

airborne extended instruments, ranges etc

harp:

- ! range: concert harp with 47 strings from Contra C (C7) till G0 (g'''''), tuned in C flat (7 pedals, one tone per pedal).
- ! extended techniques:
 - o plucking/pull with coins, credit-cards, bottleneck, liquor-glass, etc
 - o superballs on strings and corpus,
 - o preparation of the strings with paper, felt etc.
 - o play with bow or string...
 - o <http://sites.siba.fi/fi/web/harponotation/manual/general-notation-remarks>
 - o <https://www.youtube.com/watch?v=7pGbl69kCGQ>

flutes:

- ! normal C-flute (with annular valves)
- ! piccolo
- ! Altflute (in G)
- ! Bassflute
- ! flute ranges:
 - o C-flute: small B- d4 (there are fingerings till F4, but are very difficult schwer...possible as single notes)
 - o piccolo in C: d2-c5/d5 (c5 and d5 very difficult and not in tune)
 - o Altflute in G: small g- g3 (for intonation see Bassflute)
 - o Bassflute in C: great B- d3 (in the upper register, from e flat 2, intonation is difficult, but works)

Multiphonic-fingerings: see the books by Carin Levine.

harpsichord:

- ! french harpsichord, copy; 2 manuals
- ! range: when tuned in 443 Hz almost 5 oktaves (ContraF-e3)
- ! extended playing-techniques:
 - o various combinations of registering:
 - o manual below: 8' ; 8'4' ; 4' , with linkage („Koppel“): 8'8'4'

muting possible

- o upper manual: 8'
- o lute register

- no pedals, registering only by hand
- light preparations on strings possible (paper, glass, metal...)

e.g.: <https://www.youtube.com/watch?v=ZtO57NwgXuk>

recorders/Paetzold:

general:

- ! for Paetzold-sounds/multiphonics: sound-catalogue by Antonio Politano: prime project:

<http://www.primeresearch.ch>

[http://www.primeresearch.ch/index.php?](http://www.primeresearch.ch/index.php?option=com_content&view=article&id=76&Itemid=258&lang=en)

[option=com_content&view=article&id=76&Itemid=258&lang=en](http://www.primeresearch.ch/index.php?option=com_content&view=article&id=76&Itemid=258&lang=en)

- ! multiphonic-list for alto recorders by Michael Vetter – flauto acerbo
- ! for multiphonic-choice on all instruments ask for Caroline´s list:-)

videos by Antonio Politano: <https://www.youtube.com/watch?v=uBr3Vmy5EdI>

<https://www.youtube.com/watch?v=6kPalhKwxbw>

instruments and their range:

- ! Paetzold in F:
 - range: great F- as1 (singular notes further possible till c2 – then not virtuoso)
 - many keys
- ! Paetzold in C:
 - range: small c- e flat2 (singular notes further possible till g2 – then not virtuoso)

many keys

- ! Paetzold in F:
 - range: small f – a flat 2 (singular notes further possible till c3 – then not virtuoso)
 - many keys
- ! basset-recorder (in 442 and 415)
 - range: small f-a flat 2 (singular notes further possible till c3 – then not virtuoso)
 - 2 keys
- ! Tenor-recorder:
 - range: c1- e flat 3 (without big problems further till g 3)
 - only one key at the bottom (c/c sharp)

Voice-flute in D (in 415):

range: d1 – f 3, no keys

- ! alto-recorder in F (in 442 and 415)
 - range: f1- a flat 3 (further till c4)
 - no keys
- ! alto-recorder in G (Renaissance-construction, in 440 and 466)
 - range: g1- b flat 4

conical, fuller sound (richer overtones), no keys, „ethno“, exact tuning in equally tempered system difficult, good for microtonality

! soprano-recorder in C (in 442 and 415)

- range: c2 - e flat 4 (further till g4, but destroys your ears, hardly not possible in piano), is notated one octave lower with octave-sign

soprano-recorder in B flat (in 415), same range as above

! Sopranino in F (in 440)

- range: f 2- a flat 4 (further till c5, remark see soprano-recorder)

! „gar-klein“-recorder

- range: c3-a4 (very small instrument, Renaissance-construction, not virtuoso, has some nice sounds)

! Renaissance-Instruments:

fuller sound, conical, but not virtuoso in high notes

- in 440 Hertz:

- Tenor: c1- a2
- Alto in G: g1- b4
- Soprano, see above

- in 465 Hertz =half-tone above 440 Hertz

Consort (copies of Kunsthistorisches Museum Vienna)

- C-Bass: small c-a1,
- F-Basset: small f-d 2
- G-Basset: small g-e''
- Tenor: c1-a2
- F-Alto: f1-d3
- G-Alto see above
- Soprano: c2-a3

Alt in 392, viele 415-Altflöten und auch Basset in 415, forthflute und Sopran in 415