

2021.4 - trombone, transducer, tam-tam

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commissioned by Crash Ensemble*

S. Adams (v: 1 November 2021)

For trombone, tam-tam and transducer

(two performers; percussionist uses transducer as a playback mechanism)

In this piece, the trombone player makes mostly extremely quiet sounds, which are amplified through a tactile transducer held to the tam-tam by the second performer. This serves as a way to contain the trombone inside the tamtam, but also as a way to emphasise and add new colour to the smallest sounds the instrument can make. The second performer has scope to use the transducer as an instrument, finding resonances in the tam-tam and possibly finding strange ways to alter the sound (different pressures or angles of attachment etc.)

The piece leaves a lot of details (particularly pitch and rhythm) up to the performers. This is partly to encourage an irreproducible exploration of the implications of the piece's situation: one player is dependant on the second for their sound to be heard at all; the other has to rely on their instincts about what the first is doing in order to produce and shape their sounds.

However, the openness is also a pragmatic choice: every tam-tam will be different. To a lesser extent, so will every transducer and every acoustic the work is performed in. These factors will have a huge impact on which frequencies will resonate the tam-tam, and also on sustain/decay. Performers are encouraged to pace material and structure in a way that works in the situation of a particular performance. Major deviations from the score are acceptable as long as they are done in good faith, in order to achieve the effect the performers believe is intended.

Duration is intended to be 5 minutes for the initial set of performances.
a much longer version could work, using the same score.

The equipment needed is non-standard but inexpensive and easy to obtain.

For the premiere, the composer has provided a wired-up transducer and a small car amplifier. This can be obtained from 44 Prussia Street by contacting Paul Scully (admin@kirkosensembles.com)

Equipment for the transducer setup:

- one audio exciter / tactile transducer (e.g. Dayton Audio DAEX25CT, available for approx. €20 including shipping to Ireland from soundimports.eu)
- one amplifier: for example a car stereo amplifier available from Amazon.co.uk for under €20.
- plug for amplifier (normally 12V adapter)
- speaker cable or instrument cable + terminators if needed for amp (many amps accept speaker wire directly)
- soldering iron to attach exciter to cable (minimal soldering skills needed)
- microphone and cable for trombone (e.g. SM58)
- mixer or preamp for trombone microphone
- typically a non-professional cable e.g. RCA or 3.5mm TRS is used to connect the trombone to the car amplifier (if using this kind of setup; more professional versions are certainly possible)
- for the tam-tam: superballet mallet or other rubber rod; or else another method of producing sustained pitched sounds (in the region of 400 - 460Hz); also a standard tam-tam mallet

Technical Instructions:

- if performing in a small space, it would be desirable for the tam-tam to be completely unamplified as this will preserve the maximum impression of the trombone being played exclusively through the tam tam. Further treatment could reduce the effect of this.
- if playing in a large hall, amplification of the tam-tam is acceptable.
- the trombone should under no circumstances be amplified directly: its sound should be projected into the space (or studio recording) entirely through the tam-tam.
- for a studio recording, room mics may be used as a backup in order to salvage lost attacks if a trombone note is played when the transducer is not touching the tam-tam.

During a live performance, ideally a sound engineer should have control over the gain of the trombone microphone, and over the level of any further amplification of the tam-tam.

Staging:

The performers should be placed on the same stage but with an unusually large distance between them, large enough to plant the idea of the separation of the trombone's acoustic sound from the sound the audience will hear.

Both performers should stand.

Suggested layout A:

- trombone stage right, facing towards stage left (i.e. facing the tam tam)
- tam tam stage left, with the instrument facing at an angle so that it is pointed somewhat towards the trombonist but also towards the audience

Alternative layout B:

trombone on an elevated platform directly behind the tam-tam; both performers facing the audience.

An effective lighting situation could be: a wide spotlight on the tam-tam, which fades down after the final decay of the piece. A narrow spotlight on the trombonist, catching the bell of the instrument also. An otherwise dark stage.

Performance instructions:**trombone:**

Other than when marked with loud dynamics, the idea is that your sound will be heard mostly – preferably entirely – through the tam-tam rather than directly through the air. the focus is on tiny sounds.

You have the freedom to judge the duration of all articulations, silences etc. based on the way you hear them resonating in the tam-tam.

Conceptually, you need the other performer and their instrument in order to be heard - your voice is trapped inside the tam-tam, but it's also unleashed and transfigured by it.

tam-tam:

Your main role is to hold the transducer to the tam-tam and find ways to create a beautiful (or somehow interesting) result by playing with the resonances of the instrument, touch pressure, angle of contact etc.

Your role as a musician is subtle but definitely not passive: everything relies on your choices and on your ability to react to and predict what the other performer needs from you. A lot of the time, you won't need to shape the sound very much, but don't feel afraid to make major interventions when you think it is necessary.

You can take the transducer off the surface of the tam-tam for effect, but be careful not to accidentally miss the attacks of trombone notes.

Conceptually, you are the conduit between the other performer and the air - without you, they can't communicate anything. You also enforce a kind of feedback loop: using your own judgement to shape their phrases, with each choice you make determining the platform for their next decision.

You need a superball mallet (or other object for producing sustained pitched notes) as well as all the transducer equipment.

both:

Structurally, most of the piece is a repercussion of the violent opening - almost like the whole piece is made of the nearly-silent after-effects of a huge tam-tam crash. Although the piece does begin to get a little bit of momentum and new life near the end, it never recovers to anything like the intensity of the very opening. The beginning should therefore activate a space where tiny, isolated sounds can be very important.

Ideally, the score should be internalised and performed without music stands. If this seems challenging, creating a short-hand cheat sheet which could be placed unobtrusively within view could be a helpful workaround.


2021.4

①

tam-tam: transducer ready on tam-tam

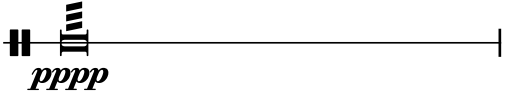
Any loud, resonant note - same note each time

Tenor Trombone



f *ff* *ff*

Tam-tam



c. 15 seconds

pppp
(beginning when the trombone resonance is *ppp*)

(before playing, put down transducer (let tam-tam ring) and pick up mallet)

Wait for the resonance to die, then c. 5 seconds of silence.

②

Then:

tam-tam: [transducer placed silently on tam-tam]

trombone: carefully puts in practice mute

pp short, low, sustained note (one note in isolation)

gaps of varying length, between 25 - 200% of the length of the notes around them.

[notes can vary in pitch or be the same]

> (al niente)

progressively collapse in dynamic and feeling of momentum, reaching point of inaudibility.

When momentum has totally dissipated, move on to next section.

③

A dance of small snippets, rotating along this triangle. Segue between the three types of material as you like. The text in italics is less important and can be ignored if it's not working.

Consider this the central section of the piece - it should stay at a very low intensity for a good amount of time, exploring different colours and ideas in isolation, before gradually pushing the momentum a little bit - but never reaching a climax.

Timeline of section represented spatially here:

pp/ppp ————— static, low momentum ————— momentum gathering ————— *mp*

Tam-tam:

support only, don't actively
shape sound beyond finding
resonances

begin to make small
interventions to shape the sound.

Free to make obvious alterations to
sound if desired

*short fragments,
lyrical*

difference tones
(sing and play)

white noise:
different filters, only ever
pushing the pitch in one
direction during any one
breath. Think about
different types of wind,
maybe.

sparse, with gaps

uniform rhythm
slap tongues: quite
fast, insistent,
sometimes
breaking into a
resonant pitch
*allow the other
material to chaotically
interrupt it, like a very
distant damaged radio.*

④

suddenly! tam-tam interrupts previous material.

Tam-tam:

pitched ringing sound with superball rod/mallet (c. *mp*)

Trombone:

react to this with a pitched high note (lyrical, dolce, *mp*) in a similar range

now, a counterpoint of this type of material, bouncing back-and-forth, overlapping etc: no climax, no fade

the bank of pitches relies on whatever the tam-tam can produce but the aim is for pitches to be within 3 semitones either side of A 440.

Eventually coalesce onto a slightly out-of-tune unison, pass this around a few times.

Then suddenly stop - leaving the tamtam resonance to die.

⑤

When the tam-tam resonance has fallen to *p*, trombone carefully inserts harmon mute and plays the following material five or six times, beginning as quietly as seems possible but then pushing ever quieter each time:

calm, beatific

On a B \flat 2 (second line of \mathfrak{B}) play beginning with a fully closed mute:

a short (just a few seconds) tiny harmonic variation - almost a gliss but more a change of spectrum

Finally, let the resonance ring and die until completely inaudible.

If lights are on, they can begin to fade only once the tam-tam can no longer be heard near the front of the room.