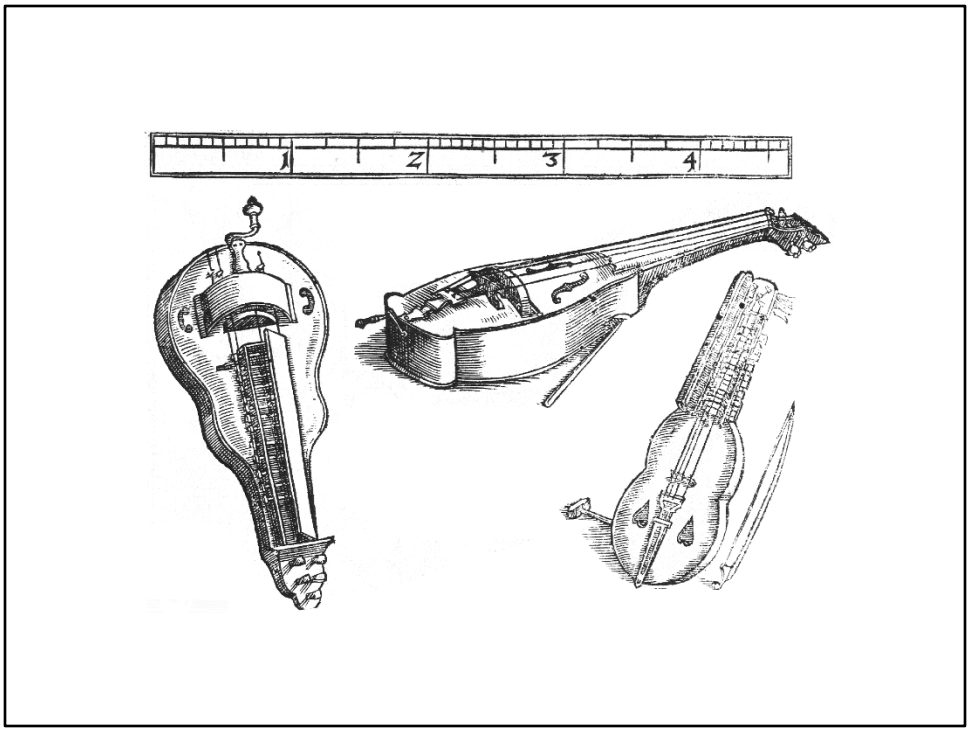
Also known in period as ‘trombone’. Relatively minor modifications to evolve into modern trombone: increase in bore & bell size.



Upper Left: Old Positive with uniform pipes and three different registers, such that it gives three distinct voicings, on two-foot, one-and-a-half and one foot pitch
Lower Left: Church organ
Right: 1: Positive; 2: Regal

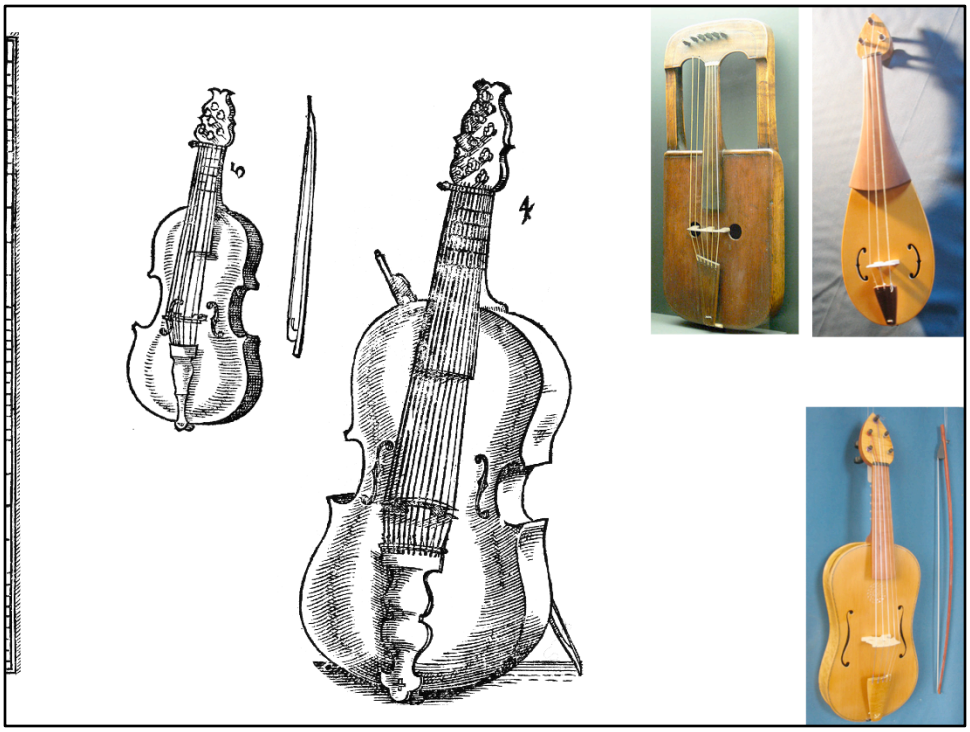
Organ principle dates from antiquity, driven by water pumps.
Bellows appeared in 6th or 7th century; chromatic key layouts by 1361. Extra stops invented by 1450.

Regal (lower right) was a reed organ;used reeds in pipes rather than free reeds, so not really a direct ancestor of squeezeboxes.



Left, center: hurdy gurdies. Only fit for peasants and traipsing old women. Originated some time prior to the 11th century. Mostly died out in the 17th century. One melody string, usually two or three drones. Keys press 'tangents' to the string; player turns a wheel that bows the string.

Right: keyed fiddle. Survives as Scandinavian nyckelharpa. Similar principle to hurdy-gurdy, but bowed directly.

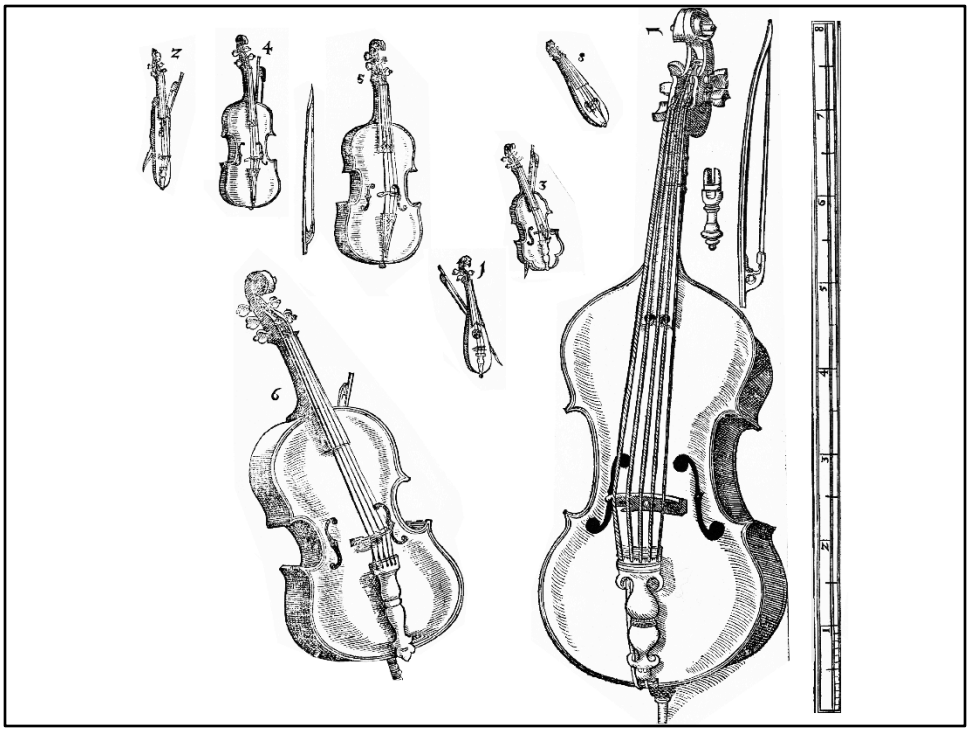


5: Lyra da Braccio;
“Used similarly to a cittern for three-part pieces and other compositions”.
4: Lyra da Gamba, or Lirone
“Capable of playing any music at all”. As many as 16 strings.
Lyra family had flat bridge and frets to facilitate playing triple & quadruple stops; additional drone strings not on the fingerboard. (similar to crwth.) "used by Italian poet-musicians in court in the 15th and 16th centuries to accompany their improvised recitations of lyric and narrative poetry"; rarely if ever played now.

Crwth (Top right) – 6 strings, two drones off the fingerboard. Originally plucked; bow added in 11th C, fingerboard added in 13th C. Flattened bridge.

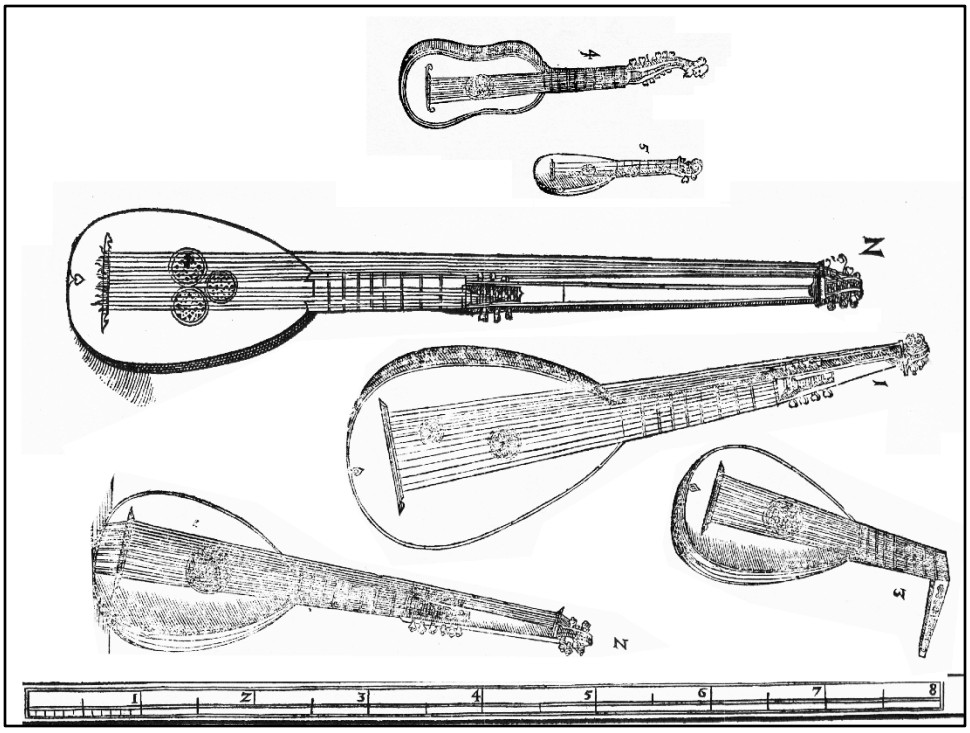
Rebec (Top right) – Early proto-violin. 3 strings; Bowed, unfretted. Dates from 14th century; developed from Arabic ‘rebab’.

Vielle (Bottom right) – 5 strings, one used as a drone sometimes. Evolved into Lyra da Braccio.



2: Little pochette fiddles, an octave higher (Than standard violin)
4: Standard descant violin (=violin)
5: Tenor violin (= viola)
6: Bass violin (= cello. An intermediate size an octave below a violin also existed.)
1(center): Pochette
3: Descant violin a fourth higher (than standard violin – an octave above viola)
8: Pochette (three strings, octave above violin w/ no E string.)
1(R): Large Contrabass violin ((5 strings tuned in 5ths – like cello with additional bottom F string.)

Basic shape in place by the mid 16th century, but changes up to Classical period (strengthened bass bar, tilted fingerboard to produce more volume, slightly lengthen neck & fingerboard)

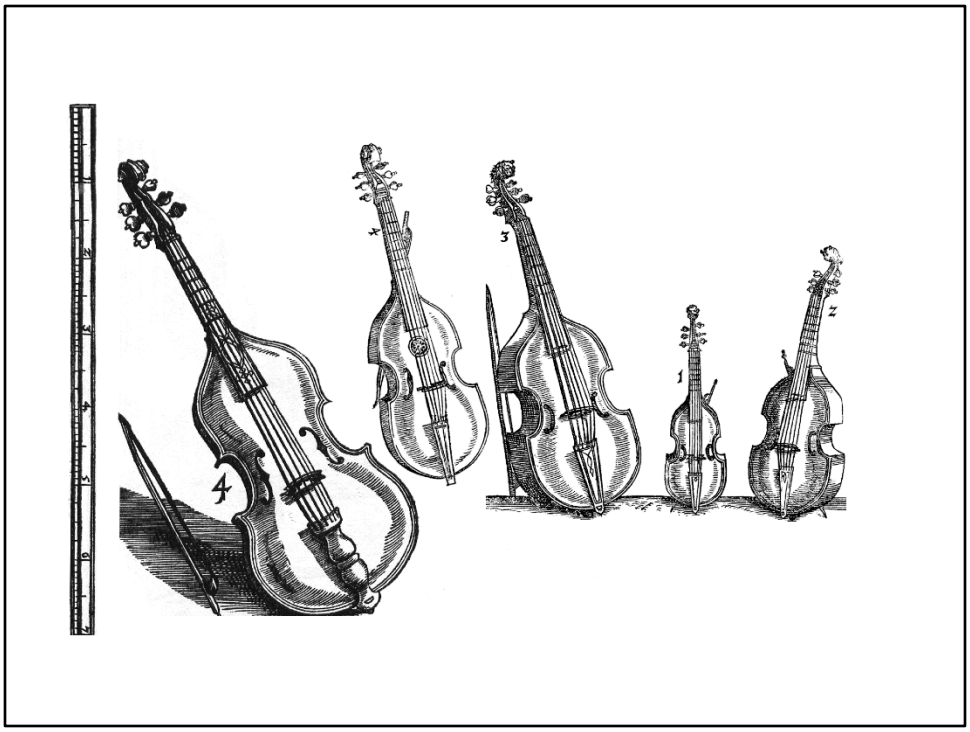


4: Quintern/Chiterna/Gittern. = Vihuela? Flat backed, same tuning as lute. Developed into modern guitar. Also developed into 'vihuela di arco', a bowed version, which evolved into the viol.

5: Mandora – Small lute with 4 strings,apparently popular in France. Often played with a quill.

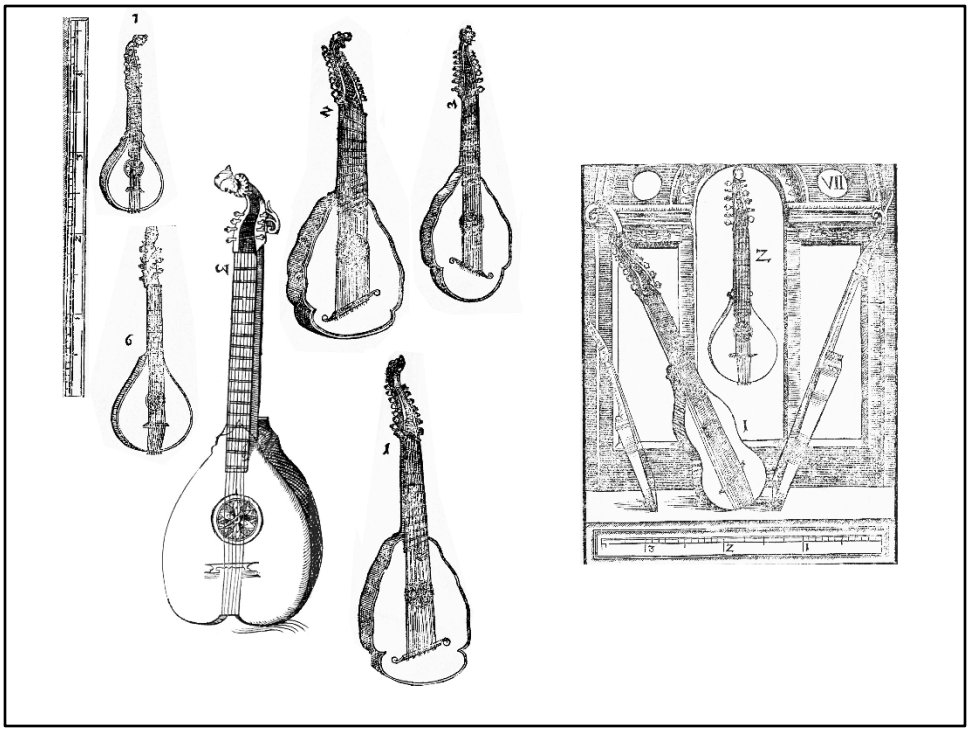
2(Center): Long Roman Theorbo (or Chitarrone).
1: Paduan theorbo.
2(Bottom): Lute with pegs: or theorbate lute.
3:choir-lute

Developed from the Arabic oud (plucked, unfretted.) starting in the 9th century. Medieval lutes had 4 or 5 courses and were plucked with a quill. Renaissance lutes typically had 6 courses and were plucked with the fingertips to adapt to the polyphonic style. More and more courses added as bass strings during the Renaissance & Baroque. Frets were made of gut & tied to the neck.



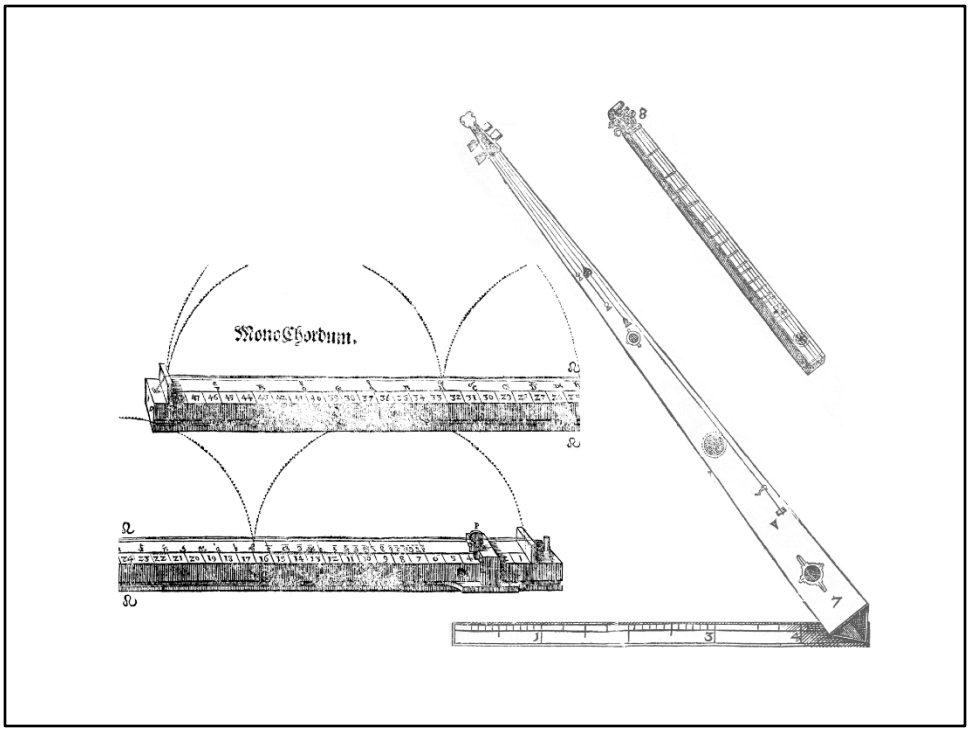
4(L): Violone - large bass Viol da Gamba
4(center): Viol Bastarda.
3,1,2: Viola da Gamba –Small bass, soprano, tenor/alto.

Evolved from lute via vihuela di arco. Bowed & fretted; 6 strings, typically tuned like a lute with 4ths around a central 3rd. Construction quite different from violin family: flat backed, shallower ribs, no bass bar or (usually) sound post. Often played in consort by amateurs.



7: Small English Cittern
6: 6-stringed Choir-Cittern
3: Large six-course Cittern.
2: Orphareon
3(center): Penorcon
1(center bottom) Bandora.
2(R): Six-stringed Cittern.
1(R): Twelve-stringed Dominici Cittern.

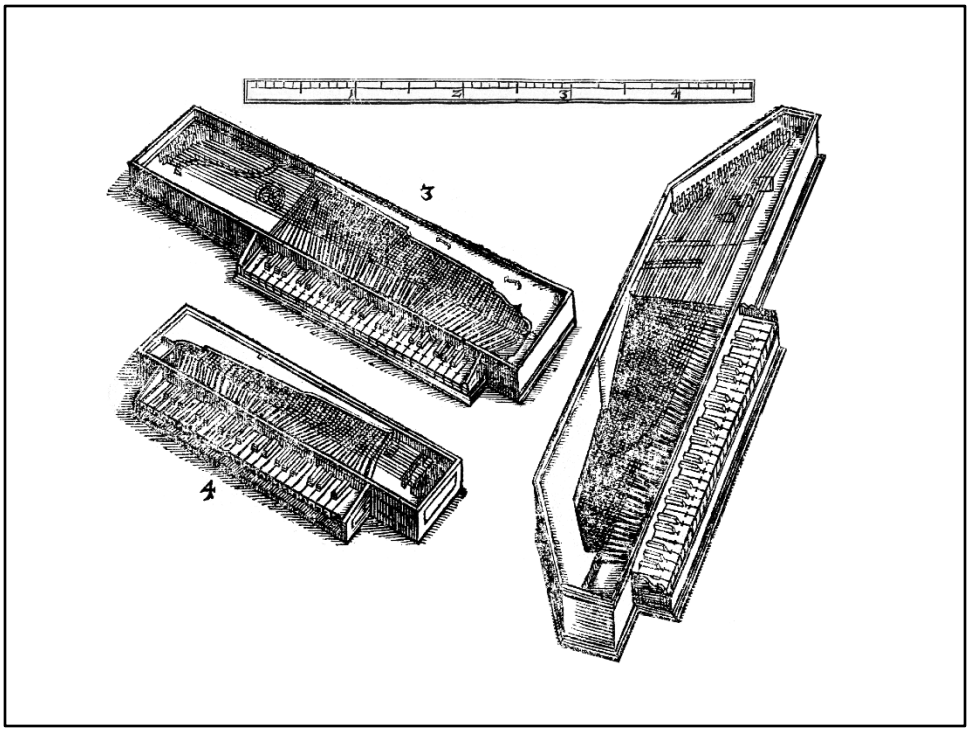
Flat-backed, metal strung. Inexpensive and popular with the people. Unusual reentrant tuning. Bandora, Penorcon and Orphaeron were larger members of the family also mainly popular in England.



Left: monochord – Movable bridges allow demonstrations of relationships between pitches. More of an experimental device than a musical instrument.

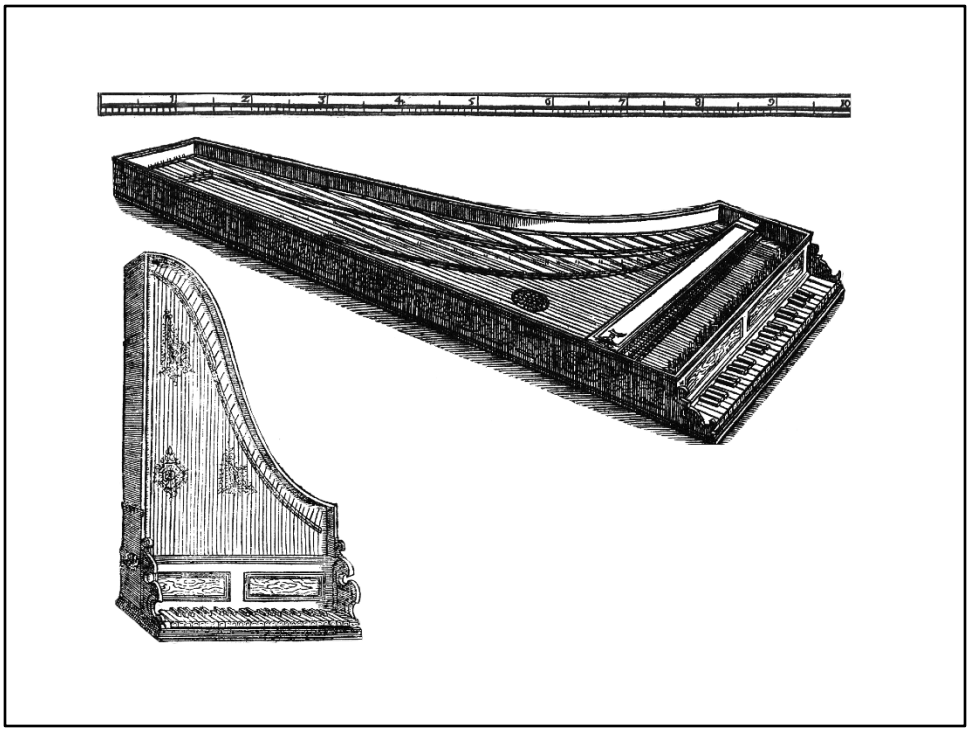
Center: Tromba Marina (Marine Trumpet, = waterspout in modern italian). Played by lightly touching one finger to a string and bowing to produce a harmonic. Bridge was uneven so that it would rattle against the instrument. Extra strings were probably sympathetic although Praetorius played them as drones.

Right: Scheitholt – “From a musician’s point of view, this instrument is really a piece of junk.” The same idea as an Appalachian dulcimer – one melody string, several drones, strummed at the bottom.



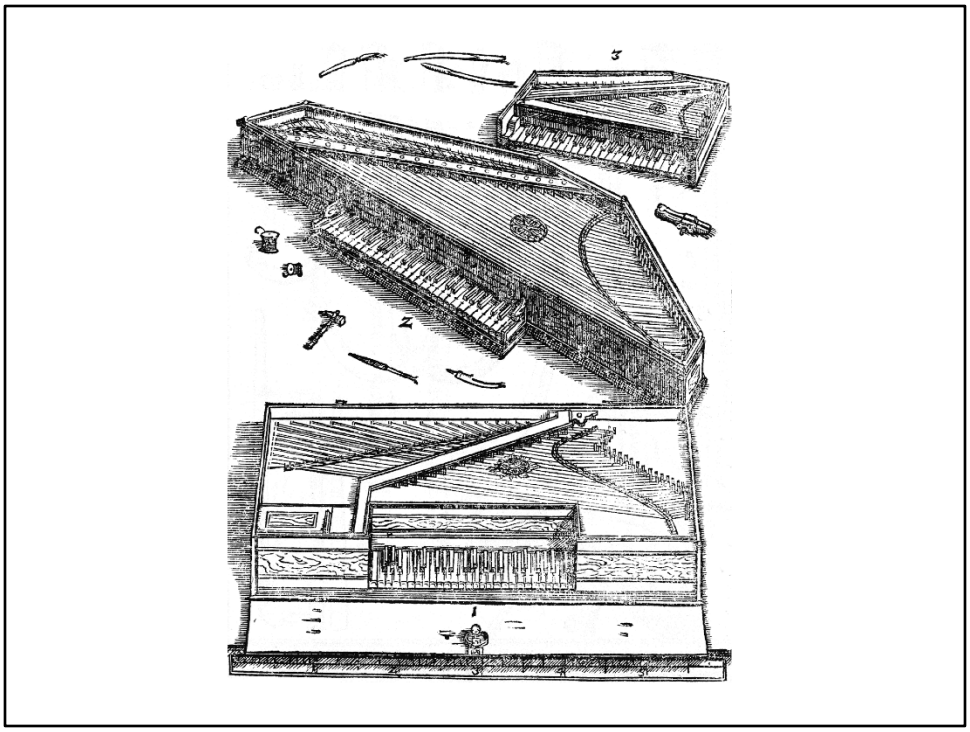
3: Common clavichord.
4:Octave clavichord.
R: Clavichord in the Italian measure.

Invented in the early 14th century. Hammer hits the strings rather than being plucked. Very quiet, but much more expressive control than other keyboard instruments.



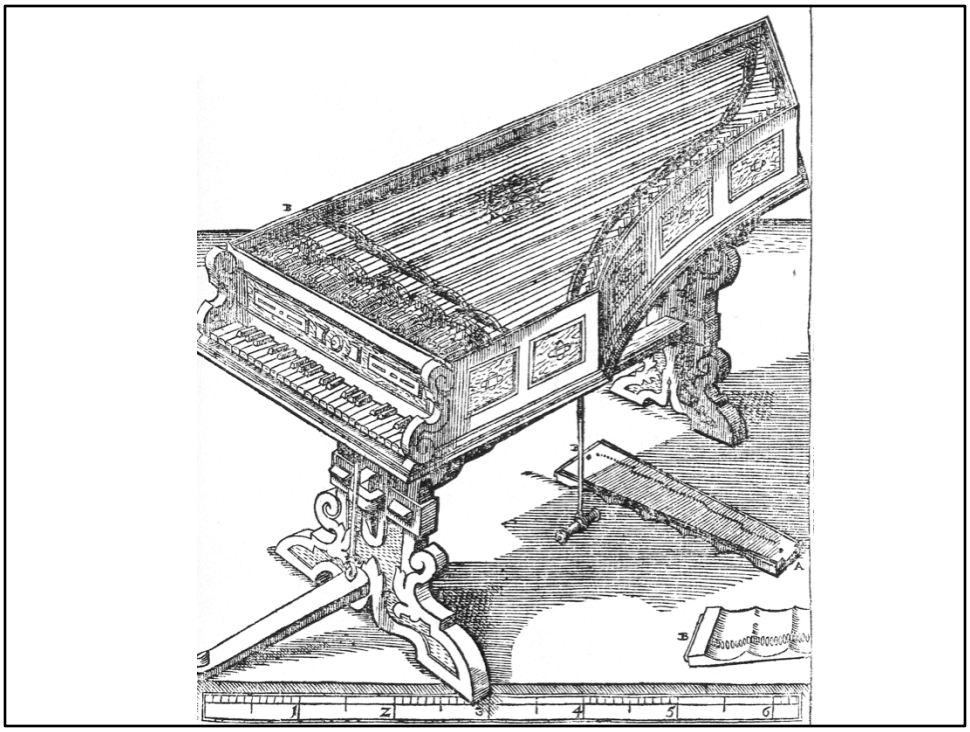
Top: Harpsichord (or Clavicembalo), tuned a fourth below Choral Pitch.
Bottom: Clavicyther

Probably invented in the late Middle Ages, definitely by 1400. Depressing the key plucks the string. In a harpsichord, the keys are parallel to the strings. The Clavicyther is along the same principle as the upright piano.



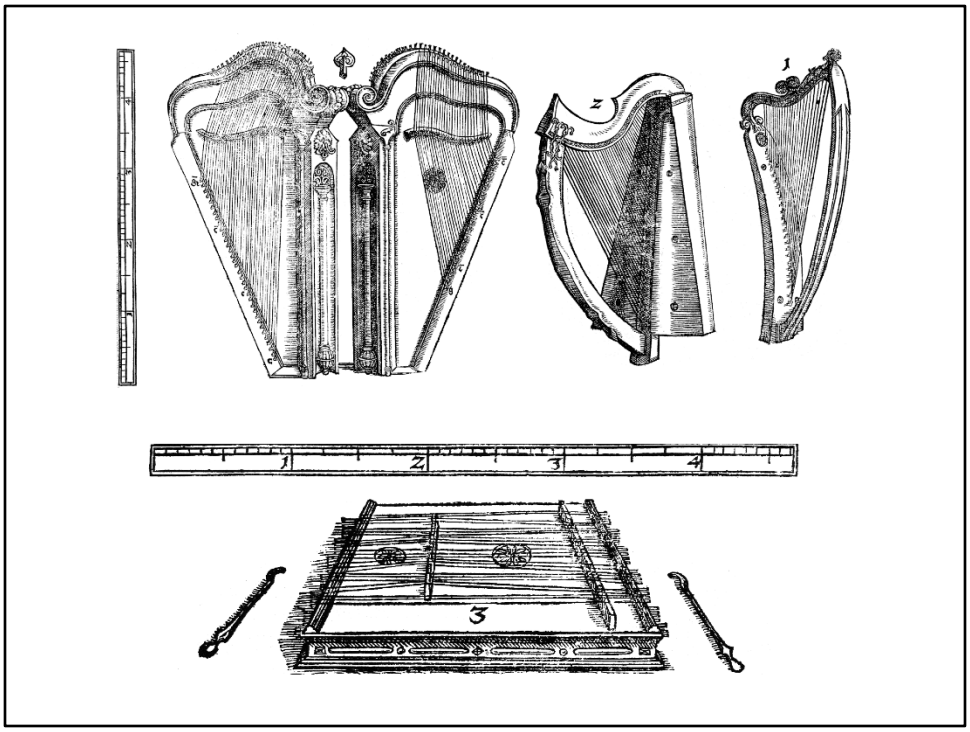
3. Little Octave Virginal
1, 2: spinets or virginals (commonly called 'Instruments') in the correct choir tone.

Developed about the same time as the harpsichord. Keys are perpindicular to strings.



Nuremberg Geigenwerk (Lit, ‘Violin-mechanism’)

Invented in 1575, although Leonardo da Vinci had the idea in 1488. Essentially a hybrid of the hurdy-gurdy and harpsichord. Sustain and dynamic control was possible by varying pressure of the key! Solves the same problems as the piano (not invented until 1700), but doesn’t seem to have caught on..



Top L: large double harp 2: Irish harp with brass strings 1: Common harp
Bottom: hammered dulcimer

Sources

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Acknowledgments

Thanks to Isabella Dwyre (M/K/A Georgia Papadakis) for assistance in preparing this handout.