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## Nove tendencije

## New Tendencies

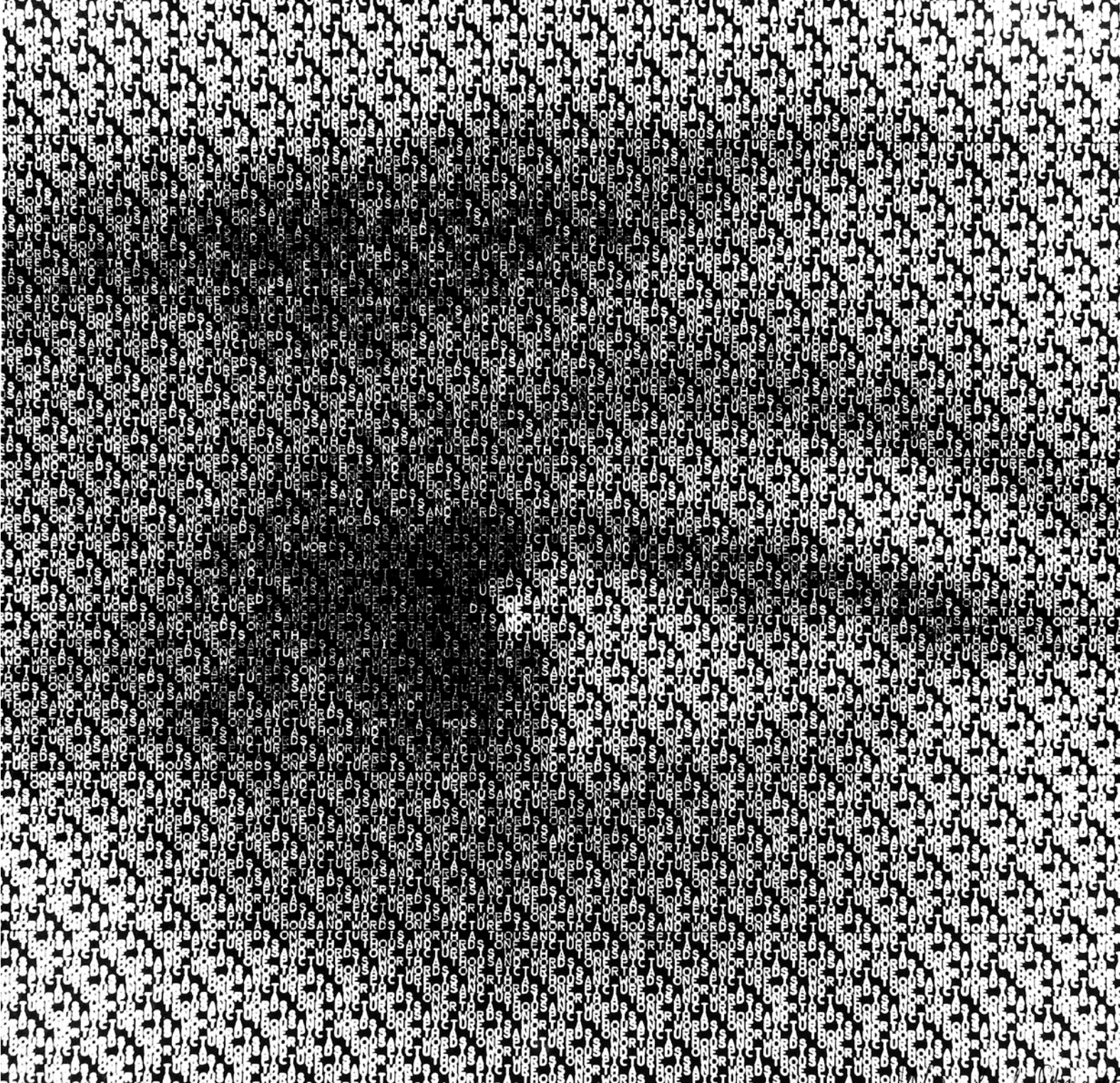
BIT INTERNATIONAL  
[NOVE] TENDENCIJE KOMPJUTERI I  
VIZUALNA ISTRAŽIVANJA, ZAGREB 1961.-1973.  
NEUE GALERIE, GRAZ, 2007.  
ZKM (ZENTRUM FÜR KUNST UND  
MEDIEN TECHNOLOGIE), KARLSRUHE, 2008.-2009.  
KUSTOS: DARKO FRITZ

BIT INTERNATIONAL  
[NEW] TENDENCIES COMPUTERS AND  
VISUAL RESEARCH, ZAGREB 1961-1973  
NEUE GALERIE, GRAZ, 2007  
ZKM (ZENTRUM FÜR KUNST UND  
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CURATOR: DARKO FRITZ

¶ Projekt 'BIT international' mapira pluralitet umjetničkih pravaca predstavljenih izložbama, simpozijima i publikacijama pod nazivima Nove tendencije, Nova tendencija i Tendencije (u daljnjem tekstu za sve NT) u Zagrebu i drugim lokacijama od 1961. do 1973. godine, te NT poima kao dinamičan međunarodni network i podij različitih, ali odreda naprednih umjetničkih teorija i praksi 1960-ih godina. Galerija suvremene umjetnosti (današnji Muzej suvremene umjetnosti, Zagreb), u sklopu Galerija grada Zagreba, organizirala je pet NT izložbi u Zagrebu od 1961. do 1973., a održane su i velike izložbe u Parizu, Veneciji i Leverkusenu. Grupna izložba europskih umjetnika iz 1961. prerasla je u međunarodni pokret nazvan NT, koji je značajan i po tome što je u doba hladnog rata okupio umjetnike, galeriste i teoretičare prvo iz Istočne i Zapadne Europe (te disidente iz Južne Amerike), a od 1965. i SAD-a, Sovjetskog Saveza i Južne Amerike, te naknadno iz Afrike i Azije. Takva jedinstvena situacija ostvarena je kulturnim i geopolitičkim položajem Zagreba u tada socijalističkoj i nesvrstanoj Jugoslaviji. ¶ Izložba 'BIT international' mapira i pozicionira tri faze NT-a:

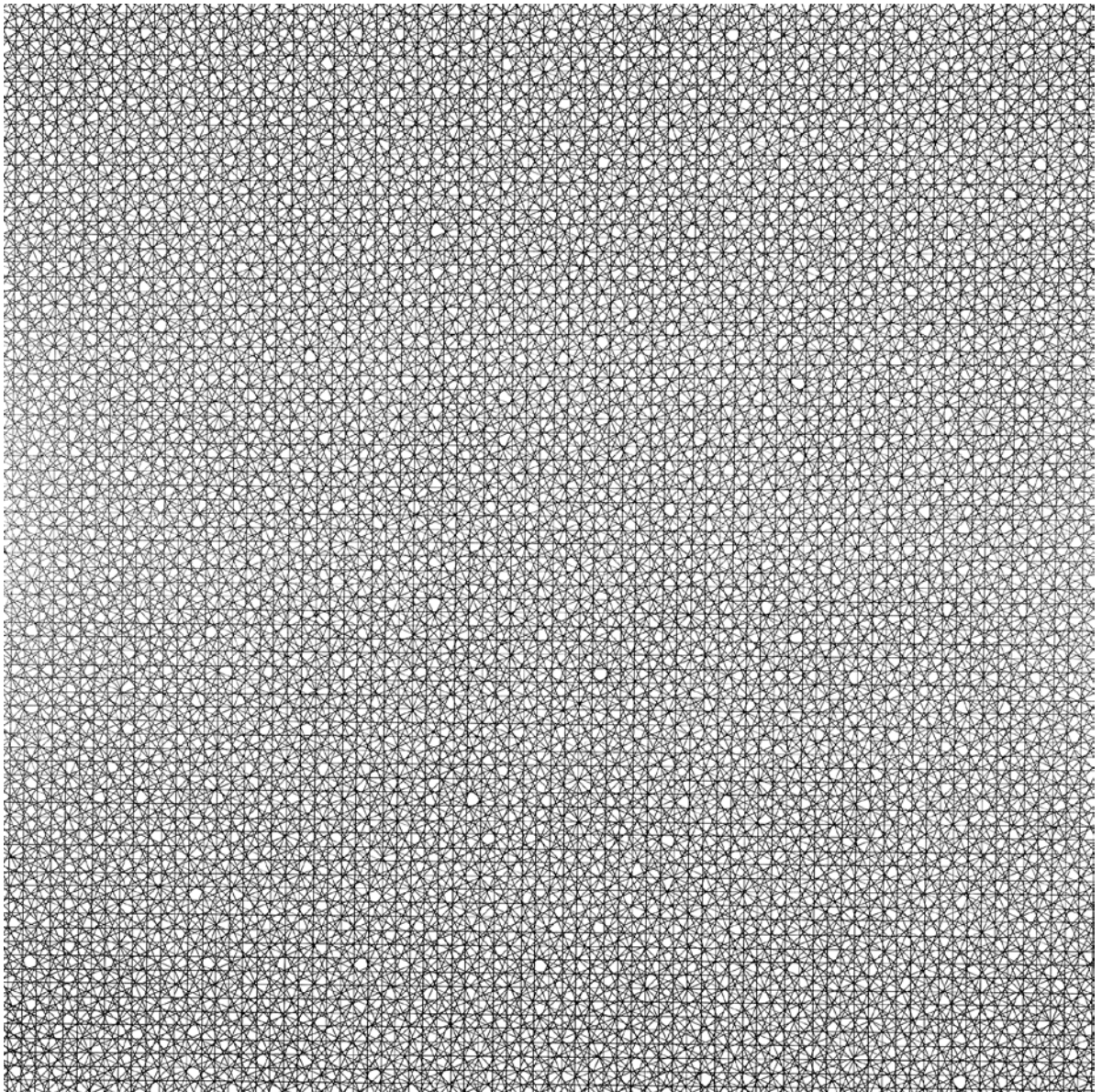
1. formiranje međunarodnog pokreta i njegova disperzija, 1961. – 1965.
2. uvođenje sekcije 'Kompjuteri i vizualna istraživanja', 1968. - 1973.

¶ The 'BIT international' project maps the plurality of art directions represented through the exhibitions, symposiums and publications which were held under the terms of the New Tendencies, the New Tendency and the Tendencies (hereinafter jointly referred to as NT), in Zagreb and in other centres and locations for presentations, from 1961 to 1973, taking NT as a dynamic international network and a stage for different but unarguably advanced artistic theories and practices of the 1960s in the Gallery of Contemporary Art (which is today the Museum of Contemporary Art, Zagreb), within the City of Zagreb Galleries, which organized five NT exhibitions in Zagreb from 1961 to 1973, while major exhibitions were also held in Paris, Venice and Leverkusen. A joint exhibition of European artists in 1961 grew into an international movement that would be referred to as NT, also significant for gathering artists, gallery owners and theoreticians during the Cold War, first from Eastern and Western Europe (and dissidents from South America), and, from 1965 onwards, also those from the USA, the Soviet Union and South America, and subsequently from Africa and Asia. Such a unique situation was realized by the cultural and geo-political position of Zagreb, in the then socialist and non-aligned Yugoslavia. ¶ The 'BIT international' exhibition maps and positions three phases of NT:



▲ Manfred Robert Schröder, Oko II, 1968.

▲ Manfred Robert Schröder, Eye II, 1968 (MSU)



▲ François Morelet, Tri dvostruke mreže 0°, 30°, 60°, Crno i bijelo, 1960./61.

▲ François Morelet, Three double grids 0°, 30°, 60°, black and white, 1960/61

(DB, MSU)

### 3. uvođenje sekcije konceptualne umjetnosti, 1973.

Prva izložba NT-a 1961. godine je predstavila, kako i ime sugerira, pluralitet avangardnih tendencija tog vremena u širini tema i subjekata: neokonstruktivističku i konkretnu umjetnost, tautološko i monokromatsko slikarstvo i vizualno istraživanje kroz algoritamske radove. Pokret i svjetlo uvedeni su kao teme i materijali, što će se naknadno jasnije fokusirati kao smjernica naredne NT izložbe kroz promociju nestabilnih medija i (inter)aktivnog sudjelovanja publike s umjetničkim radom, tj. rezultatom istraživanja. Za vrijeme trajanja izložbe sudionici su se, potaknuti jedinstvenim susretom srodnih umjetnika i teoretičara, spontano samooorganizirali u međunarodni *network* s idejom o nastavku organiziranja biženalnih izložbi. Veća grupa umjetnika ponovo se sastala u studenom 1962. u pariškom studiju grupe GRAV, a iduće 1963. u Zagrebu je održana izložba NT 2, sada kao međunarodni pokret, podij profilirane vrste umjetnosti novog (industrijskog i okrenutog budućnosti) doba, koja samu sebe doživljava kao društvenu i umjetničku avangardu koja kritičkim propitivanjem vizualnog teži društvenoj promjeni te vizualnim eksperimentima i pozitivnim odnosom spram znanosti i tehnici strojeva ukida pojam završenog - unikatnog - umjetničkog rada te time, kao i prijašnje avangarde, sudjeluje u ukidanju umjetnosti. Izložba predstavlja brojne radove programirane i luminokinetičke umjetnosti i NT se profilira u najveću međunarodnu izložbu i najobuhvatniji *network* te umjetnosti. ¶ U katalogu druge izložbe NT-a (1963.) objavljen je tekst Matka Meštrovića, kasnije simptomatično nazvan 'Ideologija Novih tendencija', što po svojoj programatskoj i teorijskoj strukturi i jest. On se nadovezuje na ideje koje je iznio François Morellet, koji je objavio kratku notu u katalogu prijašnje izložbe NT-a 1961.: 'Nalazimo se uoči revolucije u umjetnosti koja će biti jednako velika kao i ona u znanostima. Stoga razum i duh sistematskih istraživanja treba nadomjestiti intuiciju i individualistički izraz'. Demitologizacija umjetnosti i demistifikacija kreativnog procesa se objavljuje i kroz pozitivan pristup industrijskoj proizvodnji umjetničkih radova (toliko bitnoj mogućnosti multiplikacije), timskom radu i racionalnom pristupu. Meštrović poziva na ubrzanje evolucije i sintezu znanosti i umjetnosti u okviru oznanstvljivanja humanističkih znanosti i umjetnosti kao dio dugoročnog (utopijskog) procesa sveopćeg oznanstvljivanja svih ljudskih djelovanja. Smatra da je u okviru umjetnosti taj proces moguće aktivno započeti odmah i prikazati globalni model kojem se teži na maloj skali djelovanjem u sferi kulture, npr. aproprijacijom znanstvenih metoda kao što je eksperiment. Postavlja se problem rasporeda svih materijalnih i duhovnih dobara po jednakoj mjeri i povratka rezultata znanosti



◀ Prva izložba Nove tendencije, Galerija suvremene umjetnosti, Zagreb, 1961.

◀ First exhibition New Tendencies, Gallery of Contemporary Art, Zagreb, 1961

(MSU)

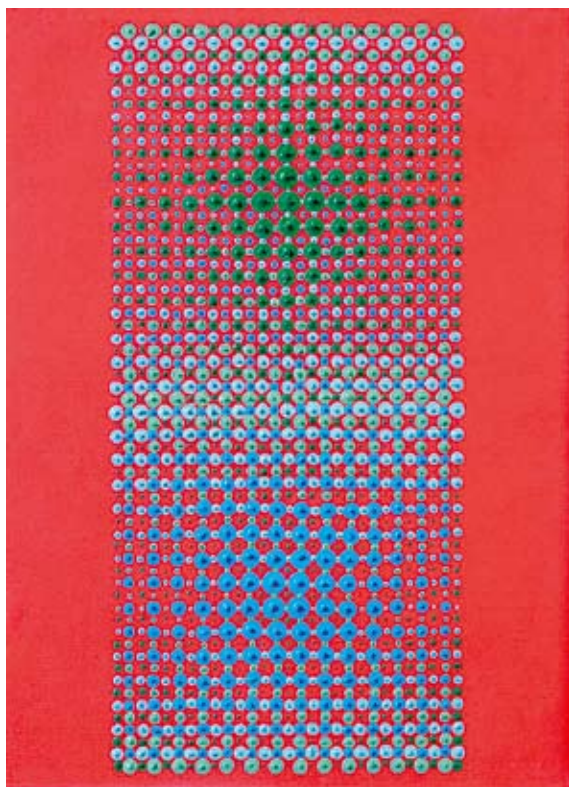
1. Forming the international movement and its dispersion, 1961–65
2. Introducing the Computers and Visual Research section, 1968–73
3. Introducing the Conceptual Art section, 1973.

**THE FIRST EXHIBITION OF NT IN 1961** ¶ This presented, as the very title suggests, the plurality of the avant-garde of the time, with a whole array of themes and subjects: neo-constructivist and concrete art, tautological and monochromatic painting and visual research through algorithm works. Movement and light were introduced as themes and materials, which would subsequently be focused on as the guideline of the following NT exhibition through the promotion of unstable media and (inter)active participation of the audience with the work of art, i.e. the result of the research. During the exhibition, participants, instigated by the unique meeting of like artists and theoreticians, spontaneously organized themselves into an international network, with the idea of continuing to organize biannual exhibitions. A larger group of artists met again in November 1962 in the Parisian studio of the GRAV group, while the next year of 1963 saw the 'NT2' exhibition taking place in Zagreb, now as an international movement, a podium for a profiled type of art of the new (industrial and focused on the future) era, which experiences itself as a social and artistic avant-garde that, through critical questioning of the visual, strives for social change, and which, through visual experiment and a positive stance towards science and the operation of machines, abolishes the notion of the complete – unique – work of art, thereby, just like earlier avant-garde movements, participating in abolishing art. The exhibition presents numerous works of programmed and light-kinetic art, while NT is profiled in the largest international exhibition and the most comprehensive network of this type of art. ¶ The catalogue of

Almir Mavignier, ▶  
Pravokutnik, 1961.

Almir Mavignier, ▶  
Rectangle, 1961

(KV, MSU)



u javnu domenu. Radove NT-a vidi ne kao unikatnu robu za umjetničko tržište, već kao 'plastično-vizuelna istraživanja s nastojanjem da se utvrde objektivne psihofizičke osnove plastičnog fenomena i vizualne percepcije, isključujući tako unaprijed svaku mogućnost upletanja subjektivizma, individualizma i romantizma ...'<sup>1</sup>. Nadalje, razvijena je teza o konačnom nadilaženju umjetnosti kakvom je poznamo kroz osvježavanje svijeta preko preobrazbe društvenog u umjetnički čin, čime se aktivno mijenja cijeli svijet.<sup>2</sup> ¶ Postav izložbe NT 2 u Veneciji imao je drugačiji naziv nego NT 2 u Zagrebu godinu dana prije. Nove tendencije promijenile su naziv u Nova tendencija (u jednini), kako je tek dvije godine kasnije objašnjeno, budući da je jednina prihvaćena i za sljedeću, zagrebačku izložbu 1965., '... zbog težnje prema idejnoj koncentraciji namjera i zajedničkih ideja'. Sukob između raznih frakcija unutar pokreta NT stvorilo je i obilježavanje 'podobnih' i 'nepodobnih' umjetničkih radova po sve oštrijim formalnim kriterijima. Demokratski pristup prve izložbe NT zamijenjena je dogmatskim

<sup>1</sup> Matko Meštrović, bez naslova, *Nove tendencije 2*, katalog, 1963. Naknadno objavljeno pod naslovom 'Ideologija Novih Tendencija' u knjizi Matko Meštrović: *Od pojedinačnog općem*, Mladost, Zagreb, 1967. i DAF, Zagreb, 2005. Također vidi esej Matko Meštrović: 'Sciјentifikacija kao uvjet humanizacije', tekst iz 1963. objavljen u *Od pojedinačnog općem*, Mladost, Zagreb, 1967. i DAF, Zagreb, 2005.

<sup>2</sup> isti izvor

the second NT exhibition (1963) features a text by Matko Meštrović, which was later revealingly dubbed the 'Ideology of New Tendencies', which it surely is according to its programmatic and theoretical structure. The text picks up where the ideas stated by François Morellet, who published a brief note in the catalogue of an earlier NT exhibition in 1961, left off: 'We are on the eve of a revolution in art which will be just as large as the one in the field of science. Therefore, common sense and the spirit of systematic research need to replace intuition and individualistic expression.' Demythologization of art and demystification of the creative process are also proclaimed through a positive approach to the industrial production of works of art (the possibilities of multiplication so essential), team work and a rational approach. Meštrović calls for speeding up the evolution and synthesis of science and art, within the framework of rendering humanities and art more scientific, as part of the long-term (utopian) process of the overall rendering of all human activity into science. Meštrović considers that this process can be actively started within the framework of art immediately, ditto for the display of a global model, striving to act in the sphere of culture using a smaller scale, e.g. through the appropriation of scientific methods such as the experiment. The problems of scheduling all material and spiritual goods in equal measure and the return of scientific results into the public domain emerge. He does not see NT works as unique goods for the artistic market, but as 'plastic-visual research that strives to determine objective psycho-physical bases of the plastic phenomenon and visual perception, thereby excluding any possibility of involving subjectivism, individualism and Romanticism...'<sup>1</sup>. Further, the thesis on the final surpassing of art as we know it was developed, through developing the conscience of the world using a metamorphosis of the social into the artistic act, which actively transforms the whole world<sup>2</sup>. ¶ The 'NT2' exhibition held in Venice had a different title than the 'NT2' in Zagreb a year earlier. The New Tendencies changed their name to the New Tendency (singular), as was explained only two years later, since the singular was also accepted for the following, Zagreb exhibition in 1965, 'because of the striving for the conceptual concentration of intentions and joint ideas'. The clash between different factions within the NT movement also created the labelling of 'correct' and 'non-correct' artworks, accor-

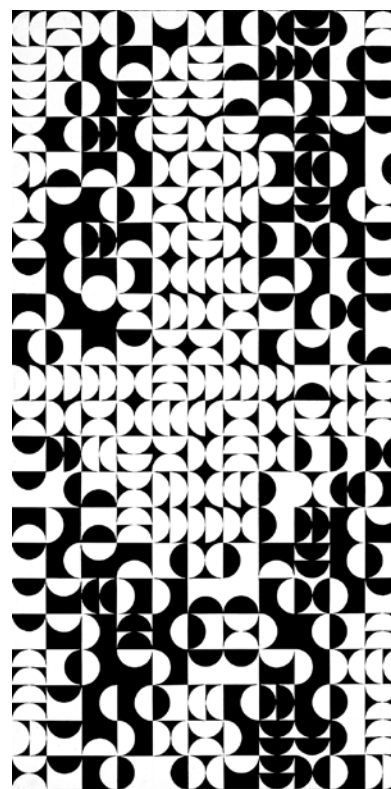
<sup>1</sup> Matko Meštrović, Untitled, *New Tendencies 2*, the catalogue, 1963. Published subsequently under the title of 'The Ideology of New Tendencies' in the book Matko Meštrović: *From the Particular to the General*, Mladost, Zagreb, 1967, and DAF, Zagreb, 2005. Also cf. the essay by Matko Meštrović: 'Rendering Scientific as the Condition for Humanization', the text from 1963 published in *From the Particular to the General*, Mladost, Zagreb, 1967, and DAF, Zagreb, 2005.

<sup>2</sup> Ibid.

(jednoobraznim) pristupom, predstavljanim i nametanim u ime napretka i konzistentnosti umjetničkih ideja. Što zbog nefleksibilnosti, a što zbog idejne nekompromisnosti, no zasigurno zbog nepostojećeg demokratskog modela komunikacije unutar neodređene hijerarhije pokreta koji sam sebe poima demokratskom te se istovremeno širi sve većim brojem sudionika, NT se sredinom 1960-ih suočio sa vlastitom unutarnjom krizom i brojnim prepirkama. Izvana gledano, ideje NT-a ulaze u *mainstream* i preoblikuju se u simplifikacijama, dok se zanemaruje socijalna angažiranost koja je nekada bila u prvom planu. Navedeni simptomi se mogu uočiti i kod izložbe 'Responsive Eye', održane u Museum of Modern Art u New Yorku 1965., gdje su sudjelovali i brojni NT umjetnici, no njihov rad je utopljen u komercijalnom kontekstu koji je bio fokusiran više na retinalne efekte nego na socijalu dimenziju umjetničkog rada (poslije te izložbe pojavljuje se termin 'op art'). Mnogi umjetnici su po međunarodnom priznanju komercijalizirali vlastiti stil i uklopili se u komercijalni sistem kulturne industrije koji su često sami prije oštro kritizirali. ¶ U sklopu dvogodišnje manifestacije 'Tendencije 4' tijekom 1968. i 1969. održano je i niz izložbi i simpozija pod nazivom 'Kompjuteri i vizualna istraživanja'.<sup>3</sup> Vodeći diskurs prema kompjuterima i vizualnom istraživanju bila je informatička estetika koju su razvili Max Bense i Abraham Moles, koji je bio predstavljen i u pokrenutom časopisu *BIT International* (devet brojeva objavljeno je od 1968. do 1973. godine) te na prezentacijama u sklopu simpozija. Koristeći istu metodologiju, sada su nova vizualna istraživanja uz pomoć kompjutera mogla biti analizirana istim principima kao i ona prijašnjih faza NT-a; mogla se krajnje racionalno 'izmjeriti' njihova estetska vrijednost.<sup>4</sup> ¶ U sklopu izložbe Vladimir Bonačić je uz galerijske izložke postavio i instalaciju u javnom prostoru, 36 metara dugu kompjuterski generiranu svjetlosnu instalaciju na Kvaternikovom trgu u Zagrebu. Bonačić je znanstvenik koji je pod utjecajem NT-a počeo raditi umjetničke radove, proširujući svoj znanstveni rad estetskim kategorijama. Naime, njegovi radovi redovno su napravljeni po egzaktnoj matematskoj metodi (čiji je algoritam sadržan u nazivu rada), a promatranje radova do-

<sup>3</sup> O kompjuterskim vizualnim istraživanjima u NT-u vidi Herbert W. Franke: 'Nove tendencije u Zagrebu', u Thobias Hoffman i Rasmus Kleine [ur.]: *Die Neuen Tendenzen - Eine europäische Künstlerbewegung 1961-1973*, Museum für Konkrete Kunst, Ingoldstadt, 2006. i Darko Fritz: *Amnesia International u I am still Alive*, Miz, Zagreb, 2000. te *Amnesia International - Early computer art and Tendencies movement u Bitomatik - Art practice in the time of information/media tion*, kuda.org, Novi Sad, 2004.

<sup>4</sup> Prva dva broja časopisa *BIT International* gotovo su u potpunosti posvećena istim problemima i autorima. Vidi također: Cristoph Klütsch: *Computer Graphic - Aesthetic Experiments between Two Cultures*, Leonardo, Vol. 40, No. 5, 2007., str. 432. - 425

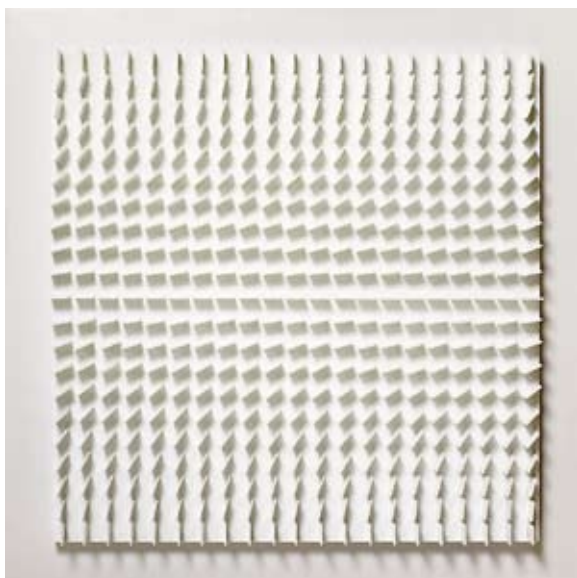


◀ Zdeněk Sýkora, Crno-bijela struktura (Krugovi), 1967.

◀ Zdeněk Sýkora, Structure black-white (Circles), 1967

(MSU)

ding to ever stricter formal criteria. The democratic characteristics of the first NT exhibition were replaced by a dogmatic (single view) approach, presented and enforced on behalf of progress and the consistency of artistic ideas. What with inflexibility, the lack of compromise as far as ideas are concerned, but surely on account of the lack of a democratic model of communication within the undetermined hierarchy of the movement, which understands itself as democratic and expands at the same time to increasing numbers of participants, NT faced an internal crisis and numerous squabbles in the mid-1960s. From the outside, the ideas of NT entered the mainstream and were reshaped using simplifications, while their social engagement, once at the forefront, was being neglected. The symptoms stated can also be discerned in case of the 'Responsive Eye' exhibition, held in the Museum of Modern Art in New York in 1965, in which numerous NT artists participated as well; however, but their work was immersed in the commercial context focussed more on retinal effects than the social dimension of artistic work (after this exhibition, the term 'op art' appeared). Many artists, as they gained international recognition, rendered their own style in commercial directions and blended into the commercial system of the culture industry, which they had often severely criticized earlier. ¶ Within



(MSU)

Hartmut Böhm, Kvadratni reljef –  
podijeljeni kvadrat, 1969.

Hartmut Böhm, Square relief–  
divided square, 1969



Alberto Biasi, Poliptih M,  
1966.-1968.

Alberto Biasi, Polyptych M,  
1966-1968

vodi do kognitivnih spoznaja promatranjem sekvenci vizualiziranih simetričnih ili asimetričnih kompozicija matematičkog algoritma Galois polja (sistem pseudo-random algoritma)<sup>5</sup>. Vjerojatno je svojim kompjuterski generiranim instalacijama u javnom prostoru Bonačić barem nakratko ostvario prethodno zacranu utopiju NT-a: rad je egzaktan, znanost je humanizirana, umjetnost je oznanstvljena, rad je ostvaren upotrebom mašina, programiranjem namjenskog softvera i konstruiranjem novog hardvera moguće ga je multiplicirati, društveno je aktivan i demokratski, čak ima i upotrebnu funkciju na razini gradske rasvjete (koja se u datom vremenu iščitala i kao kritika konzumentskog društva u kontekstu komercijalnih svjetlosnih reklama u javnom prostoru<sup>6</sup>). Do 1971. Bonačić je izveo još tri instalacije u javnim prostorima u Zagrebu i jednu u Beogradu.

¶ Kompjuterski generirana umjetnost je u sklopu NT-a sagleđana u kontekstu kontinuiteta otprije predstavljenih umjetničkih ideja u okviru NT-a i pozicionirana šire u novim kontekstima. Više nego ikada ostvarena je sprega teorije i prakse u nizu izložbi, simpozija i tiskanih publikacija između 1968. i

the two-year ‘Tendencies 4’ event, during 1968 and 1969, a series of exhibitions and symposiums were held under the title of ‘Computers and Visual Research’<sup>3</sup>. The leading discourse on computers and visual research was the IT aesthetics developed by Max Bense and Abraham Moles, which was also presented in the new magazine of *Bit International* (nine issues were published from 1968 to 1973), and during presentations within the symposiums. Using the same methodology, new visual research with computers could now be analyzed with the help of the same principle used in earlier NT phases, and their aesthetic value ‘measured’ in the utmost rational terms<sup>4</sup>. ¶ As part of the exhibition, Vladimir Bonačić, as well as gallery exhibits, also showed an installation in a public space, a 36-metre-long, computer-generated light installation at Kvaternik Square in Zagreb. Bonačić was a scientist who, influenced by NT, started creating works of art, expanding on his scientific work with aesthetic categories. That is, his works were regularly made following exact mathematical methods (the algorithm of

<sup>5</sup> Vidi: Vladimir Bonačić, ‘Kinetic Art: Application of abstract algebra to objects with computer-controlled flashing lights and sound combinations’ [Primjena apstraktne matematike na objekte s bljeskalicama i kombinacijama zvukova upravljanim kompjuterima], u: *Leonardo*, sv. 7, Oxford/New York: Pergamon Press 1974., str. 193 i dalje. O radu Bonačića: Darko Fritz: ‘Vladimir Bonačić’, *Čovjek i prostor*, br. 8, Zagreb, 2006. i Darko Fritz: ‘Vladimir Bonačić: Dynamic Objects (1968–1971) - computer-generated works made in Zagreb within New Tendencies art network (1961 – 1973)’, *Leonardo*, Vol. 41, No. 1, 2008.

<sup>6</sup> Želimir Košćević, ‘Svjetlost nove urbane kulture’, u: *Telegram*, br. 479 od 4. srpnja 1969., str. 17

<sup>3</sup> Regarding computer visual research in NT, cf. Herbert W. Franke: ‘New Tendencies in Zagreb’, in Thobias Hoffman and Rasmus Kleine [eds.]: *Die Neuen Tendenzen - Eine europäische Künstlerbewegung 1961-1973*, Museum für Konkrete Kunst, Ingolstadt, 2006. and Darko Fritz: ‘Amnesia International’ in *I am Still Alive*, Mi2, Zagreb, 2000, and ‘Amnesia International - Early Computer Art and the Tendencies Movement’ in *Bitomatik - Art Practice in the Time of Information/Media Domination*, kuda.org, Novi Sad, 2004.

<sup>4</sup> The first two issues of the magazine *Bit International* are almost completely dedicated to the same problems and authors. Also cf.: Cristoph Klütsch: ‘Computer Graphic-Aesthetic Experiments between Two Cultures’, *Leonardo*, vol. 40, no. 5, pp. 432 - 425, 2007.

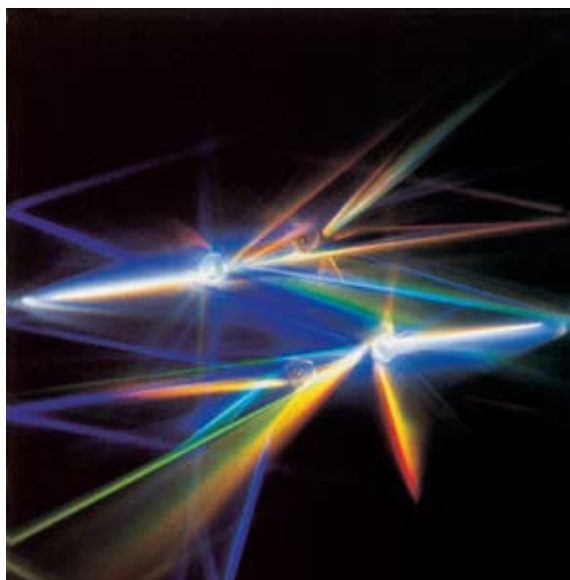
1973. godine. Ta faza NT-a je jedinstvena u svjetskoj povijesti po kontinuiranom kreiranju konteksta i povezivanju teorije i prakse upotrebe računala u umjetnosti. Osim nastavka originalnih ideja NT ideologije, upotreba kompjutera u kontekstu vizualnih i umjetničkih istraživanja proširila je i kontekst poimanja pojma 'program u umjetnosti', toliko često spominjan u prvoj fazi NT-a, koji sada možemo locirati u samom softveru. Novi sudionici, uglavnom znanstvenici sa sveučilišta te korporacija, nesvjesno su radikalizirali ideje implicirane u konstruktivističkoj, nekonstruktivističkoj i konkretnoj umjetnosti: centralnu poziciju 'ideje', 'strukture' i 'koncepta'. Stav brazilskog umjetnika i aktivnog sudionika NT-a Waldemara Cordeira da je kompjuterska umjetnost zamijenila konstruktivističku<sup>7</sup> možemo pratiti kroz povijest NT-a. ◀ Posljednja izložba 'Tendencije 5', 1973. godine sastavljena je od tri dijela: 'konstruktivna vizualna istraživanja', 'kompjuteri i vizualna istraživanja' i 'konceptualna umjetnost'<sup>8</sup>. Organizatori su pokušali spojiti te tri vrste umjetničke prakse kroz pojam programa i izvedbe radova ne od strane samog umjetnika. Radoslav Putar, tadašnji ravnatelj GSU, koristi termin 'data processing' opisujući metode konceptualne umjetnosti<sup>9</sup>. ◀ U sekciji konceptualne umjetnosti Sol Lewitt izlaže 'Zidnu sliku' koju su stvorili postavljajući izložbe prema tekstualnim uputama koje stanu u jednu rečenicu<sup>10</sup>, a koju možemo promatrati i kao program (algoritma nacrtne geometrije izraženog tekstom). Izložen je medijski osviješten rad 'I am still Alive' On Kaware, ostvaren u pet istovjetnih telegrafskih poruka unaprijed adresiranih na Radoslava Putara, direktora zagrebačke galerije i predsjednika organizacionog odbora 'Tendencija 5'. Strukturu rada možemo također smatrati programom, a rad kao svoju materijalizaciju koristi informacije i (tele)komunikacije, te je po sadržaju i institucionalna kritika i ujedno govor umjetnika u prvom licu. ◀ Simpozij 'Racionalno i iracionalno u suvremenoj umjetnosti' je bio jedinstveno mjesto na svijetu, gdje su sudionici svih triju skupina umjetnika i pripadajućih teoretičara zaista otvoreno

7 'Konstruktivizam pripada prošlosti, njegov sadržaj koji odgovara paleokibernetskom dobu je kompjuterska umjetnost', navod iz Waldemar Cordeiro: *Analogical and/or Digital Art, Symposium t-5, The rational and irrational in visual research today, Match of Ideas* [Analogna i/ili digitalna umjetnost, simpozij t-5, Racionalno i iracionalno u današnjim vizualnim istraživanjima], 2. lipnja 1973., arhiv Muzeja suvremene umjetnosti.

8 O konceptualnoj umjetnosti u NT vidi Ines Bauer: *Konceptualne tendencije dopuna 'vizualnim istraživanjima' - otvorenost Novih tendencija*, u Thobias Hoffman i Rasmus Kleine [ur.]: *Die Neuen Tendenzen - Eine europäische Künstlerbewegung 1961-1973*, Museum für Konkrete Kunst, Ingolstadt, 2006.

9 Radoslav Putar, bez naslova, *Tendencije 4*, 1968./69., izložbeni katalog, Galerija suvremene umjetnosti, Zagreb, 1970. n.p.

10 'A straight line from the mid point of the left side of the page through the center toward the mid point of the right side', Sol Lewitt, Wall drawing, 1973. u katalogu 'Tendencije 5', Zagreb: Galerija suvremene umjetnosti, 1973., n. p.



◀ Alberto Biasi, Light prisms, 1962.-1968.

◀ Alberto Biasi, Light prisms, 1962-1968

(DFA)

which is contained in the title of the work), while viewing them leads to cognitive insights, through observing sequences of visualized symmetric or asymmetric compositions of the mathematical algorithm of the Galois field (a system of pseudo-random algorithms)<sup>5</sup>. Bonačić probably, using his computer-generated installations in the public space, realized, although briefly, the previously stated utopia of NT: the work is exact, science was humanized, art was rendered scientific, the work was realized by using machinery and programming intentional software and constructing new hardware, it can be multiplied, it is socially active and democratic – it even had a utilitarian function at the level of city lighting (which was then read as a critique of consumer society in the context of lighted advertisements in the public space<sup>6</sup>). Up to 1971, Bonačić did three further installations in public spaces in Zagreb, and one in Belgrade. ◀ Computer-generated art within NT was seen in the context of the continuity of previously presented artistic ideas within the framework of NT, and positioned in a wider sense in new contexts. More than ever, the conjunction of theory and practice was realized through an array of exhibitions, symposiums and printed publications in the period from 1968 to 1973, and as such, this phase of NT is unique in world history in terms

5 Cf.: Vladimir Bonačić, 'Kinetic Art: Application of Abstract Algebra to Objects with Computer-Controlled Flashing Lights and Sound Combinations', in: *Leonardo*, vol. 7, Oxford/New York: Pergamon Press 1974, pp. 193 onwards. On work by Bonačić: Darko Fritz: 'Vladimir Bonačić', *Man and Space*, no. 8, Zagreb, 2006, and Darko Fritz: 'Vladimir Bonačić: Dynamic Objects (1968–1971) – Computer-Generated Works Made in Zagreb within the New Tendencies Art Network (1961 – 1973)', *Leonardo*, vol. 41, no. 1, 2008.

6 Želimir Košćević, 'The Light of a New Urban Culture', in: *Telegram*, no. 479, dated 4 July 1969, p. 17.





vodili dijalog, no uglavnom obilježen međusobnim nerazumijevanjem.<sup>11</sup> Manifestacija 'Tendencije 6' nije održana u potpunosti; održan je samo simpozij 'Umjetnost i društvo 1978.', iz čega možemo čitati da je ideja organizatora o propitivanju društvenih pitanja i dalje ostala prisutna, no da su umjetnička praksa i tadašnje nove tendencije prevagnule na stranu konceptualne umjetnosti, koja će obilježiti dominantan diskurs i kontinuirano postavljati nove kanone suvremene umjetnosti još desetljećima.<sup>12</sup> Kroz case study NT možemo pratiti povijesni slijed odnosa umjetnosti, znanosti i (nove) tehnologije, posebice upotrebe računala u umjetnosti, te dinamičan i ponekad nesrazmjeran odnos pripadajućih umjetničkih praksi i teorija u nekoliko postavki u razdoblju između 1961. - 1973. godine. Organizatori i sudionici su unutar samog pokreta u svom (turbulentnom) vremenu, kroz nekoliko vre-

<sup>11</sup> Vidi reader simpozija T5, *Racionalno i iracionalno u vizualnom istraživanju danas / The Rational and Irrational in Visual Research Today - Match of Ideas*, t-5, 2 June 1973, Galerija suvremene umjetnosti, Zagreb i audio zapise, arhiva Galerije suvremene umjetnosti, Zagreb

<sup>12</sup> Npr. u jednom takvom općem pregledu umjetnosti *Art since 1900* autora Hal Foster, Rosalind Krauss, Yve-Alain Bois, Benjamin H.D.: Buchloh (Thames and Hudson, New York, 2004), NT nije ni spomenut, osim minimalnog spominjanja sudionika GRAV-a u poglavlju pod znakovitim rekontekstualizirajućim naslovom *French Conceptualist painting*.

of continuous creation and context, and the connection between the theory and practice of computer use in art. Apart from continuing on the original ideas of the NT ideology, the use of computers in the context of visual and artistic research also expanded the context of understanding the concept of programme in art, so often mentioned in the first phase of NT, which can now be located in the very software. New participants, mostly scientists from universities and corporations, unconsciously radicalized the ideas implied in constructivist, neo-constructivist and concrete art: the central position of the 'idea', 'structure' and 'concept.' The standpoint of the Brazilian artist and an active NT participant, Waldemar Cordeiro, that computer art had replaced the constructivist one<sup>7</sup>, can be traced through the history of NT. The final exhibition, 'Tendencies 5' in 1973, was composed of three parts: 'constructive visual research', 'computers and visual research' and 'conceptual art'<sup>8</sup>. The organizers

<sup>7</sup> 'Constructivism belongs to the past, its contents which correspond to paleo-cybernetic era is computer art', statement by Waldemar Cordeiro: *Analogical and/or Digital Art, Symposium t-5, The Rational and Irrational in Visual Research Today, Match of Ideas*, 2 June 1973, Contemporary Art Museum Archives.

<sup>8</sup> On conceptual art in NT cf. Ines Bauer: 'Conceptual Tendencies a Supplement to "Visual Research" - the openness of New Tendencies', in Thobias Hoffman and Rasmus Kleine [eds.]: *Die Neuen Tendenzen - Eine europäische Künstlerbewegung 1961-1973*, Museum für Konkrete Kunst, Ingoldstadt, 2006.



◀ Radni sastanak sudionika NT3, Dvorac Brezovica, Brezovica kraj Zagreba, 1965.

◀ Participants in NT3 meeting, Castle Brezovica, Brezovica near Zagreb 1965

(BB, MSU)

menških faza re-kontekstualizirali vlastito djelovanje. Kao primjere upotrebe novih tehnologija i novih materijala možemo sagledati većinu radova iz startnih pozicija NT-a početkom 1960-ih, a pozicija je vrlo očita u luminokinetičkoj umjetnosti te naknadno svekolikoj upotrebi kompjutera u umjetnostima. Završna faza je uz prve dvije uključila i konceptualnu umjetnost koja pak koristi razne (tele)komunikacijske medije kao što su video, fotokopija, fotografija i teleks. Nadalje, u samom sklopu NT-a je prisutna povijesna osviještenost i kontekstualizacija tada recentnog rada u okviru povijesti umjetnosti kroz poimanje programa u umjetničkom radu<sup>13</sup> i obuhvatnijeg 'dijaloga s mašinom' uključujući pripadajuće formalne (vizualne) i društvene aspekte. ◀ Umjetnički pravci 1960-ih i početkom 1970-ih, predstavljeni u sklopu NT-a (npr. konkretna, kompjuterska i konceptualna umjetnost) na prvi pogled mogu djelovati nespojivo, no možemo ih pogledati kroz prizmu poimanja pojma programa te odnosa spram mašine, kako su sugerirali i organizatori NT-a. Prvi diskurs o poi-

tried to merge these three artistic practices through the notion of the programme and by the works not being executed by the artist himself/herself. Radoslav Putar, the then Director of the Contemporary Art Gallery, used the term of 'data processing' – describing the methods of conceptual art<sup>9</sup>. ◀ In the conceptual art section, Sol LeWitt exhibited the *Wall Painting*, created by the exhibition workforce, according to textual instructions encapsulated within a single sentence<sup>10</sup>, which can also be viewed as a programme (the algorithm of descriptive geometry, expressed by text). A media conscious work, *I am Still Alive*, by On Kawara was also exhibited, realized as five identical telegram messages, addressed in advance to Radoslav Putar, the Director of the Zagreb Gallery and President of the Organizing Committee of t5. The work structure can be considered a programme as well, using information and (tele)communications as its materialization, being simultaneously an institutional critique by its contents, and a speech by an artist in the first person singular. ◀ The symposium 'The Rational and Irrational in Con-

<sup>13</sup> O poimanju programa i pozicioniranju NT-a vidi Darko Fritz i Margit Rosen: 'Between Form and Concept: The Positioning of Computer-Based Arts in the Late 1960s', esej predstavljen na konferenciji REFRESH! First International Conference on the Histories of Media Art, Science and Technology, Banff New Media Institute, Banff, 2005.

<sup>9</sup> Radoslav Putar, Untitled, *Tendencies 4*, 1968/69, exhibition catalogue, Contemporary Art Gallery, Zagreb, 1970.

<sup>10</sup> 'A straight Line from the Mid-Point of the Left Side of the Page through the Centre toward the Mid-Point of the Right Side', Sol LeWitt, *Wall Drawing*, 1973, in the catalogue *Tendencies 5*, Zagreb: Contemporary Art Gallery, 1973.

Vladimir Bonačić, ►  
DIN.PR18, kompjuterski  
generirana svjetlosna  
instalacija, NAMA  
Kvaternikov trg,  
Zagreb, 1969.

Vladimir Bonačić, ►  
DIN.PR18, computer  
generated light  
installation, NAMA  
Kvaternik Square,  
Zagreb, 1969

(MB, MSU)



manju programa u umjetnosti možemo uočiti u konkretnoj, neokonstruktivističkoj, perceptualnoj i luminokinetičkoj umjetnosti i sličnim umjetničkim pravcima karakterističnim za prvu fazu NT-a do sredine 1960-ih, drugi kontekst u kompjuterski generiranim radovima te naposljetku u konceptualnoj umjetnosti. ◀ Nadalje, kroz case study NT-a moguće je pratiti razvoj institucionalnog i izvaninstitucionalnog (samo)organiziranja umjetničke produkcije i teorije u određenom vremenskom razdoblju. Osim samog globalnog *networka* NT-a, značovit je razvoj pojedinih umjetničkih grupa <sup>14</sup> i kolektiva, od onih 'čisto' vizualno umjetničkih (kao npr. Equipo 57 iz Španjolske; Gruppo N, Gruppo T, Gruppo 63, Operativo R i Azimuth iz Italije; Zero i Efekt iz Njemačke; Nul iz Nizozemske, Anonima Group iz SADA., Anonimna grupa iz Mađarske), preko interdisciplinarnih umjetničkih timova (kao npr. Groupe de Recherche d'Art Visuel GRAV iz Francuske) koji su težili i ponekad stvarili suradnju sa znanstvenicima, do znanstvenika koji su u prirodnom okruženju u timskom radu i koji su 'prešli' na umjetnički teritorij (grupa Compos 68 iz Utrehta, Vladimir Bonačić sa Instituta Ruđer Bošković, Zagreb) ili pak umjetnič-

<sup>14</sup> O grupama iz prve faze NT-a vidi: poglavlje knjige *Pojava grupa u pokretu Novih Tendencija* u Jerko Denegri: *Umjetnost konstruktivnog pristupa*, Horetzky, Zagreb, 2000., str. 352. - 357

temporary Art' was a unique place where participants from all three artistic groups and accompanying theoreticians were engaged in an open dialogue that was, however, characterized by mutual misunderstanding<sup>11</sup>. ◀ The 'Tendencies 6' event was not fully held, just its part of the symposium Art and Society, in 1978, which can be read as the idea of the organizers to question social issues still remaining present, but artistic practice and the contemporary new tendencies predominantly tended to the side of conceptual art, which would mark itself as the dominant discourse, and continuously set new canons of contemporary art for decades to come<sup>12</sup>. ◀ In the NT case study, one can monitor the historical development of the relation of art, science and (new) technology, especially of the use of the computer in art, and the dynamic, sometimes disproportionate, relation between corresponding artistic practices and theories, in several settings in the period from 1961 to 1973. Organizers and participants, within the very movement, and through

<sup>11</sup> Cf. symposium reader for t5, *The Rational and the Irrational in Visual Research Today - Match of ideas*, t-5, 2 June 1973, Contemporary Art Gallery, Zagreb and audio records, Contemporary Art Gallery Archives, Zagreb.

<sup>12</sup> E.g., in one such general survey, *Art Since 1900* by Hal Foster, Rosalind Krauss, Yve-Alain Bois, Benjamin H.D. Buchloh (Thames and Hudson, New York, 2004), NT is not even mentioned, except in a passing mention of the participants in GRAV, in the chapter under a significant re-contextualizing title 'French Conceptualist painting'.



(MSU)

▲ Tendencije 4, (analogna) vizualna istraživanja, Muzej za umjetnost i obrt, Zagreb, 1969.

▲ 'Tendencies 4', (analogue) visual research, Museum for Arts and Crafts, Zagreb, 1969



(MSU)

▲ Marc Adrian pored svojih radova, BIT international, Neue Galerie, Graz, 2007.

▲ Marc Adrian beside his works, BIT international, Neue Galerie, Graz, 2007

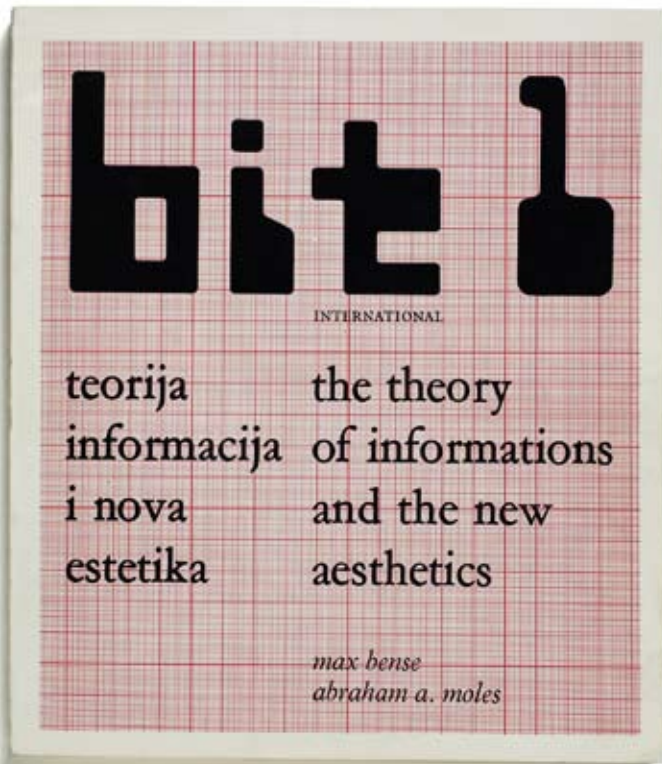
▼ Radovi sa izložbe NT4, (analogna) vizualna istraživanja, BIT international, ZKM, Karlsruhe, 2008.

▼ Works from the exhibition NT4, (analogue) visual research, BIT international, ZKM, Karlsruhe, 2008

kih grupa koji se nisu smjele tako prikazivati u domovini zbog dogme socrealizma već su se predstavljale kao grupe inženjera (Diviženije iz SSSR-a), interdisciplinarnih korporativnih timova koji su česti u slučaju kompjuterskih vizualnih istraživanja (Bell Laboratories i Calcomp iz SAD-a) i studentskih grupa okupljenih oko sveučilišnih računalnih centara (Madrid, Vincennes, Buenos Aires). Sam proces organizacija NT manifestacija i međunarodnog *networkinga* obilježen je raznim vidovima komunikacija i timskog rada te organiziranjima raznih odbora za specifične programe. Postajući popularniji i dobivajući na značaju, NT prolazi brojne nesuglasice među samim organizatorima i raznim frakcijama; naročito se to odnosi na sudionika prve faze NT-a koji je sam sebe smatrao pokretom. Vrhunac kompleksnosti organizacije NT je dosegao manifestacijom 'Tendencije 4', koja je nakon iscrpnih priprema ostvarena kroz godinu dana (1968. - 1969.) u vidu 14 cirkularnih pisama - biltena [PI Program informacija], žiriranog natječaja, šest izložbi, dva simpozija, pokretanja i izdavanja početna tri broja časopisa *BIT International* i konačno objavljivanjem kataloga izložbe. Sredinom 1990-ih u jeku Internet revolucije rijetko je tko bio zainteresiran za povijest kompjuterski generirane umjetnosti, iako su tadašnje ključne riječi u medijskoj i suvremenoj umjetnosti bile 'međunarodni *network*', 'upotreba



(DFA)



(MSU)

▲  
Naslovnica časopisa BIT International  
br.1, 1968.

▲  
Cover of BIT International  
no.1 magazine, 1968

komputera' i 'socijalna angažiranost', sve odreda ključne riječi koje opisuju NT. Razlozi ignoriranja povijesti medijske umjetnosti moguće je promatrati i kroz njenu stalnu okrenutost budućnosti sve do pojave *low-tech* umjetnosti krajem 1990-ih sa strane umjetničke produkcije te od strane institucija od početka akademske mode koja je počela oko 2004. godine <sup>15</sup>. Ne govoreći o kompjuterski generiranoj umjetnosti, već retrospektivno sagledavajući povijesni put prve faze NT-a (1961.

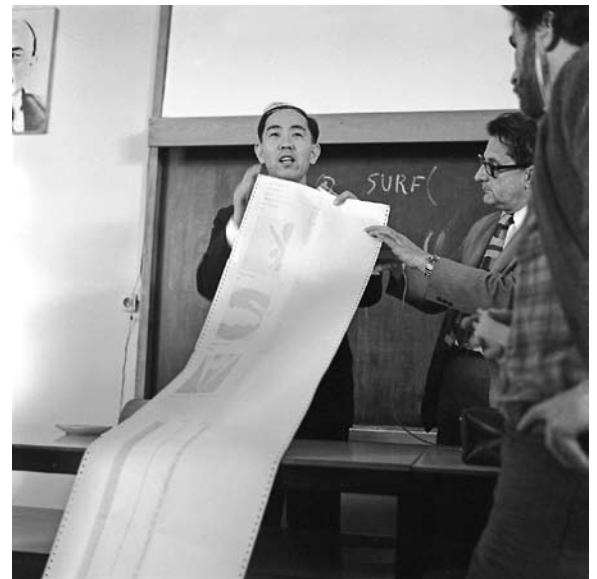
<sup>15</sup> Prva značajnija veća konferencija bila je *REFRESH! First International Conference on the Histories of Media Art, Science and Technology*, Banff New Media Institute, Banff, 2005., čije je nastavak *re:place 2007*, Haus der Kulturen der Welt, Berlin, 2007., a sljedeća *re:live 2009* će se održati u Australiji. Arhiv na <http://www.mediaarthistory.org>. Iz prve konferencije je djelomično proizašla knjiga Oliver Grau [ur.]: *MediaArtHistories*, The MIT Press, Cambridge, Massachusetts, London, England, 2007.

Hiroshi Kavano, na simpoziju ►  
Umjetnost i kompjuteri 71, Radničko  
sveučilište Moše Pijade, Zagreb, 1971.

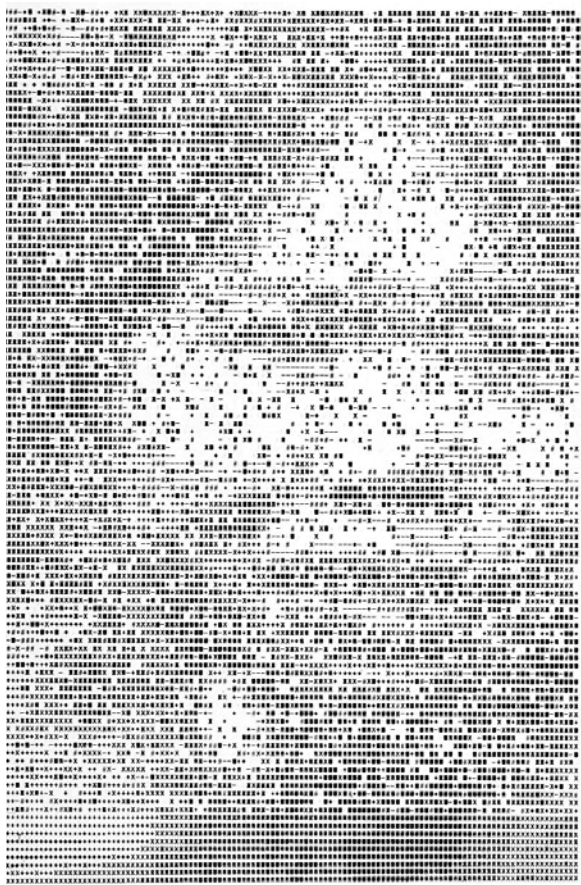
Hiroshi Kawano, At the Symposium ►  
*Art and Computers 71*, Worker's  
University Moša Pijade, Zagreb, 1971

several temporal phases, re-contextualized their own actions. As examples of the use of new technologies and new materials, one can view most of the works from the initial position of NT at the beginning of the 1960s, while the position itself is more than clear through light-kinetic art and subsequently by diverse use of the computer in art. The final phase, along with the first two, included conceptual art as well, that again uses different (tele)communications media such as video, Xerox, photograph and telex. Furthermore, within NT itself, historical consciousness and the contextualization of the then recent work within art history is present, through the understanding of the programme in a work of art<sup>13</sup> and a more encompassing 'dialogue with the machine', including corresponding formal (visual) and social aspects. ► The artistic directions of the 1960s and beginning of the 1970s, presented within NT (e.g., concrete, computer and conceptual art) can seem irreconcilable at first glance, but one can view them through the prism of understanding the notion of the programme and the relation to the machine, as suggested by the organizers of NT themselves. The first discourse on understanding the programme in art can be discerned in concrete, neo-constructivist, perceptual and light-kinetic art, and similar artistic directions that are characteristic of the first phase of NT up to the mid-1960s, the other context in computer-generated works, and, finally, in conceptual art. ► Furthermore, through the NT case study, it is possible to monitor the

<sup>13</sup> On the notion of the programme and positioning of NT, cf. Darko Fritz and Margit Rosen: 'Between Form and Concept: The Positioning of Computer-Based Arts in the Late 1960s', an essay presented at *REFRESH! The First International Conference on the Histories of Media Art, Science and Technology*, Banff New Media Institute, Banff, 2005.



(MSU)



▲ Waldemar Cordeiro, 'Ovo nije B.B.', 1971.

▲ Waldemar Cordeiro, 'This is not B.B.', 1971

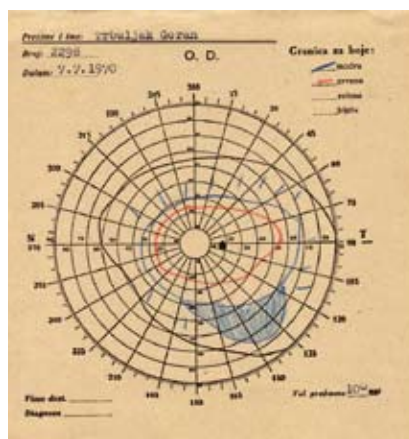
- 1965.), riječi Radoslava Putara iz 1969. zvuče kao da je govorio o medijskoj umjetnosti uopće: 'Kako su NT bile posve okrenute budućnosti i kako su u sebi nosile elemente te budućnosti, u njihovu se krilu začela i negacija vlastitog postanka'.<sup>16</sup> Ne slućeci koliko će se pokazati toćnim odnosi koje je predvidio za budući razvitak lokalne i svjetske kulturne industrije i nasilno perifiriranu poziciju Zagreba, u istom tekstu Putar napominje da se 'kllica fenomena te manifestacije [NT] začela, razvila i emitirala u ovoj sredini. ... već ima znakova kako elementi provincijske ogranićenosti s jedne strane, a kulturni imperijalizam s druge strane, vrlo agresivno upravo to zavijaju u maglu šutnje i pripremaju definitivnu negaciju'. Kulturni imperijalizam i njegova industrija ne dopušta da se zemlje postavljene na periferije mape moći, kao što je Hrvatska, prezentiraju same ili izvan zadanih kriterija i sistema kontrole

16 Radoslav Putar, bez naslova, *Tendencije 4*, 1968./69., izložbeni katalog, Galerija suvremene umjetnosti, Zagreb, 1970.

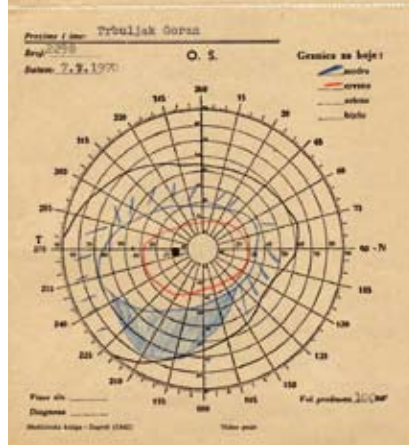
development of institutional and extra-institutional (self) organization of artistic production and theory in the given time period. Except for the global network of NT itself, the development of individual artistic groups<sup>14</sup> and formations is significant, from those 'purely' visually artistic (e.g., Equipo 57 from Spain; Gruppo N, Gruppo T, Gruppo 63, Operativo R and Azimuth from Italy; Zero and Effekt from Germany; Nul from the Netherlands, Anonima Group from USA, the Anonymous Group from Hungary), through interdisciplinary artistic teams (e.g., Groupe de Recherche d'Art Visuel GRAV from France) who strived for and sometimes realized cooperation with scientists, to scientists who operate through teamwork naturally and who 'crossed over' to artistic territory (Compos 68 from Utrecht, Vladimir Bonacić from the Ruđer Bošković Institute, Zagreb), or artistic groups which cannot be presented as such in their homelands due to the dogma of soc-realism, but presented themselves as groups of engineers (Diviženije from USSR), interdisciplinary corporate teams that appear frequently in the case of computer visual research (Bell Laboratories and Calcomp from USA), and student groups gathered around university computer centres (Madrid, Vincennes, Buenos Aires). The very process of organizing NT exhibitions and international networking was marked by different types of communication and teamwork, and organizing different committees for particular programmes. Through its popularization and by gaining in importance, NT passed through numerous disagreements between the organizers themselves and different factions, especially between the participants of the first phase of NT, which considered itself a movement. The peak of complexity of the organization of NT was reached during the 'Tendencies 4' exhibition, which, following detailed preparations, was realized within a year (1968–69), in the form of 14 circular mails – newsletters (*PI – Programme of Information*), a panelled competition, six exhibitions, two symposiums, the initiation and publication of the initial three issues of the magazine *Bit International* and finally by publishing the exhibition catalogue. In the mid-1990s, during the peak of the internet revolution, hardly anyone was interested in the history of computer-generated art. The keywords of the day in media and contemporary art were 'international network', 'the use of computers' and 'social engagement' – all keywords that describe NT. The reasons for ignoring the history of media art can also be viewed through its constant direction to the future, until the appearance of low-tech art by the end of the 1990s in case of artistic production,

14 On the groups from the first phase of NT, cf.: a chapter in 'The Appearance of Groups in the New Tendencies Movement', in Jerko Denegri: *The Art of Constructive Approach*, Horetzky, Zagreb, 2000, pp. 352 - 357.

Goran Trbuljak, Crteži eye-trackinga, 1970. Dva crteža eye-trackinga napravljenih u bolnici od strane dežurnog bolničara, iscrtanih drvenim bojicama u boji preko otisnute grafičke sheme vidnog polja. Prvi prikazuje rutinski pregled očiju autora i njegovog vidnog polja, dok je u drugom testu iscrtana namjera Trbuljaka da pokretom očiju manipulira rezultatima testa.



Goran Trbuljak, Eye-tracking drawings, 1970. Two eye-tracking drawings, made in hospital by a ward nurse on duty, drawn using coloured wooden pencils over a printed graphical eye sight scheme. The former portrays a routine eye check-up of the author, and of his line of sight, while the latter draws the intention of Trbuljak to manipulate test results by his gaze.



zadanih s pozicija centara te iste moći, pa se shodno tome i veće prezentacije poput NT-a i sličnih fenomena, da bi se ozbiljnije uzele u obzir, moraju predstavljati isključivo kroz zapadni kulturni mehanizam ukoliko žele komunicirati na globalnoj razini. U slučaju NT-a periferizirana je i cijela Europa naspram Amerike<sup>17</sup>. Pritom se zaboravlja da NT nije zagrebačko, hrvatsko, istočnoeuropsko ili europsko ekskluzivno kulturno dobro, već da pripada, gledajući i po tako karikirano ograničavajućem teritorijalnom određenju, velikom broju zemalja, dok vjerojatno istinski pripada samo međunarodnoj kulturnoj zajednici modernističkog naslijeđa čiji je istinski plod i dio povijesti.

<sup>17</sup> Zanimljivo je promatrati američku aroganciju otjelovljenu u riječima Franka Stelle: *'The GRAV actually painted all the patterns before I did - all the basic designs that are in my paintings ... I didn't know about it, and in spite of fact that they used those ideas, those basic schemes, it doesn't have to do with my paintings'* radio interview iz 1964, transkript objavljen u Artnews, September 1966., navod iz Hal Foster, Rosalind Krauss, Yve-Alain Bois, Benjamin H.D. Buchloh: *Art since 1900*, Thames ans Hudson, New York, 2004.



On Kawara, 'I'm still alive', iz serije od pet telegrama, 1973.

On Kawara, 'I'm still alive', from the series of five telegrams, 1973

(MSU)

and from the start of academic fashion which started around 2004 in case of institutions<sup>15</sup>. Not speaking of computer-generated art, but retrospectively reassessing the historical path of the first phase of NT (1961–65), the words by Radoslav Putar from 1969 sound as if he had been talking about media art in general: 'Since NT were completely facing the future, and since these contained elements of that future within themselves, their core also conceived a negation of own inception.'<sup>16</sup> Not even having a premonition just how the relations he envisioned would prove true for the development of local and world cultural industry and the violently peripheral position of Zagreb, the same text contains remarks by Putar that, 'The germ of the phenomenon and of this event [NT] was conceived, developed and emitted in this environment. ... There are also traces that elements of provincial limits on one hand, and cultural imperialism on the other, are already aggressively wrapping this up under the fog of silence and are preparing a definite negation.' Cultural imperialism and its industry do not allow countries set on the periphery of the power map, such as Croatia, to present alone or outside the criteria given and the systems of control outside the positions of the centres of the same power, so larger presentations such as NT and similar phenomena, in order to be taken seriously, must accordingly be presented

<sup>15</sup> The first more significant conference was REFRESH! The First International Conference on the Histories of Media Art, Science and Technology, Banff New Media Institute, Banff, 2005., the continuation of which is re:place 2007, Haus der Kulturen der Welt, Berlin, 2007, and the following one re:live 2009, which is to take place in Australia. Archives at <http://www.mediaarthistory.org>. The first conference partly produced the book of Oliver Grau (ed.): *MediaArtHistories*, The MIT Press, Cambridge, Massachusetts, London, England, 2007.

<sup>16</sup> Radoslav Putar, *Untitled, Tendencias 4*, 1968/69, exhibition catalogue, Contemporary Art Gallery, Zagreb, 1970.



(DFA)

▲ Radovi sa izložbe t5, Kompjuteri i vizualna istraživanja (Bonačić, Marquette, Huitic), BIT international, ZKM, Karlsruhe, 2008.

▲ Works from the exhibition t5, Computers and visual research (Bonačić, Marquette, Huitic), BIT international, ZKM, Karlsruhe, 2008

exclusively through the Western cultural mechanism, in case they wish to communicate on a global level. In case of NT, it is also the whole of Europe that has been marginalized, in terms of America<sup>17</sup>. It is forgotten meanwhile that NT is not cultural goods from Zagreb, Croatia, Eastern Europe or Europe exclusively, but that it belongs, even if viewing according to this caricature of a limiting territorial definition, to a large number of countries, while it probably truly belongs only to the international cultural community of the modernist heritage, the product and part of history of which it truly is.

<sup>17</sup> It is interesting to observe American arrogance embodied in the words by Frank Stella: 'The GRAV actually painted all the patterns before I did – all the basic designs that are in my paintings. ... I didn't know about it, and in spite of fact that they used those ideas, those basic schemes, it doesn't have to do with my paintings' – a radio interview from 1964, the transcript published in *Artnews*, September 1966, the quote from Hal Foster, Rosalind Krauss, Yve-Alain Bois, Benjamin H.D: Buchloh: *Art Since 1900*, Thames and Hudson, New York, 2004.