
NEW WORKS

Article received on 22nd November 2011

Article accepted on 25th November 2011

UDK: 78.071.1 Хофман С.
789.983

Vesna Mikić*

University of Arts in Belgrade

Faculty of Music

Department of Musicology

**FROM (LISTENING TO) *MOVING MIRRORS* TO
(LISTENING THROUGH/IN) MIRRORS IN MOTION – SRĐAN
HOFMAN: *LOOKING AT THE MIRRORS OF ANISH KAPOOR*
FOR TWO AMPLIFIED HARPS AND *LOGIC PRO* SOFTWARE****

Abstract: The paper analyses and interprets Srđan Hofman's electroacoustic piece *Looking at the Mirrors of Anish Kapoor* for two amplified harps and *Logic Pro* software (2010). This interpretation is based upon the concept of remediation, introduced by Bolter and Grusin in 1999 and further developed by Lev Manovitch (2001) as a way of understanding the co-existence and interdependence of old and new media. This concept enables further exploration of the issues raised by the Hofman's piece, since it was inspired by Anish Kapoor's installation *Mirrors* (Guggenheim Museum – Bilbao, 2010), one of them being possible remediation of visual into acoustic.

Key words: Srđan Hofman, Anish Kapoor, electroacoustic music, remediation, Serbian contemporary music

Апстракт: У раду је анализирана и интерпретирана електроакустичка композиција Срђана Хофмана *Гледајући у Огледала Аниша Капура* за две амплификоване харфе и *Logic pro* плагинове (2010). Ова интерпретација Хофмановог дела заснована је на

* Author contact information: mikic@eunet.rs

** The paper has been written as a part of the scientific project *Identiteti srpske muzike u svet-skom kulturnom kontekstu [Identities of Serbian Music in the World Culture Context]*, supported by Ministry of Education and Science of the Republic of Serbia.

концепту ремедијације, који као начин разумевања коегзистенције и међузависности старих и нових медија уводе Болтер и Грусин 1999, а даље развија Лев Манович (2001). Овај концепт омогућава даље истраживање питања постављених у Хофмановом делу, инспирисаном инсталацијом Аниша Капура *Mirrors* (Гугенхајм музеј, Билбао, 2010), међу којима и могућу ремедијацију визуелног у акустичко.

Кључне речи: Срђан Хофман, Аниш Капур, електроакустичка музика, ремедијација, српска савремена музика

Making his big, and for some of us long and eagerly expected, comeback into the domain of electroacoustic music, only recently confirmed and publicly/professionally acknowledged by the Stevan Mokranjac Award for 2010, Srđan Hofman (1944) once again raised still important, at least for me, issues of permeability/irrelevance of media boundaries with respect to compositional techniques/poetics on one side, and of the amount of technological influence to those, on the other side. One could argue that these old issues have been solved long ago; at least from the moment digital technologies were introduced into the compositional processes and performative contexts. Hence, it could be said that the composer here in question had also come in terms with these issues in favour of regarding computer not only as an aiding tool, but more as a collaborator and ‘co-author’, if there were not for some of his instrumental pieces written before the digital era, and of course those composed between his almost completely electroacoustic production of the 1990’s and the piece observed here, created in 2010¹. This kind of insight opens new windows for addressing the relation between the old media and the new media, and in the context of Hofman’s opus, reversing the expected course of this relation, or more precisely, splitting it into different directions: from new to old and vice versa, and around, constantly in motion and showing curious Star-Trek kind of ‘waiting for the right technology’ to be applied, thus opening the door for the concept of ‘remediation’ to be theoretically introduced into the interpretation of the products of this phenomenon. Furthermore, this kind of interpretation, which will basically point to the constant ‘objects’ of composer’s fascination, i.e. his specific poetics, calls for yet another current theoretical platform provoked by the context of digital culture, the one of postproduction², or more precisely in Hofman’s case, as well as generally – the ‘real-time postproduction’.

¹ *Looking at the Mirrors of Anish Kapoor* for two amplified harps and *Logic Pro* software was premiered at the 19th International Review of Composers in Belgrade on November 22, 2010, performed by Ljiljana Nestorovska (to whom the piece is dedicated) and Milena Stanišić and the composer at the mixing console.

² Bourriaud, N., *Postproduction. Culture as Screenplay. How Art Reprograms the World*, Lukas & Sternberg, New York, 2002.

Although exclusively related to the visual media, the Bolter & Grusin's concept of remediation as the 'formal logic by which new media refashion prior media forms'³ can be appropriated here on at least two levels (which for this occasion can be denoted as: media level and media content level), thanks to the specific kinds of 'immediacy' and 'hypermediacy'⁴ musical art possesses.⁵ It could be said that Hofman's lifelong fascination with spatial potentials of music found its ultimate fulfilment in the possibilities finally discovered in the (spatial) plug-ins of the Logic Pro. Hence, all his different quests and conquests of spaces for (his) music, ranging from *Pokretna ogledala* [*Moving Mirrors*] of 1979 to the 'transformation'⁶ of Anish Kapoor's Mirrors, or rather the reflections they produce and the experience which unfolds while looking at them, could be interpreted as different remediation procedures. First and foremost, the notion of sound distribution in/through space was fully exploited in *Looking at...* thanks to the introduction of Logic Pro software. Hence, previously just 'faked', imagined/simulated sound motion, present for instance in Hofman's *Pokretna ogledala* for two pianos (four performers), now becomes more 'real'. The 'illusion' of the sound space, created earlier, now can be closer to 'real'. Remediation here occurs as a 'reform' whereby its 'goal is to refashion or rehabilitate other media' as well as 'inseparability of mediation and reality'.⁷ Thus, the old media, i.e. harps, are being 'refashioned' by electronics, their sound remediated and not just amplified by it. Furthermore, their acoustic material, the content of the 'message' they mediate, is constantly remediated by Logic Pro, hence remediating the 'real' sound. This was accomplished by two of the four processes composer mentions in his comment on composition: 'Multiple microdelays of sound and diverse, modulated "echoes" which are generated by the programmed *Delay Designer* processors', and the 'deformation of the "natural" harp sounds'.⁸ Modulated 'echoes', most prominent in the treatment

³ Bolter, J. D., and Grusin, R, *Remediation: Understanding New Media*, MIT Press, Cambridge Massacushetts, 1999, 273.

⁴ Bolter and Grusin regard remediation as a third trait of genealogy of new media, along with immediacy and hypermediacy, two opposed yet intertwined strategies of remediation: the former aiming on media 'invisibility', the latter on its presence. More in: *ibid.*, 20-52. Since both operate in the realm of (visual) representation, i.e. construction of the reality and the world itself, these strategies could be applied to the existing ones in creating/performing music worlds.

⁵ See my account on possibility of regarding the piece of music as a virtual world, and compositional/performing strategies getting close to some aspects of VR technology in: 'Music and/or VR', *International Magazine for Music 'New Sound'*, 21, 2003, 29-34.

⁶ I refer to composer's comment published in the: Mikić, V. and Srećković, B., eds, *Program Booklet*, 19th International Review of Composers, Belgrade, 2010, 24. "The idea of transforming Kapoor's work into music flow was realized..." (underlined by V. M.).

⁷ Bolter and Grusin, *op. cit.*, 35-36.

⁸ Hofman, S. in: *Program Booklet*, *op. cit.*, 24.

of the opening material and its different 'reflections' in the varied repetition section (from score mark 10 onwards) that rounds up the piece, and the 'codetta' (No. 17) become audible/visible by the efficient use of pauses in the music flow of these sections (in the harps parts), as well as masterful handling of different software plug-ins (the abovementioned *Delay Designer*). They are creating a kind of Satiesque 'sonorous wallpapers', ambiances in which the computer sounds fill in the acoustic space, sometimes 'imitating', more often 'sustaining' their sounds (oscillating in pitch), prolonging their duration, thus enhancing them (with deep register sounds), and sometimes benefiting from the 'generic' sound by transforming it, taking it to spatial infinity that moves in different directions, penetrating the (expected) sound space of harps (in No 17 especially)⁹. The sounds of harps are thus being modified and 'postponed' by the computer.¹⁰ Since the delays are left 'bare', actually used on purpose in attempt to grasp the nature of Kapoor's work¹¹, one cannot help wondering if this could be read as an analogy with the hypermediacy strategy that points out the 'presence' of the media. In fact, it looks like that only this kind of directness can provide the notion of 'boundless' space composer wanted to create in music. Almost as if Hofman could create the desired music-space relation only with the help of real-time technology and its 'alleged' deficiencies? As if music's inherent immediacy and the described hypermediacy of Hofman's piece enable the remediation of the acoustic/temporal into the visual/spatial.

It looks like Kapoor's intention to create a 'non-object' (Non-object 'Pole', 2008) via usage of stainless steel as a material for 'real' objects that mirror each other ('Vertigo', 2008 is the other one) in the installation entitled *Mirrors* for Guggenheim-Bilbao exhibition coincides with Hofman's intention regarding music/sound objects. Kapoor is interested in 'spaces implicated in these objects' (provided by stainless steel), 'space around the object', and 'undefined edges of

⁹ Since the score available on this occasion has no written 'computer part', the 'findings' of this interpretation are based on the recorded performance from the *Serbian Composers' Music for Harp* concert, held within the *Harfa-fest* in the Belgrade City Hall, April 14, 2011. I am grateful to Milena Stanišić, Ljiljana Nestorovska and the composer for providing this recording.

¹⁰ 'The audience is exposed to a) direct harp sounds and the very same sound signals that, after 'passing' through the computer, are being emitted as; b) unchanged, and c) modified. The delays of the signal b in respect to signal a, and of the signal c in respect to the b, is the consequence of the particulars of the computer technology (*Latency*), but the author used it in the piece consciously in the context of the notion of the "looking at the Mirrors of Anish Kapoor".' Hofman, S, *Looking at the Mirrors of Anish Kapoor*, Belgrade, 2010, Performance note.

¹¹ Anish Kapoor (1954), born in India and living in UK from early 1970's, is one of the most prominent contemporary visual artists. More on his work at: <http://www.anishkapoor.com>

the objects' that 'carry on the effect bodily'¹² Similarly, the 'prolonged' duration of Hofman's sound objects leaves their edges 'undefined', fulfils the space around the object, carrying on their effect while *becoming* the object. While Kapoor's goal is to get rid of object boundaries, Hofman's is not, thanks to the 'non-objectifying' nature of music as temporal art. It could be argued that every music/sound object is a non-object in Kapoor's sense. The unique bodily experience of Kapoor's work, due to the reflections that the material used provokes in the moment of the 'looking'/performance, is actually invoked through remediation of looking the reflection in the mirrors, to the listening of reflections of sound objects. The immediacy/indeterminacy is secured in both 'formats'. Whether the "Non-Object (Pole)" is the electronics and "Vertigo" the two harps or two harps suit the two objects while the computer provides the space in-between and around – is difficult and maybe unnecessary to determine. But, what comes out from such a speculation is the question of the structure of vertigo-like musical flow that gives birth to rather 'fixed', solid form of the *Looking at...* If we state that in Kapoor's *Mirrors* we still have two 'solid' stainless steel objects, in spite of them intended and created to be always differently experienced, we can say that their 'mirroring' purpose, the performative aspect they put forward, make them close to music, or at least its more 'solid' forms, such as a score or a recording.¹³ So, the 'unpredictability' of events and their interrelations, as well as overall experience in Hofman's piece are all packed in formal design typical of its author, coming from his experience, or rather the firm belief in a music piece as a possible world, resulting in formal solutions that simulate temporary 'dwelling' in some alternative space. We enter that world, logging in to it via scattered, hinted objects of the beginning (Ex. 1) to No. 4. There are at least four objects¹⁴, the second (4 bars before No. 1

¹² All the quotations found in the video guide to the Bilbao exhibition with Anish Kapoor's explanations at <http://www.anishkapoor.com/666/Guggenheim-Bilbao-2010.html>, accessed 21. 11.2011, at 23:00. The exhibition took place between March and October of 2010.

¹³ 'These mirrored sculptures only appear to come to life as real objects when the visitor's active image is reflected in their surfaces. The mirrors create momentary illusions - snatches of time. Bodies and features are turned upside down, stretched and distorted.' (...) Kapoor: '...these works in a way operate like photographs, in that they are forever present. ... they display themselves as pictures, there's a kind of recording of a certain moment that's continually passing through them.' More at: http://www.guggenheim-bilbao.es/microsites/anish_kapoor/index.php?idioma=en, accessed 5 August, 2011, at 17:50.

¹⁴ Hofman refers to these as 'simple sound information', Hofman, S. in: *Programme Booklet*, op. cit., 24. For the purposes of my interpretation I will stick to the notion of (sound) object without further elaboration of the precise definition. And his description of one of the processes that is connected to the way he shapes his music flow that generates formal design goes as follows: "Unpredictable", 'scattered' repetitions and variant repetitions of a small number of simple sound information which do not appear to have a casual-consequential relation." Idem.

– Ex. 2) hinting to the ending subsection of section A (2 bars before No. 6), the third (No. 2 - Ex. 3) to the one in No. 4, so what is already being formed is an intrinsic network of objects that all are linked, interconnected and chained, yet separated. Full immersion in Hofman's world has been achieved through repetitions of some of the objects, as well as their full development into subsections (No. 3 to No. 8). That full immersion can cost us losing our direction, and sense of the 'real', yet can provide us with a whole new perspective of the 'real' we find out in the middle section where we get lost and/or 'reborn' (Nos. 8 to 10) through vertigo-like effect produced by the two harps' objects reflecting one another. Since there is no turning back to the same (as if there could be one), we gradually, while we are finding our balance again, step into 'mirrored', reverse and varied repetition of section A (and its objects, Nos. 10-17), and log out via already commented 'codetta' (No.17). As if Kapoor's 'turning inwards' of an object, of the form of which he speaks regarding his earlier piece 'Turning the World Inside Out'¹⁵, has found its musical counterpart in the 'inside-out' world of Hofman's piece.

As far as media remediation is concerned, it could be said that it takes a prominent place in the construction of the world/music flow of the Hofman's piece as the strategy that enables different reflections of the sound objects. As much as it could be seen and experienced as remediation of media content actually, it still is the remediation of the media as well. For how can we interpret the different reflections of the harp (media) sounds, created in the previously mentioned ways via the signal of their own (if modified it is remediated), as well as the Space Designers that bring about samples of the recorded metal objects and wires (if harp-like, they still sound like different media), creating an 'illusionary unbounded space'.¹⁶ To paraphrase the comment of Kapoor's work, the media and their features (their colours, registers, their sound, as well as the messages they mediate) are turned upside down, stretched and distorted.¹⁷ Whether or not all of these remediations fall under the procedure that Hofman describes as 'deformation of the "natural" harp sounds', is of less interest since we can speak about reflecting/remediating of the harps via distortion/'deformation' and modifications in an almost Bartokian 'stringy/wired' orchestra containing harpsichords (Nos. 4-7, Nos. 13-16), guitars (before No. 1), pianos (Nos. 3, 5, 14), zithers (before No. 13), percussion (in all fast subsections, as well as in the moment where performance indications demand of harpists to tap the soundboard by their fingers or strike the strings with an open hand, e.g. 6 bars before No. 1). Needless to say, all of the instruments

¹⁵ Idem.

¹⁶ Hofman, S. *Programme Booklet*, *op. cit.*, 24.

¹⁷ Cf. footnote 12.

display their percussive features when necessary. Remediated sound is the result of the remediation of the harps' sounds, while space-fulfilling sound is based on the remediation of the sound of 'real' objects by the computer. The merging of the two results in some of the most striking and twisted sounding moments of the piece, such as distorted, in 7/8 meter damaged mechanical toy-like¹⁸ sound of Nos. 2-3. Hence, the sound as well as space experience is the consequence of the series of reflections/remediation that 'merge and wrap'.¹⁹

Finally, in respect to the possible content remediation, and in accordance with the perception of Hofman's opus mentioned at the beginning, there is one kind of remediation which ostensibly became his trademark. Namely – and the fact is curious enough to be further speculated upon as a separate issue, although it actually was the one that led me to the remediation as the theoretical point of departure here – in *Looking at...* we hear/see/meet again the sampled sound object (upward motion, scale/step wise, bass line) doubled by second harp (e.g. No. 4, b. 3-4 – Ex. 4) with toccata-like treble motive in the first harp. While it is important for *Looking at...* and covers a rather huge space within the piece since it is repeated in the already described way, the fact is that this object is found first in *Duel* for piano and live electronic (1997), and then in the 'acoustic' *Muzičke igračke [Musical Toys]* for violoncello and double-bass (2008), which now seems to reveal the 'reverse' logic of Hofman's remediation – from new to old and vice versa, or to put it in Bolter and Grusin's terms, the 'double logic' of remediation that lies in immediacy and hypermediacy. Bearing in mind specific 'mediality' of music, the potentials of this particular object remediation are hence either inexhaustible or maybe finally achieved with the right technology/software that came along the composer's way.

In *Looking at...* Hofman's had finally reached the spatiality of music he was longing for since long ago, and he also once again promoted his renowned curiosity as to who and where are we, that comes hand in hand with his need to reverse, mix, merge and turn upside-down the common notions, to get inside and outside of the mirror/object. His conquest of the space with the aid of technology and Anish Kapoor enabled him to reflect upon himself and his world via reflections

¹⁸ One cannot help remembering the 'mandolin' section of Hofman's *Musica Concertante* for piano, strings and electronics (1994) or 'playing' with sound objects/toys in *Muzičke igračke* for violoncello and double-bass (2008).

¹⁹ 'Reflections merge and warp – our normal perspective is skewed so that it is no longer recognizable. The mirrors' concave shapes distort sound waves around them. They confuse our perception of space and sound and prompt us to ask questions about what it is we see, how we see, and about the space around us.' http://www.guggenheim-bilbao.es/microsites/anish_kapoor/index.php?idioma=en, accessed 5 August, 2011, at 17.50 CET.

of his sound objects that create his musical world and ours too for that matter. By the concept of remediation, the 'transformation' of the experience of looking at the Kapoor's work becomes possible in musical terms, and opens the path for interface (eye/ear) remediation, thus making us see/feel the space of Hofman's music. If that was one of his lifelong aspirations it could be further argued that the remediation here enabled the postproduction to take place in real time, actually remediating the postproduction itself to 'real time postproduction', since the music world has been created from the already existing sound objects/media via remediation, yet put forth only in real time, and therefore maybe in one and only possible 'real' space.

REFERENCES

- Bourriaud, Nicolas, *Postproduction. Culture as Screenplay. How Art Reprograms the World*, New York, Lukas & Sternbergm 2002.
- Bolter, Jay David, and Richard Grusin, *Remediation: Understanding New Media*, Cambridge Massacushetts, MIT Press, 1999.
- Mikić, Vesna, 'Music and/or VR', in: *International Magazine for Music 'New Sound'*, 21, 2003, 29-34.
- Mikić, Vesna and Biljana Srećković, eds, *Programme Booklet*, 19th International Review of Composers, Belgrade, 2010, 24.

Srdjan Hofman

♩ = 90

Harp 1

Pich Shift 1

Pich Shift 2

Bitcrusher

Space 1 (-∞) 0 dB

Space 3

Delay 1

Delay 3

Harp 2

Pich Shift 1

Pich Shift 2

ClipDist

Space 2

Space 3 (-∞) -3.4 dB

Delay 2 (-∞) -8.5 dB -6 -2.4

Delay 3

Ex. 1

6

1

Space 1 0 dB

2

D4 → D4

mf

Space 3 (-∞) -3.4

Delay 2 (-∞) -2.4 -12

♩ = 60

12

1

pp

p

mp

1

Space 1 -7

Delay 1 0 (-∞)

2

Tapp the soundboard with the fingertips (1, 4) (T)

Strike the strings with the open hand

pp

mp

Space 2 -3.8

Space 3 (-∞) -0.5

Delay 2 -11

Ex. 2

Mikić, V.: *From (listening to) Moving Mirrors to (listening through/in) Mirrors...* (63–74)

The image displays a musical score for two parts, labeled 1 and 2, with associated audio processing graphs. Part 1 is written in treble clef with a tempo of 128 and a dynamic marking of *p.d.l.l.* *p*. Part 2 is written in bass clef with a tempo of 60 and a dynamic marking of *p.d.l.l.* *p*. The score includes a '2' in a box at the beginning of part 1 and an 'ord.' marking at the end of part 1. Below the staves are two graphs: 'Chrusher' and 'ClipDist'. The 'Chrusher' graph shows a line with values -20 dB, -11, -20, and -8. The 'ClipDist' graph shows a line that starts low, rises slightly, and then levels off.

Ex. 3

5+5+5+3

1

PShift 2 -6 dB -5 dB

Crusher -28 dB

2

ClipDist -28 dB -9.5

Space 2 -22 dB

1

PShift 2 -11 dB -5

Crusher -27 dB

Space 1 -25 dB

2

ClipDist -27 dB -5

Space 2 -22 dB

Ex. 4