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TABLE OF CONTENTS

Beyond the Main Theme

Reviews

Contributors' Biographies

Guidelines for authors

(INTER)VIEWS

Zoltan Istvan

CAN TRANSHUMANISM HELP PEOPLE
TURN THEIR LIVES INTO ART?

Many people associate transhumanism — the field of using science and technology to radically alter and improve the human being — with scientists, technologists and futurists. Historically, this has been quite correct. However, today, the transhumanist movement is on the verge of going mainstream. Mentions of the movement in the press have skyrocketed recently. Transhumanist academics like Singularity University's Ray Kurzweil and Oxford's Nick Bostrom are recognized as leading global thinkers. And social media is ablaze with talk of the Singularity — the concept where transhumanist technology creates an almost unimaginable period of exponentially growing intelligence. Behind this invigorating public push of transhumanism is a group that has historically been responsible for jettisoning movements: artists.

Transhumanist artists have recently been increasing in popularity and numbers. Whether it's metal-welding sculptors, futurist-oriented video game developers or techno-musicians celebrating life extension, there is more of it being created every day, some of it in new forms of media.

When most people think of transhumanist art, they think of science fiction movies and novels. Of course, these forms of art have done much to promote transhumanism and the inevitable tech-dominated future. Blockbuster films like *Transcendence* starring Johnny Depp or James Cameron's *Avatar* have recently been shown all around the world. And novels like *The Inferno* by Dan Brown, *Nexus* by Ramez Naam, and my own controversial thriller *The Transhumanist Wager* have significantly increased the visibility of transhumanism.

However, today, there are new forms of art also pushing the movement. For example, transhumanist-themed music using digitized instruments and synthesized compositions are on the rise. So is transhumanist hip hop. One such artist is Maitreya One, with his rhythm-infused songs advocating scientific immortality,

a quintessential aim of transhumanism.

A longstanding futurist and one of the original artists and designers of the transhumanist movement is Natasha Vita-More. Some of her compelling artistic creations can be seen on the site Transhuman Art.

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One of the most well-known celebrity futurists is Jason Silva, whose Shots of Awe — a mash-up of art, performance, and philosophy delivered through short film videos — has been massively popular to a younger generation. His recent three-minute film *To Be Human Is To Be Transhuman* has been viewed over 140,000 times.

Metal-welded sculptures are also catching on, often inspired by transhumanist and futuristic machine-like themes. One specific haunting image of a robot crawling through water focuses on the dark side of transhumanism. It has been connected to the Bilderberg Group and New World Order themes, and was recently featured by American radio host Alex Jones and his site Prison Planet, which caters to ultra-conservatives, religious fanatics, luddites and conspiracy theorists, many of whom who are skeptical of transhumanism and its emphasis on technologically upgrading human beings. Perhaps most intriguing, cyberculture is becoming essential to the transhumanist art world. Video games — an industry now larger and more lucrative than the movie industry — often focuses on transhumanist themes. *Deus Ex - Human Revolution*, *BioShock* and the bestselling *Halo* franchise are just a few that have many millions of players. Eventually, this video art will be fully merged with virtual reality, where artificial art may become as commonplace as real art. Facebook's $2 billion dollar purchase of Oculus VR, the virtual reality headset maker, is a sign of things to come.

"Enhancement technologies promise the creation of superhuman beauty," says David Pearce, who co-founded the World Transhumanist Association / Humanity+ in 1988 and is also the author of *The Hedonistic Imperative*, which advocates phasing out the biology of suffering in all sentient life. Pearce adds, "Tradition says beauty lies in the eyes of the beholder. Less poetically, neuroscience suggests that beauty lies in activation of the medial orbitofrontal cortex. In principle, intelligent agents can use biotechnology to amplify and enrich the molecular signature of aesthetic appreciation beyond the bounds of normal human experience. Artistic creations and the everyday world alike can look sublime."

On the surface, transhumanist art seems like an oxymoron to some. Is it possible to combine the scientific nature of transhumanism with creative works for admiration and self-improvement? The simple answer is *yes*. Art is not bound by preset rules, which is perhaps why it plays such a special role in society, and why it has the power to push new movements forward. Transhumanism is also not bound by rules. It is, after all, a movement that seeks to improve upon and move beyond what we know and experience as humans. The creation of transhumanist beings — which we are slowly becoming — is perhaps the most artistic endeavor humanity has ever dared to pursue. Transhumanist art will help guide us to becoming masterpieces.

Andrea Andrle
Muzička akademija
Sarajevo, Bosnia and Herzegovina

U POTRAZI ZA "SAVRŠENOM LINIJOM": Razgovor saAlišerom Sijarićem

Ališer Sijarić rođen je u Sarajevu gdje je studirao muzikologiju i kompoziciju na Sarajevskoj muzičkoj akademiji u klasi prof. Josipa Magdića i filozofiju i sociologiju na Filozofskom fakultetu Univerziteta u Sarajevu. Godine 1994. dobija stipendiju Austrijskog ministarstva za nauku i umjetnost te nastavlja studij kompozicije na Univerzitetu za muziku u Beču, u klasi red. prof. Michael Jarella, gdje završava magistarski studij. Specijalizira kompoziciju kod red. prof. Beat Furrera i red. prof. Hans-Peter Kyburza u Grazu. Sijarićeve kompozicije su izvođene na nekoliko značajnih međunarodnih festivala širom svijeta, a o uspjehu njegovih kompozicija svjedoči i veliki broj porudžbi međunarodno renomiranih muzičkih institucija.

Pionir je savremene umjetničke kompozicije i analize u Bosni i Hercegovini, što dokazuju mnogi projekti u oblasti organizacije manifestacija, edukacije i podrške aktivnosti mladih umjetnika. Godine 2001, osniva i vodi Samostalnu Organizaciju Nove Muzike – SONEMUS, gdje okuplja mlade kompozitore i izvođače savremene umjetničke muzike međunarodnog nivoa. U sklopu festivala SONEMUS aktivan je i kao predavač iz oblasti kompozicije. Član je Instituta za savremenu umjetničku muziku (INSAM, Sarajevo) gdje djeluje i kao jedan

od predstavnika odjela Kompozicija. Također, član je i kompozitorske grupe *Gegenklang*.

Od 2000. godine zaposlen je na Muzičkoj akademiji Univerziteta u Sarajevu, a od 2012. godine predaje kompoziciju. Trenutno je u svojstvu vanrednog profesora kompozicije, kompjuterske muzike i orkestracije kao i šefa Odsjeka za kompoziciju.

Kada ste se počeli baviti kompozicijom, i ko je bio Vaš prvi uzor?

Doba u kojem sam se ja počeo interesirati i baviti kompozicijom, krajem 1980-ih, savremena muzika gotovo da nije bila bila prisutna u programima tadašnjih muzičkih institucija u Sarajevu (osim rijetkih koncerata na kojima su se izvodile kompozicije nekoliko domaćih autora modernističke provenijencije), a veoma se teško dolazilo do partitura, vinilskih ploča ili audio kazeta sa snimcima muzike relevantnih savremenih djela. Od internacionalnog repertoara najmodernije što se moglo čuti bila su djela sovjetskih neoklasičara, poput Prokofjeva i Šostakoviča, te u manjoj mjeri Bartóka. Schönberga, Berga i Weberna (tzv. Nova Bečka škola) bili su smatrani "ekstremnim" modernistima, a o razvoju muzike nakon II. svjetskog rata nije bilo pomena niti u kurikulumima muzičkih obrazovnih institucija, a kamo li na koncertnim repertoarima. U takvim okolnostima, moje prve kompozicije stilski su se oslanjale na već pomenute oblike neoklasicizma.

Moj prvi stvarni susret sa savremenom muzikom desio se u Beču, kamo sam krajem 1994. g. otišao iz tada ratom napaćenog Sarajeva kao jedan od dvanaest studenata Muzičke akademije u Sarajevu, koji su dobili stipendije za nastavak školovanja na Visokoj školi za muziku u Beču (danas: Univerziteta za Muziku u Beču). Našavši se tako u sredini gdje je scena savremene muzike već imala razvijenu infrastrukturu, iskoristio sam mogućnost da se upoznam sa relevantnim dešavanjima na globalnoj sceni. Pored mog profesora kompozicije, Michaela Jarrella u tom procesu upoznavanja veoma puno mi je pomogla i razmjena iskustava sa kolegama, studentima kompozicije koji su dolazili sa različitih strana svijeta i s kojim sam kao član međunarodne grupe kompozitora *Gegenklang* učestvovao u realizaciji mnogobrojnih projekata. Bila je to veoma kreativna i plodonosna saradnja.

Govoriti o jednom specifičnom stilu ili kompozitoru koji su tada uticali na moje stvaralaštvo je teško, jer se radilo cijelom spektru različitih uticaja, čija su se težišta vremenom pomjerala. Pored doajena evropske avangarde poput Pierra Bouleza, Karlheinza Stockhausena, Luciano Berioa, Iannisa Xenakisa, György Ligetia, bio je tu i cijeli niz kompozitora mlađe generacije. Ako bih već morao da odaberem neki uži krug kompozitora čiji je način komponovanja i muzičkog mišljenja značajno uticao na mene, onda bio to bili Gerard Grisey, Beat Furrer i Brian Ferneyhough. Pretpostavljam da bi se nekom ko poznaje djela ovih kompozitora ovakav izbor učinio čudnim, jer se radi o kompozitorima veoma različitih estetika, pa ako hoćete i filozofija, ali za mene oni predstavljaju različite perspektive promišljanja muzike.

Također, moram reći da pitanje "uzora" uvijek smatram donekle problematičnim. Ono mi se čini opravdanim ukoliko se radi o nekoj kompoziciji koja imitira estetske

pozicije i postupke tuđeg stila i/il sintakse, ali u tom slučaju teško je ovakvom epigonalnom uratku dodijeliti atribut umjetničkog djela. U najboljem slučaju to može biti stilska vježba.

S druge strane, naivno je vjerovati u stvaralaštvo "ex nihilo", jer svaki pojedinačni autor ima svoju historiju, pa tim i različite primljene uticaje. Razliku između puke imitacije i uticaja najjednostavnije bi bilo metaforički opisati kroz principe genetičkog nasljeđivanja. Naime, svako mora imati i oca i majku, ali dijete je novo, samostalno biće, tj. neponovljiva kombinacija genetskog materijala, a ne klon nekog od svojih roditelja.

Sagledan iz ovakve perspekive, čak i pojam stila/jezika postaje problematičan. Najčešće su stilske odrednice nametnute spolja, jer proističu iz potrebe da se nešto odredi kroz postavljanje i sortiranje u kulturno determinirane okvire. Nerijetko se u ovom procesu determinacije sakati supstanca determiniranog. Zvanična historija umjetnosti puna je takvih primjera. Ako već želimo o tome govoriti, onda su to u geneološkom smislu stilovi (uvijek i nužno u pluralu), pa čak i kad se odnose na jednog autora, ili čak na samo jedno djelo.

Bosna i Hercegovina je uistinu komplicirana država a to se ogleda u svim aspektima društva. Da li u Vašim kompozicijama na neki način kritizirate društvo, i ako da, na koji?

Smatram da je svako istinsko umjetničko stvaralaštvo suštinski zapravo pokušaj (re)kreiranja svijeta. Kroz kreaciju umjetničkih svjetova, koji se prema realnom svijetu uvijek odnose u potenciji, realizira se umjetnička istina, koja se razlikuje od naučne, doktrinarne ili društveno prihvaćene istine. Drugim riječima, istinska umjetnost je uvijek i nužno u opoziciji spram konsenzualno prihvaćene "realnosti", jer ona ne govori o tome kakav svijet jeste, već kakav bi mogao biti.

U tom smislu umjetnost ne mora nužno da bude politički ili društveno angažirana da bi izrazila svoj kritički stav spram postojećih društvenih odnosa. Dovoljno je da bude "samo" umjetnost.

Na sreću (ili na žalost) muzika, za razliku od npr. filma, teatra, književnosti ili likovne umjetnosti, nije u kapacitetu da direktno i nedvosmisleno prenosi političke ili bilo kakve druge semantičke poruke (Pri ovome ne mislim na pjevani tekst, koji, naravno može jasno i nedvosmisleno iznositi različite vrste poruka, već na ono što muzika govori po sebi, a ne po značenju teksta koji se eventualno pjeva). Razlog ovome je što jezik muzike nije simbolički, odnosno ne referira se na značenja izvan sebe. Značenje u muzici direktno se ostvaruje u međusobnoj relaciji svojih sintaktičkih konstituenata, a posredno u odnosu na kulturno generirani (muzički) kod. Drugim riječima, muzika je samoreferentni semantički sistem.

Kako se ideje, filozofska i kulturna stanovišta, i vjerovanja u muzici ostvaruju na razini koda, a ne posredstvom koda kao što je to slučaj u referentnim semantičkim sistemima (poput npr. govornog jezika), tako se i kritika u muzičkom jeziku realizira

kroz transformaciju koda samog. Na ovaj način kritički stav i mišljenje odvija se na mnogo supstancijalnijem, a po mome mišljenju i nužno iskrenijem nivou nego li je to puko deklamovanje političkih i ideoloških stavova i principa. Dakle, često u javnosti lakonski izrečene teze o univerzalnosti jezika muzike, jednostavno nisu istinite. Muzički kodovi imaju jasne ideološke i kulturne odrednice.

Već sami čin postavljanja nekog umjetničkog djela, koje supstancijalno dovodi u pitanje postojeći javni diskurs određenog kulturno-političkog i/il društvenog ambijenta, zapravo je politički statement *par excellence*.

Želim da vjerujem da je moje dosadašnje djelovanje kao kompozitora, pedagoga te organizatora koncerata i drugih javnih aktivnosti sasvim jasno demonstriralo kritički diskurs prema dominantnim kulturnim i poličkim paradigmama u Bosni i Hercegovini.

S kojim se izazovima suočava savremena muzika u Bosni i Hercegovini?

Kada govorimo o savremenoj umjetničkoj muzici u Bosni i Hercegovini i njenom razvoju, problemi s kojima se surećemo odnose se na više različitih razina bosansko-hercegovačke stvarnosti.

Kulturna klima koja je stvorena u Bosni i Hercegovini, ali i u drugim zemljama nastalim na prostoru bivše Jugoslavije, generirana je neposredno prije i u toku ratova 1990-ih koji su za posljedicu imali opštu pauperizaciju, izrazito socijalno raslojavanje, te posljedično redukciju tzv. srednje klase koja je u većini društava nosilac kreativnih i razvojnih procesa. Novostvorene elite emancipirane su iz krugova oportunističkih političara, ratnih profitera, nacionalista pa čak i kriminalaca, dakle ljudi čiji je obrazovni, kulturni i moralni habitus u najmanju ruku upitan. Ovaj proces transformacije dešavao se (a i dalje se dešava) pod ideološkim plaštom etno-nacionalizma i klerikalizma (U javnom diskursu čak su i neki oblici radikalnog nacionalizma i proto-fašizma dobili "pravo građanstva", dok je većina progresivnih pokreta marginalizirana). Problem s etno-nacionalizmom je što je on zasnovan na vjerovanju u posebnost vlastite nacije i vjere, a ne na racionalnim principima. Nacionalizam se reproducira kroz hibridnu reprodukciju nacionalnih-mitova, koji su uvijek i nužno okrenuti prošlosti, anti-intelektualni (jer ne podnose kritiku), antimodernistički (jer im je strana koncepcija individualizma) i suštinski neetični (jer im je stran svaki univerzalizam). (Mitska "stvarnost" je "istina" koja vrijedi samo za pripadnike grupe, odnosno nacije). Cijele "vojske" pseudointelektualca i javnih institucija zaposlene su na reprodukciji nacionalnih-mitova (Naravno, suština svakog nacionalizma je stvaranje ideološke dimne zavjese za redistribuciju ekonomske i političke moći). Nacionalistički koncept svodi društvenu ulogu umjetnosti na (nacionalističku) kulturnu reprodukciju. Svako društvo u kojem je umjetnost, kao suštinski kreativna djelatnost, izjednačena sa kulturom osuđeno je na stagnaciju i/ili regresiju. U ovakvom društvenom ambijentu umjetnost, a time i savremena umjetnička muzike osuđena je na društvenu marginu.

Marginalna pozicija umjetnosti reflektira se kroz izolovanost i nedostatak ulaganja u infrastrukturu koja bi je podržavala. U svojim javnim nastupima često ističem da je činjenica da Sarajevo do danas nema koncertnu dvoranu, jednostavno, civilizacijska sramota.

Na žalost, s obzirom na globalne tendencije jačanja nacionalizma i drugih identitetskih ideologija i politika, bojim se da bi sa svojim žalosnim primjerom zemlje regiona mogle postati neka vrsta negativne avangarde. Ipak, nadam se da do toga neće doći.

Da li su svi kompozitori moderno orijentirani, te da li je drugačije i moguće?

Sadašnje globalne tendencije u gotovo svim oblastima društvenog djelovanja sve češće se pozivaju na ideje i prakse, koje su donedavno smatrane historijski prevaziđenima. Civilizacijska dostignuća poput ideje o socijalno pravednom društvu, univerzalnosti ljudskih prava te razvoju nauke i umjetnosti kao osnove opće-društvenog progresa u javnom diskursu se sve češće se dovode u pitanje. Ambijent za ovaj anti-prosvetiteljski diskurs stvoren je povratkom globalnih ekonomskih odnosa na principe liberalnog kapitalizma (koji se u sadašnjoj hibridnoj formi naziva korporativni ili neo-liberalni kapitalizam) i čija je doktrina zasnovana na jednoj vrsti ekonomskog fundamentalizma, gdje je ekonomska dobit mjera svih društvenih vrijednosti. Ipak, kao i svi oblici fundamentalizma i doktrinarnog tradicionalizma, i ovaj "povratak" na historijski model osuđen je na svoju hibridnu verziju. Naime, svaki pokušaj "restauracije" historijskih modela u modernom kontekstu nužno traži prilagodbu, stvarajući tako hibrid u kojem model-uzor biva lišen svojih temeljnih svojstava. Tako danas imamo: "kafu bez kofeina" (S. Žižek), religioznost bez boga i sl.; a progresivna relativizacija etičkih vrijednosti porodila je pojmove puput fake-news i post-thruth.

U kontekstu konzumerističke kulture, koja je rezultat globalno uspostavljenih društvenih odnosa neo-liberalnog kapitalizma i koja je statistički gledano danas globalno dominantni oblik kulture, društvena funkcija umjetnosti substituirana je zabavom. S obzirom da zabava mora biti komunikatibilna najširoj mogućoj publici (da bi ostvarila komercijalni efekt), ona mora počivati na već poznatim (često rudimentarnim) kreativnim modelima i paradigmama. Drugim riječima, osnovna (i jedina moguća) kreativna matrica u pop-kuluri je hibridizacija već postojećih (historijskih) modela i paradigmi. Ovaj pop-koncept (re)produkcije hibrida suštinski je suprotstavljen autentičnoj kreativnosti, kao osnovi umjetničkog stvaralaštva. Na ovaj način značajno je umanjen i kapacitet masa da umjetnost dožive, a ne da je konzumiraju, kako to nalaže koncepcija pop-kulture.

U sadašnjem opće-društvenom ambijentu istinska umjetnost je marginalizirana i moguća samo u okvirima društvenih niša, koje još uvijek uspijevaju da odole navali konzumerizma. (Naravno, što je društvo manje i/ili ekonomski nerazvijenije, to su i ove društvene niše manje, a u nekim društvima gotovo u potpunosti nestanu). Ova

pozicija društvene izolovanosti često uzrokuje krize unutar umjetničkih institucija i često vodi akademizaciji umjetničkog diskursa, koji može biti podjednako poguban za kvalitet umjetničkog stvaralaštva, kao i prilagođavanje konzumerističkom konceptu. Tako na primjer institucije koje se bave edukacijom, izvođenjem i promoviranjem savremene muzike (infrastruktura koja se razvila u proteklih pedesetak godina u Evropi, te u manjoj mjeri i u drugim dijelovima svijeta) često nameću određene uzore u pogledu stila ili preferiranog umjetničkog diskursa, što opet rezultira pukim ponavljanjem umjetničkih paradigmi, pa makar one bile zasnovane na progresivnim i modernističkim konceptima. Situacija sa mainstream scenom klasične muzike još je gora i već nalikuje na organizaciju sportskih takmičenja: preko 90% programa tradicionalnih muzičkih institucija čini historijski repertoar od Bacha do Ravela, što nalikuje određivanju disciplina u sportskim takmičenjima; a izvođači se trude donjeti sve inovativnije interpretacije djela iz spomenutog repertoara (inovacija, kao ni interpretacija nisu nužno kreativni procesi). Ova, pomalo perverzna situacija još se više usložnjava daljom specijalizacijom izvođača i izvođačkih tijela na pojedine historijske periode (interpretacija na autentičnim historijskim instrumentima i sl.), a o hibridnim žanrovskim miješanjima razno-raznih cross-overa ne treba ni govoriti. Pored ovoga, najveća većina kurikuluma na edukativnim muzičkim institucijama koncentrirana je na inkulturaciju učenika i studenata u historijske stilove, a ne na razvoj kreativnih kapaciteta i sposobnosti. To je trijumf tehnicizma i kulture nad kreativnošću i umjetnošću i kao takav potpuno se uklapa u konzumeristički koncept.

Temeljni je problem što se autentična kreativnost ne da institucionalizirati. Kad god uspijete institucionalizirati neki stil i/il oblik umjetnosti, on postaje dio kulture, tj. eventualna referenca za kreativni postupak, ali ne i kreativni čin po sebi.

U današnjem kontekstu moguće se baviti komponovanje namjenske muzike i/ili muzike zasnovane na historijskim paradigmama potpuno zanemarujući naslijeđe modernizma. Mnogi konzervativni i idejno retrogardni teoretičari muzike pokušavaju ovakvom bavljenju muzikom priskrbiti akademski dignitet uvijek iznova re-invenirajući pojmove kao što su mnogobrojne "post" teorije, a u suštini se radi o konzervativnoj reakciji, odnosno odbijanju da se modernističke koncepcije razumiju bilo zbog profesionalne podkapacitiranosti, intelektualne ljenosti ili pukog ekonomskog interesa.

Komponovanje nije uvijek i nužno kreativan čin. Ukoliko se komponovanje zasniva na pukom ponavljanju poznatih paradigmi, onda je to možda kulturno, ali ne i kreativno, umjetničko djelovanje. Ovo, naravno ne znači da je autentična kreativnost nužno ahistorična i/il anti-kulturna. Kulturno (historijsko) naslijeđe služi umjetnosti kao referenca, tj. referentni sistem mogućih (kulturnih) šema (ali ne i konkretnih obrazaca), dok je za kreativno mišljenje potrebno "iskakanje" izvan šeme, neka vrsta sintetičkog mišljenja, koje stvara novu vrijednost.

Da li su kompozitori svjesni promjena u konzumaciji muzike i na koji način iskorištavaju mogućnosti tehnološkog napretka?

Nove digitalne tehnologije i mediji nisu samo uticali na način distribucije i prezentacije muzike, već su otvorili nove mogućnosti i perspektive u načinu na koji se muzika stvara.

U pogledu stvaralaštva kompjuteri su postali nezaobilazno sredstvo, bilo kao instrumenti u elektroničkoj i elektro-akustičkoj muzici (Computer Generated Music-CGM), ili alati koji pomažu izračunavanje kompozicionih procesa (Computer Assisted Composition – CAC), a revolucionirali su muzičku produkciju i sound design te omogućili mnoge nove spoznaje o prirodi i svojstvima percepcije i mišljenja muzike.

Korištenje apstraktnih kompozicionih paradigmi (tekovine modernizma koju je u umjetničku muziku uveo još serijalizam), koje sliči osnovnim principima računarskog programiranja, otvorilo je mogućnost za stvaranje jedne nove, sinestetičke umjetnosti, u kojoj bi pored zvuka mogla biti komponovana slika, video, film, pokret (ples) i slično. Naravno, multimedijalna umjetnost nije ništa novo, ali ja govorim o umjetnosti u kojoj bi jedinstvena apstraktna paradigma mogla biti osnova za "komponiranje" različitih medija. Najveći dio dosadašnje i sadašnje multimedijalne umjetnosti se zasniva na analogijama i/ili mehaničkoj sintezi različitih medija. Mi još uvijek ne raspolažemo nekakvim sinestetičkim referntnim sistemom značenja, koji bi mogao biti osnova za uspostavu sintakse ili referentnog koda. Iako u ovoj oblasti još uvijek ima puno traženja i eksperimentiranja, ipak mislim da danas upravo prisustvujemo stvaranju temelja za jednu novu vrstu sinestetičke umjetnosti.

S druge strane, napredovanje istraživanja u oblasti umjetne inteligencije otvaraju novu perspektivu dalje automatizacije muzičkog (i multimedijalnog) stvaralaštva. Bojim se da reduciranje uloge čovjeka u procesu kreacije potencijalno donosi dehumanizaciju i degradaciju značenja muzike (ali i umjetnosti uopšte).

Mnogi kompozitori i multimedijalni umjetnici, kojima su kompjuter i digitalne tehnologije postale osnovno (ako ne i jedino) sredstvo za rad, veoma često ističu ogromne i raznovrsne mogućnosti korištenja kompjutera u stvaralaštvu. Ovo isticanje mogućnosti / dostupnosti (engl. contingency) neki među njima uzdigli su na razinu vlastitih umjetničkih filozofija i estetika, suprostavljajući ih klasičnom principu nužnosti (engl. neccessity) pri izboru stvaralačkih postupaka. Bojim se da ovakva radikalna načela vode obesmišljavanju umjetnosti same. Sama činjenica raspoloživosti nekog materijala i/ili sredstva nije nužno i realizacija. Ovakvim contigency-stavovima zasnovanim na pukoj raspoloživosti rado suprotstavljam scenu iz jedne naučno-obrazovne emisije u kojoj voditelj pored sebe stavi kantu ispunjenu podjednakom količinom i vrstom hemijskih tvari i elemenata, kakvi sačinjavaju njegovo tijelo, a potom publici postavi retoričko pitanje, kakva je razlika između njega i sadržaja kante. Naravno, odgovor je jednoznačan: kanta sadrži sumu

hemijskih tvari, dok je tijelo organizam, tj. organizirana materija. Drugim riječima raspoloživost sredstava ne može sama po sebi kreirati smisao ili substituirati autentične ideje i kreativne postupke. Upotreba kompjutera u kompoziciji može biti veoma korisna i plodonosna, ali isto tako površna i besmislena, pogotovo ako se svaki eksperiment pokušava "prodati" za umjetničko djelo a puki tehnicizam za kreativni postupak. Po mom dubokom ubjeđenju, predmet kompozitorove kreativnosti je promišljanje i stvaranje muzike zasnovano na *muzičnosti* (*musicability*), inherentnom ljudskom kapacitetu da se izražava i komunicira kroz zvuk. Svaki pokušaj da se osnovni principi *muzičnosti* zamjene sonifikacijom algoritama uglavnom ne rezultira nikakvim relevantnim muzičkim značenjem.

Što se pak tiče razvoja interneta i elektronskih medija, oni su iz temelja promijenili način distribucije, a time i percepcije/slušanja muzike. Dostupnost svih vrsta muzike putem interneta zasigurno je jedna od prednosti, no ni u ovome domenu sama dostupnost ne doprinosi nužno kvalitetnijem razumijevanju. Olakšane mogućnosti snimanja te distribucija muzike preko Youtubea i drugih društvenih mreža značajno je smanjilo ulaganje u kvalitetnu muzičku produkciju te snizilo kriterije publike, a slušanje muzike se prilagodilo usputnoj konzumaciji. Muzika je tako svedena na zvučnu kulisu. Gotovo da ne možete otići niti na jedno javno mjesto, a da u pozadini ne zvrlje pop-pjesmice u smjeni sa reklamama. Ova vrsta zvučnog zagađenja u potpunosti obesmišljava muziku (ali ne samo nju).

Industrija gadgeta u kombinacij sa društvenim mrežama zapravo je ukinula dokolicu kao slobodno vrijeme koje se koristi za npr. samorefleksiju, izučavanje umjetnosti, obrazovanje koje nije profesionalno usmjereno ili bilo kakvu drugu aktivnost koja služi ispunjavanju čovjeka kao ličnosti (Konzumerizam podrazumijeva čovjeka kao proizvodno-potrošačku jedinicu, a ne kao ličnost). Svo slobodno vrijeme većina ljudi danas troši na zabavu i/il razmjenu samoprezentacija lišenih iskrenosti i supstancijalnih sadržaja. Iako je tehno-utopija (vjerovanje da će tehnološki razvoj razriješiti sve društvene kontradikcije i konflikte) još jedini mit/ utopija koji se održava u javnom mnjenju (i to zahvaljujući značajnoj propagandi u koju digitalna industrija značajno investira), svijet sve više liči na distopijske slike potpunog međusobnog otuđenja i sve veće neslobode.

Naravno, tehnologija je po sebi neutralna, ali u socijalnom kontekstu ona je uvijek agent ideologije i društvenih odnosa koji je proizvode, a u slučaju današnjih digitalnih tehnologija to su konzumerizam i neoliberalni kapitalizam.

Mislim da je nemoguće promijeniti ove negativne tendencije u distribuciji i percepciji muzike, dok se ne promjeni konzumeristički koncept korištenja elektronskih medija, a to bi morao biti produkt mnogo dubljih promjena opšte-društvenih odnosa. Ipak, internet za sada omogućava povezivanje ljudi koji dijele iste interese (ali ne nužno i lokaciju) i koji bi mogli stvoriti kanale za razmjenu relevantnih informacija. Iako je iluzorno očekivati da ovakvi privatni kanali mogu u značajnijoj mjeri uticati na širu javnost, oni ipak mogu stvoriti virtualni prostor, koji bi omogućio distribuciju (a time i dalji razvoj) umjetnosti koja nije zasnovana

na konzumerističkim principima. Web-stranice i blogovi sa sličnim sadržajem već postoje, ali mislim da ima još puno mogućnosti za dalje unapređenje jedne ovakve mreže. Možda ovo zvuči kao poziv za osnivanje nekakve umjetničke "gerile", ali svaka generacija umjetnika koja je donosila nove ideje bila je primorana boriti se za slobodni prostor u kojem bi mogla prezentirati svoju umjetnost. Mislim da po tom pitanju naše vrijeme ne predstavlja izuzetak. Činjenica da su komunikacijski kanali današnjice mnogobrojni i kompleksni, a javnost zaglušena globalnom informacijskom bukom, jednostavno su izazovi našega doba. Zadatak umjetnosti je osvajanje novih prostora slobode, kako u smislu kreativnosti i imaginacije, tako i u društvenom pogledu.

Da li je način promocije arhaičan? Da li je to bitno? Budući da se radi o veoma malom krugu ljudi.

Jedna od često izrečenih primjedbi na praksu savremene umjetničke muzike je da koristi (nesavremenu) instituciju klasičnog koncerta kao glavni oblik prezentacije, tj. koncert na kojem publika sjedi pokušavajući biti što mirnija i tiša, i sluša izvođače na sceni. Istina je da mnoga savremena djela podrazumijevaju sasvim drugačije koncepcije: nestandardnu prostornu dispoziciju izvođača; muzički teatar koji kreativno tematizira instituciju koncerta; interaktivne koncerte koji na različite načine uključuju publiku u proces izvođenja; upotrebu multimedije, on-line realizaciju i slično, ali ipak najveći dio djela podrazumjeva klasičnu koncertnu situaciju. Mislim da ovo ima višestruke razloge: kao prvo, poput klasične i savremena umjetnička muzika je uglavnom apsolutna muzika koja je prvenstveno namjenjena slušanju; kao drugo, savremena umjetnička muzika uglavnom je zadržala tradicionalni komunikacijski lanac kompozitor - izvođač - publika, a promjena ovog obrazca zahtijevala bi potpuno odstupanje od tradicionalnog koncepta muzičke produkcije i s njom povezane podjele rada; i kao treće, koncert je situacija izvođenja muzike uživo, u kojoj akustički instrumenti i muzičari stupaju u međusobnu interakciju, ali i u interakciju s koncertnim prostorom, što svaki pojedinačni koncert čini jedinstvenim. Drugim riječima, dok god muziku piše pojedinac i izvode je muzičari na (barem djelimično) akustičnim instrumentima, koncert ostaje osnovni i nezamjenjiv oblik prezentacije umjetničke muzike.

Izlazak iz tradicionalne koncertne situacije ima smisla ukoliko se radi o jasnoj umjetničkoj viziji i koncepciji koja to predviđa (dakle, uglavnom u multimedijalnim i/ili interaktivnim djelima), ali izmjena koncertne situacije gdje se od koncerta pravi spektakl u kojem se dodavanjem različitih efekata zapravo skreće pažnja sa muzičkog zbivanja, više nalikuje cirkusu nego prezentaciji nekog umjetničkog djela. Bojim se da kod ovakvih vrsta "popularizacije" prvo strada muzika, odnosno umjetnička pretenzija djela i(li) događaja. (Ovdje treba razlikovati umjetničku intenciju kreativnog čina od eventualne autorove pretencioznosti.) Dobar primjer za pretenciozan način "prezentacije" klasične muzike vidi se u raznim formama crossovera u kojima se

klasična muzika kombinira sa pop-muzikom i pop-prezentacijom. Rezultat je uglavnom pojednostavljenje muzičkog sadržaja do razine karikaturalnosti, a kao glavni razlog za stvaranje ovakvog hibridnog žanra njegovi protagonisti najčešće navode popularizaciju klasične muzike. Ovaj argument, naravno "ne drži vodu", jer su istraživanja pokazala da onaj ko se "uvodi" u klasičnu muziku kroz ovakve hibridne žanrove, uglavnom ostaje u okvirima žanra. Naime, ko je navikao da sluša Vivaldijeva *Godišnja doba* izvođena s bubnjem, ritam mašinom i light-showom neće poželjeti poslušati isto djelo u autentičnom izvođenju, veće će tražiti novi cross-over. Tako se stvara kič-čovjek, a suština je isključivo u komercijalnom efektu.

Inače, mnogi apologeti konzumerizma pokušavaju prikazati razvoj pop-kulture kao historijski proces demokratizacije, odnosno deelitizacije kulture, pa čak i umjetnosti. (Ukoliko je ovaj stav u prošlosti i mogao imati neko opravdanje kroz postojanje alternativnih oblika popa, koji bi se mogao definirati kao neka vrsta urbanog folklora i pri čemu komercijalni efekt nije bio primaran, danas 99% pop-produkcije reflektira najbanalniji konzumerizam. Nekadašnji alternativni pop gurnut je zajedno sa drugim nekomercijalnim oblicima na društvenu marginu.) Naravno, osnovna ideja iza toga je prikazati razvoj pop-a kao liberalizaciju kulture, odnosno proces kreativnog oslobađanja društva (u socijalnom smislu). Mislim da se ovi argumenti baziraju na pogrešnoj libertianskoj koncepciji u kojoj se pojam slobode pojedinca svodi (gotovo isključivo) na slobodu izbora. Sloboda je dijalektički, djelatni proces oslobađanja od neznanja i predrasuda u kojem se novi prostori slobode uvijek iznova osvajaju kroz autorefleksiju i potragu za istinom, a ne kroz izbor među već postojećim (kulturno-historijski generiranim) "istinama". Drugim riječima, umjetnost je potraga za umjetničkom istinom čiji je osnovni cilj osvajanje novih prostora slobode, a ne (isključivo) kulturna reprodukcija. Shodno ovome, svaki pokušaj popularizacije umjetnosti kroz simplifikaciju i prilagođavanje umjetnosti "ukusu" masa ne samo da promašuje cilj, nego i deformira sredstvo. Jedini način da popularizirate umjetnost (a da ona pri tome ostane umjetnost) je da obrazujete publiku pokazujući i objašnjavajući joj njene vrijednosti. Da upotrebim jednu analogiju: niko neće razumjeti i/ili progovoriti neki strani jezik ukoliko ne uloži trud da ga nauči.

Možete li reći više o kompozicijskim procesima koje koristite? Koji su trenutno Vaši glavni izazovi (u smislu kompozicije) te na koji način se publika povezuje sa Vašim kompozicijama?

Iako ne baš savremen, koncept procesualnosti u muzici je relativno nov. Naime, ideja o procesu tekovina je koncepcije o linearnom vremenu - Newtnov x-vektor u kartezijanskom ordinatnom sistemu (klasične, teocentričke koncepcije vremena u pravilu su ciklične). U muzičkoj tradiciji, naravno, pronalazimo neke forme koje sugeriraju procesualnost, poput npr. Bethovenovog sonatnog oblika i/il varijacija koje impliciraju dijalektički proces. Ipak, da bi se procesualnost realizirala u

muzici u punom značenju te riječi, bilo je potrebno da muzika postane atonalna i atematska, što se historijski dešava tek s nastankom tzv. Avangarde. Također, razvoj elektroničke i elektroakustičke muzike uslovio je komponovanje zasnovano na apstraktnim paradigmama, kao i korištenje naučnih i tehnnoloških metoda i postupaka, a ne isključivo kulturnih, kako je to bio slučaj u dotadašnjem razvoju muzike. Kompozitori poput Karlheinza Stockhausena, Iannisa Xenakisa, Györgya Ligetia i mnogih drugih, svaki su na svoj način doprinjeli ovom novom shvatanju muzike.

U suštini, u procesualnoj muzici muzička faktura rezultat je podloženih (konkretnih i/ili apstraktnih) procesa pri čemu se komponovanje ispostavlja kao upravljanje procesima, tj regulacijom muzičkog toka. Za usporedbu, u klasičnom komponovanju kompozitor oblikuje i vremenski distribuira muzičke elemente na bazi vlastite volje i intuicije uspostavljajući među njima mehaničke odnose koji onda stvaraju globalnu formu. Ako bismo tražili analogije za ova dvije vrste sistema, onda bi klasični način komponovanja odgovarao (klasičnoj) mehanici, a procesualni - termodinamici.

Specifična razlika ova dva tipa muzičkog mišljenja pretpostavlja i različite načine slušanja: dok se u tradicionalnoj muzici slušanje koncentrira na traženje i pronalaženje (search & find) poznatih figura (motiva, tema, rečenica) koje su prethodnim izlaganjem pohranjene u memoriji slušaoca, u procesualnoj muzici fokus slušaoca je na stupnju i dinamici transformacije polaznog muzičkog materijala. Ovo ne znači da su kompozicije zasnovane na procesima nužno i isključivo linearne pri izlaganju transformacije, jer se procesi mogu odvijati na prilično apstraktnoj razini i/ili sadržavati različite procese koji se odvijaju simultano, i/ili su nasloženi, i/ili se odnose na različite kompozicione parametre. Procesi već sami po sebi mogu biti: determinirani ili nedeterminirani (ili djelimično nedeterminirani); teleološki (upravljeni prema nekom cilju) ili bez konkretnog cilja; transformativni ili generički; i u svim mogućim kombinacijama navedenih dihotomija. Dakle, mogućnosti su veoma raznolike.

Stupnjevi kompleksnosti procesa kreću se u dijapazonu od veoma jednostavnih, poput *Phase* – kompozicija Steveja Reicha (ali i nekih drugih Minimalista), u kojima se konkretni melodijsko-ritmički obrasci podvrgavaju dugoročnom linearnom procesu transformacije, preko procesa aditivne sinteze koji karakteriziraju spektralnu muziku Gerarda Griseya, pa do kompleksnih (apstraktnih) serijalističkih kompozicionih procesa kakve srećemo u pojedinim djelima Briana Ferneyhougha. Dakle, procesualnost je način (muzičkog) mišljenja, a ne stilska ili sintaksička karakteristika.

Ideji o procesualnosti u muzici treba zahvaliti razvoju kibernetike (u širem značenju te riječi), odnosno razumijevanju muzike kao sistema razmjene informacija. Iz ove perspektive muzika se u strukturalnom smislu shvata kao ponavljajući obrazac i njegova transformacija, pri čemu je je stupanj transformacije nosilac značenja.

U skladu sa ovim i moj način komponovanja zasnovan je na pronalaženju

procesa koji bi rezultirali određenim soničkim zamislima (zvučnim slikama), do kojih često dolazim intuitivno ili slobodnom improvizacijom. Procesi se primjenjuju na dvije osnovne razine: generička razina - koja obezbjeđuje *stream*, odnosno slijed ponavljajućih obrazaca i transformativna razina - koja "signal" (tj. generičku razinu) transformira na različite načine.

Osnovu za generičku razinu sačinjavaju ponavljajući obrazci/modeli pokreta. Naime, po mom mišljenju jedine transkulturno saopštive predstave izrazive u muzici su predstave o pokretu: kretanje na više, kretanje na niže, kružno i "fazno" kretanje. Ovi apstraktni modeli zapravo su indentični osnovnim vrstama talasa u elektroakustici (sawtoot, reverse sawtooth, triangular, sinus & square waves) i mogu se u muzici odnositi na različite parametre: frekvenciju, dinamiku (crescendo/ decrescendo), ritam (ritmički accelerando/decellerando), timbre (promjena težišta spektralne ovojnice) ili čak količinu buke, odnosno stupanj informacijske entropije. Ipak ovdje se ne radi ni o kakvoj aditivnoj sintezi, jer navedene vrste "talasa" služe generiranju strukture a ne designu zvuka i njima se posljedično operira na znatno nižim rezolucijama.

Na drugoj, transformativnoj razini osnovni generički sloj podložen je različitim oblicima filtracija (ponekad i filterskim kaskadama) koje su također organizirane kao naslojeni procesi.

Kontrola svih procesa zasnovana je na jednostavnom matematičkom principu polinomske interpolacije i vrši kroz četiri osnovna parametra: rezolucija, opseg, zakrivljenost interpolacije i stupanj randomizacije procesa.

Za izračunavanje procesa koristim kompjuterski program Open Music, razvijen u IRCAMu, u okviru kojeg sam vremenom izgradio vlastite potprograme.

Naravno, računanje ovakvih procesa teorijski je moguće i bez kompjutera, ali bi to bilo veoma radno zahtjevno i vremenski neekonomično.

Upotreba kompjutera pred kompozitora u ovom kontekstu ne postavlja više problem samog izračunavanja procesa, već odabir odgovarajućih krivulja koje određuju razvoj i dinamiku pojedinačnih procesa. Tako je kompozitor konfrontiran sa temeljnim pitanjima koja oblikuju muzičko mišljenje i formu na mnogo apstraktnijoj razini, poput: stupnja linearnosti/nelinearnosti muzičkog procesa, dinamike razvoja muzičkog informacijskog toka u smislu izgradnje dramatike u djelu i sl. Drugim riječima, procesualni kompozitor traži "savršenu liniju". tj. onu koja bi najbolje odgovarala osnovnim principima ljudskog kapaciteta da razumije i komunicira muziku.

Marija Maglov
Institute of Musicology SASA
Belgrade, Serbia

"THE MOST IMPORTANT ROLE PERFORMER CAN TAKE ON IS TO PROMOTE NEW MUSIC": Interview with Nataša Penezić

The pianist **Nataša Penezić** is one of the younger generation's performers dedicated almost exclusively to modern and contemporary music, as a soloist and in various ensembles. In both capacities, she has given performances at festivals such as Klangspuren Festival IEMA in Tyrol, Aarhus Festival, Aurora Festival, Euro Arts Music Festival, Kom och Hör, Citta di Chioggia, Musica in Laguna, European Clarinet Festival, Ring Ring, KoMA, KompArt, RuidAlSud and Palić Film Fest. She also appeared as a soloist with the Russian CREDO Orchestra, Orchestra Sinfonica di Chioggia, as well as Serbian Ensemble SYNC and Muzikon chamber orchestra. After an education that led her through the academies of Novi Sad, Belgrade and Stockholm, she became an educator herself, holding a teaching position at the Academy of Arts in Novi Sad (piano as a subsidiary subject). In 2018, she completed her doctoral artistic project titled *Interpretation of new means of expression in selected*

piano works by Pierre Boulez, Luciano Berio and Frederic Rzewski. At a concert held as part of the 26th International Review of Composers in Belgrade, she performed Boulez's *Douze notations*, Berio's *Sonata*, and Rzewski's *Marriage* (from the cycle *Road*). The last piece was heard for the first time in Serbia, and as a curiosity (given the content related to Leo Tolstoy's novel *The Kreutzer Sonata*), Penezić was the first woman ever to perform it. During the past few years, she has also worked with composers such as Sofia Gubaidulina, Jonas Forsell, Brian Philip Buch, Mariano Paternoster, Dušan Radić, Ivan Jevtić, Jasmina Mitrušić and Miša Cvijović.

You are primarily performing music of the 20th and 21st centuries. Within that vast scope, how do you choose the works you are going to dedicate yourself to in the given period? Do you have "favourites" among composers or do you strive to test yourself in as much different repertoire as possible? What challenges do you look for as a performer?

During the last few years I have committed myself to learning as much as I can about the history and repertoire of the past 100 years. I am primarily interested in 20th and 21st century music, and I realized a long time ago that it would take constant learning in order to really be "in the business" of playing modern and contemporary music. This is probably the main reason I decided to audition for doctoral studies at the Faculty of Music in Belgrade. Since then I've spent each year experimenting with diverse repertoires, ranging from Soviet composers to the Second Viennese School, American modernists to the European Avant-garde, applying knowledge and reassessing it practically in every imaginable playing formation, all the time looking for equally enthusiastic colleagues to work with. The first thing I did after submitting my written paper was to rent out the score of the *First Piano Concerto* by Dmitri Shostakovich. I didn't think that would be my first project after completing the doctoral project, as I was so high on researching Boulez and Berio and Rzewski, but I got a call from *Muzikon Chamber Orchestra* and realized this choice presented a perfect balance – playing as diverse a range of repertoire from the last 100 years as possible. It is an idea that I wish to follow during the next period as well. I have some totally contrasting pieces lined up for the coming season, and I intend to delve into as many different concepts, compositional and playing techniques as possible and explore them in both solo and chamber projects.

Your doctoral artistic project deals with new means of expression in piano literature, with emphasis on functional value of secondary tone parameters in the organization of contemporary musical languages. Why did you choose the examples of works by Boulez, Berio and Rzewski and how precisely do you access these particular parameters?

With regards to repertoire, no one can tell you what to play, or what not to play. Mentors are there to guide you through the process, and also to maybe (re)shape the concept a bit. The pieces I chose for my doctoral research represented musical ideas that interested me most at the time, even though I did not immediately pair them with specific aspects of expression (which I always knew would be the central idea of my research). Over time, the selected pieces became perfect representatives of what I wanted to explore – different, corresponding aspects of expression, or, more precisely, investigation of means of expression as formative, constructive elements of the structure, and not only within the perspective of composition but also that of a performance. The paper took shape as the work unfolded, giving each chapter its

own identity. Boulez left out precise metronomic marks in his *Notations*, preferring poetically steering us in direction of "the right" choice of tempo (a detail I grabbed and held on to knowing how seldom it happens that a performer lands him/herself in a position to interpret *le maître*'s marks, or the lack of them, so freely). Berio, on the other hand, used the pedal(s) in so many ways that I spent weeks trying to decide which way to go, before finally deciding on its constructive aspect and the analysis of it as a mnemonic device. Rzewski and the speaking pianist technique need no special explanation – the technique and the composer are so rarely investigated by pianists in this part of Europe that I felt the need to tackle the whole thing from as many perspectives and viewpoints as possible. So I wrote about as many elements as I could fit in within a fairly compact little paper – the composer's comments about the cycle and the piece, the choice of text and how it was adapted, the overall structure, relations between language and music, and the novel and innovative expressive qualities obtained through the use of such a traditional instrument as piano, as well as my work on voice and acting with the actress Lidija Stevanović and collaboration with the composer himself.

A significant part of your doctoral artistic project is dedicated to Rzewski's composition Marriage*, which has both a piano part and a spoken part. Because of the complex demands put in front of the performer, you mentioned "virtuosity rehabilitation". What does virtuosity mean in contemporary music? What does it mean to you?*

Virtuosity is a concept that never really gets outdated – it has been alive and well, changing only its visibility, modulating over time. It is so with regards to all repertoires, both traditional and modern/contemporary. We all work so hard on obtaining these skills that barely come close to any notion of expressiveness, and yet we must do it, knowing it is, in a way, a fool's errand. There was a time when showmanship relied on the spectacular power of playing in an "openly" skilful fashion. And even then it was only one component of a masterful performance. During the time of the serialists, virtuosity completely lost its credibility, masking itself in thick layers of material, not allowing the performer to take over any of the glory. However, it can be stated that this music was written (exclusively) for *virtuoso* players, as one simply cannot play it without the whole set of virtuoso skills. As for myself, I have no special sentiment toward virtuosity. I don't find it especially interesting or fun on its own. In the context of a certain (demanding) piece, I look at it as an "end that justifies the means" situation, and I try my best to be as precise as I can. I do find some amusement in seeing how composers develop playing techniques, and how much we all need to be on the lookout for new ways of playing, constantly obtaining new skills, or we might as well lock ourselves in museums and have our audiences slowly become extinct.

Could you describe how the process of working on the composition flows in your case – from the first sight on the score, decision on the interpretation, up to the performance act itself?

The preparation process of a piece of music could almost be compared to a game. There are certain "rules", some you follow, and some you disregard. Depending on periods, styles, forms, etc. you can be more (or less) free. It's also one of the reasons I enjoy playing new (newer) music - your ears are not as compromised as within the standard repertoire, so the feeling of freedom seems different, not as controlled. You don't have models, nor the impression of knowing a piece all your life. It takes years to get to the point of establishing a certain interpretational integrity, but also the courage to then "step over the line" and give a personal reading, an original interpretation... To disregard the rules easily, with confidence, be excited about all the decisions. If I look back at how I've worked on *Marriage* – the process was so long, even though I've learned the piece quite quickly. As I've heard Rzewski say many times, "there can be no correct or standard version", and I've spent quite some time on finding my own ways of performing it. The score was just a starting point, something of a map. All the ideas that were later put into motion (such as the acting aspect of the performance) were analysed and filtered so many times that I can hardly remember all the stages of preparation. I've had the luxury of working with our esteemed actress Lidija Stevanović during the process, as well as with my dear friend Milan Jančurić – the sound engineer – who both helped so much in making the first public performance an unforgettable experience for me. And that is the best part of a preparation process, not knowing how the piece will turn out, or, as in this case, whose mark it will bear next to your own.

Speaking of those marks left by collaboration, let's talk about working with composers, an experience you had quite a few times with different authors. The longest collaboration is perhaps one with Jasmina Mitrušić Đerić whose piano and chamber music you perform frequently. While in these dialogues with the authors, how much space is there for you to build your own performing perspective? On the other hand, how much obligation do you feel towards composers' instructions, as opposed to improvisation?

The composer I have worked with the most is Jasmina Mitrušić Đerić. I have found this collaboration crucial in times when I needed to grow as a performer, especially one that was so intensely interested in modern and contemporary music, and in a country that basically had (and still has) no financial means to support culture and arts, let alone new art-music production. She introduced me to the concept of creating a piece of music in dialogue, and to the vast field of creative freedom within it. Her *naked* scores were, in a way, a key inspiration for my research during my

doctoral studies, but also what kept me intrigued beyond any institutional learning. We are always collaborating and going forward together, even when I am not playing her music (in public). I will be performing her *Night butterflies* with a wonderful harpsichordist, Milan Popović, during the 15th *Ars vivendi clavicembalum* festival in Belgrade, and this is probably the most important role a performer can take on – to promote new music, fight for new audiences, but also transmit, communicate appreciation and respect for a composer to other performers. Of course, the music needs to be... well, good! But also, it often happens that a lot of really interesting music stays overshadowed and fades into obscurity simply because the community doesn't work hard enough on promoting the good stuff.

MAIN THEME:
Process in Art, Technology and Theory

Monika Novaković*

Institute of Musicology SASA
Faculty of Music, University of Arts
Belgrade, Serbia

PROCESS IN THE AESTHETICAL AND THEORETICAL THOUGHT OF KARLHEINZ STOCKHAUSEN[1]

Abstract: Process is the key aspect of Karlheinz Stockhausen's (1928–2007) musical discourse. In this paper, I aim to present the composer's understanding of the word process and mark the place that this word has in the aesthetical and theoretical thought of said composer. The basis for this research is literature and other sources in which process is explained as the recurrent theme when discussing the composer and his music. Hence, the first part of the paper will deal with the definition of the theoretical positioning of this phenomenon. The second part of the paper will deal with the explanation of process-music, a term that includes not only Stockhausen's music, but also the music of other composers. Lastly, in the light of the main subject of this paper, a review of the composition *Prozession* (1967) will be central to the third part of this paper.

Keywords: Karlheinz Stockhausen, process, process-composition, *Prozession*, process-music, supra-humanisation, spirituality, procession, transformation

Stockhausen's understanding of process

Before I turn to Stockhausen, I would like to review the general understanding of the idea of process. What do we usually mean when we use the word *process*? In common usage, the word bears the meaning of something being in progress, or rather, something that will yield results in the end. Oxford Dictionaries define the word process as "a series of actions or steps taken in order to achieve a particular end" (Oxford Dictionaries n.d.). Furthermore, they define the word process as "a natural series of changes" (Oxford Dictionaries n.d.). Moreover, the Merriam-Webster dictionary holds a definition of the word process that claims that

process is "a natural phenomenon marked by gradual changes that lead toward a particular result" (Merriam-Webster n.d.). When you type the word "process" in the search box of the Encyclopedia Britannica Online, you will be offered around 10.366 results of various types of processes – those present in computer science, chemistry, photography, medicine, metallurgy, and various other fields of interest (Encyclopaedia Brittanica Online n.d.).

Musically speaking, Karlheinz Stockhausen defines process as a "development towards something – without seeing from the start where you are going" (Nevill 1989, 103). Therefore, the basis of the process for Stockhausen is the very unpredictability of the said phenomenon. One would immediately think of the question that imposes itself – could the end result be predictable, while the steps that are needed in order to get to that end result are not? I mean this in a sense of taking necessary steps towards the result you are certain of, or rather, sort of a scientific experiment you would perform in order to prove a hypothesis.

We will see that Stockhausen thinks otherwise, in light of a conversation with Tim Nevill which he further explained that "process does not exist if you deterministically foresee the end right from the beginning so that everything is really simultaneously present. A process requires time and development – and the only justification for time and development is that you cannot see exactly where they are leading. Mystery is a necessary part of process" (Nevill 1989, 103).

Process, it seems, holds great significance in Stockhausen's philosophical as well as theoretical thought to such an extent that Tim Nevill dedicated one chapter of the book *Towards a Cosmic Music* to the concept of process – naming the chapter after the idea itself. (Nevill 1989, 100–110) while Robin Maconie named the fourteenth chapter of his book *Other Planets: The Music of Karlheinz Stockhausen* (Maconie 2005, 282) after the same word. Likewise, Jonathan Cott dedicated a special segment of his book *Stockhausen: Conversations with the Composer* to the composition of processes (Cott 1974, 151–152). Some explanation of the different theoretical positioning of this word between the three authors is needed. Let us begin with Tim Nevill.

What prompted the discussion between Stockhausen and Nevill on process was Nevill's question in relation to Stockhausen's, as Nevill put it, music-theatre project (Nevill 1989, 100), *Licht*. As Stockhausen has stated, "from the start the process is always the most important thing" (Nevill 1989, 101), thus stressing the importance of a so-called process-idea (Nevill 1989, 102) that is usually unknown to the composer himself. I suppose that behind the unknown process-idea lies the formational process it undergoes before it reaches the composer's mind – a process behind a process. Quite possibly, the very origin of the process-idea could embody the mystery the composer has already underlined, since, according to him, "processes entail much that is mysterious and unexpected" (Nevill 1989, 103). In essence, a process-idea could be understood rather as a kernel-idea from which some particular process will stem and therefore be prompted to develop. I must also mention that Mirjana

Veselinović Hofman, in the same vain, explains that Stockhausen undoubtedly stayed within the frames of the German musical and thought orientation with his own idea of process (Veselinović Hofman 2007, 78). Also, she explains that Stockhausen does not carry sound visions within himself, rather, everything he does stems from the very process of work (Veselinović Hofman 2007, 78).

Stockhausen speaks of many types of processes – process as creation, process as personal development, the process of achieving higher consciousness, the process of transforming everything into human form, the process of development of human civilisation, the process of dying, the process of separating the soul from the body, the process of supra-humanisation… to name but a few. He states that "most of one's life is spent in experiencing processes – and that is also the case with process-music" (Nevill 1989, 104). Before I explain process-music, I would like to explain some of the above-mentioned processes that Stockhausen highly values and often mentions in interviews and conversations (with authors such as already mentioned Tim Nevill and Jonathan Cott), to name a few, where the topic is himself and his music.

Process of creation - Free jazz and solitude. A particularly interesting process is the collective creative process which, according to Stockhausen, free jazz exemplifies (Nevill 1989, 13) by leading individual players to collaborate in this creative process. Stockhausen comments on the minor setback in this process – namely, that there is "rarely any silence to enable one musician to play for a while" (Nevill 1989, 13). The importance of these 'breathers' in the performance is necessary for the structure as a whole, otherwise the performance just becomes noisy and illogical, as we can conclude from Stockhausen's answer to Nevill. Elsewhere, Stockhausen underlined the importance of silence from which creative processes can stem. Time dedicated to solitude can help one to perform creative acts. I find confirmation in Stockhausen's words that "very particular discoveries and events can only occur when a man is completely alone – being a vessel in a completely self-responsive, self-responsible activity." (Cott 1974, 26) Solitude could also bring a better understanding of being in a group or participating in a group, because every individual should dedicate some time to his own development. Self-discoveries carry weight later on in group performing, and Stockhausen had something to say about that too: "the group cannot develop if there isn't an individual self-discovery developing, on the part of both the individual members and in particular of the one who draws the group together." (Cott 1974, 26–27) Therefore, the system should allow active musicians the time to rest and also the possibility to distance themselves from groups, orchestras and choirs they perform with actively. Stockhausen stands firmly on the ground of this ideal scenario, expressing concern for the enthusiasm many musicians lost when they decided to take this calling upon themselves. He suggests therefore that we should "start right from the beginning, reawakening that original enthusiasm within ourselves, or give up being professional musicians". (Cott 1974, 45) He goes so far as to suggest the disbanding of "all orchestras and all choirs for a considerable time, allowing each musician an opportunity to reflect, meditate, and discover why he

or she is alive at all, why he or she makes music, and whether that is an absolute necessity" (Cott 1974, 45-46). As transformative as this idea sounds, it will never come to fruition, because the demands present in the professional lives of musicians limit that possibility.

World culture. The composer also spoke of the process related to the concept of *world culture*, saying that the first stage of the "rapid process of dissolution of individual cultures into a more unified world culture" is "sameness and levelling down" (Nevill 1989, 28). Later on in the book, Stockhausen says that "the entire process of the development of human civilization and culture seems to have involved the unfolding of multiplicity out of a unified culture we no longer know" (Nevill 1989, 109).

Supra-humanisation and dying. Related to supra-humanisation is the process of "transforming everything into human form" (Nevill 1989, 71) where the question imposes itself – "what will become of human beings" (Nevill 1989, 71) – and *when*, I would add. In his *Manifesto for the Young*, written for the *Journal Musical* in Paris in 1968, Stockhausen wrote that "one can only become a higher being by surmounting egocentricity and the fear of losing oneself in the process" (Nevill 1989, 44), having previously explained that only a few individuals will "achieve freedom and supraconsciousness" in this process of supra-humanisation. (Nevill 1989, 44) Besides supra-humanisation, the most important processes are *the process of dying*, and at the very end, *the process of separation of the soul from the body*. (Nevill 1989, 90) The process of dying, of physical death, is connected to Stockhausen's understanding of death. According to him, "the process of dying is very much longer than a Requiem express", thushe pointa out that other cultures (for example, Balinese culture) value death differently than the European culture. These rites may have a certain amount of theatricality to them, or as Stockhausen put it: "this is a great theatrical event with processions, costumes, and special musical instruments…" (Nevill 1989, 90). Ultimately, he came to the conclusion that "developing and dying are in fact the processes which move and interest us, and are the real theme of life and universe" (Nevill 1989, 105).

The composer spoke of death on several occasions: when discussing the adaptation of the human race, of supra-humans and of the individuals that are not adaptable to changes and, therefore at risk of dying out quickly. In the Q&A part of his later published lecture *Four criteria of electronic music* filmed by Allied Artists at Oxford Union in London in 1972, Stockhausen revealed the knowledge of the book *Future Shock*, written by futurist Alvin Toffler (Slotover 1972, 4:10), that prompted his thoughts of supra-humanisation and adaptability of individuals or societies to change. When it comes to the process of dying, Stockhausen's comprehension of death comes across as very specific. Its origin may be traced back to his childhood experiences of war, when he lost both of his parents and learned the true meaning of destruction. His fascination with death is obvious from his above-mentioned comments which clearly show that he gained knowledge of the death rituals of

different cultures on his travels. His views on destruction are particularly interesting for the reason that he defines destruction as *an opening*. To what? He answers: "every destruction – as one knows from an explosion – releases energy. Then you discover the real power of things" (Nevill 1989, 106). Indeed, one might be reminded of the Big Bang and creation of the Universe.

Creation and intuition. Stockhausen spoke of creation not only in terms of creating his own music, but also of creation at large. He does not consider himself a God-given creator and composer, but rather an aspect of the Almighty himself, writing down the music that must be written. I already pinpointed some of the important discourses that inspired Stockhausen to conceive of a concept of *formula* (Novaković 2017, 175–193), which he introduced with his composition *Mantra* (*Mantra* 1970) – formula as the seed from which the whole new universe will stem, the essence of the composition, the impulse of its existence and further development (Novaković 2017, 182). Bearing what was previously said in mind, as well as Stockhausen's explanation that "intuition is after all supra-rational" (Nevill 1989, 55) and mainly "in the narrower sense is… a realm beyond the human sphere, which exerts an influence by way of the vibrations constantly bombarding us" (Nevill 1989, 55), we could connect creation with the intuitive activity of the composer in its very progress, considering the fact that these vibrations, as Stockhausen put it, lead us "to carry out specific actions" (Nevill 1989, 55). Subsequently, if these vibrations are to be transposed into actions, says Stockhausen, you could also make music from them (Nevill 1989, 55). As has already been emphasised, Stockhausen does not put an 'equals' sign between himself and God, whom he called "the greatest musician of all times, the greatest composer" (Nevill 1989, 114) and "omnipresent in all creative processes of nature, and the artist follows God's example by attempting to create the living organisms of new works…" (Peters 2003, 161). Since Stockhausen's glorification of God has been was discussed elsewhere, I will proceed with other examples of processes he was interested in.

Construction. One of the most important processes is the process of construction, as Stockhausen put it, of "getting everything under control, starting to plan like an architect…" before actually composing (Nevill 1989, 80). This statement somewhat contradicts the unpredictability of the process itself, but I believe that this construction plan is related to the forming of the process-idea that will later set the composition in motion – or rather, *the process-plan*. Some compositions do bear the marking *the process plan works* or *the plus-minus pieces*, as Ed Chang observes in his detailed guide to Stockhausen's music. (Chang 2014). Chang's analysis implies that the term process-plan indicates *controlled improvisation* and goes so far as to call the scores to these pieces *controlled improvisation scores*. (Chang 2014)

It is implied that construction is closely related to the process of composition. Günter Peters commented on the intrusion of *cosmic-rays* into Stockhausen's process of composition, quoting Stockhausen's words: "if, in the best moments, I use all my craftsmanship as a constructor, it is necessary that something from an unknown

world shoots into my construction [...] precisely when reason has reached the limit of that which is analyzable and explicable: that is where mysticism begins" (Peters 2003, 150).

Having explored various examples of processes which are recurring themes in Stockhausen's discourse on music, I will now turn to discussing process-music.

Process-music

Process-music is not necessarily associated with Stockhausen exclusively. It is a term that was attributed to the works of many composers. Michael Nyman, for example, uses the term when referring to the works of Elliott Carter, Morton Feldman, Steve Reich, Terry Riley and others (Nyman 1974). With this term comes another important one – namely, process-composition.Stockhausen named several of his compositions "process compositions", especially those that contain plus, minus and equal signs as symbols that are indicators for the transformations, as I will further elaborate in this paper on the example of *Prozession* (1967). The compositions *Plus-Minus* (1963 / second version written in 1974), *Prozession*, *Spiral* (1968) and *Kurzwellen* (1968) are some of the pieces that fall into this category. Ed Chang adds the compositions *Expo* (1969–1970) and *Pole* (1970) to this list. (Chang 2014) The term process-composition could also be used when referring to pieces by some of the earlier mentioned composers. However, due to the fact that the main subject of this paper is Karlheinz Stockhausen, I will explain process-music in light of his thoughts on the matter.

As I have said earlier, Jonathan Cott spoke to Stockhausen on the subject of processes. Before that topic, Stockhausen pointed out the importance of by Raymond Ruyer's book *The Genesis of Living Forms* (*La genése des formes vivantes*, written in 1958), which he discovered around 1969 – around the time that Stockhausen was, as he put it, "completely in the process of composing processes" (Cott 1974, 151). He added that "early in the sixties I said that what we had to compose was composition and not compositions. We have to compose the process of how to compose rather than composing pieces. You see this everywhere. At the beginning of the sixties, process planning became very significant" (Cott 1974, 151). However, it is important to mention that his endeavors in the field of process composing further lead to the birth of *intuitive music*. I will explain this along with the review of the composition *Prozession*.

Prozession

As Ivana Medić explains, *Prozession* (May, 1967) is an "interesting composition in which Stockhausen applies autocitations" (Medić 2008, 55). According to Medić, the score of this piece formulates a musical process which uses variations of segments from Stockhausen's previous compositions, which perfomers perform from memory

(Medić 2008, 55). Additionally, she explains that it was not a coincidence that Stockhausen used the name of a religious ritual when choosing the title of this work, thus "coding his piece in the coordinate system of religious-mystic conceptions" (Medić 2008, 55). Jonathan Harvey describes Prozession as "the work in which a lot of freedom is given to the perfomers" (Harvey 1975, 109). That comes as no surprise, given the fact that Stockhausen pointed out the unpredictability of the process on several occasions. In the first place, Harvey elaborates that *Prozession* was "written for Stockhausen's group to play on tours, and it presupposes a tremendous *rapport* and intelligence from the players, as the players parts use only +, – and = signs for form and previous works of Stockhausen for material to be shaped into content" (Harvey 1975, 109).

Stockhausen pointed out that each instrument – tamtam, viola, electronium, piano, microphones, filterer and potentiometers (Stockhausen 2013) – has a part consisting of a series (Wörner 1976, 61) of the above-mentioned signs, that indicate the following: "+ indicates higher or louder or longer or more components; – indicates lower or softer or shorter or fewer components and = indicates identical (or similar) register and volume and duration and timbre and number of components" (Wörner 1976, 61). Also, the composer adds that "each player begins with an event when he wishes. As soon as a player finishes an event, he reacts in accordance with the sign in his part either to the event he himself has just played (either immediately or after a pause), or else to the event of another player that is starting next, which he must hear out before reacting to it (hence trios, duos and solos are formed). Any sign (or vertical combination of signs) holds good for one event". (Wörner 1976, 61–62) In other words, these signs are *transformation signs* (Maconie 1989, 113). The events form the process – that is, procession – that this composition represents. Furthermore, the composer underlines the fact that "in *Prozession* the musicians transformed events from my earlier compositions so that they became new events – often unidentifiable or genuinely unknown" (Wörner 1976, 68). It has been made clear that the process of transformation is at hand – Stockhausen has provided so-called "genetic rules for the development of a music" (Maconie 1989, 114). Transforming certain objects – known objects – and phenomena into something that will be difficult to identify later on was also one of the goals Stockhausen strived for, as later works will demonstrate.

Stockhausen said that the process is unpredictable. Similarly, the end result of some of the pieces of intuitive music may yield a new process or processes – a particular object may or may not be transformed by the end of the performance. Wörner explains that Stockhausen's composition with "the title that is derived from the very word 'process' […] refers only to a process brought into play and realized in performance, and has no connotation with the procession that is a religious ceremony – a cortège accompanied by the appropriate sacred emblems" (Wörner 1976, 116). On the contrary, Günter Peters wrote that many of the titles of Stockhausen's compositions allude to "divine revelation and liturgy" (Peters 2003, 140).

I support the opinion of Günter Peters, to which I would like to add my own perspective of this particular problem in view of the fact that every procession has certain emblems. This composition may not refer to any particular religious procession, but it has constant elements – the material from previous Stockhausen works – that may serve as examples of certain types of processual emblems, indicators of the way in which the procession should be guided.

In Maconie's[2] compilation of transcribed lectures and interviews Stockhausen held, *Prozession* is mentioned in the intuitive music category (Maconie 1989, 112–125). This sems natural in view of the fact that, in *Prozession*, Stockhausen counts on the intuitive activity of the performers that participate in this process, and counts on the result their intuitive activity will provide when their intuition collides with the symbols in the score. This is not intuitive activity in the sense of *Musik für ein Haus* (1968) or *Aus den Sieben Tagen* (1968) – we must bear in mind that there are excerpts of his previous works present in *Prozession* that are essential to the transformations that will take place in the performance of the piece.

Conclusion

As has been shown, process as a phenomenon holds a very important place in Stockhausen's aesthetical and theoretical thought as well as his discourse on music. Process for Stockhausen is understood as development towards something, and it has an air of mystery and unpredictability to it. Special attention was given to the various processes the composer spoke of several times in his interviews and lectures, as well as his conclusion that every individual's life consists of processes. In the end, one must have in mind that all the areas Stockhausen's thought are interlaced and thus, cannot be completely separated when analyzed, because they ought to be looked upon that way. Stockhausen himself is a process, an enigma that continues to intrigue.

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2 Chapter fourteen in Robin Maconie's book *Other Planets: The Music of Karlheinz Stockhausen* is dedicated to process, (Maconie 2005, 249-270) and reflects his thoughts on the compositions *Plus-Minus*, *Momente*, *Mikrophonie I*, *Mixtur* and others (Maconie 2005, 249–270). It is very interesting that *Prozession* is commented on later, even though the very title of this piece bears in its origin a derivation from the word process. Instead, Maconie groups *Prozession* together with *Hymnen* in chapter fifteen named *Anthems*. (Maconie 2005, 271–288). Be that as it may, Maconie describes *Prozession* as a "programmed structure of transformations, indeterminate in length", as well as "the first of a series of compositions in which the idea of object displacement takes precedence over definition" (Maconie 2005, 282). Pursuing this further, Maconie claims that Prozession "reduces the complicated symbolism of the original *Plus-Minus*" (Maconie 2005, 282). The author traces back the origin of this composition's agenda (Maconie 2005, 282) to the days of Stockhausen's studies under Werner Meyer-Eppler, additionally stressing the fact that, in order "to understand the intention of *Prozession* as the creation of new musical sentences by transformation processes from existing material, (which is what the work in fact is), is thus to see the work as a musical critique of communications research having implications for linguistic theory" (Maconie 2005, 287).

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Process in the philosophical and theoretical thought of Karlheinz Stockhausen
(summary)

As it was shown in this paper, process remained a key word in Karlheinz Stockhausen's philosophical and theoretical thought. This importance was viewed through various processes Stockhausen had the chance of discussing in his interviews, lectures and, most importantly, through his music that perfectly embodied his understanding of said phenomenon. In this paper, I demonstrated the importance of this phenomenon through defining what this word meant for Stockhausen and what it meant in the context of the various processes he spoke about (free jazz and solitude as process; world culture as manifestation of a certain process; process of supra-humanisation and dying; process of creation and intuition and others). Secondly, I turned to presenting process-music and the meaning it holds for Stockhausen, especially in relation to his process-compositions. Also, special attention was dedicated to the overview of the terminology that is in use when one discusses Stockhausen's process-compositions (such as *process-plan works* or *the plus-minus pieces* etc.). Lastly, the main characteristics and main points of Stockhausen's piece *Prozession* (1967) were reviewed in the light of this paper's subject. As I have pointed out, *Prozession* exemplifies the ways in which process, intuition and symbols function together in this piece that shows the importance of transformation and will certainly be the pivotal point of Stockhausen's further development as a composer and a philosopher.

Milan Milojković
Akademija umetnosti Univerziteta u Novom Sadu
Katedra za muzikologiju i etnomuzikologiju
Novi Sad, Serbia

PROCESUALNOST U OSTVARENJIMA MIROSLAVA MIŠE SAVIĆA

Apstrakt: Cilj ovog rada jeste sagledavanje različitih vidova procesualnosti u performansima i instalacijama Miroslava Miše Savića nastalih u periodu od 1976. do 2009. godine. U tekstu je najpre učinjen osvrt na relevatne teorije i primere iz polja konceptualne umetnosti u kojem je procesualnost kao umetnička strategija prvo bila implementirana, a zatim su razmatrani stavovi muzikologa i teoretičara muzike, koji su procesualnost vezivali za oblasti minimalizma, elektroakustičkog stvaralaštva i aleatorike. Centralni deo rada je posvećen sagledavanju Savićevih ostvarenja, počev od njegovih radova sa klavirom i grafičkim predstavama zvuka, preko instalacija sa računarom i ulaznim i izlaznim periferijama, sve do recentnog monumentalnog ostvarenja pod nazivom *Train mix*, preko čijeg retrospektivnog karaktera će biti izložena i završna razmatranja u vezi sa poimanjem procesualnosti u savremenom kontekstu, posredovanom digitalnim medijima.

Ključne reči: procesualnost, konceptualna umetnost, performans, instalacija, Miroslav Miša Savić, minimalizam

Uvod

Prilikom sagledavanja mogućih značenja pojma procesualnosti u umetnosti, može se uočiti da postoji određeni pluralizam u stavovima autora koji ovu pojavu definišu iz različitih aspekata. Među njima se grubo mogu uočiti dve dominantne „struje" koje ovu pojavu sagledavaju iz ugla muzike, naročito minimalizma, odnosno, iz ugla konceptualnih intervencija u oblasti slikarstva, skulpture i fotografije. Kako je odnos između ovih stanovišta veoma kompleksan i često kontradiktoran, ali ne i isključiv, činilo se uputnim sagledati poetike autora čiji je opus zalazio u oba polja koja mapiraju ove teorijske struje. Iako se u stvaralaštvima više autora mogu uočiti ovakvi „prestupi", čini se da se performansi, instalacije i muzička ostvarenja

* Author's contact information: milanmuz@gmail.com

Miroslava Miše Savića nastajali u periodu od sredine sedamdesetih godina do danas, mogu posmatrati i u odnosu koji uspostavljaju prema tumačenjima procesualnosti u različitim umetničkim kontekstima. U daljem tekstu će najpre biti sagledano Savićevo stvaralaštvo iz sedamdesetih godina u vezi sa performansima i konceptualnom umetnošću, a zatim će u fokus doći njegova dela sa računarom nastajala krajem sledeće i tokom poslednje decenije XX veka, u kojima se mogu uočiti i veze sa procesualnošću u muzičkom smislu, zajedno sa teorijama iz drugih umetnosti. Na kraju, biće učinjen poseban osvrt na kompoziciju *Train mix*, budući da se u njoj autor na specifičan način obratio svom prethodnom stvaralaštvu, predstavljajući osobeno shvatanje procesualnosti, sintetizovano na temelju prethodnih dostignuća.

Proces, procesualnost i konceptualna umetnost

Kako navodi Miško Šuvaković, procesom u umetnosti se smatra „izmena stanja i položaja tela, predmeta, prostornih mesta, oblika materije i energije koja se odvija u vremenu i ima strukturu događaja" (Šuvaković 2011, 591). Razumljivo je da je ovakvo shvatanje procesa bilo prisutno najpre u konceptualnoj umetnosti,[1] budući da je jedan od njenih ciljeva bila dematerijalizacija umetničkog objekta (Šuvaković 2011, 591). U tom smislu, proces je došao na mesto artefakta, tj. dela, skrećući pažnju sa oblikovanog materijala (zvuka, mermera, boje…) na događaj procesuiranja, tj. radnju koja se nad materijom izvršava. Tako, kod jedne grupe stvaralaca sa kraja šezdesetih i početka sedamdesetih godina 20. veka dolazi do realizacije „procesa kao umetničkih dela" koji postaju opazivi percepcijom izmena stanja materije od koje je delo sačinjeno.[2] Kod takvih poetika se najčešće govori o vizuelizaciji/sonifikaciji inače nevizuelnih/nezvučnih pojava, odnosno, podataka. Značajno je istaći da je postavljanjem procesa u fokus, umesto konačnog i zaokruženog dela, umetnost postala vremenski i prostorno zavisna, budući da se za razliku od slike, skulpture ili kompozicije na notnom papiru, procesualno delo uvek odvija, tj. događa ili nastaje u nekom vremenu i prostoru. Može se reći da je to svakako slučaj sa svim umetničkim artefaktima, ali se zbog ideje „autonomije" tumačenja umetničkog dela, ono razmatra kao nepromenjivi, dovršeni entitet, nezavisan od konteksta u kojem se nalazi.[3] Upravo su stvaraoci sa prelaska iz šezdesetih u sedamdesete godine

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1 „Konceptualna umetnost se zato može smatrati skupom […] kritičkih i analitičkih pravaca koji napuštaju sigurne kontekste visokog modernizma. Autorefleksija, primat konceptualizacije, kao i odvraćanje od tradicionalne usredsređenosti na objekat kao rezultat umetničkog rada predstavljao je tada nove bitne karakteristike. Konceptualna umetnost odbacuje osnovnu zamisao likovne umetnosti sadržanu u estetičkom i poetičkom stavu da se umetnost mora zasnivati na čulno predočivim objektima" (Unterkofler 2012, 18).

2 Kao primer se mogu navesti ostvarenja Roberta Berija (Robert Berry) *Serija sa inertnim gasovima, helijum, neon, argon, kripton, ksenon* (1969) i Dejvida Neza (David Nez) pod nazivom *Električna grejalica termometar* (1969) (Šuvaković 2011, 591).

3 Milan Uzelac smatra da se „umetničko delo može razumeti kao proces, kao promenljiv odnos celine i delova...karakteristika umetničkog dela je da ono nije ništa u sebi čvrsto i definitivno; ono je pokretljivo i prolazno, jer su mu i delovi od kojih je satkano prolazni." (Uzelac 1993, 142)

inicirali procese dematerijalizacije, kako bi se ostvarila kritika umetničkog objekta i skrenula pažnja sa veštine oblikovanja dovršenog dela na događaj umetničkog čina u nekom određenom kontekstu. Kako, drugim rečima, ističe Ješa Denegri, „trenutno odvijanje jednog događaja je zamenilo postojanost fiksnog, oblikovanog predmeta" (Denegri 1974, 20).

Imajući to u vidu, performansi, instalacije i hepeninzi, te razne vrste činova,[4] postaju vrstama konceptualne umetnosti, omogućavajući da se skrene pažnja sa veštine oblikovanja i prikazavanja na ideju, tj. koncept koji dolazi na mesto dela.[5] Ovakva promena načina umetničkog izražavanja imala je za posledicu i institucionalnu promenu, naročito u zemljama Istočne Evrope, s obzirom na to da su konceptualni umetnici često napuštali galerije i ateljee, izmeštajući umetnost iz njenih uobičajenih okvira u „realan" život.[6] Samim tim, ukupnost ovakvih akcija je svoje efekte grupisala oko zahteva za preispitivanjem samog pojma umetnosti, problematizujući materiju, mesto izlaganja i način institucionalizacije i naposletku, sam umetnički artefakt, tj. delo, postavljajući proces na njegovo mesto.

Procesualnost u muzici

Za razliku od skulpture ili slikarstva, izvođenje muzičkog dela uspostavlja naročit odnos prema prethodno opisanom shvatanju procesa. Iako je kompozicija na notnom papiru od 19. veka smatrana dovršenim i originalnim autorskim delom, njena interpretacija je nužno vremenski i prostorno zavisan čin, kome je prolaznost čak i nakon pojave mogućnosti snimanja, jedna od osnovnih odlika.[7] Samim tim, uvođenje procesualnosti u muzičko delo se vezuje za kompozicione postupke koji mogu, ali nisu nužno povezani sa shvatanjem procesa kao strategije za postavljanje čina umesto dela, analogno pojavama u konceptualnoj umetnosti.

S druge strane, u muzikološkoj literaturi se procesualnost najčešće vezuje za minimalizam i odnosi se na postepene i diskretne promene u repetitivno zasnovanom

4 „Performans je režirani ili nerežirani događaj, zasnovan kao umetnički rad koji umetnik ili izvođači realizuju pred publikom"; „Instalacija je prostorni raspored slika, skulptura, objekata i konstrukcija. Ona nije jednostavni skup predmeta, nego prostorno zavisan odnos barem dvaju delova s mogućnošću različitih rasporeda"; „Hepening je prostorno-vremenski i bihevioralni događaj u kojem učestvuju umetnici i publika, provodeći prethodno zamišljeni scenario ili ostvarujući slučajne, nerežirane, spontane situacije" (Šuvaković 2011, 528, 326, 302).

5 Miško Šuvaković ističe da je „konceptualna umetnost jedna autorefleksivna, analitička i proteoretska umetnička praksa, zasnovana na posmatranju prirode i koncepta, sveta i institucija umetnosti. Konceptualna umetnička dela mogu biti koncepti ili teorijski objekti" (Šuvaković 2003, 211).

6 „U skladu sa tim, ni izložbe ni prezentacije ove umetnosti nisu u velikoj meri zavisile od materijalnih ili logističkih problema. Njihov informativni karakter je dozvoljavao brzu organizaciju, performativnu pokaznost i zaobilaženje oficijelnog sistema komunikacije i izlaganja" (Unterkofler 2012, 29).

7 Zofija Lisa istražuje procesualitet kao način na koji je „kategorija vremena djelatna u glazbenom djelu", ispoljavajući se kroz formalnu integraciju u slušaočevom doživljaju, te pretpostavljajući da je procesualnost muzičke forme univerzalna kategorija, „zajednička svim kulturama i civilizacijama, i svim razvojnim stadijima i pojavnim oblicima kultura naše Zemlje" (Lisa 1977, 37).

muzičkom toku. Kako ističe Jelena Novak u vezi sa stavovima Ditera Šnebela (Dieter Schnebel),[8]

> repetitivnost u 'procesu' onemogućava slušaocu bilo kakvu mentalnu refleksivnu aktivnost koja je usmerena na poimanje celine kompozicije. Da bi se to postiglo 'proces' funkcioniše kao organizator perceptivne nepažnje i dekoncentracije. Slušalac je vođen zvukom, ali nikada do određene tačke. Pošto svaka tačka u 'procesu' reprodukuje prethodnu, potreba za zadržavanjem, pamćenjem i predviđanjem je iščezla. Paradoksalna je upravo ta kombinacija striktnosti i nepredvidivosti koju ova muzika nosi. Koliko god određeno deluje sukcesija zvukova, nju ni u jednom momentu nije moguće predvideti, što dovodi do neprestanog osciiovanja slušaočeve pažnje (Novak 2001, 8).

Iz toga se može uvideti da su razlike između „muzičkog" i „konceptualnog" shvatanja procesualnosti proizašle iz osobenosti umetničkih materijala od kojih su dela sačinjena, te da se u zvučnoj umetnosti ton kao vremenski određena stvar procesom repeticije „fiksira" kako bi do izražaja došao „proces reprodukcije tačaka", umesto tradicionalnog funkcionalnog ili serijalnog odnosa između tonova.[9] Time nije došlo do otvaranja dela niti uvođenja procesa kao dela. Naprotiv, odnos između kompozitora i izvođača je ostao nepromenjen, ali je u strukturi muzičkog dela došlo do promene od dramaturgije forme i izražajnosti ka prezentaciji promena stanja, bez ideje da se njime dođe do zaokružene i koherentne celine, što naglašava i Jelena Novak kada navodi da

> postoji mišljenje da je tradicionalna umetnička zapadnoevropska muzika dijalektička i da repetitivna muzika njoj kontrastira nedijalektičnošću, zamenjivanjem koncepta dela konceptom procesa, postavkom da niti jedan zvuk nije važniji od bilo kog drugog zvuka, neizražajnošću i nereprezentativnošću nasuprot moćima prikazivanja i ekspresije tradicionalne dijalektičke muzike. Ističe se da ova muzika prikazuje samo svoju strukturu i poredak svojih konstituenata (Novak 2001, 14).

S druge strane, uspostavljanjem odnosa prema zvuku kakav je prethodno opisan, otvorena je mogućnost da se proces uvede u kompoziciju na nivou partiture, u smislu da proces stvaranja dela postaje izjednačen sa procesom njegovog izvođenja. Takva ideja u osnovi nije u vezi sa minimalističkom muzikom, već dolazi iz ranog elektroakustičkog stvaralaštva, u kojem je često autor stvarao kompoziciju bez

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8 Kako Šnebel navodi: „u procesualnoj kompoziciji, muzika se više ne ispisuje u detalje, već se markira polje unutar kojeg mogu da se odigraju određene muzičke akcije. Materijal se više ne zapisuje u tradicionalnom smislu, a kompozitor daje manje ili veće područje materijala iz kojeg se mogu stvarati oblici na ovaj ili onaj način" (Šnabel 1984, 321).

9 Značajno je pomenuti da i Leonard Mejer ističe u vezi sa stilom da „ono što ostaje konstantno od stila do stila, nisu skale, modusi, harmonije ili načini izvođenja, već psihologija ljudskih mentalnih procesa – načini na koje svest, delujući u okviru utvrđenih kulturnih normi, vrši izbor i organizaciju stimulusa koji su joj dati" (Mejer 1977, 176).

posrednika, strukturišući zvučni sadržaj na traci. Uporedo s ovom strategijom, razvijala se i ideja o živom izvođenju elektroakustičke muzike, koja takođe, često nije bila precizno zabeležena kao što je to slučaj sa klasičnom notacijom. Naprotiv, u određenom broju dela postojao je samo inicijalni predložak koji se odnosio na hardversku postavku, na kojoj će se realizovati muzički sadržaj.[10] Pored pomenutih američkih stvaralaca, značajno je istaći i koncept „organskih mašina" Pola Pinjona realizovan u Elektronskom studiju Radio Beograda, koji iako studijski, podrazumeva učešće mašine u izboru zvučnih elemenata, te nakon početnog peča, nadalje stvoreni zvuk direktno zavisi od trenutka u kojem nastaje i procesa sonifikacije generisanih slučajnih (random) naponskih vrednosti.[11]

Ovako nastala muzika se ne smatra minimalističkom, ali se teško može osporiti procesualnost njene prirode u smislu u kojem je ovaj termin korišćen kada je bilo reči o konceptualnoj umetnosti. S druge strane, odnos kompozitora prema elektroakustičkoj kompoziciji, naročito studijskoj, ispoljava dosta sličnosti sa modernističkom skulpturom i slikom, te ne iznenađuje što je upravo ovakvo shvatanje procesualnosti implementirano kao rešenje problema zaokruženosti i statičnosti. Naime, studijske kompozicije su zaista nalikovale zvučnim skulpturama ili slikama koje nije bilo potrebe izvoditi, tj. interpretirati kao ostalu muziku, te je samim tim, ovakvo stvaralaštvo bilo često uskraćeno za mesto i ritual izvođenja i repcepcije muzičkog dela. U tom smislu, autori su uvođenjem procesualnosti u svoje kompozicije nastojali da vrate elektronskoj muzici mogućnost koncertnog izvođenja, često čineći deo kompozicionog procesa (nekad i ceo proces) činom koji se dešava pred publikom, tj. elementom muzičke interpretacije.

Proces stvaranja segmenta ili cele kompozicije tokom njenog izvođenja je tako iz elektroakustičkog stvaralaštva, posredstvom darmštatskih letnjih kurseva, „prešao" u poetike autora kojima elektronski instrumenti nisu bili bliski, rezultirajući formiranjem aleatorike, kompozicione tehnike zasnovane na uvođenju „slučaja" u muzičko delo.[12]

Iako se u Savićevim delima povremeno mogu uočiti bliskosti sa nekim

10 To je slučaj sa ostvarenjima *Mikrofon* i *Prašuma* Dejvida Tjudora (David Tudor), ili sa srodnim delima američkog autora Gordona Mame (Gordon Mumma).

11 Kako Pinjon navodi „na velikom sintetizeru elektronskog studija moguće je izgraditi složene sisteme koji mogu sami, čak i bez upravljačkih gestova kompozitora da generišu muzički prihvatljive zvučne putanje. Ovakve postave nazivam organskim mašinama jer ih posmatram kao neka bića koja imaju svoj samostalan, kroz muziku manifestovan život. Obično ih projektujem tako da reaguju na relativno proste, real-time upravljačke gestove, kojima ih usmeravam na njihovoj putanji kroz prostor, čiji su koordinate zvuk i vreme. Očigledno, veliki broj kompozicionih odluka donosi se na nivou stvaranja tih bića, što predstavlja izvesnu novinu u kompozicionom postupku. Takav postupak sam primenio već u nekoliko dela. Konačan rezultat je neka vrsta zajedničkog izvođenja u kojem učestvuju i kompozitor i bića koja je sam kompozitor stvorio" (Pignon 1980).

12 Termin „aleatorika" se pripisuje Verneru Mejer-Epleru (Werner Meyer-Eppler) koji je na Darmštatskim letnjim kursevima definisao kao „proces čiji je tok generalno determinisan ali su pojedinosti prepuštene slučaju" (Werner Meyer-Eppler 1957, 55–61). Upotrebu termina u široj kompozicionoj praksi je razradio Pjer Bulez u čuvenom tekstu pod nazivom *Alea* (Boulez 1964, 42–53).

aleatoričkim postupcima, oni nisu u fokusu ovog razmatranja, te nema potrebe za daljom problematizacijom ovog polja. Čini se da je, za sada, dovoljno samo ukazati na različite vrste procesualnosti u muzici i istaći njihovu međusobnu povezanost, što je čini se najznačajnije za dalje sagledavanje Savićevih ostvarenja. Bez obzira na to što opisana dostignuća iz oblasti elektroakustičke muzike nisu u direktnoj vezi sa minimalizmom i sa njim povezanom procesualnošću, nije bez značaja to što je Savić upravo na kursevima Vladana Radovanovića i Pola Pinjona u Elektronskom studiju Radio Beograda stekao tehničko znanje potrebno za realizovanje sopstvenog ostvarenja pod nazivom *Artikulacija vremena jednako artikulacija prostora* (1980). Ova kompozicija se može posmatrati kao ilustrativna tačka preseka korpusa elektroakustičkih kompozicioih tehnika i Savićevog osobenog „fleksibilnog" minimalističkog pristupa koji je, kako navodi Marija Masnikosa, zasnovan na „simultanim, dvostruko repetitivnim i suprotno usmerenim procesima" poverenim različitim muzičkim parametrima (Masnikosa 2012, 186).[13]

Performansi sa zvukom i vremenom

Čini se da je za razumevanje Savićevih performansa sa klavirom iz druge polovine sedamdesetih godina, značajno pomenuti pojedine pojave iz istorije domaće konceptualne umetnosti. Pre svega, bitno je istaći delovanje jugoslovenske grupe OHO, čiji su članovi nizom svojih aktivnosti nastojali da ukažu na procese vizuelizacije objekata postojanog i nepostojanog materijalnog sastava.[14] Međutim, za Savićeve prve procesulane radove su značajnije aktivnosti nešto kasnije nastale grupe 143,[15] u čijem časopisu *Katalog 143* je objavljivao svoje prve radove iz ove oblasti.

Iako su Savićeve umetničke zamisli bile veoma bliske pomenutim grupama konceptualnih umetnika, on je ipak značajniji muzički angažman ostvario kao član kolektiva kompozitora *Nova generacija* koji su još činili tada mladi stvaraoci Milimir

13 Na primer, u seriji ostvarenja ABC music, Savić često upošljava algoritme koji omogućavaju postepeno permutovanje visina, koje ne utiče na striktno ponavljanje ritmičkih modela.

14 Na primer, ostvarenja Andraža Šalamuna *Odnos gips staklo* (1969) ili grupna izložba *Pradedovi* (1969) koja je posvećena „egzaltaciji prirodnim ili veštačkim materijalima kao što su, s jedne strane, seno, kukuruzovina, cigle i crepovi, ili pak s druge strane, guma, staklena vuna i različite mase" (Denegri 1976, 20).

15 Grupu su činili Biljana Tomić (1975-1980), Miško Šuvaković (1975-1980), Jovan Čekić (1975-1979), Paja Stanković (1975-1980), Maja Savić (1975-1980), Mirko Diliberović (1978-1980), Vladimir Nikolić (1977-1980), Dejan Dizdar (1975-1976), Nada Seferović (1975), Bojana Burić (1975), Stipe Dumić (1975), Momčilo Rajin (1975), Ivan Marošević (1975) i Slobodan Šajin (1975). Kako ističe Unterkofler „Saradnici Grupe 143 bili su zainteresovani za teorijske prakse savremene umetnosti i kulture. Oni su odbacili shvatanje o umetnosti koje se temelji na estetičkoj spekulativnosti i višeznačnosti. Imali su kritičan odnos prema neodadi i fluksusu kasnih šezdesetih. Njihova umetnička produkcija bila je epistemološki i analitički orijentisana. Saznajno-teorijski pristupi, razvijani u Grupi 143, bili su orijentisani na pitanja o načinu funkcionisanja sistema i istorije umetnosti, o odnosu između umetnosti i nauke, kao i o strukturalno predočivim uslovima stvaranja umetnosti, odnosno, teorijskih praksi unutar svetova umetnosti" (Unterkofler 2012, 14).

Drašković, Miodrag Lazarov, Vladimir Tošić, Miloš Raičković i Miloš Petrović uz povremenu saradnju sa drugim muzičarima različitih usmerenja. Autori koji su bili okupljeni oko tadašnjeg SKC-a nisu bili uniformnih stavova, i možda ne bi bilo preterano reći da ih je ujedinjavala samo želja da prevaziđu postojeća akademska ograničenja, dok su vizije kako bi to realizovali bile posve različite (Savić 1979, 1–2). Četvorica iz pomenute grupe autora (Savić, Drašković, Lazarov, Tošić) kasnije će osnovati novu grupu pod nazivom *Opus 4*.

Savićevi performansi sa klavirom iz ovog perioda, na prvi pogled, asociraju na „razračunavanje" sa starim autoritetom ovog instrumenta i po svojoj „prirodi" deluju ekscesno, nije neobično kada je o konceptualnoj umetnosti reč. Međutim, *Zagrejani kružeći zvuk klavira* (1977) ne deluje kao destruktivno usmeren rad i pored toga što autor leži na instrumentu. On, zapravo, na taj način svira, dakle, proizvodi muzički sadržaj, istovremeno, bivajući procesualnom „instalacijom", koja se zahvaljujući „živoj materiji" u svom sastavu neprekidno transformiše čineći vidljivim sviračeve napore i emocije dok u ležećem položaju pokušava da svira. Autorova zamisao je da zvuk klavira traje, a kako je to fizički nemoguće, pribegao je tehnici tremola, koja rezultira kontinuiranim treperenjem i zahteva neprekidnu aktivnost svirača. Zbog toga, svaki pokret ili grč, preneće se preko muzičarevih ruku na žice klavira, što je zapravo analogno postupku sonifikacije. Ova zvučnost se može shvatiti i kao muzika za sebe, ali je funkcionalna i kao deo performansa u kojoj prati vizuelizacije koje nastaju pomeranjem autorovog tela.

U svojevrsnom „negativu" ovog performansa, delu *Svirati/ne-svirati – ne-zvuk/ zvuk* (1978), autor je prikazao proces „nemog" sviranja, tj. ulaganja fizičkog napora u sviračke radnje koje ne rezultiraju zvukom. Naime, Savić i ovde leži na klaviru, ali ovog puta na leđima, tako da mu glava i raširene ruke vise nad klavirom. Iako naizgled udoban, ovaj položaj zapravo zahteva mišićnu aktivnost kako bi telo ostalo potpuno mirno i bešumno. Samim tim, pijanista dok svira ne proizvodi nikakav zvuk, ostajući u tom položaju koliko god može. Kada napor postane neizdrživ, sviranje prestaje, ruke i glava padaju na klavijaturu te proizvode zvuk koji označava kraj dela. Iako nema zvukova osim jednog, i u ovom slučaju se može govoriti o sonifikaciji, budući da upravo odsustvo zvučanja čini sviračeve napore opazivim.

Pored radova sa klavirom, u ovom periodu su nastala i ostvarenja posvećena zvuku kao apstrakciji, tj. neodređenom, odnosno, mogućem zvuku. To je slučaj sa ambijentom *Zatvoreni zvuk* (1978) u kojem je ceo prostor divanhane u SKC-u bio oblepljen plakatom *Zvuk 326880* i zatim zatvoren za posetioce. Naime, zvuk je u ovom radu shvaćen kao element grafičkog izraza, tj. repetitivna geometrizovana struktura koja vizuelnim utiskom „sugeriše ideju zvuka" (Lazarov 1979, 6).[16] Kako je prostor u kojem je delo realizovano kružne osnove sa sferom, vremenska dimenzija zvuka je sugerisana rotacijom koja nastaje kada se prati „patitura", odnosno kada se posmatra sled grafičkih elemenata. Blisko ovom radu je i ostvarenje *Sound*

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16 Srodnim zamislima se bavio i Vladimir Tošić u svojim grafičkim radovima kao što su *Trajanje 1* (1978) i *Videomélange 1* i *2* (1979).

1.11 (1978), gde je grafika u funkciji vizuelnog predstavljanja ideje o zvuku koji bi trajao 1.11 sekundi, kada bi se reprodukovao na magnetofonu odabirom jedne od standardnih brzina. Ovo trajanje je nastalo „prevođenjem konstante MM=54, u realno vreme". Kako Savić navodi, „uvek kada radim, radim u odnosu na konstantu. Ona je jedina propozicija koju sebi postavljam. Konstanta je inicijator aktivnog stanja onoga koji stupa u odnos sa njom. Suštinski to je dijalektički odnos u kome već postojeća statičnost uslovljava dinamičnost" (Lazarov 1979, 5). S tim u vezi, oznaka tempa MM=54 može se pronaći u više njegovih muzičkih dela, kao što su ona iz serije 10, ali je prisutna i u grafičkim radovima, kao što je *Strana iz beskonačne partiture: MM=54* (1979), gde je ovaj interval preveden u uvek isto rastojanje između violinskih ključeva/ampersenda (Primer 1). Ponavljanje ovih znakova na linijskim sistemima sugeriše protok vremena u notnom zapisu, te iako nema zvučnih simbola niti prikaza sonornosti, muzikolika temporalnost je sugerisana beskrajnom repeticijom ovog intervala. U tom smislu, vizuelno predstavljanje trajanja se može smatrati muzičkim pandanom uvođenja vremenske komponente u skulpturu, instalaciju ili sliku, te se može govoriti o procesualnosti ovih grafika, budući da je njihov glavni cilj vizuelizacija odvijanja sonornosti.
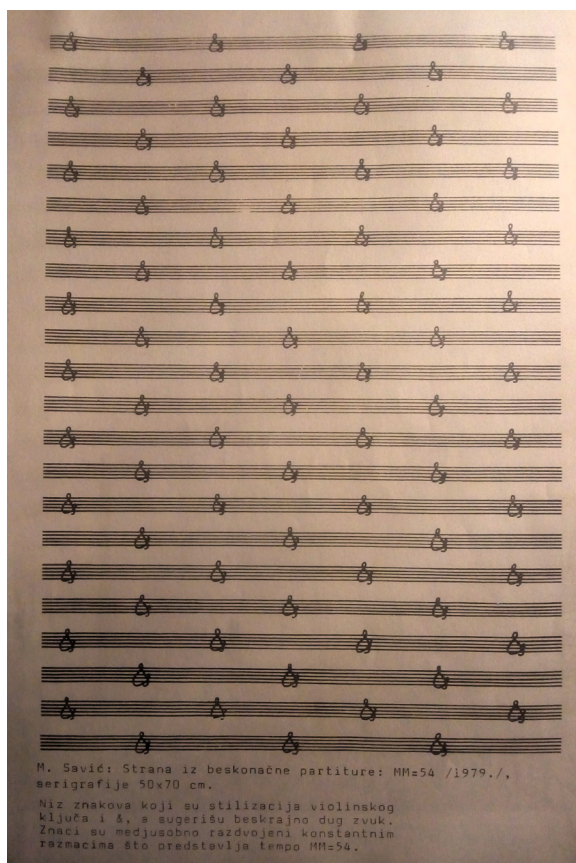
Primer 1: Miroslav Savić, *Strana iz beskonačne partiture: MM=54*

Pored zanimanja za zvuk, koje je „prirodna posledica" Savićevog kompozitorskog obrazovanja i njegovih muzičkih aktivnosti, brojevi su takođe u fokusu ovog stvaraoca još od sredine sedamdesetih godina. Naime, pored već pomenute konstante i njene uloge u stvaralačkom procesu, Savić pre nego što mu je računar postao dostupan, skreće svoju pažnju na odnos između 1 i 0. Pored serije instrumentalnih ostvarenja zasnovanih na ovim ciframa, autor je izveo i performans *Dve pozicije* (1978) u kojem stoji ispred klavira obučen samo u belu košulju, tako da je već inicijalnom postavkom (konstantom), sugerisan ovaj binarni odnos – čovek/klavir i go/obučen (Primer 2). Performans se sastoji od toga što svirač prilazi klaviru i istovremeno svakim prstom pritisne različitu dirku, ostajući u tom položaju dok god zvuk traje. Ova radnja se ponavlja deset puta. U ovom slučaju se može reći da su konstante 1 i 0 (ili bi preciznije bilo reći da je to jedna konstanta sa *dve pozicije*, tj. dva stanja) inicirale akciju spajanjem u broj 10, određujući kako zvučnost (desetozvuci), tako i relativno trajanje dela budući da postojanost zvuka klavira zavisi od jačine pritiska na dirke, koji može biti samo približno ujednačen.

Primer 2: Miroslav Miša Savić, Dve pozicije (1978, foto Slavko Timotijević)

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Savić će se i krajem devedesetih u znatno drugačijem kontekstu ponovo obratiti performansu sa klavirom, u ostvarenju pod nazivom *Uvo* (1989). Međutim, u ovom delu klavir ima „sporednu" ulogu, a u fokusu je skulptura čovekovog uha, u koju autor pomoću baštenskog creva pokušava „uliti" zvuk.

Performansi i instalacije sa računarom

S obzirom na Savićevo intenzivno interesovanje za brojeve i operacije sa njima, te imajući u vidu njegovo bavljenje elektroakustičkom muzikom u Elektronskom studiju III programa, ali i van njega, ne iznenađuje što je sredinom osamdesetih godina ovaj autor u svoje stvaralaštvo uključio i računar. Ovo zanimanje za digitalnu tehnologiju dolazi u vreme ekspanzije najpre kućnih, a nešto kasnije i ličnih računara, koje će Savić na specifičan način inkorporirati u svoju poetiku.

Najpe, značajno je pomenuti festival *Lična muzika – I jugoslovenski festival kompjuterske muzike* (1987) koji je Savić organizovao i koji je dobio naziv po njegovom ostvarenju *Mala lična muzika*. Ova igra rečima i značenjem koja „neočekivano" spaja svet računara i klasične muzike aludirajući na „lično" u „ličnim računarima" (Personal Computer) i na čuvenu Mocartovu *Malu noćnu muziku*, ističe poziciju ličnih/personalnih računara kao pogodnih uređaja za stvaranje muzike, ali i naročitu „privatnost" takvog stvaralaštva koje nastaje u intimnoj/kućnoj atmosferi, u odnosu između kompozitora i virtuelnog studija. Međutim, to je samo jedan od aspekata integracije računara u Savićev kreativni proces, budući da će u instalacijama sa kraja decenije i kroz delovanje u grupi MGM ostvariti znatno kompleksniji odnos prema digitalnoj tehnologiji.[17]

Kako se naglašava u svojevrsnom manifestu grupe MGM, Savić

> koristi računar za generisanje zvuka/slike sa kojima izvođač stupa u interakciju. Matrica iz koje se generišu elementi računarskog programa je sačinjena od procesa tranzicije varirajućih vizuelnih aspekata audiovizuelnih elementa u numeričke odnose, sa kojima stupaju u interakciju kroz procesuiranje. (MGM 1991, 1)

Iz prethodnog citata je očito da su procesualni aspekti dela koji su bili prisutni u radovima iz sedamdesetih, do 1991. godine doživeli „transpoziciju" u digitalni svet i tako postali element interakcije između učesnika u izvođenju dela, virtuelnih (softverskih) i realnih. Može se reći da je matrica preuzela ulogu nekadašnje numeričke konstante kao njen višedimenzionalni ekvivalent, inicirajući procese iz svog početnog stanja. Procesi digitalizacije, tj. pretvaranja fizičkih pojava u brojčane informacije i dalja njihova obrada, te reprodukcija u vidu audiovizuelnih sadržaja, omogućili

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17 Grupu MGM su činili Marjan Šijanec, Gordana Novaković i Miša Savić. Grupa je inicirala nastanak mnogo šire platforme pod nazivom Asocijacija umetnika elektronskih medija (AUEM) 1991. godine. Kako je udruženje bilo jugoslovenskog karaktera, građanski rat je prekinuo njegov rad, sprečavajući bilo kakve aktivnosti.

su Saviću da vizuelizaciju i sonifikaciju oslobodi fizičkih ograničenja tela ili instrumenta i da realizuje složene mreže simbola i informacija koji će korespondirati sa tada aktuelnim postmodernističkim stremljenjima ka „restauraciji" prošlosti.

Zanimljivo je istaći da, iako veoma kompleksna i sadržajna, Savićeva ostvarenja iz osamdesetih i devedesetih godina ne izazivaju efekat šoka kao performansi sa klavirom iz prethodne decenije, što ne umanjuje njihovu efektnost, već naprotiv, ističe veoma promišljen odnos ovog autora prema mediju u kojem radi, utičući, retroaktivno, da se i njegova ekscesna ostvarenja sagledavaju iz vizure inkorporiranja procesualnosti u umetničko delo, tj. kao deo iste niti ispitivanja odnosa između konstante i pokreta, slike i zvuka, podataka i njihove estetske manifestacije.

Šest pogleda na jedno (1990) i *Glas anđela* (1991) kojima je Savić bio zastupljen na grupnoj izložbi *Kompjuterska umetnost* ilustruju njegova stremljenja u ovom periodu na polju odnosa između procesa u delu i njihove manifestacije.[2] Prvo delo uključuje živog izvođača, čembalistu, koji svojom improvizacijom reaguje na tranformacije vizuelnih entiteta koje generiše računarski sistem. Uloga računarske grafike u njemu je dvojaka – ona ima svoje estetske kvalitete i istovremeno „služi" kao muzička grafika koja navodi čembalistino sviranje. Delo, u tom slučaju, postoji kao algoritam, dok audio-vizuelni sadržaj omogućava da se on, kao proces, dakle, vremenski zavisna radnja, čulno opazi kao deo umetničkog čina. Iako možda najznačajniji, to jeste samo jedan segment ostvarenja, budući da se muzička improvizacija i video rad koji nastaje radom algoritma, mogu posmatrati kao zasebne umetničke celine. Tako, dokumentacija o umetničkom činu u ovom slučaju može postati i nov umetnički artefakt koji je nastao procesom izvođenja *Šest pogleda na jedno*.

Bliskost sa postmodernističkim idejama je svakako izraženija u ostvarenju *Glas anđela* u kojem je za inicijalnu konstantu uzet digitalizovani prikaz čuvene freske „Anđeo na grobu Hristovom" (Primer 3). Ovo je jedno od retkih Savićevih ostvarenja sa eksplicitnim religijskim simbolima koje veoma rano ukazuje na predstojeći trend digitalne manipulacije estetskim, ali i političkim stanovištima, koji će nešto kasnije kulminirati sa ekspanzijom interneta. Pretvaranjem religijskog simbola u digitalnu informaciju, Savić otkriva „lakoću" sa kojom se može intervenisati u značenje ikone, lucidno aludirajući na tada već uobičajen način „kretanja" kroz računarsku memoriju i aplikacije pomoću tzv. ikona. Ovaj simbol i kod vernika i kod korisnika računara pokreće procese identifikacije, tj. pretvaranja apstraktnih podataka u čoveku razumljive predstave, koje u doba ličnih računara, nužno dobijaju i lično značenje, prilagođeno potrebama korisnika. Tako ikona, religijska i/ili na desktopu, upućuje (poziva) na aktivnost (molitvu ili dvoklik) za koju ćemo postati svesni da li se ostvarila tek kad opazimo rezultate interakcije sa ikonom. Savić time ukazuje na „prirodu" procesualnosti u njegovim delima koja se opaža zahvaljujući artefaktima koji ostaju kao posledica izvođenja. U *Glasu anđela*, zvučni sadržaj je ostvaren tako

18 Izložba je održana u galeriji ULUS-a od 8. do 22. maja 1991. godine, a na njoj su bili zastupljeni gotovo svi članovi prethodno razmatranih grupa – pored Savićevih, predstavljeni su radovi Gordane Novaković, Marjana Šijaneca, Vladimira Tošića i Milimira Draškovića, a kao čembalista/improvizator je nastupio i Miloš Petrović (Šiđanin 1991, 2–9).

da „boje na freskama odgovaraju muzičkim intervalima" (Šiđanin 1991, 9), što je jedna od retkih eksplicitnih formulacija procesa sonifikacije grafičkog sadržaja u napisima naših umetnika.

Primer 3: Miroslav Miša Savić, *Glas anđela* (1991)

Savićeve instalacije sa računarom, kao i upotreba ovog uređaja u njegovim muzičkim ostvarenjima, otkrivaju promene do kojih je došlo u poetičkoj koncepciji ovog umetnika, za koje se može pretpostaviti da su sa jedne strane bile motivisane tehnološkim razvojem i rastom dostupnosti računara, a sa druge, autorovom potrebom da odgovori na znatno drugačije društvene i kulturne okolnosti koje su nastupile krajem osamdesetih i početkom devedesetih godina. Savić je tokom poslednje decenije XX veka nastavio saradnju sa Gordanom Novaković, realizujući niz novomedijskih ostvarenja poznatih pod zbirnim nazivom *Košulja srećnog čoveka* (1992–1998). Dug period (višestruke) realizacije ovog ostvarenja već upućuje na procesualnost u stvaranju dela, koje svakim izvođenjem dobije po neki novi i/

ili izmenjeni strukturni segment. Reč je o instalaciji, odnosno ambijentu – iako, naročito u televizijskoj verziji, delo ispoljava nedvosmislene veze sa performansom – u kojem se u četiri poglavlja upotrebom računara i njegovih periferija generišu novi i modifikuju već postojeći audio/vizuelni sadržaji. Prilikom različitih realizacija ovog ostvarenja, dolazilo je do izmena u toku i načinu reprodukcije sadržaja, ali im je ostalo zajedničko to što su zasnovane na prenosu informacija dobijenih merenjem pulsa čoveka koji „pokreće" instalaciju, a na osnovu tih informacija se reprodukuje jedinstveni audiovizuelni sadržaj, direktno zavisan od telesnih procesa čoveka koji se vizuelizuju i/ili sonifikuju.

Train mix

Iako kriza devedesetih godina nije u potpunosti prekinula Savićev rad, mnoge od njegovih zamisli iz prethodnog perioda nisu doživele svoju realizaciju, te se on tokom ove i početkom sledeće decenije fokusira na digitalizaciju radova iz analognih medija i na obradu i sistematizaciju svog prethodnog stvaralaštva. Međutim, umesto pouzdane i trajne arhive, dogodilo se upravo suprotno. Savićeva kolekcija je nestala, a sa njom i ideja o mogućnosti „zaokruženja" dotadašnjih postignuća sagledavanjem u digitalnom modu postojanja. Za razliku od većine korisnika sa ovakvim iskustvom, Savić nije posegnuo za ovlašćenim servisom, već je ovaj događaj učinio predmetom svog daljeg rada.

Monumentalna umetnička zamisao, nazvana *Train mix* (2009-) originalno namenjena izvođenju na železničkoj stanici uz učešće vozova i, na osoben način, publike, pored muzičkog izvođačkog aparata podržanog video i audio instalacijama, rezultat je Savićevog „obračuna" sa gubitkom arhive. Savić je muzički sloj *Train (re) mix*-a sačinio od segmenata ili celih ostvarenja koja je uspeo da sačuva na originalnim nosačima. U tom smislu, delo čine deonice koje iz partitura muzičari izvode uživo, elektroakustički sadržaj koji se generiše na računaru, kao i reprodukovani segmenti sa traka, audio-kaseta, CD-ova i vinila. Prilikom izvođenja, autor je izvore zvuka rasporedio u prostoru prema vremenu njihovog nastanka – novija dela su u prvom planu, dok se snimci sa starijih nosača postepeno udaljavaju od mesta posmatrača/slušaoca.

Kao što je pomenuto, ideja autora je bila da se delo izvodi na železničkoj stanici, koja bi u ovom slučaju bila koncertna dvorana, sa šest kompozicija vozova. Zvuk bi se emitovao iz vagona u kojima su muzičari i sa zvučnika koji se nalaze na peronima pored displeja za prenos događaja iz kupea i reprodukciju ranije zabeleženog TV i video materijala. Muzičari sve vreme menjaju vozove u kojima sviraju, dok je publici sav sadržaj dostupan za pregledavanje u birou za izgubljene stvari. Imajući u vidu teškoće postavljanja ovakvog ostvarenja, autor je sačinio i verziju namenjenu izvođenju u zatvorenom izložbenom prostoru.

U galerijskoj verziji dela, dakle *Train re-mix*-u, prave vozove su zamenile makete lokomotiva i vagona, te nema živog izvođenja muzičara, već se sav zvučni sadržaj

reprodukuje sa zvučnika raspoređenih u prostoru. Međutim, izvođenje je, ipak, u izvesnom smislu živo, budući da se od posetioca očekuje da preuzmu ulogu mašinovođe i da upravljaju kompozicijom – železničkom i muzičkom. Pokretanjem makete voza, posetilac-mašinovođa „okida" zvučne segmente, te se u zavisnosti od reda vožnje strukturiše i muzički sadržaj koji se emituje. Za to vreme, utisak ambijenta železničke stanice pojačava glas spikera koji se obraća prisutnima. Umesto dolazaka i polazaka, on – zadržavajući „staničnu" intonaciju – izgovara teorijske tekstove i fraze na monoton i povremeno nerazumljiv način. Zvuk spikera se ponekad gubi u buci koju pokreću vozovi, a njegov nerazgovetan govor na duhovit način ilustruje čestu situaciju savremenog doba – važne informacije se emituju i navodno su dostupne, ali se ne mogu uočiti u haosu strimova, te ne doprinose uspostavljanju reda, već naprotiv, samo intenziviraju utisak haosa.

U ovu verziju dela je uključena i video-igra virtuelnog dispečerskog sistema koja, kako autor ističe, „dodatno usložava ambijent u kojem se miks odvija", te se može reći da je u funkciji osobenog „uvećanja stvarnosti" (eng. augmented reallity). S tim u vezi se uočava da je igrica povezana sa maketom vozova, dok su oni neposredni pokretači zvučne i vizuelne „radnje dela" koja se odvija, u prvom redu, kako bi se ponovo odslušalo ono što je „preživelo" digitalizaciju. Drugim rečima, želja za delima iz prošlosti pokreće vozove, dok je oni svojim kretanjem zadovoljavaju prolaskom kroz zvučne predele jednog sadržajnog i pomalo nostalgičnog putovanja. Može se reći da je Savić segmente svojih prethodnih ostvarenja upotrebio kao sredstvo kojim će doći do novog poetičkog stanovišta, utemeljenog na neposrednom iskustvu, da upotrebim autorov termin, „tiranije" sadašnjice (SEECult 2012) – koja nas ubeđuje da sve digitalizujemo, a onda to digitalno nestane – ali i nekih prošlih „tiranija" nastajalih iz negacija onih još starijih. U tom smislu je razumljivo horizontalno prisustvo svih ranijih medija u delu, koji su, iako „poređani" u perspektivi, ipak tu pred nama, i to kao opominjuća pozajmica iz prošlosti kojom se nadomešćuju savremeni nedostaci. Pored toga, izbor i redosled materijala u delu, određuje kompjuterski algoritam po sistemu bacanja kockica, čime je uloga računara određena upravo onim njegovim svojstvom koje je za muziku kroz istoriju i bilo jedno od najznačajnijih – izračunavanjem slučajnosti. Savić ovakvim tretmanom kao da posredno kritikuje postmodernistički računarski kult memorije i evocira upravo sam „kompjuting", tj. procesualni aspekt računarstva koji je bio u fokusu u eri mejnfrejmova, čime uspostavlja relacije sa programerskom orijentacijom Milera Paketa (Miller Puckette) i konceptom „dataflow processing"-a (Puckette 2002). Ovaj osobeni izraz „poštovanja" prema artefaktima pre-digitalnog doba, čini se, dolazi kao posledica post-digitalnog „gubljenja iluzija" u vezi sa tehnologijom, što ne znači i njeno izostavljanje ili zaobilaženje. Naprotiv, Savić upravo insistira na digitalnom nasleđu (gejming, interaktivna postavka, višemedijska projekcija, upotreba algoritama), ali ga kritički inkorporira u svoj „beg od tiranije", uzimajući od njega ono što može biti od koristi u tom begu – mogućnost izračunavanja slučaja i neposredne interakciju sa medijskim sadržajem – istovremeno, čineći da ono što je

izostavljeno „upadljivo nedostaje", upotrebom medija koje je digitalna tehnologija „obećala" da će zameniti nečim boljim, ali u ovom slučaju nije ispunila.

Treći vid postojanja *Train (re)mix*-a je audio-vizuelni zapis kao dokument o izvođenju, koji, razume se, nije mogao biti bez konceptualizacije i osobenog doprinosa dometima ovog ostvarenja.[19] Naime, audio-vizuelni rad čine kadrovi koji su zabeleženi prilikom izvođenja sa nekoliko kamera, među kojima su i one montirane na voziće, koje uvode još jednu „virtuelnu" perspektivu ovih putovanja – onu iz ugla igračke/makete koja ovim činom dobija svoj „pogled na jedno". To je upravo pogled koji deci igračke čini zanimljivim, „pravi im društvo", dok u Savićevom ostvarenju on, kao u „Maloj ličnoj muzici", personalizuje posmatračevo iskustvo uvodeći ga u svoju igru, tj. deleći je sa njim kao što se u detinjstvu sa drugom dele igračke. Time Savićev poduhvat dobija i ličnu, privatnu dimenziju, odnosno, kućnu verziju monumentalne zamisli koja nije tek podsećanje na „pravo" izvođenje, već jedan od vidova postojanja dela prilagođen savremenim metodama reprodukcije, upravo u privatnosti vlastitog doma, sa ličnog, tj. personalnog računara.

Zaključak

Kao što je pomenuto, zvučni aspekt *Train remix*-a čine ostvarenja koja je Savić realizovao od početka osamdesetih do prvih godina XXI veka. Među ovim delima je moguće identifikovati ona na tragu minimalizma (poput serije dela pod nazivom „10" i „10/2"), kao i kompozicije neoklasičnog „duha" (*Mesijan Trio*, *Mesijana*, *St. Lazarus Waltz*), ali se generalno može uočiti da je Savić nastojao da prevaziđe stilska ograničenja konceptima koji su, čini se, značajni podjednako kao i zvučni rezultat kroz koji se manifestuju. Već prema nazivu recentne Savićeve zbirke klavirskih dela iz različitih perioda njegovog stvaralaštva – Animirani brojevi – može se pretpostaviti koliki značaj algoritmi i progresije imaju za ovog beogradskog autora, jer, kako naglašava: „brojevi su moja konstantna opsesija. Poput boja, oni nemaju neki poseban smisao niti objektivnu definiciju i ne sadrže značenja osim onih koja im mi pridajemo. Moje kompozicije uvek odražavaju neki aspekt broja. Definisanjem MIDI-ja i naglom ekspanzijom algoritamske kompozicije, praktična dimenzija broja takođe postaje značajna u njihovom nastajanju" (Savić 2016, 6). U procesu strukturiranja zvučnog sadržaja Savićevih dela, tako, značajnu ulogu imaju

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19 Imajući u vidu Savićevu bliskost sa minimalističkim stremljenjima u prethodnom periodu, a s obzirom na naslov i železničku „temu" ostvarenja, nameće se poređenje sa čuvenom kompozicijom Stiva Rajha (Steve Reich) *Različiti vozovi* [Different trains, 1988] za gudački kvartet i traku/ elektroniku. Međutim, osim samog motiva vozova i upotrebe snimljenog govora, gotovo da nema drugih sličnosti između ovih ostvarenja na nivou zvučnosti ili kompozicionih postupaka. Međutim, moguće je uočiti, namernu ili slučajnu, vezu između autobiografskih elemenata i motiva voza koji je zajednički ovim kompozicijama. I Rajh i Savić biraju vozove – doduše potpuno drugačijih ruta i oblika – kako bi putovali kroz sopstvenu prošlost i suočili se sa traumatičnim događajima na kojima će izgraditi svoje delo. Rajh to čini kako bi prevazišao traume iz mladosti zbog rastavljenih roditelja, dok se Savić, u izvesnom smislu, suočava sa gubitkom artefakata sopstvene stvaralačke prošlosti.

„petlje“, tj. permutujuće (self-similar) melodije koje ponavljanjem ističu postepene transformacije, čineći na taj način čujnim generički proces koji im je prethodio, bez obzira na to da li je reč o računarskom programu ili ležanju na klaviru, čime se evocira stav Jelene Novak o „tačkama koje se reprodukuju“ bez ambicije da ostvare ništa više od prikazivanja „sopstvene strukture i poretka svojih konstituenata“.

Kompleksne odnose između različitih shvatanja procesualnosti u većini Savićevih ostvarenja, a naročito u *Train mix*-u možemo razumeti srodno Štokhauzenovom određenju „višedimenzionalnosti saznanja“, gde je „sasvim moderno saznavati i upoznavati više procesa istovremeno i sve ih tačno shvatiti“ (Štokhauzen 1989, 13). U tom smislu, Savić je još 1984. godine istupio protiv termina „minimalna muzika“ i naveo nekoliko alternativa, koje uključuju i termin koji u fokusu ovog rada, te pružaju bliži pogled na terminološki problem koji je u ovom slučaju nastao. Savić ističe tri istovremene grupe rešenja, kojima se upravo akcentuje „višedimenzionalnost“ umetnosti koju nastoji da odredi, navodeći da se ona može posmatrati:

- s obzirom na kompozicionu genezu samih radova – kao reduktivna, repetitivna, procesualna muzika i sl.
- s obzirom na način realizacije – kao proširena, multimedijalna, ambijentalna, performans, muzička instalacija i dr.
- s obzirom na karakter muzičkog mišljenja i doživljaja – kao konceptualna, meta-muzika, muzika ideja i sl. (Savić 1984, 338).

Na osnovu ovih predloga, a s obzirom na prethodno sagledano stvaralaštvo, može se pretpostaviti da je Savić bio svestan terminoloških i poetičkih problema koji su nastali pojavom konceptualne umetnosti i srodnih pojava u muzici, te za svoje stvaralaštvo predlaže čitav korpus termina koji se u ovom slučaju mogu primeniti, i to u odnosu na kompozicione tehnike, žanrove tj. vrste i ideju koja toj umetnosti prethodi, te ne bi bilo pogrešno zaključiti da značenje procesualnosti u Savićevim delima postoji kao „proces“ koji se, kao i u pojedinačnim delima, postepeno tranformiše iz ostvarenja u ostvarenje, čineći time uočljivim ukupnost autorovih intervencija u ovo široko umetničko polje koje mapiraju njegova dela.

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Hanan Hadžajlić*
Music Academy
University of Sarajevo
Sarajevo, Bosnia and Herzegovina

COMPOSITION–INTERPRETATION–IMPROVISATION PROCESSES IN *XO PT. II* BY DINO REŠIDBEGOVIĆ: COMPARATIVE ANALYSIS OF TWO INTERPRETATIONS

Abstract: The composition *XO pt. II* for flute with processors, amplified cello, amplified piano and analog sound synthesizers, by Dino Rešidbegović, was published in 2016 as an electroacoustic adaptation of its previous version, *XO* for undetermined instrumentation. The phenomenon of the notation of both versions, presented through the graphic score, comes from the very idea of/about the composition. The score is divided into nine squares which form a network with incorporated abstract shapes of different colors. In the middle of the score is a chart of a spectral analysis of the composition *The Impact of the Analog Synthesize*r for ensemble, also by Rešidbegović. The only difference between the scores of the two versions is the instrumental parameters table involved in *XO pt. II* for three performers. The main task of this paper is primarily the analysis and comparison of two interpretations of *XO pt. II* by the same three performers, with a difference in duration of almost 19 minutes. The goal is to reconstruct and explicate the improvisation as a potential basis for a compositional-technical analysis. A composition-interpretation-improvisation processes chain represents the main structure of the general process which forms the composition *XO pt. II*, involving composer and performers – interpreted as equal, interdependent creators of the musical work.

Keywords: composition processes, graphic score, improvisation, electroacoustic ensemble, interpretation analysis, flute with processors, amplified cello, amplified piano, analog sound synthesizers

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*Author's contact information: hana_hadz@hotmail.com

Dino Rešidbegović: Pioneer of 21st-century artistic electronic/electroacoustic music in Bosnia and Herzegovina

Dino Rešidbegović[1] is a Bosnian composer of contemporary artistic music, mostly focused on the composition of electronic and electroacoustic music, based on analog modular synthesizers (Rešidbegović 2018, 144). Rešidbegović is the pioneer of 21st-century artistic electronic/electroacoustic music in Bosnia and Herzegovina (Rešidbegović 2018, 144) but also of its new paradigm in the context of the global market of contemporary artistic music. The new paradigm is based on his musical system RMC (Reductional Music Complexity), free from pitch determination (specifically for electroacoustic instruments), built in relation to the "reductional music complexity" in computer science, which is part of the deterministic mathematical theory of possibilities. The second aspect of this paradigm is his notation system, ARGN (Approximate Reductionist Graphical Notation), the basis of improvised chamber music (Rešidbegović 2018, 144).

> The composer/author himself calls this notation as ARGN (Approximate Reductionist Graphical Notation). The entire composition is conceived as a determined interaction between the sound synthesizer and the ensemble. The conductor determines the duration of the space in which the instruments agitate through the predetermined musical models. The content of the models itself is left to the interpreters, which means that it is desirable that there is no fixed content, but that it is always changeable. In the stated principle lies the simplicity and effectiveness of the aforementioned notation system. The author leaves the possibility for interpreters to be composers while acting in this work. In addition to this, the relation between the performers and the composer becomes much more intimate and connected, and the very composition becomes an act created by the composer and the performers (Rešidbegović 2017).

Both RMC and ARGN were presented at the festival Sound Thought 2017 in

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1 Dino Rešidbegović (Sarajevo, 1975) is a composer and Associate Professor of composition, electronic music/sound design, music technology and historical composition techniques at the Academy of Music Sarajevo, and a permanent member of the Austrian Association of Composers (OKB) and INSAM Institute of Contemporary Artistic Music (Sarajevo). He graduated and received his Masters degree under the mentorship of Professors Rainer Bischof, H. K. Gruber and W. Liebhart at the Musik and Kunst Privatunivesität der Stadt Wien. In 2016 he received his DMA in Composition at the Academy of Music of the University of Sarajevo, with the thesis S*ubtractive Synthesis in Composition and artistic project* (compositions for orchestra, flute and processors, and electroacoustic ensemble with analog modular synthesizers), under the mentorship of Igor Karača (Oklahoma State University) He completed postgraduate composition studies at Universität für Musik und darstellende Kunst Wien, with D. M. Siemens. He studies conducting with Uroš Lajovic and piano, with K. O. Hyun. He has received awards from the Alban Berg society, Siemens AG Österreich and Theodor Körner Preis. More information can be found here: https://dinoresidbegovic.musicaneo.com/

Glasgow, as part of the lecture *Subtractive Synthesis in Composition*.[2] Rešidbegović's composition *Subtractive Study for sound synthesizers and ensemble*, with an explanation of his new approach to electroacoustic/electronic music, is published by LAP Lambert Academic Publishing (Saarbrücken 2017).

Composition *XO pt. II* for flute with processors, amplified cello, amplified piano and analog sound synthesizers

The phenomenon of this work, starting from the process of compositional thinking, to its instrumental interpretations, is a potentially infinite form. At the level of ideas, it is reflected in substantially the same layers as compose a spectrum of colors; the initial thought that takes the spectral analysis for its means builds a score in the form of color images and, ultimately, interpretations initiated by these colors, as the basic stimulation of improvisation/composition. Layers can be represented in the form of the three stages of creation of the composition; 1. Spectral analysis of the composition *The Impact of the Analog Synthesizer*[3] (originally for mezzo-soprano, flute, accordion, cello, piano) – the result of the analysis as the basis of algorithmic processing, 2. Establishing the symbolic relations of the previous result of the algorithmic processing, the graphic record as the meta-language of the
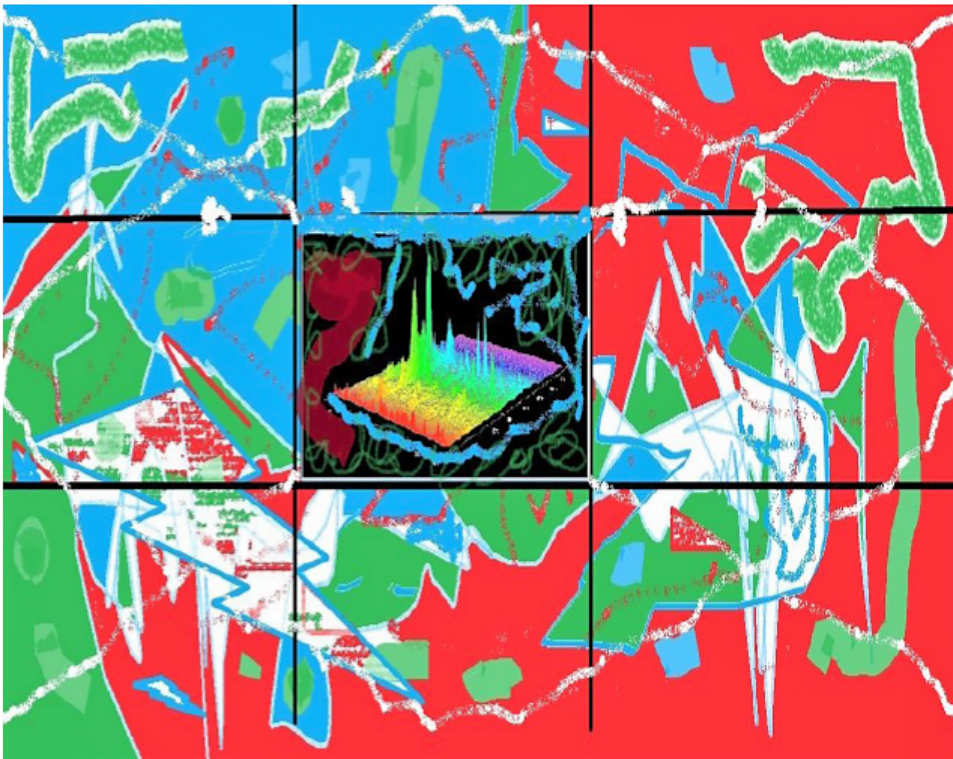
Example 1: Graphic score of the composition *XO*

2 More info on: http://www.cca-glasgow.com/programme/sound-thought-2017
3 Find sheet music on: https://dinoresidbegovic.musicaneo.com/sheetmusic/sm-226107_the_im-pact_of_the_analog_synthesizer.html

composer (an explanation of the obtained spectrum of colors), 3. Interpretation as improvisation in relation to the visual reception of the spectrum image/composition of the spectrum, the establishment of a symbolic system by the ensemble in real time. Conditionally speaking, these three layers of composition, and, from the analytical perspective, the three stages of formation/becoming of the composition, could be considered as the rhizomatic structure of the composition; a general idea that synthesizes the compositional idea as well as the idea of/about the composition.

Although the spectral analysis of T*he Impact of the Analog Synthesizer* represents the starting point of the idea of *XO pt. II* (or compositional idea), the composer treats them as two different compositions, within a single idea.

When it comes to compositions *The Impact of the Analog Synthesizer* and *XO*,[4] this is a rounded idea that has its own stages. The first phase implies all compositional procedures and processes of formation of the final score; the second phase is the realization of this score through musicians/interpreters; the third stage is the use of a recording of the same composition for the purpose of spectral analysis of the entire composition derived on the A4 paper. The aim of this is not reduced image, but a complete, final acoustic picture of the two previous stages. The fourth phase takes this graphic representation for a sample of its formal units and places it spatially in its center and leaves other squares through abstract colors as a stimulus for interpreters. This fourth stage is called a graphic score for *XO*. The fifth phase is limiting the concept for the *XO* performers, which are limitations and explanations. The sixth phase is the use of all the previous phases with an additional parameters for electronic instruments, and this phase is called the score of *XO pt.II*. (Hadžajlić 2017a)

The infinity of the form, or the possibility of the formation of the composition, is also reflected in the future idea of the composer, about the spectral analysis of the *XO pt. II* recording, as a base for new layers of the idea of composition or even new compositions. Such potential actually means that the composition is incomplete, taking into account the factor of the indefinite time parameter in the context of interpretation.

Composition *XO pt. II* is not a composition in the classical sense, but an open work. In that sense, it cannot represent a finished composition (Hadžajlić 2017a).

Interpretation of the composition *XO pt. II*

The main subject of this paper is the analysis and comparison of two interpretations of the composition *XO pt. II*, one of which lasts 4'49 and the other 23'30. The first version was performed on September 29, 2016 as part of Rešidbegović's DMA concert, and the second version, on September 2, 2016, at the Sarajevo Chamber Music Festival. In addition to the significant differences in the duration of the performances, the challenge for the concept of interpretative analysis is set by the

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4 Complete score at: https://dinoresidbegovic.musicaneo.com/sheetmusic/sm-262774_x_o.html

following factors: the same score, the same performers, and the different selection and treatment of instruments within the framework of the written instrumental parameters. The specification of the ensemble itself, in addition to the fact that all the performers are specialized in the field of contemporary music interpretation and improvisation, is also relevant; the pianist and the person managing the sound synthesizers (and in the second interpretation, the rhythm machine), is the composer Rešidbegović. The other members of the trio are Belma Alić (amplified cello) and Hanan Hadžajlić (flutes with processors).

In many of his works, Rešidbegović expects interpreters to involve the composer's perspective. However, in his scores he determines at least one fixed parameter, usually the rhythm.

> Dino Rešidbegović points to a formal approach that is classified in an individual form of an open type. In domain of macrostructure, the composer limits the co-compositional process of performer, on which he insists in material terms (...) which means that, in standard notation, bar lines mark the performances of individual parts, thus setting them in correspondent relations. The formal frame is, however, only the space within which the ideas of the interpreters are developed, bounded by the composer's instructions. The relationship between the parts is the contrast of the tempo, character, and given rhythm models, which are imposed as the only parameters (Bosnić 2016, 157).

However, this is not the case in the composition *XO pt. II* because he treats improvisation as a rationalization of the structure from the unconscious, that is, the construction of a sound structure, in relation to the visual reception of the graphic score in real time. Given that the only parameter that he defines is the instrumental parameter, which is related to the composition of the sound, excluding the composition-technical parameters in the classical sense, we can ask the question: does the interpretation, *speech* or *pronunciation* of an ensemble really match the original idea of the composer? In interview, the composer argues for the consistency of the interpretation in relation to the score and marks the composition and interpretation as one.

Without the previous spectral analysis, the composition *XO* would have no meaning, because it is possible to differentiate dominant and non-dominant frequencies through the graphic representation. Through the spectral analysis and graphic score I wanted to initiate a subconscious vision of interpreters, by which the interpreter could solve the problem of registration, without the use of classic notation. Like most of my compositions, *XO pt. II* is a composition of music and composition of interpretation, which means that it is not only the composer that composes, but the interpreter itself has the same importance. Therefore, composition and interpretation are one (Hadžajlić 2017a).

However, in addition to all interpretative parameters, the composer also determines the performers. In the interview, apart from the purpose of the

intellectual and spiritual development of individual musicians, he discards any other functionality of the *XO pt. II*, as didactic, educational or intended for students, and says that it is dedicated exclusively to musicians and audiences who are educated and live with the spirit of modern times. He believes that, in order to interpret *XO pt. II*, it is necessary for the performers to have some experience in the interpretation/improvisation of contemporary artistic music, and a similar opinion is shared by the cellist Belma Alić:

> For a successful interpretation of contemporary artistic music in general - and the same is with the composition XO pt. II, the most important factor is huge performing experience. By playing music of different styles, we gain knowledge of a large number of ways of sound production, as well as a more sophisticated reception of music. (Hadžajlic 2017b)

The phenomenon of Rešidbegović's relationship with the performers, giving them the role of the composer, as well as the different interpretations of the same composition, based primarily on the mutual communication of the members of the trio, requires observing the recording as the basic material for the interpretation analysis, and, therefore, opens the possibility of compositional and technical analysis. In this regard, I recall one particular thought from Jonathan Sterne, who emphasizes that:

> (…) recording has profoundly altered the improvisational idioms in music essentially by providing them with a form of notation. Besides making it possible to study the „scores" of jam sessions, reproduction – particularly in these instances – restricts interpretation to the recorded notation of specific performances of the piece. While this can be seen as contributing to the musicological temptation to reduce interpretation to execution, it is also important to recognize that the replacement of scores with records (and tapes) has been an indispensable component of the explosion in "nonprofessional" composition. (Sterne 2012, 2015)

However, to analyze the *XO* score itself would mean to analyze the programming language or the way in which the composer used algorithms in the formation of the score. Also, such an analysis would require a technical explanation of the previous spectral analysis and its connection with the programming process, as well as the score itself, which ultimately represents Rešidbegović's meta interpretation (or even a meta language) of the spectral analysis, translated into the image, i.e. graphic score. Brian Hulse also underlined the importance and peculiarity of scores saying that they:

> (…) are useful carriers of information, transmitting a kind of choreography from one performance situation (composition/improvisation) to another (rehearsal /improvisation). But the medium of the score, its all-at-once

61

presentation of symbols, can severely distort any project of conceptualizing music. To begin with, musical works do not exist as all-present totalities the way a score appears. In relation to actual music, a score only exists per se as a slender, moving window. But even this stipulation continues to validate the score = music conception in problematic ways. Actual music far exceeds anything that could possibly be represented by conventional Western notation. This is because, during the course of listening, an extraordinary field of temporal objects – past, present and yet to come (and all these as in some sense present) – develops concurrently with whatever sound is actually engaging the ear at any given moment. It may be that in order to adequately develop material to analyze there is a considerable deal of notation yet to be done. Such notation would certainly lose its usefulness for performance. (Hulse and Nesbitt 2010, 36)

Comparative Analysis of Two Interpretations

The difference between the two interpretations of *XO pt. II* is apparent at first in their different durations (time difference cc 18, 30'), as well as in the significantly different proportion of the amount of differentiated parts within them. The first interpretation contains 11 parts and its duration is 4, 49', while the second one contains 23 parts with a general duration of 23, 30'. The differentiation of parts in the interpretation analysis has been achieved in relation to the appearances of new musical material; with the appearance of a new instrument in a specific moment through a new instrumental gesture; or new compositional gestures not dependent on instrumental techniques, such as the change of rhythmic models or the introduction of new rhythmical-melodic patterns. The following tables (Table 1 and Table 2) demonstrate the principle of part differentiation.

It is also possible to observe the beginning of each new section as an orientation block or the gravitational field of the musical movement, which from the aspect of the compositional-technical analysis would indicate statics – that is, the fundamental layer of the structural organization of the composition. It is logical to conclude that the stated orientation blocks are the product of communication between the ensemble (the establishment of the general process of sound transformation), through a mutual musical logic, which in turn defines a mutual concept of time in the performance. It is possible to graphically represent three basic temporal layers within both versions, which could explain the approximately similar "amount" of musical material in both performances, both in the form of instrumental gestures/techniques and all micro-structural changes.

Part number	Time	Instrumental Techniques / Effects Dynamic range		
		Flutes & Processors	Amplified Cello	Sound Synthesizers & Piano
1	0 – 0, 25"	- Bass Flute: harsh inhale (closed mouthpiece) - Boss VE – 20: Flanger pppp	/	- MOOG Sub 37: drone (loop of the envelope parameters) pp - p
2	0, 26" – 1, 04'	- Bass Flute: harsh inhale (closed mouthpiece), overblowing - Boss VE – 20: Flanger pppp - pp	Harmonic glissando sul ponticello pp - p	- Piano: standard tone, cluster on the strings - MOOG Sub 37: drone (loop of the envelope parameters) pp - p
3	1, 05' – 1, 21'	- Bass Flute: overblowing - Boss VE – 20: Flanger pp - mf	Harmonic glissando sul ponticello pp - mf	- MOOG Sub 37: drone (loop of the envelope parameters) pp - p

Table 1

Part number	Time	Instrumental Techniques / Effects Dynamic range		
		Flutes & Processors	Amplified Cello	Sound Synthesizers & Piano
8	2, 45′ – 3, 29′	- Flute: overblowing, pizzicato - Boss VE – 20: flanger pp - mf	Harmonic glissando sul ponticello pp - f	- Piano: string glissando - MOOG Sub 37: drone (loop of the envelope parameters) - Make Noise: activating recording of piano part/granular synthesis - phonogene, feedback pp - mf
9	3, 30′ – 3, 41′	- Flute headjoint: whistle trill - Boss VE – 20: flanger ppp - mf	Harmonic glissando sul ponticello ppp - mf	- MOOG Sub 37: drone (loop of the envelope parameters) - Make Noise: granular synthesis – phonogene pp - mf
10	3, 42′ – 4, 06	- Flute headjoint: multiphonic trill, voice glissando, pizzicato - Flute headjoint: whistle trill - Boss VE – 20: chorus ppp – f	Detache ppp - f	- MOOG Sub 37: drone (loop of the envelope parameters) - Make Noise: granular synthesis – phonogene pp – ff

Table 2
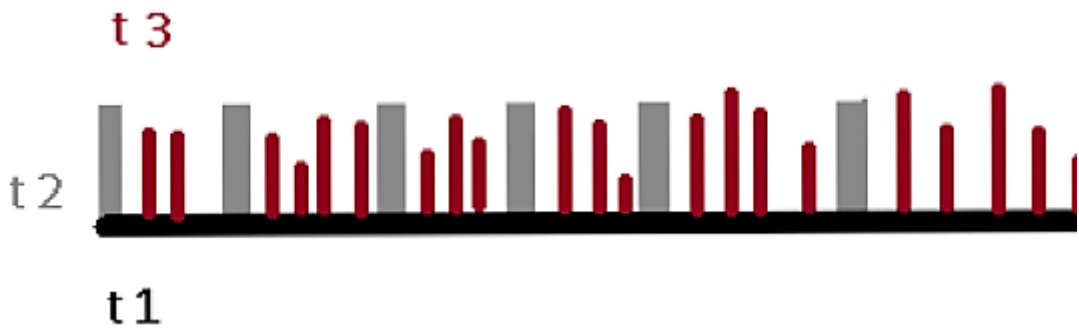
Example 2: Graphic representation of temporal layers in Interpretation 1
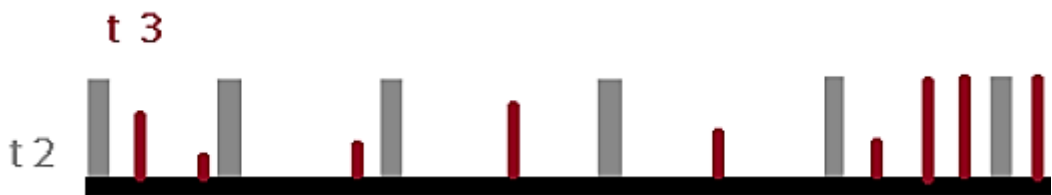
Example 3: Graphic representation of temporal layers in Interpretation 2

The first layer (t 1) represents the total duration of the performance and the spatial framework of the composition. The second layer (t 2) represents gravitational blocks of musical movements (mutual phrases of the ensemble) that are dependent on the mutual understanding of larger blocks of time. Therefore, they represent *time in time* – that is, the second temporal layer that relates to the foundations of the compositional structure. The third layer (t 3) represents a third concept of time in the interpretation, of the primary individual performer, which can be presented as multiple gestural phrases within phrases – blocks of the second temporal layer. The phenomenon of different proportions of differentiated parts in both interpretations, observing them from the aspect of a significantly different duration (both in the overall performances and their individual duration), leaves space for analyzing the amount of different musical material – musical phrases, individual interventions in structural change, and instrumental techniques.

The aspect of the amount of instrumental techniques used to form a primarily sonic image of both interpretations also confirms their similarity in the context of the music material, regardless of the final timing, that is, the duration. In the first interpretation, a larger number of instrumental techniques was used but also, a smaller number of instruments than in the second interpretation. The sound transformation process is much faster and the structure is apparently more elaborated. The second interpretation, which is almost five times longer than the first one, contains a number of different instrumental techniques and effects, as well

as instruments. However, in terms of its total duration, like the analysis of the first interpretation, their treatment is significantly different. Instrumental techniques and effects are arranged within longer phrases or time frames (t 3), which can even overlap with differentiated blocks, resulting in a more complex compositional structure from the aspect of compositional-technical analysis. However, from the point of view of interpretation analysis and the psychological effect of the first listening of both performances, the other gives the impression of a simpler approach to interpretation, a more spatial sound, and a more ambient composition than the first one, which, due to the faster flow of phrases and the more dense texture, has the characteristics of a more mechanical, multi-layered composition.

An important factor influencing the overall sound is the instrumentation itself. *XO pt. II* is written for flute with processors (with the possibility of substitutes, such as bass flute), amplified cello, amplified piano, and analog sound synthesizers (with possibility of using an analog rhythm machine). In the first interpretation, the flute was used in such a way that, in addition to the standard treatment of the instrument, the head and body of the flute were treated as individual instruments, while the bass flute was treated in the conventional manner, as a complete instrument. In the second interpretation, it is a similar case, only without the use of the flute body independently. The sound of the flute or alternative instrumentation was extended by the delay, the effect of the BOSS VE-20 digital processor, while in the second version the same processor was used for effects such as delay, flanger, distortion, and robot, and the sound was also modulated by the? LFO (low frequency oscillator) of the module Moogerfooger MF-108M MOOG Cluster Flux. Amplified cello is the only instrument in both performances that takes part from the beginning to the end without additional interventions through use of music technology. Amplified piano, the analog modular synthesizer Make Noise and the analog performance synthesizer MOOG Sub 37 were used in both versions, but in the second version, the composer used the rhythm machine Analog Rytm MKI. Amplified piano and MOOG Sub 37 were used in a similar way in both versions (for example, rhythmical stretching on piano strings or AMP and filter EG loop - drone of MOOG Sub 37), while the Make Noise synthesizer modules were differently connected in the second version.

The general sound of the ensemble is the result of an interactive combination of sound instruments with natural or processed sound, and electronic instruments, followed by simulation of similar sound effects on different instruments, as well as the different dynamic range of the individual performer within each time block. Since both performances were recorded by the same engineer and with the same equipment, it is possible to determine the difference between the dynamic range. The lowest dynamics in both versions is pppp (approximation), that is, the limit of audibility, while the highest in the first version is ff, and in the second is fff. The following table demonstrates differences in instrumentation, techniques and sound effects.

INTERPRETATION I	INTERPRETATION II
Flute (headjoint, body) / Bass Flute	**Flute (headjoint, body) / Bass Flute**
Boss VE - 20	**Boss VE – 20, MF – Cluster Flux**
Harsh inhale (closed mouthpiece), overblowing, ala trumpet, inhale/exhale, pizzicato, trills, whistle trills, multiphonic trills, voice glissando, tongue ram, voice glissando	Harsh inhale (closed mouthpiece), overblowing, ala trumpet, inhale/exhale, pizzicato, trills, whistle trills, multiphonic trills, voice glissando, tongue ram, voice glissando, aoelian sound, jet whistle, molto vibrato, finger mutiphonic glissando
Flanger, chorus	Flanger, distortion, robot, delay LFO
Amplified Cello	**Amplified Cello**
Bow press, bow press sul ponticello, harmonic glissando sul ponticello, pizzicato ala Bartok, trill glissando, detache	Bow press, bow press sul ponticello, harmonic glissando sul ponticello, pizzicato ala Bartok, trill glissando, detache, pizzicato, bow press – ordinario, harmonics, jeté bow stroke, molto vibrato, ordinario/sul ponticello
Piano / MOOG Sub 37 / Make Noise	**Piano / MOOG Sub 37 / Make Noise / Analog Rytm**
String glissando, cluster on strings, tapping	String glissando, cluster on strings, tapping
Drone (loop of the envelope parameters) Recording of piano part/granular synthesis - phonogene, feedback	Drone (loop of the envelope parameters) Recording of piano part/granular synthesis - phonogene, feedback, non-periodic sequence technique Activation/deactivation of the preprogrammed channels

Table 3

The comparison of these two interpretation analyses of *XO pt. II*, which have a lot of similarities, actually shows the unique characteristics of this composition. It is a continuous variation of different durations, i.e. variation of the duration of differentiated parts, breaks and rests as an equal musical material and the space between tonality and atonality. The term space between tonality and atonality corresponds to the context of this composition because of the impossibility of categorizing the relationship between the group of tones and tonality, but also the

possibility of finding a tonal center within the classical "dissonant" constructions, which is in effect a continuous tone (continuo or drone). However, the source of this space, as one of the basic characteristics of *XO pt. II*, is the nature of the sound synthesizers themselves. It is this phenomenon of their nature, that is, the becoming of music in relation to it, which Gilles Deleuze and Félix Guattari delineate in the book *A Thousand Plateaus*:

> The synthesizer has taken the place of the old and „a priori synthetic judgement", and all functions change accordingly. By placing all its components in continuous variation, music itself becomes a superlinear system, a rhizome instead of a tree, and enters the service of a virtual cosmic continuum in which even holes, silences and ruptures, and breaks are a part. Thus the important thing is certainly not to establish a pseudobreak between the tonal system and atonal music; the latter, on the contrary, in breaking away from the tonal system, only carried temperament to its ultimate conclusion. (Deleuze and Guattari 1987, 95)

The freedom that musical technology gives musicians comes from its nature; characteristics, possibilities, logic, solutions etc. It is not only a performing resource, but also a compositional one; a resource of musical material and the logic of its development. In the case of *XO pt. II*, the characteristics of music technology become the characteristics of music, and in relation to the same, the real time reaction of the performers is the basis of composition – of the composition *XO pt. II*.

Potentials

This comparison of interpretational analyses of two interpretations of *XO pt. II* presented the perspective of music composition analysis based on the recording. This analysis is approximate, which means that it does not rely on certain analytical programs, but is based on the experience of the author in the field of composition, interpretations, reception and analysis of music. There is potential for the implementation of a more exact analysis – for example, through some spectral analysis software, and then a comparison of the results obtained with the score, which was also created after an exact analysis of the composition *The Impact of the Analog Synthesizer*, but in the form of an image and, therefore, as an approximation. Such a chain of "checking" the relationships between all aspects that make up this composition, definitely allows the implementation of new research. It could also include an experiment in which the graphic score of *XO pt. II* is performed by musicians who have no experience in the interpretation/improvisation of contemporary artistic music. The result would also become the subject of analysis and comparison with the previous aspects of the composition, for the purpose of discovering "the composition itself", in the most similar elements that all of these aspects contain.

This work also raises the possibility of many questions relating to the parameter of the performer's freedom, which represents the improvisation itself, but also to its limitations, which may only represent the experience of the ensemble in the interpretation of contemporary artistic music. In addition, an important, perhaps even crucial factor in the context of limitations, is the need for electronic instruments, many of which can still not be found on the Balkan market, or even in wider markets. Can the composer's need for exclusively specialized artists in the field of contemporary artistic music (who equally participate in the composition process) and the need for almost inaccessible music technology (which has the ability to independently establish musical processes), characterize this composition as a prototype of „composer conformism in the world of capitalism"?

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COMPOSITION-INTERPRETATION-IMPROVISATION
PROCESSES IN *XO PT. II* BY DINO REŠIDBEGOVIĆ:
COMPARATIVE ANALYSIS OF TWO INTERPRETATIONS
(Summary)

Contemporary artistic musical improvisation today is an inevitable segment of the field of instrumental interpretation. It incorporates contemporary performing techniques and elements of artistic, extra-musical performance, as well as a high level of communication among performers in chamber music. It represents the basics of musical composition, that is, compositional logic as the specific and most sophisticated model of musical thinking. As such, it has the potential to become the object of a compositional-technical analysis; analysis of compositional/improvisational procedures and techniques. However, the following questions need to be asked: How does the ensemble determine the starting material, establish a common musical language, and ultimately establish the musical process? Is the interpreter/improviser at the same time a composer? Is it possible to use the recording of a certain interpretation/improvisation, and possibly, real time composition, as an object of compositional-technical analysis and in what way? Does the analyst need to be experienced in interpretation, improvisation, composition and analysis of contemporary artistic music?

XO by Dino Rešidbegović, originally written for undetermined ensemble and later for flute with processors, amplified cello, amplified piano and analog sound synthesizers, under the title *XO pt. II*, is primarily represented through a graphic score. That specific form of notation is actually a result of the spectral analysis of his previous composition, *The Impact of The Analog Synthesizer* for mezzo-soprano, flute, accordion, cello and piano. For performers of *XO*, the score represents stimulation, a source of musical and extra-musical associations which should be transformed and incorporated in the musical language and essentially, the beginning of the composition-interpretation-improvisation processes chain. This type of general process of *XO*, or its formation/becoming, that essentially forms a rhizomatic structure, can be recognized and explained by its analysis.

This paper demonstrates the analysis and comparison of two interpretations of the composition *XO pt. II* (the version for flutes with processors, amplified cello, piano with analog modular synthesizers and rhythm machine in the second interpretation), by the same three performers (Hanan Hadžajlić, Belma Alić and Dino Rešidbegović), with a difference in duration of almost 19 minutes. The first version was performed on June 29, 2016 as the part of Rešidbegović's DMA concert in the Army Hall, Sarajevo, and the second version, on September 2, 2016, at the Sarajevo Chamber Music Festival. Both interpretations are reconstructed and explicated primarily through differentiation of the piece's sections, represented through the time range and based on the formation of micro-processes by performers, mostly differentiated with the use of specific instrumentation and instrumental techniques/

sound effects. The comparison of analyses refers to the representation of difference in the instrumentation used, the instrumental techniques/sound effects, the general musical process and the conceptions of time in both interpretations and their individual aesthetics.

BEYOND THE MAIN THEME

Milica Arambašić*
Independent Researcher
Belgrade, Serbia

PETS AS NONHUMAN ANIMALS, COMPANION SPECIES AND ROBOTS

Abstract: The aim of this paper is to examine the connection between humans and pets, the companion species, whether the pets in question are organic or robotic. Pets are ineluctable members of Western societies, and the relationship between human and nonhuman animals was achieved a long time ago. It is certain that world population growth will create new needs in societies. Coexistence and concern about pets will acquire expenses only wealthier inhabitants of the planet will be able to bear, leaving the poorer layers with two options: either forgo the long-established need for a life shared with a dog or a cat, or reorient to a life shared with non-organic companion species – robotic pets. This is why it is believed that, with the streaming of capital in the not-that-far-away future, the development of artificial intelligence is about to be directed to the mass production of robotic pets.

Keywords: robotic pets, pets, nonhuman animals, dogs, cats, artificial intelligence

Domesticating animals is a part of the evolutionary process. It is hard to find a human in a Western society that has never owned a pet, or achieved any contact with a pet, on a physical and/or emotional level. Firstly, I want to make a distinction between terms like *pets* and *wild* or *exotic pets*. Exotic *pets* include species like monkeys, elephants, foxes, snakes and other kinds of reptiles. Under the term pets, I refer mostly to cats and dogs, which have become almost synonymous with the said term. These are the two species most commonly in co-habitation with humans. Other species, like birds, fish, or rabbits, are widespread but not as popular as dogs and cats. There are numerous cynological and felinological societies around the world.

*Author's contact information: milica.s.arambasic@gmail.com

A veterinarian's occupation is almost as important as that of a doctor of medicine in Western societies in the 21st century. When did pets become so essential for us? To answer this somewhat rhetorical question, we have to look at the beginnings of the domestication of animals.

In the beginning, food was what drew animals to those people who were able to satisfy one of their primal needs – hunger. At first, people didn't bring wild animals into their habitats, but they manipulated habitat surroundings which influenced animals' movements. The domestication of plants and animals began around 11 500 years ago, in direct correlation with changes happening in the Earth's biosphere. Animal domestication started in the Middle East, central China, and the Andes, and after that, it spread all around the world (Larson and Fuller 2014, 116–117). Looking from the perspective of satisfying hunger, a feeling we are all familiar with, it becomes seemingly clear how certain species became friends. Donna Haraway, in her book *When species meet*, states that dogs are the species most similar to humans. Haraway came to that conclusion after watching, studying and living with dogs for many years. At the beginning of her book, in the Acknowledgments section, she thanks both human and nonhuman animals, and the full quote is:

> *When Species Meet* is an acknowledgment of the lively knottings that tie together the world I inhabit, but here I want to name some of the human and nonhuman animals who are especially entwined in the tissues of this book. All those I call my animal people and their companions must come first—the scholars, artists, friends, sports buddies, and scientists whose work is directly shaped by the critters they love and know. (Haraway 2008, VII)

I will stop here for a moment to explain the term nonhuman animals. Haraway uses this term as a kind of transit state from human to nonhuman, i.e., pets, and commonly dogs. On the other hand, she also wrote an essay called *Manifesto for the cyborgs* where she positions the followers of the fluid epoch as entities close to cyborgs who are living on the social margins – so it is clear that Haraway always insists on the deeper meanings of words. The syntagm 'nonhuman animals' in this day and age could refer to all the people that are not in the system because they don't have a clear identity statement. What I mean by 'identity' considers the materialistic part, and that one not completely material part of it – subjectivity. The age of Enlightenment, that still takes place today as it seems, has a paradox within itself that contains simultaneously the process of enlightening and dehumanization in which race, class, gender, and religion, determine the importance of a human being. That modus continues in the age of capitalism, in which the nonhuman animals would be anybody without a passport, ID card, specific skin color, or material wealth. Haraway draws particular attention to the connection between animals that she uses for displaying the similarities between these two species – human and dog. Haraway names the species who influence each other as companion (Haraway 2003, 11), in contrast to different species that affect humans (the ones that most people don't

imagine when hearing the word *animal*), such as bacteria and insects. Since we all co-exist in the same ecosystem, it is logical that we all have an influence on each other as well as on planet Earth. The epoch that we can perceive as man-made is called the Anthropocene. In the last couple of years, the study of the Anthropocene has drawn much attention. As an example, John Hartigan mentions that there were zero abstracts, papers or panels with titles featuring the word "Anthropocene" in the 2013 annual meeting of the American Anthropological Association (AAA). However, in the next year, 2014, there were 64 papers (Hartigan 2014). Hartigan mentions the work of Haraway and her term companion species, but still decides to use the term *multispecies* although it might decentralize the original meaning of 'Anthropocene'. Bacteria, viruses, parasites, and microorganisms are responsible for the changes on Earth as well as the humans after whom the epoch was named. The disappearance of the Ozone layer, nitrogen and phosphorus circulation disarrays, ocean acidification, chemicals that cause disorders, deforestation, and global warming are all changes in the ecosystem that affect everyone in it. Certain posthuman theorists are questioning and disapproving of the name of the current epoch.

Peter Sloterdijk suggests the term *monogeism* "to describe the appropriate cognitive relationship of human beings to this entity – a term that designates, as it were, the minimum contemporary, non-ignorant relationship to Earth's pre-eminence. At the same time, it forms the basic axiom for a political ontology of nature" (Sloterdijk 2015, 328–329). Sloterdijk states that the planet will be able to endure all the changes, but that those changes will cause certain consequences. Man was affected by them; man is affected by them; man affects them; and whether it will come to the Apocalypse, as Sloterdijk writes, remains to be seen in the future. As we can see, the name of the epoch is not entirely suitable, because in its first perception it excludes the ambiguity of the species and the relationships made before man came into the picture. Likewise, Haraway deems that the term Capitaloscene should also be taken into account (Haraway 2015, 259). The ecological changes in question are inherited from capitalism, which requires cheap labor forces, food, natural resources, and energy.

Furthermore, Haraway states that next to the Anthropocene/Capitaloscene the term Chthulhucene should be considered since it carries endless stories of human and nonhuman lives and it doesn't forget Science Fiction. The name itself comes from the spider Cthulhu from H. P. Lovecraft's monster deity which petrified men. "I want this spider renamed, instead, for "chthonic" ones, a litter of the tentacular dreadful without gender. *Pimonachthulhu*, not *Pimonacthulhu*" (Haraway 2015, 267). The current epoch, which the term 'Anthropocene' excludes, is precisely the epoch of the Chtulhucene or *Chthulucene*. It is an era that is post-gender and deals with speculative fabulation, speculative feminism, scientific fact, and string figures (Haraway 2015, 269).

There is a certain divide between scientists concerning the beginning of the epoch and not just its name. The name Anthropocene suggests that the human species is

the catalyst for the occurring changes on Earth. Some researchers believe that it started with the agricultural revolution; others think it started with the industrial revolution and capitalism (Tønnessen vii–xix, 2016). The pervasion of the organic and the nonorganic, as the relationship between them, takes place in the first and the second case of the epoch's beginning, and this pervasion still occurs today. When Haraway decides to take on the term 'nonhumans' she implies, but also questions whether or not dogs are nonhuman animals, and to what extent.

In the history of domestication, in the relation of man and what the term nonhuman represents, dogs were domesticated first, more than 30 000 years ago, while it is believed that cats were domesticated a bit over 10 000 years ago. Greger Larson and Dorian Q. Fuller collected the data of researchers and drew territorial lines of animals' movement – Commensal Pathway Taxa, Prey Pathway Taxa and Directed Pathway Taxa (Larson and Fuller 2014, 122–127). There are several factors which influenced movement, thus influencing the domestication of animals. Namely, people began using animal products such as meat, milk, and leather, and transported those species that were useful to them. It cannot be claimed with certainty at what point human and nonhuman animals started to coexist almost like family members. Here, I would like to recall again the very end of the Acknowledgements from *When species meet* by Donna Haraway: "How can I acknowledge Cayenne and Roland, the dogs of my heart? This book is for them, even if they might prefer a scratch-and-sniff version, one without endnotes." (Haraway 2008, X) In *The Companion Species Manifesto* Haraway states that the term companion implies two beings, in syntax and bodily sense. It reminds us that dogs are a part of the stories and folklore of the contemporary as well as the ancient world, and that they were always by man's side as the first domesticated species.

Dogs and cats today have our attention, our time, dedication, and love. We buy special food for our pets; take them to specialized treatments, to kennels, spas, and operational procedures. Cats and dogs are not just pets; if you ask any human animal who lives with pets, you'll get an answer that suggests they mean much more than that. What is *more*? Is the love we sense towards dogs and cats similar to the one we feel towards humans? The human is sometimes blamed for giving too much attention to nonhuman things, even by other people who also live with pets. That is why for these people – and especially women who are single and do not have children – there are terms such as old maid or spinster, which goes hand in hand with the name crazy cat lady (lately, there are more men who are breaking the stereotypes by calling themselves "crazy cat man"). People take care of a dog like they would a family member. When the dog is sick, when it gets cancer, they take it to chemotherapy and hope for a cure. That is how dogs, besides being family members, become patients also. Modern pets get vaccines, get cleansed of parasites and flea, and have their own passports to smoothly travel the world with their human animals. The term nonhuman animal, as I've already mentioned, in the contemporary networked world, can also be used to refer to those who are not people and to those who are

robots, but also to those who do not have legal documents, thus not being part of the system. It seems that, in the countries of so-called developed capitalism, pets enjoy a better position, because they are involved in the monitoring system. Dogs and cats are part of biopolitics; they go through many regulations and interventions that control their biological processes.

Dogs and cats are laborers. Cats have hunted mice and small pests and protected man's property since ancient times. Dogs guard sheep, work in rescue forces, police and military, help blind and visually impaired people (Harawey 2008, 45–67). They have salary – shelter and food – both measured by owners affluence. Wealthier pet owners can afford better care, more adequate treatments, and better quality foods, and can completely forget the former work-like functions of their pets. Likewise, they are "adapted partners in the naturecultures of lively capital" (Haraway 2008, 62). Lastly, next to the numerous veterinarian stations and pet shops, there are pet cemeteries. It all brings profit, just like with people. Birth, life, illness, death. Class differences are evident even in this collision of relationships because wealthier people more often choose to buy a specific breed of dog or cat. The ones with limited resources, however, tend to adopt "common" dogs and cats, strays. There are many animal shelters dependent on donations and state subventions, in which volunteers are usually employed and the animals don't bring any profit.

On the other hand, there are numerous breeders, who support themselves through their business, people who get back the money they invested when certain breeds are sold. Pedigree cats and dogs are packaged into the best possible capitalist product. This product can, and indeed must, be refined with organic and nonorganic substances. Given the fact that the gap between organic and nonorganic is bridged every day, and that the number of cyborgs among people is on the rise, it becomes evident that the model is being applied to other companion species as well. Prosthetics are being put on dogs and cats when they lose limbs as a consequence of illness or trauma. As is the case with people, pets can also use insulin pumps. Artificial intelligence is already changing lives of human and nonhuman forms. It is predicted that in the future AI will provide extension of life longevity for humans as well as their pets. Dogs and cats can also be cyborgs and move between the natural and synthetic. Nevertheless, they are created through biological reproduction, a natural process. Some animals, such as cows – which humans have gained many benefits from – are not always created 'naturally'. Artificial insemination of cows and horses is very widespread. The birth of the future pet is also manipulated through intentional pairing, in order to produce a new species or preserve the pedigree.

The life of Dolly the sheep represents the continuation of biology through technology. Dolly the sheep, the first cloned mammal in history, was created on June 5, 1996, and she lived until 2003. Her birth, as seen by theoretician Sarah Franklin, introduces new rules – "just as capital is changing, so the new biology does not guarantee the same syntax it used to guarantee for other domains: what does it mean when genealogy can be remade through technique? What happens when the means

of reproduction themselves can be owned under a patent? What is Dolly's proper gender, or sex, if instead of being born she was made?" (Franklin 2003, 103). It should be emphasized that Dolly was formed from the cell of a female sheep and that she has identical DNA to the sheep she was created from. Likewise, the process of reproduction is not ensured by nature, but by technology. She was created in Scotland, in the Roslin Institute. This kind of creation is a kind of branding, a patenting of the new product: "the brands and trademarks connecting products to their parent company stand in for shared substance, forming the basis of kin-relatedness as a familiar form of propriety-by-descent" (Franklin 2003, 104). From that position, the creation of Dolly reminds us of the process of creating any nonorganic product. Dolly was not a cyborg, and she wasn't a robot – Dolly was a seemingly regular sheep that was designed. *Born created*. Born as a sheep with predetermined sex and gender, she set new challenges for scientists in the advancement of stem cell preservation. Animal rights activists believe that this way of creating new animals is harmful to them, as well as the surrogate mother. Playing the role of 'Creator' is an issue even when a breeder intentionally crosses breeds in order to produce a unique kind of an animal.

One of the most unique breeds of nonhuman animals, created by the human hand, is the breed of *robotic pets*. They are made to have as vivid a resemblance as possible to organic pets in terms of their looks and behavior. They are not masculine or feminine, and they have another type of identity which is outside of the gender binary divide. Like the gender-free cyborg imagined by Donna Haraway in 1985, which leaves behind heteronormative frames. The main feature of cyborgs is their fluidity and their mobility among humans, animals, machines, the organic, and the nonorganic. The cyborg is a creature of social reality and a creature of fiction (Haravej, 2002, 309). The cyborg moves the boundaries between organic and nonorganic and opens the way towards the posthuman. The posthuman is a human being, and the cyborg is an organism with both biological and technological constituents. Gender, age, and race are not of importance to robotic pets. What is important is that they remind one of something that was organic, and that can at the same time be read as a myth of their creation.

The relationship between humans and pets is fortified, and people tend to demonstrate tendencies towards living with pets more often. We are bound with pets through our emotions which awaken a sense of pleasantness, a secretion of the hormone of happiness which is ever so needed today. With the increase of working hours and the turmoils of capital, I would like to stop for a moment to illustrate one example. Let us imagine a person who gets up early, leaves for work and comes home after 10 or 12 hours spent there. That person doesn't have time for socializing, relationships, or long holidays, because they already spend enough time working. As they do not want, do not think about, or, lastly, don't even have time to consider "creating a family", such a person may choose a life with a pet. The labor market is cruel, capitalism is a tough survival sport, and many people may not even feel able

to sustain relationships with other companion species. For those who have even longer working hours, pets such as dogs and cats represent an even more distant option than, for example, fish. Still, cats give additional benefits. They are more independent than dogs, they do not require walks, and satisfy their needs in the house. Here I exclude longhaired and sphynx cats, which demand a little bit more attention regarding hygiene maintenance. A dog, "man's best friend", as it is called, relies on humans more, and therefore I believe that soon it will also be exclusive to persons who spend less than 12 hours at work a day. In that framework, a person who spends that much time working will not have too many options regarding having a pet. The choice will be narrowed from dogs and cats to goldfish and small reptiles. Furthermore, a person can chose either a life without pets, or maybe a life with some robotic pets. Technology advances in order to satisfy man's needs; now we have robotic pets on the market to help our organic dogs feel comfortable when we're not around. The creators represent it as "MIA the robot that plays with your pet": "MIA will reduce your pet's anxiety level, while increasing its level of exercise, and making its day more fun! MIA is even equipped with a dry-food dispenser! Your best friend will no longer spend all day on the couch waiting for you to come back home." (Kolony Robotic 2017)

World population growth will bring about changes and create new needs in a society viewed through the prism of capital. Wealthier people will not only buy special kinds of pets – I assume they will also, be able to choose the exact pet they want in the near future. It is not certain that the poorer layers of society will be able to afford organic pets. Of course, even today there are wealthy people who do not buy special breeds of dogs and cats. They adopt. But in time to come, there will be people who would rather buy robots. That motivation stems from a certain awareness of problems of class inequality, but I'm not utterly optimistic that it will come to represent a more significant percentage of attitudes.

Robot pets are already our reality. Scientist Jean-Loup Rault says that pets are pretty usual in Western cultures, but that they are only beginning to gain popularity in Asian cultures: "it is difficult to imagine how more than half of the 9.6 billion people of 2050 could still keep pets. Efforts to develop cities designed to be green and pet-friendly are ongoing. However, a more realistic future is that pets may become a luxury possession for people who can afford to sustain their cost and fulfill their needs in terms of space, social, and mental needs according to possibly higher ethical standards raised by future societies" (Rault 2015). The advantages of robotic pets include the fact that they do not require attention and, as is already accentuated in the epoch of the streaming of capital – they are cheaper. Likewise, these pets are hypoallergenic and recommended for people who have reactions to animal hair.

Toys can be viewed as the first robotic pets. Almost 20 years ago, the toy Tamagotchi was popular. It was made in Japan, and children around the globe had it. Designed as a handheld digital pet, this device had three buttons that managed, respectfully, feeding, playing and cleaning. Tamagotchi went through several phases

of growing up, just like any organic pet. This toy was used to teach children how to be responsible and empathic, and how to love. It was different from a regular stuffed bear or battery doll because it craved attention. If its needs weren't satisfied, it would die, but with the vast difference that it could live again just by reactivating the device.

The next, significantly larger, robotic pet was AIBO dog. A group of scientists researched children's reactions to AIBO dog, which was created by SONY in 1998. They questioned three areas – biological, mental, and social – which were viewed in the interaction of humans and companion animals. They concluded that children treat AIBO dog the same way they would handle any live dog. Moreover, when they were asked about deficiencies, they would answer that the dog needed more hair so it could be softer and more "lifelike." Grown-ups were a bit more aware that the AIBO dog was a robot, but they too enjoyed its company (Melson 2009).

Somewhat more tangible and similar to organic pets with hair, robotic pets were also made to give older people a sense of connection and closeness. Besides the fact that they emulated pets, robotic pets also imitated the link that has been achieved between people and pets, that is, humans and nonhumans. This feeling which nonorganic pets "introduce" strongly manipulates people. In 2003 in Japan, at the Intelligent System Research Institute (AIST) the PARO seal was created for animal-assisted therapy, with a goal to help older people who have dementia. The seal is soft and white; its legs and head move, and it makes sounds like a real seal. Across the Internet, videos of elders petting PARO can be found. This robotic seal is intended to help older people in nursing homes. As it says on the company's website, "[b]y interaction with people, PARO responds as if it is alive, moving its head and legs, making sounds, and showing your preferred behavior." (PAROrobots 2014) The price of this therapeutic seal is perhaps the weakest link in the reception of PARO.[1] On another continent, the United States, Hasbro,[2] one of the world's largest toy manufacturers, created robotic pets – cats and dogs. Hasbro was working with Brown University, and together they created Joy for All. It is interesting that Joy for All, robotic cats and dogs, have another name – companion pets. Their basic purpose is, as is the case with the tender white seal, to act as company and provide comfort for older people and those with dementia. Even today across numerous kennels there is a rule that cats and dogs mustn't be given to older people who could not take care of them properly. For pets who run on batteries, however, age is not a category which could prevent a person from signing a contract regarding pet ownership. I visited the Joy for All webpage once again to buy a cat and found information that left me pleasantly surprised. The cat that does not age and does not require food or litter cleaning is very affordable.[3] It also "feels and sounds like real cats. But they're so much more than soft fur, soothing purrs and pleasant meows"

1 The pricing currently varies between 4 000 pounds and 5 000 dollars.
2 Hasbro are also known for their Furby, a hamster or owl-like creature, in short, a gremlin. Furby was banned during one period in Maryland, because it was able to record, thus presenting a threat to national security (BBC 1999).
3 At the time of writing this paper, the robotic cat was priced at only 99,99$.

(Joy for All 2018). Hasbro invites us to recall our previous experiences and promises us a feeling identical to the one experienced in the company of an organic cat. The company slogan is *no vet bills, just love*. Haraway surely cannot use this kind of motto for her nonhuman animals.

There is no illness, no sterilization, chipping, vaccination, bathing, combing, or feeding. It is enough to get a charger and a few batteries, and the pet is alive – safe and sound. The only fear, as with all other machines, is the possible breakage that could lead to complete shutdown, or, so to speak, the end of the robotic pet's life. The question which is imposed is: whether and to what extent can we bond with something that isn't organic, and how would its death affect us? Let's recall the lives of a boy and a toy bear from Spielberg's movie *Artificial Intelligence* (2001), and the moment in which the robotic bear says to the robotic boy "I am not a toy." That same bear that speaks in the movie can now be ordered from Amazon. Today there are dozens of different kinds of robotic pets on the market, and that number is set to grow daily.

As we can see, the borders between organic and nonorganic are blurred more and more every day, and soon more robots will resemble humans. When mentioning the robotic species, we always have a parallel fear of them taking over the world; fear that machines will rule one day and that AI life forms will achieve supremacy over the organic. Robotic and nonhuman animals have their similarities and differences, but it remains to wait and see who will eventually take the lead in creating the new interrelationships between all these companion species.

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Pets as nonhuman animals, companion species and robots (Summary)

Pets are a part of everyday life in Western culture. This paper maps out already established relationship between humans and pets using a sort of pluralistic approach. It deals with the theme of domestication of animals by looking at its beginnings. I rely on works of Dona Haraway and merge the terms she suggests (like nonhuman and human animals, companion species, cyborgs), in order to question in to what extent they intertwine. The terms are important because of the very designation of pets as nonhuman animals, by which Dona Haraway primarily means dogs. Likewise, I look into the epoch of anthropocene and the authors who deal with this question. Here, I single out several different names with which todays epoch is described, and which do not exclude the life we do not classify under that term, like viruses and bacteria, responsible for many changes to date.

It is certain that world population growth will create new needs in societies. Coexistence and concern about pets will acquire expenses only wealthier inhabitants of the planet will be able to bear, leaving the poorer layers with two options: either forgo the long-established need for a life shared with a dog or a cat, or reorient to a life shared with non-organic companion species – robotic pets. This is why it is believed that, with the streaming of capital in the not-that-far-away future, the development of artificial intelligence is about to be directed to the mass production of robotic pets.

Rijad Kaniža*
INSAM Institute for Contemporary Artistic Music
Sarajevo, Bosnia and Herzegovina

SONEMUS FEST (2015–2018): FROM 'SONIC BOOM' TO 'ICARUS'

Abstract: SONEMUS is an organization established in 2001 for the purpose of performing, promoting and educating in the domain of contemporary music. The SONEMUS Festival is the only festival of its kind in Bosnia and Herzegovina and that is the reason for its great importance for the development and expansion of 21st-century culture and art in the home country, as well as in the region of Southeast Europe. So far, a large number of projects have taken place under the name of SONEMUS, including a variety of concerts, workshops and lectures. From 2015 to 2018, the Society has registered four festivals of exceptional importance for musical life in Bosnia and Herzegovina. Consequently, this article will review of the Festival's development over the past four years.

Keywords: SONEMUS Fest, Sarajevo, Contemporary music, Sonic Boom, Trancegression, DIS/C/LOC/K/ATION, Icarus

The Society of NEw MUsic Sarajevo – SONEMUS (Lat. – *let us sound*) is an association established for the purpose of performing, promoting and educating in the domain of contemporary artistic music with an emphasis on works of Southeast European composers who belong to the modernist aesthetic orientation. In addition, an integral part of the Society is the SONEMUS ensemble,[1] a performing group, i.e. a network of experienced musicians-associates whose number is not constant, which allows the ensemble to expand depending on the needs of a musical work. SONEMUS also organizes workshops, lectures and educational events in the domain of contemporary music (SONEMUS 2015).

The story of SONEMUS begins in March 2001 with the Bosnian-Herzegovinian

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* Author's contact information: kaniza.rijad@gmail.com

1 Current members of the SONEMUS Ensemble (according to the latest festival in 2018): Hanan Hadžajlić (flute), Béatrice Laplante (oboe), Azra Ramić (clarinet/bass clarinet), Vedran Tuce (clarinet/bass clarinet), Gilles Grimaître (piano), Simon Klavžar (percussion), Violeta Smailović-Huart (violin), Esther Saladin (violoncello), Sophie Lücke (double bass).

premiere of Brian Ferneyhough's composition *Cassandra's Dream Song* at a workshop held at the Sarajevo Music Academy. After the workshop, which was the first public performance of SONEMUS, a series of 'New music' concerts began on November 2001. The idea emerged of a need for the establishment of an ensemble that would deal with performing contemporary music in Bosnia and Herzegovina. The initiators of this undertaking were Ališer Sijarić, a professor of composition and related subjects at the Sarajevo Music Academy, and Boris Previšić, a Swiss flutist who, in the words of Sijarić, was open to co-operation with a sensible-minded institution from Sarajevo (Sijarić 2002, 130–1).

Since 2001, the Society has had a large number of successful events, but in 2015 it expanded and SONEMUS took the form of a festival. Two key figures for SONEMUS are Azra Ramić (as CEO) and Ališer Sijarić (as artistic director of the festival), who are still highly active in their collaborations. From 2015 to 2018, the Society has registered four festivals of exceptional importance for musical life in Bosnia and Herzegovina, primarily demonstrated by the fact that, by 2018, the Festival has inspired a number of other events related to contemporary music, such as concerts of improvisation and numerous lectures in this field. SONEMUS has also encouraged a number of young people to engage in composing and performing contemporary
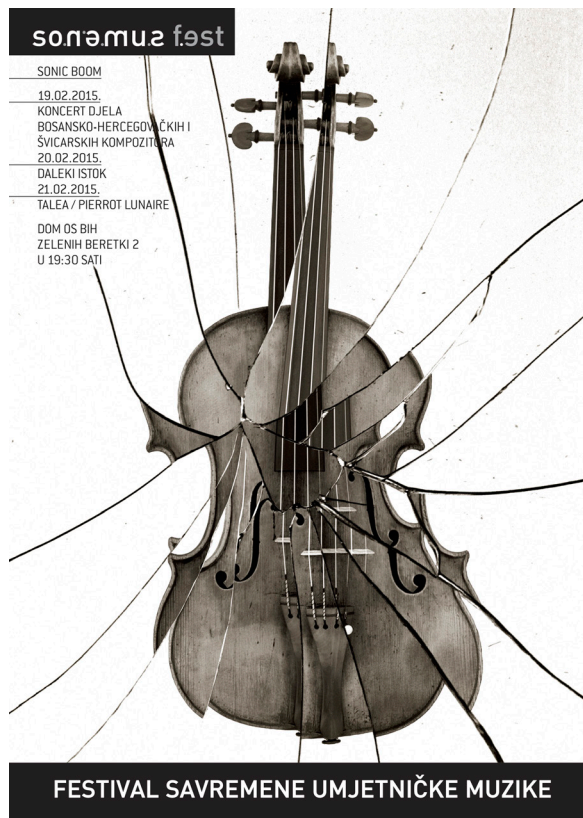
Flyer of SONEMUS Fest 2015 – *Sonic Boom* ©
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and experimental artistic music. The titles of the festivals were *Sonic Boom* (2015), *Trancegression* (2016), *DIS/C/LOC/K/ATION* (2017) and *Icarus* (2018).

Sonic Boom

The first *great-story* festival was held in February 2015, with the title *Sonic Boom*. The three-day event took place in the Army Hall in Sarajevo and each of the three concerts were accompanied by a particular subject and/or works that followed the basic idea of the event. The concerts were performed by an ensemble made up of musicians from Bosnia and Herzegovina and Switzerland, guided by conductor and composer Jürg Wyttenbach.

The first concert was on February 19 and it was dedicated to works by Bosnian-Herzegovinian and Swiss composers. The concert's program included two premieres. The first was Hanan Hadžajlić's *Freezing Moon*, a product of the study of the relationship between human speech and music manifested through contemporary vocal and flute techniques; the second premiere was *The Impact of the analog synthesizer* by Dino Rešidbegović, which is based on a quotation from the preface of Mark Jenkins' book *Analog Synthesizers*. Through the topic of its text, the

SONEMUS Fest, *Sonic Boom*, 2018. © Vanja Čerimagić

composition evokes the idea of the treatment of analog synthesizers. In addition to the aforementioned works, the rest of the concert contained compositions by Jürg

Wyttenbach (*Una chica en Nirvana*), Beat Furrer (*Presto con fuoco*), Michael Jarrell (*Assonance III*) and Ališer Sijarić (*Innerhalb aller sprachlichen Gestaltung…*).

The next day of the *Sonic Boom* festival featured a programmatically titled concert – *Far East* (*Daleki istok*). The concert's thematic aim was to show the sound connection between traditional Far East culture and contemporary musical expression through works by various composers. This evening's repertoire was rounded up by works of composers from Eastern Europe, with a special emphasis on works that include the accordion. Besides that, attention was also drawn to the "Gamelan trio" ensemble[2] who performed the traditional Indonesian gamelan music, *Bata Rubuh*. The composers whose works were performed were Toshio Hosokawa (*Melodia*), Hyunkyung Lim (*Windbrücke*), Toru Takemitsu (*Voice*), Isang Yun (*Intermezzo*) and Keiko Harada (*Midstream*).

For the final evening of the Festival, a special program was offered to the audience – a concert which unified two masterpieces of European music from the beginning and end of the 20th century: Arnold Schönberg's *Pierrot Lunaire* (1912) and Gérard Grisey's *Talea* (1986). Both compositions were performed by the SONEMUS Ensemble[3] under the direction of the conductor Jürg Wyttenbach.

SONEMUS Fest, *Sonic Boom*, 2018. © Vanja Čerimagić

2 Members of the "Gamelan trio": Igor Magdalenić (bonang/salendro), Asep Supriadi (rincik, suling, vocal), Edo Golubić (kendang).
3 Members of the SONEMUS Ensemble in 2015: Jeanine Hirzel (mezzo-soprano), Hanan Hadžajlić (flute/piccolo), Azra Ramić (clarinet/bass-clarinet), Gilles Grimaître (piano), Violeta Smailović-Huart (violin/viola), Esther Saladin (violoncello).

Such a selection of repertoire for the last concert of SONEMUS' *Sonic Boom* Festival has left fragments of an idea of contemporary spirit and modern musical aesthetics among the local audience and has built a monument to twentieth-century music in Sarajevo.

Trancegression

Flyer of SONEMUS Fest 2016 – *Trancegression*.
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SONEMUS' festival in 2016 was named *Trancegression*. According to the program booklet, this program explored the world of musical hybrids that combine contemporary art music and various genres of pop music like psychedelic rock, trance, acid-house and similar. However, unlike typical hybrids that are deprived of their basic properties, the combination of musical genres sometimes generates new, authentic qualities which resonate in the interstitial (un)reality (SONEMUS Fest 2016a).

Trancegression comprised three concerts. The first of these, named *Acid Rain*, was held on April 14 in the Army Hall in Sarajevo. On this evening an interesting and varied program was introduced to the audience, including works by Ryszard Gabryś (*An die Freude*), Iannis Xenakis (*Tetora*), Pierre Boulez (*Dérive 1*), Ališer Sijarić

(*Cross Bowing*), Ricardo Eizirik (*Junkyard Étude II*) and Michael Gordon (*Acid Rain*). All works were performed by the "Gagliano"[5] and SONEMUS ensembles under Robert Ames' direction.

The next evening, a musical event was held under the title of Fausto Romitelli's composition *Professor Bad Trip Lesson I*. At the very beginning of the concert, the *First Sonata* for piano by Pierre Boulez (1925 – 2016) was dedicated to the memoriy and honor of the composer's life and work. In addition, another Romitelli work (*Trash Tv Trance*) was performed, as well as works by other composers, such as Beat Furrer's *Aer*, Hanan Hadžajlić's *No To You* (*Morgellon Love*), *Elegant Spanking* by Daniel Zea and *Anamorfosi* by Salvatore Sciarrino. Thanks to the expertise of the SONEMUS ensemble[5], the compositions were interpreted at the highest level of contemporary musical expression.

SONEMUS Fest, *Trancegression*, 2016. © Vanja Čerimagić

Guests of the *Trancegression* festival, members of the "Platypus" ensemble[6], performed at the last event of this year's series of concerts. The basis of the *Looney Tunes* concert program was chamber music – in particular, the chamber music of

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4 Members of the "Gagliano" ensemble are Galya Bisengalieva (1st violin), Mira Benjamin (2nd violin), Zoe Matthews (viola) and Sergio Serra Lopez (violoncello).

5 In addition to the standard set up of the SONEMUS ensemble from 2015, the group also featured: Aleksander Gabryś (double bass), Ruben Mattia Santorsa (electric guitar), Zoe Matthews (viola), Alisa Sokolović (voice) and Henri de Saussure (electronics).

6 A group of Viennese (Austria) musicians consisting of Kaoko Amano (soprano), Elena Gabbrielli (flute), Ingrid Zhegu (violin), Tomasz Skweres (violoncello) and Jaimie Wolfson (piano).

new complexity originator, Brian Ferneyhough (*Four Miniatures*) – as well as the renowned Austrian composer Bernhard Lang and his work for voice and piano from the *Songbook III*. The program also included compositions by Galina Ustvolskaya (*Grand Duett I*), Luciano Berio (*Sequenza III*), Ricardo S. Eizirik (*Observations I*), Fernando Riederer (*Hanabira*) and Daan Janssens (*Paysage Etude*). In addition to the above mentioned authors and works, great emphasis was placed on the two premieres of Bosnian-Herzegovinian composers: Belma Bešlić-Gál's piece *Slovo o vremenu* (*A*

SONEMUS Fest, *Trancegression*, 2016. © Vanja Čerimagić

letter about time), which relies on aesthetics, philosophy and the definition of art in its realistic view, and *X O*, Dino Rešidbegović's sound-image representing a familiar game known as tic-tac-toe, in which each of the three instruments has a special role (SONEMUS Fest 2016a-c). In conclusion, *Trancegression* was of great importance for the development of SONEMUS and left a considerable impact on musical life in Sarajevo.

DIS/C/LOC/K/ATION

As in previous years, so in 2017 the Festival made another new step forward. This year's edition of the Festival was called *DIS/C/LOC/K/ATION* and was held under the motto 'When immeasurable is measured by music'. The program consisted of three musical events scheduled from 7 to 9 April 2017, all held in the Army Hall in Sarajevo.

The Festival began with a concert by the pre-art soloists7 at which four premieres were performed, half of which were pre-art commissions. Premieres included works by Matko Brekalo (*identification<changeability>stagnation*) and Deniz Nurhat (*Kurkku*), while the commisions were Stefan Wirth's *Lieux*, a work written to an experiential plan as a sound archive framed in a kind of virtuality that is composed of pieces of the composer's memory, and *Septuor pour 13 sources*

Flyer of SONEMUS Fest 2017 – *DIS/C/LOC/K/ATION*. © Anur Hadžiomerspahić

7 The *pre-art* organization and soloists have been active since 2001; their domain is the promotion and performance of contemporary artistic music, as well as orders and premieres of contemporary music composers. The *pre-art* soloists are: Boris Previšević (flute), Matthias Arter (oboe/bass oboe), Raphael Camenisch (saxophone), Vladimir Blagojević (accordion), Gilles Grimaître (piano), Tobias Moster (violoncello) and Aleksander Gabrys (double bass).

by internationally-renowned composer Vinko Globokar, which represents different individual dramatic situations (interpretations of the meanings of which are left to the audience). The soloists also performed *Transfiguration* by Marijana Janevska, Michael Roth's *Die Zunge des Gletschers* and Matthias Arter's *Medusa, Fuga a 5 voci.*

Clockworks, the second concert of the Festival, was marked by an appearance from SONEMUS ensemble[8], which, under the direction of Edo Mičić, presented the *Kammerkonzert* for 13 instruments, a masterpiece of the great contemporary

SONEMUS Fest, *DIS/C/LOC/K/ATION*, 2017. © Vanja Čerimagić

composer György Ligeti. At the same event, the audience witnessed a performance of Marko Nikodijević's *Music Box*[9], which directly refers to Ligeti. Also included in *Clockworks* program were Martin Jaggi's *Plod On* and Ališer Sijarić's *Noise Prevails*, a work inspired by the production of the tone or harmonic spectrum that is to be 'eaten' by the as the work progresses.

A concert by the Slovenian ensemble "Neofonia"[10], led by Steven Loy, brought three world premieres of new works by prominent contemporary composers Uroš Rojko

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8 For this specific purpose, the standard set up of the SONEMUS ensemble was supported by the *pre-art* soloists and Branko Mlikota (clarinet), Igor Lazić (horn), Admir Vračo (trumpet), Matthew Gee (trombone), Karmen Pervitić (percussion), Zlatan Božuta (harpsichord/keyboards), Diego Ramos Rodriguez (violin) and Sophie Wahlmüller (viola).

9 The full name of the work is *Music Box / Selbstportrait mit Ligeti und Strawinsky (und Messiaen ist auch dabei).*

10 "Neofonia" is an ensemble from Ljubljana (SLO) consisting of Elena Gabbrielli (flute), Valentina Štrucelj (clarinet), Jože Bogolin (percussion), Klemen Golner (piano), Matjaž Porovne (violin) and Igor Mitrović (violoncello).

(*Neofonia*), Urška Pompe (*And, through and over everything*) and young Bosnian-Herzegovinian flutist and composer Hanan Hadžajlić, whose composition *Homo ex machina – Hommage à Ligeti* is interpreted as micro-polyphonic mechanical music for acoustics instruments. In the last SONEMUS event of the *DIS/C/LOC/K/ATION* Festival, works by Tristan Murail (*Treize couleurs du soleil couchant*) and Christophe Bertrand (*Le Chute du rouge*) had their premieres in Bosnia and Herzegovina. The "Neofonia" ensemble also performed *CUTE*, a piece composed by Dieter Ammann, one of the most significant contemporary Swiss composers.

Flyer of SONEMUS Fest 2018 – *Icarus.* © Anur Hadžiomerspahić

ICARUS

The Bosniak Institute in Sarajevo was the center of this year's SONEMUS Fest, held on 20 and 21 April 2018. As stated on the festival flyer, the motif of this edition of SONEMUS is the multiplicity of the ancient myth about Icarus. This famous story, drawing a man through different states and feelings such as lust, courage, resurrection, will and the desire for freedom and, ultimately, destruction is characterized by its dynamic development, escalation and final decline, symbolically depicted by wing movements and a grim and fatal finale in which the feathering floats on the roiling surface of the sea (Sijarić 2018).

The first concert, thematically named Icarus, was opened by *Trawl*, one of Richard Barrett's most significant compositions. The premiere ofAlišer Sijarić's

SONEMUS Fest, *Icarus*, 2018. © Vanja Čerimagić

piece *Sul movimento delle ali* or *About wing movements* followed the Icarus' motif and 'poured the spirit of freedom' into the Bosniak Institute's Hall. Antoine Fachard's music represents a relatively new phenomenon in 'music for the connoisseurs', so the premiere of his work *Athroïsma*, performed by members of the SONEMUS ensemble under the direction of Gregory Charette, captivated the audience. The composition *La Chute d'Icare* or *Fall of Icarus*, written by one of the most important composers of our time, Brian Ferneyhough, symbolically completed the first night of the *Icarus* edition.

The second concert from SONEMUS' Icarus edition was named *Jugendstil*

and featured some of Sarajevo's young contemporary music performers. The local as well as the foreign members of the audience enjoyed the rendition of Olivier Messiaen's *Quatour pour le fin du temps*, in which students of Sarajevo Music Academy performed the seventh movement – *Fouillis d'arcs-en-ciel, pour l'Ange qui annonce la fin du Temps* (T*angle of rainbows, for the Angel who announces the End of Time*). The second item on the program was *Drei kleine Stücke* (*Three little pieces*), a piece by a famous Austrian composer and representative of the Second Viennese School – Anton Webern. Subsequently, Dino Rešidbegović's piece *R.N* for clarinet,

SONEMUS Fest, *Icarus*, 2018. © Vanja Čerimagić

horn and violoncello was performed under the direction of Fuad Šetić, followed by György Kurtág's *Bagatelles* op. 14. The audience were particularly impressed by the interesting and tempting musical patterns in a laudable performance of Hanan Hadžajlić's *Ex Machina III*. The penultimate piece of the program, Pierre Boulez's *Derivé*, was performed by the guests of the festival and students of the Sarajevo Music Academy.[11] In the finale of this event, the minimalist work *In C* by the famous composer Terry Riley was performed, which ended the 2018 edition of the SONEMUS Festival.

This SONEMUS Fest was dedicated to the recently deceased Anur

11 Students of the Academy who have performed at the concert: Andrea Boltek (flute); Armin Smriko, Ilma Čagalj, Branko Mlikota (clarinet); Zuhra Melić (horn); Amna Hujić, Anja Rajić, Emina Džanović (violin); Selma Hrenovica, Anela Pašanbegović, Nejla Komar (violoncello); Dženis Mrkonjić (double bass); Mirza Gološ, Marko Stojanović, Ivan Perković, Zerina Šabotić (piano); Antonio Vincek and Muharem Osmanagić (accordion).
Guests of *Jugendstil* were Dunja Crnjanski (piano) and Ines Ljubej (percussion).

Hadžiomerspahić (1971–2017), a longtime collaborator of the festival, artist and designer, a man who from the very beginning was one of the masterminds behind SONEMUS in the form of the artwork, designs, flyers and posters accompanying the story since 2001. In this honor, an exhibition of all the SONEMUS posters (2001–2017), for which Anur Hadžiomerspahić is credited as designer/artist, was held as part of the festival. The exhibition was open for visitors from 16 to 30 April 2018 at the Art Depo Ars Aevi gallery in the Home of the Youth in Sarajevo (SONEMUS Fest 2018c).

Conclusion

SONEMUS Festival, the only festival of its kind in Bosnia and Herzegovina, is very important for the development and expansion of 21st-century culture and art in its home country and the surrounding countries as well as Southeast Europe. It is a unique opportunity to link knowledge and people living in different parts of the world and a real indicator that music brings together people with different opinions and ideas. Festivals of this type are essential for music students and their progress, especially the workshops and concerts where they can learn about new techniques and tendencies in music of their time. In addition, SONEMUS aims at performing new works of contemporary artistic music, that is, works of living composers, which is also an aspect of promoting contemporary art and culture. Therefore, there is no doubt that the Association of SONEMUS could move their story on and expand their scope in the foreseeable future.

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SONEMUS Fest, Trancegression. 2016b. "Bad Trip" booklet, Sarajevo, April 15.

SONEMUS Fest, Trancegression. 2016c. "Looney Tunes" booklet, Sarajevo, April 16.

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SONEMUS Fest, DIS/C/LOC/K/ATION. 2017b. "Clockworks" booklet, Sarajevo, April 8.

SONEMUS Fest, DIS/C/LOC/K/ATION. 2017c. "Neofonia" booklet, Sarajevo, April 9.

SONEMUS Fest, Icarus. 2018a. "Icarus" booklet, Sarajevo, April 20.

REVIEWS

Maša Spaić*
Junior researcher
Faculty of Music
Belgrade, Serbia

Review of the 27th International Review of Composers Belgrade, Serbia 4–8 October 2018

The 27th International Review of Composers was held at the Studentski kulturni center [Students' Cultural Center] in Belgrade from 4th to 8th October 2018. Unlike the previous years, this year's Review didn't have a specific title that would further determine the thematic framework of the festival. Instead, the Review's artistic selector, Branka Popović, opted for a concept that she characterized as "A Unique Collection of the Latest Achievements of Contemporary Music." Hence, the audience could hear a heterogenous selection of authors of different generations and their works that are results of various stylistic orientations and diverse inspiration impulses, from Egyptian and Greek mythology to contemporary science and philosophy.

The Review's programme, divided into six thematic concerts, one musicological discussion, and promotion of the edition of works, included fifty compositions written in the last three years by authors from eighteen countries. In addition, the programme included pieces by two eminent authors who who left their mark on 20th and 21st century music, Sofia Gubaidulina and Brian Ferneyhough, and works by two composers who are not well known in Serbia – Poul Rovsing Olsen and Erkki Jokinen. The audience could hear more about these four authors and their pieces from two musicologists, Ivana Miladinović Prica and Milan Milojković, during the opening discussion, named *A Review within the Review*.

Amongst the performers at the Review were established, and to the musical audience well known, performers of Serbian contemporary music, such as the string orchestra Metamorphosis and Construction Site New Music Ensemble, young soloists, duos and smaller chamber ensembles who specialize in performing contemporary music, as well as some ensembles that made their debut this year. On the second day, we heard a performance by Belgrade Baroque Ensemble, and the last

*Author's contact information: masha.spaic@gmail.com

concert of the Review was marked by a performance from the *Balkan Connection Brass Quintet*.

At the official opening ceremony of the Review, which followed the musicological discussion, the Mokranjac Award for the best composition in 2017 was presented to Ivana Stefanović for the radiophonic poem *Veliki kamen* [*Big rock*], based on fragments extracted from Ljubomir Simović's drama *Hasanaginica*. As the Jury stated in their explication, in *Veliki kamen* we hear "knowledgeable organization of the musical process, meticulous work with the sound material, technical perfection of its realization, the strength of the inspiration and the timelessness that the radiophonic poem carries" that make it a work of "exceptional value." The concert that followed the Mokranjac award ceremony was entirely dedicated to music written for string orchestra and performed by *Metamorphosis*. The piece that opened the concert was *Abgrund* by Sonja Mutić, and it was followed by *Und wie Fruchte sid wir* by Caterina di Cecca, *Four harmonic transformations* by Miloš Zatkalik, and Tatjana Milošević's *Whilst Thinking of You*. The concert proceeded with Stanko Simić's *Memoria*, in which the composer invited us to explore his own recollections, experiences, and memories. In the second part of the concert, the audience could hear trumpeter Mladen Djordjević performing Dejan Despić's *Concerto* for trumpet and string orchestra op. 168, which featured a classical division into three movements full of motion and virtuosity, followed by Mirjana Živković's *String diptych*, Miloš Raičković's *Passacaglia & Double Fugue on B-A-C-H and B-A-G-D-A-D* and Nataša Bogojević's *Dissolvenza*.

Apart from the Mokranjac Award, on the third and fifth nights of the Review, two more awards were presented: the Aleksandar Pavlović Award for the promotion and performance of Serbian contemporary music to the Construction Site New Music Ensemble and their pianist and artistic director Neda Hofman Sretenović, and the Pavle Stefanović Award for music criticism and writings on music to the musicologist Ana Kotevska for the inspiring essay *Naracija koja ne priča priče. Ivana Stefanović – Veliki kamen* [*Narration that doesn't tell stories. Ivana Stefanović – Big Rock*]. Another noteworthy event happened on the last day of the Review, at the Atrium of the National Library of Serbia, before the official closing concert. The event in question was the promotion of scores of works by Ivan Brkljačić, who is the first Serbian composer to have his works published by a Serbian publishing company.

The first concert of the second night – which was, owing to the conception of its programme, one of the most interesting nights of the Review – was the Doctoral artistic project of young flutist and doctoral candidate at the Faculty of Music in Belgrade, Hanan Hadžajlić. This concert took the audience into a specific sound-world – it featured a selection of recent works for flute, bass flute, and electronics. Firstly, the audience could hear compositions written for amplified flute/bass flute: Panayiotis Kokoras's *Cycling* (for amplified flute) and Dominik Karski's *Open Cluster M45* (for amplified bass flute). The concert proceeded with two pieces written for flute/bass flute and tape – Mario Davidovsky's *Synchronisms no. 1* (for flute and tape)

and Brian Ferneyhough's *Mnemosyne* (for bass flute and tape). The last segment of the concert consisted of two compositions written for flute/bass flute, processors, and tape. The pieces in question are Hadžajlić's *A Thousand Plateaus: Hommage a Deleuze & Guattari* for flute/bass flute and processors that was based on the philosophical notion of rhizome that is, through its six principles, mirrored in the six parts of this piece, and Dino Rešidbegović's *Concerto* for flute, processors, and tape, whose title refers to the specific relationship of the flute and electronics which, in this case, symbolizes the "orchestra."

The performance by Belgrade Baroque Ensemble, the second concert of the evening, stood in sharp opposition to the sound of the previous one. In this concert, the audience entered the particular atmosphere that the baroque instruments provided, in which the performers played contemporary pieces that engage in the exploration of the timbre and possibilities of the old instruments, in order to create a new musical expression and experience. The repertoire of this concert included Moritz Lassmann's *Toccata*, Dragana S. Jovanović's *Quasi la Nuova Musica Barocca*, Milana Stojadinović Milić's *Čudotvorna kolajna* [The Miraculous Medallion], Ivan Brkljačić's *B-G-B-A Ro(c)k*, Maja Bosnić's *Kavitacija* [*Cavitation*] and Dragan Latinčić's *Lijane* [*Lianas*].

The first concert of the third day of the Review was dedicated to pieces that were written for duos and soloists. Thus, we could hear Erkki Jokinen's *Alone*, Svetlana Maksimović's *Jedini glas* [*The Only Voice*], Poul Rovsing Olsen's *Without a Title*, Vladimir Korać's *Umbra*, Lazar Đorđević's *Quasi Sonata* and Sofia Gubaidulina's *In Croce*. The second concert of the evening was composed of pieces written for larger ensembles of instruments, and the performers were members of Construction Site New Music Ensemble, with Ivan Marković as conductor. The exception among an abundance of instrumental music, not only in its sound, but also in its adept conception and realization, was the second piece of this concert, *Phonation 2 – Memories* for voice and electronics which was performed by its composer, Ana Gnjatović. In this composition, the author very delicately and artfully explores her vocal past through some of the most significant musical pieces, songs and stories from her childhood. Other compositions that were performed were *Hálitos* by Luis Delgado, *Fantasy on a Theme by Charlie Chaplin* by Jonathan Graybill, *Image* by Milan Mihajlović, *Remnants* by Sunyeong Pak, *Mandala* by Jana Andreevska and *Tajimamori* by Demian Rey.

The penultimate day of the festival was very similar in its conception to the third day. The performers in the first concert were members of Construction Site New Music Ensemble. The audience could hear simplicity of expression in Ana Kazimić's *Auroriel*, freedoms and rules of play applied to music in *Homo ludens* by Mira Milosavljević, and Vladimir Tošić's *Multus*, an extremely repetitive and processual piece that contains all the important traits of the compositional style of this composer. Also included in the repertory were Milana Milošević's *Toomač*, Ivan Božičević's *Ibis* and Jug Marković's *motherTongue*. The second concert was

dedicated to music written for duos and soloists – the audience heard performances of Christopher Cook's *Dreamscape*, Joshua Hey's *Specks*, Svetlana Savić's *Scherzo*, Chatori Shimizu's *Shiki to Unkai V*, Đorđe Marković's *Phonemes*, *Ghost* by Ivan Vukosavljević and *Vocabulary of Loneliness* by Ivan Chiarelli.

The 27th International Review of Composers was concluded with a concert that followed the already mentioned promotion of editions of Ivan Brkljačić's works. This concert gave the audience a rare opportunity to hear a performance by the Balkan Connection Brass Quintet, which is comprised of performers from Slovenia, Serbia, and Croatia. Accordingly, on the programme were pieces for this specific combination of instruments, written by renowned Serbian composers – Rajko Maksimović's *Madrigal*, an adaptation of *Pero* for men's choir from his well-known book of madrigals *Iz tmine pojanje* [*Chanting from Darkness*], then Branka Popović's *Rainbow Walk*, which is based on the idea of the distortion of the familiar fanfare sound of brass instruments, and Isidora Žebeljan's *Duh iz tikve* [*The Ghost from the Pumpkin*]. Alongside these compositions, the quintet performed Alan Hankers's *Oasis*, Petar Obradović's *Tango to go* and Ivan Jevtić's *Quintette Victoria*. Overall, the 27th International Review of Composers can be considered a successful one thanks to its repertoire, which was comprised from pieces written by composers of diverse generations and stylistic orientations, allowing the Belgrade audience to hear the latest achievements of Serbian and foreign contemporary music.

Ivana Medić*
Institute of Musicology SASA
Belgrade, Serbia

Quantum Music, International interdisciplinary project (2015–18), *Creative Europe*, EACEA (559695-CREA-1-2015-1-RS-CULT-COOP1)

It is not easy to reflect on the project that occupied the better part of the last three years of my life. While the memories and impressions are still vivid, it may be too early to tell whether it will have a lasting impact. The project in question was called *Quantum Music* by its masterminds, former classmates at the Mathematical Grammar School in Belgrade: Vlatko Vedral, Professor of quantum physics at the University of Oxford and the National University of Singapore, and Dragan Novković, Professor at the Department of Audio and Video Technologies of the School of Electrical and Computer Engineering in Belgrade. For the first time, an institution from Serbia – the Institute of Musicology SASA – became the project leader within the *Creative Europe* programme, whilst the international consortium of partners and associate partners gathered together cultural, higher education and research institutions from Serbia, Slovenia, Denmark, the Netherlands and the United Kingdom.

The main objectives of *Quantum Music* were to explore how the seemingly distant worlds of quantum particles and everyday sounds could interact and to bring the abstract principles of quantum physics closer to a wide audience by means of music. The project was kickstarted by a series of quantum-acoustics experiments during which particles exhibited characteristics that could be converted into audible sounds. Namely, in temperatures close to "absolute zero" (-273,15° C), all wave functions of separate atoms turn into a single wave function; this is the quantum "sound".[1] While we cannot hear it, quantum physicists have been able to work out equations and formulae upon which such events occur; hence Vedral and Novković decided to transfer these inaudible quantum "sounds" to "our world". My own

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* Author's contact information: ivana.medic@gmail.com
1 Cf. Marko Rančić, „Kad atomi đuskaju svi kao jedan – Boze-Ajnštajnov kondenzat", http://www.svetnauke.org/9674-kad-atomi-duskaju-svi-kao-jedan-boze-ajnstajnov-kondenzat

motivation for accepting their invitation to be the project coordinator was sparked by the opportunity to create something new and thus revive the spirit of the maverick post-WWII avant-garde "obsessed" with progress, innovation, technological breakthroughs and new sounds. At that point (in 2014) I had only recently returned to Belgrade to take up the post of a researcher at the Serbian Academy of Sciences and Arts, having previously lived in Manchester for almost seven years; hence I was institutionally well positioned to lead a project that aimed to connect science(s) and art(s).

The research took the international consortium in several directions, starting with the creation of new hardware that transformed the classical piano into a hybrid analogue-digital instrument. As noted by Jelena Janković-Beguš and myself, "Whilst creating the hybrid piano and soundbanks for it, the scientists, engineers and musicians found themselves 'on the same wavelength' […] although they arrived at that meeting point from different directions. Specifically, the scientists were interested in 'hearing' the quantum world, while musicians aimed at expanding the sound range and expressive possibilities of traditional keyboard instruments."[2] The idea for creating the hybrid piano came from LP Duo (Sonja Lončar and Andrija Pavlovič) whose diverse concert activities include performances both on classical pianos and on a variety of synthesisers, especially old analog synthesisers, of which they are avid collectors. However, they have always complained that even the best of contemporary synthesisers neither have the mechanism nor the dynamic range of grand pianos. The engineer Darko Lazović fulfilled their dream of creating an electronic instrument that retained genuine piano mechanics and enabled the demonstration of the entire spectrum of pianistic virtuosity, while at the same time introducing a variety of new sound colours and new performance possibilities. This was complemented by a creation of a new software interface for this new hardware, but also of soundbanks synthesized on the basis of equations obtained during the experiments in the quantum laboratories.

The second, artistic direction involved creation of a new music genre; composition, performances and distribution of the first quantum music pieces based on the study of the behaviour of quantum particles (and not merely on the use of quantum computers), as well as composing new music and rearranging pre-existing music for the new hybrid instrument. This was followed by the creation of an audio-visual narrative that accompanied concert performances of these new quantum music pieces, in order to introduce and explain to the audience the most important phenomena of the quantum world, such as quantum vacuum, entanglement, superposition, wave function and collapse, teleportation etc. The Quantum Music multimedia show was successfully performed in six cities in Spring and Autumn 2017 (Singapore, The Hague, Copenhagen, Aarhus, Ljubljana and Belgrade). Further

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2 Ivana Medić and Jelena Janković-Beguš, "What Does Quantum Music Sound Like and What Would Pierre Boulez Think of It? *Super Position (Many Worlds)* by Kim Helweg (2017)", *Muzikologija/Musicology* 24 (I/2018), 83.

performances were given throughout the year 2018 in London, Paris and New York. As part of this project, an international interdisciplinary conference devoted to Quantum Music was held on 21 and 22 March 2018 at the Serbian Academy of Sciences and Arts, under the auspices of the Ministry of Education, Science and Technological Development of the Republic of Serbia. The conference, which attracted a large number of listeners as well as considerable media attention, gathered together physicists, mathematicians, engineers, composers, musicologists and pianists, who were either directly involved in the realisation of the eponymous Creative Europe project, or involved with similar research within their institutions, independently of our consortium.

The project *Quantum Music* opened a new chapter in the relations between science, technology and music, leading to the discovery of new sound worlds. Moreover, for the first time in its history, music was offered the chance to contribute to science by transferring/translating quantum experiments to our audible world. Our long-term goal is to continue to popularize the new hybrid keyboard instrument, the soundbank of quantum sounds and the new music genre to the widest possible audience, but also to further the educational side of the project and to expand and intensify our collaboration with prestigious institutions and individuals in the fields of science, arts and technology worldwide.

Miloš Bralović*
Institute of Musicology SASA
Belgrade, Serbia

Rebecca Jane Bennet and Angela Cresswell Jones (Eds.), *The Digital Evolution of Live Music*. Kidlington, Chandos Publishing, Elsevier, 2015, 143 pp.
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Defining identity, the body – that is, the relationships between human and non-human throughout music – and different practices of creating and performing music on the internet represent elements of the main topic of the studies in the collective monograph *The Digital Evolution of Live Music*, edited by Rebecca Jane Bennet and Angela Cresswell Jones. The monograph contains an introductory chapter and a conclusion (titled "Introduction" and "Coda"), with ten studies in between. The topics of the studies are connected to the different aspects of the central topic mentioned earlier.[1] Those aspects are related to certain platforms which serve as means of presenting and sharing music online but are also related to events with live music such as music festivals, which are advertised online or which take place in the electronic online space. The studies are connected to:

- The changes caused by the development of digital technologies and their influence on live performances, the audience and changes in the economy

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*Author's contact information: milosbralovic@gmail.com

1 The studies are: Angela Cresswell Jones and Rebecca Jane Bennett, „Introduction", pp. xi–xv, R. Bennet, „Live concerts and fan identity in the age of the Internet", pp. 3–15, T. Harper, „Aura, iteration, and, action: digital technology and the jouissance of live music", pp. 17–27, A. Jones, „What's my scene: festival fandom and the applification of the Big Day Out stage", pp. 29–40, J. Mulder, „Live sound and the disappearing digital", pp. 43–54, S. Mallinder, „Live or Memorex? Changing perception of music practices", pp. 55–70, A. Trainer „Live from the ether: YouTube and live music video culture", pp. 71–84, M. Kent, K. Ellis, „Live music in a virtual world: exuberant flourishing and disability at Wheelies nightclub in Second Life", pp. 85–98, S. Gallacher, „The sounds of Skyrim: a musical journey trough gaming", pp. 99–106, F. Cull, „Dead music in live music culture", pp. 109–121, A. Jones, R. Bennett, S. Cross, „Keepin' it real? Life, death and holograms on the live music stage", pp. 123–138, R. Bennett and A. Jones, „Coda", p. 139. The studies are followed by an Index.

and cultural industry;

- The question of the identity of the audience (at both the individual and collective level), as a fluid category in the digital age;
- The transformation of experiencing a live event with the appearance of digital technologies, and by mediating cultural products via the screen, viewed from the perspective of cultural studies;
- Questions connected to the transformation and the future of popular music festivals (with the Australian festival *Big Day Out* as an example);
- Questions of music production with digital technologies (fine arts/Avant-Gardes vs. Popular music);
- The status of live performance via new media – internet;
- Questions related to YouTube live-streams and problematising that platform as a musical archive/repository on one hand and as a place for free self-promotion on the other;
- Problematising live performance as an event in virtual space and defining the status of the body within that space (with an example of *Second Life* platform);
- The question of music in video games (that is, Massively Multiplayer Online Role-Playing Games [MMORPG]);
- The distribution of old music practices in contemporary society via digital music archives;
- Questions of altered reality in contemporary live performance via digital technologies and holograms.

There are two main claims crucial for understanding these studies. The first is stated in the introduction: "Given the rapid pace of change, especially in the digital era, any book investigating digital culture is a history text by the time it reaches the shelves." (p. xi, the start of the introductory chapter, and therefore the whole monograph starts with this claim). The second one is stated in the fourth study: "The place of computers in academic music practice has become almost central: computational musicology, music retrieval, acousmatic composition, and digital electronic music production are widespread in research and education. In terms of popular music, digital impact came with sampling and increased control over synthesisers." (p. 49).

With the first claim, not only the speed of the development of digital technologies, but also their high presence in the contemporary culture, are pointed out to the reader. The authors, of course, are stating that this can be a good thing for the humanities, having in mind that those 'pauses' (the time required for published books such as this one to "reach the shelves", which makes them 'historical texts') are crucial for theorists' reflections on the phenomena which have radically changed our everyday life, mass/popular culture and 'high', elitist culture and arts, and to some extent civilisation in total. Also, the meaning of the term "live" has changed;

the authors point out the change in the relationship between music and the physical body of the recipient in the digital age. It is about the changed relationship of the recipients towards the practices of live music, as a process which takes place in real time and which, transmitted via new, digital media – that is, software and platforms – replace (transform) old (analogue) categories of live performance, music production, market, and, in the end, communication with key demographics – the listeners. In other words, it is about a time in which categories such as knowledge or identity are radically changed throughout everyday dealing with the constant flow of information, which represents an integral part of everyday life in the digital age, and implies fluid (hybrid?) identities of both creators/performers (whether they are 'real', that is contemporary creators, virtual or computer generated creators, or creators of past times, re-created for contemporary worlds in various ways), and the audience. The knowledge and information which are transmitted via digital media imply digital literacy, and also computational knowledge and fluidity of the computational subject, to use David Barry's terms from his study *The Philosophy of Software: Code and Mediation in the Digital Age.*[2]

The other claim is connected to the production of music in the digital age. Johannes Mulder, the author of the fourth study, claims that the experience of listening remains analogue, despite all of the changes in music production: the sound remains analogue, and exists only as such. The author explains this claim more closely with the fact that every sound that is electronically/digitally generated or reproduced must be transformed into a sound by a speaker – that is, in analogue sound waves. Therefore one might conclude that, in music, that electronic/digital aspect in the production and reception, along with possible ways of sound generating, are reduced to their mediation via the internet (all processes assume computational knowledge and digital literacy). Precisely this (digital) acceleration of the process of production and process by which the music reaches its listeners (conditioned by the new technologies) made possible the new, fluid (hybrid?) identities, new social groups, new types of festivals and new notions of reality (via screen and software) in the sphere of music as a social phenomenon, therefore offering new experiences in the reproduction, listening and reception of music.

The aim of this collective monograph is to theoretically problematise contemporary social practices of production and reception of music in the digital space, with a particular focus on situating the question of identity (of the producers and consumers of music in the broadest sense) in the digital space. The monograph is intriguing due to the fact that it includes theoretical discussions of everyday platforms and software, without which the contemporary world would be unimaginable. The readers are given information about different 'appearances' of music online (often within different multimedia contexts), and they are made aware that music in online space (that is, with new means of its distribution towards and

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2 The study is published as: Barry, David M. 2011. *The Philosophy of Software: Code and Mediation in the Digital Age.* Basingstoke: Palgrave MacMillan.

among consumers) does not lose the value or status which it had in analogue media space. There are only new possibilities, which are, according to the data presented in the studies, unlimited.

In these studies, with clear and understandable language and methodological precision (every study is divided into a significant amount of precisely titled chapters and sub-chapters), the various phenomena, as case studies, are defined and discussed. This contribution from the domain of media theory and cultural studies is useful and valuable for musicology. It represents a foundation for further research of both 'popular' (mostly explored in the monograph) and 'high' music practices, and their place in the contemporary, digital media space.

Contributors' Biographies

Monika Novaković was born in 1995 in Sremska Mitrovica (Republic of Serbia). She completed her Bachelor studies and Master studies of Musicology on Faculty of Music in Belgrade (University of Arts in Belgrade), successfully defending her master thesis *The whole (music) world's a stage – Remedialisation of theatre music of Zoran Erić*. She was a member of Academic choir Collegium musicum since 2012. Novaković cooperated with the Historical Archive Srem in Sremska Mitrovica in 2014., researching the archive material for her paper *Contribution of Petar Krančević to the work of Serbian Church Singing Society in Sremska Mitrovica*, later published in the magazine Mokranjac (no. 18, december 2016, 72-86). She also published the paper *Formula as a means of procreation: Karlheinz Stockhausen "Mantra"* (Musical Identities and European perspective 2: An Interdisciplinary Approach, FAM, 2017, 175-193) in which she was investigating the Karlheinz Stockhausen's piece *Mantra*. Her professional interest is focused on both film and theatre/incidental music.

Milan Milojković (1986, Zaječar) is a musicologist, teaching assistant at the Academy of Arts in Novi Sad and one of the music editors at the III Program of Radio Belgrade. He is designing analog and digital musical instruments and performing in bands "Restrictions", „Noizac" and „Ex-You". He studied in Belgrade (Faculty of Music, University of Arts /bachelor, master and PhD degree/2006-2018). His fields of interest include improvised, electroacoustic and computer music, new media, questions of musicians' self-organization and community involvement, DIY and underground artistic practices.

Hanan Hadžajlić (1991) is a transdisciplinary researcher who combines knowledge from the field of music composition, instrumental interpretation – flute, transhumanism studies and artificial musical intelligence development. Currently she is completing her DMA in flute performance at the Faculty of Music Arts in Belgrade (mentor: prof. Ljubiša Jovanović, co-mentor: Dr. Vesna Mikić) as well as PhD in transdisciplinary studies of contemporary art and media at the Faculty of Media and Communication in Belgrade (mentor: Dr. Andrija Filipović, co-mentor: Dr. Miodrag Šuvaković). She completed MA in composition (mentor: prof. Ališer Sijarić, co-mentor: Dr. Amila Ramović) and MA in flute performance (mentor: prof. Sakib Lačević, co-mentor: Dr. Ivan Čavlović) at the Music Academy of the University of Sarajevo. Since 2018 she has been employed as a Teaching Assistant at the Department of Composition at the Music Academy of the University of Sarajevo. She is a co-founder and director of the Institute for Contemporary Artistic Music (INSAM Sarajevo, 2015).

Milica Arambašić (Belgrade, 1985) is a teacher of Serbian language. Finished her bachelor/master degree at the University of Belgrade, Faculty of Philology at the Department of Serbian Literature with South-Slavonic Literatures (*Symbolism of animals in Old Testament apocrypha*) and master degree in theory of art and media

(*Textual expression of George Harrison: Poetics and Hermeneutics*) at the Department of Transdisciplinary Humanistics and Theory of Art and Media, Faculty of Media and Communications, Belgrade. Copywriter, web site editor, text editor in various agencies, she also provides Serbian lessons for foreigners, and has published articles, children stories, short stories in several journals.

Rijad Kaniža was born in 1997 in Livno, Bosnia and Herzegovina. He is currently a third year student of the Music Academy in Sarajevo at the Department of Musicology and Ethnomusicology. The field of his musicological interest is contemporary artistic music with an emphasis on electronic and electroacoustic music. Since 2018 he has been an INSAM member and is working at the Department of Archives Publishing and Coordination of INSAM Projects. He is one of the leading students of the Music Academy in the field of student activism, where he acts as a president of the Student Association and delegate of the Music Academy at the Student Parliament of the University of Sarajevo. Since July 2018, as a music producer, he published his works under the label "Submarine Vibes", a Sarajevo label for experimental electronic and popular music.

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> - *Margins, Futures and Tasks of Aesthetics*, Conference of the IAA, Helsinki, Finland, July 5–7, 2018.
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