

TERRA COCTA

(2024)



Quartet for early instruments:
*for hardanger fiddle, viola d'amore,
tromba marina, electric keyboard, voice and dan moi*

Sara Cubarsi

This work for early instruments revisits traditional counterpoint techniques in just tuning and folk influences that can hardly be detached from the timbre of these instruments, each echoing many traditions in one sound. The resonant “chamber” created by the scordatura tunings indicates the affect within which the material is contained. Originating from a Norwegian tune, the material builds up to an ornamented mensuration canon between the hardanger and the viola d'amore, tuned at a 3:2 and sped up at a 2:1 with small variations. From the interlocking tones of the canon arises a “complementary” melody re-shaped with influences from Indian love songs, which is not much more than a soft contouring of the instrumental material, with a small detour near the end. The idea of the materiality of terra-cotta, its ancient uses, the sound of an imaginary and broken up tradition put back into pieces, of cooked earth, of cooked crackled folklore that is just about danceable, accompanies me in my simple search for a different beauty for these historical instruments, continuing the development of a performance and compositional practice in just intonation, and a personal way back into Song.

This piece was written for a concert at Ventana Köln on Oct 5th 2024 organized by the Zentrum für alte Musik (zamus), and is dedicated to Duo Auxesis (Xenia Gogu and Víctor García) on hardanger fiddle and tromba marina, and to Marlies Debacker on electric keyboard.

This commission is funded by the Kunststiftung NRW as part of the “Die Trompete der Nonnen” project about the tromba marina.

Sara Cubarsi, Lauenburg-Köln, Summer 2024

Performance notes

General

4 players - needed instruments: hardanger fiddle, viola d'amore, tromba marina, 88-key MIDI keyboard, Dan Moi.

The intonation is indicated by the [Extended Helmholtz-Ellis JI notation](#). All intervals are tunable and recognizable. The keyboard, the fixed tuning of the open strings and the natural harmonics help make it stable and possible with relative ease.

The long bars are split into “sub-bars” with only gray barlines. The accidentals apply for the entire “larger” bars (between black barlines). Sometimes cautionary accidentals are indicated.

Groupings of three 1/8th-notes are indicated with a triangle above the hardanger part. As there is no conductor, it is easier if all players think the pulse in the same way. The score is prepared accordingly for this. However, phrasing might be sometimes different depending on the individual line.

The balance needs to be adjusted, so that all parts are heard. The vocal part is not soloistic at all, but it should still be somewhat recognized while simply coloring the keyboard part.

Dynamics between “ ” indicate the dynamic of the action, otherwise they indicate the final effect as usual.

The pulse stays practically constant throughout the piece at 72 bpm.

Hardanger fiddle (HF) and viola d'amore (VdA)


The playing should be generally light and musically shaped. The resonant strings should be tuned in accordance with the scordatura tuning.

At the end, the hardanger player strikes the resonant strings of the tromba marina from bellow (the opening of the instrument at floor level).

The viola d'amore contains mostly the leading musical material, from which the material for the hardanger is developed, mainly at a fifth above and at 1/2 of the speed.

Techniques:

- sp = sul ponticello
- ord = ordinario
- clb = col legno battuto
- nail = nail pizz (with the back of the thumb)
- trills = always a quartertone away, except bar 91 (all indicated)
- x note-heads (VdA) = behind the bridge
- op = over pressure

 *In this example, the left hand plucks the bottom notes (bar 29) and the right hand plucks the strings behind the bridge*

- triangle note-heads (VdA) = resonant strings behind the scroll



- triangle note-heads (HF) = resonant strings under the fingerboard



Tromba marina (TM)

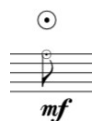
- the tromba marina plays always harmonics or the low open string (fundamental)
- triangle note-head = resonant string (one = one at the neck v.s . unison = all strings at the bottom opening)



- mute sound of the main string on rest:



- empty/dotted note-head with circle above = while plucking the string hit the wood of the instrument (simply pluck down against the wood), for a percussive effect



- arrows = indicate finger movement for swift plucking



In this example, the finger plucks the string first down, then up, and during the crescendo continues more strongly against the wood to get the percussive effect described above when going “down”

- pizz slurs: the left hand finhers the pitch change, but there is no pizzicato re-articulation (bar 77)
- bow = have the bow close to you on a stand, so it is quick to pick up and leave back
- appoggiaturas = these are triple articulations of a note with the 4-3-2 fingers of the right hand very fast, it should be intuitively done (not calculated) – it's like a “pizzicato ricorché”



A part is provided in tablature on D, but all pitches correspond to the harmonic series above the low D-flat.

Keyboard

The keyboard is tuned to the tablature chart presented in the next page using the [HEJI Calculator Patch on Max 7](#) . The dynamics are as it comes out, louder when many notes, quieter when one note, louder when lower and quieter when higher. A part is provided without microtones according to the tablature chart of the keyboard.

The keyboardist vocalizes some pitches, giving a humane tone to the sine-wavy timbre of the keyboard. It should be natural relaxed, almost humming. Out of range pitches can be left out. The syllables are suggestions.

Near the end, the keyboardist plays the Dan Moi tuned at D2.

TERRA COCTA

Tablature chart

for 88-key MIDI keyboard

Sara Cubarsi

Keyboard

Patch 1

Patch 2

II. L'harpe de mélodie. Misterioso, ♩=72

22

VdA

4 sec f $\text{♩}=72$

l.h. pizz f

poco rubato

pizz mp

f pizz mf

f pizz mf

pizz mf

riccorché

f pizz mf

mf pizz mf

col legno battuto

clb

clb

ricc

clb

clb

TM

4 sec resonant strings: f

(8)-----7

e-K

Tuning Patch 2

13+13

8

8

mf (let ring)

28

HF

(con sord.)

nail pizz mf

nail ord pizz mf

nail mf

ord pizz mf

ord pizz mf

nail mf

arco pp

(con sord)

dolce, semplice

5+4+4

8

VdA

pizz behind bridge f

l.h. pizz mf

mf

simile

arco ricc

ricc

5+4+4

8

5+4+4

8

TM

mp

p

mf

33

HF

stabile

pizz pp

mp

VI VII

mp

tr

3

tr

3

clb

VdA

mp clb

mp clb

mf clb

TM

mp

mf

mute

e-K

Ped.

40

ord tr (a tempo) clb ord V Δ Δ Δ tr clb ord

mp mf p mf p (pizz) (rubato)

IV. V. VI. V. 0 2 0

slow arp (rubato)

f clb mf

percussive mf

∞

48

arco dolce, semplice poco sul tasto p mp p mp p mp p mp pp p

tr 3 21 0

clb ord tr clb ord

mf pp p

∞

55

nail pizz arco 3 tr ord nail arco tr

mf mp mp mf pp

pizz arco p mp cantabile, espressivo mf

mf

free vocalization with na/am/a/m or ta/ti/... on strong leanings

sotto voce p

∞

61

HF *mp* *p* nail arco

VdA *p* *mf* *mp* pizz (r.h.) pizz arco

TM *mp* *f* *mf* *f* *mf* *mp* "t."

Voice *mp* "t."

e-K *mp* (c7)



67

HF take out mute senza sord *mp* *f* ord *mf* *mp* over pressure nail op pizz

VdA *mf* *f* *mf* *f* pizz. arco strong bass!

TM *mp* *mf* *mp* *mf* pick up bow l.h. pizz arco ricc

Voice "t." 2 "t."

e-K *mf* 2

72

HF arco *mf* *mf* *f*

VdA *p* *f* *mf*

TM *mf* *p* *f* (c b) (mute) leave bow

Voice "t.."

e-K

77

HF nail 0 arco *mp* sul tasto → ord/op *f*

VdA *mf* *f* 3 op

TM pizz 3 3 *f*

Voice "t.." "t.." with hardanger

e-K 5 5 3

5

81 *f* *tr* *mf* *IV* Δ Δ *1* Δ *2* Δ *IV* Δ

HF

VdA *f* *mf* *2nd harm. I-VII strings* *poco sp* *mf*

TM *3*

Voice *3* (e7)

e-K *3* *3* *3*

Detailed description: This section of the score covers measures 81 to 84. The Horns (HF) play a melodic line with trills and accents, marked with dynamics *f* and *mf*. The Violins and Violas (VdA) provide harmonic support with a *poco sp* (poco sordando) effect and a *mf* dynamic. The Trombones (TM) play a rhythmic accompaniment with triplets. The Voice part features a melodic line with a triplet and an (e7) chord. The Keyboard (e-K) part consists of a triplet accompaniment. Measure 84 ends with a double bar line.

85 *f* *arco* *pizz* *3* *mf* *3* *mp* *V* *3* *mf* *mf* *mf*

HF

VdA *f* *arco* *pizz* *p < f* *p < f* *mf* *mf* *mf*

TM *pick up bow* *arco* *V* *6* *(l.h.)* *7* *cresc.*

Voice *3* (b) *3*

e-K *3* *3* *3* *3* *3* *3* *3* *3* *8^{va}*

Detailed description: This section of the score covers measures 85 to 90. The Horns (HF) play a melodic line with trills and accents, marked with dynamics *f*, *mf*, and *mp*. The Violins and Violas (VdA) play a complex texture with *arco* and *pizz* (pizzicato) effects, marked with dynamics *f*, *p < f*, and *mf*. The Trombones (TM) play a rhythmic accompaniment with a *pick up bow* instruction and a *cresc.* (crescendo) marking. The Voice part features a melodic line with a triplet and a (b) chord. The Keyboard (e-K) part consists of a triplet accompaniment. Measure 90 ends with a double bar line.

(l.h. pizz)

89

HF *con sord* *tr* *arco* *tr* *tr* *tr*

VdA *pizz* *arco* *ricc* *arco* *3*

TM *simile* *col legno battuto* *ord* *ricc* *ord* *clb* *ord* *clb* *ord* *8^{va}*

Voice

e-K



92

HF *clb* *ord* *nail* *arco* *nail* *arco* *pont* *nail* *pizz* *go down on* *tromba marina*

VdA *subito* *mp* *p* *poco rit.* *mp*

TM *15^{ma}* *mp* *mp* *p* *poco rit.* *gliss*

e-K *poco rit.* *rit.* *ped.* *Dan moi* *coming* *up*

95 *resonant strings* "arpeggio" **A tempo** Δ *same* go back to hardanger pizz Δ

HF *mp* *mp* *pizz*

VdA *ppp* *fp* *p* (soft gliss. between notes) *fp* *p* *mp*

TM *(15)*

Voice **A tempo** *only inhale* *sing* *Dan moi* *sing* *Dan moi (inhale) attack sing **

(Dan moi) *mf mp* *mp* "tam" *mf* "ta-am" *mf* "ma-a" *mf*

(8) *if F too high, then D5

e-K

99 Δ *nail ord pizz* *ord pizz* *nail pizz* *mute resonance* Δ *ord pizz* *nail ord pizz*

HF *no vibrato* *simile* *nervous vibrato* *no vibrato* *mf* *mp* *(mf)*

VdA *p* *mf* *pizz* *mf* *mf* *mf* *f* *mp* *f p* *behind the scroll resonant strings*

(15) *col.l.* *behind bridge* **loud l.h. muting of strings* *clb.* *3* *3* *17°*

TM *(g + b)* *15°* *mf* *mf* *mf* *mf*

Voice *Dan moi* *sing* *"ta-am"*

(4)

e-K

TERRA COCTA

Commission funded by the Kunststiftung NRW
for Duo Auxesis and Marlies Debacker

TABLATURE SCORE: TROMBA MARINA & E-KEYBOARD

Sara Cubarsi (2024)

I. Freely (introduction), ♩=72

Hardanger

Viola d'amore

Tromba marina
TABLATURE

ad libitum 7^o 9^o 10^o 11^o 12^o 13^o

8^o

p

(always harmonics)

Voice
(keyb.)

The vocal line is sung by the keyboardist, mostly *sotto voce*, giving the keyboard tuned notes a humane timbre. Simple natural voice. The keyboardist plays a Dan Moi at the end.

E-keyboard
TABLATURE

From low to high, the sinewavey timbre of the keyboard is set automatically from *mf* to *pp* in the highest range.

From a single note to a chord, the dynamic effect also ranges from *mp* to *f* automatically.

Tuning Patch 1

con sord II

3

HF

pp

ord → pont

VdA

(senza sord.)

sul tasto poco ad libitum

p

II III

mp

6^o

TM

mp

e-K

pp Ped.

7

ord 1

3

HF

mp

mf

mf

cresc.

pont 1

VdA

mf

8^{va}

Sul II. IV. VI. III. 8^{va} VI.

p molto cresc. *ff*

TM

mp

mf

cresc.

e-K

8^{va}

independent accelerandi
(approx. with Tromba Marina)

HF *ord* $\overset{3}{\underset{0}{V}}$ *pont* *ord* *pont* *ord* *vibrato bow* *f* *sostenuto*

VdA *ord* *pont* *gliss.* *accelerando, independently from others*

TM *ord* *cresc.* *accelerando* *free vocalization with na/am/a/m colouring the keyboard's tone* *ff* *independent accelerandi (approx. with Tromba Marina)*

Voice *p* *mp*

e-K *p* *mp*

8+8+10
8

1 2 VdA

HF *ord* *still vibrato bow* *f* *no vibrato bow* *ord* *pp* *nail pizz.* *ff*

VdA *pont* *gliss.* *cresc.* *3*

TM *VdA* *mf* *ff*

Voice *mf* *poco cresc.* *8va*

e-K *(accelerando)*

20'' 26'' 10'' 20'' 26''

II. L'harpe de mélodie. Misterioso, ♩=72

22

l.h. pizz *f*

poco rubato

pizz *f*

pizz *f*

pizz *f*

pizz *f*

pizz *mf*

riccorché

f

pizz

mf

pizz

4 sec

f

♩=72

mp

col legno battuto

mf mp

mf

mf

p

mp

p

mf

p

mf

mp

f

clb

clb

ricc

clb

clb

clb

TM

4 sec resonant strings:

f

13+13

8

8

mf
(let ring)

e-K

Tuning Patch 2

13+13

8

pp

28

(con sord.)

nail pizz

mf

nail ord pizz

mf

nail

mf

ord pizz

mf

ord pizz

mf

nail

mf

arco

pp

(con sord)

5+4+4

8

dolce, semplice

pizz behind bridge

f

mp

mf

simile

mf

p

arco ricc

ricc

5+4+4

8

5+4+4

8

5+4+4

8

mp

p

mf

TM

33

stabile

pizz

mp

clb

mp

clb

mf

clb

pp

VI

VII

mp

tr

3

tr

3

clb

mute

mp

mf

TM

mp

mf

e-K

Ped.

40

HF *mp* *mf* *p* *mf* *p* (a tempo) *clb* *ord* *mf* *p* *clb* *ord*

VdA *f* *mf* *slow arp (rubato)* *(rubato)*

TM *mf* percussive *mp*

e-K *mf* *ord.*

IV. V. (pizz) 2 0

48

HF *p* *mf* *p* *mp* *p* *mp* *p* *mp* *p* *mp* *pp* *p*

VdA *arco* *p* *p* *mp* *p* *mp* *p* *mp* *p* *mp* *pp* *p*

TM *mf* *pp* *p*

e-K *p*

dolce, semplice poco sul tasto

cantabile, con grazia

55

HF *mf* *p* *mp* *mp* *mf* *pp* *mf*

VdA *pizz* *arco* *pp* *p* *arco* *mp* *cantabile, espressivo* *mf*

TM *mf* *mf*

Voice *sotto voce* *p*

e-K *p*

nail pizz *arco* *3* *sul tasto* *tr. ord.* *nail arco* *3*

free vocalization with na/am/a/m or ta/ti... on strong leanings

61

HF *mp* *p* nail arco

VdA *p* *mf* *mp* pizz (r.h.) pizz arco

TM *mp* *f* *mf* *f* *mf* *mp*

Voice *mp* "t."

e-K *mp* "t."



67

HF take out mute *mp* senza sord *f* *mp* ord *mf* *mp* over pressure nail op pizz

VdA *mf* *f* *mf* *f* pizz. arco strong bass!

TM *mp* *mf* *mp* *mf* pick up bow l.h. pizz arco ricc

Voice "t." 2 "t."

e-K *mf* 2

72

HF arco

VdA

TM

Voice

e-K

mf

mf

f

p

f

mf

ricc

(c b)

(mute)

leave bow

"t."

(e7)

8th-----J



77

HF nail

arco

sul tasto → ord/op

VdA

TM

Voice

e-K

mp

f

f

mf

pizz

3

3

3

3

3

3

3

5

5

3

with hardanger

(l.h. pizz)

HF *con sord* *tr* *arco* *tr* *tr* *tr*

VdA *V* *VI* *IV* *V* *pizz* *arco* *ricc* *arco* *3*

TM *simile* *col legno battuto (clb)* *ord* *ricc* *8^{va}* *clb* *ord* *15^{ma}* *clb* *ord* *8^{va}*

Voice *3*

e-K *3* *3* *3* *3* *3*



92

HF *clb* *ord* *nail* *arco* *nail* *arco* *pont* *nail* *pizz* *go down on tromba marina*

VdA *< subito* *mp* *p* *poco rit.* *mp*

TM *15^{ma}* *mp* *mp* *p* *poco rit.* *mp*

e-K *rit.* *poco rit.* *rit.* *Dan moi coming up* *ped.*

95 resonant strings "arpeggio" **A tempo** \triangle same go back to hardanger pizz \triangle

HF *mp* *mp*

VdA *ppp* *fp* *p* (soft gliss. between notes) *fp* *p* *mp*

TM

Voice (Dan moi) **A tempo** only inhale sing Dan moi Dan moi (inhale) attack sing * (Dan moi) *mf* *mp* "tam" "ta-am" "ma-a" *if F too high, then D5

e-K

99 \triangle nail ord pizz ord pizz nail ord pizz

HF *mf* *mp* (*mf*)

VdA *p* *mf* *mf* *mf* *mp f* *mp f p*

TM *p* *mf* *mfp* *mf*

Voice Dan moi (Dan moi) *mf* "ta-am"

e-K