

Notes:

A piano is extensively prepared so that all the sounds it produces during a performance are contained in a range of less than an octave. Three specific found pieces from the repertoire are then played on the instrument.

Piano reductions is a piece in which I consider the spatiality of the piano. As an intermediary between the composer's sonic imagination and the instrumental ensembles for which his scores were intended, the piano has defined for several centuries the Western musical space as much in its external limits as in its internal division into equally distributed discrete pitches. By excluding a good proportion of possible timbres and nuances of instruments or voices, it offered the possibility of representing music as a map represents its territory.

The ability to create "musical images" resulted in an increased circulation of music in geographical space (as well as in time.) Those who could not attend performances and wanted to relive orchestral or chamber concerts could now hear or play reduced versions (and perhaps fill in what was missing with their imagination).

Abusing the semantic shift from the Latin term *digitus* (finger) to the English *digit*, one could even say that the piano reduction was a "digitalization" of music before its time. It has indeed enabled a form of virtualization of the works (as a general condition of all arrangements) via standardized and mass produced interfaces that operate a uniform discretization of continuous phenomena.

Piano Reductions consists of the opposite use of the piano. On the one hand the sonic space of the instrument is somehow folded on itself. The ordered series of equal and equidistant sounds is "reduced" and becomes an interweaving of very close untempered pitches with diverse qualities that ultimately consists of a potential territory within the piano. It is however an unstable territory and "quasi-"site-specific that cannot be unconditionally transmitted from piano to piano, the original preparation not being exactly reproducible due to the materials used or the changing architecture of the various piano brands.

The cartographic capacity of the piano is thus lost and the cardinal points of its interface: left-right / up-down are no longer relevant. In order to witness this change, three pieces from the repertoire proposing a different conception of the " pianistic space " are played. Satie's work is a simple geometric illustration of architectural arches on the staff. Bach's fugue is an example of the historical exploration of the tonal space offered by the tempered piano. And finally, Chopin's prelude highlights the question of the depth of the piano, notably through the specific use of the pedal and the "third hand illusion".

Pieces to be played on the prepared piano:

- Satie, Ogive N°2
- Bach, BWV 878 (fugue only)
- Chopin, Prélude op. 28 n°5 in D

Material needed:

- erasers cut into small sticks
- clothespins
- blu tack
- fishing sinkers¹
- metal screws²


¹ Fishing weights must be able to fit on the side where the clothespins do not normally grab.

² The metal screws must be able to enter the strings of the piano without damage and create non-harmonic pitches.

Preparation instructions:


important: in order to prepare the piano without damaging it, the sustain pedal should be pressed for the whole duration of the process.

eraser:


- notation: diamond notehead with indications of microtonal deviation and harmonic number 
- Eraser sticks are put between the strings. A clothespin is then fixated on the two sticks (fig. 1). A fishing sinker is not necessary for pitches produced by a 3-string group.

- For the 2-string pitches, a larger piece of eraser is inserted between the strings. A clothespin is attached to the piece of eraser. Another clothespin is inserted on top of this one in which a fishing sinker has been placed. Both clothespins can be taped together if necessary. (fig. 2)


screws:

- notation: "diamond-cluster notehead" and screw sign on top 
- Two screws are inserted between the strings at the same place. They must produce a pitch between A5 and E6 (not necessarily tempered). To reduce as much as possible the secondary pitches created by the screws, a system like the one used for two-string pitches can be used. (fig. 3)

blu tack:

- notation: crossed notehead and dampening sign on top 
- Pitches that are in the sounding range without the necessary preparation are dampened slightly with blu tack right next to the bridge. (fig. 4)

tape: (optional)

- notation: cross notehead and damp sign on top 
- Lightly adhesive tape can be used to completely dampen the strings beyond the necessary range for the performance of the piece to prevent them from sounding by mistake.

additional possibilities of dampening the fundamentals:

- The more massive the objects placed between the strings, the less one hears their fundamental note. It is recommended to try as much as possible to bind the different preparations either to each other or to the frame of the piano (with tape and/or blu tack) for maximal sound absorbtion. (fig. 5, 6, 7) It also sometimes prevents buzzing between the different objects (fig. 7)

fig. 1



fig. 2



fig. 3

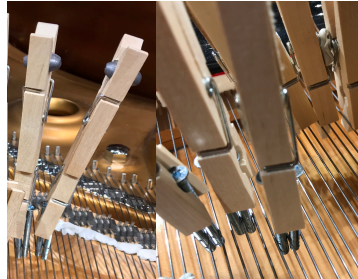


fig. 7



fig. 4



fig. 5



fig. 6



Piano reductions I, II, III : preparation chart
(preparation time: ~2 hrs)

R.Belfiore, 2021

(eraser)

(sound)

(key)

+0 ct VIII

-12 ct XV

-31 ct XIV

+41 ct XIII

-31 ct XIV

+2 ct XII

-49 ct XI

-49 ct XI

-14 ct X

+4 ct IX

+4 ct IX

+4 ct IX

-31 ct VII

-31 ct VII

-31 ct VII

+2 ct VI

+2 ct VI

+2 ct VI

-14 ct V

-14 ct V

-14 ct V

-14 ct V

+0 ct IV

+0 ct IV

+2 ct III

+2 ct III

+2 ct III

+2 ct III

+2 ct III

+2 ct III

+2 ct III

+2 ct III

+0 ct II

+0 ct II

+0 ct II

+0 ct II

+0 ct II

+0 ct II

+0 ct II

(screws)

(blu tack)

(tape)