

Feedback Environment: Rethinking Art and Design Practices in Tallinn During the Early 1970s*

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This article studies artistic practices that emerged in Tallinn during the early 1970s from discourses and institutions associated with the course of Soviet modernisation and industrialisation: technological aesthetics and design, cybernetics and information theory. The article examines the role of graduates from the newly-opened department of industrial art in Tallinn who were also active participants in the artistic life of the period: Ando Keskküla, Sirje Runge and – closely associated with them – the architects Leonhard Lapin and Vilen Künnapu. The article considers how information theories from the 1960s contributed to the transformation of Soviet design discourse and how this was further appropriated by alternative art practices. It also discusses how this exchange with new theories and disciplines led to a redefinition of both the art object and human subjectivity. Finally, the article argues that this perspective enables the practices of these designers and artists to be viewed in the context of global processes associated with the demise of the disciplinary regime.

In the 1990s, one of the dominant interests for the first wave of post-Soviet art historians in the Baltics (and also in Western Europe) was to emphasise the unofficial realm, including alternative narratives, that had existed alongside official accounts. This body of work, which had already been initiated by Western and émigré art collectors in the late 1960s, focused on (and constructed) a ‘nonconformist’ art world regarded as independent from and untainted by official ideology. Although, in the Baltic context, most researchers agreed on the difficulty of demarcating an exact border between the official and unofficial, the narrative of dissent was well suited to the discourse of national liberation and identity politics, which aimed at distancing those countries from their Soviet and Russian-dominated past.¹

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¹ See S. Helme, *Mitteametlik kunst. Vastupanuvormid eesti kunstis*. – Kunstiteaduslikke Uurimusi 10. Tallinn: Teaduste Akadeemia Kirjastus, 2000, pp. 253–272.

Several recent accounts of art history have contested the validity of the official-unofficial model of the late Soviet period, drawing attention to the significance of 'intra-systemic dissension' and processes of public meaning making.² This body of work sets out to study art that was publicly exhibited and that received a critical response in print, arguing against the popular conception of two parallel discourses operating in separate spheres whereby people would have been 'saying one thing in public and another in private'.³

Susan E. Reid's study from the mid-1990s, of art institutions in Soviet Russia during the early 'Thaw' period, pointed out that the notion of the totalitarian society, combined with the modernist aesthetic paradigm, has resulted in seeing artistic innovation and development as occurring exclusively on the 'fringes' and among 'non-conformists', meanwhile leaving the 'official' institutional power structures and aesthetic discussions understudied. To understand the period, her project also studied the 'permitted art' that was exhibited in public and received a critical response in print:

It was here that public meanings were produced and the limits of permissible reformism were tested out and defined. Furthermore, the art establishment may be seen as one of the interfaces across which the absolute antithesis of state and society becomes untenable.⁴

Reid argued that there was coexistence, rather than a division of art into separate spheres that were not in communication with each other, and there was overlapping of reformers and conservatives.⁵

The model of two autonomous discourses can also be disputed theoretically. Recent political theory has criticised the traditional model, whereby identity is supposed to pre-exist the political public sphere, and has argued that to varying degrees all public discourses are occasions for identity formation.⁶ More broadly perhaps, the grounds for the distinction between the official and unofficial can be undermined by poststructuralist theories of subjectivity that see the self as always constructed by social, unconscious and linguistic structures such that identity is formed by and through social experience. Autonomous islands of private life become illusory from this perspective.

Combining theoretical rigor with historical evidence, anthropologist Alexei Yurchak has recently argued forcefully against the division into two separate discourses of late Soviet everyday life, and against the pervading dualisms that dominate accounts of the period: oppression and resistance, repression and freedom, the state and the people, official culture and counterculture, public self and private self. For

2 S. E. Reid, *Destalinization and the Remodernization of Soviet Art: The Search for a Contemporary Realism*. Doctoral dissertation, University of Northumbria. Newcastle, 1995, p. 8.

3 T. G. Ash, *We the People: The Revolution of '89 Witnessed in Warsaw, Budapest, Berlin & Prague*. London: Penguin, 1990, p. 137.

4 S. E. Reid, *De-Stalinisation in the Moscow Art Profession*. – *Regime and Society in Twentieth-Century Russia: Selected Papers from the Fifth World Congress of Central and East European Studies*, Warsaw, 1995. Ed. I. D. Thatcher. Basingstoke: Macmillan, 1999, p. 146.

5 S. E. Reid, *De-Stalinisation in the Moscow Art Profession*, p. 147.

6 C. Calhoun, *Nationalism and the Public Sphere*. – *Public and Private in Thought and Practice: Perspectives on a Grand Dichotomy*. Eds. J. Weintraub, K. Kumar. Chicago: University of Chicago Press, 1997, p. 86.

Yurchak, these dualisms are widespread in retrospective analyses of socialism in Soviet Union and go back to the dissident ideology of the 1970s, according to which the truth could be published only in *samizdat* journals and the official media was full of lies. Relying on discourse analysis and theories of performativity, Yurchak refutes the conception that there were two distinct selves and that public conformism secured private freedom: this binary presupposes both the literal interpretation of ideology and that language was encoded as two forms – true language and false language. Knowledge would thus have pre-existed and be reflected in discourse rather than being produced by it. Instead, Yurchak proposes that the discourses and forms of knowledge that circulated in Soviet society were not in separate spheres, nor encoded, but constituted processes that were never known in advance and that were actively being produced and reinterpreted.⁷

In what follows, I will focus on those art practices in Tallinn during the early 1970s that had emerged from discourses and institutions associated with the course of modernisation and industrialisation followed by the Soviet Union since the late 1950s: technical aesthetics or design, cybernetics and information theory. In particular, I will concentrate on the example of graduates from what was then the newly-opened department of industrial art at the State Art Institute in Tallinn, who were active participants in the artistic life of the period: Ando Keskküla and Sirje Runge (Lapin), and, closely associated with them, Leonhard Lapin and Vilen Künnapu who had both trained as architects.

In Estonian art historical literature the work of these artists in the early 1970s has been explained through models drawn from the practices of the Western neo-avant-garde: the use of happenings and assemblage, film and photography, the turn to the everyday and the banal in the content of their work.⁸ More attentive to local particularities, Mari Laanemets has pointed to interdisciplinarity as a defining feature of these artists and designers operating simultaneously in different domains.⁹ My focus from here will be twofold: to examine how information theories from the 1960s transformed Soviet design discourse and how it was further appropriated by alternative art practices, and to follow how this exchange with new theories and disciplines led not only to the redefinition of the art object but also to the redefinition of subjectivity. This perspective attempts to avoid appropriating an either/or logic of the official/unofficial, and instead to show how discourses and practices that contested dominant forms of power grew out from interactions with official institutions and public discourses.

Slava Gerovitch has in a recent study on the Soviet discourse of cybernetics pointed out that what started in the 1950s as a radical movement for reforming science and society, something opposed to the bureaucratic establishment, became by the 1970s a dominant discourse, ‘one of the sciences crucial to the construction of communism’,

7 A. Yurchak, *Everything Was Forever, Until It Was No More: The Last Soviet Generation*. Princeton, Oxford: Princeton University Press, 2005, p. 18.

8 S. Helme, J. Kangilaski, *Lühike Eesti kunsti ajalugu*. Tallinn: Kunst, 1999, pp. 164–168. For an early version of discussion of Sirje Runge’s geometric paintings from the perspective of information theory and semiotics see J. Klimov, “Geomeetriast” “Maastikuni”. – *Kunst* 1984, no. 2, pp. 36–39.

9 M. Laanemets, *On the Reconstruction of the Art History of Soviet Estonia: The Art History of Interdisciplinary Art*. – Paper presented at the conference *The Geographies of Art History in the Baltic Region*, Estonian Academy of Arts, 27–28 November 2009.

that early cyberneticians disdained.¹⁰ For example, for the emerging Tartu school of semiotics in the end of 1950s, the transposition of cybernetic problems enabled discussion of the notion of freedom and demonstrated the need for autonomy – ‘dialectical understanding of feedback and freedom and choice demonstrated the philosophical as well as social and political absurdity of totalitarian regimes’¹¹ –, but by the time of Brezhnev’s ‘mature socialism’ the rhetoric of cybernetics and information theory had become another means for maintaining the existing hierarchies and power structures.¹²

I want to investigate, among other issues, how the rhetoric of cybernetics and information theory drawn primarily from Norbert Wiener, but also from Marshall McLuhan, was put to use by artists working in Tallinn, how this diverged from the reformists of the 1960s, and what were the wider connotations of artists’ use of these theories. Finally, I claim that this perspective enables us to view the practices of designers and artists in the context of global processes associated with the demise of the disciplinary regime.¹³

Design discourse in Estonia

In 1966, the State Art Institute of the Estonian SSR in Tallinn introduced the special study of industrial art in the Faculty of Architecture, with the aim of training designers as a distinct profession.¹⁴ The head of the department and initiator of the program was Bruno Tomberg, a furniture designer by training, whose stated ideal was to offer a ‘universal education’ rather than preparation exclusively in the field of product design, since the small size of Estonia required that specialists have a relatively wide profile rather than a very narrow specialisation.¹⁵ Thus, in addition to traditional composition, drawing and sculpture classes, and starting from their first year, students received lectures in information theory (by Mark Sinisoo), bionics (Arne Lauringson) and were later taught sociological research (Marju Lauristin).¹⁶ In actuality, this orientation towards universality in design practice also represented Tomberg’s theoretical convictions and the larger shift in how design was theorised in the Soviet Union.

From the 1960s, the role of design or technical aesthetics was determined by the context of economic and societal modernisation, and by the progression in living standards that it supposedly brought along. To achieve such modernisation, industrial production was restructured to support increased automation, the ‘emergence of

10 S. Gerovitch, *From Newspeak to Cyberspeak: A History of Soviet Cybernetics*. Cambridge: MIT Press, 2002, p. 289.

11 B. Jegorov, Tartu koolkonna lätteil. Mälestusi 1950. aastatest. – *Vikerkaar* 1995, no. 1, pp. 66–79.

12 S. Gerovitch, *From Newspeak to Cyberspeak*, p. 9.

13 On informatisation and breakdown of the disciplinary regime, also in the Soviet context, see M. Hardt, A. Negri, *Empire*. Cambridge: Harvard University Press, 2000, pp. 260–279.

14 Till 1968 industrial arts was located as part of the interior design department, from 1968 onwards it was a separate department. On average, it had 4–6 students per year in the full-time program. Estonian State Archives (ERA), f R-1696, n 1, s 621, l 60.

15 B. Tomberg, *Jooni disaini arengust*. Manuscript in Estonian Museum of Applied Art and Design. Tallinn, 1979, p. 17.

16 ERA, f R-1696, n 1, s 716, l 5, 54.

science as a productive force' and the growth of an artificial, man-made environment.¹⁷ These new forces were also subjected to analysis by other new scientific methods and disciplines such as cybernetics, ergonomics and linguistics. Thus investigation into new technologies and their role in everyday life formed part of the studies at the industrial art department.

One of the important changes that occurred during the 1960s was a shift from designing separate objects to systems related to environment: 'It became clear that an object does not exist separately in reality and that design is a phenomenon of the synthesis of material culture – the social, ideological, cultural and other influences have always been integrated into art.'¹⁸ Rather than emphasising form-making as the traditional field of design, the new definition saw it in conjunction with economic control, optimisation of choice, control of quality and consumption, etc.¹⁹

According to Tomberg, design would find its role between other art disciplines and it would produce a new territory – the environment itself:

The architect designs buildings, the garden architect designs parks, the advertising artist is responsible for advertisements, but who looks after the streets, traffic signs, children's playgrounds and dustbins? [...] All of this should be the work of designers, they should be interested in the city in its totality. [...] The main problem for the industrial arts is the design and planning of a suitable and decent living environment for humans.²⁰

This reconceptualised design practice concerned not only the domain of design, but also how designers were meant to approach it; neither updating a pre-existing model nor carrying out commissions prescribed by the producers, but acting more like inventors, seeing the needs of the society from a more holistic or synthetic perspective. In a popular magazine for adolescents, *Pioneer*, Tomberg explained that a designer is different from an industrial artist who merely provides a form, and that instead the designer should be understood as a universal problem-solver with an ability to see the given problem from a broader perspective: '...if the task of the industrial artist is to produce a new model for an iron, then a designer sees his task as avoiding the tiresome activity of ironing altogether. A solution to this problem has been the production of un-crushable fabric.'²¹ This kind of all-encompassing design of the living environment 'for the realisation of most progressive social needs'²² was also seen as differentiating Soviet design from capitalist design, the latter being understood as fragmented between private corporations and their contradictory interests. If the latter was seen as reifying society, these texts prescribe for Soviet designers the task of humanising society. Given the context of new technologies, and the new growth of synthetic arts and

17 R. Sarap, *Teaduse ja tehnikate revolutsioon ja esteetika*. Tallinn: Kunst, 1975, p. 12.

18 B. Tomberg, *Jooni disaini arengust*, pp. 5–6.

19 B. Tomberg, *Sissejuhatus disaini*. Manuscript in Estonian Museum of Applied Art and Design. Tallinn, 1978, p. 2.

20 J. Olep, *Pilguga tulevikku*. Vastab ERKI disainikateedri juhataja dotsent Bruno Tomberg. – *Sirp ja Vasar* 4 August 1972.

21 B. Tomberg, *Mis on disain?* – *Pioneer* 1973, no. 11, p. 37.

22 L. Gens, *Inimene ja tema keskkond*. Näituselt "Ruum ja Vorm" Tallinna kunstihoones. – *Sirp ja Vasar* 7 April 1972.

‘aesthetics’ of the milieu, the described role acted, among other things, to counter popular concerns about the replacement of humans with computers and was intended to mediate the consequences of technological civilisation. According to a popular book on the scientific-technological revolution, the mission would be ‘the protection of human nature, preservation of human characteristics and the development of emotional culture’.²³

Soviet design also differentiated itself from Western design with regard to the latter’s orientation toward increasing consumer demand and the production of surplus value. If, according to critical theorists, the work of Western designers during the 1960s could be described as that of adding value to consumer items in the form of symbols and prestige,²⁴ then, in contrast, in a socialist society oriented towards eradicating the differences between social classes design should not function as a mark of status. Theorists writing on technical aesthetics thus turned to the role of aesthetic value, but also, relying on theoretical discussions as exemplified by Tomás Maldonado and Gui Bonsiepe, among others, to the informational value that was to predominate over use value.²⁵ In the abovementioned article Bruno Tomberg describes how the work of the designer begins with the problem of the excess of information, encountered primarily in an urban environment, and its organisation (‘that it would be presented in a rational way regarding each person’s needs’).²⁶ The aim of design was to translate rapid changes in culture and technology to the users and adapt these to everyday life, encompassing not only the aesthetic sphere, but also the social sphere. Thus surplus value was recoded as ‘cultural information’ that design was intended mediate. Similarly distinct from use-value, it defined the superstructural face of an era and communicated it to the users via formal means.

Ando Keskküla’s *Bluff*

In his 1973 diploma project for the industrial art department, Ando Keskküla took up the issue of design’s changed role in the contemporary information-dominated environment. The project consisted of a scenario for an animated film called *Bluff* (fig. 1), accompanied by an extended theoretical introduction.²⁷ *Bluff* provided a critical comment on consumption and the excess of things in the contemporary world, which – along the lines of Marx’s commodity fetishism – had begun to have a life of their own. With this work, Keskküla attempted to redefine in cybernetic terms the place of design

23 R. Sarap, *Teaduse ja tehnika revolutsioon ja esteetika*, p. 15.

24 The commentators included Roland Barthes, Henri Lefebvre and Jean Baudrillard, among others.

25 It should be added that this sharp differentiation from the Western notion of design was in many cases rhetorical, and in their definition of design Soviet authors often relied on critical Western theorists. The Soviet Union was a member of the International Council of Societies of Industrial Design (ICSID) and in 1975 the ICSID biennial congress was held in Moscow. Bruno Tomberg often refers to the definition of design according to ICSID, especially after that congress. In a lecture from 1978, he points to design being used to address social problems, referring to Tomás Maldonado and his critique of consumer society and Gui Bonsiepe and his experiment in Chile.

See B. Tomberg, *Sissejuhatus disaini*, p. 5.

26 B. Tomberg, *Mis on disain?*, p. 37.

27 A. Keskküla, *Joonismultifilm. Stsenarium, lavastus, kujundamine*. Diploma work at the State Art Institute of the Estonian SSR, Department of Industrial Art. Tallinn, 1973.

in society and the technologically-transformed environment. This approach saw the man-made environment as an ecosystem that demonstrates communicational structures and needs to maintain internal stability and homeostasis in order to survive. The film's unusual title may be interpreted in a way similar to Norbert Wiener's use of the word in *The Human Use of Human Beings* (translated into Estonian in 1969), which described a technique in a communication circuit that uses noise to combat the disturbance of information:

...both the team of communicants and the jamming forces are at liberty to use the technique of bluffing to confound one another, and in general this technique will be used to prevent the other side from being able to act on a firm knowledge of the technique of one side.²⁸

Keskküla opens his theoretical discussion by stating that environment, which includes both natural and man-made environment, is characterised by the dysfunctions and poisonings of its metabolism; and since people live in symbiosis with their environment, it becomes an active force ordering their lives, tying their subjectivities to its visible and invisible circuitry. He describes the interaction between the individual and the active environment:

Psychophysiological influence obtained through the senses mixes with cultural-informational data, the connection takes place not on the level of isolated psychic phenomena but on the level of the full individual, where various outer influences are filtered and transformed, depending on the situation, the individual's previous experiences and activities.²⁹

The film itself, to be produced visually as a 'bluff' commercial, was intended to demonstrate how everyday items, when consumed excessively for prestige or symbolic value and without differentiation, begin to produce digressions in the circuit of exchange and dominate the subject's life. If this message is interpreted in relation to the then pervading thesis of 'rational' consumption,³⁰ then Keskküla's main interest was the conflict evoked by the confrontation of 'old' objects with new technologies and their respective subjectivities: in replacing the old, the new things demand a new kind of relationship with the user and promote different psychological stereotypes that are incompatible with previous patterns of use.

This interest in analysing the impact of new technologies on human psychology was directly influenced by Marshall McLuhan's theories, including his redefinition

28 N. Wiener, *The Human Use of Human Beings: Cybernetics and Society*. New York: Avon Books, 1969, p. 256.

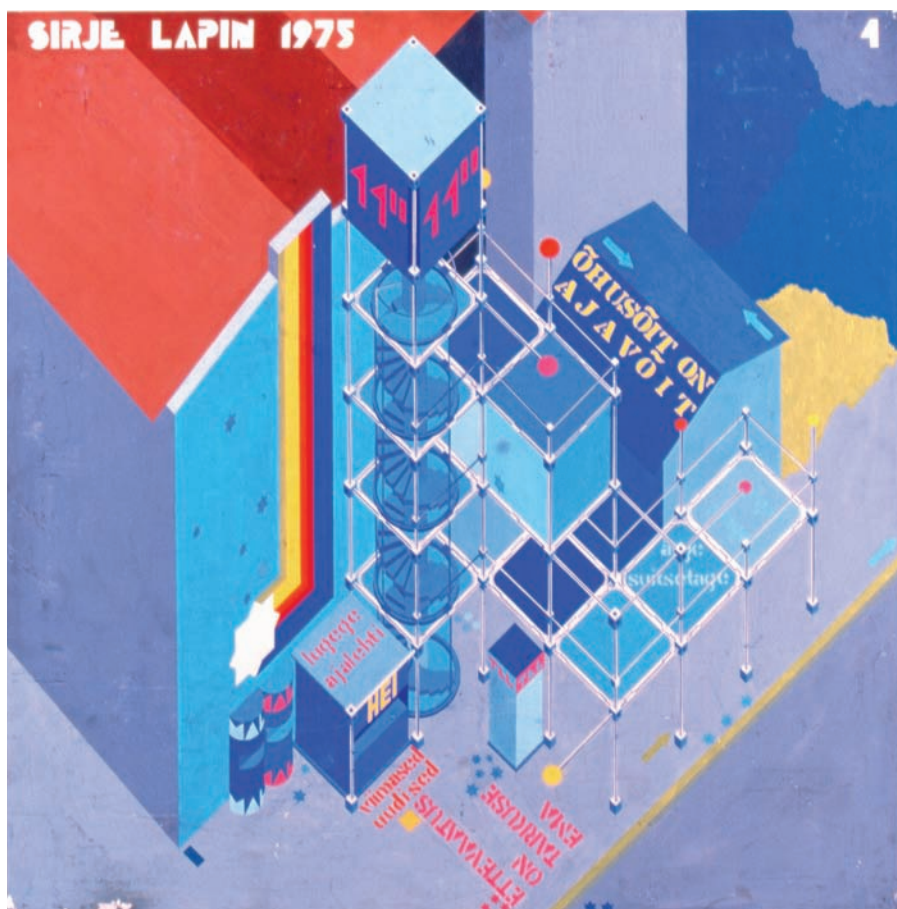
29 A. Keskküla, *Joonismultifilm*.

30 The growing amount of consumer items during the Thaw period generated fears that uncontrollable consumer desires would be awoken, and that these would soon get out of hand. Instead, a Soviet person was to have a conscious idea of her needs and to place their desires under rational control. Thus 'rational norms of consumption' were propagated by institutions dealing with consumption, taste and living standards. Journals relied on scientific evidence and analysis that defined adequate living standards for the average citizen or family (S. E. Reid, Khrushchev Modern: Agency and Modernization in the Soviet Home. – *Cahiers du Monde russe* 2006, vol. 47 (1/2), pp. 247–248).



1.

Ando Keskküla. Illustratsioon joonisfilmile „Bluff” (1973).
Repro. Eesti Tarbekunsti- ja Disainimuuseum.
Ando Keskküla. Illustration for animated film *Bluff* (1973).
Reproduction. Estonian Museum of Applied Art and Design.



2.

Sirje Runge (Lapin). Tallinna kesklinna miljöö kujundamise võimalusi. Planšett 4 (1975).

Guašš, papp. Eesti Arhitektuurimuseum.

Sirje Runge (Lapin). Proposal for the Design of Areas in Central Tallinn. Display board 4 (1975).

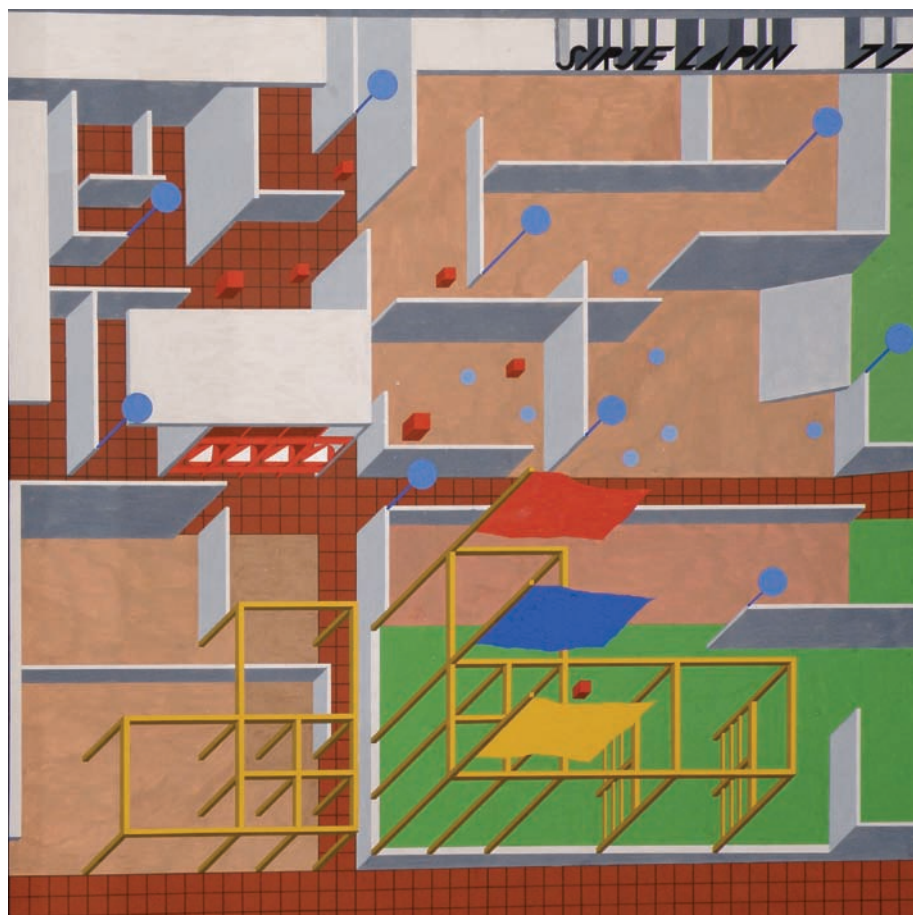
Gouache on cardboard. The Museum of Estonian Architecture.



3.

Sirje Runge (Lapin). Tallinna kesklinna miljöö kujundamise võimalusi. Planšett 5 (1975).
Guašš, papp. Eesti Arhitektuurimuuseum.

Sirje Runge (Lapin). Proposal for the Design of Areas in Central Tallinn. Display board 5 (1975).
Gouache on cardboard. The Museum of Estonian Architecture.



4.

Sirje Runge (Lapin). Pärnu KEK-i lasteaia mänguväljaku vaade (1977).

Guašš, papp. Erakogu.

Sirje Runge (Lapin). View of Pärnu KEK construction company kindergarten playgrounds (1977).

Gouache on cardboard. Private collection.

of media as extensions of man that affect the 'whole psychic and social complex'.³¹ Keskküla writes:

A wheel is an extension of a leg, clothing of the skin, electric circuitry is an extension of the central nervous system. When relationships between humans and these extensions change, humans also change. Everything that extends human capabilities becomes a means of communication. Thus a wheel, a cart, a road, a car or a book are those means and they determine people's interrelations and their relationship with their environment.³²

Moreover, we can make sense of the environment only through those communication-al means via which it is mediated for us, and the environment presents itself not as a sum total of objects but as 'a network of functional connections produced by these objects as communicational means'.³³

For Keskküla, this changed notion of the environment as mediated by invisible structures redefines the function of design. Elaborating on the ways in which the surplus value of design is informational, he sees the task of design as involving the translation of rapid changes in culture and technology to the users, redesigning psychological stereotypes and adapting people to the changes that accompany the use of new technologies. Design had a role to play in maintaining the homeostatic balance of the man-made milieu. However, to explain this changed role, he turned to recent Western avant-garde art practices and asserted an erasure of the border between design and art: artists document the environment in their works or intervene directly in the environment. Rather than following an 'idea', he regards the 'aesthetic credo' of contemporary art as being 'an analysis of the senses' and art as becoming a new kind of instrument for moulding consciousness by organising new ways of perception utilising new means. 'The aim is a total sensual experience',³⁴ writes Keskküla. He picked many of the means for organising consciousness from the sphere of non-art (he lists photographs, sand, socks, toothbrushes), and so the distinction between high and low art became futile – an object's belonging to either art, design or mass culture is decided by the user's attitude to it. Thus a designer would become an initiator of a 'new kind of popular art' that reacts to social and technological changes and connects 'functional needs with means such as colour, form, sound, light and material'. This 'popular' function was positioned in contrast to what he saw as the false humanisation of everyday objects through kitsch and myth (which he interpreted, somewhat contradictorily, as mass culture) in the contemporary Soviet consumer market. Those objects, instead of providing cultural information and adapting people to the reality of the new technical era, offered only an escape into a phantasmagorical fake environment.

31 Marshall McLuhan, originally a professor of English literature, turned in the 1950s to the analysis of emerging new technologies and their social role, after being strongly influenced by Norbert Wiener's *Cybernetics* (1948) and *The Human Use of Human Beings* (1950), among others. See R. Barbrook, *Imaginary Futures. From Thinking Machines to the Global Village*. London: Pluto Press, 2007, pp. 68–89, and R. Martin, *The Organizational Complex. Architecture, Media and Corporate Space*. Cambridge: MIT Press, 2003, pp. 19–28.

32 A. Keskküla, *Joonismultifilm*.

33 A. Keskküla, *Joonismultifilm*.

34 A. Keskküla, *Joonismultifilm*.

Sirje Runge's *Proposal for the Design of Areas in Central Tallinn*

This emphasis on the sensuous qualities of artworks and interest in the psychology of the viewer recur in Sirje Runge's 1975 diploma work *Proposal for the Design of Areas in Central Tallinn* for the industrial art department of the State Art Institute. In an extended theoretical statement, Runge explained that her aim was to overcome the monotonous modernisation of the city by taking into account the various systems of communication that make up the urban environment and utilise them in the design process, thereby making it appropriable by the masses: 'One should once again raise the aim of bringing art to the streets, by giving it volume and content proper to urban design.'³⁵ Although Runge's approach to urban space was primarily an aesthetic one, her understanding was not limited to the discipline's traditional domain and she saw the urban environment as a place where information is 'concentrated, reproduced and disseminated'. Thus, 'its development can be viewed alongside art and aesthetics'.³⁶

Including information within the domain of aesthetics implied not only the redefinition of art, but also of how information was to be understood. If cybernetics tied systems to their environment via informational feedback loops, it also radically redefined what counted as information. In 1972, commenting on the need for an essentially different architecture for contemporary theatre practice, Sirje Runge and Leonhard Lapin wrote (referring to Marshall McLuhan) that the new cybernetic era had brought along not only new machines and materials but also 'new images, means and knowledge',³⁷ and had replaced the era of linear information with that of cybernetic information. As an example of these new means of information they listed the telephone, television, film, space technology, photography and light bulbs. In *Understanding Media*, McLuhan famously described electric light – among other new means of information changing human relations and practices as extensions of man – as pure information, a medium without a message. Yet this medium communicates just by its presence:

The message of the electric light is like the message of electric power in industry, totally radical, pervasive and decentralized. For electric light and power are separate from their uses, yet they eliminate time and space factors in human association exactly as do radio, telegraph, telephone, and TV, creating involvement in depth.³⁸

McLuhan was interested in how various new media enable new activities to take place but also thereby change human relations and practices in 'scale or pace or pattern'.³⁹ He differentiated between written media, which produced detachment and the ability to isolate single objects, and media like TV that involved the person 'in depth', as a whole being, likening this to a sense of touch. This changed mode of perception –

35 S. Lapin, Tallinna kesklinna miljöo kujundamise võimalusi. Diploma work at the State Art Institute of the Estonian SSR, Department of Industrial Art. Tallinn, 1975, p. 19.

36 S. Lapin, Tallinna kesklinna miljöo kujundamise võimalusi, p. 5.

37 S. Lapin, L. Lapin, On sügis, lehed langevad. – Thespis. Meie teatriuendused 1972/73. Ed. V. Vahing, Tartu: Ilmamaa, 1997, p. 289.

38 M. McLuhan, *Understanding Media: The Extensions of Man*. London, New York: Routledge, 2001, p. 9.

39 M. McLuhan, *Understanding Media*, p. 8.

‘total, synesthetic, involving all the senses’⁴⁰ – was common to a generation who had grown up with television images and had abandoned traditional visual involvement as irrelevant.

The potential of the formal means of new media, which could have informational value in itself and could thereby produce an environment with a new kind of involvement, was a central feature in Runge’s diploma work. In the abovementioned article, Runge and Lapin called upon artists to explore the variety of imaginative atmospheric and synaesthetic potential embedded in new technology, in addition to vibrant colours and means of formal composition:

The new era employs sensorial, motoric, kinetic, sonic and verbal means as information, to embrace all human senses and the central nervous system. The invasion of new means of information to everyday and cultural life is illustrated by the triumph of television; ... kineticism in visual arts, happenings in theatre and concert.⁴¹

In her diploma work Runge proposed three different types of intervention as urban decoration – repainting neglected courtyards, adding modular compositional structures to empty spaces in the city, and ‘urban design fantasies’ – that each explore the atmospheric qualities of the environment and aspire to ‘embrace all human senses’.⁴² The modular structures are the closest match to the described comprehensive informational environment – cubes and spheres that function as information centres, with screens and advertisements, and which could also provide space for small shops and for the ‘intercommunication’ of city dwellers (fig. 2, 3). In Runge’s description, the structures conceal their playful potential: they have light and sound effects and there is potential for climbing in and around the structures or spending time inside a personalised music centre:

A huge spherical ball 2600mm in diameter is used for listening to music, and is equipped with a headphone system and a selection automaton. There is also a lighting system and television for creating audiovisual effects. The ball is for three persons maximum.⁴³

This playful attitude is carried into the third part of the work, the ‘urban fantasies’, in which Runge proposed to add ‘symbolic chimneys’ to a power-station by the sea, and to deliver harmless, colourful and pleasant-smelling fumes. Between the chimneys there was to be a labyrinthine park. These fantasies also reveal another aspect of Runge’s understanding of the urban environment, something she called non-rational

40 M. McLuhan, *Understanding Media*, p. 365.

41 S. Lapin, L. Lapin, *On sügis, lehed langevad*, p. 290.

42 Runge’s diploma work consisted of the design work project on eleven 1x1 metre boards and of eighty slides which represented the sites in their original conditions and also abstract fragments from the coloured boards of the design project. According to the author, her aim was to produce on every display board an ‘independent aesthetic whole’ that would develop beyond the usual technical drawings of designers and explore the new means of expression for designers.

43 S. Lapin, *Tallinna kesklinna miljöö kujundamise võimalusi*, p. 11.

and chaotic, and which is present in the multilayered and 'subjective' nature of the city's various structures despite its functional organisation. Thus her work demonstrates an ambiguity in terms of its attitude to the environment: on the one hand she proposes a universal modular system that in different combinations could be applied to all empty locations in the city and whereby the user is immersed into the formal play of different atmospheric media, cutting him/her off from the specificity of the site;⁴⁴ on the other hand she emphasises the difference between individual urban locations and uses her work to explore the 'irrational and subjective' qualities of particular places. Similarly, Runge's work has an ambivalent character with respect to the role of art. By proposing the provision of space for advertising and for communication as play, by calling for the exploration of the modular structures and displaying different information through artistic practices, the work envisions an involvement by the enlarged means of art, perhaps even a seduction of the viewer similar to the effects of televisual media. But at the same time her work was driven by the particular qualities of different places in the city, by rediscovering the neglected and marginal locations, courtyards, industrial areas, recognising their otherness in terms of the dominant urbanism and opening them up for potential (subversive) public use. Abstract compositional patterns and vibrant colour (as information in itself) were then used to negotiate between the two functions, uncovering the neglected environment for a new kind involvement and a new kind of user.

A 'seemingly reckless campaign of colour'

Runge's work, with its interest in redesigning the neglected pieces of the urban environment, can be understood in conjunction with a series of events that explored the irrational and disruptive qualities that surfaced in everyday urban situations, and which proposed to articulate these places with extravagant use of colour.⁴⁵ These events included a happening in a turn-of-the-century suburb of Pelgulin in 1971, where a large group of art and architecture students painted over a run-down children's playground that had a wooden elephant-shaped slide standing at its centre.⁴⁶ This could also be seen as part of the same fascination with applying colours to urban spaces that resurfaced a year later when, in the weekly cultural newspaper *Sirp ja Vasar*, Vilen Künnapu and poet Juhan Viiding called for the rediscovery of neglected parts of Tallinn – of its

44 This does not however mean disregarding the difference between the users themselves. Runge intended her work to take account of the different needs of individual users precisely through the use of means that allow for different programming and spatial flexibility.

45 About these events see also M. Laanemets, *Before the Spaces are Constructed: Concerning the Relationship Between Architecture and Art in the Practice of the Tallinn School Architects*. – *Environment, Projects, Concepts. Architects of the Tallinn School 1972–1985*. Eds. A. Kurg, M. Laanemets. Tallinn: Eesti Arhitektuurimuuseum, 2008, pp. 86–100.

46 The playground stood on the corner of Heina and Telliskivi streets. The documentation of the happening by Jüri Okas, known as *Colouring the Elephant*, shows enthusiastic young men and women, some of them wearing Estonian State Art Institute caps, climbing on the wooden toys and spontaneously painting them in bright yellow, red and green. Initiated by artist and designer Andres Tolts who had his studio in the neighborhood, the event was sanctioned by the local municipal housing committee (who also provided the colours) as a 'renewal' campaign by young artists.

anonymous courtyards and wooden dwellings – to ‘modestly supplement them [...] with beautiful vibrant colours’ and to use the blank walls of industrial structures ‘as exhibition spaces – [filling] them with huge posters and images’.⁴⁷

The initiators and participants in these events – Andres Tolts, Ando Keskküla, and also Künnapu and Lapin – had from the late 1960s been involved in a series of happenings that combined their interest in pop-art and search for new artistic means with a rebellious youth culture. Events undertaken by the group SOUP 69 included several acts of destruction of symbolic objects (wrecking and dismembering a mannequin, demolition of a piano), mischievous interventions (reading vulgar poetry and throwing around paper at a dance party of a youth organisation seminar) and an infamous happening in autumn 1969, at the seaside in Tallinn, which involved tearing up (news)papers and throwing them into air and ended in the arrest of most of the participants. If, in these events, the political critique of society was an indirect one, it manifested a more general desire to position oneself in contrast with society.⁴⁸ Mari Laanemets has indicated in her research that the happenings of the SOUP 69 group, by discarding the repressive compartmentalisation of everyday life and the technocratic system, were intended to undercut the dominant world-view of the time; the happenings sought an alternative contact with and knowledge of the surrounding reality.⁴⁹ Ando Keskküla has remarked retrospectively that the happenings remained the insider games of a small group of friends and did not really enter the public sphere: ‘[the] games were played among an intimate group, where the spirit was similar in any case and its repetitious demonstration rather useless’.⁵⁰ However, writing in 1977, Leonhard Lapin regarded the practice of happenings as carried out in order to bring art into closer contact with its public. According to Lapin, ‘picture-making’ was, for the public of the 1970s, an incomprehensible bohemianism and there was a ‘latent social need’ for happenings: ‘people need a new kind of relationship to art’.⁵¹ A few years earlier, in a piece on the machine age and art, Lapin had pointed to the technological influence on the viewer such that ‘a child who is born in the 1970s grows up inside a speeding car and before a background of pulsating television screens’.⁵²

From this perspective we may see the changed relationship with the public to be further studied in Runge’s project, taking into consideration the means of synaesthesia

47 V. Künnapu, J. Viiding, Ettepanek. – Sirp ja Vasar 1 September 1972, p. 9. For English translation of the text see Environment, Projects, Concepts. Architects of the Tallinn School 1972–1985, p. 131.

48 E. Epner, Ära pane, isa! – Teatrielu 2003. Eds. A. Saro, S. Karja. Tallinn: Eesti Teatriliit, 2004, p. 261.

49 M. Laanemets, *Happening’id ja disain – visioon kunsti ja elu terviklikkusest*. – Kunstiteaduslikke Uurimusi 2010, vol. 19 (1/2), p. 13.

50 Keskküla 2004, quoted in E. Epner, Ära pane, isa!, p. 264.

51 L. Lapin, Häppening Eestimaal. – L. Lapin, Valimik artikleid ja ettekandeid kunstist 1967–1977. Manuscript in Leonhard Lapin’s archive. Tallinn: 1977, p. 14.

52 L. Lapin, Masinaajastu ja kunst. – Kultuur ja Elu 1973, no. 9, p. 56. Hasso Krull, in an analysis of Juhan Viiding’s poems of the 1970s, has pointed to his attempt to produce in written form an analogy with televisual effects that would ‘be mosaic and create in-depth involvement’ and would thus neutralise dominant ideological messages. Krull refers to Marshall McLuhan’s understanding of the TV image that demands participation of the whole being similarly to the sense of touch. McLuhan saw a break in the perceptual mode among a generation that had for a decade experienced TV, after which the traditional ways of visual engagement seemed ‘not only unreal but irrelevant, and not only irrelevant but anemic’. Krull refers to the arrival of television in Estonia in 1955 and to a cultural break ‘that ideological force and political closure restrained only very weakly. One could even say that the influence moved in the opposite direction: all ‘distant visual goals’ of the dominant ideology started to seem unreal and unimportant, even anemic.’ See H. Krull, Lapsena televisioonis. – Vikerkaar 2008, no. 10/11, p. 127.

and the potential provided by the formal means of the new media for producing an environment with a new kind of involvement. Furthermore, the idea of bringing art to the streets by redefining the surroundings with the aid of polychomy implies an aspiration to respond to the popular youth culture of the period. The names 'Bowie' and 'Zappa' displayed on the sides of the modular structures leave no doubt what kind of music was intended to be played inside the personalised centres (fig. 3). Likewise, in their call for a 'seemingly reckless campaign of colour' in *Sirp ja Vasar*, Künnapu and Viiding refer to a 'giant portrait of a favourite musician' that could be painted on to the factory walls, thus implying an association with rock music culture.⁵³ In rethinking the production of these artists-architects-designers of the early 1970s in relation to the ways in which they sought to address a new kind of viewer and the city as an informational environment, we should also consider, among others, Lapin's 'architectons' (1975) in front of the *Kuldne Kodu* housing cooperative in Pärnu, Sirje Runge's playgrounds for the Pärnu KEK kindergarten (1977; fig. 4), in the vicinity of that same housing complex, and Lapin's monument to Tallinn (1976), where the constructivist form was combined with new technological means and 'unrepeatable spatial situations were regulated by a computer'.⁵⁴

What kind of viewer was imagined by these artists, and how was he/she positioned vis a vis the Soviet system? Did this offer an alternative to the dominant position and, if so, then how? In responding to these issues, I will turn first to a popular discussion in the social theory of the period that was driven by the transposition of cybernetic theories to the social field and launched against the dominant position of bureaucracy in society, and then to the parallels and evidence for the described position in art historical literature.

53 It is interesting that while Keskküla contrasted design as popular art with the 'bad taste' of kitsch objects, Künnapu and Viiding saw the public colour campaign as an alternative to the medium-specific applied art practices that were oriented to producing individual consumer objects: 'In the time it takes to produce a couple of leather bookmarks or little boxes we could paint half of the "Kommunaar" shoe factory in stripes. If stripes become boring, well then, with the energy of just ten bookmarks we could paint over them with a giant portrait of a favourite musician.' – V. Künnapu, J. Viiding, Ettepanek, p. 9.

54 See *Environment, Projects, Concepts: Architects of the Tallinn School 1972–1985*, p. 173.

Gustav Naan – ‘Power and Mind’

In the December 1969 issue of influential literary journal *Looming*, astrophysicist and academician Gustav Naan published his article ‘Power and Mind: Bureaucracy and Intelligentsia in Contemporary Bourgeois Society’. In the article, Naan argued in favour of freedom of speech for the intellectual elite and that independent critique was necessary as a force for driving society forward.⁵⁵ Building upon an analogy between cybernetic systems and social systems, he stated that:

From the cybernetic point of view a society is like a self-regulating system – with negative feedback, or a ‘teleological’ system – like a football team, biological species or air-defence missile.⁵⁶

In order for society to achieve its goals, it was necessary for there to exist simultaneously a conservative, an operative and a stabilising function. According to that scheme, bureaucracy represented the conservative function. The intelligentsia was to figure out the direction to be taken; its function was ‘to precalculate the disposition of a system and target in the future’.⁵⁷

In the same year, Naan had written a foreword to the Estonian translation of Norbert Wiener’s *The Human Use of Human Beings: Cybernetics and Society*.⁵⁸ The book was published in a series associated with the journal *Looming*, and gained a wide readership and popularity. Although cybernetics had already been legitimised in the Soviet Union during the late 1950s, its novelty, radically different vocabulary and recent reputation during the Stalin era as a ‘bourgeois pseudo-science’⁵⁹ lent it an overall social-oppositional character and engendered interest especially among the younger generation of scientists and social theorists. Thus Naan’s article also prompted widespread discussion in Estonian society.

In his book, Wiener describes the science of cybernetics as involving the study of the communication mechanisms of different systems, seeing them as constituted by and managed through informational patterns and flows. A potentially radical idea derived from this view of cybernetic management saw no difference between a command given to a human and a command given to a machine – both were conceived as informational systems. Wiener’s theory of cybernetics had developed from work with anti-aircraft guns and air-defence systems during World War II, during which time he had studied programs that could predict not only the trajectory and movement of a fighter plane, but could also analyse the behaviour of the pilot. This probability model was conceived by examining how a certain goal-oriented behaviour is achieved. A specific feature of all these so-called teleological systems, was their reliance on negative

55 G. Naan, *Võim ja vaim. Bürookraatia ja intelligentsi tänapäeva kodanlikus ühiskonnas*. – *Looming* 1969, no. 12, pp. 1856–1872, 1875–1878.

56 G. Naan, *Võim ja vaim*, p. 1860.

57 G. Naan, *Võim ja vaim*, p. 1861.

58 N. Wiener, *Inimolendite inimlik kasutamine. Küberneetika ja ühiskond*. Loomingu Raamatukogu 45–47. Tallinn: Perioodika, 1969. Wiener’s *Cybernetics: Or Control and Communication in the Animal and the Machine* (1948) had earlier been translated as: N. Wiener, *Küberneetika ehk juhtimine ja side loomas ning masinas*. Tallinn: Eesti Riiklik Kirjastus, 1961.

59 See S. Gerovitch, *From Newspeak to Cyberspeak*, pp. 114–125.

feedback: the pilot corrected his behaviour in response to errors until finally succeeding. This reliance on feedback helped to redefine the notion of information, which was seen as a pattern of organisation that maintains the order or homeostasis of the system, a negative entropy:

Just as entropy is a measure of disorganization, the information carried by a set of messages is a measure of organization. In fact, it is possible to interpret the information carried by a message as essentially the negative of its entropy, and the negative logarithm of its probability. That is, the more probable the message, the less information it gives. Clichés, for example, are less illuminating than great poems.⁶⁰

It is not difficult to recognise in these 'clichés' an analogy with the Soviet bureaucratic rhetoric whereby the informational content receded in the face of the power of the ritual. Such mindless repetitions became, according to the cybernetic gloss, noise rather than information.⁶¹ As Naan put it, bureaucracy was a circle where information died out.⁶² The bureaucratic model of information represented a top-down system, and the psychologic defence mechanisms of bureaucrats tended to beautify the reality. In order to govern the system efficiently one also needed information that came from without. This was to be the role of the intelligentsia, who were required to figure out the future direction of society ('...one has to precalculate the disposition of system and target in the future'⁶³). The intelligentsia's function was to tell the society what it did not want to hear,⁶⁴ as Naan said, and that is why it was not to be subordinated to bureaucracy and needed its independence. However, according to this ideal model of society 'as a self-regulating system' it was to be the constant balanced conflict between these two 'strata' that kept the society on the right track.⁶⁵

In a recent commentary on Naan's essay, political scientist Rein Ruutsoo argued that Naan had in fact misread Wiener, and that the aim of adopting the principles of cybernetic management and negative feedback for social organisation served to make the party bureaucracy stronger and even more centralised.⁶⁶ For Ruutsoo, the fact that on the cover of Wiener's translation the title was changed from *Human Use of Human Beings* to *Cybernetics and Society*, demonstrated that the humanistic dimension and ethical content of the book was pushed to the background and the main aim of cybernetics

60 N. Wiener, *The Human Use of Human Beings*, p. 31.

61 See N. K. Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 1999, p. 104.

62 G. Naan, *Võim ja vaim*, p. 1875.

63 G. Naan, *Võim ja vaim*, p. 1861.

64 G. Naan, *Võim ja vaim*, p. 1861.

65 G. Naan, *Võim ja vaim*, p. 1872.

66 R. Ruutsoo, *Võimu vaimust ja vaimu võimust*. – Riigikogu Toimetised 2002, no. 5, <http://www.riigikogu.ee/rito/index.php?id=11880> (accessed 20 January 2011).

was to maintain the system's efficiency: 'The book was placed in the framework of scientific thinking characteristic of the Soviet system',⁶⁷ argued Ruutsoo.⁶⁸

This interpretation is not so far-fetched considering that Wiener's aim with cybernetics was to control probability⁶⁹ and thus, if adopted in the Soviet Union, cybernetic control could have led to even stronger centralised power.⁷⁰ On the other hand, cybernetic systems themselves (including society) were envisioned as flexible and self-regulating, thus conveying a powerful anti-authoritarian message. According to Ruutsoo:

The cybernetic approach offered the possibility of seeing science from a meta-perspective and the only correct conclusion from that viewpoint was that in the world-view built upon self-regulation there was no place for the soviet-type fundamentalist social sciences.⁷¹

This is the two-way interpretation of Naan: as a call for freedom of speech and autonomy of the subject or as a recipe for more efficient state control, however diffuse (Ruutsoo's interpretation).

But this duality of freedom of speech versus state control hides a more fundamental tension inherent already in Wiener's theories. As pointed out earlier, one of the most radical aspects of cybernetics was that, from the viewpoint of communication, there was no difference between a message sent to a human or to a machine. As N. Katherine Hayles has pointed out, Wiener's writings reveal an uneasiness that its own conclusions about the boundary disruptions of the human being could get out of hand⁷² – it comes close to what today we might call the 'deconstruction' of the liberal-humanist individual subject. On the one hand he imagined ways of equating machines with humans, while on the other hand he attempted in his book to present cybernetics as something that would reinforce the human as coherent rational self. This is the reading corresponding to the views of Thaw period reformists who saw cybernetics, rather than dissolving subjectivity, as a way of reinforcing its autonomy – directed towards

67 R. Ruutsoo, *Võimu vaimust ja vaimu võimust*.

68 The changed title appeared already in the Russian translation of Wiener's book. See: Н. Винер, *Кибернетика и общество*. Москва: Издательство иностранной литературы, 1958. In Estonian version the changed title appeared only on the cover, whereas on the title page it was the same as in English.

69 N. K. Hayles, *How We Became Posthuman*, p. 88.

70 A leading populariser of new technologies in that period, Ustus Agur writes in a popular magazine about computers becoming everyday domestic items: 'An all-state computer network will be created, that everyone can join into and keep in its computers his budget, make calculations and transactions ... The all-state network of centres for computing has in the Soviet Union one other, a more broad and general assignment. It is not only that everyone who wants could join this network; we have to build a common informational network that would encompass all organisations and institutions – initially under one ministry, later on the scale of the whole national economy. This kind of network would then become an incredibly powerful tool of control (management).' – U. Agur, *Raal igasse kodusse!*? – *Horisont* 1971, no. 6, p. 14. But this kind of network would have also centralised power and become an enormously efficient mechanism of domination.

71 R. Ruutsoo, *Võimu vaimust ja vaimu võimust*.

72 N. K. Hayles, *How We Became Posthuman*, p. 85.

the realisation of its 'interior power' and standing against the oppressive outside.⁷³ Of course, on this interpretation, a lot was at stake; there was not only the fear of a repressive public intervening in the private, but also of the threat posed by the adoption of cybernetic theories by the bureaucratic establishment – the networked computer thereby becoming a powerful means of control. This autonomous subject, positioning its 'inner freedom' in contrast to the oppressive outside, also forms the basis of narrations of unofficial art and artists in the Soviet period.⁷⁴ On the other hand, the redefinition of the information process as something that connected human sense organs (as receivers) and the nervous system (as processor) to the environment, combined with the interpretation of new technologies as extensions of the human into their surroundings, enabled the designers and artists of the early 1970s to view subjectivity as susceptible to forces from the outside – emerging now through networks and systems rather than secluded places. For designers engaged in modelling the city in its totality, Wiener's emphasis on the influence of contemporary information processes in different fields of life and McLuhan's statements about the effect of technologies on human behaviour became a stimulus to expand their practices into the redefined informational environment including subjectivity itself. Runge's structures, calling for engagement in games or listening to the music in public, and Keskküla's theories on viewers being integrated with circuits of information, may be better understood bearing in mind the context of this new subjectivity. In this way, the dialectic of autonomous interior versus oppressive exterior was redefined, thereby imagining different models of liberation and different ways to resist the dominant lifestyle. These works also countered the dominant tradition of painting – 'artist-centred, lyrical, using traditional techniques and warm soft hues';⁷⁵ and by imagining a human augmented by technology and the flow of information, they also extended beyond the usual field of design discourse which aimed to humanise society.

'Art for all'

The source that Runge referenced most frequently in the text accompanying her diploma work was Pierre Restany's *White Book*, published in Milan in 1969 as *Livre blanc – objet blanc*, a text that combined technological changes with a call to environmentally

73 Furthermore, for the emerging Tartu school of semiotics that took up the analogy of cybernetics in the late 1950s – early 1960s, the notion of feedback circuit between the system and its environment overruled the dominant notion of 'freedom as the recognition of necessity'. A system that corrected its behavior from the feedback was not subjected to the environment but viewed as an autonomous one: 'In this way a development means foremost a realisation of the intra-systemic potential and only secondarily adaptation to the exterior conditions...', wrote Mikhail Lotman. Freedom was comprehended as a self-realisation of 'interior powers' and not acknowledging of exterior pressures. See M. Lotman, *Struktuur ja vabadus. Märkmeid Tartu semiootikakoolkonna filosoofilistest alustest*. – Akadeemia 1996, no. 9, p. 1799.

74 For an example of this kind of take on the interior standing against the outside see e.g. *Nonconformist Art: The Soviet Experience 1956–1986*. Eds. A. Rosenfeld, N. T. Dodge. London: Thames and Hudson, 1995. For the notion of 'inner freedom' see B. Bernstein, *Kunstniku vabadusest*. – Kunst 1993, no. 2, pp. 29–34.

75 S. Helme, *Elevandiluuornist postindustriaalsesse kultuuri*. – Tallinn–Moskva 1956–1985. Eds. A. Liivak, L. Lapin. Tallinn: Tallinna Kunstihoone, 1996, p. 166.

encompassing art work.⁷⁶ After the events of May 1968, Restany, who from the 1960s onwards had been a promoter of *Nouveau Réalisme*, moved to endorse the interaction of art and technology 'as a way out of the crisis'⁷⁷ caused by the rapid succession of social changes and artistic events. His manifesto-like *White Book* was intended primarily to provide guidance for artists to overcome the separation between traditional art forms and embrace new technology, but following the spirit of the student protests he also saw the art of the future as 'total art' and 'art for all'.⁷⁸

For Restany, changes in technology and means of communication had fundamentally changed the concept of art, the way it interacted with the public and the understanding of the artist's role. With growing automatisisation and increasing leisure time art was becoming more like collective entertainment in public spaces, rather than comprising singular objects for individual consumption. The function of this kind of experimentation was to activate the viewer, to develop her perceptual skills and to teach how to play. The artist thus 'helps us to live better, feel better, communicate our dreams better'.⁷⁹ This art was to overcome the distinctions between different fields of art, combining 'painters and sculptors, urbanists and architects, composers and choreographers, designers and aestheticians, film-makers and poets'.⁸⁰ It also encompassed a variety of techniques, including collage and assemblage, spatial urbanism, programmed art, concrete music and phonetic poetry, happenings and audiovisual synthesis – comic strips, cinéma-vérité, total theatre and modern dance – producing a total environment of colour, sound, light and movement.⁸¹ Runge's and Lapin's interest in the new ways of perception and the use of new technology in works of art comes especially close to Restany's position when he writes that 'art-play relies on the new psycho-sensuous dimensions of the perception, sensual experiences adapting to the environment, that we have not previously been accustomed to'.⁸²

Restany's goals seemed to lie beyond simply 'humanising technology'. Demonstrating how technology itself changed the nature of art and its interaction with the public, he called for an aesthetic that could be a tool for collective liberation, that would align the forces of production and creation toward the same goal and thus reach a 'dynamic synthesis'. Through such a renewal, the human being would rediscover its real modern face, would become natural again following the end of the era of

76 P. Restany, *Livre blanc – objet blanc*. Milano: Apollinaire, 1969. It was most probably available to Runge through its Finnish translation: P. Restany, *Valkoinen kirja*. Porvoo: WSOY, 1970.

77 M. Bortolotti, Restany: Critic of Modernity. – Pierre Restany. The critic that was an artist. *Il Critico Come Artista*. Ed. S. Casciani, Milano: Editoriale Domus, 2004.

78 Significantly for the Soviet context, Restany tied the revolts of 1968 in Paris as well as in Prague – based politically on different grounds – together by the age of the protesters, implying that it was the same generation throughout the world who had been responsible for raising the issues of social critique, i.e. people between eighteen and twenty-five. Runge, born in 1950, and Lapin, born in 1947, as well as their fellow artists, all belonged to the same generation, making it easy for them to relate to the worldwide protests and see themselves as subject to Restany's call. But there were other points in Restany's book that reverberate with the issues raised by Lapin and Runge in their texts, including the negation of art as beautiful consumer items, considering art's function to be communication and regarding collaboration with science and technology as fundamental for the redefinition of the art of the future.

79 P. Restany, *Valkoinen kirja*, p. 57.

80 P. Restany, *Valkoinen kirja*, p. 33.

81 P. Restany, *Valkoinen kirja*, p. 33.

82 P. Restany, *Valkoinen kirja*, pp. 33–34.

alienation.⁸³ At the end of his book, Restany gives a vivid description of art as a form of public entertainment that encompasses the total environment:

Art descends to the streets. Museums become centres of information and production. Academies become laboratories. Monuments and fetish-ruins that are meant to be eternal will overcome multiple formal changes. Interplanetary space is the place for the festivities. If we reject this enormous hope that is within our reach today and if we predict that the excessive mechanisation will lead to the destruction of our culture, we will empty out the freedom of action, creation, thinking and seeing and deny by that the human.⁸⁴

Leonhard Lapin, speaking in December 1975 at a joint symposium of artists and scientists in the institute of microbiology at Harku, ended his text on 'Objective art' by quoting that same passage of Restany's book.⁸⁵ Lapin's manifesto-like speech commented on what he considered to be the progressive art of the period, bringing together under this label a range of practitioners, from Futurists to conceptualists, describing the art of the future as becoming part of the industrially-manufactured environment and employing multimedia and electronics as its specific means of expression.⁸⁶ The speech was to function as the theoretical context for the non-institutional exhibition *Event Harku '75. Objects, Concepts*, that had opened a week earlier and included, among other things, a geometric-abstractionist *Altar* by Sirje Runge, kinetic and audiovisual objects by artist Kaarel Kurismaa and a series of drawings *Woman-Machine* and *Machine-Medium* by Lapin himself. As Mari Laanemets points out, both Lapin's speech and the exhibition itself demonstrated an attempt to redefine art and merge it with the new technological reality of the era, understanding art's role more as organising the environment in its totality rather than adding singular objects to it.⁸⁷

Restany's neutral stance towards the new consumer society was criticised by his left-leaning contemporaries in Western Europe, seeing his views of 'technological integration' as a way to make the subject compatible with the institutional establishment and more broadly, with its historical circumstances.⁸⁸ If similar critique could be transposed to the Soviet context – that the rhetoric of adapting the user to the reality

83 P. Restany, Valkoinen kirja, p. 71.

84 P. Restany, Valkoinen kirja, p. 72.

85 See L. Lapin, Objektiivne kunst. – L. Lapin, Kaks kunsti. Valimik ettekandeid ja artikleid kunstist ning ehituskunstist 1971–1995. Tallinn: Kunst, 1997, p. 58. Interestingly, Lapin does not reference this quote (although he references many others) and Restany is never mentioned in his text.

86 See M. Laanemets, Kunst kunsti vastu. Kunstniku rolli ja positsiooni ümbermõtestamise katsest eesti kunstis 1970. aastatel. – Kunstiteaduslikke Uurimusi/Studies on Art and Architecture 2011, vol. 20 (1/2), pp. 59–91.

87 M. Laanemets, Kunst kunsti vastu. Kunstniku rolli ja positsiooni ümbermõtestamise katsest eesti kunstis 1970. aastatel, pp. 66–67.

88 For several prominent Western critics Restany's utterances in *Livre blanc* have symbolised the complicity of neo-avant-garde art with the market and the dominant institutions. See M. Tafuri, *Architecture and Utopia. Design and Capitalist Development*. Cambridge: MIT Press, 1976, p. 139. (He is referring to Restany's article 'Le Livre blanc de l'art total; pour une esthétique prospective' – *Domus* 1968, no. 262.) Benjamin Buchloh's verdict is equally dismissive, seeing Restany's theory as 'mindless acceptance ... in which the neo-avant-garde is enthusiastically assigned the role of a cultural claque in the celebration of the new techno-scientific society of consumption, spectacle and control' (L. Busbea, *Topologies: The Urban Utopia in France, 1960–1970*. Cambridge: MIT Press, 2007, pp. 103–104). In his analysis from 1981, on the art of the 1970s, Estonian art critic Jaak Kangilaski relied on Restany's *White Book*, denouncing his technological fetishism but finding the program of 'total art' to contain several interesting and promising ideas. See J. Kangilaski, 70. aastate lääne kunst. – Kunst 1981, no. 1, pp. 46–51.

of the new technological era involved preparing for the 'New Communist Man'⁸⁹ – then I would argue for a different relation between the subjection and resistance, the inside and outside, of society: for the artists and designers under scrutiny here, the emphasis on communication, networks and mobility worked to contest the regulated and rigid compartmentalisation of bureaucratic society. We may then see that Restany's text reverberates with the desires of the young generation, with the critique of the centralised state, its institutions and the traditions they upheld, and with the criticism of what has been called the 'disciplinary' regime.⁹⁰

In North-America and Western Europe, changes in industrial society and the growth of welfare during the 1960s and 1970s restructured the principles of production and consumption, changing everyday life and values and bringing along a new rhetoric of mobility, flexibility, knowledge and communication. In the Soviet Union, modernisation and Thaw reformism had similarly changed the forms of everyday life, re-orchestrated work and leisure and, most importantly, generated a new space for discussion that was then used to demand greater freedom. Although Thaw reforms concerning civil society were largely withdrawn during the Brezhnev period, the anti-hierarchical struggles and 'resistance to the bureaucratic dictatorship' did not disappear and became gradually more difficult for the ruling regime to contain. In their analysis of the late Soviet system, Michael Hardt and Antonio Negri put it this way:

The heavy bureaucracy of the Soviet state, inherited from a long period of intense modernization, placed Soviet power in an impossible position when it had to react to the new demands and desires that globally emerging subjectivities expressed, first within the process of modernization and then at its outer limits.⁹¹

Despite growing dissatisfaction, especially among the younger generation, efforts to merely 'correct' the course of the bureaucracy – as in Naan's address in the late 1960s – were already neglected by the mid-1970s. From this perspective, what has otherwise been seen as a retreat during that period toward the private sphere and toward interest in various esoteric practices, national roots and living *вне*,⁹² may now be interpreted as a sign – albeit a negative one – of the resistance of this changed subjectivity to being closed out from social discussions and confined to 'the structures of ... a socialist management of capital that no longer made any sense'.⁹³ In Hardt and Negri's opinion, it was in the realm of the subject that the Cold War power conflicts between East and West were most intensely enacted, as the Soviet inability to recognise the subject's transformation led to rapidly decreasing labour productivity and economic

89 S. Gerovitch, *The Cybernetics Scare and the Origins of the Internet*. – *Baltic Worlds* 2009, no. 1, p. 35.

90 See G. Deleuze, *Postscript on the Societies of Control*. – October 1992, vol. 59, pp. 3–7; M. Hardt, A. Negri, *Empire*, pp. 272–300.

91 M. Hardt, A. Negri, *Empire*, p. 277.

92 Alexei Yurchak refers with the term *вне* – *вне* (outside) to the lack of concern and obliviousness to the Soviet reality. The person who was *вне* was participating in the society but at the same time ignorant towards it, imagining herself to be elsewhere. The *вне* milieu included different scientific societies, cafes, the culture of rock music. See A. Yurchak, *Everything Was Forever, Until It Was No More*, pp. 126–157.

93 M. Hardt, A. Negri, *Empire*, p. 279.

stagnation; whereas in the West this new kind of subject was included in its entirety in the reorganised production process in which it played a key role – a process leading to immaterial production and informatisation of production.

From this perspective, regarding the practices of the artists discussed here, with their background in the design and architecture profession, the first half of the 1970s becomes important in two respects. In regarding the environment as an informational realm and studying its possibilities for re-engaging the viewer, it became, in contrast to the withdrawal into the private sphere, a positive moment in addressing the needs of the emerging subjectivity and its demands – for freedom of communication and information, for making popular culture visible in public space and for non-hierarchical social organisation. But it was also a response to the reorganisation of industry, technology and communication systems (chimneys adapted to produce colourful and aromatic fumes in Runge's work demonstrate the way in which the outdated technologies of industrial production could be redeployed for new uses), that prompted questions about the prevailing social and spatial models, about the role of the artist, and led to imagining new alternatives to the bureaucratic-disciplinary socialist country.