

**IZOBRAŽEVANJE
NA PODROČJU
OBLIKOVANJA:
KAJ VIDIŠ?
KAJ MISLIŠ O TEM?
KAJ S TEM NAREDIŠ?**

**DESIGN
EDUCATION:
WHAT DO YOU SEE?
WHAT DO YOU
THINK ABOUT IT?
WHAT DO YOU
MAKE OF IT?**

Edited by/Uredili
Peta Černe Oven, Barbara Predan

ALUO
*oblikovanje
je povsod
okoli nas
design is all
around us*

Design Education:**WHAT DO YOU SEE? WHAT DO YOU THINK ABOUT IT?****WHAT DO YOU MAKE OF IT?****Izobraževanje na področju oblikovanja:****KAJ VIDIŠ? KAJ MISLIŠ O TEM? KAJ S TEM NAREDIŠ?****30 years of design at ALUO****30 let oblikovanja na ALUO****Published by/Izdala:**

University of Ljubljana/Univerza v Ljubljani

Academy of Fine Arts and Design/

Akademija za likovno umetnost in oblikovanje

represented by/Janjo Boštjan Botas Kenda, dean/dekan

Book concept by/Koncept strokovne monografije:

Petra Černe Oven, Barbara Predan

Edited by/Uredili:

Petra Černe Oven, Barbara Predan

Texts/Besedila:

Boštjan Botas Kenda, Petra Černe Oven, David Erixon, Alain Findeli, Tony Fry, Tomás Maldonado, Norman Potter, Barbara Predan, Teal Triggs

Slovene copyediting by/Lektura slovenskih besedil:

Katja Palatin

English translation ("He will learn what he wants, nothing maybe") and copyediting by/Prevod v angleščino [»Naučil se bo, kar bo hotel, morda nič«] in lektura: Alkemist

English translation [short introductions and biographies PČO, NP, BP]/Prevod v angleščino [kratka uvoda in biografije PČO, NP, BP]: Erica Johnson Debeljak

Copyediting ("He will learn what he wants, nothing maybe") by/Lektura angleškega prevoda [»Naučil se bo, kar bo hotel, morda nič«]: Erica Johnson Debeljak and/in Boris Benko

Photography/Fotografija:

Dominic Tschudin

Design/Oblikovanje:

Barbara Šušteršič, Studio Miklavc

Reviewed by/Recenzentki:

Petra Čeferin, Maja Šuštaršič

Printed by/Tisk:

Matformat

Number of copies/Število izvodov:

500

"The operation is partially financed by the European Union from the European Social Fund and Ministry of Education, Science and Sport. The operation is carried out under the Operative programme of the human resource development 2007–2013, development priority 3: Human resource development and lifelong learning; primary orientation 3.3: Quality, competitiveness and responsive ability of tertiary education."

»Operacijo delno financirata Evropska unija iz Evropskega socialnega sklada ter Ministrstvo za izobraževanje, znanost in šport. Operacija se izvaja v okviru Operativnega programa razvoja človeških virov za obdobje 2007–2013, razvojne prioritete 3: Razvoj človeških virov in vseživljenskega učenja; prednostne usmeritve 3.3: Kakovost, konkurenčnost in odzivnost visokega šolstva.«



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA IZOBRAŽEVANJE,
ZNANOST IN ŠPORT



Naložba v viso prihodnost
Operativni program za razvoj človeških
virov za obdobje 2007–2013



Univerza v Ljubljani
Akademija za likovno umetnost
in oblikovanje

Gratis/Brezplačni izvod

www.oblikovanje-okoli-nas.si
Ljubljana 2015

© Authors/Avtorji and/in:

Tomás Maldonado, *How to fight Complacency in Design Education/Kako se spopasti s samozadostnostjo v izobraževanju na področju oblikovanja*

The original text was published in/Izvirno besedilo je bilo objavljeno v Ulm 17/18. Journal of the Ulm School for Design, June/junij 1966, 14–20.

© Copyright/Avtorske pravice 1966 Tomás Maldonado and/in Stiftung Hochschule für Gestaltung HfG Ulm

Reprinted by permission of Tomás Maldonado and Stiftung Hochschule für Gestaltung HfG Ulm./Ponatisnjeno z dovoljenjem Tomáša Maldonada in Stiftung Hochschule für Gestaltung HfG Ulm.

Norman Potter, *Design education: principles/Izobraževanje na področju oblikovanja: načela*

The original text was published in/Izvirno besedilo je bilo objavljeno v Norman Potter, *What is a designer: things, places, messages*, Hyphen Press, London, 2002 [fourth edition/četrta izdaja], 21–30. First published in 1969./Prva izdaja je izšla leta 1969.

© Copyright/Avtorske pravice 2002 Robin Kinross

Reprinted by permission of Robin Kinross./Ponatisnjeno z dovoljenjem Robina Kinrossa.

Alain Findeli, *Rethinking Design Education for the 21st Century: Theoretical, Methodological, and Ethical Discussion/Nov razmislek o izobraževanju na področju oblikovanja za 21. stoletje: teoretska, metodološka in etična razprava*

The original text was published in/Besedilo je bilo prvič objavljeno v reviji *Design Issues*, Volume/letnik 17, Number/številka 1, Winter/zima 2001, 5–17.

© Copyright/Avtorske pravice 2001 Massachusetts Institute of Technology

Reprinted by permission of MIT Press./Ponatisnjeno z dovoljenjem založbe MIT Press.

CIP - Kataložni zapis o publikaciji

Narodna in univerzitetna knjižnica, Ljubljana

378.6:73/77(497.4Ljubljana)

7.05(497.4Ljubljana)"1984/2014"

AKADEMIJA za likovno umetnost in oblikovanje [Ljubljana]

Design education : what do you see? What do you think about it? What do you make of it? : 30 years of design at ALUO = Izobraževanje na področju oblikovanja : kaj vidiš? Kaj misliš o tem? Kaj s tem narediš? : 30 let oblikovanja na ALUO / [texts Boštjan Botas Kenda ... et al.] ; edited by, uredili Petra Černe Oven, Barbara Predan ; [English translation Alkemist, [short introductions] Erica Johnson Debeljak ; photography Dominic Tschudin]. - Ljubljana : Akademija za likovno umetnost in oblikovanje, 2015

ISBN 978-961-93514-6-8

1. Gl. stv. nasl. 2. Vzp. stv. nasl. 3. Kenda, Boštjan Botas 4. Černe Oven, Petra
279811584

**IZOBRAŽEVANJE
NA PODROČJU
OBLIKOVANJA:
KAJ VIDIŠ?
KAJ MISLIŠ O TEM?
KAJ S TEM NAREDIŠ?**

**DESIGN
EDUCATION:
WHAT DO YOU SEE?
WHAT DO YOU
THINK ABOUT IT?
WHAT DO YOU
MAKE OF IT?**

**30 years of design at ALUO
30 let oblikovanja na ALUO**

**Edited by/Uredili
Petric Černe Oven, Barbara Predan**

CONTENTS

BOŠTJAN BOTAS KENDA

- 6** Preface

PETRA ČERNE OVEN, BARBARA PREDAN

- 8** "He will learn what he wants, nothing maybe"

WHAT DO YOU SEE?

- 24** Short introduction

TOMÁS MALDONADO

- 26** How to fight Complacency in Design Education

NORMAN POTTER

- 42** Design Education: Principles

ALAIN FINDELI

- 58** Rethinking Design Education for the 21st Century:
Theoretical, Methodological, and Ethical Discussion

WHAT DO YOU THINK ABOUT IT?

- 90** Short introduction

TEAL TRIGGS

- 92** Mapping Futures for Graphic Design Education

DAVID ERIKON

- 112** Learning from Hyper Island – The Future of Design Education

TONY FRY

- 138** Design Education in a Broken World

WHAT DO YOU MAKE OF IT?

- 160** –

Appendix

- 164** BIOGRAPHIES

- 178** INDEX OF NAMES



BOŠTJAN BOTAS KENDA

7 Predgovor

PETRA ČERNE OVEN, BARBARA PREDAN

9 »Naučil se bo, kar bo hotel, morda nič«

KAJ VIDIŠ?

25 Kratek uvod

TOMÁS MALDONADO

27 Kako se spopasti s samozadostnostjo v izobraževanju na področju oblikovanja

NORMAN POTTER

43 Izobraževanje na področju oblikovanja: načela

ALAIN FINDELI

**59 Nov razmislek o izobraževanju na področju oblikovanja za 21. stoletje:
teoretska, metodološka in etična razprava**

KAJ MISLIŠ O TEM?

91 Kratek uvod

TEAL TRIGGS

93 Mapiranje prihodnosti izobraževanja na področju grafičnega oblikovanja

DAVID ERIKON

113 Nauki iz Hyper Islanda – prihodnost izobraževanja na področju oblikovanja

TONY FRY

139 Izobraževanje na področju oblikovanja v zlomljenem svetu

KAJ S TEM NAREDIŠ?

161 –

Priloga

165 BIOGRAFIJE

178 IMENSKO KAZALO

The development of contemporary society is based on sound and gradual processes where responsibility is shared by both individuals and groups. It is a knowledge society that builds upon its key constitutive elements, such as property and work, through science and arts. These are increasingly important for the continued development of our society.

At the start of the celebrations dedicated to the thirtieth anniversary of education in the design professions, we at the Academy of Fine Arts and Design of the University of Ljubljana prepared an exhibition entitled *Design is All Around Us*. The exhibited projects showed how our profession and the Academy play an integral role in today's environment while defining education as the study of open creativity, teamwork and individual responsibility.

Today, education centred on design professions is closely intertwined with other related disciplines. At first glance, they seemingly do not fit into the same field, however they are all concerned with common aspirations linked to the development and versatility of a community of people and our mutual relations. The usefulness of knowledge cannot be judged based on whether it is able to adapt instantly; it is first and foremost used to measure the degree of our development.

The present book on design education, which marks the end of the anniversary year, proves that society's investment in knowledge cannot be reflected in any profitable bank transaction. Learning to plan processes by connecting different disciplines is not the lifeboat of weak economies; rather, it is the hallmark of powerful ones.

The question that crosses our lips on this occasion is: Are we living in and building a knowledge-based society? The answer lies in our ability to successfully invest in education and research in science and arts. The potential for applications that they offer removes all barriers on our path to the future.

ASSOCIATE PROFESSOR BOŠTJAN BOTAS KENDA, DEAN
April 2015

Razvoj sodobne družbe temelji na preudarnih in postopnih procesih, ki povezujejo odgovornost posameznikov in skupin. To je družba znanja, ki nadgradnjo ključnih konstitutivnih elementov, kot sta lastnina in delo, uresničuje skozi pomen znanosti in umetnosti, od katerih je vse bolj odvisen nadaljnji razvoj družbe, v kateri živimo.

Ob začetku praznovanja tridesetletnice izobraževanja v oblikovalskih strokah smo na Akademiji za likovno umetnost in oblikovanje Univerze v Ljubljani pripravili razstavo *Oblikovanje je povsed okoli nas*, kjer smo z realiziranimi izdelki predstavili umeščenost stroke in šole v okolje tega časa, izobraževanje pa označili kot študij odprte ustvarjalnosti, skupinskega dela in individualne odgovornosti.

Izobraževanje oblikovalskih strok se danes kaže v prepletu z drugimi sorodnimi disciplinami, s tistimi, ki se na videz ne pojavljajo v istem kontekstu, vendar se povezujejo s skupnimi hotenji po razvoju in vsestranskošči skupnosti ljudi in naših medsebojnih odnosov. Uporabnosti znanja ne moremo enačiti s hipnim prilagajanjem, ampak z njim merimo stopnjo razvoja.

Pričajoča knjiga o izobraževanju v oblikovanju, s katero zaključujemo leto jubileja, dokazuje, da je investicija okolja v znanje naložba, ki se ne more zrcaliti v nobeni donosni bančni transakciji. Učiti se načrtovanja procesov s prepletom strok ni rešilna bilka slabih, ampak temelj zmogljivih gospodarstev.

Vprašanje, ki si ga zastavljamo ob tej priložnosti, je: ali živimo in gradimo družbo znanja? To bo pokazala uspešnost vlaganja v izobraževanje in raziskovanje v znanostih in umetnostih, ki s svojimi aplikativnimi potenciali odstirajo pregrade v prihodnost.

IZR. PROF. BOŠTJAN BOTAS KENDA, DEKAN
april 2015

“He will learn what he wants, nothing maybe”

“The admission of knowledge remains denied to you.”

– Franz Kafka, Investigations of a Dog

The question is an old one. How do you teach in a way that students actually learn something? In a way that they actually acquire knowledge? And what does it mean to acquire knowledge? Probably the simplest way to test the level of acquired knowledge is to first verify understanding and then verify the ability to independently make use of that acquired knowledge. And yet, as discussed later in this essay, even words such as “use” and “useful” in conjunction with knowledge can be quite problematic.

Today there exist a number of tools that have been proven over time to facilitate the delivery and acquisition of knowledge. What has remained largely unchanged is the method with which knowledge is imparted. Consequently, this book will deal primarily with method. It will open a debate and express doubts about whether the current and to a great degree old or classical method of education in design [and other subjects] is the most suitable and best one. Once we have a hint of doubt, we create the need for the reflection that is required to move in the direction of potential change. And though using superlatives such as “the most suitable” or “the best” creates immediate relativization, the need to have the best and most critical attitude toward the *status quo* should not be abandoned. What’s more, the doubts, which always emerge during the educational process, slowly erode the seemingly immutable foundation of classical educational methods.

Certainly, doubts about [classical] design education are hardly a novelty. Since the turn of the millennium, there have been numerous calls for a new way of addressing design education, both in theory and practice. In 2001, Alain Findeli, in “Rethinking Design Education for the 21st Century: Theoretical, Methodological, and Ethical Discussion”¹, set three priorities for design education; namely ‘a discussion on the

¹ For more, see Alain Findeli: *Rethinking Design Education for the 21st Century: Theoretical, Methodological, and Ethical Discussion*, pp. 58–86. The English original was first published in the magazine *Design Issues*, volume 17, number 1, MIT Press Journals, Cambridge (MA), winter 2001, pp. 5–17.

PETRA ČERNE OVEN, BARBARA PREDAN

**»Naučil se bo,
kar bo hotel,
morda nič«**

**»Pripoznanje znanja, to ostaja
nedosegljivo.«**

– Franz Kafka, Raziskave nekega psa

Vprašanje je staro. Kako poučevati, da se učenec dejansko nekaj nauči? Ali bolje, da dejansko pridobi znanje? Toda kaj sploh pomeni pridobiti znanje? Verjetno je najpreprostejši preizkus stopnje pridobljenega znanja v preverjanju razumevanja, v preverjanju zmožnosti samostojne uporabe pridobljenega znanja. Kot bomo videli v nadaljevanju, je že izbira besed »uporaba«, »uporabno« v povezavi z znanjem lahko precej problematična.

Danes obstajajo številna orodja, ki so se skozi čas dokazala v kakovostnem podajanju in pridobivanju znanja. To, kar ostaja v večji meri nespremenjeno, pa je metoda. Posledično se ta knjiga ukvarja prav z njo. Odpira razpravo in vzpostavlja dvom, ali je trenutni (še vedno v večji meri) stari, klasični način izobraževanja na področju oblikovanja (in širše) resnično najprimernejši in najboljši. Že kanček dvoma od nas zahteva dodaten premislek in iskanje v smeri potencialnih sprememb. Čeprav je označevanje česarkoli s superlativom, kot je »najprimernejše« ali »najboljše«, instantno relativiziranje, pa sta zahteva po najboljšem in kritičen odnos do obstoječega nekaj, čemur se ne bi smeli odreči. Še več, dvom, ki se skozi razvoj izobraževanja nenehno poraja, pravzaprav vsakič znova načenja na videz nespremenljivi temelj klasičnega načina izobraževanja.

Seveda pa tudi dvomi o [klasičnem] izobraževanju na področju oblikovanja niso nič novega. Samo od preloma tisočletja smo v teoriji in praksi sledili številnim pozivom k vzpostavitvi novega razmišljanja v izobraževanju na področju oblikovanja. Alain Findejli je leta 2001 v besedilu »Nov razmislek o izobraževanju na področju oblikovanja za 21. stoletje: teoretska, metodološka in etična razprava«¹ zastavil tri prioritete, ki jih je treba upoštevati na področju oblikovanja; to so »razprava o namenu oblikovanja«, »reforma izobraževanja na področju oblikovanja«, in ker »odgovorno obliko-

¹ Glej pričujočo knjigo, besedilo Alaina Findejlia: »Nov razmislek o izobraževanju na področju oblikovanja za 21. stoletje: teoretska, metodološka in etična razprava«, str. 59–85. Angleški izvirnik je bil prvič objavljen v reviji *Design Issues*, letnik 17, številka 1, MIT Press Journals, Cambridge [MA], zima 2001, str. 5–17.



purpose of design”, “the reform of design education”, and, since “there can be no responsible design without a responsible designer, [...] education should be directed to the development of an individualistic ethics”². Accepting Findeli’s assumptions, this book places all three priorities at the centre, while recognising that we frequently find ourselves stuck – despite all the proposals and appeals for change – at the very first point.

We may at times ignore calls for change, but that does not mean that change and development does not occur in education. On the contrary, changes are constantly taking place in the field of education. However, we fear that, until there is a radical transformation to the very framework of traditional educational methods, meaningful and fundamental change cannot take place.

What, in fact, are we discussing here? With classical educational methods, knowledge is passed on from someone who, in principle, possesses it. The next step is that the recipient of knowledge is expected to use the acquired knowledge and pass it on to others. As Jacques Rancière notes in *The Ignorant Schoolmaster*³, the problem with this model is that the student does not really progress. The choice of what is to be learned, what needs to be acquired, is made by someone else, not the student. Moreover, the teacher not only tells the student what he should learn, but also how to understand it. The student may master the material, but only appears to be making progress. According to Rancière, knowledge in this model remains fragmented since the student is always under the control of someone who directs him and measures out the knowledge he still has to master. Consequently, in this educational model, students become excellent passive followers and uncritical recipients. But it soon becomes evident that one of the consequences of such an education model is that seemingly acquired knowledge is applied only along already well-trodden paths, and we will always search for someone who will show us the path and guide us along it.

In this context, doubts about the adequacy of changes in design education [and other fields] are not dispelled. There is still doubt as to whether the frame of the classical method of education has the potential to identify and solve complex systemic problems and to address the turbulent social changes that we have seen since the beginning of the twenty-first century. One of the alternatives to the classical method of education is provided in *The Ignorant Schoolmaster*, Rancière’s work mentioned above. His discussion is grounded in the theory and practice of Jean-Joseph

² *Ibid.*, p. 78.

³ Jacques Rancière, *The Ignorant Schoolmaster. Five Lessons in Intellectual Emanicipation*, Stanford University Press, Stanford 1991.

vanje ne more obstajati brez odgovornega oblikovalca, [...] mora biti izobraževanje usmerjeno k razvoju individualistične etike². Izhajajoč iz Findelijeve misli, pričujoča knjiga v središče ponovno postavlja vse tri prioritete. Ob zavedanju, da se z današnjega gledišča zdi, da se nam prepogosto še vedno zatika že pri prvi točki, in to kljub številnosti predlogov in pozivov k spremembam.

Čeprav številne predloge za spremembe preslišimo, pa to še ne pomeni, da do sprememb in razvoja na področju izobraževanja ne prihaja. Nasprotno. Številne spremembe se v polju izobraževanja nenehno dogajajo. To, o čemer dvomiva, je, da bo – dokler se bo večji del sprememb dogajal v okviru klasičnega načina izobraževanja – do prave spremembe kadarkoli zares prišlo.

Za kaj sploh gre? Pri klasičnem izobraževanju znanje drugemu podaja tisti, ki ga načeloma ima, prejemnik pa pridobljeno znanje in naslednjem koraku predvidoma uporablja in tudi podaja dalje. Po Jacquesu Rancière³ je problem takšnega poučevanja v tem, da kot učenec pravzaprav ne napreduješ. Izbor vedenja, ki naj bi ga potreboval in posodoval, namesto tebe opravi nekdo drug. Še več, učitelj učencu ne pove le, kaj se mora naučiti, temveč tudi, kako mora nekaj razumeti. Ko učenec predpisano osvoji, zgolj navidezno napreduje. Toda po Rancièreu znanje v tem primeru ostaja fragmentarno, saj vedno ostane v primežu nekoga, ki nas vodi in nam odmerja znanje, ki ga še moramo osvojiti. Posledično skozi izobraževanje postanemo odlični pasivni sledilci in nekritični odjemalci. Kot se kmalu izkaže, je posledica takšnega izobraževanja tudi ta, da z navidezno pridobljenim znanjem gravitiramo le k izhojenim potem, k iskanju nekoga, ki nam bo kazal pot, nas po njej vodil.

V tem smislu dvom o zadostnosti sprememb, ki jih je moč opaziti v polju izobraževanja na področju oblikovanja [in širše], še vedno ostaja. Še vedno namreč ostaja dvom, da bo v okviru klasičnega načina izobraževanja moč začeti prepoznavati in reševati kompleksne sistemske probleme in vedno hitrejše spremembe, ki jih primaša 21. stoletje. Eno od alternativ klasičnemu izobraževanju v delu *Nevedni učitelj* opiše že prej omenjeni Rancière. Svojo razpravo utemelji na teoriji in praksi Jean-Josepha Jacotota, francoskega učitelja in filozofa izobraževalnih teorij. Jacotot, avtor metode intelektualne emancipacije, nam je namreč že na začetku 18. stoletja ponudil drzno orodje. Verjel in dokazal je, da lahko učimo tudi tisto, česar ne vemo, ne poznamo. In to je za izobraževanje na področju oblikovanja bistveno. Tako kot nismo vedeli v preteklosti, tudi danes ne vemo (lahko le predvidevamo), s kakšnimi izzivi se bomo kot družba soočali čez dvajset, trideset let. Ne glede na pomanjkanje

² Ibid., str. 77.

³ Jacques Rancière, *Nevedni učitelj: pet lekcij o intelektualni emancipaciji*, Zavod En-knap, Ljubljana 2005.



Jacotot, a French pedagogue and philosopher of education. At the beginning of the eighteenth century, Jacotot, the thinker behind the intellectual emancipation method, proposed a bold idea. He believed and went on to prove that we can teach things that we do not know, subjects with which we are not entirely familiar. This is of significant importance in design education. We have never known in the past and we do not know today what challenges we, as a society, will face in twenty or thirty years. We can only make assumptions and forecasts. Despite this lack of knowledge, we try again and again to prepare future generations [and ourselves of course] for what is to come. We try to "equip" students with knowledge, attitudes, and tools that might come in handy in this unknown future. According to Jacotot and Rancière, we must not fall into the hidden trap this presents, namely that a classic "transfer of knowledge" is made from one who knows (or pretends to know) to one who is expected to acquire the knowledge and use it when the time is right.

On the contrary, what we would like to emphasise is that the educational process must transcend the mere transfer of knowledge selected for students by someone else. The focus must lie elsewhere. We must find a way to enable students to learn how to learn and to acquire knowledge independently. Rancière writes:

Whoever teaches without emancipating stultifies. And whoever emancipates doesn't have to worry about what the emancipated person learns. He will learn what he wants, nothing maybe. He will know he can learn because the same intelligence is at work in all the productions of the human mind, and a man can always understand another man's words.⁴

According to Rancière, therefore, it is of the utmost importance to create space for the emancipation method.⁵ With this method, how we learn forms the foundation for everything else. "The student must see everything for himself, compare and compare, and always respond to a three-part question: What do you see? What do you think about it? What do you make of it? And so on, to infinity."⁶

It has to do with the difference between "creating" passive or active students. Passive students who are educated with the classical method are presented with claims, while active and independent students using the intellectual emancipa-

⁴ *Ibid.*, p. 18.

⁵ The term old [classical] method was introduced by Rancière, while he calls the method of the ignorant schoolmaster "universal teaching". For easier distinction between the two, we introduced the term *emancipation method* based on the ideas articulated in Rancière's works. *Ibid.*

⁶ *Ibid.*, p. 23.

védenja bodoče akterje vsakič znova skušamo pripraviti na to, kaj nas/jih čaka. Skušamo jih »opremiti« z znanjem, védenjem, orodji, ki bi jim lahko prišla prav. Sledе Jacototu in Rancièreu, pa se prav v tem skriva past, v katero se ne smemo pustiti ujeti. Namreč, opisano se prav hitro ponovno bere kot klasično »prenašanje znanja« od tistega, ki ve ali predvideva, k tistem, za katerega bi bilo dobro, da ve, in ko bo čas, uporablja.

Nasprotno, to, kar želiva poudariti, je, da je pedagoški proces treba osvoboditi prenašanja znanja, ki ga za učenca izbere nekdo drug. Fokus je pravzaprav drugje. Najti je treba način, kako študentu omogočiti, da se samostojno nauči učiti, samostojno nauči pridobivati znanje. Rancière zapiše:

Kdor poučuje, ne da bi emancipiral, poneumila. In kdor emancipira, mu ni treba skrbeti, kaj se mora emancipirani naučiti. Naučil se bo, kar bo hotel, morda nič. Vedel bo, da se lahko nauči, ker je v vseh proizvodih človekove umetnosti na delu ista inteligensa, da lahko človek vedno razume drugega človeka.⁴

Po Rancièreu je torej temelj v tem, da ustvarimo prostor za metodo emancipacije.⁵ Po tej metodi na tisto, kar se naučimo, navezujemo vse drugo. »Učenec mora vse videti sam, nenehno primerjati in vedno odgovarjati na tri vprašanja. Kaj vidiš? Kaj misliš o tem? Kaj s tem narediš? In tako v neskončnost.«⁶

Gre torej za odločitev med »ustvarjanjem« pasivnega ali aktivnega učenca. Pred pasivne sledilce po klasični metodi polagamo trditve, medtem ko pred aktivne in samostojne po emancipatorni metodi postavljamo vprašanja. Ali še bolje, prednje postavljamo izziv. In posameznikova odločitev je, ali se bo do znanja dokopal ali ne. Ne glede na to, ali se bo do znanja dokopal ali ne, pa mu bo dano, da osvoji metodo, ki mu bo omogočila, da se bo do védenja dokopal takrat, ko bo to sam hotel, ko si bo za to vzel čas. Rancière v besedilu »Čas, pripoved, politika« razloži:

Obstajajo ljudje, katerih sedanost je del časa dogodkov, »ki bi se lahko zgodili«, časa dejanj in njihovih smislov, časa spoznanja in zanj potrebnega prostora časa. Na kratko, to je čas ljudi, ki imajo čas in ki jim zaradi tega pravimo aktivni ljudje. Obstajajo pa tudi ljudje, ki živijo v sedanosti stvari, ki se preprosto zgodijo, druga za drugo, kar je čas ponavljajoče

⁴ Ibid., str. 29.

⁵ Izraz stara [klasična] metoda uvede že Rancière, medtem ko metodo nevednega učitelja pojmenuje z izrazom »univerzalno poučevanje«. Za lažje razlikovanje ene metode od druge uvajava izraz »metoda emancipacije«, ki temelji na Rancièreovi ideji in razlagi v že večkrat omenjeni knjigi. Ibid.

⁶ Ibid., str. 34.



tion method are presented with questions – or, better yet, with challenges. Thus individual students are able to decide whether they will acquire knowledge or not. Regardless of whether they acquire knowledge or not, they are given the opportunity to acquire the method that will enable them to acquire knowledge when they choose to, in their own time. In “Time, Narrative, Politics”, Rancière explains:

There are those whose present is a part of the events in time “that might occur”, deeds in time and their meaning, knowledge in time and the necessary space of time. In short, this is the time of those who have the time and who are therefore referred to as active people. There are also those who live in the present, when events simply occur, one after another, which is the time of inane quotidian humdrum. In short, this is the time of those who do not have the time and are referred to as passive – not because they do not have anything to do, but because they perceive time passively.⁷

This is the key difference between the two methods. Unlike passive students, active students may initially not have all the answers, but in the long run, the emancipation method will allow them to apply the learning method at any time with any subject, since they will be able to independently search for new ways of learning and discover the answers to potential questions. When they encounter a shortfall in their knowledge, they will not need to immediately resort to another person (someone who presumably knows), but will be able to summon arguments and, most essentially, generate independent critical reflection. In other words, they will be able to acquire knowledge on their own and will be willing to invest their time to do so.

And yet the intellectual emancipation method is not without its weak points. At a time when efficiency is revered and meticulously measured, the argument “he will learn what he wants, nothing maybe” is an alternative that many find hard to accept. The feedback mechanism of how we evaluate the level of acquired knowledge brings us back to our initial question: how do we know [and prove] that knowledge has been acquired at all? And how do we know that the student has acquired the emancipation method? These questions lead to others in the specific field of design: what is the purpose of studying and teaching design in the first place? What kind of designers do we need today?

Before providing answers to these questions [which in any case have already been hinted at], we would like to emphasise once more how this whole train of thought diverges from current practice. Today, what is called “the independent use of knowl-

⁷ Jacques Rancière, »Time, Narrative, Politics«, *Filozofski vestnik*, volume XXXV, number 1, Institute of Philosophy at SRC SASA, Ljubljana 2014, p. 169.

se bedaste vsakdanjosti. Skratka, to je čas ljudi, ki nimajo časa in ki jih označujemo za pasivne – ne zato, ker ne bi imeli kaj početi, ampak zato, ker pasivno sprejemajo čas.⁷

In v tem je ključ razlikovanja med eno in drugo metodo. Za razliko od pasivnih sledilcev aktivni sprva morda res ne bodo imeli vseh odgovorov, dolgoročno pa jim bo osvojena metoda omogočala, da način učenja aplicirajo na karkoli, saj bodo samostojni v iskanju načinov učenja in tvorjenju odgovorov na morebitna vprašanja. Tako se ne bodo že ob prvem pomanjkanju znanja zatekli k drugemu [tistemu, ki navidezno ve], ampak bodo v svoje delo vložili argumentiran in – kar je bistveno – samostojen kritični razmislek. Povedano drugače, do vedenja se bodo sposobni prikopati sami. Vložili bodo čas, da se dokopljejo do znanja.

Ob povedanem pa ne gre brez zatikanja. Trditev »Naučil se bo, kar bo hotel, morda nič« je v obdobju, ko prav na vse skušamo namestiti merilo, težko sprejemljiva alternativa. Zanka ocenjevanja stopnje pridobljenega znanja nas vrne k začetnemu vprašanju: kako vemo [dokažemo], da je bilo kakršnokoli vedenje sploh pridobljeno? Kako vemo, da je študent osvojil metodo emancipacije? Slednje v danem kontekstu načne dodatni vprašanji: s kakšnim namenom sploh študiramo in predavamo oblikovanje? Kakšnega oblikovalca in oblikovalko danes sploh potrebujemo?

Preden odgovorimo na vprašanja, katerih odgovore sva delno že podali, pa je treba izpostaviti tudi odmik od trenutne prakse. Danes se tako imenovana »samostojna uporaba« znanja [pre]pogosto meri le v stopnji aplikativnosti. Še več, prišli smo do stopnje, ko ima znanje smiselno vlogo le takrat, ko nam pride prav v praksi. Ko je uporabno. Uporabno v praksi zaposlovanja ali pri drugem vsakodnevnom delu, katerega namen je zaslužek. Od tu tudi nenehno dokazovanje in iskanje odgovorov na vprašanje: ali podano in po možnosti pridobljeno znanje čemu služi? Torej, ali ima dejansko aplikativno in posledično izmerljivo vrednost? S tem pa znanje postane le še tržno blago in je kot tako podvrženo zakonitostim prostega trga. Slednje poraja vprašanje: ali sploh še govorimo o znanju ali pravzaprav govorimo o veščinah? Kajti danes se v večji meri iščejo le tisti diplomanti, ki obvladajo določene veščine, ki se trgu v danem trenutku »splaćajo«. Išče se torej diplomant, ki bo z diplomo stopil naravnost na tekoči trak marljivih delavcev. S prevzemom nove funkcije po možnosti ne bo potreboval nobenega dodatnega izobraževanja, temveč se bo v najkrajšem možnem času preprosto prilagodil dani situaciji. Brez dvomov, brez kritičnega razmišljanja. Cilj je služiti, slediti po uhojeni poti pod tujim vodstvom in v prakso s čim manj trenja prevajati pridobljene veščine. Alex Andreou zapisiše:

⁷ Jacques Rancière, »Čas, pripoved, politika«, *Filozofski vestnik*, letnik XXXV, številka 1, Filozofski inštitut ZRC SAZU, Ljubljana 2014, str. 169.



edge" is all too frequently measured by its level of application. We have reached a point where knowledge is considered meaningful only when it is used, when it is useful in practice, and specifically when it is useful in employment intended to generate profit. The question is constantly asked: is the knowledge that has been conveyed and acquired useful? Does it have applied and measurable value? Thus, knowledge becomes a mere commodity and, as such, is subject to the laws of the free market. This raises yet another question: are we still talking about knowledge or are we actually talking about skills? Today, only students who master the skills that are deemed "worthy" by the market are sought out for employment. Employers are only looking for students who have earned a degree that allows them to step straight onto the conveyor belt of diligent employees. Such graduates can enter a job without any additional training and will adapt to the new situation quickly and easily, of course with no doubts or critical thinking. The aim of education is only service, for students to follow a well-trodden path under someone else's leadership, and to apply acquired skills with as little friction as possible. Alex Andreou writes:

To disincentivise the more general, but vital, benefits of education as a humanising process that fosters critical thought, tolerance and equality, is deeply regressive. It is the expression of a state that wants people who can work, not people who can think.⁸

What does this mean for design education? If we connect this to the previously described classical method of teaching and the need for measuring market impact, we conclude that, in contemporary design, capital and the system of production performs the selection, assuming the role of teacher, of the one who explains. These two forces evaluate fragments of knowledge, while the entire system, due to its apparent complexity, remains divided among various specialists, each of whom master only his own turf.

In design, we like to talk about so-called design thinking, a kind of thinking that is completely different from what takes place in other professions. But is that really the case? Where exactly do we see this different kind of thinking? In the creative integration of what is accepted, in thinking out of the box? If we are realistic, we must recognize that this so-called "different thinking" is also a feature of other professions. In general, it is usually connected to an individual whose thoughts are bold, critical, unconventional, and creative regardless of the profession in which the individual operates. In contrast, designers, despite the possibility in their profession of engaging in

⁸ Alex Andreou, »Education should be about progress, not prostituted as a means to earn more«, *The Guardian*, 29 July 2014, www.theguardian.com/commentisfree/2014/jul/29/education-progress-universities-graduate-student-loans [May 2015].

Odvračanje od splošnejših, a vitalnih dobrobiti izobraževanja kot procesa humaniziranja, ki spodbuja kritično misel, strpnost in enakost, je izjemno nazadnjaško. Je izraz države, ki si želi ljudi, ki znajo delati, in ne ljudi, ki znajo misliti.⁸

Kaj to pomeni za izobraževanje na področju oblikovanja? Če povežemo s prej opisano klasično metodo poučevanja in potrebo po merjenju tržnega učinka, ugotovimo, da sta v oblikovanju produkcijski sistem in kapital danes tista, ki za nas v večji meri opravlja selekcijo in prevzemata vlogo učitelja, vlogo tistega, ki razlagajo. Odmerljata nam fragmente znanja, celota pa zaradi navidezne kompleksnosti ostaja razdrobljena med številne specialiste, od katerih vsak skrbi le za lastno gredo.

V stroki oblikovanja sicer radi govorimo o tako imenovanem oblikovalskem mišljenju, mišljenju, ki naj bi bilo povsem drugačno od tistega, ki ga prakticirajo druge stoke. Pa je res tako? V čem točno se kaže ta drugačnost v mišljenju? V kreativnem povezovanju danega; v pogledu onkraj okvirov? Če smo realni, je to t. i. »drugačno mišljenje« lastno tudi številnim drugim stromam. Še več, pogosto je vezano na posameznika, ki je v svojem mišljenju drzen, kritičen, nekonvencionalen in ustvarjalnen ne glede na stroko, v kateri deluje. Medtem ko so oblikovalci (kljub možnosti prakticiranja kritičnega mišljenja) prav zaradi prej navedene vpetosti v tržni sistem prepogosto podlegli želji po neskončni lahkosti bivanja. Ta nam je bila [v bližnji preteklosti] omogočena s strani ekonomske rasti, ki je potrebovala zgolj našo servisno dejavnost, in številni so stanje nekritično ne le sprejemali, temveč tudi soustvarjali.

Slednje se je »prikradlo« tudi v izobraževanje na področju oblikovanja, ki se je vse prevečkrat ujelo v rutino. Poudarek je veljal podajanju znanja v obliki uveljavljenih varnih principov, s katerimi je mogoče razmeroma uspešno lansirati izdelek ali storitev. Po poti se je zanemarilo kar nekaj pristopov, ki so osnova iskanega drugačnega mišljenja: učenje prek napak, izkoriščanje iteracij, ekstenzivno eksperimentiranje in testiranje ... Prav uporaba napak, ki je bila včasih ne samo dovoljena, ampak so jo spodbujali in negovali, je ena od stvari, ki danes v praksi in teoriji (pre)pogosto umanjka. Zdi se, da se je še posebej bojijo izobraževalne ustanove in s tem tudi institucionalno poučevanje oblikovanja. In to kljub temu, da prav učenje na napakah izpostavlja številni znanstveniki, oblikovalci, pisatelji, umetniki in celo vodilni v podjetjih.⁹

⁸ Alex Andreou, »Education should be about progress, not prostituted as a means to earn more«, *The Guardian*, 29. 7. 2014, www.theguardian.com/commentisfree/2014/jul/29/education-progress-universities-graduate-student-loans [maj 2015].

⁹ V mislih imava Tima Browna [IDEO], Alberta Einsteina, Henryja Forda, Buckminstra Fullerja, Neila Gaimana, Steva Jobsa [Apple], Normana Potterja.



critical thinking, all too often succumb to the desire for the infinite lightness of being because of their non-reflected integration into the market system. This tendency is a consequence of the economic growth in the recent past that generated a demand for design services. Not only did many designers accept this condition without a moment's hesitation, but they also contributed to its emergence and perpetuation.

As a result, these trends inevitably “crept” into design education, which often finds itself caught up in the routine of delivering knowledge in accordance with the safe and established principles that allow for the successful launch of a product or service. In this process, most of the methods that form the basis of the “different thinking” we are advocating have been neglected: namely, learning from trial and error, extensive experimentation and testing, creating several iterations of a design concept. The method of trial and error, which was once not only permitted but encouraged and cultivated, is now often entirely absent from practice and theory. It seems that educational institutions, including the institutional educations that teach design, are afraid of it, despite the fact that learning from trial and error is advocated by many scholars, designers, writers, artists, and even business managers.⁹

Perhaps it is time for design and design educators to stop simply saying that “we are the profession that thinks differently” and divert more energy into actually thinking. Israeli conductor Itay Talgam believes that the key to progress is to emerge from the grip of specialisation¹⁰ and begin to actively listen to each other. Only this will allow us to identify our common challenge and encourage further development on the basis of that challenge. Progress will also not occur in the vicious circle of a profession focused only on itself, a profession constantly questioning the definition of design, and complaining about what others think of it. Design happens always and everywhere: with or without the designer. And this raises another question: what do we, designers, want to be part of? Just asking the question turns our understanding of ourselves completely on its head. It takes us back to Garland, Fuller, and Papanek and their question: to what should we, as a profession, actively dedicate our time? The question does not ask to what we *can* dedicate our time, our reflection, and our work, but to what we *will* dedicate our time, our reflection, and our work. Because we are professionals who are knowledgeable about design [and given the fact that design occurs everywhere], we already have the ability – the potential is already within us. It is therefore not a question of ability [what I can do] but rather a conscious decision [what I am going to do].

⁹ We are thinking of individuals like Tim Brown [IDEO], Albert Einstein, Henry Ford, Buckminster Fuller, Neil Gaiman, Steve Jobs [Apple], Norman Potter.

¹⁰ To avoid any doubt, Talgam does not refer to design but academic disciplines in general.

Mogoče je torej tudi za oblikovanje in za izobraževanje v oblikovanju prišel čas, da se znebimo razmišljanja tipa »mi smo stroka, ki razmišlja drugače« in fokus raje preusmerimo k mišljenju kot takemu. Izraelski dirigent Itay Talgam ključ za napredovanje prepoznavata v tem, da se končno izvijemo iz prijema svoje specializacije¹⁰ in začnemo aktivno poslušati drug drugega. Šele to nam bo omogočilo prepoznanje skupnega izziva in nadaljnjo gradnjo na podlagi tega skupnega izziva. Napredka tudi ne bo v začaranem krogu prepogostega ukvarjanja stroke same s seboj, ki se kaže v nenehnem preizpraševanju definicije oblikovanja in tarnjanju nad tem, kaj drugi misijo o nas. Oblikovanje se dogaja stalno in povsod: z oblikovalcem in brez njega. Zato se postavlja drugo vprašanje: kje oblikovalci sploh hočemo biti poleg? Dano vprašanje povsem obrne na glavo naše razumevanje nas samih. Vrne nas h Garlandu, Fullerju, Papaneku in njihovim vprašanjem, čemu bomo kot stroka aktivno namenjali čas. Čas spoznanja in čas dejanj – ob tem, da se zavedamo, da ne gre za vprašanje, čemu *bi lahko* namenjali svoj čas, mišljenje, delo, temveč čemu *bomo* namenjali svoj čas, mišljenje in delo. Kot tisti, ki imamo znanje oblikovanja [in glede na to, da se oblikovanje dogaja stalno in povsod], v sebi že nosimo zmožnost, nosimo potencial. Gre torej za zavestno odločitev [kaj bom], ne pa za vprašanje zmožnosti [kaj bi lahko].

Ezio Manzini je na prvi konferenci *Design for Europe*¹¹ podvomil o oblikovanju kot pospeševalcu gospodarske rasti in namesto tega predlagal oblikovanje kot pospeševalca rasti blaginje za vse. Ali, če obrnemo pobudo v vprašanje: v kakšnem svetu hočemo živeti? In kaj bomo za to, da bi to dosegli, naredili? Tony Fry v knjigi *Becoming Human by Design* zapiše: »*od nekdaj smo bili delno preobljkovani s strani sveta, ki ga oblikujemo [...] to, česar do sedaj še nismo storili, je, da bi takšno delovanje spremenili v zavestno dejanje, dejanje neposredne in namerne transformacije samega sebe.*«¹² S tako ključno spremembo namena oblikovanja vse tri Findelijeve prioritete zasiyejo v povsem novi in predvsem nadvse kritični luči. Kaj torej vidimo? Kaj o tem mislimo? Kaj bomo s tem naredili?

10 Da ne bo pomote, Talgam ne govorji o stroki oblikovanja, ampak o strokah nasploh.

11 Konferenca *Design for Europe: European Growth by Design*, Bruselj, 7. 5. 2015. Italijanski oblikovalec in teoretičar Ezio Manzini, vodja oddelka Oblikovanje za družbene inovacije na Umetnostni univerzi (University of Arts) v Londonu, je bil eden od govornikov na konferenci.

12 Tony Fry, *Becoming Human by Design*, Berg, London in New York 2012, str. 213. Poudarki so avtorjevi.

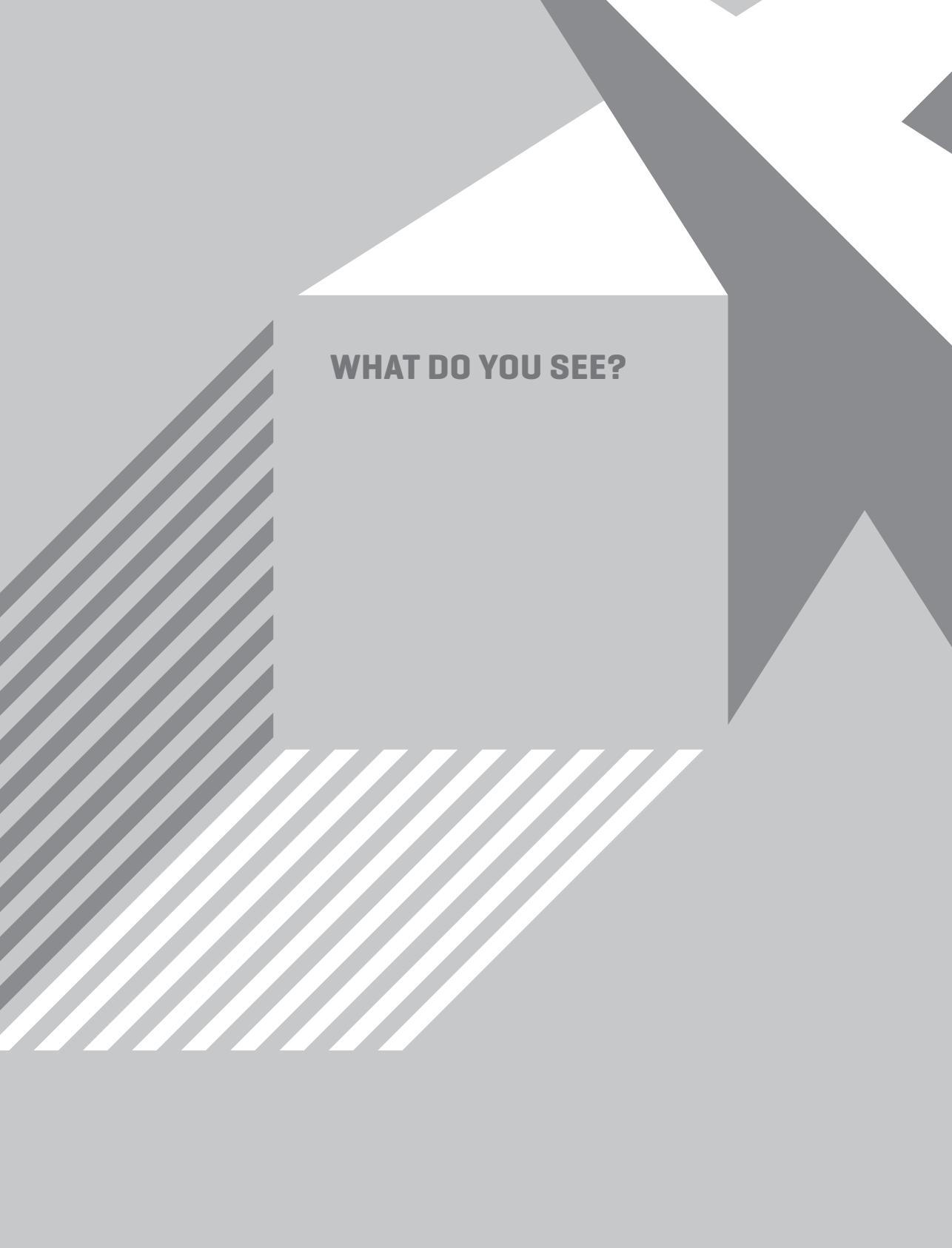


At the first *Design for Europe*¹¹ summit, Ezio Manzini questioned the notion of design as an accelerator of economic growth and proposed instead that design be referred to as an accelerator for the growth of prosperity for all. We also might turn Manzini's proposition into a question: in what kind of world do we want to live? And what are we going to do to achieve this world? In his book *Becoming Human by Design*, Tony Fry writes: "we have always been partly formed by the way we form our world [...], what we have never done is to make such action a conscious, directed and deliberate transformation of the self."¹² Such a fundamental change in the purpose of design sheds a new and profoundly critical light on Findeli's priorities. Therefore: What do we see? What do we think about it? What do we make of it?

¹¹ The Conference of *Design for Europe: European Growth by Design*, Brussels, 7 May 2015. The Italian designer and theoretician Ezio Manzini, Chair of Design for Social Innovation, University of the Arts London, was one of the speakers at the conference.

¹² Tony Fry, *Becoming Human by Design*, Berg, London in New York 2012, p. 213. Emphases by the author.



The background features a minimalist abstract design. It consists of several large, light gray triangles pointing downwards, set against a white rectangular area in the upper right. In the lower left, there is a cluster of parallel diagonal stripes in varying shades of gray.

WHAT DO YOU SEE?



KAJ VIDIŠ?

None of our actions or our knowledge exists in a vacuum. We are born in a specific environment that defines us from the start. We absorb information from the experiences that we acquire in our local environment and then in the wider society. These experiences merge with discoveries and events and the storehouse of existing knowledge and experience of all those who built our culture before us. The more we know of all of this, the richer the foundation on which we can construct our ongoing experience – for ourselves and for all those who will come after us.

British poet, critic, and playwright Sean O'Brien wrote the following about our connection to the past in his article "Read Poetry: It's Quite Hard" published in *The Guardian*:

The word "relevance" looms – that contemporary fetish, so often brandished to mitigate ignorance and justify a failure of curiosity. [...] Such young people [who don't know history] have, in effect, no history, and this being so, their own significance is diminished. The problem is not whether Shakespeare or the Bible or TS Eliot is "relevant" to them, but whether they can see themselves as part of a continuum, a community extending across history.

Three selected texts¹ in this book prove that it is worth getting to know and studying the roots of reflection about design education. At the start, three giants of design theory give us their perspective on the topics that remain relevant today, ask us questions about themes they have already written about, offer us new insights, and help us to overcome illusory obstacles, building context and a different interpretation of the present in which we live. And there's more: we suddenly understand that our role [though it may be a small one] can be only as part of the continuum. In order to meet this challenge, we must attain a higher level of responsibility.

Are you curious yet?

¹ In order to maintain the authenticity of this first publication, we did not unify the constituent texts on the level of language. We only corrected occasional typographical errors when necessary.

Nobeno naše dejanje in vedenje ne obstaja v vakuumu. Rojeni smo v določeno okolje, ki nas že v izhodišču določa. Informacije črpamo iz izkušenj, ki jih sprva pridobivamo v domačem okolju, nato širše v družbi. Izkušnje se prepletajo z dognanji, dogodki, nabiranjem obstoječih znanj in izkustev vseh tistih, ki so pred nami gradili našo kulturo. Več ko o vsem naštetem vemo, bogatejši je naš temelj, na katerem lahko gradimo nadaljnjo izkušnjo – zase in za tiste, ki bodo prišli za nami.

Britanski pesnik, kritik in dramatik Sean O'Brien je v članku »Read poetry: it's quite hard«, objavljenem v časopisu *The Guardian*, o vpetosti v preteklost zapisal:

Pojavlja se beseda »relevantnost« – ta sodobni fetiš, ki ga tako pogosto vihtimo, da bi ublažili nevednost in upravičili odpoved radovednosti. [...] Ti mladi ljudje [ki ne poznajo zgodovine] torej nimajo zgodovine in tako je manjši tudi njihov lastni pomen. Problem ni v tem, ali so zanje »relevantni« Shakespeare ali biblija ali T. S. Eliot, temveč v tem, ali se lahko vidijo kot del kontinuma, skupnosti, ki se širi prek zgodovine.

Tri izbrana besedila¹ v nadaljevanju knjige dokazujejo, da je vredno poznati in študirati korenine razmišljajn o izobraževanju na področju oblikovanja. Kot prvo: pogledi treh velikanov teorije oblikovanja na teme, ki so še danes aktualne, nam predstavljajo vprašanja, o katerih so se preizpraševali že oni, ponujajo nam drugačen pogled ter nam pomagajo preskočiti navidezne ovire, saj gradijo kontekst in drugačno perspektivo ob pogledu na sedanjost. Kot drugo: omogočajo nam razumevanje, da je naša vloga [pa čeprav morebiti majhna] v nekem kontinuumu. Prav to pa od nas zahteva višjo raven odgovornosti.

Ste že radovedni?

1 Da bi zadržali avtentičnost prve objave, besedil jezikovno nismo enotili. Kjer je bilo treba, smo popravili le morebitne zatipkane besede.

How to fight Complacency in Design Education¹

While design was celebrated as an art at the service of industry, as an activity destined to embellish manufactured products, design education was – as B. R. Haydon defined it in 1837 – training for the “lowest branches of art”. This typical Victorian concept of design is for various reasons no longer relevant. However, this was not only a concept but also, and principally, a pedagogic system: that is, a particular academic structure in which that concept was

reflected. We owe the existing crisis in design education to the fact that the Victorian pedagogic system has outlived the Victorian concept. The doctrine has passed, but not the structures. Nothing up to the present has been able to shake them. In essence, they remain intact.

The two important experiments of the twenties, the Bauhaus in Germany and the Wchutemas in Russia, did not manage to free themselves from the institutional relics of the 19th century. The revolutionary contribution of the Bauhaus must be looked for in the idea of design education – especially as it was conceived by Gropius and Hannes Meyer – and in the didactics of the fundamental course – especially as it was developed by Albers and Moholy-Nagy. It should not be looked for in the academic structures. In this regard, the Bauhaus was a relatively conservative school and the same can be said of the Wchutemas. The first men of this school – Altman, Tatlin and Malevich – demanded a radical change in the existing academic structures: what they called “a cleaning of the Augean stables”; these changes, however, only ended in an anarchy of the old structures. As might be expected, the reaction was not long in making itself felt, and everything was soon back in the groove, that is to say, back in the smug safety of the “Augean stables”.

It would no doubt be easy for our own perspective to reproach both the Bauhaus and the Wchutemas for their conservatism, but it would also be unfair. They obviously could not have been aware forty years ago of what we are only now beginning to realize: the impossibility of opening a new way for design education without a revision of its academic structures. In other words, without facing once and for all a “cleaning of the Augean stables”.

¹ On 5 January 1966, Tomás Maldonado gave the following lecture at the School of Architecture of the Princeton University.

TOMÁS MALDONADO

Kako se spopasti s samozadostnostjo v izobraževanju na področju oblikovanja¹

Medtem ko je bilo oblikovanje slavljenoto umetnost v službi industrije, kot dejavnost, ki ji je namenjeno okraševati proizvedene izdelke, je izobraževanje na področju oblikovanja – kot ga je opredelil Benjamin Robert Haydon leta 1837 – pomnilo šolanje za »najnižje veje umetnosti«. Ta tipični viktorijanski koncept oblikovanja ni več relevanten iz različnih razlogov. Toda to ni bil zgolj koncept, ampak tudi in predvsem pedagoški sistem:

torej, specifična akademska struktura, znotraj katere se je odražal tudi ta koncept. Za obstoječo krizo v izobraževanju na področju oblikovanja se lahko zahvalimo dejству, da je viktorijanski pedagoški sistem preživel viktorijanski koncept. Doktrina je minila, ne pa tudi strukture. Nič jih ni moglo pretresti. V bistvu ostajajo nedotaknjene.

Dvema pomembnima eksperimentoma iz dvajsetih let, Bauhausu v Nemčiji in Vkhutemasu v Rusiji, se ni uspelo osvoboditi institucionalnih reliktov 19. stoletja. Revolucionarni prispevek Bauhausa moramo iskati v ideji izobraževanja na področju oblikovanja – še posebej takega, kot sta ga zasnovala Walter Gropius in Hannes Meyer – in v didaktiki osnovnega seminarja – še posebej takega, kot sta ga razvila Josef Albers in László Moholy-Nagy. Ne smemo ga iskati v akademskih strukturah. V tem smislu je bil Bauhaus razmeroma konservativna šola in enako lahko rečemo za Vkhutemas. Prvi možje te šole – Altman, Tatlin in Malevič – so zahtevali radikalno spremembo obstoječih akademskih struktur; temu so rekli »čiščenje avgijevih hlevov«; a te spremembe so se iztekle le v anarhijo starih struktur. Kot je bilo mogoče pričakovati, se reakcija ni pustila odpraviti; in vse je bilo prav kmalu spet v stari rutini, skratka, v samovšečni varnosti »avgijevih hlevov«.

Za našo perspektivo bi bilo nedvomno preprosto tako Bauhausu kot Vkhutemasu očitati njuno konservativnost, bi pa bilo to hkrati tudi nepoštano. Pred štiridesetimi leti se očitno niso mogli zavedati tega, kar šele sedaj začenjam spoznavati: nezmožnosti odpiranja nove poti za izobraževanje na področju oblikovanja, če ne revidiramo tudi njegovih akademskih struktur, z drugimi besedami, če se ne soočimo enkrat za vselej s »čiščenjem avgijevih hlevov«.

1 5. januarja 1966 je Tomás Maldonado s pričujočo razpravo predaval na Fakulteti za arhitekturo Univerze Princeton.

Nevertheless, one must be forewarned of the opposite danger. If it is true that, on the one hand, an excellent philosophy of design education is doomed to fail without a corresponding structural change, it is equally evident on the other that no structural change is feasible without an excellent philosophy. The present static condition of design schools, both in America and in Europe, can be explained by an institutional conformism. But also, and in no lesser degree, by the fact that the new philosophy of design education which has made its appearance in the last years – the idea of a school of environmental design – is still a weak one.

It is a philosophy that is still in its early stage, because the idea of environmental design, which serves it as the foundation, is also in its early stage. Many still believe that environmental design is only a new name – a more sophisticated one – for comprehensive and total design: that is, a new name for the old idea of design as a set of formal patterns to be applied to the most varied objects, “from the coffee spoon to the city”, as was once said.

There are, of course, more up-to-date ways of understanding environmental design. Particularly in the United States, there have been very valuable theoretical contributions to the new idea of environmental design. But I must confess that, in my opinion, in spite and sometimes because of these contributions, this idea – the new idea of environmental design – has not become any clearer.

Therefore, the most urgent task, the task that takes precedence over any other in this field, is the task of trying to clarify the idea of environmental design and to free it from its present ambiguities and contradictions. Only in this way shall we be able to formulate a consistent philosophy of design education, and only then shall we also be in a condition to know exactly what reform of structures we must demand. With this aim, I shall now try to give some considerations, necessarily sketchy, about the idea of environmental design.

During these last years, one of the illusions most obstinately cherished by the Design Establishment has entered into a crisis: there now arises doubt as to whether the sum of good design objects must necessarily result in a good design environment. In fact, up to the present, it had always been assumed that the possibility of checking the present process of deterioration in human environment depended exclusively on what we could make of each separate object. This, however, would seem to be false. Ecologists have given a much subtler and better differentiated version of the structure of human environment. Our habitat is an open system, whose components are not merely “man-made things” or simply “things”. The idea, formulated by R. E. Park and other Harvard urban sociologists, that the fundamental structuring factor





Vendar pa moramo biti pozorni na nasprotno nevarnost. Če je res, da je izvrstna filozofija izobraževanja na področju oblikovanja brez ustreznih strukturnih sprememb obsojena na propad, je prav tako res, da nobena struktorna sprememba ni izvedljiva brez izvrstne filozofije. Zdajšnje statično stanje šol za oblikovanje v Ameriki in Evropi lahko pojasnimo z institucionalnim konformizmom. Pa tudi, in to v nič manjši meri, z dejstvom, da je nova filozofija izobraževanja na področju oblikovanja, ki se je pojavila v zadnjih letih – ideja o šoli okoljskega oblikovanja – še vedno šibka.

Gre za filozofijo, ki je še vedno v zgodnji fazi, saj je tudi ideja o okoljskem oblikovanju, ki služi kot njen temelj, v zgodnji fazi. Mnogi so še vedno prepričani, da je okoljsko oblikovanje zgolj novo ime – bolj sofisticirano – za celovito in celostno oblikovanje: torej, novo ime za staro idejo o oblikovanju kot nizu formalnih modelov, ki se uporablajo na najrazličnejših objektih, »od kavne žličke do mesta«, kot je bilo nekoč rečeno.

Seveda obstaja več novih načinov razumevanja okoljskega oblikovanja. Zlasti v Združenih državah Amerike obstajajo zelo dragoceni teoretski prispevki k novi ideji okoljskega oblikovanja. Moram pa priznati, da ta ideja – nova ideja okoljskega oblikovanja – po mojem mnenju kljub tem prispevkom, in včasih tudi zaradi njih, ni nič bolj jasna.

Zato je najnujnejša naloga, naloga, ki ima prednost pred vsako drugo na tem področju, poskusiti pojasniti idejo okoljskega oblikovanja in jo osvoboditi zdajšnjih dvoumnosti in protislovij. Le tako bomo lahko oblikovali konsistentno filozofijo izobraževanja na področju oblikovanja in šele nato bomo lahko natančno vedeli, kakšno reformo struktur moramo zahtevati. S tem namenom bom sedaj poskušal podati nekaj razmislekov, nujno nepopolnih, o ideji okoljskega oblikovanja.

V teh zadnjih letih je ena od iluzij, ki jo je oblikovalski sistem najbolj trdovratno negoval, padla v krizo: pojavlja se dvom o tem, ali se mora vsota dobro oblikovanih objektov nujno izteči v dobro oblikованo okolje. Vse do danes se je namreč predpostavljal, da je možnost preverjanja zdajšnjih procesov propadanja človekovega okolja odvisna le od tega, kaj lahko napravimo iz vsakega posameznega objekta. Zdi se, da je to napačno. Ekologi so podali precej subtilnejšo in večplastnejšo verzijo strukture človekovega okolja. Naš habitat je odprt sistem, katerega komponente niso zgolj »stvari, ki jih je naredil človek« ali preprosto »stvari«. Ideja, ki so jo oblikovali Robert E. Park in drugi urbani sociologi s Harvarda, da je temeljni struktturni dejavnik človekovega okolja biotski ali subsocialni okvir, je že obveljala za pretirano poenostavljanje.

Dejstvo je, da ne obstajajo zgolj »neživi okoljski dejavniki«, temveč tudi »živi okoljski dejavniki«, da ne obstaja samo fizično okolje, temveč tudi vedenjsko okolje. Kurt Lewin in Fritz Heider sta opozorila, kako zelo ta dva tipa dejavnikov vzajemno vplivata

of human environment is the biotic or subsocial framework has already been considered an oversimplification.

It is a fact that there exist not only "inanimate environment agents" but also "animate environment agents", that there exists not only physical environment but also behavioural environment. K. Lewin and F. Heider have pointed out how much these two types of agents mutually influence one another and how much they come to depend on each other. Heider, following in Brunswik's track, has shown the fallacy of separating "thing perception" from the "person perception".

Human environment is composed both of things and persons, and also of events. It is not simply a static collection of things and persons. There exist conflicts between people. There exist conflicts between objects. And what is even stranger, very often the conflict between objects is a reflection of an existing conflict between people. The "like-dislike" of people regarding objects is more than often just a reflection of the "like-dislike" between people. Human environment taken as a mere problem of "dead variables" is, as O. K. Moore defined it, a "one-player problem", a Robinson Crusoe problem. Many designers have adopted, and still do so, this attitude. With apparent good faith, they affirm that the world is improved by just improving the objects of the world.

Nevertheless, this remains unproven. It is not true that badly designed objects are solely responsible for the erosion of our environment. The patterns of individual and collective behaviour, which prevail in the society of our time, are at least as responsible, if not more so. In a world where violence, sadism, aggression, vulgarity, prejudice, waste, cynicism and ostentation reign, environmental design can in a very short time become a farce, or a mere utopian pastime.

To avoid this danger, environmental design would in the future have to concern itself not only with "dead variables" but with "live variables". Half a century ago, Patrick Geddes had already foreseen a way: "bettering of men and his environment together". This, however, has not as yet been carried out. Every day, the tendency is growing stronger to believe in a bettering of man, independent of environment, and in a bettering of the environment independent of man.

This is particularly evident in the face of the present arguments in favour of an absolute cybernatization of human environment. S. Chermayeff and C. Alexander point out, if with certain reservations, that both the nuclear submarine and the space capsule might serve as models for "a fully functioning framework for ecological equilibrium".



drug na drugega in kako zelo sta soodvisna. Heider, ki je sledil Brunswikovi sledi, je pokazal na zmotnost ločevanja »percepcije stvari« od »percepcije osebe«.

Človekovo okolje je sestavljeno tako iz stvari kot iz oseb, pa tudi iz dogodkov. Ni zgolj statična zbirka stvari in oseb. Med ljudmi obstajajo konflikti. Obstajajo konflikti med objekti. In kar je še bolj čudno, konflikt med objekti je zelo pogosto odraz obstoječega konflikta med ljudmi. Odnos »imeti rad – ne imeti rad«, ki ga imajo ljudje do objektov, je zelo pogosto zgolj odsev odnosa »imeti rad – ne imeti rad«, ki obstaja med ljudmi. Človekovo okolje, razumljeno kot problem »mrtvih spremenljivk«, je, kot je dejal O. K. Moore, »problem enega igralca«, problem Robinsona Crusoeja. Množič oblikovalci so to držo sprejeli in jo še vedno sprejemajo. V očitno dobri veri zatrjujejo, da lahko izboljšamo svet zgolj z izboljšanjem njegovih objektov.

Vendar pa je to nedokazano. Ni res, da so slabo oblikovani objekti edini odgovorni za erozijo našega okolja. Prav tako odgovorni, če ne še bolj, so tudi vzorci individualnega in kolektivnega obnašanja, ki prevladujejo v družbi našega časa. V svetu, kjer vladajo nasilje, sadizem, agresivnost, vulgarnost, predsodki, pustošenje, cinizem in bahaštvo, lahko okoljsko oblikovanje zelo hitro postane farsa ali zgolj utopično razvedrilo.

Da bi se izognili tej nevarnosti, bi se okoljsko oblikovanje v prihodnosti ne smelo ukvarjati le z »mrtvimi spremenljivkami«, temveč tudi z »živimi spremenljivkami«. Pred pol stoletja je Patrick Geddes že predvidel način: »izboljšanje človeka in njegovega okolja skupaj«. A se to še ni zgodilo. Slehernega dne se krepi težnja po verjetju v izboljšanje človeka, neodvisno od okolja, in v izboljšanje okolja, neodvisno od človeka.

To je še posebej očitno v luči zdajšnjih argumentov v prid absolutni kibernetizaciji človekovega okolja. Serge Chermayeff in Christopher Alexander poudarjata, z določenimi zadržki sicer, da lahko tako jedrska podmornica kot vesoljska kapsula služita kot model za »povsem delujoč okvir za ekološko ravnovesje«.

Treba je priznati, da je ideja privlačna. Toda njene legitimnosti ne moremo tako lahkomiselnoprejeti; kajti neznane spremenljivke, ki ostajajo odprte, so preštevilne in preveč pomembne. Poleg tega mnogi znanstveniki o tovrstnih sistemih dvomijo. Človekova zmožnost prilagajanja je nedvomno veličastna, ne pa tudi neskončna.

Švicarski biolog Adolf Portmann nas je ne tako daleč nazaj spomnil, da specifičen človeški medij – biološko gledano – ni niti mikrokozmos niti makrokozmos, temveč mediokozmos. To je nedvomno njegov »oikos«, njegov dom. Človek je zaradi filogenetskih in ontogenetskih razlogov obsojen na to, da ostane v mediokozmosu.

One must admit that the idea is appealing. However, we cannot accept its legitimacy lightly, for the unknown variables which it leaves open are too numerous and too important. Furthermore, many scientists have expressed their doubts about schemes of this nature. Man's capacity for adaptation is no doubt great, but not infinite.

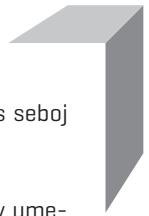
A. Portmann, the Swiss biologist, reminded us not so long ago that the specifical human medium – biologically speaking – is neither the microcosmos nor the macrocosmos but the mediocosmos. This is unquestionably his “oikos”, his home. For phylogenetic and ontogenetic reasons, man is condemned to stay in the mediocosmos. He may undertake temporary excursions into the macrocosmos, but when he does, he must take with him an artificial mediocosmos.

The idea that the whole planet could eventually be transformed into an artificial mediocosmos may perhaps prove to be, sooner than we believe, technically possible. But even so, we have to admit that we are as yet unable to know if, when man is obliged to live permanently in this artificial mediocosmos, he would survive without suffering a substantial degenerating process of his nervous, sensory and motor system, or of his homeostatic system.

One sometimes has the suspicion that, behind all these speculations on the human habitat, a certain amount of technocratic escapism is hidden. It would seem, in fact, that through evasion, a confrontation with the most difficult and urgent of all tasks is avoided: the task of conceiving here and now a new type of mediocosmos where not only the system of objects but also the system of man can be optimized. But, whenever optimizing human environment is intended, we come up against the question of what the ultimate goal we are aiming at should be.

In the near future, both science and technology will radically change the structure of human environment. This new human environment, so we are told, will bring about a new human condition. The advent of the post-historic man, of the post-literature man, of the post-political man is announced. In this respect, some authors predict that this new transformation of man will be all to the good, whereas others can only foresee the worst. Personally, I must confess that the arguments advanced by those who predict the worst carry a greater power of conviction than the arguments advanced by those who readily acclaim the best. It is a fact that in the present the worst has more chance of success than the best. Some chances for the best exist, however, no matter how scarce and improbable they may seem, we must turn our attention to them. It is our duty to find out whether any real possibilities exist for what L. Mumford has called “The Miracle” to take place: that is, the abrupt and unexpected change which will enable us to avoid the advent of a world of human negation.





Lahko sicer izvaja kratke izlete v makrokozmos; a ko to storí, mora vzeti s seboj umetni mediokozmos.

Lahko se izkaže, da bo ideja o tem, da bi ves planet sčasoma preoblikovali v umetni mediokozmos, tehnično mogoča že prej, kot se nam zdi. A četudi bi bilo to res, moramo priznati, da še vedno ne vemo, ali bi človek, ki bi moral stalno živeti v tem umetnem mediokozmosu, preživel, ne da bi pri tem utrpel občutno degeneracijo živčnega, senzornega in motoričnega ali homeostatskega sistema.

Včasih domnevamo, da je v ozadju vseh teh spekulacij o človekovem habitatu skrita določena mera tehnokratskega eskapizma. Zdi se namreč, da se z izmikanjem izognimo soočenju z najtežjo in najnujnejšo nalogo: nalogu zamišljanja – tukaj in zdaj – nove vrste mediokozmosa, kjer bi lahko optimizirali ne le sistem objektov, temveč tudi sistem človeka. A kadarkoli bomo razmišljali o optimizaciji človekovega okolja, se bomo morali vprašati, kaj naj bo končni cilj, h kateremu smo namenjeni.

V bližnji prihodnosti bosta znanost in tehnologija radikalno spremenili strukturo človekovega okolja. To novo človekovo okolje, tako nam je rečeno, bo pripeljalo do novega stanja človeka. Napoveduje se prihod postzgodovinskega človeka, postpismenega človeka, postpolitičnega človeka. Nekateri avtorji napovedujejo, da bo ta nova transformacija človeka v celoti dobra, medtem ko drugi predvidevajo le najslabše. Osebno moram priznati, da so argumenti tistih, ki napovedujejo najslabše, prepričljivejši od argumentov onih, ki brez oklevanja priznavajo najboljše. Dejstvo je, da ima danes najslabše več možnosti za uspeh kot najboljše. Četudi obstaja za najboljše le nekaj možnosti, moramo, ne glede na to, kako redke in neverjetne se zdijo, usmeriti svojo pozornost k njim. Naša dolžnost je ugotoviti, ali obstajajo realne možnosti, da se zgodi to, čemur Lewis Mumford pravi »čudež«: in sicer, nenadna in nepričakovana sprememba, ki nam bo omogočila, da se izognemo prihodu sveta človekove negacije.

Ta čudež pa naj bi bil zelo posebne narave; ne posledica nekega nadnaravnega posuga, ampak našega lastnega posuga. Mi sami smo dolžni pripeljati do čudeža, izvesti program, ki ga je Auguste Comte sarkastično in bogokletno opredelil kot »nacrtovanje božje previdnosti«.

Razvoj prihodnjega sveta bo nedvomno odvisen od našega delovanja, odvisen pa bo tudi od stopnje učinkovitosti našega delovanja. A revidirana je bila tudi ideja o učinkovitosti. V preteklosti je učinkovito ravnanje pomenilo ravnanje z enim samim namenom. Naloga je bila večinoma v odkrivanju preprostosti za kompleksnostjo. Dandanes je učinkovito ravnanje usmerjeno k temu, da postane večnamensko ravnanje, naloga

This miracle, however, would be of a very particular nature; it would not be the result of some supernatural interposition but rather the result of our own interposition. We, ourselves, will now be obliged to bring about the miracle, to carry out the programme, sarcastically and sacrilegiously defined by A. Comte as "planning Divine Providence".

The development of the future world will undoubtedly depend upon our action, although it will also depend upon the degree of efficiency of our action. Nevertheless, the idea of efficiency is being revised. In the past, efficient behaviour was one-purposed behaviour. The task consisted mainly of discovering the simplicity behind the complexity. In our days, efficient behaviour tends to become a many-purposed behaviour, and the task consists of discovering the complexity behind the apparent simplicity. Efficient behaviour no longer acts through "reduction"; it now acts through "differentiation".

The Mumfordian miracle will only be achieved through this new way of thinking and acting. In other words, only through a new way of thinking and acting will we be able to realize – both theoretically and practically – the creative relationship existing between the world of human negation and its opposite, the world of human affirmation.

The absolute cybernetization of all processes in production, distribution, administration and communication will no doubt imply the end of the reign of necessity. Technology – a product of necessity – will surely become a trans-human activity. Just as the post-historic man, the post-literate man and the post-political man have been announced, so let me be allowed to foretell the coming of the post-technical man. Science will once again turn its attention to man and his destiny.

All this, of course, belongs to a world of the future in which we can still, but with difficulty, discern the utopian elements from those which are scientifically verifiable. However, for the present and until further notice, we are living in a world of necessity. But it is no longer a monolithic world. For while in some nations the coercion exercised by necessity is becoming milder, in others this coercion is tending to become stronger.

As could easily be foreseen, such a contrast has awakened an acute consciousness of necessity in the less favoured nations. As always, violence has been the result. Necessity plus consciousness is always explosive. In the face of this disturbing state of affairs, some believe that the only way to deal with violence is violence. In other words, to meet the violence of necessity with the necessity of violence. But, while discretion continues to be the better part of valour, other ways will have to be found.





pa sestavlja odkrivanje kompleksnosti za očitno preprostostjo. Učinkovito ravnanje ne deluje več skozi »redukcijo«, sedaj deluje skozi »diferenciacijo«.

Mumfordov čudež bo mogoče doseči le s tem novim načinom mišljenja in delovanja. Z drugimi besedami, le z novim načinom mišljenja in delovanja se bomo lahko zavedeli – tako teoretično kot praktično – kreativnega razmerja med svetom človekove negacije in njegovim nasprotjem, svetom človekove afirmacije.

Absolutna kibernetizacija vseh procesov produkcije, distribucije, administracije in komunikacije bo nedvomno pomenila konec vladavine nujnosti. Tehnologija – produkt nujnosti – bo zagotovo postala transčloveška dejavnost. Tako kot je bil najavljen postzgodovinski človek, postpismeni človek in postpolitični človek, naj mi bo dovoljeno, da napovem prihod posttehničnega človeka. Znanost bo znova obrnila pozornost k človeku in njegovi usodi.

Vse to seveda sodi v svet prihodnosti, v katerem lahko še vedno, četudi s težavo, razlikujemo med utopičnimi elementi in elementi, ki so znanstveno preverljivi. A za zdaj in do nadaljnjega obvestila še vedno živimo v svetu nujnosti. Ni pa to več monoliten svet. Kajti četudi prisila, ki jo izvajajo nujnosti, v nekaterih državah popušča, postaja v drugih vse močnejša.

Kot je bilo mogoče zlahka predvideti, je v manj privilegiranih državah ta kontrast prebudil akutno zavest o nujnostih. Kot vedno je rezultat nasilje. Nujnosti plus zavest so vedno eksplozivne. V luči tega skrb vzbujajočega stanja so mnogi prepričani, da je nasilje edini način ukvarjanja z nasiljem. Z drugimi besedami, soočanje z nasiljem nujnosti z nujnostjo nasilja. A če je previdnost še vedno mati modrosti, bomo morali najti drugačne načine.

Buckminster Fuller nam je ne tako dolgo nazaj zagotavljal, da na zemlji potencialno obstaja vse za vsakogar in da bi oblikovalska revolucija morda spremenila naš svet v raj. Če pustimo ob strani pretiran optimizem, ki ga vsebuje takšna ideja, verjamem, da odpira nekatere zelo nove poglede v razpravi o naši temi.

Osebno nisem nepripravljen sprejeti ideje oblikovalske revolucije, ali natančneje, revolucije skozi oblikovanje. To pa pod pogojem, da ta ne bo posledica zgolj mobilizacije tehnične domišljije, ampak tudi tega, kar C. Wright Mills imenuje sociološka domišljija.

Doslej sem skušal predložiti – na neizogibno shematičen in omejen način – nekaj izhodišč, za katera menim, da so v zdajšnjem konceptu okoljskega oblikovanja še

Buckminster Fuller assured us not so long ago that potentially there exists on earth everything for everyone, and that a Design Revolution might transform our world into a paradise. If we leave aside the exaggerated optimism that such an idea implies, I believe it opens up some very new outlooks in the discussion of our subject.

Personally, I am not unwilling to accept the idea of a Design Revolution, or, to be more precise, of a Revolution through Design. This, however, providing that the same is not only the result of a mobilization of the technical imagination but also of what C. Wright Mills called the sociological imagination.

Up to here, I have attempted to submit – in a necessarily schematic and limited way – some of the points which I consider to be still vulnerable in the present concept of environmental design. In no way, however, has it been my intention to offer solutions to the problems I have referred to but rather to induce an awareness of their existence and of the great complexity and diversity in their variables. I have tried to prove so far that human environment should be understood as a system composed of sub-systems, and that between these sub-systems there exists a close interdependence. I have pointed out the dangers of disregarding this fact, and my criticisms have, therefore, been aimed at the present particularism and at the widespread tendency of glorifying certain sub-systems and tabooing others. It is my belief that, by doing so, I may have taken an effective if not decisive step towards a new philosophy of Design Education. It is also my hope that through this analysis, the idea of a School of Environmental Design can be more coherently defined and more exactly placed in the general system of education.

In my opinion, a school of Environmental Design should include all the fields of activity which can give sense and structure to the human environment.

This may remind us of D'Alembert's encyclopaedic dream: that is, the unification of all knowledge from the same point of view and with the same intention. The resemblance, however, is only an apparent one. The course of studies for the school which we have in mind does not consist of an addition of departmentalized disciplines but of an articulation of topics around which the different disciplines shall be grouped. When we come to think of it, programmed instruction has now placed an instrument of great value at the disposal of the interdisciplinary idea. For, if on the one hand conventional instruction required departmentalization, on the other hand, programmed instruction enables de-departmentalization.

It is now possible to conceive of extremely subtle, adaptable and transparent pedagogic structures. But to achieve this, it will be necessary to have the courage to



vedno ralnjava. Nikakor pa ni moj namen ponuditi rešitve za omenjene težave, temveč sprožiti zavest o njihovem obstaju ter velikanski kompleksnosti in raznolikosti njihovih spremenljivk. Skušal sem pokazati, da moramo človekovo okolje razumeti kot sistem, sestavljen iz podsistemov, in da med temi podsistemi obstaja tesna soodvisnost. Pokazal sem na nevarnosti neupoštevanja tega dejstva; in moja kritika je bila zato usmerjena k zdajšnjemu partikularizmu in široko razširjeni težnji k slavljenju nekaterih podsistemov ter tabuiziranju drugih. Prepričan sem, da sem s tem morda naredil učinkovit, če ne odločilen korak k novi filozofiji izobraževanja na področju oblikovanja. Prav tako upam, da bo ideja o šoli okoljskega oblikovanja s pomočjo te analize bolj koherentna in natančneje postavljena v splošni sistem izobraževanja.

Po mojem mnenju bi morala šola okoljskega oblikovanja vključevati vsa področja dejavnosti, ki dajejo človekovemu okolju smisel in strukturo.

To nas morda spomni na D'Alembertove enciklopedične sanje: na združitev vsega znanja z istega zornega kota in z isto namero. A podobnost je zgolj navidezna. Potek študija za šolo, ki jo imamo v mislih, ni sestavljen iz seštevanja oddelčnih disciplin, ampak iz artikulacije tem, okrog katerih se združujejo različne discipline. Če malce pomislimo, daje programirano poučevanje interdisciplinarni ideji na voljo instrument velike vrednosti. Kajti če je konvencionalno poučevanje zahtevalo oddelčno ureditev, programirano poučevanje omogoča njegovo razveljavitev.

Sedaj si lahko zamislimo skrajno subtilne, prilagodljive in pregledne pedagoške strukture. A da bi to dosegli, bomo morali imeti pogum, da izkoreninimo tako idejo o oddelku kot zaprti in izkristalizirani realnosti kot tudi tradicionalne oddelke, ki obstajajo v večini oblikovalskih šol. Kot vemo, so ti oddelki – arhitektura, notranje oblikovanje, industrijsko oblikovanje, oblikovanje tekstilij, pohištva, urbanizem, grafično oblikovanje, moda, komercialna umetnost, oblikovanje stekla, keramike, srebra, fotografije itd. – posledica nepreudarnega prekrivanja filozofij Beaux-Arts, Arts and Crafts in Bauhausa. Ti oddelki so ena najbolj absurdnih nedoslednosti, registriranih v zgodovini izobraževanja. Da bi se zavedeli tega, se moramo zgolj spomniti na logično prefinenost veličastnih srednjeveških izobraževalnih struktur ali na živahno natančnost Comeniusove panzofije iz 17. stoletja.

V naslednjih letih se bo izobraževanje na področju oblikovanja moralno organizirati z več konsistentnosti. Moj predlog morda ne bo imel trajne vrednosti, toda menim, da bi šola okoljskega oblikovanja – kot sem si jo zamislil – morala biti razdeljena na dva glavna sektorja: oblikovanje fizičnega okolja in oblikovanje vedenjskega okolja. Teme, s katerimi bi se ukvarjali v prvem sektorju, bi pripadale temu, kar bom

eradicate not only the idea of the department as a closed and crystalized reality but also of the traditional departments as they exist today in most design schools. As we know, these departments – architecture, interior design, product design, textiles, furniture, town planning, graphic design, fashion, commercial art, glass, ceramics, silversmithing, photography, etc. – have been the result of an unpondered superimposition of Beaux Arts, Arts and Crafts and the Bauhaus philosophies. They constitute one of the most ludicrous inconsistencies ever registered in the history of education. To realize this, we have but to recall the logical fineness of the great medieval educational structures or the vibrant rigour of Comenius' Pansophy in the 17th century.

In the next years, the field of design education will have to be organized with more consistency. Admitting that my suggestion may not have a lasting validity, a school of environmental design – as I conceive it – should be divided into two main sectors: Physical Environmental Design and Behavioural Environmental Design. The topics to be dealt with in the first sector would belong to what I shall call – only for the sake of brevity – the three scales of physical environment: the scale of City or Urban-Environment, the scale of Building or Built-Environment and the scale of Equipment of Product-Environment. The topics to be dealt with in the sector of Behavioural Environmental Design would correspond mainly to the field of Communication-Environment. Neither the sectors nor the subsectors mentioned here would have the characteristics of departments; the transactional relation between one and another sector and between one and another subsector would be continuous. This system would imply that the School of Environmental Design is autonomous but not autarkical, independent but not self-sufficient. The interdisciplinary nature of its internal structure should be the outcome of the interdisciplinary nature of the general structure of education in which it is included. The ideal place for a School of Environmental Design would be midway between the Schools of Physical Sciences and the Schools of Behavioural Sciences.

Here, I would like to quote an eminent American whom I particularly admire. I am referring to Charles S. Peirce, the legendary exile of Milford, the repentant father of pragmatism, the Volcano, as Bertrand Russell named him. His colossal philosophic and scientific works, which he conceived during the last part of the 19th century and the beginning of this one, are to this day an inexhaustible source of new ideas.

Pierce's intuitions, in the most varied fields, are even now considered both fascinating and bold, even in our days in which nothing is considered sufficiently fascinating or bold. One of these fields was the philosophy of Education. Destiny's jest no doubt, for Peirce, owing to reasons which still remain obscure, was forced to live away from





imenoval – zgolj zaradi jedrnatosti – tri stopnje fizičnega okolja: mesto ali urbano okolje, zgradba ali grajeno okolje in oprema ali okolje izdekov. Teme, s katerimi bi se ukvarjali v sektorju oblikovanja vedenjskega okolja, bi večinoma ustrezale področju komunikacijskega okolja. Nobeden od omenjenih sektorjev ali podsektorjev ne bi imel lastnosti oddelkov; transakcijsko razmerje med enim in drugim sektorjem ter med enim in drugim podsektorjem bi bilo neprekinjeno. Ta sistem bi pomenil, da je šola okoljskega oblikovanja avtonomna, ne pa tudi avtarkična, neodvisna, ne pa tudi samozadostna. Interdisciplinarna narava njene notranje strukture bi morala biti posledica interdisciplinarne narave splošne strukture izobraževanja, v katero je vključena. Idealno mesto za šolo okoljskega oblikovanja bi bila sredina poti med šolami za fizikalne znanosti in šolami za vedenjske znanosti.

Tu bi rad citiral uglednega Američana, ki ga še posebej občudujem. V mislih imam Charlesa S. Peircea, legendarnega izgnanca iz Milforda, skesanega očeta pragmatizma, Vulkana, kot ga je poimenoval Bertrand Russell. Njegova kolosalna filozofska in znanstvena dela, ki jih je zasnoval v zadnji polovici 19. stoletja in na začetku 20., so še vedno neizčrpen vir novih idej.

Njegova intuicija na najrazličnejših področjih še vedno velja za fascinantno in drzno, še celo v našem času, ko nič več ni dovolj fascinantno ali drzno. Eno od teh področij je bila filozofija izobraževanja. Nedvomno ironija usode; kajti Peirce je bil, iz razlogov, ki še vedno ostajajo prikriti, prisiljen živeti stran od univerze. Znal si je predstavljati univerzo onkraj univerze; izobraževanje onkraj obstoječih izobraževalnih institucij.

Leta 1882 je zapisal:

To je doba metod, in univerza, ki naj bo eksponent živega stanja človeškega duha, mora biti univerza metod. Če rečemo, to je doba razvoja novih metod raziskovanja, je to – zagotavljam vam – tako daleč od tega, da rečemo, to je doba teorije metod, da je skorajda, kot bi rekli obratno. Praksa na žalost večinoma prehiteva teorijo in običajna usoda človeštva je, da najprej naredi stvari na nekakšen osupljiv način, potem pa ugotovi, da bi lahko bile narejene veliko lažje in popolneje. In moramo priznati, da smo mi, študentje modernih metod, za zdaj glas vpijočega v puščavi, ki pravi, pripravite pot gospodu znanosti, ki bo prišel.

Univerza metod, kot jo je Peirce predvideval leta 1882, univerza prihodnosti, ni bila realizirana nikjer. Vseeno pa je, odkrito ali pač prikrito, na poti. Šola okoljskega oblikovanja bo bistveni del univerze metod. To pomeni izziv za učitelje oblikovanja. V bližnji prihodnosti bomo morali revidirati svoj položaj, a ne le tega, temveč tudi svoje

the university. He was able to conceive the university beyond the university; to conceive education beyond the existing educational institutions.

In 1882, he wrote:

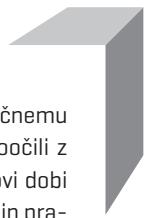
This is the age of methods, and the University, which is to be the exponent of the living condition of human mind, must be the university of methods. Now I grant you that to say this is the age of the development of new methods of research is so far from saying it is the age of the theory of methods that it is almost to say the reverse. Unfortunately practise generally precedes theory, and it is the usual fate of mankind to get things done in some boggling way first, and find out afterwards how they could have done them much more easily and perfectly. And it must be confessed that we students of modern methods are as yet but a voice crying in the wilderness, and saying prepare ye the way for the lord of the sciences which is to come.

Such a university of methods, as Peirce in 1882 foresaw, the university of the future, has nowhere been realised up to the present. Nevertheless, openly or hiddenly, everywhere it is on its way. The school of Environmental Design will be an essential part of the University of Methods. This implies a challenge for the design educators. In the near future, we will have to revise our position, not only our position, however, but our method too: that is, we must develop our specific working methods, adjusting them to the specific type of problems that we shall have to solve. Thus, we can successfully face the task entrusted to us by society: the reconstruction of human environment in the new era of scientific humanism. This will mean overcoming the contradiction between theory and practice, between knowledge and action, between consciousness and reality, between freedom and necessity.



The original text was published in *Ulm 17/18. Journal of the Ulm School for Design*, June 1966, 14–20.
© Copyright 1966 Tomás Maldonado and Stiftung Hochschule für Gestaltung HfG Ulm
Reprinted by permission of Tomás Maldonado and Stiftung Hochschule für Gestaltung HfG Ulm.





metode: morali bomo razviti specifične delovne metode, jih prilagoditi specifičnemu tipu problemov, ki jih bomo morali reševati. Tako se bomo lahko uspešno soočili z nalogom, ki nam jo je zaupala družba: z rekonstrukcijo človekovega okolja v novi dobi znanstvenega humanizma. To bo pomenilo preseganje protislovja med teorijo in praksjo, znanjem in delovanjem, zavestjo in realnostjo, svobodo in nujnostjo.



Izvirno besedilo je bilo objavljeno v *Ulm 17/18. Journal of the Ulm School for Design*, junij 1966, 14–20.
© Avtorske pravice: 1966 Tomás Maldonado in Stiftung Hochschule für Gestaltung HFG Ulm
Ponatisnjeno z dovoljenjem Tomáša Maldonada in Stiftung Hochschule für Gestaltung HFG Ulm.

Design education: principles

**'Well building hath three conditions:
commoditie, firmnes, and delight'**

– Vitruvius / Sir Henry Wotton

**'Love, work and knowledge are
the wellsprings of our life.
They should also govern it'**

– Wilhelm Reich



A design capability proceeds from a fusion of skills, knowledge, understanding, and imagination; consolidated by experience. These are heavy words, and they refer to the foundations. We accept a certain minimal competence as the basis of professional self-respect, and as some guarantee of a designer's usefulness to other people. Within limits such a competence is definable, and will begin to form outlines within a formally structured teaching/learning situation. It is too much to say outright that design ability can be 'taught'. As with any other creative activity, it is a way of doing things that can only be grown into, perhaps – but not necessarily – in the context of a formal design education.

This view is readily conceded for something as immaterial as 'imagination', but it is commonly held that skills and knowledge must not only be taught, but rigorously examined: if only to protect an unsuspecting society against social or technical malpractice. Defensible as this may be, it is not an assumption that should go unquestioned, nor deflect attention from the weaknesses of received professional standards. The damage caused by knowledge used without understanding is merely difficult to measure: it is not less real for that. A skill may be irrelevant to the nature of a problem, or – in dealing with people – may be grossly uninstructed in a necessary tact and discernment. Knowledge may be thinly experienced as a rag-bag of conventional responses helped along by access to someone else's published working details. Plainly, skill and knowledge cannot be weighed out by the pound, and separated from qualitative perceptions, for any but the simplest mechanical problems – and even there it is questionable. Even 'judgement', that wise old word, becomes ponderously inhuman unless fertilized by some order of creative spontaneity.

Architecture is only one profession that offers uncomfortable testimony in these respects. It is nice to know, for instance, that a building is unlikely to leak or fall down [in fact someone else has probably done the calculations] and in a simple way this must be counted a social gain. On the other hand there are very many thousands of

NORMAN POTTER

Izobraževanje na področju oblikovanja: načela

**»Dobra zgradba ima tri pogoje:
udobje, trdnost in radost.«**

– Vitruvij / sir Henry Wotton

**»Ljubezen, delo in znanje so
izviri našega življenja.**

Morali bi mu tudi vladati.«

– Wilhelm Reich

Zmožnost oblikovanja izhaja iz zlitja veščin, znanja, razumevanja in domišljije; utrdijo jo izkušnje. To so težke besede in nanašajo se na temelje. Priznavamo določeno minimalno kompetenco kot osnovo strokovnega samospoštovanja in kot nekakšno jamstvo oblikovalčeve koristnosti za druge ljudi. Takšna kompetenca je, znotraj omejitev, določljiva in bo začela tvoriti obliko znotraj formalno strukturirane situacije poučevanja oz. učenja. Ni preveč, če odkrito rečemo, da se sposobnost oblikovanja lahko »uči«. Kot pri vsaki drugi ustvarjalni dejavnosti gre za način delanja stvari, ki se lahko zgolj razvija, morda – ne pa nujno – v kontekstu formalnega izobraževanja na področju oblikovanja.

Temu stališču se rade volje odpovemo za nekaj tako nematerialnega, kot je »domišljija«, a na splošno velja, da se veščine in znanje ne le morajo učiti, temveč jih je treba tudi rigorozno izpraševati: pa čeprav le zaradi zaščite nič hudega sluteče družbe pred socialnimi ali tehničnimi malomarnostmi. Naj se sliši še tako opravičuječe, to ni predpostavka, ki naj ostane nesporна, ki naj odvrača pozornost od šibkosti veljavnih strokovnih standardov. Škodo, ki jo povzroča znanje, uporabljenlo brez razumevanja, je zgolj težko izmeriti: zaradi tega pa ni nič manj realna. Veščine so morda nepomembne za naravo problema in lahko so – ob ukvarjanju z ljudmi – strašansko pomanjkljive glede potrebnega takta in presoje. Morda včasih doživljamo znanje kot malho konvencionalnih odgovorov, ki pomagajo dostopati do delovnih detajlov, ki jih je objavil nekdo drug. Veščin in znanja očitno ni mogoče prodajati na funt in ločevati od kognitivnih percepциj, morda le pri preprostejših mehanskih težavah – pa še takrat je to vprašljivo. Celo »sodba«, ta modra stara beseda, postane neizmerno nečloveška, če je ne opaja nekakšen red ustvarjalne spontanosti.

Arhitektura je zgolj eden od poklicev, ki v zvezi s tem ponujajo neprijetne dokaze. Lepo je denimo vedeti, da zgradba najbrž ne bo puščala ali se zrušila [pravzaprav je nekdo drug najbrž naredil izračune], in na preprost način se to mora štetí kot družbeni dosežek. Obenem pa obstaja na tisoče arhitektov, ki so vsi opravili izpite,



architects all of whom have passed their examinations, and can we decently say that more than a substantial minority produce buildings of affective quality? Of course their work is sometimes exceedingly difficult and subject to every conceivable restriction, but does their education help them to feel desperately a gap between promise and fulfilment, and thus to find every conceivable way of bridging it?

Let us answer [to be charitable] that the best schools know this problem backwards and do their best to resolve it. A 'profession' can still become a self-protection society with a very short term view of the priorities for professional competence. In the long term, we have no yardstick for the spirit of man and the nature of deprivations in his environment – not only the wilderness he may see and accept all around him, but the very nature of his interaction with a wholeness of experience, of which a built environment is but a part.

These are large thoughts, and will surely bring a smile to the face of any over-worked architectural assistant, aware as he is of the drudge component that occupies so much of his conscientious labours. Yet to evaluate formal design education it is necessary to ask some awkward questions. Not only to disturb our unthinking acceptance of social norms, but to bring some very practical matters sharply into focus, and others to dismiss as marginally relevant. For instance, our assistant would confirm that much of his work is elaborately interwoven with building contingencies and the structure of 'consents' which sometimes keeps him awake at night; the personality of the local district surveyor may occasionally seem the most omnipresent factor in the whole of the job. It is impossible to explain this properly to a student in a school, you simply need the experience of design practice to see how it happens, and just what you do to keep the job moving and your first intentions reasonably intact, or, as is often the case, subtly changing as new possibilities reveal themselves. The way in which accidents of site contingency suddenly appear as benefits, so the designer wonders why he hadn't thought of that in the first place – to explain that as part of the 'design process' is really not at all easy.

It is also desirable [to put it mildly] to see the educational problem in terms of the future as much as the present – and, in rather a different way, in terms of the past. It would be a mistake to presuppose a static social situation, pleasantly unified in the untroubled pursuit of affluence, disturbed at most by some new concession to the good life announced in the weekly journals, and the designer providing his expensive austerities where they can be afforded; namely, in the places of high financial decision-making. Such banalities may go sour before the last Barcelona chair is glued into position to impress – who? There were signs in 1968, if not now, that young people were certainly less impressed than some of their parents. Yet a

toda ali lahko iskreno trdimo, da jih več kot le peščica ustvarja zgradbe opaznejšega pomena? Seveda je njihovo delo včasih nadvse težko in podvrženo vsem mogočim omejitvam, toda ali jim njihova izobrazba pomaga, da obupano začutijo vrzel med obljubo in izpolnitvijo ter posledično začnejo iskat vse možne poti, da jo premostijo?

Naj odgovorimo (da bomo usmiljeni), da najboljše šole zelo dobro poznajo to težavo in delajo po najboljših močeh, da jo razrešijo. »Poklic« lahko še vedno postane samozaščitna družba z zelo kratkoročnim pogledom na prednosti strokovne kompetence. Dolgoročno nimamo merila za človekovega duha in za naravo prikrajšanj v njegovem okolju – ne le za divjino, ki jo morda vidi in sprejema vsepovsod naokrog, ampak tudi za samo naravo njegove interakcije s celovitostjo izkušenj, od katerih je grajeno okolje zgolj en delček.

To so velike misli in bodo zagotovo privabile nasmeh na obraz vsakega zgaranega arhitekturnega asistenta, zavedajočega se garaške komponente, ki zaseda toliko njegovega vestnega dela. A da bi lahko ocenili formalno izobraževanje na področju oblikovanja, si moramo zastaviti nekaj zoprnih vprašanj. Ne le zato, da bi zmotili naše nepremišljeno sprejemanje družbenih norm, ampak da se ostro osredotočimo na nekaj zelo praktičnih zadev, druge pa zavrnemo kot manj pomembne. Naš asistent bi denimo potrdil, da se precej njegovega dela zelo prepleta z gradbenimi naključnostmi in s strukturo »soglasij«, ki mu včasih kratijo spanec; osebnost lokalnega inšpektorja se včasih zdi vseprisoten dejavnik v celoti dela. Študentu v šoli je to nemogoče ustrezno razložiti; preprosto boste potrebovali izkušnje oblikovalske prakse, da boste videli, kako se to zgodi in kaj morate storiti, da delo ne zastane in da vaši prvotni nameni ostanejo zmerno nedotaknjeni – ali pa, kot se pogosto zgodi, subtilno spremenjeni, če se pokažejo nove možnosti. Način, kako se naključne nezgode na lokaciji nenadoma zazdijo kot prednosti, ko se oblikovalec vpraša, zakaj ni že sam pomislil na kaj takega – razložiti to kot del »oblikovalskega procesa« resnično ni tako preprosto.

Prav tako je zaželeno [milo rečeno], da gledamo na izobraževalni problem v smislu prihodnosti, pa tudi sedanjosti – in na precej drugačen način tudi preteklosti. Napačno bi bilo predpostavljati statično družbeno situacijo, prijetno zedinjeno v mirnem iskanju blaginje, ki jo zmoti kvečjemu kakšna nova koncesija za dobro življenje, nавnjena v tedenskih revijah, in oblikovalca, ki ponuja svojo dragو asketskost, kjer si jo lahko privoščijo; in sicer na pozicijah visokega finančnega odločanja. Takšne običajnosti se lahko skvarijo, še preden je zlepil zadnji stol Barcelona, da bi navdušil – koga? Leta 1968, če ne tudi zdaj, so obstajala znamenja, da so mladi zagotovo manj navdušeni kot nekateri njihovi starši. Pa vendar ne smemo prezirati očitnega življenjskega standarda, če ga nimamo vsi ali če si ga ne želimo vsi, ko pa si na milijone ljudi



measurable standard of living is not to be despised because not all of us have it or want it, when millions of people desire above all some alleviation of their physical poverty. Nor can we play God and start back from square one with a wholesale redistribution of resources and an imposed system of moral absolutes to keep everything tidy. In short, the designer, like other honest citizens, will need access to faith and vision as much as to a keen analytical intelligence – to engage with life effectively, and to make something good through work. Aside from a technical training, what can a design school do to help?

This is not easy; a simplistic approach helps nobody. Hence the paragraphs that follow.

A first requirement for students is knowledge of how they can best help *themselves*: in this respect it is useful to understand the limits and benefits of an academic situation. To begin with, students should realize that both education and design practice are too often handicapped by identity-fixations. The words by which people describe themselves – architect, graphic designer, interior designer, etc. – become curiously more important than the work they actually do. In one respect this is fair, because under modern conditions it may be very difficult to find one word to identify their work, but such words tend to build up irrelevant overtones of meaning which are more useful as a comfort to personal security than as a basis for co-operative enterprise. Such confusions interpenetrate with status values and the other intricate strands of our social life, so it is hardly surprising that education is affected by them. Thus it comes about that design education is often still irrationally divided up into specializations with a doubtful relation to the work students may finally do, and with even less plausible reference to the situation *as it could be* in ten years' time.

This is not in itself the case for a generalist education – the silliness of outdated categories is a negative consideration – nor can matters be improved by denying that specific subjects relevantly exist, and that they are worth studying in depth. In theory, of course, a three-year study programme could investigate the Universe from the confines of a single problem. It is also a fallacy of bad technical training – as implied earlier – to suppose that skills and knowledge can be picked up ‘in vacuo’ or in neat packages as in a supermarket; such knowledge is sometimes used with a contempt and a restlessness that betrays the additive nature of its learning. Thus a restless and dissatisfied student who seeks his freedom in the extent, rather than the depth, of his explorations, may be dancing to the tune of the masters he is trying to escape from [whether such masters are real or imaginary]. Skills ought to keep pace with understanding, and thus emerge organically; and the spread of lateral thinking must be complemented by vertical thinking [and dreaming] of a quite

želi predvsem malce ublažiti svojo fizično revščino. Prav tako se ne moremo igrati boga in začeti od začetka s celostno prerazporeditvijo virov in z odrejenim sistemom moralnih absolutov, da bi le vse ostalo lepo. Skratka, oblikovalec bo moral, tako kot drugi pošteni državljanji, priti do zaupanja in vizije, pa tudi do ostre analitske intelligence – da se bo lahko učinkovito vpletel v življenje in skozi svoje delo naredil nekaj dobrega. Kako lahko šola za oblikovanje, poleg tehničnega usposabljanja, pomaga?

To ni preprosto; poenostavljen pristop ne pomaga nikomur. Zato so tu naslednji odstavki.

Prva zahteva študentom je znanje o tem, kako lahko najbolje pomagajo *sebi*: v tem pogledu je koristno razumeti omejitve in prednosti akademske situacije. Za začetek, študentje bi morali vedeti, da sta izobraževanje in oblikovalska praksa prepogosto ovirana zaradi identitetnih fiksacij. Besede, s katerimi se ljudje opisujejo – arhitekt, grafični oblikovalec, oblikovalec notranje opreme itd. – so postale presenetljivo pomembnejše od dela, ki ga dejansko opravlja. V določenem pogledu je to pošteno, kajti v sodobnih razmerah je zelo težko najti eno samo besedo, ki bi identificirala njihovo delo, toda takšne besede rade okrepijo nepomembne implikacije pomena, ki je uporabnejši kot uteha za osebno varnost kakor pa kot podlaga za sodelovalni podvig. Takšne pomote se prepletejo s statusnimi vrednostmi in drugimi zapletenimi nitmi našega družbenega življenja, zato ne preseneča, da vplivajo tudi na izobraževanje. Tako se torej zgodi, da je izobraževanje na področju oblikovanja še vedno pogosto nerazumno razdeljeno na specializacije z dvomljivim odnosom do dela, ki ga študentje končno lahko opravlja, in s še celo manj prepričljivo referenco do situacije, *kakršna bi ta lahko bila v obdobju desetih let*.

To samo po sebi ne velja za splošno izobraževanje – neumnost zastarelih kategorij je negativen dejavnik – in prav tako se zadeve ne morejo izboljšati, če zanikamo, da specifični subjekti še kako obstajajo in da so vredni globinskega študija. V teoriji lahko triletni študijski program seveda razišče vesolje z robov posamičnega problema. Prav tako je domneva, da se veščine in znanje lahko poberejo »iz vakuma« ali v ličnih paketih kot v supermarketu, zmota slabega tehničnega usposabljanja, kot smo že omenili; takšno znanje se včasih uporablja s prezirom in utesnjenostjo, ki zlorablja aditivno naravo učenja. Utesnjen in nezadovoljen študent, ki išče svobodo v dolžini, ne pa v globini raziskovanj, lahko torej pleše na melodijo mojstrov, ki jim je skušal pobegniti [pa naj bodo ti resnični ali izmišljeni]. Veščine bi morale biti skladne z razumevanjem in bi morale torej nastajati organsko; in širjenje lateralnega razmišljanja bi morali dopolnjevati z vertikalnim razmišljanjem [in sanjarjenjem] precej drugačne vrste, če naj razumevanje raste iz močnih korenin. Prav tako je napačno misliti, da ima dobro oblikovanje [ali vsakršno ustvarjalno mišljenje] mnogo opraviti z



different kind, if understanding is to grow from strong roots. It is also a mistake to think that good design (or creative thinking of any kind) has much to do with a perfectly fitted-out environment. Much design work can be approached with freshness and insight with very little in the way of equipment and materials: the assumption to the contrary (as an accepted starting point for design) merely reflects a social climate in which the least meaning emerges for a gross expenditure of effort and apparatus.

It is a sad but interesting observation that the most rigidly blinkered courses of 'training' are often the least technically competent, rather in the way that some committed amateurs do better work than tradesmen who have lost a responsible relation to their trades. ('Amateur' – one who loves.) Even if it were not so, an education should always be why-responsive (and thus, question itself), whereas of its nature, a training asks how, and provides tidy answers. In either case, however, the best theoretical framework for studies will be alive or dead rigid, according to the spirit in which it is interpreted, both by students and stuff, which in turn is a function of confidence within the academic community.

Although this discussion is tending to assume that the schools and colleges are where it all happens, Ivan Illich reminds us that it is easily to confuse schooling with education, when in fact education is a natural life-process and some schools may actually be anti-educative. A certain realism of outlook is required, if the schools are to be seen for what they are. A design school may be in some sense preparatory for life to follow, but a student's time there is precious and irrecoverable life in the present. It is also, however, a safe berth in harbour. In a somewhat different way, the staff of a school seek their own expression in the achievement of the school: it is their own chosen and continuing way of life. On the whole, the work is agreeable, relatively well paid, and socially well regarded. It is work that allows some teachers to defer indefinitely a close look at their own inadequacies. For many reasons – not all so uncharitable – an educational connivance becomes possible between students and staff which may give a wholly false emphasis to the importance of structured education. There is a good sense in which any designer worth the name will be a student for the whole of his working life. This is not only a function of creative resource, but also of the conditions of rapid technological change which a designer must meet in his work. In such a perspective, the few years in a design school are not unimportant, but should be carefully guarded against inflated claims for 'completing' the education of a designer. At best, three – or even five – years in design school can attend (thoroughly) to a few simple priorities in a designer's personal education. Even at a mundane level, much of what is called 'operational know-how' is necessarily picked up in the rub of professional practice.

brezhibno urejenim okoljem. K marsikateremu oblikovalskemu delu lahko pristopimo s svežino in uvidom ter z zelo malo opreme in materiala: predpostavka o nasprotnem [ki je sprejet izhodišče oblikovanja] zgolj odraža družbeno ozračje, kjer se vsak najmanjši pomen izkaže za velikansko porabo truda in aparata.

Žalostna, toda zanimiva je ugotovitev, da so najbolj togo zamejeni seminarji »usposabljanja« pogosto najmanj tehnično kompetentni, toda nekateri predani amaterji opravijo delo bolje kot obrtniki, ki so izgubili odgovoren odnos do stroke. (»Amater – tisti, ki ljubi.) Četudi bi ne bilo tako, bi izobraževanje vedno moralo biti odzivno na vprašanje, zakaj [se torej preizprševati], medtem ko se usposabljanje že po svoji naravi sprašuje, kako, in prinaša lepe odgovore. V obeh primerih pa bo še najboljši teoretski okvir za študij lahko živ ali mrtev, glede na duha, s katerim ga interpretirajo tako študentje kot osebje, kar pa je naloga zaupanja znotraj akademiske skupnosti.

Čeprav ta razprava teži k predpostavki, da so šole in kolidži tisti, kjer se vse dogaja, pa nas Ivan Illich opominja, da ni težko pomešati šolanja z izobraževanjem, čeprav je izobraževanje pravzaprav naraven življenjski proces, nekatere šole pa dejansko delujejo protizobraževalno. Potrebujemo določen realizem pogleda, če hočemo videti šole takšne, kakršne so. Oblikovalska šola je morda nekakšna priprava za življenje, ki sledi, toda študentov čas in njej pomeni dragoceno in nenadomestljivo življenje v sedanosti. Je tudi varen privez v pristanišču. Na nekoliko drugačen način pa osebje v dosežkih šole išče svoj lastni izraz; to je njihov izbrani in stalni način življenja. Delo je, gledano v celoti, prijetno, razmeroma dobro plačano in družbeno dobro sprejeti. Je delo, ki nekaterim učiteljem omogoča, da v neskončnost prelagajo pogled na lastne nezadostnosti. Med študenti in osebjem lahko iz mnogih razlogov – in niso vsi tako neusmiljeni – nastane izobraževalna potuha, ki lahko daje pomenu strukturiranega izobraževanja povsem napačen poudarek. Precej smisla je v tem, da bo oblikovalec, vreden svojega imena, študent vse svoje delovno življenje. To ni le naloga ustvarjalnega vira, temveč tudi posledica hitrih tehnoloških sprememb, s katerimi se mora soočati pri svojem delu. V tej perspektivi nekaj let v šoli za oblikovanje ni nepomembnih, morali pa bi jih skrbno varovati pred pretiranimi trditvami o »dokončanju« izobraževanja. Tri ali celo pet let v oblikovalski šoli lahko v najboljšem primeru [temeljito] prispeva k nekaj preprostim prioritetam v oblikovalčevem osebnem izobraževanju. Tudi na banalni ravni je mnogo tega, kar se imenuje »operativno znanje«, neizogibno pobranega iz trenj strokovne prakse.

Kaj je torej specifična korist formalnega izobraževanja na področju oblikovanja? Skupine zaposlenih in študentov so zbrane na enem mestu s skupnim namenom in skupnimi sredstvi. Študentje se ogromno naučijo drug od drugega; ne le iz knjig ali



What, then, is the special usefulness of a formal design education? Numbers of staff and students are gathered together in one place with a common purpose and common facilities. Students learn a great deal from each other; not only from books or from their tutors' guidance. These facts point to the benefits of academic life: a gradually widening area of agreement [the norms against which individuality becomes meaningful], the experience of sharing, cooperating, and resolving conflicts: in a word, the chance of participation in all the stress and stimulus of a particular community with shared aims. This side of 'further education' is no less formative than the acquisition of skills and knowledge, much of which [not all] is equally available to the student who teaches himself from books, correspondence courses, or from the hard lessons of practical experience as an apprentice or design office assistant. The reality factors in academic life may appear to derive less from studio project work, which is always imperfectly 'real', than from the discussion that surrounds such work, the exploration of angles of attack, and the slow take-up represented by the experience of community.

Design education *must*, by its nature, dig below the surface, and must at the outset be more concerned to clarify intentions than to get results. If it is sensible to see learning and understanding as rooted in the continuum of life, it may be that a really useful introductory course will only show its value in the full context of subsequent experience; i.e. several years afterwards. Conversely, an education that concentrates on short-term results may give a misleading sense of achievement and fail to provide an adequate foundation for subsequent growth. This is a thorny problem, because under the pressurized and success-conscious conditions in which we live, students are naturally anxious to prove themselves as rapidly as possible [to themselves and their contemporaries and teachers]. Something as intangible as the growth of understanding may seem a poor substitute for the almost measurable achievement marked by a high output of design projects, however specious or thinly considered such projects may be.

Degree or diploma work is a serious business for students, and can cause a great deal of anxiety, particularly to those who have a [perhaps well-founded] dread of examinations in any form. If such students will realize that their school work is but an intensive phase of a very lengthy design education, perhaps they will feel less undermined by those pressures. The purpose of coming to a design school is not, primarily, to gain a first-class degree, but to make a constructive use of several years' education. Some students, on the other hand, will find the edgy business of first- and second-class degree a positive stimulus or a useful objective to work toward. This is a matter of individual psychology: in a good school the course work should be rewarding enough to keep such matters in a tolerably angst-free perspective. An intelligent design course

smernic svojih mentorjev. Ta dejstva kažejo na dobrobiti akademskega življenja: na postopno širjenje območja soglasja [norme, ob katerih postane individualnost smiselna], izkušnje deljenja, sodelovanja in reševanja konfliktov v besedi ter na priložnost sodelovanja z vsem stresom in spodbudami, ki jih ima skupnost s skupnimi cilji. Ta plat »nadaljnega izobraževanja« ni nič manj formativna kot pa pridobitev večin in znanj, od katerih so mnoga [ne vsa] na enak način na voljo tudi študentu, ki se uči iz knjig, dopisnih seminarjev ali trdih lekcij praktičnih izkušenj kot vajenec ali asistent v oblikovalskem biroju. Morda resničnostni dejavniki v akademskem življenju manj izhajajo iz projektnega študijskega dela, ki je vedno nepopolno »resnično«, kot pa iz razprav, ki obdajajo takšno delo, raziskovanja vpadnih kotov in počasnega razvijanja, kot jih prinaša izkušnja skupnosti.

Izobraževanje na področju oblikovanja *mora*, po svoji naravi, kopati pod površjem, in že od samega začetka se mora bolj ukvarjati s pojasnjevanjem namenov kot pa z doseganjem rezultatov. Če je smiselno videti učenje in razumevanje kot izhajajoča iz kontinuma življenja, bo morda resnično koristen uvodni seminar pokazal svojo vrednost šele v polnem kontekstu poznejših izkušenj; torej več let kasneje. Nasprotočno pa lahko izobraževanje, osredotočeno na kratkoročne rezultate, daje zavajajoč občutek uspeha, ne zagotovi pa ustreznega temelja za nadaljnjo rast. To je trd oreh, kajti pod napetimi in uspeha žejnimi razmerami, v katerih živimo, so študentje sedaj neučakani, da se kolikor mogoče hitro dokažejo [sebi in svojim sodobnikom ter učiteljem]. Nekaj tako neotipljivega, kot je rast razumevanja, se morda zdi slab nadomestek za skoraj merljive dosežke, ki jih označuje visok donos oblikovalskih projektov, ne glede na to, kako varljivi ali slabo domišljeni so.

Študijsko ali diplomsko delo je za študente resna stvar in lahko povzroči precej tesnobe, še posebej za tiste, ki imajo [morda dobro utemeljen] strah pred izpiti v kakršnikoli obliki. Če bodo ti študentje ugotovili, da je njihovo študijsko delo zgolj intenzivna faza zelo dolgotrajnega izobraževanja na področju oblikovanja, se bodo ob teh pritiskih morda počutili manj ogrožene. Prvi namen obiskovanja fakultete za oblikovanje ni toliko pridobitev prvostopenjske izobrazbe, temveč konstruktivna uporaba večletnega izobraževanja. Nekateri študentje pa bodo razumeli napetost prvostopenjskega in drugostopenjskega študija kot pozitivno spodbudo ali koristen cilj, h kateremu so namenjeni. To je stvar individualne psihologije: v dobri šoli bi moralo biti seminarško delo dovolj privlačno, da bi ostalo na ravni znosne perspektive brez strahu. Poleg tega bo inteligenten seminar oblikovanja učil, da velik del oblikovanja poteka kot deljen, sodelovalni podvig: študente se bo spodbujalo, da si med seboj pomagajo. Včasih je o teh zadevah nujno treba izobraziti tiste, ki izobražujejo. Ozkosrčen in zategnjen pogled na človekovo izkušnjo bo jemal drobne razlike v dosežkih skrajno resno. Velikodušnejši pogled bo dopuščal dejstvo, da mentorji držijo zgolj sveče v temi.



will also recognize that much design work is shared co-operative effort: students will be encouraged to help each other. In such matters it is sometimes necessary to educate the educators. A small-minded and uptight view of human experience will take small differences of accomplishment very seriously. A more generous view will allow that we are all holding candles in the dark.

Teachers who are practising designers may also have problems, by coming to feel that they have 'lost' ideas that may have cost them years of work, given and assimilated instantly and almost unnoticeably in the ordinary way of teaching exchanges; only to meet years afterwards the reproach that they have exploited their students' ideas to their own advantage. As designers well know, there is a private notebook of the mind stocked with ideas in various stages of development, and it is these that seem to disappear into teaching situations – rarely, in the nature of things, emerging in the form to which the designer's greater experience would have brought them. The origin of these occurrences is soon forgotten, but if a designer is teaching for any long length of time, he may feel increasingly deprived of his own creative identity. Such difficulties become obsessive only in overstructured teaching and learning relationships, where the us-and-them structure seems to generate attitudes akin to property-hoarding. It may be said here that a good design teacher will try to help a student to think through problems at his own pace and at the level of his own attainment. Such a teacher will communicate both his areas of confidence and the limits of his own awareness, thus putting forward the fruits of experience in a spirit of positive uncertainty. In this discretion, and in this spirit, 'models' and 'constructs' may become acceptable and unrestricting – not to copy, but to examine the thinking behind them, and how this has worked out. Models may be verbal or material, and constructs will be artefacts of one sort or another. As to students and staff, Frederic Samson put the matter pithily [addressing students at the Royal College of Art]: 'the main difference between us is that your ignorance is superficial but mine is profound'.

Unfortunately such remarks would hardly be well taken in some school and training colleges: too much is implied, of the life of knowledge, and of knowledge of life. Yet the challenge of a fast-changing global view of life stretches the imagination like elastic; it is ever more necessary that experiences nearer home are tethered to credibility, as distinct from pretension. There can be no doubt that many institutions have become seriously overstructured for the job they have to do. In education and elsewhere, the grip of outworn forms may discourage new energies beyond the toleration threshold within which differences are normally met and resolved. The parties involved find themselves talking in different languages in the same tongue, but with radically conflicting assumptions. Such new energies may be quite unformed,

A tudi učitelji, ki prakticirajo oblikovanje, imajo lahko težave, če jih navda občutek, da so »izgubili« ideje, ki so jih morda stale leta dela, da so bile podane in vsrkane v trenutku in skoraj neopazno v običajnem poteku učne izmenjave; in se potem leta kasneje soočijo z očitki, da so izkoriščali ideje svojih študentov v lastno korist. Kot oblikovalci dobro vedo, obstaja zasebna beležka uma, založena z idejami v različnih fazah razvoja, in zdi se, da prav te v učnih situacijah izginejo – redko se, že po naravi stvari, pojavijo v obliki, v katero bi jih pripeljala oblikovalčeva večja izkušenost. Izvor teh dogodkov je kmalu pozabljen, a če oblikovalec uči daljši čas, se bo morda počutil vse bolj prikrajšanega za lastno ustvarjalno identiteto. Te težave postanejo obsesivne le v preveč strukturiranih pedagoških in učnih razmerjih, kjer se zdi, da struktura »mi in oni« ustvarja odnos, podoben kopičenju lastnine. Lahko bi rekli, da bo dober učitelj oblikovanja skušal pomagati študentu, da bo ta razmišljal o problemih v lastnem ritmu in z lastnim znanjem. Tak učitelj bo razumel tako območja zaupanja kot meje lastne zavesti, s čimer bo sadove izkušenj predstavil v duhu pozitivne negotovosti. Ob takšni diskretnosti in v takšnem duhu lahko postanejo »modeli« in »konstrukti« sprejemljivi in neomejujoči – ne da bi jih kopirali, ampak preučili njihovo idejno podlago in to, ali so se obnesli. Modeli so lahko verbalni ali materialni, konstrukti pa so predmeti te ali one vrste. Frederic Samson je, kar zadeva študente in osebje, jedrnato dejal [naslavljajoč študente Kraljeve umetnostne akademije]: »Glavna razlika med nami je ta, da je vaša nevednost površna, moja pa globoka.«

Takšne pripombe na nekaterih šolah in akademskih kolidžih na žalost ne bi bile ravno dobro sprejete: vse preveč namigujejo o življenju znanja in znanju življenja. Toda izziv hitro spreminjačega se globalnega pogleda na življenje razteza domišljijo kot elastiko; vse bolj postaja neizogibno, da so izkušnje, ki so blizu domu, privezane na verodostojnost, ne domišljavost. Nedvomno je veliko ustanov postalo resnično preveč strukturiranih za delo, ki ga morajo opravljati. Primež zastarelih oblik lahko v izobraževanju in vsepopsov drugje potisne nove energije čez prag strpnosti, znotraj katere se razlike običajno srečujejo in razrešujejo. Vključene strani začnejo govoriti z različnim izrazjem znotraj istega jezika in z radikalno konfliktnimi predpostavkami. Te nove energije so lahko precej neizoblikovane, bolj so podprte z raziskovalno držo kot z argumenti, in do novih spoznanj lahko privedejo po neznanih poteh družbenega raziskovanja. To je geneza študentskih demonstracij ali zasedb.

Zasedbe in druge demonstracije lahko postanejo zgolj nekaj modnega, lahko pa postanejo tudi tako togo institucionalizirane kot razmere, katerim skušajo kljubovati ali jih spremeniti. A kratkovidno je ta dogajanja jemati kot nesmiselno destruktivna, saj lahko ustvarijo in zberejo izjemno energijo samoizobraževanja, ki je od dozdevnih ciljev »protesta« precej oddaljena. Pravzaprav lahko tisti, ki prezirajo revolucije, resnično vidijo takšne akcije kot poskus družbene prilagoditve, in sicer razmeram, ki



supported less by argument than by exploratory behaviour as such, and may be reaching toward new insights along unfamiliar paths of social exploration. This is the genesis of the student demonstration or sit-in.

Sit-ins and other demonstrations can become merely fashionable, or may become as rigidly institutionalized as the conditions they affect to challenge or displace. However, it is short-sighted to regards these happenings as mindlessly destructive, when they may generate and focus an extraordinary energy of self-education, quite remote from the ostensible aims of 'protest'. Indeed it is possible for those who detest revolutions to see such actions as genuinely an attempt at social adaptation; that is, to conditions which more ordinary channels of expression are failing either to contain or to anticipate. [Traditional forces of reaction will doubtless learn to keep up with the times.] Certainly a husk of discarded usages is revealed on these occasions, and one that has failed to grow with the perceptions of an impatient minority. At worst, the reaction provoked is too violently defensive to promise more than deep disillusion to the revolutionaries. At best, an institution is jerked out of complacency into a new consciousness of its privileges, and, for the participants, there may be a deeply moving experience of those twin principles for human conduct – solidarity and reciprocity [all for one and one for all, and an active spirit of empathy in human relations]. The result is not [as commonly supposed] a developing group hysteria, but may be a notable growth of self-knowledge and individuation.

It is reasonable to mistrust any theory of conduct which draws life from the presence of an external enemy [or the necessary creation of such]. Yet there is a dangerous doublethink that permits violence and apathy to be institutionalized in society, whilst deplored the faculty that young people have for detecting humbling in their elders. The intelligent way to meet any promise of new life must be with gratitude untinged by cynicism. Given favourable conditions for experiment, then the worth and staying power of new ideas will swiftly demonstrate themselves. It is only remarkable that, in practice, official educational attitudes are so deeply resistant to change that in some places the water settled placidly over the disturbances of 1968 as though they never happened; change being too often substituted by expansion. Above all it is necessary to defend the notion, and the fact, of pluralism in education; against the ever-possible threat of some new, centrally directed, and paralysing orthodoxy. Taken as a perspective cure-all, with no awareness of local conditions, even a 'network' can become a cage of emptiness.

Formal education is now under attack for its own credibility. If the gap between technical capability and social imagination is to be bridged, or if that problem is even to be energetically appraised, education must lose much of its formality in pursuit of a

jih običajnejši kanali izražanja ne vsebujejo ali ne predvidevajo. [Tradicionalne sile reakcije se bodo nedvomno naučile držati korak s časom.] Ob teh priložnostih se nedvomno razkrije prazna lupina odvrženih navad, pa tudi tista, ki se ji ni uspelo razvijati s percepcijami nepotrpežljive manjšine. V najslabšem primeru je izvana reakcija preveč nasilno obrambna, da bi lahko revolucionarjem pomenila kaj več kot zgolj globoko razočaranje. V najboljšem primeru je institucija potegnjena iz samozadostnosti v novo zavedanje o svojih privilegijih, udeleženci pa lahko dobijo nadvse ganljivo izkušnjo o zrcalnih načelih človeškega obnašanja – o solidarnosti in vzajemnosti [vsi za enega in eden za vse ter aktivni duh empatije v medčloveških odnosih]. Rezultat ni [kot se običajno domneva] razvijajoča se skupinska histerija, temveč opazna rast samospoznanja in individuacije.

Smiseln je dvomiti o vsakršni teoriji obnašanja, ki črpa življenje iz prisotnosti zunanjega sovražnika [ali njegove neizogibne kreacije]. Obstaja pa nevarno protislovje, ki dovoljuje, da se v družbi institucionalizirata nasilje in apatija, hkrati pa se obsoja zmožnost mladih za odkrivanje praznih marenj pri starejših. Inteligenter način za soočanje z obeti novega življenja mora biti pospremljen s hvaležnostjo, brez priokusa cinizma. Če bodo za eksperiment obstajale ugodne razmere, se bosta hitro pokazala tudi pomen in vztrajna moč novih idej. Presenetljivo je, da so uradne izobraževalne drže v praksi tako globoko odporne proti spremembam, da se je vihar ob motnjah iz leta 1968 ponekod mirno pomiril, kot da se nikoli ne bi zgodile; sprememba se pre-pogosto nadomesti z ekspanzijo. Predvsem pa moramo zagovarjati idejo in dejstvo pluralizma v izobraževanju; proti vedno prisotnim grožnjam novih, centralno vodenih in paralizirajočih ortodoksijs. Celo »mreža«, če jo jemljemo kot predpisano »zdravilo za vse«, brez poznavanja lokalnih razmer, lahko postane kletka praznine.

Danes je na udaru verodostojnost formalnega izobraževanja. Če hočemo premostiti vrzel med tehnično zmožnostjo in družbeno domišljijo, če hočemo, da se ta problem odločno pretrese, mora izobraževanje v iskanju nove topline in fleksibilnosti pogleda izgubiti precej svoje formalnosti. To ne pomeni opuščanja standardov intelektualnega diskurza ali resničnih dosežkov na vseh področjih: ravno nasprotno, to je edino upanje za njihovo prezivetje znotraj izobraževalnega sistema. Na vsak posamezni koncept strukturiranega izobraževanja moramo pogledati s svežino, potrebe pa reformirati [in jih, kjer je treba, zgraditi znova] od prvega načela dalje. Glede na hotenja ta načela niso niti težko dostopna niti zunaj možnosti dogovora. Ključno spoznanje se glasi, da so neformalne resnice blizu virom modrosti in ustvarjalnosti ter da eksperimentiranje na vseh ravneh ni razkošje, temveč primarna potreba tega časa: v našem delu, našem prostem času in prekarnem prezivetju, za katero upamo, da bo za naše otroke varnejše. Pri vseh teh prizadevanjih se bodo znova in znova pojavili neuspehi. Pomembno se je zavedati, da obstaja častna razlika med neuspehom



new warmth and flexibility of outlook. This does not imply abandoning standards of intellectual discourse or of real attainment in any field: on the contrary, it is the only hope of their survival within the education system. Every single concept of structured education needs to be freshly seen and needs to be overhauled [and, where necessary, rebuilt] from first principles. Given the will, such principles are neither hard of access nor beyond the reach of agreement. The essential realization is that the informal truths are closest to sources of wisdom and creativity, and that experimentation at all levels is not a luxury, but a first need of this time: in our work, in our leisure, and in the precarious survival that we hope to make more secure for our children. In all such efforts, there will be failures again and again. It is important to recognize that there is an honourable difference between failure by default – doing nothing or not even recognizing what might be done – and failure in an effort to do something worthwhile. What we may conceive as a genuinely free school may be as elusive as a free society and prone to as many internal contradictions; yet freedom must remain the one permissible tyranny.

As for design, there are times when to say *no* is a constructive act; to say yes, as *a designer* looking to the future, is to join social commitment to a mastery of particulars. In education, all we can do is make good work possible, and be alert to its coming; never fooling ourselves that all good things come easily. To work well is to work with love. A hail of words, like rain in April, can do no more than keep the air sharp and sweet and the ground springy underfoot; and that is the best a formal design education can hope to do – relevantly.

■
The original text was published in Norman Potter, *What is a designer: things, places, messages*, Hyphen Press, London, in 2002 (fourth edition), 21–30. First published in 1969.
© Copyright 2002 Robin Kinross
Reprinted by permission of Robin Kinross.



zaradi nedejavnosti – ne storiti nič ali ne vedeti, kaj bi sploh lahko bilo storjeno – in neuspehom kljub prizadevanju, da bi se naredilo nekaj koristnega. To, kar si lahko predstavljamo kot resnično svobodno šolo, je lahko prav tako izmazljivo kot svobodna družba in nagnjeno k prav toliko notranjim protislovjem; pa vendar mora svoboda ostati dopustna tiranija.

Kar zadeva oblikovanje, obstajajo obdobja, ko je reči *ne konstruktivno dejanje*; kot v *prihodnost usmerjen oblikovalec* reči *da* pomeni pridružiti se družbeni zavezanosti gospodstvu partikularnosti. Vse, kar lahko storimo na področju izobraževanja, je, da omogočimo dobro delo in smo dojemljivi, ko se pojavi; nikoli se ne slepimo, da dobre stvari pridejo zlahka. Delati dobro je delati z ljubeznijo. Toča besed, tako kot dež v aprilu, ne more storiti nič drugega kot to, da ohrani zrak oster in svež, tla pod nogami pa plodna; in to je največ, kar lahko formalno izobraževanje na področju oblikovanja stori oziroma upa, da bo lahko storilo.

Izvirno besedilo je bilo objavljeno v Norman Potter, *What is a designer: things, places, messages*, Hyphen Press, London 2002 [četrta izdaja], 21–30. Prva izdaja je izšla leta 1969.

© Avtorske pravice: Robin Kinross, 2002

Ponatisnjeno z dovoljenjem Robina Kinrossa.

Knjiga *What is a designer: things, places, messages* bo v slovenskem prevodu [v zbirki 42 društva Pekinpa] predvidoma izšla konec leta 2015.

Rethinking Design Education for the 21st Century: Theoretical, Methodological, and Ethical Discussion

A New Worldview?

Even the most cursory look at recent literature and production in design would be sufficient to reach the conclusion that the general landscape is safe, quiet, and serene. It is, therefore, not really original to claim that we are in a period of necessary change, be it in design education, practice, or research. Although the reasons invoked in support of this diagnosis may

vary considerably, they generally are considered to reside within the field of design itself. For instance, Hugues Boekraad and Joost Smiers mention “the disturbing effect of product engineering and marketing on design and the visual arts” as the main issue to be addressed currently.¹ This problem is, without doubt, a central concern today, but it can be considered as a symptom of a wider issue to which all other professions also are confronted: engineering, medicine, education, social work, law, etc., as if in its very foundations, contemporary practical philosophy were in crisis. In other words, one is bound to conclude that the reasons for the current situation in design are to be found mainly outside of the field of design. This explains the very wide—and, to some extent quite ambitious and pretentious—scope of this essay.

I do not think it necessary to dwell too long on the diagnosis of our current situation. Let me just say that I tend to agree with the idea that we are in a paradigm shift, although I don't necessarily share all the analyses and reports which have been made on this quite controversial topic. Our current paradigm; by that I mean the shared beliefs according to which our educational, political, technological, scientific, legal, and social systems function without these beliefs ever being questioned, or discussed, or even explicated, this paradigm may be—and indeed has been—characterized in

¹ H. Boekraad and J. Smiers, “*The New Academy*,” *European Journal of Arts Education* II: 1 [Nov. '98]: 60–65. This text actually is a manifesto calling for the foundation of a “new academy” of arts and design. The manifesto was launched as a working paper at the European League of Institutes of the Arts [ELIA] conference in Lisbon [November 16, 1996] under the full title of “The New Academy. Uniting Visual Intelligence With Ethics and Research.” A symposium was organized thereafter in Barcelona in October 1997, where thirteen design scholars and practitioners from seven different countries were invited to contribute to this debate, the conclusions of which were made public at the 1998 ELIA conference in Helsinki by Hugues Boekraad and Alain Findeli. A collection of the most important elements of the New Academy Project currently is being edited by Joost Smiers and Hugues Boekraad, and is scheduled for publication soon. This essay is a reworked and enlarged version of the working paper presented in Barcelona, on which the lecture I delivered in Edmonton on November 12, 1997 was based.

ALAIN FINDELI

Nov razmislek o izobraževanju na področju oblikovanja za 21. stoletje: teoretska, metodološka in etična razprava

Nov pogled na svet?

Že najbolj površen pogled na sodobno literaturo in produkcijo na področju oblikovanja zadostuje, da pridemo do ugotovitve, da je splošna pokrajina varna, tiha in spokojna. Zato resnično ni nič novega, če rečemo, da smo v obdobju neizogibnih sprememb, pa naj gre za izobraževanje na področju oblikovanja, prakso ali raziskovanje. Čeprav se razlogi, ki podpirajo

to diagnozo, precej razlikujejo, pa se zanje na splošno meni, da obstajajo znotraj samega področja oblikovanja. Hugues Boekraad in Joost Smiers, denimo, omenjata »moteč učinek produktnega inženiringa in trženja na oblikovanje ter vizualne umetnosti« kot glavno temo, s katero se moramo danes ukvarjati.¹ Ta problem je nedvomno osrednjega pomena, vendar pa ga lahko razumemo kot simptom širše tematike, s katero se soočajo tudi vsi drugi poklici: inženirstvo, medicina, izobraževanje, socialno delo, pravo itd., kot da bi bila sodobna praktična filozofija v krizi v samih svojih temeljih. Z drugimi besedami, slej ko prej bomo zaključili, da lahko najdemo razloge za sedanjo situacijo v oblikovanju večinoma zunaj področja oblikovanja. To je tudi razlog za zelo širok – in do neke mere precej ambiciozen in domišljav – obseg pričujočega prispevka.

Ne zdi se mi nujno predolgo premlevati o diagnozi naše sedanje situacije. Naj samo povem, da se strinjam z mislio, da se soočamo s spremembami paradigme, četudi se ne strinjam vedno z vsemi analizami in poročili, narejenimi o tej dokaj kontroverzni temi. Naša trenutna paradigma – s čimer mislim na skupna prepričanja, na podlagi katerih delujejo naši izobraževalni, politični, tehnološki, znanstveni, pravni in socialni sistemi, ne da bi ta prepričanja sploh kdaj pretresli, o njih razpravljali ali jih celo razčlenili – je lahko, in dejansko je, opredeljena na različne načine. Kar zadeva

¹ H. Boekraad in J. Smiers, »The New Academy«, *European Journal of Arts Education* II: 1 (november 1998), 60–65. To besedilo je pravzaprav manifest, ki poziva k ustanovitvi »nove akademije« za umetnost in oblikovanje. Manifest je bil podan kot delovni dokument na konferenci Evropske lige inštitutov za umetnost v Lizboni (16. novembra 1996), s polnim naslovom »Nova akademija. Združevanje vizualne inteligence z etiko in raziskovanjem«. Simpozij je bil nato organiziran v Barceloni oktobra 1997; nanj je bilo povabljenih trinajst oblikovalskih znanstvenikov in praktikov iz sedmih različnih držav, izsledke razprave pa sta objavila Hugues Boekraad in Alain Findeli na konferenci Evropske lige inštitutov za umetnost leta 1998 v Helsinki. Zbirko najpomembnejših elementov projekta »nove akademije« trenutno urejata Joost Smiers in Hugues Boekraad in bo objavljena kmalu. Ta esej je predelana in razširjena različica delovnega dokumenta, predstavljenega v Barceloni, predavanje o tem pa sem imel v Edmontonu 12. novembra 1997.

various ways. For my part, I retain the following main characteristics: its materialistic underlying metaphysics; its positivistic methods of inquiry; and its agnosticist, dualistic worldview.

There is no reason why the disciplines of design would escape the influence of this general framework. Indeed, all the drifts one is witnessing today in design can be attributed to one or all of these three central pillars: the already mentioned “effect of product engineering and marketing on design,” i.e., the determinism of instrumental reason, and central role of the economic factor as the almost exclusive evaluation criterion; an extremely narrow philosophical anthropology² which leads one to consider the user as a mere customer or, at best, as a human being framed by ergonomics and cognitive psychology; an outdated implicit epistemology of design practice and intelligence, inherited from the nineteenth century; an overemphasis upon the material product; an aesthetics based almost exclusively on material shapes and qualities; a code of ethics originating in a culture of business contracts and agreements; a cosmology restricted to the marketplace; a sense of history conditioned by the concept of material progress; and a sense of time limited to the cycles of fashion and technological innovations or obsolescence. All these aspects have contributed to the current state of design, but nevertheless should be considered as necessary steps in its historical development; as such, it is much too easy to condemn them today, as if they could have been avoided. However, there is no reason to resign ourselves to them any longer.

In this perspective, I will try to contribute to the following three problems: [1] What theoretical model of design could be used as a basis for education? [2] What is an appropriate epistemology of design practice and its import on design methodology? and [3] How can the issue of ethics in design be problematized? Needless to add, the following propositions are to be considered as an endeavor to lay down new foundations³ for design education and research within a non-materialistic, non-positivistic, and non-agnosticist, non-dualistic worldview.

2 The task of philosophical anthropology is to deliver a “theory” of the human being in general. It is, therefore, not to be mistaken for the anthropology of our academic “Departments of Anthropology.” All major philosophers have devoted a part of their work to anthropological issues, either explicitly or implicitly. The design disciplines and, for that matter all professional disciplines, adopt a—usually implicit—anthropology when dealing with their “client,” “patient,” “customer,” “user,” “beneficiary,” “addressee,” etc. An explicit and systematic discussion of anthropological issues remarkably is absent from design curricula. For a comprehensive overview, see B. Groethuysen, *Anthropologie philosophique* [Paris: Gallimard, 1980, 1953].

3 In a paper read at the 1999 International Conference on Design Research of the UIAH [Helsinki], Wolfgang Jonas declared the use of the term “foundation,” irrelevant pretending that “there are no [and will never be]

mene, vztrajam pri naslednjih glavnih lastnostih: materialistična metafizika, pozitivistične metode raziskovanja in agnostični, dualistični pogled na svet.

Ni razloga, zakaj bi disciplina oblikovanja pobegnila vplivu tega splošnega okvira. Vse premike, ki smo jim danes priča v oblikovanju, lahko dejansko pripisemo enemu ali vsem trem osrednjim stebrom: tu so že omenjeni »učinek produktnega inženiringa in trženja na oblikovanje«, torej determinizem instrumentalnega uma, ter osrednja vloga ekonomskega dejavnika kot skoraj izključnega merila presoje; skrajno ozka filozofska antropologija,² ki vodi k razumevanju uporabnika kot zgolj stranke ali v najboljšem primeru kot človeškega bitja, ki ga uokvirjata ergonomija in kognitivna psihologija; zastarela epistemologija oblikovalske prakse in inteligence, podedovana iz devetnajstega stoletja; prevelik poudarek na materialnem izdelku; estetika, ki temelji skoraj izključno na materialnih oblikah in lastnostih; etični kodeks, ki izvira iz kulture poslovnih pogodb in dogоворов; kozmologija, omejena na trg; koncept zgodovine, ki ga določa koncept materialnega napredka; in koncept časa, omejen na modne cikle in tehnološke inovacije ali zastaranost. Vsi ti vidiki prispevajo k sedanjemu stanju oblikovanja, a jih moramo vseeno razumeti kot nujne korake njegovega zgodovinskega razvoja; danes jih prelahko obsojamo, kot da bi se jim bili lahko izognili. Ni pa nobenega razloga, da bi bili z njimi še naprej spriaznjeni.

S tega vidika bom skušal odgovoriti na naslednja vprašanja: [1] Kateri teoretski model oblikovanja lahko uporabimo za osnovo izobraževanja? [2] Katera je primerna epistemologija oblikovalske prakse in kakšen je njen prispevek k metodologiji na področju oblikovanja? [3] Kako naj problematiziramo vprašanje etike v oblikovanju? Odveč je dodati, naj bodo naslednji predlogi razumljeni kot težnja k postavitvi novih temeljev³ izobraževanja na področju oblikovanja in raziskovanja v nematerialističnem, nepozitivističnem in neagnostičnem, nedualističnem pogledu na svet.

2 Nalogi filozofske antropologije je podati »teorijo« človeškega bitja na splošno. Zato je ne gre zamenjevati za antropologijo z naših akademskih »oddelkov za antropologijo«. Vsi pomembni filozofi so del svojega dela neposredno ali posredno namenili antropološkim temam. Oblikovalske discipline in pravzaprav vse strokovne discipline prevzamejo – običajno implicitno – antropologijo, ko se začnejo ukvarjati s svojim »klientom«, »pacientom«, »stranko«, »uporabnikom«, »upravičencem«, »naslovnikom« itd. Izrecna in sistematična razprava o antropoloških temah je sicer v oblikovalskih učnih programih presenetljivo odsona. Za celovit pregled glej B. Groethuysen, *Anthropologie philosophique* (Paris: Gallimard, 1980, 1953).

3 V razpravi na mednarodni konferenci o oblikovalskem raziskovanju na Univerzi za umetnost in oblikovanje v Helsinki (UIAH) leta 1999 je Wolfgang Jonas govoril o uporabi izraza »temelj«; dejal je, da »ni [in nikoli ne bo] 'temeljev', ki bi lahko služili za izgradnjo stabilne in konsistentne teorije o njih v znanstvenem smislu«. Prav ima, če se o »temelju« razmišlja na zelo klasičen filozofski in epistemološki način iz osemnajstega oziroma devetnajstega stoletja. Znotraj konstruktivističnega [ali konstrukcionalističnega] okvira – kar je, kot bomo videli kasneje, tukaj sprejet pristop – pa »temelj« pomeni »izhodišče«, konsenz glede nekaterih ključnih tematik, brez katerega bi bila vsaka nadaljnja razprava nemogoča ali nesmiselna. Moja stališča v tej razpravi niso apodiktična, temveč propozicijska.

Updating the Bauhaus Heritage: A Model for Design

One of the most famous slogans for which the Bauhaus is renowned is Gropius's catch phrase used for the 1923 international exhibition held in Weimar: "Art and Technology: A New Unity." This is the theoretical model in which the philosophy of the Bauhaus was grounded. The distinction between *Formlehre* and *Werklehre* in the curriculum is the most visible embodiment of this model. Yet this is not what was originally planned in the 1919 program which Gropius had included in the famous leaflet containing the Feininger woodcut of the cathedral illustrating the founding manifesto. The program read as follows:

Instruction at the Bauhaus includes all practical and scientific areas of creative work
[...] Students are trained in a craft [1], as well as in drawing and painting [2], and
science and theory [3].⁴

As can be seen, instead of the polar art/technology structure, a threefold technology/art/science structure originally was planned to support the curriculum. In Dessau, a new curriculum had been printed, which mentioned as "areas of instruction" the following: "[1] practical instruction; [2] form instruction [practical and theoretical]; and supplementary areas of instruction.⁵ Here again, the original threefold structure transformed itself into a polarity, in this case practice/theory.

When Moholy-Nagy founded the New Bauhaus in 1937 in Chicago, he wished to remain faithful to the original philosophy. However, some changes were introduced both in the structure and the content of the curriculum. For the structure, he relied heavily on the philosopher Charles Morris, one of the main representatives of the Vienna Circle in the U.S., and coeditor of the *Encyclopedia of Unified Science* which can be considered as the "bible" of logical positivism. Morris, who was, at that time, working on his general theory of signs or semiotics, taught a course in "intellectual integration" at the New Bauhaus, in which he attempted to articulate what he believed to be the three main dimensions of design: art, science, and technology. In

"foundations' that could serve for building a stable and consistent theory in the scientific sense on them." He is right if "foundation" is meant in a very classical, eighteenth/nineteenth century philosophical and epistemological sense. However, in a constructivist [or constructionist] framework, which is the approach adopted here as will be stated later, "foundation" has the meaning of "starting point," of a kind of consensus around some key issues, without which any further discussion would be impossible or meaningless. My attitude in this paper is not apodictic, but rather propositional.

⁴ Quoted in H. M. Wingler, *The Bauhaus* (Cambridge: MIT Press, 1979), 44.

⁵ Ibid., 109.





Posodabljanje Bauhausove dedičine: model za oblikovanje

Eden izmed najbolj znanih sloganov, po katerem slovi Bauhaus, je Gropiusova fraza, uporabljena leta 1923 na mednarodni razstavi v Weimarju: »Umetnost in tehnologija. Nova enotnost.« To je teoretski model, znotraj katerega je bila utemeljena filozofija Bauhausa. Razlikovanje med *Formlehre* in *Werklehre* v učnem programu je njegova najbolj vidna utelesitev. Toda v ustanovnem manifestu iz leta 1919, ki ga je Gropius objavil na znamenitem letaku in ki vsebuje Feiningerjev lesorez katedrale, tega modela še ni. Program se glasi:

Pouk na Bauhausu vključuje vsa praktična in znanstvena področja ustvarjalnega dela [...]. Študentje se usposabljajo v obrti [1], pa tudi v risanju in slikanju [2] ter znanosti in teoriji [3].⁴

Kot je razvidno, je bila za učni program namesto polarne strukture umetnost/tehnologija prvotno načrtovana trojna struktura tehnologija/umetnost/znanost. V Dessauu je bil natisnjen nov učni program, ki je kot »področja poučevanja« omenjal »[1] praktični pouk, [2] pouk o obliki [praktični in teoretski] in dopolnilna področja poučevanja«.⁵ Tudi tu se je prvotna trojna struktura preoblikovala v polarnost, v tem primeru kot praksa/teorija.

Ko je Moholy-Nagy leta 1937 v Chicagu ustanovil Novi Bauhaus, je želel ostati zvest prvotni filozofiji. Vendar pa so bile tako v strukturi kot v vsebini učnega programa uvedene nekatere spremembe. Pri strukturi se je zelo naslonil na filozofa Charlesa Morrisa, enega glavnih predstavnikov dunajskega kroga v ZDA in sourednika *Enciklopedije združene znanosti*, ki jo lahko štejemo za »biblijo« logičnega pozitivizma. Morris, ki se je v tistem času ukvarjal s splošno teorijo znakov ali semiotiko, je na Novem Bauhausu poučeval seminar »intelektualne integracije«, s katerim je skušal pojasniti tri glavne dimenzije oblikovanja: umetnost, znanost in tehnologijo. Skratka, Morris je akt oblikovanja razumel kot vrsto semioze, povlekel je vzporednico med sintaktično, semantično in pragmatično dimenzijo znaka oziroma umetniško, znanstveno in tehnološko dimenzijo oblikovanja.⁶ Zaradi različnih razlogov ta ambiciozni in izjemno izvirni filozofska projekt ni nikoli zadovoljivo uspel.

⁴ Navedeno v H. M. Wingler, *The Bauhaus* [Cambridge: MIT Press, 1979], 44.

⁵ *Ibid.*, 109.

⁶ C. Morris, »The Intellectual Program of the New Bauhaus« [tipkopis], Posebna zbirka Univerze Illinois v Chicagu, pet strani, 1937; in »Science, Art, and Technology«, *Kenyon Review I* [1939]: 409–423.

short, Morris considered the design act to be a kind of semiosis, and he drew a parallel between the syntactic, the semantic, and the pragmatic dimensions of a sign and, respectively, the artistic, the scientific, and the technological dimensions of design.⁶ For various reasons, this ambitious and highly original philosophical project never was satisfactorily achieved.

The Hochschule für Gestaltung [HfG], opened at Ulm in the early '50s, explicitly claimed the heritage of the Bauhaus. After a while however, this historical reference appeared somewhat cumbersome to its directors. In 1958, Tomás Maldonado already had declared that "these ideas [had] now [to] be refuted with the greatest vehemence, as well as with the greatest objectivity." "A new educational philosophy," he proclaimed, "is already in preparation; its foundation is scientific operationalism."⁷ As a consequence, the artistic dimension of the original curriculum became less and less important, whereas its scientific content was increased and emphasized, especially with contributions from the human and social sciences. "Science and technology; a new unity" could well have been the new slogan at Ulm. The idea that design was **applied esthetics** had been replaced by a new theoretical model, considering design as **applied [human and social] science**, but the underlying dualistic epistemological structure remained the same in Weimar/Dessau and in Ulm.

After this more than hasty overview of the evolution of the Bauhaus lineage, one can draw the following conclusion. It seems that the optimal, archetypal, structure of a design curriculum within the Bauhaus tradition would be a threefold articulation of art, science, and technology [fig. 1]. The three examples I briefly described could be pictured as in fig. 2, where we can see that none of them managed to actualize the ideal model. The problem lies both in the relative weight of the three dimensions, and in their adequate articulation.

Today, everybody tends to agree upon the necessity of including art, science, and technology in a design curriculum. But disagreement will soon arise, on the one hand, as to their relative importance, and, on the other hand, as to their respective function, i.e., the way they should be articulated. A third and highly critical aspect inevitably will provoke even stronger disagreement, a factor without which no curriculum, be it as filled with theoretical courses, workshops, seminars, and studio work

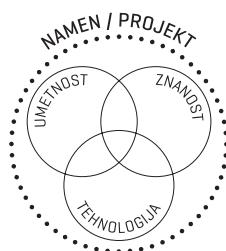
⁶ C. Morris, "The Intellectual Program of the New Bauhaus" [typescript], University of Illinois at Chicago Special Collection, 5 pages, 1937; and "Science, Art, and Technology," *Kenyon Review* I (1939): 409–423.

⁷ T. Maldonado, "Neue Entwicklungen in der Industrie und die Ausbildung des Produktgestalters" *Ulm* 2 [Oct. '58]: 25–40 [also in English and French]; see also "Ist das Bauhaus aktuell?" *Ulm* 8/9 [Sept. '63]: 5–3, and Walter Gropius's reply in *Ulm* 10/11 [May '64]: 62–70. [Also in English.]

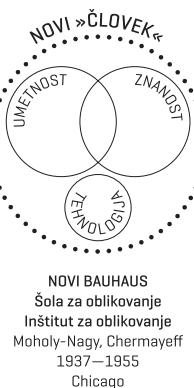
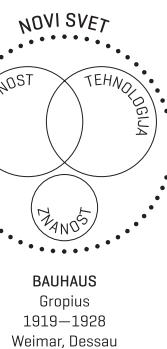
Hochschule für Gestaltung, visoka šola za oblikovanje, ustanovljena v Ulmu v zgodnjih petdesetih letih, se je izrecno sklicevala na dediščino Bauhausa. Toda direktorjem šole se je ta zgodovinska referenca sčasoma zazdela nekoliko nepraktična. Leta 1958 je Tomás Maldonado izjavil, da »je te ideje treba ovreči z največjo odločnostjo, pa tudi z največjo objektivnostjo«. »Nova izobraževalna filozofija,« je dejal, »je že v pripravi; njen temelj je znanstveni operacionalizem.«⁷ Umetniška dimenzija izvirnega učnega programa je posledično postajala vse manj pomembna, medtem ko se je njena znanstvena vsebina poudarjala in povečevala, predvsem s prispevki humanističnih in družbenih ved. »Znanost in tehnologija. Nova enotnost« bi prav lahko bil novi slogan v Ulmu. Ideja, da je oblikovanje **uporabna estetika**, je bila zamenjana z novim teoretskim modelom, ki razume oblikovanje kot **uporabno [humanistično in družbeno] znanost**, a osnovna dualistična epistemološka struktura je ostala enaka tako v Weimarju/Dessauu kot v Ulmu.

Po tem več kot prehitrem pregledu razvoja Bauhausove linije lahko potegnemo naslednje zaključke. Zdi se, da je trojna artikulacija umetnosti, znanosti in tehnologije optimalna, arhetipska struktura učnega programa na področju oblikovanja Bauhausove tradicije (slika 1). Trije primeri, ki sem jih na kratko opisal, so upodobljeni na

Slika 1
Arhetip [Urmodeff] učnega
programa na področju oblikovanja



Slika 2
Tri zgodovinske utelesitve
arhetipa s slike 1



⁷ T. Maldonado, »Neue Entwicklungen in der Industrie und die Ausbildung des Produktgestalters«, *Ulm 2* (oktober 1958): 25–40 (tudi v angleščini in francoščini); glej tudi »Ist das Bauhaus aktuell?«, *Ulm 8/9* (september 1963): 5–3, in odgovor Walterja Gropiusa v *Ulm 10/11* (maj 1964): 62–70 (tudi v angleščini).

Figure 1
Archetype [Urmödell] of Design Curriculum

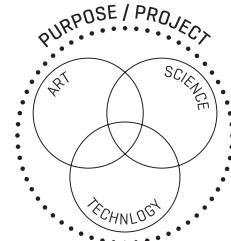
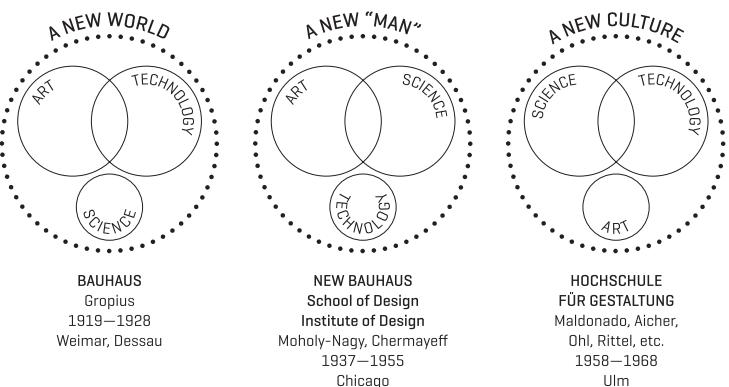


Figure 2
Three Historical Embodiments of the Archetype of Figure 1



as possible, will ever find its coherence: the overall purpose of design education and practice. This is what is indicated in figs. 1 and 2 by the large circle of dotted lines. The questions to be asked are: To which meta-project [anthropological, social, cosmological, etc.] does a design project and a design curriculum contribute? For what end is design a means? Can design find its *raison d'être* within its own field and remain autarchical? How autonomous can design be? All these questions are related to the ethical dimension of design, which will be discussed later.

Epistemological and Methodological Dead Ends

FROM "APPLIED" TO "INVOLVED" SCIENCE

An inquiry into the historical development of design theory reveals that the discipline has adopted two major paradigms to account for the logics (or epistemology) of design thinking: **applied art** and **applied science**. Both take their roots in the nineteenth century, and must be considered as outdated today.

Applied art is the very first model under which design operated, according to the long tradition of the decorative arts, sometimes renamed industrial arts. The word "applied" refers to the utilitarian side of the artifacts, the other side being the artistic. "Disciplined arts" is another variant, coined by Goethe. At the Bauhaus, this model was slightly modified, insofar as the artistic component began taking a scientific



sliki 2, kjer lahko vidimo, da niti enemu od njih ni uspelo aktualizirati idealnega modela. Problem leži tako v relativni teži treh dimenzij kot v njihovi primerni artikulaciji.

Danes se vsi strinjamo glede nujnosti vključevanja umetnosti, znanosti in tehnologije v učne programe. A nesoglasja se bodo kmalu pojavila, na eni strani zaradi njihovega relativnega pomena, na drugi pa zaradi njihove funkcije, tj. načina, kako naj bodo artikulirane. Tretji, izjemno kritičen vidik bo neizgibno povzročil še večje nesoglasje, saj gre za dejavnik, brez katerega noben učni program, pa naj bo še tako bogat s teoretskimi tečaji, delavnicami, seminarji in studijskim delom, ne bo našel svoje koherence: to je splošni namen izobraževanja in prakse na področju oblikovanja. To je tisto, kar je na slikah 1 in 2 nakazano z velikim pikčastim krogom. Vprašanja, ki jih je treba zastaviti, so: h kateremu metaprojektu (antropološkemu, družbenemu, kozmološkemu itd.) prispevata oblikovalski projekt in učni program? H kateremu cilju stremi oblikovanje? Ali lahko oblikovanje najde svoj *raison d'être* znotraj lastnega področja in ostane avtarkično? Koliko je lahko oblikovanje avtonomno? Vsa ta vprašanja se nanašajo na etične dimenzije oblikovanja, o katerih bomo razpravljali kasneje.

Epistemološke in metodološke slepe ulice

OD »UPORABNE« DO »VKLJUČENE« ZNANOSTI

Vpogled v zgodovinski razvoj teorije oblikovanja razkriva, da je disciplina prevzela dve glavni paradigm logike (ali epistemologije) oblikovalskega mišljenja: **uporabno umetnost** in **uporabno znanost**. Obe izvirata iz devetnajstega stoletja, danes pa ju je treba obravnavati kot zastareli.

Uporabna umetnost je prvi model, znotraj katerega je delovalo oblikovanje, skladno z dolgo tradicijo dekorativne umetnosti, včasih imenovane industrijska umetnost. Beseda »uporabno« se nanaša na utilitarno plat predmetov, druga plat pa ostaja umetniška. »Disciplinirana umetnost« je še ena različica, ki jo je skoval Goethe. V Bauhausu je bil ta model nekoliko spremenjen, saj je umetniška komponenta začela prevzemati znanstveno barvo, denimo na »teoretskih« seminarjih Kandinskega in Kleeja. Oblikovanje, na katero je vplival scientizem devetnajstega stoletja, je bilo v Bauhausu obravnavano kot umetniška ali estetska teorija, uporabljenha v praksi. Z drugimi besedami, od študentov se je pričakovalo, da v *Werklehre* uporabijo, kar so se naučili v *Formlehre*.

Uporabna znanost sledi enaki strukturi, a namesto umetnosti vlogo referenta, tj. »temeljne discipline«, ki naj se uporablja v praksi, igra znanost. V tem modelu se

coloration, for instance in Kandinsky's and Klee's "theoretical" courses. Influenced by nineteenth-century scientism, design was considered at the Bauhaus as artistic or esthetic theory applied to practice. In other words, students were expected to apply in the *Werklehre* what they had learned in the *Formlehre*.

Applied science follows the same structure: instead of art, science now is playing the role of referent, i.e. of "fundamental discipline" to be applied into practice. An implicit deductive link is established in this model between theory [science] and practice [technology]. The underlying theoretical model of design at the HfG was the following: design tended to be considered as applied science, mainly human and social science. In other words, the design project was to be deducted from the knowledge gathered in the theoretical courses.

As a result, one often hears, in design schools, that, if the problem is well stated (i.e., if the preliminary scientific inquiry has been thoroughly conducted and the functional criteria precisely established), the solution will follow almost **automatically**. The most widely-accepted (and practiced) logical structure of the design process is, therefore, the following:

1. A need, or problem, is identified: situation A;
2. A final goal, or solution, is imagined and described: situation B; and
3. The act of design is the **causal link** by which situation A is transformed into situation B.

Only recently has the idea that technology is nothing but applied science been challenged by historians and philosophers. Contemporary models accept the fact that the history of technology has followed a path relatively independent from scientific development. These models all claim an autonomous epistemology for technology.⁸ Furthermore, by separating human knowledge into two main sectors, the "sciences of the natural" and the "sciences of the artificial," Herbert Simon has clearly claimed the originality of design thinking.⁹ Systems and complexity theories have further contributed to a radical transformation of the mechanistic model of the design process.¹⁰ The main consequence is the introduction of teleology into an otherwise

⁸ One of the most convincing arguments against the applied science epistemology in the field of design is Donald Schön's introductory chapter to his *Educating the Reflective Practitioner* (San Francisco: Jossey Bass, 1987).

⁹ H. Simon, *The Sciences of the Artificial* (Cambridge: MIT Press, 1996, 3rd enlarged edition).

¹⁰ Jean-Louis Le Moigne, the French translator of Herbert Simon's seminal work cited above, has been very active in trying to provide the most sound, comprehensive, systematic, and critical epistemological basis for



vzpostavi implicitno deduktivna zveza med teorijo (znanostjo) in prakso (tehnologijo). Osnovni teoretski model oblikovanja na Hochschule für Gestaltung je bil naslednji: oblikovanje naj bo razumljeno kot uporabna znanost, predvsem kot humanistična in družbena znanost. Z drugimi besedami, oblikovalski projekt naj bo deduciran iz znanja, pridobljenega na teoretskih seminarjih.

Zato v oblikovalskih šolah tako pogosto slišimo, da če je problem dobro predstavljen (tj. če je bila preliminarna znanstvena raziskava temeljito opravljena, funkcionalna merila pa natančno določena), bo rešitev sledila skorajda **samodejno**. Najširše sprejeta [in prakticirana] logična struktura oblikovalskega procesa je torej naslednja:

1. Potreba oz. problem sta opredeljena: situacija A.
2. Končni cilj oz. rešitev sta domišljena in opisana: situacija B.
3. Akt oblikovanja je **vzročna zveza**, s katero se situacija A preoblikuje v situacijo B.

Zgodovinarji in filozofi so šele pred nedavnim začeli preizpraševati idejo, da je tehnologija zgolj uporabna znanost. Sodobni modeli sprejemajo dejstvo, da zgodovina tehnologije sledi poti, razmeroma neodvisni od znanstvenega razvoja. Vsi ti modeli zagovarjajo avtonomno epistemologijo tehnologije.⁸ Obenem je Herbert Simon z ločitvijo človekovega znanja v dva glavna sektorja, v »znanosti naravnega« in »znanosti umetnega«, jasno opredelil izvirnost oblikovalskega mišljenja.⁹ Sistemske teorije in teorije kompleksnosti so še dodatno prispevale k radikalni preobrazbi mechanističnega modela oblikovalskega procesa.¹⁰ Glavna posledica je uvedba teleologije v sicer striktno vzročno zaporedje. Koncept **projekta** pridobi tako precej močnejši teoretski status. Predlagam, da namesto o »uporabni« znanosti govorimo o »vključeni«, »situirani« ali »vgrajeni« znanosti. Tak model predpostavlja, da se znanstveno raziskovanje in odnosi **izvajajo znotraj** področja projekta in prakse [ne pa da se vanj vnašajo], tako da prvi spreminja drugo in obratno. Koncept

⁸ Enega od najbolj prepričljivih argumentov proti epistemologiji uporabne znanosti na področju oblikovanja najdemo v uvodnem poglavju dela Donalda Schöna *Educating the Reflective Practitioner* (San Francisco: Jossey Bass, 1987).

⁹ H. Simon, *The Sciences of the Artificial* (Cambridge: MIT Press, 1996, tretja, razširjena izdaja).

¹⁰ Jean-Louis Le Moigne, francoski prevajalec zgoraj navedenega vplivnega dela Herberta Simona, je bil zelo dejaven pri poskuusu ustvarjanja prepričljive, celovite, sistematične in kritične epistemološke osnove za vse strokovne discipline. S svojimi sodelavci v Evropskem združenju za modeliranje kompleksnosti od leta 1988 objavlja trileten *Lettre MCX* ter organizira številne transdisciplinarne in interstrokovne konference o temah, ki se nenehno vrtijo okrog osrednjega vprašanja odnosa med teorijo in prakso. Njihova spletna stran mcxapc.org je vredna rednega obiska.

strictly causal sequence. As such, the concept of **project** gains a much stronger theoretical status. Instead of “applied” science, I propose to speak of “involved,” “situated,” or “embedded” science. Such a model considers that the scientific inquiry and attitude are **carried into** (instead of applied to) the field of the project and of practice, so that the former are modified by the latter, and vice versa. Donald Schön’s concept of “reflection-in-action” thus is transferred from its mainly methodological to the epistemological realm. Better said, the distinction between the methodological and epistemological realms no longer is necessary or even relevant.

A new logical structure of the design process is:

1. Instead of a problem, we have: state A of a system;
2. Instead of a solution, we have: state B of the system; and
3. The designer and the user are part of the system [stakeholders].

The designer’s task is to understand the dynamic morphology of the system, its “intelligence.” One cannot act **upon** a system, only **within** a system; one cannot act against the “intelligence” of a system, only encourage or discourage a system to keep going its own way; state B of the system is, among various possibilities, the one favored by the designer and the client according to their general set of values; state B is only a transitory, more or less stable, state within a dynamic process, never a solution; the production of a material object is not the only way to transform state A into state B; and since the designer and the user also are involved in the process, they end up being transformed, too, and this learning dimension should be considered as pertaining to the project.

VISUAL INTELLIGENCE AND COMPLEXITY THEORY¹¹

In an article published in 1947, Walter Gropius asked: “Is there a science of design?”¹² Although he maintained the irreducibility of the creative aspect of design, nevertheless he proposed to ground the design process into an “objective” scientific context, namely the psychology of visual perception, and thus emphasizing visual intelligence. The problem with such a proposition, as the later development of design has amply demonstrated, is the importance put upon the visual appearance of the

all professional disciplines. With his collaborators of the AEMCX [European Association for the Modeling of Complexity], he has been publishing the triannual *Lettre MCX* [MCX Newsletter] since 1988, and organized many transdisciplinary and interprofessional conferences, the themes of which steadily revolved around the central issue of theory/practice relationships. Their website, mcmcpc.org, is worth consulting regularly.

¹¹ I follow Boekraad’s and Smiers’s “The New Academy,” in which the issue of “visual intelligence” is raised.

¹² W. Gropius, “Is There a Science of Design?” *Magazine of Art* 40 [Dec. ‘47] reprinted in *Scope of Total Architecture* [New York: Collier Books, 1962], 30–43. [First ed. 1954.]



»refleksije v akciji« Donalda Schöna je tako prenesen iz večinoma metodološke v epistemološko realnost. Bolje rečeno, razlikovanje med metodološkimi in epistemološkimi realnostmi ni več potrebno niti primerno.

Nova logična struktura oblikovalskega procesa je:

1. Namesto problema imamo: stanje A sistema.
2. Namesto rešitve imamo: stanje B sistema.
3. Oblikovalec in uporabnik sta del sistema [deležnika].

Naloga oblikovalca je razumeti dinamično morfologijo sistema, njegovo »inteligenco«. Ne moremo se ravnati **po** sistemu, temveč moramo delovati **znotraj** njega; ne moremo delovati proti »inteligenci« sistema, marveč moramo spodbujati ali preprečevati, da bi sistem nadaljeval svojo pot; stanje B sistema je – poleg različnih drugih možnosti – tisto, ki mu oblikovalec in stranka dajeta prednost glede na svoj splošni niz vrednot; stanje B je le prehodno, bolj ali manj stabilno, je stanje znotraj dinamičnega procesa, nikoli rešitev; produkcija materialnega objekta ni edini način za preoblikovanje stanja A v stanje B; in ker sta oblikovalec in uporabnik vključena v proces, se preoblikujeta tudi onadva, to dimenzijo učenja pa je treba upoštevati kot del projekta.

VIZUALNA INTELIGENCA IN TEORIJA KOMPLEKSNOSTI¹¹

Walter Gropius se je v članku, objavljenem leta 1947, vprašal: »Ali obstaja znanost o oblikovanju?«¹² Čeprav je ohranil ireduktibilnost ustvarjalnega vidika oblikovanja, je vseeno predlagal, naj proces oblikovanja temelji na »objektivnem« znanstvenem kontekstu, in sicer na psihologiji vizualne percepцијe, s čimer je poudaril vizualno inteligenco. Težava tega predloga, kot se je pogosto pokazalo v kasnejšem razvoju oblikovanja, je pomen, ki je dodeljen vizualnemu videzu materialnega objekta. Zdi se, da se je Moholy-Nagy bolje zavedal tega, čemur danes rečemo kompleksnost oblikovalskega procesa in projekta. Po njegovem mnenju je »ključ do naše dobe [biti sposoben] videti vse v razmerju«.¹³ Medtem ko objekt ima vidno prezenco, pa so razmerja po svojem bistvu nevidna. Zato je vrsta vizualne intelligence, ki je potrebna v tem primeru, drugačne narave.

11 Sklicujem se na »The New Academy« Boekraada in Smiersa, kjer je postavljeno vprašanje »vizualne intelligence«.

12 W. Gropius, »Is There a Science of Design?« *Magazine of Art* 40 [december 1947]; ponatis v *Scope of Total Architecture* [New York: Collier Books, 1962], 30–43 [prva izdaja 1954].

13 L. Moholy-Nagy, »Why Bauhaus Education?«, *Shelter* [marec 1938]: 7–22 [poudarek je avtorjev].

material object. On his part, Moholy-Nagy seems to have been more aware of what we now would call the complexity of the design process and project. According to him, “the key to our age [is to be able] to see everything in relationship.”¹³ Whereas an object has a visible presence, relationships are, by essence, invisible. Therefore, the kind of visual intelligence needed in such a case is of a different quality.

If we accept the epistemology and methodology described above for the design process, it is easy to understand why a different kind of visual intelligence—similar to the one intuited by Moholy-Nagy—will be required from the designer and, therefore, taught to the students. Future visual intelligence is bound to depart from its traditional connection with the material world and its artifacts, otherwise, as Goethe wrote in 1817, “One faces the danger of seeing and yet of not seeing.” Everybody remembers Oskar Schlemmer’s diagram showing a running human surrounded by a complex, multidimensional cosmos. Such an image must be considered as the basis for future visual intelligence in design, since any design project evolves between the two poles of anthropology and cosmology. The underlying anthropology of design usually is reduced to anthropometrics, ergonomics, and consumer psychology and sociology. But a user is more than the statistical “being of needs and desires” of the designer. Likewise, the designer him/herself is more than a rational computer, as depicted by contemporary cognitive psychology and as produced by design education. A contemporary anthropology will have to take into account the complex interplay and relationships of the various layers and subsystems which build up the inner world of the thinking, feeling, and willing human being. Conversely, the outer world is much more than what even environmentalists and ecodesigners call the environment, usually reduced to its biophysical aspects. Here, we also are dealing with various interrelating subsystems, which function and evolve according to very different logics: the technical or man-made world, the biophysical world, the social world, and the symbolic world or “semiocosm.” These inner and outer worlds interact with each other.¹⁴ As a consequence, before any project can be launched within such a complex situation, a designer indeed must make sure he/she has an adequate representation of the content, the structure, the evolutionary dynamics, and the trends or “telos” of such a system. This is why future visual intelligence must be capable of penetrating into the invisible world of human consciousness (thoughts, motivations, purpose, fear, needs, aspirations, etc.) and into the intricate ecologies of the outer world.

¹³ L. Moholy-Nagy, “Why Bauhaus Education?” *Shelter* [March 1938]: 7–22 [emphases in original].

¹⁴ I have presented my own interpretation of this systemic model in “Ethics, Aesthetics, and Design. Educational Issues” *Design Issues* 10:2 [Summer ‘94]: 49–68.



Če za oblikovalski proces sprejmemo epistemologijo in metodologijo, opisano zgoraj, bomo zlahka razumeli, zakaj se bo od oblikovalca zahtevala in za študente poučevala drugačna vrsta vizualne inteligence – podobna tisti, ki jo je slutil Moholy-Nagy. Prihodnja vizualna inteligenco se nagiba k ločitvi od svoje tradicionalne povezave z materialnim svetom in njegovimi predmeti, kot je sicer zapisal Goethe leta 1817: »Socemo se z nevarnostjo, da vidimo, pa vendar ne vidimo.« Vsi se spominjamo diagrama Oskarja Schlemmerja, ki prikazuje človeka v gibanju, obdanega s kompleksnim, večdimenzionalnim kozmosom. To podobno moramo razumeti kot osnovno prihodnje vizualne inteligence v oblikovanju, saj se vsak oblikovalski projekt razvija med dvema poloma, med antropologijo in kozmologijo. Osnovna antropologija oblikovanja je običajno zreducirana na antropometrijo, ergonomijo in potrošniško psihologijo ter sociologijo. Toda uporabnik je več kot zgolj statistično »bitje potreb in želja« oblikovalca. Podobno sta tudi oblikovalec oziroma oblikovalka več kot zgolj racionalna računalnika, kot ju prikazuje sodobna kognitivna psihologija in vzgaja oblikovalsko izobraževanje. Sodobna antropologija bo morala upoštevati kompleksno medsebojno delovanje in razmerja med različnimi plastmi in podsistemi, ki sestavljajo notranji svet razmišljujočega, čutečega in hotečega človeškega bitja. In obratno, zunanjji svet je mnogo več kot to, čemur celo okoljevarstveniki in ekodizajnerji rečejo okolje, ki je običajno zreducirano na biofizikalne vidike. Tu imamo opravka z različnimi medsebojno povezanimi podsistemi, ki delujejo in se razvijajo glede na zelo različne logike: glede na tehnični svet ali svet, ki ga je ustvaril človek, biofizikalni svet, družbeni svet in simbolni svet ali »semiokozmos«. Med temi notranjimi in zunanjimi svetovi poteka interakcija.¹⁴ Oblikovalec mora zato, preden se projekt znotraj tako kompleksne situacije sploh lahko začne, dejansko zagotoviti, da ima ustrezno zastopanost vsebine, strukture, evolucijske dinamike in trendov ali »telosov« takšnega sistema. Zato mora biti prihodnja vizualna inteligenco zmožna prodreti in nevidni svet človekove zavesti [misli, motivov, namenov, strahov, potreb, želja itd.] in v zapletene ekologije zunanjega sveta.

Nekateri avtorji so v zadnjem desetletju prepoznali potencial teorije kompleksnih sistemov za oblikovanje.¹⁵ Poudarek je predvsem na kompleksifikaciji modelov, ki opisujejo oblikovalski proces, in na semiotični kompleksifikaciji percepциje ter recepcije produktov oblikovanja. Toda vsa ta prizadevanja ostajajo v domeni oblikovanja. Predlagam, da se ne omejujemo na tak način, temveč da odpremo obseg raziskovanja, in sicer v smislu teorije sistemov, premaknemo meje našega sistema in tako vključimo še druge pomembne vidike sveta, znotraj katerega poteka oblikovanje.

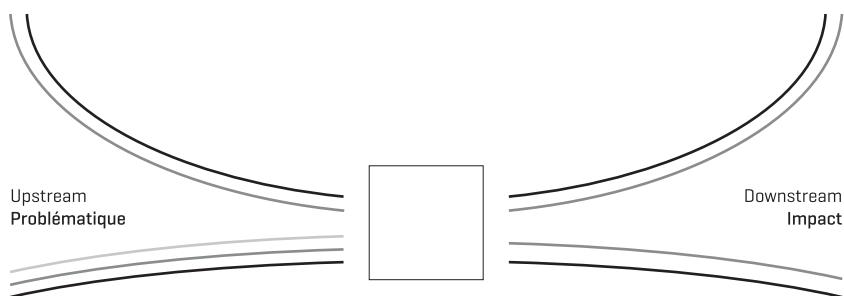
14 Svojo interpretacijo tega sistemskega modela sem predstavil v »Ethics, Aesthetics, and Design. Educational Issues«, *Design Issues* 10: 2 (poletje 1994): 49–68.

15 Wolfgang Jonas v Nemčiji in Harold Nelson oziroma njegov program »Oblikovanje celostnih sistemov« v ZDA sta v tem pogledu dve pomembni imeni.

The potential of complex systems theory for design has been identified by some authors within the last decade.¹⁵ Emphasis has been put mainly on the complexification of the models describing the design process, and on the semiotic complexification of the perception and reception of the products of design. All of these endeavors tend to remain within the domain of design, however. My suggestion is that we should not restrict ourselves thus, but, instead, open up the scope of inquiry, i.e., in systems theory terms, and push back the boundaries of our system in order to include other important aspects of the world in which design is practiced.

Figure 3

The necessary upstream [problématique] and downstream [impact] complexification of the design project.



Let us discuss this with Hickling's model.¹⁶ The input "PROBLEM" and the output "ACTION" of the design process are considered as not being part of the design process. The "problem" is a given, and usually is considered as such in design practice and in the design studio of our schools. An "action" comes out of the process, ready to live a life of its own, in another realm. But, in reality, problem and action dwell in the same world, of which the designer also is part, not only as a professional, but also as a citizen. It is not my intention to discredit the efforts to complexify the internal components of the system of design, i.e., to yield an even more complex and sophisticated model of the design process and of the design product. But if we are interested—and designers should be interested—in the origin and the destination of their projects, then the complexification of the **process** and the **product**

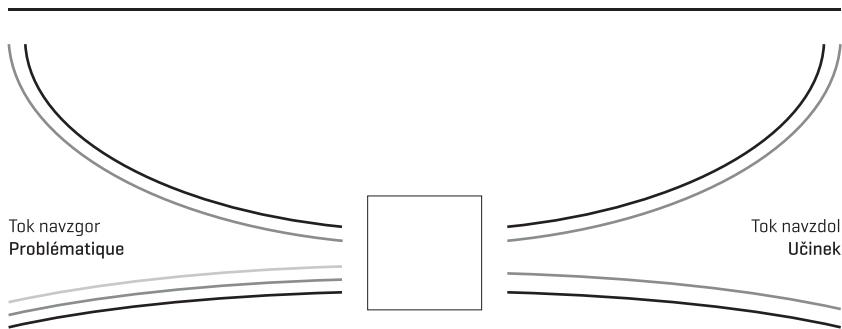
¹⁵ Wolfgang Jonas in Germany and Harold Nelson's "Whole Systems Design" program in the U.S. are two important names in this respect.

¹⁶ Hickling, "Beyond a Linear Iterative Process?", in B. Evans, et al., *Changing Design* [Chichester: John Wiley & Sons, 1982], 275–93.



Slika 3

Nujni tok navzgor [problématique] in tok navzdol [učinek] pri kompleksifikaciji oblikovalskega projekta



Naj ponazorim tole s Hicklingovim modelom.¹⁶ Elementa »PROBLEM« in »AKCIJA« nista razumljena kot del oblikovalskega procesa. »Problem« je dan kot samoumeven in je v oblikovalski praksi in studiih v naših šolah običajno tudi tako sprejet. »Akcija« izhaja iz procesa, pripravljena, da zaživi lastno življenje v neki drugi realnosti. V resnici pa problem in akcija bivata v istem svetu, katerega del je tudi oblikovalec, ne le kot strokovnjak, temveč tudi kot državljan. Ni moj namen diskreditirati prizadevanja za kompleksifikacijo notranjih komponent sistema oblikovanja, za ustvarjanje še kompleksnejšega in še bolj sofisticiranega modela oblikovalskega procesa in produkta. A če nas zanimata – in oblikovalce bi morala zanimati – izvor in cilj projektov, potem morata kompleksifikacijo **procesa** in **produkta** dopolniti kompleksifikacija **problématique**¹⁷ [ali postavitev problema] na eni in kompleksifikacija **učinka** projekta na drugi strani [slika 3].

Kako naj se o tej inteligenci nevidnega poučuje? Mislim, da matematični ali formalistični pristop zaradi manipulativne, »objektivne« narave ni primeren za znanost o sistemih, ki je za takšno nalogo potrebna. Sistem, predvsem človeški ali družbeni, je najbolje razumeti od znotraj, skozi kvalitativni, fenomenološki pristop.¹⁸ **Osnove**

¹⁶ Hickling, »Beyond a Linear Iterative Process?«, v B. Evans et al., *Changing Design* [Chichester: John Wiley & Sons, 1982], 275–293.

¹⁷ Francoska beseda *problématique* je pomemben koncept Foucaultove arheologije. Pri oblikovanju gre za rezultat kompleksifikacije k produktu usmerjenega problema v smislu družbenih, ekonomskih, simboličnih, političnih itd. vprašanj.

¹⁸ O tem specifičnem metodološkem vprašanju razpravljam v drugi polovici eseja »A Quest for Credibility: Doctoral Education and Research at the University of Montreal«, v R. Buchanan et al., *Doctoral Education in Design, Proceedings of the Ohio Conference*, Pittsburgh, PA, Carnegie Mellon University, 1999.

should be completed, on one hand, by the complexification of the ***problématique***¹⁷ [or problem setting], and, on the other, by the complexification of the **impact** of the project [fig. 3].

How will this intelligence of the invisible be taught? I do not consider the mathematical or formalistic approach to systems science relevant for such a task, due to its manipulative, “objective” nature. A system, and especially a human or social system, is best understood from within, through a qualitative, phenomenological, approach.¹⁸ **Basic design**, if properly reconsidered, will be the best pedagogical tool for teaching such an approach. Insofar as a system is something like a complex living morphology, I believe that aesthetic education will be the best way to apprehend its dynamics. Furthermore, the appreciation of the relative stability of a system, and of the instability induced by the action of a designer within a system also are the concern of aesthetics. As a matter of fact, I think that Moholy-Nagy had sensed this issue when he designed his preliminary course in Chicago. Didn’t he claim that this course was perfectly fitted for any professional curriculum, i.e., not only for designers, but also for lawyers, doctors, teachers, etc.? Furthermore, as we shall see shortly, such a basic design education will not only have an effect upon the designer’s intelligence of complex systems [gnoseological aspect], but also upon the designer’s professional responsibility when dealing with systems [ethical aspect].

Design Ethics and the Purpose of the Design Project

At the School of Design of the University of Montreal, we carried out a research project on the issue of design ethics and the responsibility of the designer [1989–92]. This project, named “Prometheus Enlightened,” was launched after observing that our professional code of ethics no longer was adapted to the contemporary conditions, and that a new code had become necessary. Our main conclusions were the following:

¹⁷ The French word *problématique* is an important concept of Foucault’s archeology. In design, it is the result of the complexification of a mere product-centered problem in terms of social, economic, symbolic, political, etc. issues.

¹⁸ This specific methodological question is discussed in the second half of my former essay, “A Quest for Credibility: Doctoral Education and Research at the University of Montreal,” in R. Buchanan, et al., *Doctoral Education in Design, Proceedings of the Ohio Conference*, Pittsburgh, PA, Carnegie Mellon University, 1999.



oblikovanja, če bomo o njih primerno razmislili, bodo najboljše pedagoško orodje za poučevanje takšnega pristopa. Če je sistem nekaj takega kot kompleksna živa morfologija, potem menim, da je estetsko izobraževanje najboljši način za spoprijemanje z njegovo dinamiko. Poleg tega je upoštevanje relativne stabilnosti sistema in nestabilnosti, sprožene z akcijo oblikovalca znotraj sistema, prav tako vprašanje estetike. Pravzaprav mislim, da je Moholy-Nagy začutil to vprašanje, ko je načrtoval svoj preliminarni seminar v Chicagu. Mar ni trdil, da ta seminar popolnoma ustreza vsakršnemu poklicnemu učnemu programu, ne le za oblikovalce, temveč tudi za odvetnike, zdravnike, učitelje itd.? Poleg tega pa takšno osnovno oblikovalsko izobraževanje, kot bomo kmalu videli, ne bo vplivalo le na oblikovalčeve inteligenčne glede kompleksnih sistemov (spoznavni vidik), temveč tudi na njegovo poklicno odgovornost, ko se bo ukvarjal s sistemi [etični vidik].

Oblikovalska etika in namen oblikovalskega projekta

Na Šoli za oblikovanje Univerze v Montrealu smo izvedli raziskovalni projekt o oblikovalski etiki in odgovornosti oblikovalca (1989–1992). Projekt, imenovan »Razsvetljeni Prometej«, se je začel, ker smo ugotovili, da naš strokovni etični kodeks ne ustreza več sodobnim razmeram in da je nov kodeks nujen. Naše glavne ugotovitve so bile naslednje:

1. Da bi lahko opredelili strokovno odgovornost [ne le kompetence], je nujna razprava o **namenu** oblikovanja.
2. Prednost je treba dati reformi oblikovalskega **izobraževanja**.
3. Odgovorno oblikovanje ne more obstajati brez odgovornega oblikovalca, zato mora biti izobraževanje usmerjeno k razvoju **individualistične etike**.¹⁹

Če se ne bomo še posebej ukvarjali s tretjo točko, bo vsaka splošna razprava o etiki, morali, etični teoriji, dolžnostni/utilitaristični etiki itd. skorajda nesmiselna. To je tudi razlog, da bo to podpoglavlje zelo kratko.

Splošni namen oblikovanja se je razvil znotraj Bauhausove linije. Na sliki 2 so prikazane glavne teme znotraj treh obdobjij, kot sem jih navedel: »novi svet«, »novi 'človek« in »nova kultura«. Bodite pozorni na to, da je bila vsaka tema razumljena kot cilj, ki

¹⁹ A. Findeli, *Prométhée éclairé. Éthique, technique et responsabilité professionnelle en design* [Montréal, Éd: Informel, 1993].

1. In order to be able to define professional responsibility [i.e., not only competence], a discussion on the **purpose** of design is necessary.
2. Priority should be given to the reform of design **education**.
3. There can be no responsible design without a responsible designer, i.e. education should be directed to the development of an **individualistic ethics**.¹⁹

Unless the third point, in particular, is considered, any general discussion about ethics, morals, ethical theory, deontic/utilitarian ethics, etc., becomes almost meaningless. This is why this section will be very short.

The general purpose of design has evolved within the Bauhaus lineage. Fig. 2 indicates the major themes within the three periods I have considered: "A new world," "A new 'man,'" and "A new culture." Notice that, in each case, this was considered as a goal to be attained with a technician view, i.e., according to the modernist logical structure of the design process described above. In other words, somehow it was believed that if the necessary means, tools, actions, and decisions were put together, these goals could be attained. In the new perspective, however, the purpose of design must be considered as a horizon, as a guiding set of values, and as an axiological landscape to which one always must refer when taking a decision or evaluating a proposition within the design project, and not as an ideal goal to be reached in the more or less near future.

What could be an adequate purpose for the coming generations? Obviously, the environmental issue should be a central concern. But the current emphasis on the degradation of our biophysical environment tends to push another degradation into the background, that of the social and cultural [symbolic] environments, i.e., of the human condition. Consequently, I suggest that design could not only contribute to a sustainable natural world, but would adopt as a purpose something such as: "A balanced humankind in a balanced world," therefore stressing anthropology and cosmology as the two polar complementaries around which the content of a design curriculum could be built up.

The epistemological/methodological shift suggested above has another important consequence on design responsibility. In effect, the systemic view implies that the making of an artifact, which usually is considered as the normal outcome of a design project, is no longer taken for granted. Within these complex systems, designers

¹⁹ A. Findeli, *Prométhée éclairé. Éthique, technique et responsabilité professionnelle en design* [Montréal, Éd: Informel, 1993].

ga je treba doseči s tehnicističnim pogledom, torej skladno z modernistično logično strukturo oblikovalskega procesa. Z drugimi besedami, nekako se je verjelo, da se z združitvijo potrebnih sredstev, orodij, akcij in odločitev te cilje lahko doseže. V novi perspektivi pa moramo namen oblikovanja razumeti kot horizont, vodeči niz vrednot in aksiološko pokrajino, na katero se je pri sprejemanju odločitev ali vrednotenju predloga v okviru oblikovalskega projekta vedno treba sklicevati, ne pa kot idealni cilj, ki naj bo dosežen v bližnji ali daljni prihodnosti.

Kaj bi lahko bil primeren cilj za prihajajoče generacije? Okoljsko vprašanje mora biti osrednja tema. A zdajšnji poudarek na degradaciji našega biofizikalnega okolja pogosto potiska v ozadje neko drugo degradacijo, degradacijo družbenih in kulturnih [simbolnih] okolij, torej degradacijo človeškega stanja. Zato predlagam, naj oblikovanje ne prispeva le k trajnostnemu naravnemu svetu, temveč naj kot svoj namen sprejme nekaj takega, kot je »uravnoteženo človeštvo v uravnoteženem svetu«, naj torej poudari antropologijo in kozmologijo kot dve polarni komplementarnosti, okrog katerih lahko zgradimo vsebino oblikovalskega učnega programa.

Predlagani epistemološki/metodološki premik ima za oblikovalsko odgovornost še en pomemben učinek. Sistemski pogled v bistvu pomeni, da izdelava predmeta, ki se običajno razume kot normalni izid oblikovalskega projekta, ni več nekaj samoumenega. Znotraj kompleksnih sistemov se od oblikovalcev pričakuje, da **delujejo**, namesto da **izdelujejo**. Z drugimi besedami, ustvarjanje (*poiesis*) mora biti sprejeto kot poseben primer delovanja (*praxis*), do te mere, da »ne ustvariti« še vedno pomeni »delovati«. V filozofskem smislu bi lahko rekli, da se oblikovanje nanaša na praktični, ne pa na instrumentalni um, oziroma da je okvir oblikovalskega projekta etika, ne pa tehnologija. V eksistencialističnem smislu lahko to zveni takole: oblikovalska odgovornost pomeni, da se morajo oblikovalci vselej zavedati dejstva, da vsakič, ko se vključijo v oblikovalski projekt, na neki način poustvarijo svet.

Kar zadeva vprašanje individualistične etike, je zadeva skorajda preveč preprosta: v oblikovalski učni program moramo vključiti neke vrste moralno vzgojo, s čimer se bo povečala moralna zavest vsakega študenta.²⁰

20 To je seveda zelo občutljivo vprašanje ne le v oblikovanju, temveč v splošnem izobraževanju. Kot sem že omenil, sem prepričan, da je dobro premišljen učni program osnov oblikovanja lahko primeren prostor za kaj takega. Naša raziskava želi pokazati, da se estetske in moralne dileme ali odločitve strukturno ujemajo. Estetsko izobraževanje torej lahko prispeva k moralni izobraženosti.

are expected to **act** rather than to **make**. In other words, making (*poiesis*) must be considered only a special case of acting (*praxis*), to the extent that even “not making” is still “acting.” In philosophical terms, one would say that design pertains to practical, not to instrumental, reason; or else that the frame of the design project is ethics, not technology. In existentialist terms, this could sound as follows: design responsibility means that designers always should be conscious of the fact that, each time they engage themselves in a design project, they somehow recreate the world.

As to the question of individualistic ethics, the matter is almost too simple: some kind of moral education must be included in the design curriculum, so that the moral consciousness of every student is increased.²⁰

The Vanishing Product

The issue of the dematerialization of our world has become a recurring leitmotiv in design, especially since the Centre Georges-Pompidou exhibition *Les Immatériaux* in 1985.²¹ The logical outcomes of the above propositions also will point to the same end result, i.e., the vanishing of the product as the main target of design. The following four scenarios describe the way in which the product-centered attitude could be replaced by a new one if design is to survive and evolve according to the conditions of the new paradigm:

1. The shift toward a systems approach and complexification, i.e., from a “problem and solution” to a “state 1 and state 2 of the system” situation, pushes material artifacts to the background in favor of the actors within the system. This, in turn, yields to the end of the “product as work of art” paradigm in design, and of the design act as a heroic gesture; in short, the end of the fetishism of the artifact.

²⁰This is, of course, a very sensitive issue not only in design, but in general education. As already suggested, I believe a well-thought basic design curriculum could be a good place for this. Our research tends to show that esthetic and moral dilemmas or decisions are structurally congruent. Therefore, esthetic education could contribute to moral literacy.

²¹See also *Design Issues* special double issue “Designing the Immortal Society,” 4:1 and 2, 1988. The kind of basic design exercises and assignments that would fulfill the task described here would be similar in principle to the one discussed in P. Hadot, *Philosophy as a Way of Life* [Oxford: Blackwell, 1999]. Hadot opportunely reminds us that, in order to be adequately assimilated and understood, philosophy must be studied experientially, not intellectually as is the case today.



Izginjanje produkta

Vprašanje dematerializacije našega sveta je postalо rdeča nit v oblikovanju, še posebej po razstavi *Les Immatériaux* v Centru Georges Pompidou leta 1985.²¹ Logični sklepi zgornjih predlogov kažejo na isti končni rezultat, in sicer na izginjanje produkta kot glavnega cilja oblikovanja. Naslednji štirje scenariji opisujejo, kako zamenjati k produktu usmerjen pristop z novim, če želimo, da oblikovanje preživi in se razvija skladno z novo paradigmо:

1. Premik k sistemskemu pristopu in kompleksifikaciji, torej premik od »problema in rešitve« k »stanju 1 in stanju 2 sistema«, kar potisne materialne izdelke v ozadje v prid akterjev znotraj sistema. To vodi h koncu oblikovalske paradiгme »produkta kot umetniškega dela« in oblikovalskega akta kot junaške geste, skratka h koncu fetišizma izdelka.
2. Sistematično preizprševanje oblikovalskih vodil [kompleksifikacija problema v *problématique*] bo oblikovalce pripeljalo k iskanju »temne strani« objekta. Postali bodo bolj zainteresirani za človeški kontekst, kot pa je to pri klasičnem »opisu produkta«, ki se običajno uporablja v oblikovanju in inženiringu.
3. Še vedno živimo s podobo oblikovanja iz devetnajstega stoletja, ko se je prvič pojavil koncept tega poklica. Oblikovanje naj bi absorbiralo šok industrializacije in zmehčalo njene pogubne posledice v kulturni mreži, z drugimi besedami, naredilo industrializirane produkte kulturno – družbeno, ekonomsko, simbolno in praktično – sprejemljive. Estetika je bila tedaj njegovo privilegirano retorično orodje, ki sta mu sledili ergonomija v sredini dvajsetega stoletja in semiotika [torej spet estetika] v pozrem dvajsetem stoletju. Toda njegovo skorajda izključno področje dejavnosti je ostal materialni produkt, proizveden z mehanskimi, električnimi in/ali elektronskimi industrijami. V našem stoletju smo priča stalnemu, pravzaprav pospešenemu procesu industrializacije, ne toliko v proizvodnji izdelkov kot v proizvodnji vseh tistih tako imenovanih »storitev«, ki oblikujejo in pogojujejo naš način življenja: izobraževanje, zdravje, prosti čas, hrana, rojstvo in smrt itd. Nihče ne dvomi o dejstvu, da so tudi storitve produkti. Toda kje so, kdo so oblikovalci teh produktov, ki bi bili

21 Glej posebno dvojno številko *Design Issues*, »Designing the Immortal Society«, 4: 1 in 2, 1988. Osnovne oblikovalske vaje in zadolžitve, ki bi izpolnile tukaj opisano nalogu, bi bile načeloma podobne tistim, ki jih obravnava P. Hadot v *Philosophy as a Way of Life* (Oxford: Blackwell, 1999). Hadot nas prikladno opominja, da bi morali filozofijo, če bi jo hoteli primerno asimilirati in razumeti, študirati izkustveno, ne pa intelektualno, kot je to danes.

2. The systematic questioning of the design brief [the complexification of the problem into *problématique*] will invite designers to look for the “dark side” of the object. They become more interested in the human context yielding the brief than in the classical “product description” brief generally used in design and engineering.
3. We still live with a picture of design handed down by the nineteenth century, when the concept of this profession first appeared. Design was summoned to absorb the shock of industrialization, and to soften its devastating consequences upon the cultural web, in other words, to make industrialized products culturally—socially, economically, symbolically, and practically—acceptable. Aesthetics was then its privileged rhetorical tool, followed by ergonomics in the mid-twentieth century, and semiotics [i.e., aesthetics again] in the late-twentieth century. But its almost unique field of activity has remained the material product; manufactured by mechanical, electrical, and/or electronic industries. Our century has witnessed an ongoing, indeed accelerating, industrialization process, not so much in the manufacturing of products than in the production of all those so-called “services” which shape and condition our ways-of-life: education, health, leisure, food, birth and death, etc. No one would question the fact that services also are products in their own right. But where and who are the designers of these products, the analogous of our nineteenth-century product designers? Thousands of ill-designed products thus are waiting to be conceived and shaped by designers, so that they correspond, not only to the needs, but also to the aspirations, hopes, and life-projects of their users! Indeed, services are immaterial objects and complex systems, as anybody knows who has ever faced a hospital or school bureaucracy [and who hasn’t?]. I am convinced that the methodologies developed for the design of material products could be transferred to the world of immaterial services, provided adequate epistemological care is taken.
4. The fourth way one can predict the vanishing of the product is, of course, on ecological grounds. Nobody contests the fact that there are too many products in our environment, and many designers already are engaged in a more sustainable design attitude. Standards such as “Factor-10” or even “Factor-20”; and concepts including Ezio Manzini’s “negaproducts” or Philippe Starck’s “non-objects” are but some representative signs of, not only the possibility of, but the necessity for, products to vanish in the near future.



sorodni našim produktnim oblikovalcem iz devetnajstega stoletja? Na tisoče slabo oblikovanih produktov torej čaka, da jih oblikovalci domislijo in izdelajo ter tako ustrežejo ne le potrebam, temveč tudi težnjam, upom in življenjskim projektom njihovih uporabnikov! Storitve so dejansko nematerialni objekti in kompleksni sistemi, kot ve vsak, ki se je že soočil z bolnišnično ali šolsko birokracijo [in kdo se ni?]. Prepričan sem, da bi lahko metodologije, razvite za oblikovanje materialnih produktov, prenesli v svet nematerialnih storitev, če bi temu namenili ustrezno epistemološko pozornost.

4. Četrти scenarij, s katerim lahko napovemo izginjanje produkta, leži seveda na ekološki podlagi. Nihče ne izpodbija dejstva, da v našem okolju obstaja preveč izdelkov, in mnogi oblikovalci so že prevzeli bolj trajnostno oblikovalsko držo. Standardi, kot sta »Faktor-10« ali celo »Faktor-20«, in koncepti, de-nimo »negaprodukt« Ezia Manzinija ali »neobjekti« Philippa Starcka, so reprezentativna znamenja možnosti, pa tudi neizogibnosti izginjanja produktov v bližnji prihodnosti.

Kje smo?

Čeprav je namen pričujočega besedila postaviti nekaj temeljev za prenovo izobraževanja na področju oblikovanja in raziskovanja, pa je še vedno prezgodaj za zaključke. Želel sem zgolj opozoriti na nekatere smernice za nadaljnje raziskovanje in konstruktivno delo. Naj povzamem glavne faze razprave.

Arhetipski model programa oblikovalskega izobraževanja je opisan v obliki trojne strukture, umetnost/znanost/tehnologija, ki obdaja splošni namen oblikovanja. Da bi ugotovili, kaj bi morala biti vsebina teh treh elementov in kako naj jih artikuliramo, moramo vzpostaviti epistemološki/metodološki model oblikovalskega procesa ali projekta. Če sprejmemo dejstvo, da kanonični, linearni, vzročni in instrumentalni model ni več primeren za opis kompleksnosti oblikovalskega procesa, potem smo povabljeni, da sprejmemo nov model, katerega teoretski okvir navdihujejo sistemi znanosti, teorije kompleksnosti in praktične filozofije. Namesto znanosti in tehnologije bi v novem modelu raje videl percepциjo in akcijo, kjer se percepциja nanaša na koncept vizualne inteligence, akcija pa nakazuje, da je tehnološko dejanje vselej tudi moralno dejanje. Kar zadeva refleksivni odnos med percepциjo in akcijo, menim, da ga ne ureja deduktivna logika, ampak logika, ki temelji na estetiki.

Naslednji vidik je specifično usposabljanje, ki bi ga na ustrezni in dosleden način morali biti deležni študentje, tako glede percepциje in akcije kot glede njunega razmerja.

Where Do We Stand?

Although the purpose of this paper is to lay some foundations for a renewal of design education and research, it is still too early to draw conclusions. All I would like to do is to indicate some directions for further research and constructive work. Let me sum up the principal stages of the above discussion.

An archetypical model of a curriculum for design education has been described in the form of a three-part structure, art/science/technology, enclosed within a general purpose for design. In order to figure out what the content of these three components would be and how they should be articulated, it is necessary to establish an epistemological/methodological model for the design process or project. If we further accept the fact that the canonical, linear, causal, and instrumental model is no longer adequate to describe the complexity of the design process, we are invited to adopt a new model whose theoretical framework is inspired by systems science, complexity theory, and practical philosophy. In the new model, instead of science and technology, I would prefer perception and action, the first term referring to the concept of visual intelligence, and the second indicating that a technological act always is a moral act. As for the reflective relationship between perception and action, I consider it governed not by deductive logics, but by a logic based on aesthetics.

The second aspect at stake is the specific training necessary for perception, action, and their relationship to be carried out adequately and consistently by students. I believe that visual intelligence, ethical sensibility, and aesthetic intuition can be developed and strengthened through some kind of basic design education. However, instead of having this basic design taught in the first year as a preliminary course, as in the Bauhaus tradition, it would be taught in parallel with studio work through the entire course of study, from the first to last year. Moholy-Nagy used to say that design was not a profession, but an attitude. In the same vein, Pierre Hadot reminds us in his writings that ancient philosophy was not a speculative occupation like it is today, but a way of life, (“a mode of life, an act of living, a way of being”), and he describes the “spiritual exercises” which were designed to realize a transformation of one’s vision of the world—that is what a paradigm shift is really about—and which involved all aspects of one’s being: intellect, imagination, sensibility, and will. I suggest that we endeavor to construct our basic design in the form of a series of such “spiritual exercises,” the nature and content of which would be adapted to our contemporary world and future challenges. Moholy-Nagy’s pedagogical work at the New Bauhaus/School of Design/Institute of Design in Chicago would be a good starting point for such a difficult and demanding task.



Prepričan sem, da lahko neka oblika izobraževanja osnov oblikovanja razvije in okrepi vizualno inteligenco, etično senzibilnost in estetsko intuicijo. A namesto da bi te osnove oblikovanja poučevali v prvem letu kot preliminarni seminar, kot je bilo to v Bauhausovi tradiciji, bi moralno potekati vzporedno s studijskim delom skozi ves potek študija, od prvega do zadnjega leta. Moholy-Nagy je pogosto dejal, da oblikovanje ni poklic, temveč nazor. V podobnem smislu nas Pierre Hadot v svojih besedilih opominja, da starodavna filozofija ni bila spekulativna dejavnost, kot je danes, ampak način življenja [»oblika življenja, akt življenja, način bivanja«], obenem pa opisuje »duhovne vaje«, ki so bile namenjene spoznavanju transformacij lastnega pogleda na svet – za to zares gre pri premiku paradigme – in so vključevale vse vidike lastnega bitja: intelekt, imaginacijo, senzibilnost in voljo. Predlagam, da si prizadavamo za izgradnjo naših osnov oblikovanja v obliki serije takšnih »duhovnih vaj«, z naravo in vsebino, ki bi bili prilagojeni našemu sodobnemu svetu in prihodnjim izzivom. Pedagoško delo Moholy-Nagyja v Novem Bauhausu/Šoli za oblikovanje/Inštitutu za oblikovanje v Chicagu bi bilo dobro izhodišče za to težko in zahtevno nalogu.

Ta program se morda zdi preveč ambiciozen in nekoliko tuj oblikovalski stroki, kot jo poznamo dandanes. Glede prvega ugovora odgovarjam, da če ne želimo, da oblikovanje postane ali ostane »veja produktnega razvoja, tržnega komuniciranja in tehnološkega fetišizma«,²² torej če naj ne ostane **reakтивно**, bo moralno postati **протививно**; z drugimi besedami, moralno bo predlagati »nove scenarije za prihodnost« [Manzini]. Glede drugega ugovora odgovarjam, da stroki oblikovanja ni treba ostati – in naj ne ostane – to, kar je danes, kajti v tem primeru bodo ti poklici morda izginili. Zato je naša odgovornost, da si zamislimo njihov prihodnji profil. To je tudi naloga, na katero sem skušal opozoriti v tej razpravi.



Besedilo je bilo prvič objavljeno v reviji *Design Issues*, letnik 17, številka 1, zima 2001, 5–17.
 © Avtorske pravice: 2001 Massachusetts Institute of Technology
 Ponatisnjeno z dovoljenjem založbe MIT Press.

²² H. Boekraad in J. Smiers, »The New Academy«.

This program may seem too ambitious and somewhat foreign to the design professions as we know them today. To the first objection, I reply that, if we don't want design to become or remain "a branch of product development, marketing communication, and technological fetishism,"²² i.e., if it is not to remain a **reactive** attitude, it will have to become **proactive**; in other words it will have to propose "new scenarios for the future" (Manzini). To the second objection, I reply that the profile of design professions need not—and should not—remain what it is today, otherwise these professions might disappear. It is, therefore, our responsibility to imagine the future profile of our professions, a task to which I have tried to contribute here.

■
The original text was published in *Design Issues*, Volume 17, Number 1, Winter 2001, 5–17.
© Copyright 2001 Massachusetts Institute of Technology
Reprinted by permission of MIT Press.

22 H. Boekraad in J. Smiers, »The New Academy«.







A large, light grey triangle is positioned in the upper right quadrant, pointing downwards. A smaller, dark grey triangle is located in the lower right quadrant, pointing upwards. The bottom edge of the slide features a series of alternating light grey and white diagonal stripes. On the left side, there is a vertical cluster of five dark grey diagonal stripes. The central text area is a light grey rectangle.

**WHAT DO YOU
THINK ABOUT IT?**

The background features a complex arrangement of overlapping triangles in various shades of gray. A large white triangle is positioned in the upper right quadrant. To its left, a large dark gray triangle overlaps it. Below these, a light gray triangle points upwards towards the center. In the lower right, there is a series of vertical stripes of alternating light and dark gray. The overall effect is a modern, abstract graphic design.

KAJ MISLIŠ O TEM?

If we want to step into the [admittedly large] shoes of the individuals in the field of design and education who successfully moved borders in the past, we must first accept that this will not happen without our concrete action.

In 1992, at the 17th ICSID International Congress in Ljubljana, the Italian designer and strategist Stefano Marzano gave a speech entitled “Flying Over Las Vegas,” in which he said the following:

The future does not just happen by itself. It can be influenced by those who are prepared to shoulder the responsibility of making decisions today. Inaction is also action. The future, then, is made by those who take responsibility for it today. That means that we, too, can participate in the shaping of this future.

This book offers three alternative understandings of development in design education, which, however, are not literal prescriptions for action. In accordance with the concept of the symposia¹ – and consequently of this publication – the purpose is precisely the opposite: to trigger reflection about current problematics, to awaken a feeling of a continuum, and above all, to encourage readers, on the basis of the excellent arguments presented here, to actively challenge the status quo and work differently in practice.

Warning! Spaceship Earth is faltering and pirates are beginning to take advantage of our inaction!

1 During the celebration of the 30th anniversary of university studies in the field of design at the Academy of Fine Arts and Design of the University of Ljubljana called *Design Is All Around Us*, we held an international symposia about [alternative] pedagogical practices on 22 April, 2015 at Club Cankarjev Dom. We gave it the name: *Design Education: What do you see? What do you think about it? What do you make of it?* The symposia was organized by the Department of Industrial Design and Applied Arts and the Department of Visual Communication Design. The two editors of this book functioned as content and project coordinators.

Če želimo stopiti v [sicer velike] čevlje posameznikov, ki so v preteklosti na področju oblikovanja in izobraževanja uspešno premikali meje, se moramo hkrati zavedati, da brez konkretnne akcije ne bo šlo.

Italijanski oblikovalec in strateg Stefano Marzano je leta 1992 na 17. mednarodnem kongresu ICSID v Ljubljani v govoru z naslovom »Flying over Las Vegas« dejal:

Prihodnost se ne zgodi sama od sebe. Nanjo lahko vplivajo tisti, ki so danes pripravljeni prevzeti odgovornost za sprejemanje odločitev. Nedelovanje je ravno tako delovanje. Prihodnost je torej v rokah tistih, ki danes zanjo prevzemajo odgovornost. To pa pomeni, da lahko tudi mi sodelujemo pri oblikovanju te prihodnosti.

V nadaljevanju sledijo tri alternative razumevanja razvoja v polju izobraževanja na področju oblikovanja, ki pa ne predstavljajo receptov za delovanje. V skladu s konceptom simpozija¹ – in posledično tudi te publikacije – je njihov namen ravno obraten: sprožiti refleksijo o problematiki, spodbuditi občutek kontinuma, predvsem pa na podlagi odličnih argumentov v prihajajočem sklopu knjige spodbuditi bralce k aktivnemu odzivu in (drugačnemu) delovanju v praksi.

Pozor, vesoljska ladja Zemlja že pušča in pirati že izdatno izkorisčajo naše nedelovanje!

1 V okviru praznovanja 30-letnice univerzitetnega študija oblikovanja na Akademiji za likovno umetnost in oblikovanje Univerze v Ljubljani, ki smo ga naslovili *Oblikovanje je povsod okoli nas*, je 22. aprila 2015 v Klubu Cankarjevega doma potekal mednarodni simpozij o [alternativnih] pedagoških praksah z naslovom *Izobraževanje na področju oblikovanja: Kaj vidiš? Kaj misliš o tem? Kaj s tem narediš?* Simpozij sta organizirala Oddelek za industrijsko in unikatno oblikovanje in Oddelek za oblikovanje vizualnih komunikacij Akademije za likovno umetnost in oblikovanje UL. Vsebinski vodji in koordinatorki projekta sta bili urednici pričajoče knjige.

Mapping Futures for Graphic Design Education

Introduction

Graphic designers are moving away from designing artefacts to designing tools, systems and experiences. Industry is now seeking editors, curators and visualisers of digital information. With this shift, new pedagogical challenges have emerged in order to ensure the relevancy of current design curricula within a context of social, political, economic and cultural transformation. In the last few years, we have seen the importance of engaging design educators worldwide in these debates:

initiatives from the International Council of Design [ico-D] in the launch of “Educational Platform Meetings”, for example, bring design professionals, educators and academics together to engage critically on issues of global significance. These conversations are intended to inform the development of sustainable and relevant curricula and design research. Similarly, we are seeing a growing dialogue around the future of design taking place in the classroom, where students are the main drivers for exploring new roles for design and designers within shifting contexts.

This paper will explore this developing dynamic using the examples of two eras at the Royal College of Art, London, in which education was reimagined. The first [1948] involved Richard Guyatt’s manifesto for a new kind of teaching in the post-war industrial environment; the second is ongoing and stems from a discussion about Guyatt’s work and his contemporary relevancy that happened as part of the 50-year celebrations of graphic design at the RCA. In particular, Guyatt’s basic tenet of “Head, Heart and Hand” will be interrogated in terms of its relevancy for 2015 and beyond.

Reimagining Graphic Design Education: The First Time [1948]

By all accounts, Professor Richard Guyatt was a “genuine Edwardian gentleman” [Beckwith 2007]. Named the first Professor of Graphic Design at the Royal College of Art in 1948, Guyatt was physically formidable. He was a tall, largish man who “appeared slightly hunched”. He always wore a black “donkey jacket” and was thought to have been a chain smoker [Doust, pers. comm]. Professor Guyatt was instrumental in presenting a reimagined education for the 20th century. As one

TEAL TRIGGS

Mapiranje prihodnosti izobraževanja na področju grafičnega oblikovanja

Uvod

Grafični oblikovalci se selijo od oblikovanja izdelkov k oblikovanju orodij, sistemov in izkušenj. Industrija dandanes išče urednike, kuratorje in vizualizatorje digitalnih informacij. S tem premikom so se pojavili novi pedagoški izzivi, ki skušajo v kontekstu družbene, politične, ekonomske in kulturne transformacije zagotoviti ustreznost učnih programov na področju oblikovanja. V zadnjih letih smo bili priča pomembnosti vključevanja oblikovalskih pedagogov po vsem svetu v te razprave: pobude Mednarodnega sveta za oblikovanje [ico-D] ob vzpostavitvi t. i. srečanj za izobraževalne platforme so denimo združile oblikovalske strokovnjake, pedagoge in akademike v kritično ukvarjanje z vprašanji globalnega pomena. Ti pogovori so namenjeni podpori razvoja ustreznega trajnostnega učnega programa in oblikovalskega raziskovanja. Priča smo tudi rastočemu dialogu o prihodnosti oblikovanja, ki poteka v učilnicah, kjer so študentje glavni motor raziskovanja novih vlog oblikovanja in oblikovalcev v spremenjajočih se kontekstih.

Ta razprava bo povzela to razvojno dinamiko s pomočjo primerov dveh obdobjij na Kraljevi umetnostni akademiji v Londonu, v katerih je bilo izobraževanje na novo premišljeno. Prvo obdobje [1948] je prineslo manifest Richarda Guyatta za novo vrsto poučevanja v povojskem industrijskem okolju; drugo pa poteka prav zdaj in izhaja iz razprave o Guyattovem delu in njegovem današnjem pomenu, ki je potekala v okviru praznovanj petdesetletnice grafičnega oblikovanja na Kraljevi umetnostni akademiji. Še posebej bomo pretresli Guyattovo osnovno načelo »glava, srce in roka«, in sicer njegov pomen v letu 2015 in v prihodnje.

Premišljevanje o izobraževanju na področju grafičnega oblikovanja: prvič [1948]

Profesor Richard Guyatt je bil po mnenju vseh »pristen edvardijanski gospod« [Bec-kwith 2007]. Leta 1948 je bil imenovan za prvega profesorja grafičnega oblikovanja na Kraljevi umetnostni akademiji in bil je fizično mogočen. Bil je visok, obilen človek, »rahlo zgrbljen«. Vedno je nosil črn delovni suknjič [tako imenovan »donkey« suknjič] in bil je verižni kadilec [Doust, osebna komunikacija]. Profesor Guyatt je bil



RCA graduate remembers, "I think he was a visionary in his own way. He believed in and accepted the many different directions that the students would take in their work, and I think he dispensed a kind of benign guidance" (Doust, pers. comm).

Guyatt's essay entitled "Head, Heart and Hand", written in 1950, proposed a new kind of approach to teaching that was emerging out of a changed UK post-war industrial environment.¹ He sought to bring together the "relationship between the fine arts, the applied arts and the crafts" as a way of articulating his views on the nascent profession of "commercial art". For him, commercial art was by its very nature tied to commerce but could also incorporate the "analytical", "intuitive insight" and "manual skill" (Herdeg 1969/70, 480).

Guyatt refined this idea in the introduction to the book *Graphic Design: Lettering, Typography and Illustration*, written by his RCA colleagues John Lewis and John Brinkley in 1954. He explains, "[...] there is in fact a profession open to graphic artists, a profession where an art can be practised". This "art" was at the intersection between fine arts, crafts and the applied context, where a "friction was generated by the effort to fuse purpose, concept and technique" and where Guyatt believed that "art can grow" (Guyatt 1954, 14). Guyatt would continually return to the theme of "Head, Heart and Hand" throughout his career.

However, back in 1948 this was a major provocation. Here it is necessary to digress to briefly explain why, in terms of contextualising the history of the RCA. In describing the broader context of reform and structures for British education in the post-war period, Christopher Frayling who was RCA Rector from 1996–2009, writes,

The reforms of the late 1940s – specialisation, partnerships with industry, practitioner-teachers, a new status for designers and above all encouragement to find one's own voice – were to revolutionise art education in Britain, and, in time, the design professions as well (Frayling 2007).

As a result, Rector of the RCA [1948–1971] Robin Darwin set in motion a series of significant changes to bring the College into line with the new concept of "professionalism". He appointed new staff drawn from industry with a view that they continue "to operate their own professional practices" (McCarthy 2012, 24). In this way, the studios fostered a "drawing-office" environment, where professors and students

¹ Richard Guyatt would later visualise "Head, Heart and Hand" on the cover of *Graphis* 146, 1969/70 [with photography by Michael Longford].

ključnega pomena za vzpostavitev posodobljenega izobraževanja za 20. stoletje. Kot se spominja eden od diplomantov Kraljeve umetnostne akademije: »Mislim, da je bil na svoj način vizionar. Verjel je v mnoge različne smeri, ki so jih študentje potem sprejeli v svoje delo, in mislim, da je izžareval neko vrsto dobrohotnega vodenja« [Doust, osebna komunikacija].

Guyattov esej »Head, Heart and Hand«, napisan leta 1950, je predlagal nov pristop k poučevanju, ki je izhajal iz spremenjenega britanskega povojnega industrijskega okolja.¹ Guyatt je skušal doseči združitev »odnosa med likovno umetnostjo, uporabno umetnostjo in obrtjo« kot način artikuliranja svojih pogledov na nastajajočo stroko »komercialne umetnosti«. Komercialna umetnost je bila zanj po naravi vezana na trgovanje, a je lahko vključevala tudi »analitska«, »intuitivna spoznanja« in »ročne veščine« [Herdeg 1969/70, 480].

Guyatt je to idejo prečistil v uvodu knjige *Graphic Design: Lettering, Typography and Illustration*, ki sta jo leta 1954 napisala John Lewis in John Brinkley, njegova kolega s Kraljeve umetnostne akademije. Kot je napisal, »[...] dejansko obstaja stroka, odprtta za grafične umetnike, kjer lahko prakticiramo umetnost«. Ta »umetnost« je na križišču likovne umetnosti, obrti in uporabnega konteksta, kjer se »ustvarja trenje, ki združuje namen, koncept in tehniko«, in kjer lahko, po njegovem prepričanju, »raste umetnost« [Guyatt 1954, 14]. Guyatt se je nenehno in v vsej svoji karieri vračal k temi »glava, srce, roka«.

A leta 1948 je bila to velika provokacija. Na tej točki moramo stopiti korak vstran in iz perspektive kontekstualizacije zgodovine Kraljeve umetnostne akademije na kratko opisati, zakaj. Christopher Frayling, rektor Kraljeve umetnostne akademije med letoma 1996 in 2009, je ob opisovanju širšega konteksta reform in struktur britanskega izobraževanja v povojnem obdobju zapisal:

Reforme iz poznih štiridesetih let 20. stoletja – specializacija, partnerstvo z industrijo, učitelji praktiki, nov status oblikovalcev, predvsem pa spodbuda, da najdejo svoj glas – so revolucionirale izobraževanje na področju umetnosti v Veliki Britaniji in sčasoma tudi oblikovalske poklice [Frayling 2007].

Rektor Kraljeve umetnostne akademije Robin Darwin [1948–1971] je zato sprožil vrsto pomembnih sprememb in uskladil akademijo z novim konceptom »strokovnosti«. Iz

¹ Richard Guyatt je kasneje upodobil načelo »glava, srce, roka« na naslovnični *Graphis* 146, 1969/70 [s fotografijo Michaela Longforda].



worked together on professional projects [Goodden 2015, 115]. Equally, Darwin promoted his full-time staff to continue to undertake “research”; that is, he encouraged professors to continue to work on their own projects. Guyatt came to the College following employment as Director and Chief Designer of Cockade Ltd., a display and exhibition firm [Frayling 2013, 468]. He became one of Darwin’s newly appointed design professionals and the youngest professor and, as previously mentioned, the first to hold the title of Professor of Graphic Design.

Guyatt was asked by Darwin to head up the newly formed Department of Publicity, a term that would be described as “vulgar” by *The Times* newspaper and prompted an early repositioning of the Department and curriculum toward “graphic design”. However, as its first application into British graphic design education, the term “graphic design” soon came to resist any clear formal definition. Guyatt, reflecting in an essay written in 1963, avows, “[...] the boundaries of its activities are vague, shifting and far-flung; on the one side overlapping many branches of design, on the other becoming a medium for the fine arts” [Guyatt 1963, 22]. This was itself a significant shift from the early days of teaching 1940s commercial art and advertising to one that embraced a newfound sense of an emerging profession internationally.

With this came new pedagogical challenges as a result of maintaining a graphic arts approach to its curriculum whilst accommodating an increase in focus on the skill-based aims of professional practice. For example, in a draft syllabus prepared for the 1948/49 school year, the relationship to professional practice is firmly embedded in the plans for the three-year programme. Lectures entitled “Agencies, Studio, Freelance” appeared, as well as “Presentation of work to buyer – letters – speaking – committee”, which were responding to professional aspirations, as did practical demonstrations on production methods. The curriculum still reflected a preoccupation with advertising studies, commercial design and publicity. Yet, by 1963 the transition was deemed complete, with a School of Graphic Design forming an umbrella to its three main departments: Design, Illustration (with a close affiliation to printmaking) and Film and Television. In his formation of the School’s vision, Guyatt drew upon the work of Russian philosopher P. D. Ouspensky, who spoke of “the emotional drive generated by an idea needing practical skill as well as intellectual analysis to test its feasibility” [Frayling 2013, 467]. The role of the “Head, Heart and Hand” had truly been amalgamated.

If there was any doubt, Guyatt’s vision was made manifest in 1963 during the first exhibition of graphic design at the College entitled *GraphicsRCA: Fifteen year’s work of the School of Graphic Design, Royal College of Art*. Guyatt’s belief that “all the courses are based on skill and craftsmanship and have as their major aim the development of each student’s individual talent” came across in the exhibition

industrije je pripeljal nove ljudi, ki so nadaljevali »izvajanje svojih strokovnih praks« [McCarthy 2012, 24]. Studii so tako spodbujali »risarske pisarne«, kjer so se profesorji in študentje skupaj ukvarjali s strokovnimi projektmi [Goodden 2015, 115]. Obenem je Darwin spodbujal zaposlene, naj še naprej opravlajo »raziskave«; skratka, spodbujal je profesorje, naj se še naprej ukvarjajo z lastnimi projektmi. Guyatt je na akademijo prišel z delovnega mesta direktorja in glavnega oblikovalca družbe Cockade, podjetja za izložbena in razstavna dela [Frayling 2013, 468]. Postal je eden od Darwinovih novoimenovanih oblikovalskih strokovnjakov in najmlajših profesorjev, in kot smo že omenili, bil je prvi z nazivom profesorja grafičnega oblikovanja.

Darwin je naprosil Guyatta, naj prevzame vodenje novega Oddelka za publicitet – časnik *Times* je ta izraz označil za »vulgarnega« – ki je spodbujal k repozicioniranju oddelka in učnega programa v smeri »grafičnega oblikovanja«. A sam izraz »grafično oblikovanje«, prvič uporabljen v britanskem izobraževanju na tem področju, se je kmalu uprl vsaki jasni formalni opredelitevi. Guyatt o tem piše v eseju iz leta 1963: »[...] meje njegovih dejavnosti so nejasne, premikajoče in razhajajoče se; na eni strani zajemajo veliko vej oblikovanja, na drugi pa postajajo medij likovne umetnosti« [Guyatt 1963, 22]. To je samo po sebi pomenilo pomemben premik od zgodnjih dni poučevanja komercialne umetnosti in oglaševanja v štiridesetih letih k učenju, ki je zaobjelo na novo odkriti občutek za nastajajočo stroko na mednarodni ravni.

Kot posledica ohranjanja pristopa grafične umetnosti v učnem programu in obenem povečanega fokusa na strokovni praksi, ki temelji na veščinah, so se pojavili novi pedagoški izzivi. V osnutku učnega programa za šolsko leto 1948/49 je povezava s strokovno prakso že trdno zasidrana v načrtih za triletni program. Pojavila so se predavanja z naslovi, kot so Agencije, Studio, Svobodni poklici, a tudi Predstavitev dela kupcu – pisanje – govorjenje – odbor, ki so odgovarjala na poklicne težnje, tako kot praktične demonstracije na produkcijske metode. Učni program je še vedno odražal ukvarjanje z oglaševalskimi studii, komercialnim oblikovanjem in publicitetom. A do leta 1963 je tranzicija veljala za končano, Šola za grafično oblikovanje pa je imela tri glavne oddelke: Oblikovanje, Ilustracija (z močno povezavo z grafičnim tiskanjem) ter Film in televizija. Guyatt se je pri ustvarjanju vizije šole naslonil na delo ruskega filozofa P. D. Uspenskega, ki je govoril o »čustvenem pogonu, ki ga ustvarja ideja, ta pa za testiranje svoje izvedljivosti potrebuje praktične veščine in intelektualno analizo« [Frayling 2013, 467]. Načelo »glava, srce, roka« je resnično zaživelno.

Če je že bilo kaj dvomov glede Guyattove vizije, pa je ta postala manifestna leta 1963, na prvi razstavi grafičnega oblikovanja na akademiji z naslovom *GraphicsRCA: Fifteen year's work of the School of Graphic Design, Royal College of Art*. Na razstavi



[Guyatt 1963, 23]. Richard Doust, a student and participant in the first exhibition, recalls of the teaching around Guyatt's industry projects, where staff were there to ensure maintaining industry standards whilst at the same time encouraging independent study. He recalls,

[...] two colleagues designed a Lion and Unicorn Press book on Venice with illustrations by John Piper. There was a row between the students and the staff about whether the drawings were good enough and the layout of the text in the book [...] Guyatt made his feelings known but allowed the students their way [except for the drawing issue] (Doust, pers. comm).

The "educational advantages" of commissions were in the way they provided a "bridge" for the students between the RCA and professional practice. Guyatt, writing in *Graphis* 1969/70, explained,

Commissions also give students a strong motivation for working at the limit of their capacity, and it is noticeable how a commission may help a particular student to gain a sense of direction and to develop more quickly (Guyatt 1969/70, 493).

Cover image by Thelma Roscoe (1963) for exhibition catalogue *GraphicsRCA: Fifteen Year's Work of the School of Graphic Design, Royal College of Art*. Cover design under the art direction of Larry Carter. Courtesy of the Royal College of Art.

It is here that we begin to understand Guyatt's passion for the notion of "Head, Heart and Hand" as the basis for a holistic graphic designer. His reimagined approach to previous vocational methods was borne out in the strategies he used for learning and his attention to the context development of relevant skill bases, coupled with new found views on critical thinking.

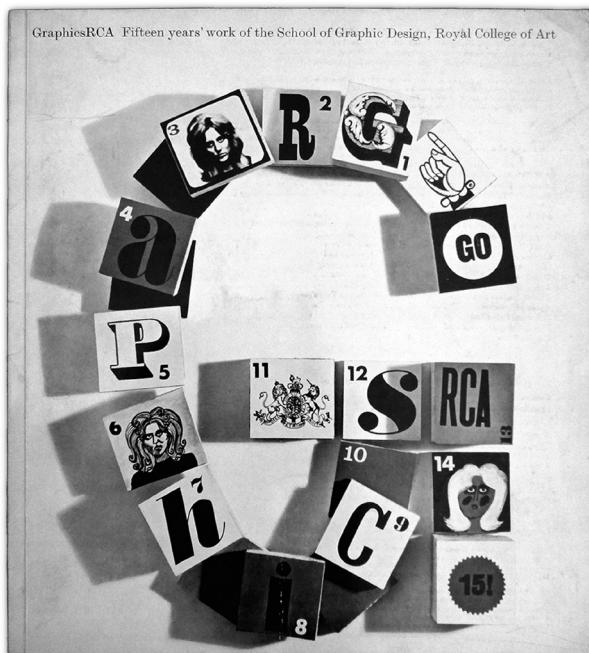
British design education has gone full circle from the early days of government initiatives, which saw the founding of the new Schools of Design (1837), to more recent arts and cultural policies promoting the creative economy (2001 – onwards). Despite the distance travelled of nearly two hundred years, the agenda of the British government has remained essentially the same. That is, to foster economic growth by capitalising on the fact that "good design is good business".

Design in the Art School

Art Schools in general have provided one kind of model and context for design education that has consistently produced students who are critical thinkers and cultural

se je čutilo Guyattovo prepričanje, da »vsi seminarji temeljijo na veščinah in obrtnem znanju, njihov glavni cilj pa je razvoj individualnega talenta vsakega študenta« [Guyatt 1963, 23]. Richard Doust, študent in udeleženec prve razstave, se spominja poučevanja v zvezi z Guyattovimi industrijskimi projekti, kjer so profesorji zagotavljali ohranjanje industrijskih standardov, hkrati pa spodbujali neodvisen študij:

[...] Dva kolega sta oblikovala knjigo založbe Lion and Unicorn o Benetkah z ilustracijami Johna Piperja. Med študenti in profesorji je nastal spor o tem, ali so risbe in postavitev besedila v knjigi dovolj dobre [...] Guyatt je svoje občutke sicer izrazil, a je študentom pustil njihov način [razen glede risanja] [Doust, osebna komunikacija].



Naslovna slika Thelme Roscoe (1963) za razstavni katalog *GraphicsRCA: Fifteen year's work of the School of Graphic Design, Royal College of Art*. Oblikovanje naslovnice pod umetniškim vodstvom Larryja Carterja. Z dovojenjem londonske Kraljeve umetnostne akademije.

»Izobraževalne prednosti« naročil so se izrazile tako, da so za študente ustvarile »most« med Kraljevo umetnostno akademijo in strokovno prakso. Guyatt je to pojasnil takole [*Graphis* 1969/70]:

Naročila prav tako močno motivirajo študente za delo na meji njihovih zmožnosti, in vidimo lahko, kako jim pomagajo pridobiti občutek za smer in kako se hitreje razvijajo [Guyatt 1969/70, 493].



leaders. The tensions between the idea of artistic creativity and the needs of the marketplace continue to fuel debate but also inform the changing contexts of art school education. Increasingly, critics now feel that the “heart” has been taken out of the art school education system as a result of increasing commercial drivers. The necessity is to put students in jobs and to make a profit.

However, this raises significant questions in relation to exploring pedagogical practices fit for the future: Can we ask what does the art school bring to design education? What is it that makes such places creative hubs for design? And, in what ways might design education be reimagined today within the context of broader cultural, political, economic and social contexts? And what of the role of design in shaping communication as digital technologies becomes increasingly ubiquitous?

Within the RCA today, there is little doubt that Guyatt’s ethos still resonates. The fluidity of the student experience is encouraged, as a School-wide elective framework provides a formal structure for exploring themes, regardless of the discipline base. And, like Guyatt’s definition, “graphic design” as a term continues to be difficult to pin down. Through this process, we have been questioning the relevancy and delivery of our graphic design curriculum and, more generally, defining the subject and discipline. Guyatt would echo similar concerns in 1974, when he was asked if “graphic design” was dying out in the School. He replied “I don’t think it’s dying out but I think it’s altering its character. I am not sure we’re really preparing students to face after [College] life as well as we might be – because of it” [Tunhill 1974].

The art school continues to provide space for provocations and conversations to take place and where students are often found to be the drivers for fostering debate. In 2013, the RCA hosted “Mapping Futures”, a symposium which brought together 150 designers, educators, researchers and design students to engage in a conversation about the current state of graphic design education, its relationship to the profession and what the future might bring. The intention for the event was to provide a catalyst for the graphic design community to reflect and speculate about a collective future within the context of continuous change.

As a precursor to the symposium, MA students from the School of Communication participated in a series of workshops exploring the role of craft and digital technologies, issues around gender and equality and the potential contribution of designers and educators to the future of graphic design. This is as it should be at the RCA; provocations, informed discussion, but above all a critical engagement that is applied and never fails to take us somewhere new. A future for the profession that is not only fuelled by individual aspirations but a collective consciousness as to what

Na tem mestu lahko začnemo razumevati Guyattovo strast za idejo »glava, srce, roka« kot temelj holističnega grafičnega oblikovalca. Njegov prenovitveni pristop k predhodnim poklicnim metodam je bil prenesen iz strategij, ki jih je uporabljal za učenje, iz pozornosti do razvoja konteksta primernih veščin, združene z novimi pogledi na kritično mišljenje.

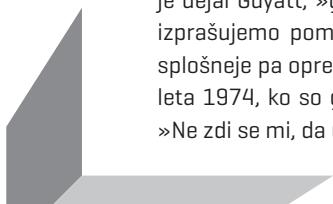
Britansko izobraževanje na področju oblikovanja je od zgodnjih dni vladnih pobud, ki so pripeljale do ustanovitve novih šol za oblikovanje (1837), do novejših umetnostnih in kulturnih politik, ki spodbujajo kreativno ekonomijo (od leta 2001 dalje), naredilo polni krog. Kljub razponu skorajda dvestotih let je program britanske vlade ostal v bistvu enak: spodbujati gospodarsko rast s kapitaliziranjem dejstva, da je »dobro oblikovanje dober posel«.

Oblikovanje v umetniški šoli

Umetniške šole na področju oblikovanja na splošno vzpostavljajo takšen model in kontekst izobraževanja, ki dosledno ustvarjata študente kot kritične mislece in kulturne voditelje. Napetosti med idejo umetniške kreativnosti in potrebami na trgu še naprej podžigajo razprave, so pa tudi podlaga spreminjajočih se kontekstov izobraževanja v umetniških šolah. Kritiki vse bolj menijo, da je zaradi povečanja komercialnih motivov iz izobraževalnega sistema umetniških šol iztrgano »srce«. Študente je nujno treba zaposliti in ustvariti dobiček.

A to odpira pomembna vprašanja o preučevanju pedagoških praks, primernih za prihodnost: ali se lahko vprašamo, kaj umetniška šola prinaša k izobraževanju na področju oblikovanja? Kaj je tisto, kar iz teh mest naredi kreativna središča oblikovanja? Kako naj se izobraževanje na področju oblikovanja dandanes preoblikuje znotraj širših kulturnih, političnih, ekonomskih in družbenih kontekstov? Kaj pa vloga oblikovanja pri oblikovanju komunikacij ob naraščajoči vseprisotnosti digitalnih tehnologij?

Danes se na Kraljevi umetnostni akademiji le redko dvomi, da Guyattov etos še vedno odmeva. Spodbuja se fluidnost študentove izkušnje, saj šolski izbirni okvir zagotavlja formalno strukturo za raziskovanje tem ne glede na osnovno disciplino. In, tako kot je dejal Guyatt, »grafično oblikovanje« je še vedno težko opredeliti. V tem procesu izprašujemo pomembnost in prispevek našega programa grafičnega oblikovanja, splošneje pa opredelitev predmeta in discipline. Guyatt je podobne pomisleke izrazil leta 1974, ko so ga vprašali, ali »grafično oblikovanje« na šoli umira. Odgovoril je: »Ne zdi se mi, da umira, mislim pa, da spreminja svoj značaj. Prav zaradi tega nisem





graphic design might bring to rethinking a broader context of social, political and economic concerns.

This rather optimistic vision of pedagogy has been under threat in recent years. Five years of coalition government followed by the election of a Conservative majority government in 2015 have meant that art school education is under fire. But perhaps this is an opportunity. The art school has always needed something to push against. This is where provocations like those put forward by Professor Neville Brody, Dean of the School and also Head of Visual Communication, are meant to ensure we avert any complacency. He asserts “my remit at the RCA is not to create artefacts. It’s to create skilled, dangerous minds” [Simpson 2013]. This dictum resonates with the values of what an art school education has always represented: informed models of stirring things up and tipping ideas upside down. In much the same way that Guyatt provided inspiration in the early days, so too does Brody, who sees his role as a catalyst for change.

Thus, the work we are seeing today in the studios is decidedly less object-orientated than ever before, moving more towards less tangible manifestations of services, the experiential and new ways of communicating. At the same time, there is a return to some of the basics of typography and letterpress, but alongside the new forms of craft making such as coding and physical computing. Research is at the heart of these processes and manifests itself as core to the teaching of an increased intake of practice-led PhD design students focussing on research in digital public spaces. Here, communication is once again moving beyond print. In short, Brody commits to the idea that the graphic designer of tomorrow must be “agile”. “It is our role as educators,” he argues, “to create individuals who will lead and create industry and society” [Simpson 2013].

At the “Heart” of Interdisciplinarity

A retired librarian friend of mine recently enlightened me on the origins of the Dewey Decimal Classification [DDC], which was invented by an American named Melvil Dewey in the late 19th century. What is interesting about this system is found not in its universality but rather in the limitations of the system itself. Essentially, the Dewey system does not facilitate searches for books that might be classified as either hybrids or falling within non-conventional subject areas. This got me thinking how, in a similar way, university systems have traditionally reinforced the way in which discipline-based departments have emerged as subject silos. However, as contemporary contexts are shifting, taking into account global

prepričan, da zares pripravimo študente za življenje po Akademiji, kot bi jih morali« [Tunhill 1974].

Umetniška akademija še naprej ponuja prostor za provokacije in pogovore, kjer so študentje pogosto motor spodbujanja razprav. Leta 2013 je Kraljeva umetnostna akademija gostila simpozij »Mapiranje prihodnosti«, ki je združil sto petdeset oblikovalcev, pedagogov, raziskovalcev in študentov oblikovanja v pogovorih o sedanjem stanju izobraževanja na področju grafičnega oblikovanja, njegovem odnosu do stroke in o tem, kaj prinaša prihodnost. Namen dogodka je bil ustvariti katalizator skupnosti grafičnega oblikovanja za razmišljjanje in razglabljanje o kolektivni prihodnosti znotraj konteksta nenehnih sprememb.

Pred simpozijem so magistrski študentje Šole za komunikacije sodelovali v seriji delavnic, ki so raziskovale vlogo obrti in digitalnih tehnologij, teme v zvezi s spolom in enakostjo ter potencialni prispevek oblikovalcev in pedagogov k prihodnosti grafičnega oblikovanja. Tako na Kraljevi umetnostni akademiji mora biti; provokacije, utemeljene razprave, predvsem pa kritični angažma, ki nas vedno pripelje k nečemu novemu. Prihodnost za stroko, ki je ne poganjajo le individualne želje, temveč kolektivna zavest, kaj naj grafično oblikovanje prispeva k razmisleku o širšem kontekstu družbenih, političnih in ekonomskih vprašanj.

Ta precej optimistična vizija pedagogike je bila v zadnjih letih ogrožena. Pet let koaličske vlade, ki ji je sledila izvolitev konservativne večinske vlade leta 2015, pomeni, da je izobraževanje v umetniških šolah pod sovražnim ognjem. A morda je to priložnost. Umetniška akademija je vedno potrebovala nekaj, od česar se lahko odbije. Tu so na mestu provokacije – kot je bila izjava profesorja Nevilla Brodyja, dekana akademije in predstojnika Oddelka za vizualne komunikacije – ki zagotavlja, da bomo preprečili vsako samozadostnost. Brody je dejal: »Moja naloga na Kraljevi umetnostni akademiji ni ustvarjanje izdelkov. Je ustvarjanje poučenih, nevarnih umov« [Simpson 2013]. Ta izjava se sklada z vrednotami, ki jih je izobraževanje v umetniških akademijah vedno predstavljalo; gre za poučene načine razvemanja in sipanja idej. Na precej podoben način, kot je Guyatt govoril o inspiraciji, vidi Brody svojo vlogo kot katalizator sprememb.

Delo, ki smo mu danes priča v studiih, je torej precej manj kot kdaj prej usmerjeno k objektom, seli se k manj oprijemljivim manifestacijam storitev, k izkustvenim in novim načinom komuniciranja. Obenem obstaja vrnitev k nekaterim osnovam tipografije, knjigotiska, a ob novih oblikah obrti, kot sta kodiranje in fizično računalništvo. V srcu teh procesov so raziskave, ki se kažejo kot jedro poučevanja vse več k praksi usmerjenih doktorskih študentov oblikovanja, osredotočenih na raziskave digitalnih



and local challenges, digital technologies and social and policy concerns, the foregrounding of interdisciplinarity is becoming more commonplace.

In order to meet these greater challenges, new programmes are emerging that take into account the teaching of new combinations of subject areas and corollary skills. Sometimes, these interdisciplinaries mean borrowing from disciplines to address research questions, and sometimes this goes deeper and challenges the very philosophical foundations of the disciplines themselves [Lattuca 2001]. Despite increased interdisciplinarity, it is important to also maintain a space for students to explore their chosen “core” disciplines. Interdisciplinarity needs disciplinarity to be at its most effective in contributing to contemporary design solutions.

One example of this is *Department 21* – a new kind of learning space instigated between 2009 and 2011 by students at the RCA. Their intention was to create a cross-departmental studio space, thereby “engendering new discussions and ways for working” [Department 21 2013]. The emphasis was on an experimental, mobile physical space for students and staff who fostered a belief that “the physical and social design of a learning space has an impact on the learning that happens within it”. Those students who were involved [students were offered one space per existing college department] took ownership over their own learning by running workshops, setting projects, critiquing each others work, bringing in guest lecturers and promoting open tutorials.

At the heart of the project was an emphasis on collaboration and interdisciplinarity, but with this a political agenda to “counter the institutional agenda of single authorship and producing industry-ready students” also emerged [Department 21, 2013]. Although *Department 21* was short-lived [2009–2011], it had a significant role to play in re-establishing the collaborative nature of learning and in re-evaluating the relationship between disciplines within the College. *Department 21* was certainly offering new perspectives on Guyatt’s manifesto of “Head, Heart and Hand”.

One further point needs to be made about how the academy is now relating to government and industry initiatives and demands in the way learning is shifting from “problem solvers to entrepreneurs” [Dilnot 2000]. In the UK, initiatives that foster new forms of Knowledge Exchange between businesses and academics are viewed as crucial in how the economy might be strengthened. At the same time, the relationship between design and the sciences is becoming more commonplace, as is the way in which funding councils are gearing their schemes directly toward themed research areas. For example, the emphasis on Digital Economies, Global Uncertainties and Digital Public Spaces suggests how design might play a significant role in addressing innovation, “wicked problems” and global as well as local challenges.

javnih prostorov. Komunikacija se znova giblje onkraj tiska. Skratka, Brody je zavezani ideji, da mora biti grafični oblikovalec jutrišnjega dne »agilen«. »Naša pedagoška vloga,« trdi, »je ustvariti posameznike, ki bodo vodili in ustvarjali industrijo ter družbo« [Simpson 2013].

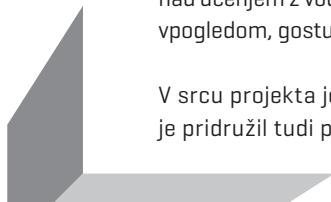
V »srcu« interdisciplinarnosti

Moj prijatelj, upokojeni knjižničar, me je pred kratkim razsvetlil o izvoru Deweyjeve decimalne klasifikacije, ki jo je izumil Američan Melvil Dewey v pozmem 19. stoletju. Zanimivost tega sistema niso le njegova univerzalnost, temveč tudi njegove omejitve. Deweyjev sistem v bistvu ne olajšuje iskanja knjig, ki bi lahko bile razvršcene kot hibridi ali pa sodijo na nekonvencionalna predmetna področja. To me je privedlo do razmišljanja, kako podobno so univerzitetni sistemi tradicionalno krepili sistem, znotraj katerega so se disciplinarni oddelki pojavljali kot predmetni silosi. A ker se sodobni konteksti premikajo k upoštevanju globalnih in lokalnih izzivov, digitalnih tehnologij, družbenih in političnih vprašanj, postaja pomembnost interdisciplinarnosti vse bolj običajna.

Da bi se lahko soočili s temi velikimi izzivi, se pojavljajo novi programi, ki upoštevajo poučevanje novih kombinacij predmetnih področij in z njimi povezanih veščin. Da bi lahko obravnavali raziskovalna vprašanja, pomenijo te interdisciplinarnosti včasih izposojanje iz disciplin, in včasih to seže globoko in izzove filozofske osnove samih disciplin [Lattuca 2001]. Kljub rastoči interdisciplinarnosti je pomembno ohraniti tudi prostor, kjer lahko študentje raziskujejo svoje izbrane »jedrne« discipline. Interdisciplinarnost potrebuje disciplinarnost, da lahko kar najučinkoviteje prispeva k sodobnim oblikovalskim rešitvam.

Primer tega je *Oddelek 21* – nova vrsta učnega prostora, ki so ga med letoma 2009 in 2011 vzpostavili študentje Kraljeve umetnostne akademije. Njihov namen je bil ustvariti medoddelčni študijski prostor in tako »sprožiti nove razprave in načine dela« [Department 21 2013]. Poudarek je bil na eksperimentalnem, mobilnem fizičnem prostoru, kajti študentje in profesorji so spodbujali prepričanje, da »ima fizično in družbeno oblikovanje učnega prostora vpliv na učenje, ki se v njem dogaja«. Sodelujoči študentje [študentom so ponudili po en prostor na en oddelek akademije] so prevzeli nadzor nad učenjem z vodenjem delavnic, s postavljanjem projektov, z medsebojnim kritičkim vpogledom, gostujočimi predavatelji in s spodbujanjem odprtih seminarjev.

V srcu projekta je bil poudarek na sodelovanju in interdisciplinarnosti, a temu se je pridružil tudi politični program »boja proti institucionalni agendi posamičnega





To give one example of this new relationship, and how industry initiatives flourish at the RCA in a context where experimentation and critical engagement are encouraged and facilitated, in 2013 the Hyundai Motor Company contacted us to explore branding the future of mobility and the automobile. The nine-month project culminated in a book created by staff and students entitled *The Horse is Dead, Long Live the Horse*, evidencing the in-depth questioning and research undertaken in coming to terms with new ways of speculating about the future of the car. In many ways, this project signalled another kind of paradigm shift for graphic design at the RCA that anticipated an emphasis on process-orientated solutions rather than an expected outcome of a branding campaign. The shift has pushed us into new areas of design research and knowledge exchange, where staff and students alike are delving into unknown territories.

Reimagining (Graphic) Design Education: The Second Time (2015).

This paper has intentionally focussed on graphic design education for a number of reasons: firstly, it is the subject that I know best and have taught for over 30 years. And, more importantly, the debates that are now emerging about the role of design education are coming primarily from the sector of graphic design educators. These debates are also reflected in professional bodies such as ICOGRADA [International Council of Graphic Designers], whose recent name change to International Council of Design (ico-D) meant the symbolic dropping of the term “graphic” in order to encompass the broader remit of “design” practice.

One example that provides insight into the shifting paradigms of design education is situated in the MA Information Experience Design (IED) programme at the RCA, which launched in 2012 and had its first graduating class in 2014. Here we come back to Professor Guyatt’s intersection of art, craft and applied contexts. The intent of the IED programme is to transform “information into experiences through design, encompassing screen and moving image, sound and sense and space and material”. The curriculum encourages students to engage critically in making and hacking through a range of materials, explore data visualisation, installations and exhibitions and experience design, both physical and digital [Information Experience Design 2012]. It is through an emphasis on research methods where students engage with interdisciplinarity and participatory processes, explore behavioural and socio-cultural contexts and develop their skills in critical decision making and thinking.

A new kind of design profession is emerging where digital communication in all of its complexity needs to be made accessible. Students from across the RCA in

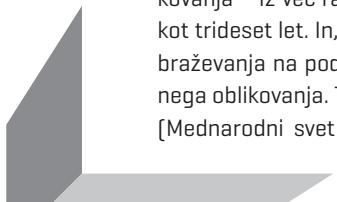
avtorstva in proizvajjanju industriji prilagojenih študentov» (Department 21 2013). Čeprav *Oddelek 21* ni dolgo obstajal [2009–2011], je igral pomembno vlogo pri ponovni vzpostavitevi sodelovalne narave učenja in ponovnem ovrednotenju odnosa med disciplinami znotraj akademije. *Oddelek 21* je prav gotovo ponudil nove poglede na Guyattov manifest o »glavi, srcu in roki«.

Še nekaj dodatnih besed moramo spregovoriti o tem, kako se akademija dandas, ko se učenje seli od »reševalcev problemov k podjetnikom« (Dilnot 2000), povezuje z vladnimi in industrijskimi pobudami ter zahtevami. V Veliki Britaniji se pobude, ki razvijajo nove oblike izmenjave znanja med podjetji in akademiki, obravnavajo kot ključne za krepitev gospodarstva. Obenem pa postaja odnos med oblikovanjem in znanostmi vse bolj običajen, saj gre za način, s katerim finančni odbori prilagajajo svoje programe tematskim raziskovalnim področjem. Poudarek na digitalnih ekonomijah, globalnih negotovostih, digitalnih javnih prostorih, denimo, kaže, kako naj oblikovanje prevzame pomembno vlogo pri spoprijemanju z inovacijami, »zlimi težavami«, pa tudi globalnimi in lokalnimi izzivi.

Naj podam primer tega novega razmerja, tega, kako industrijske pobude cvetijo na Kraljevi umetnostni akademiji v kontekstu, ki spodbuja in pospešuje eksperimentiranje ter kritično angažiranje: leta 2013 je v stik z nami stopilo podjetje Hyundai Motor, da bi raziskalo trženje prihodnosti mobilnosti in avtomobila. Devetmesečni projekt je dosegel vrhunec s knjigo, ki so jo ustvarili profesorji in študentje, z naslovom *Horse is Dead, Long Live the Horse*, ki izpričuje poglobljeno izpraševanje in raziskovanje, usklajeno z novimi načini razmišljanja o prihodnosti avtomobila. Ta projekt je v marsičem nakazal še en premik paradigm grafičnega oblikovanja na Kraljevi umetnostni akademiji, ki je predvidel poudarek k procesno usmerjenim rešitvam, ne pa k pričakovanim rezultatom tržne kampanje. Premik nas je potisnil k novim področjem oblikovalskih raziskav in izmenjave znanja, kjer so profesorji in študentje brskali po enako neznanih teritorijih.

Premišljevanje o izobraževanju na področju [grafičnega] oblikovanja: drugič (2015)

Ta prispevek se namerno osredotoča na izobraževanje na področju grafičnega oblikovanja – iz več razlogov: prvič, gre za temo, ki jo najbolje poznam in ki jo učim več kot trideset let. In, kar je še pomembnejše, razprave, ki se sedaj pojavljajo o vlogi izobraževanja na področju oblikovanja, prihajajo predvsem iz sektorja učiteljev grafičnega oblikovanja. Te razprave se odražajo tudi v strokovnih organih, kot je ICOGRADA [Mednarodni svet grafičnih oblikovalcev], katerega nedavna sprememba imena v





Innovation Design Engineering, Information Experience Design and Design Products explored the notions of data transparency in their project “Birth of the Digital Egg”. The project was an outcome of the workshop entitled “Critical Visualisation”, where students were asked to “explore global statistics to tell their stories” [von Ompteda 2014]. In this case, students asked, “As we increasingly connect virtually, are we gradually disconnecting from reality?”. The use of the egg as a metaphor became the starting point for their exploration into visualising data based on “the inverse relationship between birth rates and Internet usage in various countries” [Walker 2014]. The final result was the creation of a series of plinths where exquisitely crafted opaque and translucent eggs convey their makers’ position on the “hollowness of light-speed digital communication” and “the solidity and natural form of organic life”. The learning here is as Guyatt had proposed:

It is my submission that the mainspring of the fine arts in Content; of designing, Form, and of craftsmanship, Skill. And that their differences, broadly speaking, arise from a different balance and interplay in the faculties which all three employ – with the fine artist learning from his heart, the designer learning from his head, and the craftsman learning from his hand [Guyatt 1976, 3].

“Birth of the Digital Egg” was produced by students from Innovation Design Engineering, Information Experience Design and Design Products at the Royal College of Art for a Critical Visualisation workshop led by tutor Karin von Ompteda. Designers: Sungwhoon Cho, Thomas Essl, Carrollyne Hsieh, Jae Kyung Kim, Kevin Smeeing. Photo by Dominic Tschudin. Courtesy of the Royal College of Art.



Arjun Appadurai wrote, in the “Foreword” to *Design as Future-Making*, that “design is fully conceived as a practice that continuously reimagines its own conditions of possibility” [Yelavich and Adams 2014: 9]. The fluidity of our thinking about design and its conventional boundaries are breaking down in such a way that new innovative practices are beginning to emerge. This, coupled with advances in digital technology, is fostering new kinds of communication practices. These are practices that I would maintain are still approached through a [graphic] design lens.

Mednarodni svet za oblikovanje [ico-D] pomeni simbolno opustitev izraza »grafično«, da bi tako zajel širše pristojnosti >oblikovalske« prakse.

Primer, ki ponuja vpogled v spreminjajoče se paradigme izobraževanja na področju oblikovanja, najdemo v magistrskem programu Oblikovanje informacijske izkušnje na Kraljevi umetnostni akademiji, ki se je začel leta 2012, prvi razred pa je dokončal šolanje leta 2014. Tukaj se vrnemo h Guyattovemu križišču umetnosti, obrti in uporabnih kontekstov. Namen programa je preoblikovati »informacije v izkušnje preko oblikovanja, z vključevanjem ekranskih in gibljivih podob, zvoka in občutkov, prostora in materiala«. Učni program spodbuja študente h kritičnemu angažiranju pri ustvarjanju in »hekanju« skozi vrsto materialov; pri raziskovanju vizualizacije podatkov, instalacij, razstav in oblikovanja izkušenj, fizičnega in digitalnega [Information Experience Design 2012]. Prav skozi poudarek na raziskovalnih metodah se študentje soočijo z interdisciplinarnostjo in participativnimi procesi; raziskujejo vedenje in sociokultурne kontekste ter razvijajo sposobnosti kritičnega ustvarjanja in razmišljanja.

Pojavlja se nova vrsta oblikovalske stroke, ki mora ustvariti dostopno digitalno komunikacijo v vsej njeni kompleksnosti.

»Rojstvo digitalnega jajca« so ustvarili študentje programov Inženirskega oblikovanja inovacij, Informacijskega oblikovanja in oblikovanja izkušenj ter Industrijskega oblikovanja na Kraljevi umetnostni akademiji, in sicer na delavnici Kritična vizualizacija, ki jo je vodila mentorica Karin von Ompteda. Oblikovalci: Sungwhoon Cho, Thomas Essl, Carrollyne Hsieh, Jae Kyung Kim, Kevin Smeeling. Fotografija: Dominic Tschudin. Z dovoljenjem londonske Kraljeve umetnostne akademije.

Študentje programov Inženirske oblikovanje inovacij, Informacijsko oblikovanje izkušnje in Oblikovanje izdelkov raziskujejo ideje podatkovne transparentnosti v projektu »Rojstvo digitalnega jajca«. Projekt je rezultat delavnice Kritična vizualizacija, kjer so študentje »raziskovali globalne statistike in zgodbe v ozadju« [von Ompteda 2014]. Vprašali so se: »Ali se, medtem ko se vse bolj virtualno povezujemo, postopoma odklapljamamo od stvarnosti?« Uporaba jajca kot metafore je postala izhodišče njihovega raziskovanja vizualizacije podatkov, ki je temeljila na »obratnem sorazmerju med stopnjo rodnosti in uporabo interneta v različnih državah« [Walker 2014]. Končni rezultat je oblikovanje serije podstavkov, kjer izvrstno izdelana neprosojna in prosojna jajca sporočajo položaj posameznih držav bodisi v »praznini digitalne komunikacije, hitre kot svetloba«, bodisi v »trdnosti in naravnosti organskega življenja«. Učenje, kot ga je predlagal Guyatt, je naslednje:

Menim, da je gonilna sila likovne umetnosti Vsebina, oblikovanja Oblika in obrti Veščina. In da njihove razlike, splošno gledano, izhajajo iz različnega ravnovesja in igre talentov, ki se uporabljajo – da se likovni umetnik uči iz srca, oblikovalec iz glave in obrtnik iz roke [Guyatt 1976, 3].





REFERENCES

- Appadurai, Arjun.** 2014. "Foreword". In *Design as Future-Making*, edited by Susan Yelavich and Barbara Adams, 9–11. London: Bloomsbury.
- Beckwith, Gerald.** 2007. "Professor Richard Guyatt". *The Independent*, October 29, www.independent.co.uk/news/obituaries/professor-richard-guyatt-398213.html [accessed 16 April 2015].
- Department 21 and Pippa Koszerek.** 2013. "Description", www.department21.net [accessed 15 April 2015].
- Dilnot, Clive.** 2000. "How might we teach design when design education becomes adequate to what the world requires of it?". *Design Report*. n.p.
- Doust, Richard.** 2015. E-mail message to author. 31 March 2015.
- Frayling, Christopher.** 2007. "Richard Guyatt". *The Guardian*, 27 October 2007, www.theguardian.com/news/2007/oct/27/guardianobituaries.artsobituaries [accessed 15 April 2015].
- Goodden, Henrietta.** 2015. *Robin Darwin: Visionary Educator and Painter*, London: Unicorn Press Ltd.
- Guyatt, Richard.** 1954. "Introduction". In *Graphic Design: Lettering, Typography and Illustration* edited by John Lewis and John Brinkley, 13–15. London: Routledge & Kegan Paul Ltd.
- Guyatt, Richard.** 1963. "Graphic Design at the Royal College of Art". In *GraphicsRCA: Fifteen year's work of the School of Graphic Design, Royal College of Art*, 21–31. London: Royal College of Art.
- Guyatt, Richard.** 1969/70. "The School of Graphic Design". *Graphis* 146: 492–499.
- Guyatt, Richard.** 1976. "Head, Heart and Hand". *Two Lectures*. RCA Papers No. 2, 1977, 2–5. London: Royal College of Art.
- Herdeg, Walter.** 1969/70. "Graphis: Cover". *Graphis* 146: 480.
- Information Experience Design.** 2012. <http://ied.rca.ac.uk> [accessed 15 April 2015].
- Lattuca, Lisa R.** 2001. *Creating Interdisciplinarity: Interdisciplinary Research and Teaching among College and University Faculty*. Nashville, TN: Vanderbilt University Press.
- McCarthy, Fiona.** 2012. "A magnet for talent: an intimate portrait of the Royal College of Art". In *The Perfect Place to Grow: 175 Years of the Royal College of Art*, 4–41. London: Royal College of Art.
- Simpson, Veronica.** 2013. "Neville Brody: On the Changing Face of Graphic Design". *Blueprint*, 11 November 2013. www.designcurial.com/news/ahead-of-the-curve [accessed 15 April 2015].
- Tunhill, Dan.** 1974. "Dick Guyatt". In unpublished book of informal interviews, Autumn Term 1973/1974. London: Department of Graphic Design, Royal College of Art.
- Triggs, Teal, Adrian Shaughnessy and Anna Gerber.** 2014. *GraphicsRCA: Fifty Years and Beyond*. London: Royal College of Art.
- von Ompteda, Karin.** n.d. "Workshops", <http://karinvonompteda.com/Workshops> [accessed 15 April 2015].
- Walker, Kevin.** n.d. "Birth of the Digital Egg", http://ied.rca.ac.uk/?attachment_id=812 [accessed 15 April 2015].

Arjun Appadurai je v predgovoru knjige *Design as Future-Making* zapisal, da je »oblikovanje v celoti zasnovano kot praksa, ki nenehno predeluje stanje svojih možnosti« [Yelavich in Adams 2014: 9]. Fluidnost našega razmišljanja o oblikovanju in njegovih konvencionalnih mejah se ruši tako, da sproža nove inovativne prakse. Skupaj z razvojem digitalnih tehnologij pospešuje nove vrste komunikacijskih praks. To so prakse, na katere se še vedno, bi rekla, gleda skozi leče [grafičnega] oblikovanja.

REFERENCE

- Appadurai, Arjun. 2014. »Foreword«. V *Design as Future-Making*, ur. Susan Yelavich in Barbara Adams, 9–11. London: Bloomsbury.
- Beckwith, Gerald. 2007. »Professor Richard Guyatt«, *The Independent*, 29. oktober 2007, www.independent.co.uk/news/obituaries/professor-richard-guyatt-398213.html [dostop: 16. aprila 2015].
- Department 21 in Pippa Koszerek. 2013. »Description«, www.department21.net [dostop: 15. aprila 2015].
- Dilnot, Clive. 2000. »How might we teach design when design education becomes adequate to what the world requires of it?«, *Design Report*.
- Doust, Richard. Elektronska pošta avtorju, 31. marec 2015.
- Frayling, Christopher. 2007. »Richard Guyatt«, *The Guardian*, 27. oktober 2007, www.theguardian.com/news/2007/oct/27/guardianobituaries.artsobituaries [dostop: 15. aprila 2015].
- Goodden, Henrietta. 2015. *Robin Darwin: Visionary Educator and Painter*, London: Unicorn Press Ltd.
- Guyatt, Richard. 1954. »Introduction«. V *Graphic Design: Lettering, Typography and Illustration*, ur. John Lewis in John Brinkley, 13–15. London: Routledge & Kegan Paul Ltd.
- Guyatt, Richard. 1963. »Graphic Design at the Royal College of Art«. V *GraphicsRCA: Fifteen year's work of the School of Graphic Design, Royal College of Art*, 21–31. London: Royal College of Art.
- Guyatt, Richard. 1969/70. »The School of Graphic Design«, *Graphis* 146: 492–499.
- Guyatt, Richard. 1976. »Head, Heart and Hand«. *Two Lectures, RCA Papers No. 2/ 1977*, 2–5. London: Royal College of Art.
- Herdeg, Walter. 1969/70. »Graphis: Cover«, *Graphis* 146: 480.
- Information Experience Design. 2012. <http://ied.rca.ac.uk> [dostop: 15. aprila 2015].
- Lattuca, Lisa R. 2001. *Creating Interdisciplinarity: Interdisciplinary Research and Teaching among College and University Faculty*. Nashville, TN: Vanderbilt University Press.
- McCarthy, Fiona. 2012. »A magnet for talent: an intimate portrait of the Royal College of Art«. V *The Perfect Place to Grow: 175 Years of the Royal College of Art*, 4–41. London: Royal College of Art.
- Simpson, Veronica. 2013. »Neville Brody: On the Changing Face of Graphic Design«, *Blueprint*, 11. november 2013, www.designcurial.com/news/ahead-of-the-curve [dostop: 15. aprila 2015].
- Tunhill, Dan. 1974. »Dick Guyatt«. V neobjavljeni knjigi neformalnih intervjujev, jesenski semester 1973/1974. London: Department of Graphic Design, Royal College of Art.
- Triggs, Teal, Adrian Shaughnessy in Anna Gerber. 2014. *GraphicsRCA: Fifty Years and Beyond*. London: Royal College of Art.
- von Ompteda, Karin. Brez datuma. »Workshops«, <http://karinvonompteda.com/Workshops> [dostop: 15. aprila 2015].
- Walker, Kevin. Brez datuma. »Birth of the Digital Egg«, http://ied.rca.ac.uk/?attachment_id=812 [dostop: 15. aprila 2015].



Learning from Hyper Island – The Future of Design Education

"All progress is experimental"

– John Jay Chapman [1862–1933],
American writer and political activist

Self-advertising Hyper Island

Hyper Island is a privately owned tertiary institution and educational company that designs and facilitates experiences that challenge people and businesses to grow and get ahead in an increasingly digital world.

Since the start 20 years ago, Hyper Island has impacted more than 5,000 full time graduates from more than 50 countries and has had more than 5,000 participants in executive master classes worldwide. Hyper Island has 100 employees based at learning hubs in New York, Singapore, São Paulo, Manchester, London, Stockholm, and Karlskrona.

Hyper Island runs undergraduate and postgraduate vocational programmes – and nowadays even accredited MAs [Jesus, we are turning into everything we set out to destroy] – in areas such as Digital Media Management, Interactive Art Direction, Data Strategy, Digital Business Strategy, Mobile Creative, Motion Creative and Digital Media Creative.

In 2010, Hyper Island was awarded the Knowledge Prize by His Majesty the King of Sweden “for bringing innovative and inspiring knowledge that benefit Sweden’s competitiveness and entrepreneurial spirit”. It’s been dubbed the “Digital Harvard” by Robert Schwartz, “The Oxbridge of Digital” by *Campaign Magazine*, is listed in *Domus Magazine* as one of the Top 100 Schools of Architecture and Design and has been described as “producing the most coveted digital talent in the ad industry” by *Fast Company*.

¹ Founder of Hyper Island, www.hyperisland.com.

DAVID ERIXON¹

Nauki iz Hyper Islanda – prihodnost izobraževanja na področju oblikovanja

»Ves napredek je eksperimentalen.«

– John Jay Chapman [1862–1933],
ameriški pisatelj in politični aktivist

Samooglaševanje Hyper Islanda

Hyper Island je terciarna ustanova v zasebni lasti in izobraževalno podjetje, ki oblikuje in omogoča izkušnje, s katerimi se ljudje in podjetja usmerjajo k rasti ter napredku v vse bolj digitalnem svetu.

Od začetka pred dvajsetimi leti je svoj pečat pustil na več kot pet tisoč diplomantih iz več kot petdesetih držav. Več kot pet tisoč jih sodeluje v vodstvenih magistrskih seminarjih po vsem svetu. Ima sto zaposlenih v učnih centrih v New Yorku, Singapurju, Sao Paulu, Manchestru, Londonu, Stockholmu in Karlskroni.

Hyper Island izvaja dodiplomske in poddiplomske poklicne programe – in danes tudi akreditirane magisterije [o bog, spremojamo se v vse, kar smo hoteli uničiti] – na področjih, kot so upravljanje digitalnih medijev, interaktivna umetnost, podatkovne strategije, strategije digitalnega poslovanja, kreativa gibljive grafike, video kreativa in kreativa za digitalne medije.

Leta 2010 smo dobili nagrado »znanje«, ki jo podeljuje njegovo veličanstvo kralj Švedske, »za prispevek inovativnega in navdihujočega znanja h konkurenčnosti Švedske ter podjetniškemu duhu«. Robert Schwartz je Hyper Island poimenoval »digitalni Harvard«, revija *Campaign* »Oxbridge digitalnega«, v reviji *Domus* je bil uvrščen med sto najboljših šol za arhitekturo in oblikovanje, revija *Fast Company* pa je napisala, da »ustvarja najbolj želene digitalne talente v oglaševalski industriji«.

¹ Ustanovitelj Hyper Islanda, www.hyperisland.com.



Apart from the industry accolades of its students – best argued by the outstanding employment rate of Hyper Island’s alumni – Hyper Island has also become famous for its progressive pedagogical approaches and is the focus of many research reports and policy documents on future educational models from organisations such as Demos, Nesta, The Enterprise Education Trust, The Smith Institute and Reform.

The Future of Design Education?

“Design” and “Education” are two vast and complex topics in their own rights. Bringing the two together adds even more intricacies, creating a scholarly cluster fuck, difficult to confine in a cosmic “theory of everything”. Add the concept of “a future” or even “The Future”, and I might just give up right here and now.

Or not.

I might not be able to say anything universally relevant about the topic of “The Future of Design Education”, however I can say something specific about my own – and Hyper Island’s – experience from it, hoping that somehow, for someone, this will be a valuable contribution.

This is also a great demonstration of “learning by reflection”, one of the corner stones of how we approach learning at Hyper Island.

Becoming Hyper Island

Hyper Island was founded 20 years ago by Lars Lundh, Professor Jonathan Briggs and myself. We all met through a joint multimedia project on HIV and AIDS education at the beginning of the 1990s. I was in my early 20s, fresh out of university [although my own experience of formal education was far from fresh]. Jonathan was ten years older and an already established academic in Computers in Education at Kingston University. Lars was in his mid 40s, with a background from the Swedish social democratic movement and a special interest and experience in alternative forms of education [of which Sweden has a long tradition; when Sweden was one of the first nations in the world to achieve “100%” literacy, it was through a grass roots movement of peer-to-peer education – neither orchestrated by the church nor the state].

Two things brought us together: 1] a real interest in experimental and non-traditional education, and 2] a shared curiosity about the future of digital – and how digital had

Poleg podjetniških priznanj njegovim študentom – ki jih najbolje dokazuje njihova izjemna zaposljivost – slovi Hyper Island tudi po progresivnih pedagoških pristopih in kot žarišče številnih raziskovalnih poročil ter političnih dokumentov o prihodnjih izobraževalnih modelih za organizacije, kot so Demos, Nesta, sklad Enterprise Education, Inštitut Adam Smith in Reform.

Prihodnost izobraževanja na področju oblikovanja?

»Oblikovanje« in »izobraževanje« sta sama po sebi obsežni in kompleksni temi. Njuna združitev prinese še več zapletenosti, kar ustvari kup znanstvene jebe, ki jo je težko zamejiti v kozmično »teorijo vsega«. Dodajmo še koncept »prihodnosti« ali celo »Prihodnosti«, in bom raje kar odnehal, tukaj in zdaj.

Ali pa ne.

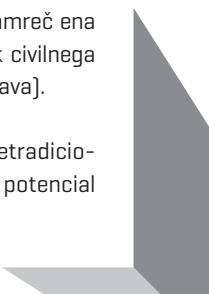
Morda o temi »prihodnost izobraževanja na področju oblikovanja« ne bom znal povedati nič univerzalno pomembnega; lahko pa povem kaj specifičnega o svoji izkušnji z njo – in izkušnji Hyper Islanda – v upanju, da bo to za koga tako ali drugače dragocen prispevek.

Prav tako je to krasna demonstracija »učenja z refleksijo«, kar je eden od temeljnih kamnov pristopanja k učenju v Hyper Islandu.

Nastajanje Hyper Islanda

Hyper Island smo pred dvajsetimi leti ustanovili Lars Lundh, profesor Jonathan Briggs in jaz. Spoznali smo se prek skupnega multimedijskega projekta o virusu HIV in izobraževanja o aidsu v začetku devetdesetih let. Bil sem v zgodnjih dvajsetih, svež z univerze [čeprav je bila moja izkušnja s formalno izobrazbo daleč od svež]. Jonathan je bil deset let starejši in že uveljavljen akademik, aktivен v seminarju »Računalniki v okviru izobraževanja« na Univerzi Kingston. Lars je bil v srednjih štiridesetih, imel je izkušnje v švedskem socialdemokratskem gibanju ter posebno zanimanje in prakso v alternativnih oblikah izobraževanja [pri katerih ima Švedska dolgo tradicijo; bila je namreč ena prvih držav na svetu, ki je dosegla »stoodstotno« pismenost, in sicer prek civilnega gibanja za vrstniško izobraževanje – ki ga nista orkestrirali niti cerkev niti država].

Združili sta nas dve stvari: 1) resnično zanimanje za eksperimentalno in netradicionalno izobraževanje ter 2) radovednost glede prihodnosti digitalnega – in potencial





the potential to shake up and transform the future. At the time, *digital* was not really a subject in design education, and through our early ventures into this field, we saw an opportunity to create something new and valuable to help push this part of the world forward.

At the time, Sweden was recovering from a country specific recession, fuelled by technological unemployment [Sweden, after Japan, has the highest deployment of robotics and computer systems in both manufacturing and service industries]. The government was launching a trial programme for higher vocational education, aiming to transition and generate a workforce more suitable for an emerging information society and for the future growth of the country [this was pre-Internet times, a merit to visionary politicians at the time].

For Sweden, this initiative was very inventive and brave. For the trial period, the government had put together a progressive policy for approving and funding future-focused vocational higher education programmes based on the following:

- Documented evidence of a future demand of competencies [i.e. jobs] from an emerging ICT sector;
- Active industry collaboration – such as industry representatives on curriculum and assessment boards;
- 1/3 of students' time to be spent in industry placements – a form of modern internship/apprenticeship approach intertwined with the more traditional "classroom" format;
- A project-based curriculum – connecting theory and practice through real tasks and challenges – enabling "experiential learning" rather than just "abstract" [focus on industry application rather than academic research] and also supporting group learning and collaboration.

In addition, the government invited private businesses and other types of non-governmental organisations to become suppliers of these programmes, breaking up the monopoly of universities as the only institutions able to teach students at the higher, tertiary level.

Luckily for us, this trial was launched at the same time as we embarked on our own mission into digital and education. Through a complex process lasting for about a year, we were finally authorised to participate in the first trial period, delivering an 80-week programme called New Media Design [with only 30 students places per year – change really does take place at the fringes].

digitalnega pri pretresanju ter preoblikovanju prihodnosti. *Digitalno* v tistem času ni bilo predmet izobraževanja na področju oblikovanja, v svojih zgodnjih podvigih na tem področju pa smo videli priložnost za ustvarjanje nečesa novega in dragocenega, kar bi pomagalo potisniti ta del sveta naprej.

Švedska je takrat okrevala po specifični recesiji, ki jo je poganjala tehnološka brezposelnost [Švedska ima, za Japonsko, najvišjo rabo robotike in računalniških sistemov tako v proizvodnih kot v storitvenih industrijah]. Vlada je za višje poklicno izobraževanje uvedla poskusni program, katerega cilja sta bila tranzicija in ustvaritev delovne sile, ki bi bila primernejša za nastajajočo informacijsko družbo ter prihodnjo rast države [to je bila doba pred internetom, zato priznanje takratnim vizionarskim politikom].

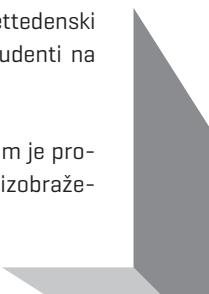
Za Švedsko je bila ta pobuda zelo inventivna in pogumna. Vlada je v poskusnem obdobju oblikovala progresivno politiko, ki je odobrila in finančno podprla v prihodnost usmerjene programe višješolskega poklicnega izobraževanja, katerih temelji so bili:

- dokumentirana evidenca prihodnjih zahtev po kompetencah [delovna mesta] v nastajajočem sektorju informacijskih in komunikacijskih tehnologij;
- aktivno sodelovanje z industrijou – denimo s predstavniki industrije v programske in ocenjevalnih odborih;
- tretjina študentskega časa se postavi v industrijou – to je oblika modernega staža/vajeništva, ki se prepleta z bolj tradicionalnim, »predavalnica« formatom;
- projektni šolski program – povezovanje teorije in prakse skozi dejanske naloge ter izzive – kar omogoča »izkustveno«, ne le »abstraktno učenje« [poudarek je na vlogi industrije, ne na akademskem raziskovanju], obenem pa podpira skupinsko učenje in sodelovanje.

Vlada je hkrati povabila zasebna podjetja in druge tipe nevladnih organizacij, da postanejo ponudniki teh programov, s čimer je razbila monopol univerz kot edinih institucij, ki lahko poučujejo študente na višji, terciarni ravni.

Na našo srečo se je ta poskus začel istočasno kot naše poslanstvo v digitalnem in v izobraževanju. V kompleksnem procesu, ki je trajal približno leto dni, smo bili končno potrjeni za sodelovanje v prvem poskusnem obdobju, podali smo osemdesetedenški program, imenovan »Oblikovanje novih medijev« [s samo tridesetimi študenti na leto – spremembu se resnično začne na obrobju].

Poleg tega, da smo imeli financiranje zagotovljeno za obdobje treh let, nam je progresivni *pedagoški* program tega poskusa omogočil, da smo ustvarili nov izobraže-





Apart from having the funding secured for a period of three years – the progressive *pedagogical* agenda of this trial allowed us to create a new educational format, free from the tyrannies of incrementalism, the passive process of only refining the things that are already there.

I want to highlight this point specifically. We didn't have to work within the set restrictions or existing structures of The Academic Institution but had the freedom to create new ways of doing things as long as we delivered on the overall objectives of the programme – in this case real jobs in new, digital industries. This gave us creative power, which in hindsight was instrumental to both the unconventional methods and accelerated success of Hyper Island.

The No Manifesto and putting learning first

Major Samuel P. N. Cook, a writer, historian and former US military commander, visited Hyper Island in 2013 to write an article comparing Hyper Island to the legendary West Point military leadership academy located in West Point, New York. Here are some of his observations and comparisons:

I was beginning a two-day visit to observe this new, cutting edge education, which is supposed to be "The Harvard of The Digital World". Funny, it didn't look like a school. The office space and people there resembled a scene out of the recent movie *The Internship* [about the Google campus]. "What is your password for your wireless Internet", I asked a longhaired, trendy-dressed Swedish guy. "It is Love Not War – all lower case, no spaces." I thought to myself, "This place could not be further away from West Point." And it didn't end at the password.

[...] The lecture on Product Launches I attended was supposed to start at 9 am. It started sometime after 9:20 am. At West Point, any cadet who would have been late would be facing punishment tours [hours of walking, or word details for demerits]. At West Point, students would have been standing ramrod straight, hands at their side at exactly 08:59:59. They would have all been wearing the same uniforms, shirts tucked in, belts straight, shoes shined, faces shaved, hair-cut close [or in a bun for females]. At Hyper Island, beards were the norm. Dress code? Not a chance. But there were some students wearing combat boots as part of a fashion statement – which the cadets would have found hilarious.

[...] I struck up a conversation with one of the "facilitators" – there is no such thing as a teacher at Hyper Island. At West Point, professors have absolute authority in the

valni format, osvobojen tiranj postopnosti, pasivnega procesa z golj prečiščevanja stvari, ki že obstajajo.

Na ta dejavnik bi rad še posebej opozoril. Ni nam bilo treba delati znotraj postavljenih omejitev ali obstoječih struktur akademske institucije, ampak smo imeli proste roke za ustvarjanje novih načinov delanja stvari, če smo se le držali splošnih ciljev programa – v tem primeru pravih delovnih mest v novih, digitalnih industrijah. To nam je dalo kreativno moč, ki je bila, če pogledam nazaj, ključna tako za nekonvencionalne načine kot za rastoči uspeh Hyper Islanda.

Manifest Nič in dajanje prednosti učenju

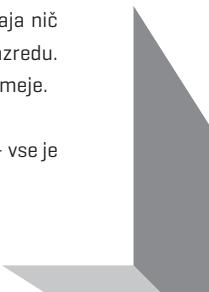
Major Samuel P. N. Cook, pisatelj, zgodovinar in nekdanji vojaški poveljnik ZDA, je leta 2013 obiskal Hyper Island in napisal članek, ki je primerjal Hyper Island z legendarno vojaško akademijo West Point v državi New York. Tu je nekaj njegovih ugotovitev in primerjav:

Šel sem na dvodnevni obisk, da bi opazoval to novo, najsodobnejše izobraževanje, ki naj bi bilo »Harvard digitalnega sveta«. Smešno, ni bilo videti kot šola. Pisarniški prostor in ljudje tam so spominjali na prizor iz nedavnega filma *Pripravnika* [o Googlovem kampusu]. »Kakšno je vaše geslo za brezžični internet,« sem vprašal dolgo-lasega, trendovsko oblečenega Šveda. »'Ljubezen, ne vojna' – same male črke, brez presledkov.« Mislil sem si: »Ta kraj ne bi mogel biti dlje stran od West Pointa.« In to se ni končalo pri geslu.

[...] Predavanje o lansiraju produktov, ki sem se ga udeležil, naj bi se začelo ob devetih. Začelo se je nekje okrog devetih in dvajset minut. Kadet, ki bi na West Pointu zamujal, bi se soočil s kazenskimi turami [ure hoje ali druge kazni]. Na West Pointu morajo študentje stati strumno in ravno, z rokami ob sebi, točno ob 8:59:59. Vsi imajo enake uniforme, srajce, zatlačene v hlače, poravnane pasove, bleščeče čevlje, obrite obraze, kratke lase [ali spete v figo pri ženskah]. V Hyper Islandu so norma brade. Pravila oblačenja? Niti približno. Bilo je nekaj študentov z vojaškimi bulerji kot modno izjavo – kar bi se kadetom zdelo strašno smešno.

[...] Začel sem pogovor z enim od »moderatorjev« – v Hyper Islandu ne obstaja nič takega, kot je učitelj. Na West Pointu imajo profesorji absolutno avtoritetno v razredu. Kadeti vedo, da imajo profesorji pravno vojaško oblast nad njimi, če prestopijo meje.

[...] V Hyper Islandu ni ocen. Diplomirate ali pa ne diplomirate. Na West Pointu – vse je merljivo. Kadeti imajo teste vsak dan pri vsaj enem od predmetov.





classroom. Cadets know that professors have legal military authority over them if they step out of line.

[...] There are no grades at Hyper Island. You either graduate or you don't. At West Point – everything is measured. Cadets take some sort of quiz daily in at least one of their classes.

[...] And at Hyper Island, there is no such thing as a class. The "workshop" I was observing was given by an outside expert from a digital company on product launches. If a student slept in and didn't come to that class, there would be no official censure – there were no punishment tours like West Point. Yet everyone was there. And they were all awake [unlike West Point where we struggled to keep cadets awake]. I asked the "facilitator" how they got everyone to show up without the threat of punishment. It is pretty simple, he said. They all want to be there. And they are certainly not perfect.

In the groups, sometimes students don't pull their weight. But when a student complains about another one, the "facilitator" throws it back at them. What are you going to do about it? And they go back and fix it among themselves in their groups.

[...] On first impression, a military officer would be appalled by the lack of structure and accountability in such a place. But in a strange way, Hyper Island is a lot more like West Point than outward appearance would suggest. It is just that they are coming at leadership from an entirely different angle.

The foundation for what Major Samuel P. N. Cook observed in 2013 goes back to the very early days of Hyper Island.

One of our [many] frustrations with traditional education was how focused it had become on the inputs, or means, of education [as opposed to the outputs and outcomes]: The Buildings, The Faculty, The Teacher, The Research, The Curriculum, The Policies, The Reading List, The Schedule, etc. In many cases, the means of education had become the end of education. By challenging those existing hegemonic building blocks, perhaps we could find new and better ways to stage learning. Subsequently, we introduced our now infamous No Manifesto:

- No Classroom
- No Teachers
- No Faculty
- No Tests
- No Grades
- No Textbooks

[...] In v Hyper Islandu ne obstaja nič takega, kot je razred. »Delavnico«, ki sem jo opazoval, je vodil zunanj strokovnjak iz digitalnega podjetja za lansiranje produktov. Če je študent zaspal in ni prišel k pouku, ni doživel nobene uradne graje – ni kazenskih tur kot na West Pointu. Pa vendar so bili vsi tam. In vsi so bili budni [za razliko od West Pointa, kjer se borimo, da ostanejo kadeti budni]. »Moderatorja« sem vprašal, kako jim uspe, da se vsi prikažejo brez grožnje kaznovanja. Precej preprosto je, je dejal. Vsi hočejo biti tam. In prav gotovo niso vzorni.

Študentje v skupinah včasih ne sodelujejo med seboj. A ko se pritožijo čez druge, jim »moderator« reče: kaj boste storili glede tega? In gredo nazaj in uredijo sami med seboj v svojih skupinah.

[...] Po prvem vtušu bi bil vojaški častnik zgrožen zaradi pomanjkanja strukture in odgovornosti. A na neki čuden način je Hyper Island precej bolj podoben West Pointu, kot kaže zunanji videz. Gre samo za to, da pristopajo k vodenju s povsem drugačnega zornega kota.

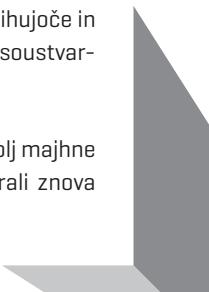
Osnove tega, kar je major Samuel P. N. Cook opažal leta 2013, segajo v zelo zgodnje dni Hyper Islanda.

Ena od naših [mnogih] frustracij v zvezi s tradicionalnim izobraževanjem je bila, kako osredotočeno je postalo na vložena sredstva ali metode izobraževanja [v nasprotju z izidi in rezultati]: na zgradbe, fakulteto, učitelja, raziskavo, učni program, politike, seznam literature, urnik itd. Pogosto so metode izobraževanja pripeljale do konca izobraževanja. S preizpraševanje teh obstoječih hegemonističnih gradnikov bomo morda našli nove in boljše načine organiziranja učenja. Zato smo oblikovali naš sedaj že razviti manifest Nič:

- nič učilnic
- nič učiteljev
- nič fakultete
- nič testov
- nič ocen
- nič učbenikov

Te prostovoljno uveljavljene omejitve so se nam pokazale kot izjemno navdihujče in smiselne [in z »nami« mislim tudi na naše študente; precejkrat so postali soustvarjalci naše metodologije].

Kupili smo, na primer, vojaški zapor [mar ni to ironija], ki ni imel učilnic – zgolj majhne delovne celice in velikanski dvonadstropni hodnik, zaradi česar smo morali znova





These self-inflicted design confinements proved to be very inspiring and meaningful for us (and by "us", I am also including our students; in many cases, they became co-creators of our methodology).

For example, we bought a listed military prison [isn't that ironic] that didn't have a classroom – just small work cells and a giant two-story hallway, forcing us to rethink how to engage with learning, people and space – introducing new room set-ups and interactions between participants, open and collaborative learning spaces and new technological solutions and furnishings [yes, that included highly mobile and configurable beanbags as well].

We buried the autocratic teacher, the master in the classroom, and gave birth to the facilitator – the person responsible for staging powerful learning experiences and for engaging on a personal level with both individuals and teams in order to boost the learning outcomes through reflection and harnessing the intelligence of the collective.

We didn't hire any teachers. Instead, we built a network of practitioners, a virtual faculty, where people were invited based on demand [if you think about it, most institutions only operate on a "supply" paradigm and are therefore slow in responding to changes in the environment; they end up teaching what the faculty knows, instead of supporting students to learn what's relevant].

We introduced self and peer assessments, as opposed to tests and quizzes, which not only meant we could customise the curriculum on an individual level (and even co-create the curriculum with the learners, a term I prefer over students) but also meant that we tapped into their intrinsic motivators.

Instead of grades, we started a conversation about progress. What mattered was *how much* you had learned, and *the effort* you had put in, instead of viewing knowledge as something absolute and fixed [and this was 10 years before Carol Dweck published her work on "Fixed and Growth Mindset"].

Our "no textbooks" policy meant learners had to learn how to seek, process, assess and critically curate information; relevant to whatever they were working on or interested in learning more about.

Oddly, and again perhaps ironically with regard to the later West Point comparison, many of our pedagogical ideas – and hands on tools and models – were inspired by the Swedish Military's progressive forays into experience-based learning [which is

razmisiliti, kako se spopasti z učenjem, ljudmi in prostorom – z uvajanjem novih prostorskih ureditev in interakcij med udeleženci, odprtih in sodelovalnih učnih prostorov, novih tehnoloških rešitev in opreme [da, ta je vključevala tudi zelo mobilne in prilagodljive sedežne vreče].

Pokopali smo avtokratskega učitelja, gospodarja razreda, in ustvarili moderatorja – osebo, odgovorno za organiziranje učinkovitih učnih izkušenj, ki na osebni ravni sodeluje tako s posamezniki kot s skupinami in prek refleksije ter inteligence kolektiva spodbuja učne izide.

Zaposlili nismo nobenih učiteljev. Namesto tega smo zgradili mrežo praktikov, virtuelno fakulteto, kamor so bili ljudje povabljeni na podlagi povpraševanja [če pomislite, večina institucij deluje po paradigmi »ponudbe« in se zato počasi odzivajo na spremembe v okolju, na koncu pa poučujejo le to, kar vedo, namesto da bi podpirale študente, da se naučijo, kar je pomembno].

Uvedli smo samoocenjevanje in medsebojno ocenjevanje, za razliko od testov in preverjanj, kar ni pomenilo le tega, da smo lahko prilagodili učni program individualni ravni [in ga celo soustvarjali z učenci, izraz, ki ga imam raje kot študenti], temveč tudi to, da smo dregnili v njihove notranje motivatorje.

Namesto o ocenah smo začeli govoriti o napredku. Namesto gledanja na znanje kot na nekaj absolutnega in fiksnega je postalo pomembno, *koliko* ste se naučili in kolikšen *trud* ste vložili [in to je bilo deset let prej, preden je Carol Dweck pisala o »fiksнем in rastočem mišljenju«].

Naša politika »nič učbenikov« je pomenila, da se morajo učenci naučiti, kako iskati, procesirati, oceniti in kritično organizirati informacije, ki so bile pomembne za kar koli, kar so delali, ali kadar so žeeli izvedeti o tem še več.

Nenavadno in morda spet ironično, tako kot primerjava z West Pointom, toda mnogo naših pedagoških idej – in praks in modelov – so navdihnili progresivni naškoki švedske vojske na učenje, zasnovano na izkušnji [ki temelji na delih ljudi, kot so Kurt Lewin, David Kolb, John Dewey, Jean Piaget, William Schutz in Carl Rogers]. To je vključevalo štiri tipe znanja [akomodacijsko, konvergentno, divergentno, asimilacijsko] in proces spiralnega učenja [izkusiti, opazovati/reflektirati, teoretizirati/generalizirati, vplivati/spremeniti], pa tudi metode aktivnega učenja prek generativnega zaznavanja, odzivanja, ponovnega uokvirjanja, akcijskega učenja in skupinske dinamike.



grounded in the works of people like Kurt Lewin, David Kolb, John Dewey, Jean Piaget, William Schutz and Carl Rogers]. This included the four types of knowledge [accommodative, convergent, divergent, assimilative] – and the process of the learning spiral [experience, observe/reflect, theorise/generalise, affect/change] as well as the methods of active learning through generative sensing, feedbacking, reframing, action learning and group dynamics.

Learning for and from the future

Being experimental in terms of learning was also connected with the exploration of the digital world and the emergence of an Information Society.

Our view then – which still stands – is that education first and foremost has to relate to and shape the future. It might seem obvious and banal, but this is far from the case in most education [which is trying to conserve an existing society]. Education should move us forward and ultimately help people make the most of the future world. Being an educator means equipping people with the mindsets, beliefs, tools, competencies, abilities and behaviours that will allow them to shape and thrive in that world – not just becoming serfs of the *status quo*.

Now, if the world wasn't changing that much, education could continue to do more of what it already knows and does. But, if the world is suddenly changing, and changing quickly, which we believe it is, education has to respond by leading that change, otherwise its institutions will quickly become obsolete [which is currently happening].

The shift from an industrial to an information society is a model overhaul, as big as the transformation from the feudal or guild society to that of the industrial. All parts of society are affected – political, economic, cultural, social – and that includes the domains of both education and design.

Back in 1995, we identified the following drivers [and sorry if some of these concepts seem obvious – they weren't at the time]:

- The migration to the internet and the creation of a global communications network [incl. the birth of new phenomena such as network dynamics and *participatism*];
- A new global culture, transnational commons and cyber market places;
- New ethics of interactivity, communities and the cosmology of The Crowd;

Učenje za prihodnost in iz nje

Eksperimentalna naravnost pri učenju je bila povezana tudi z raziskovanjem digitalnega sveta in pojavom informacijske družbe.

Naš tedanji pogled – ki še vedno velja – je bil, da se mora izobraževanje v prvi vrsti in predvsem nanašati na prihodnost in jo tudi oblikovati. Morda se zdi očitno in banalno, toda to je daleč stran od večine izobraževanja [ki se trudi ohranjati obstoječo družbo]. Izobraževanje mora potegniti naprej in konec concev pomagati ljudem, da iz sveta prihodnosti naredijo kar največ. To za pedagooga pomeni opremljanje ljudi z mišljenjem, prepričanjimi, orodji, kompetencami, sposobnostmi in ravnanji, kar vse jim bo omogočilo izoblikovati se in rasti na tem svetu – ne pa ostati tlačan *statusa quo*.

Če se torej svet ni tako zelo spremenil, lahko izobraževanje še naprej počne še več tega, kar že ve in kar že počne. Če pa se je svet nenačoma spremenil, in to hitro – in verjamemo, da se je – se mora izobraževanje odzvati z vodenjem te spremembe, sicer bodo njegove institucije kmalu postale zastarele [kar se trenutno dogaja].

Premik iz industrijske v informacijsko družbo je vzorčni pretres, tako velik kot transformacija iz fevdalne ali cehovske družbe v industrijsko. Zadeva vse plati družbe – politično, ekonomsko, kulturno, socialno – in to vključuje tudi področji izobraževanja in oblikovanja.

Leta 1995 smo identificirali naslednje gonilne dejavnike [opravičujem se, če se nekateri koncepti zdijo očitni – v tistem času niso bili]:

- prehod na internet in oblikovanje globalnega komunikacijskega omrežja [vključno z rojstvom novih pojavov, kot sta mrežna dinamika in *participatizem*];
- nova globalna kultura, nadnacionalne skupnosti in kiber tržnice;
- nova etika interaktivnosti, skupnosti in kozmologije množice;
- preoblikovanje [kapitalističnih] ekonomij s kulturo deljenja, soustvarjanja in kolektivne inteligence [*komonizem*/skupnostna etika];
- produkcija, ki temelji na povpraševanju [vključno z novimi tehnologijami distribucije – kot sta tridimenzionalno tiskanje in mobilni internet];
- podatki kot nova materija neopredmetenih pravic [in področje moči védenja];
- integrirane uporabniške izkušnje kot nova konkurenčna prednost;
- gonilo nove industrije so platforme in producentski uporabniki [sinergetične tržnice, kjer se vrednost ustvarja, prikazuje, deli in izmenjuje];
- pozornost kot nova valuta [ki včasih povsem nadomesti denar].





- The reshaping of [capitalist] economies through sharing, co-creation and collective intelligence [**commonism**];
- On-demand and demand-driven production [incl. new technologies for distribution – such as 3D printing and mobile internet];
- Data as a new, intangible rights material (and the frontier of knowledge-power)
- Integrated user experiences as the new competitive edge;
- Platforms and prod-users [synergetic market places where value is both created, captured, shared and exchanged] as new industry drivers;
- Attention as a new currency (sometimes entirely replacing money).

We also anticipated that *the nature of change* would change (from incremental to transformational) and that would also include the velocity of change (i.e. the speed in which change would take place, such as the diffusion of new technologies, values and behaviours into the society).

In anticipation of this alternative future, we asked ourselves what abilities we would need to have as human beings, not only to cope with, but to lead change, including designing it.

We identified four critical areas that became the corner stones of the Hyper Island methodology:

1. Life-long learning: The ability to constantly and quickly learn and apply new things, ways, behaviours and beliefs (be ready for the discomfort zone) and to expand our learning capabilities, making the most of *all the ways* in which human beings can learn and grow (this includes things like learning by doing, experiential learning, action learning, etc.);
2. Collaboration: The ability to work together, with new technologies, over geographies and time zones, with different stakeholders involved, transcending individual expertise and agendas, to deliver outstanding results;
3. Co-creation: Constructively build on the ideas of others, share and create critical insights, be able to multi-dimensionalise and venture into big unknowns and jointly produce mutually valued outcomes;
4. Curation: The ability to critically manage complex information; to analyse, reflect, communicate and conceptualise data and to create new value and values (ethics being an important part of that).

Prav tako smo predvideli, da se bo spremenila *narava sprememb* [iz postopne v transformacijsko], kar vključuje tudi hitrost sprememb [hitrost, s katero se izvede sprememba, kot je širjenje novih tehnologij, vrednot in ravnanj v družbi].

V pričakovanju te alternativne prihodnosti smo se vprašali, katere sposobnosti bi kot človeška bitja potrebovali za soočenje z njo, za vodenje spremembe in za njeno oblikovanje.

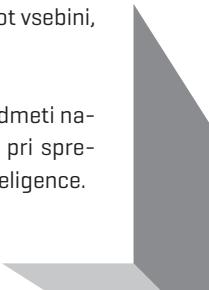
Identificirali smo štiri kritična področja, ki so postala temeljni kamen metodologije Hyper Islanda:

1. vseživljensko učenje: sposobnost nenehnega in hitrega učenja ter uporabe novih stvari, načinov, ravnanj in prepričanj [bodite pripravljeni na območje nelagodja] ter razširitev učnih zmožnosti, kar najboljše *izkoriščanje vseh načinov*, s katerimi se človeška bitja učimo in rastemo [to vključuje stvari, kot so izkustveno učenje, eksperimentalno učenje, akcijsko učenje itd.];
2. sodelovanje: sposobnost delati skupaj, z novimi tehnologijami, s preseganjem geografskih in časovnih con, z različnimi deležniki, preseganje individunalnega strokovnega znanja in programov, ustvarjanje izjemnih rezultatov;
3. soustvarjanje: konstruktivno grajenje na idejah drugih, deljenje in ustvarjanje kritičnih spoznanj, sposobnost za večdimensionalnost in podvige k velikim neznankam ter skupno ustvarjanje vzajemno cenjenih rezultatov;
4. kuriranje: sposobnost kritičnega upravljanja kompleksnih informacij; analiziranje, reflektiranje, sporočanje in konceptualiziranje podatkov ter ustvarjanje novih vrednosti in vrednot [etika je pomemben del vsega tega].

Te ideje so bile konkretno pretvorjene v naš učni načrt. Namesto da bi ljudi učili orodij, kot sta HTML in Photoshop, smo jih učili, *kako se učiti novih orodij* [in kako se počutiti lagodno v nelagodnih učnih območjih].

V našem »modelu oreha« [zakaj – kako – kaj – kje] smo namenili prav toliko poudarka procesu [učenje, timsko delo, skupinska dinamika, kreativnost itd.] kot vsebinu, kontekstu in rezultatu dela.

Moderiranje, samomoderiranje in moderativno vodenje so postali pravi predmeti našega učnega programa, zaradi katerih so ljudje postali boljši sodelavci – pri spremenjanju odločitev, reševanju konfliktov in uporabi potenciala skupinske inteligence.





These ideas were concretely converted into our curriculum. Instead of teaching people tools like html and Photoshop, we taught people *how to learn new tools* [and how to be comfortable with the uncomfortable learning zone].

Through our “Walnut model” [Why–How–What–Where], we put as much emphasis on The Process [learning, team work, group dynamics, creativity, etc.] as on the Content, Context and Result of their work.

Facilitation, self-facilitation and facilitative leadership became real subjects on our learning agenda, making sure people became better collaborators; making decisions, resolving conflicts and harnessing the potential of the group intelligence.

We actively promoted Reflection as a learning tool, using feedback [and feedback models] for both inter-personal and group learning.

I write about these in past tense, but these are as alive now as they ever were then – although these days we have moved our ways forward with ideas coming from people like Carol Dweck, Dale Hunter and Susan Wheelan [as a side comment, note the shift from men to women in the legacies of memes].

Sometimes, Hyper Island has been accused of making learning too personal. That always make me laugh, since I can’t understand how learning is *not* personal. It does, however, take education away from just a matter of Knowing [the academic domain of theory, experience, science, context and content] and Doing [the vocational domain of techniques, formats, processes and activities] into ways of learning that also include aspects of our Being [unfortunately rarely activated or accessed in traditional education]. Utilising the full potential of our human abilities – such as intuition, emotions [and emotional intelligence], motivation, values and imagination – opens up new avenues for learning that can be extremely powerful. Personal growth is ultimately what will unlock future potential.

In the already mentioned article by Major P. N. Cook – comparing Hyper Island to West Point – he concludes:

[...] The industrial era produced a demand for an educated populace – who would be able to read instruction manuals, memorize procedures, and produce relatively repeatable tasks. West Point is the “gold-standard” of traditional education; according to *Forbes Magazine* a few years ago, it was the top University in the United States. West Point was founded originally to bring the United States into the industrial era. Its original charter as an engineering school was one borne of necessity. The United States

Aktivno smo spodbujali refleksijo kot učni pripomoček in uporabljali povratne informacije [in povratne modele] tako za medosebno kot za skupinsko učenje.

O vsem tem pišem v pretekliku, vendar pa je danes vse prav tako živo, kot je bilo tedaj – čeprav smo v teh dneh našo smer nadgradili z idejami ljudi, kot so Carol Dweck, Dale Hunter in Susan Wheelan [kot stranska opomba, bodite pozorni na premik sklada idej od moških k ženskam].

Včasih se Hyper Islandu očita, da zastavlja učenje preveč osebno. To me vedno spravi v smeh, saj ne morem razumeti, kako naj učenje ne *bi bilo* osebno. Res pa je, da prestavlja izobraževanje od zgolj vedenja [akademske domene teorije, izkušnje, znanosti, konteksta in vsebine] in delanja [poklicne domene tehnik, formatov, procesov in dejavnosti] k takšnemu učenju, ki vključuje *tudi* vidike našega bitja [kar se v tradicionalnem izobraževanju, žal, le redko počne]. Uporaba celostnega potenciala naših človeških sposobnosti – kot so intuicija, čustva [in čustvena inteligenco], motivacija, vrednote in domisljija – odpira nove avenije za učenje, ki je lahko izjemno prodorno. Osebna rast je osnova, ki bo odklenila prihodnji potencial.

Major P. N. Cook v že omenjenem članku, kjer primerja Hyper Island z West Pointom, sklene:

[...] Industrijska doba je ustvarila zahtevo po izobraženem prebivalstvu – ki bi bilo sposobno brati navodila za uporabo, si zapomniti postopke in opravljati razmeroma ponovljive naloge. West Point je »zlati standard« tradicionalnega izobraževanja in po mnenju revije *Forbes* pred nekaj leti je bil najboljša univerza v Združenih državah Amerike. West Point je bil ustanovljen zato, da bi pripeljal Združene države v industrijsko dobo. Njegov prvotni statut inženirske šole je bil porojen iz nujnosti. Združenim državam je primanjkovalo usposobljene delovne sile za graditev infrastrukture, potrebne za izgradnjo modernega – industrijskega gospodarstva. Toda ta visokošolski sistem je relikt industrijske dobe. [...] Izobraževalni sistem informacijske dobe je prav zdaj v gradnji – in zdi se, da je najsodobnejši prav na Švedskem.

Mislim, da to ponuja zanimivo perspektivo na nekaj od tega, kar sem napisal doslej.

In kaj je torej z oblikovanjem?

Prvotno ime Hyper Islanda je bilo Šola za oblikovanje novih medijev Hyper Island. Kasneje smo opustili oblikovalski del in se poimenovali Šola za nove medije Hyper Island. Te dni smo ime še bolj skrajšali in se preprosto imenujemo Hyper Island.





lacked a trained workforce to build the infrastructure necessary to build a modern-industrial economy. But this Higher education system is a relic of the industrial era. [...] The Information Age Education System is Under Construction right now – and the cutting edge seems to be in Sweden right now.

I think this offers an interesting perspective on some of what I've written up to this point.

So what about design?

The original name of Hyper Island was Hyper Island School of New Media Design. Later, we dropped the design part of it and just called ourselves Hyper Island School of New Media. These days, we shortened it even more to simply Hyper Island.

This is not a coincidence.

I've made no secret of the fact that I think design as a discourse is too entangled with an outdated industrial paradigm. I use the word "design" as a utility in my language to describe how something is thought through, created and ultimately used (and the impact of "it"), but I rarely engage in a more academic discourse on it. I simply find the act of defining it both boring and unimportant [I feel the same way about new media and digital by the way].

However, I will muster up some energy for the sake of this text and on account of my goodwill for the publishers of this book. After all, the subject is The Future of Design Education.

Our original intention with the long Hyper Island name was to signal that design is core to any purposeful creation of and for the future.

Design is, simply put, purposeful creation.

In a digital world, a lot of traditional design principles are outmoded – and I mean this both in terms of content and process. The materials are different, the values are different and the way in which it's done is different.

The industrial paradigm has hailed design as a value adding process in a chain of value creation, a value chain. The role of design, and the designer, has been to maximise the value that goes into an object, a product or a service [or whatever]. They

To ni naključje.

Ne skrivam mnenja, da je oblikovanje kot diskurz preveč zapleteno, z zastarelo industrijsko paradigmo. V svojem jeziku uporabljam besedo »oblikovanje« kot pripomoček za opis, kako naj se nekaj premisli, ustvari in konec koncev uporabi [ter za opis »njegovega« učinka], in le redko se vključim v bolj akademski diskurz. Akt definiranja se mi preprosto zdi dolgočasen in nepomemben [mimogrede, enako čutim tudi glede novih medijev in digitalnega].

Vendar pa bom zaradi izdajateljev tega zbornika zbral za to razpravo nekaj energije in dobre volje. Navsezadnje je tema »prihodnost izobraževanja na področju oblikovanja«.

Naš prvotni namen z doljim imenom Hyper Islanda je bil dati znamenje, da je oblikovanje jedro vsakega načrtnega ustvarjanja prihodnosti in za prihodnost.

Oblikovanje je, preprosto rečeno, načrtno ustvarjanje.

Mnogo tradicionalnih načel oblikovanja je v digitalnem svetu zastarelih – in to mislim tako glede vsebine kot glede procesa. Drugačni so materiali, drugačne so vrednote in drugačen je način dela.

Industrijska paradigma je slavila oblikovanje kot proces, ki v verigi ustvarjanja vrednosti, v vrednostni verigi, dodaja vrednost. Vloga oblikovanja in oblikovalca je bila maksimiranje vrednosti objekta, produkta ali storitve [ali česarkoli]. Oblikovanje je bilo samo po sebi nekaj dragocenega, nekako tako, kot »ljudje znamk« vidijo znamke, ki naj bi nekako čudežno vsebovale vrednost.

S to idejo oblikovanja se ne strinjam.

Zame je bilo oblikovanje vedno pot do rezultata, način, kako vrednost pristane v prostoru subjekta: uporabnika, skupnosti ali, zakaj pa ne, planeta. Oblikovanje zadeva odgovornost tako do vzroka kot do posledice. Oblikovati je glagol, je dejavnost, ki se ne ustavi, ko oblikovalec dvigne roko s skicirke ali modela ali vmesnika. Dejanska vrednost oblikovanja se takrat pravzaprav šele začne. Načrtno ustvarjanje se ukvarja z učinkom ustvarjenega, meri se po želenih rezultatih, namernih rezultatih, nenačrtnih rezultatih, škodljivih rezultatih in celo nepričakovanih rezultatih.

V digitalnem svetu postane to še bolj očitno – in merljivo z močjo podatkov – ko se »sadež oblikovanja« prikaže v integraciji izkušenj, delih, ki morajo biti opravlje-



see design as something valuable in itself, a bit like how “brand people” see brands as somehow magically containing value.

I disagree with this idea of design.

For me, design is always a conduit to an outcome, how value lands in the space of the subject: the user, the community or, why not, the planet. Design is about responsibility for both cause and effect. Design is a verb, an activity that doesn’t stop when the designer lifts his or her hand from the sketch book, or model or interface; in fact, that’s when the real value of design starts. Purposeful creations are concerned about the impact of what’s being created and measured through the desired outcomes, the intentional outcomes, the unintentional outcomes, the damaging outcomes and even the unforeseen outcomes.

In a digital world, this becomes more obvious – and measureable through the power of data – as “the fruit of design” shows up in the integration of experiences, in jobs-to-be-done, in friction points and in value and waste. Not only must design take responsibility for what is being created, it must also take responsibility for what is being destroyed.

This also proposes new ideas of what it means to be a designer. Sometimes I feel design is too important to leave to the designers, and that when designers claim the domain [for themselves], they lessen the power of it. They exclude people and skills that should be included for the sake of purposeful creation.

In that way, I really empathise with Japanese architect Toyo Ito, who denounces the almighty Architect as an expert in the realm of physical manifestations, promoting a more humble approach, that of a facilitator, with a deep understanding of architectural conditions [why a building is made and for whom], supporting a community to create spaces that make people stay together.

This means that design is ultimately a social technology that must be applied purposefully.

At Hyper Island, we don’t spend a lot of time on this discourse. Instead, we spend time on ethics, purpose, facilitation and responsibility. And the strange thing is, the less we talk about design [as a thing in its own right], the better it gets.

na, točkah trenja, vrednosti in škodi. Oblikovanje mora prevzeti odgovornost ne le za ustvarjeno, prevzeti mora odgovornost tudi za to, kar je uničeno.

To prinaša tudi nove ideje o tem, kaj pomeni biti oblikovalec. Včasih se mi zdi, da je oblikovanje preveč pomembno, da bi ga prepustili oblikovalcem, in da slednji s tem, ko terjajo področje [zase], zmanjšujejo njegovo moč. Izključujejo ljudi in znanja, ki bi morala biti vključena zaradi načrtnega ustvarjanja.

V tem smislu se resnično strinjam z japonskim arhitektom Toyom Itom, ki zavrača vsemogočnega Arhitekta kot strokovnjaka v sferi fizičnih manifestacij, spodbuja skromnejši pristop, pristop moderatorja z globokim razumevanjem arhitekturnih razmer [zakaj je zgradba narejena in za koga], in podpira skupnost pri ustvarjanju prostorov, ki združujejo ljudi.

To pomeni, da je oblikovanje socialna tehnologija, ki jo je treba uporabljati načrtno.

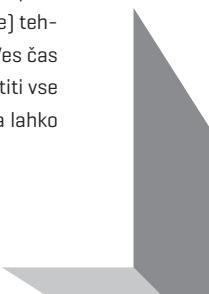
Na Hyper Islandu temu diskurzu ne namenjamo veliko časa. Namesto tega ga namenjamo etiki, namenu, moderiranju in odgovornosti. In čudno, manj ko govorimo o oblikovanju [kot o nečem samem po sebi], bolje mu gre.

Kaj se torej pojavlja?

Leta 2014 se je Hyper Island povezal z Googlom, SVA, Parsonsom, Pratton, Co-oper Unionom in nekaterimi najpametnejšimi umi v oblikovanju, tehnologiji, poslu in tveganem kapitalu [z ljudmi, kot so John Maeda, David Kelly, Robert Wong in Greg Pass] ter ustvaril *30 tednov* – »eksperiment za preoblikovanje oblikovalcev v tehnološke ustanovitelje, podjetnike in tipe voditeljev, ki izumljajo prihodnost«, s sedežem v New Yorku.

Oglas za *30 tednov* za potencialne udeležence se glasi:

Želite spremeniti svet? Ste dovolj nori in ambiciozni, da mislite, da ga lahko? Vas zanimajo velike stvari? Ste reševalec problemov in povezovalec pik? Imate ideje in potrebujete le nekaj časa in vodil, da jih spremenite v realnost? Ljubite [ali sovražite] tehnologijo in verjamete, da bi lahko bila boljša? Želite pri tem pomagati ljudem? Ves čas ustvarjate, ustvarjate, ustvarjate? Želite narediti po svoje? Ste si kdaj želeli pustiti vse za seboj in se podati na novo pot? Je oblikovanje vaš najljubši jezik? Menite, da lahko oblikovanje oblikuje prihodnost? Če je tako, potem sodite v *30 tednov*.





So, what's emerging?

In 2014, Hyper Island teamed up with Google, SVA, Parsons, Pratt, The Cooper Union and some of the smartest minds in design, tech, business and venture capital [people like John Maeda, David Kelly, Robert Wong and Greg Pass] to create *30 Weeks* – “an experiment in transforming designers into technology founders, entrepreneurs and the kinds of leaders that invent the future”, based in New York City.

30 Weeks pitch to potential participants is:

Do you want to change the world? Are you foolish and ambitious enough to think you can? Are you interested in big things? Are you a problem solver and a connector of dots? Do you have some ideas and just need a little time and guidance to turn them into reality? Do you love [or hate] technology, and believe it could be better? Do you want to help people along the way? Are you always making, making, making? Do you have an itch to make it on your own? Have you ever wanted to leave everything behind to strike out on a new path? Is design your favourite language? Do you believe design can shape the future? If so, then you belong at *30 Weeks*.

I think this initiative gives hints or maybe even a prediction about the future of design education. Firstly, it shows the importance of design in shaping a better world and creating new expectations of how the world could [and should] work.

Secondly, it's a programme that transforms a designer into something else. It's not just design for the sake of design; its design as an ability to do something far more important, but the role transcends the traditional designer role.

Thirdly, it demonstrates a crazy collaboration between various [in the past competing] institutions, individuals and businesses as a way to more efficiently create wealth for all.

Fourthly, it shows the inter-relational aspect of design and the need to be “generalists” [rather than just experts].

Finally, it demonstrates how the future is still being created, and, if given [or taken] the permission, it's there for anyone with courage, ambition, purpose and energy to run with.

As for Hyper Island, let's see. It takes courage and great, calculated risk taking to leave history behind. Most organisations fail because they believe that what made them successful in the past is what will make them successful in the future. And

Mislim, da ta pobuda ponuja namig o prihodnosti izobraževanja na področju oblikovanja ali jo morda celo napoveduje. Prvič, kaže na pomen oblikovanja pri formirjanju boljšega sveta in ustvarjanju novih pričakovanj o tem, kako naj bi svet deloval [in moral delovati].

Drugič, gre za program, ki spreminja oblikovalca v nekaj drugega. Ne gre samo za oblikovanje zaradi oblikovanja samega, gre za oblikovanje kot sposobnost narediti nekaj mnogo pomembnejšega, kar je vloga, ki presega tradicionalno oblikovalčevu vlogo.

Tretjič, noro sodelovanje med različnimi [v preteklosti konkurenčnimi] institucijami, posamezniki in podjetji predstavlja kot način za učinkovitejše ustvarjanje blaginje za vse.

Četrtič, predstavlja vzajemni vidik oblikovanja in potrebe po »generalističnem« [ne le strokovnem] delovanju.

In končno, kaže, da se prihodnost še vedno ustvarja in da je, z danim [ali vzetim] dovoljenjem, tam za vsakogar, ki ima dovolj poguma, ambicioznosti, namena in energije.

Kar zadeva Hyper Island, bomo videli. Za to, da pustiš zgodovino za seboj, sta potrebna pogum in veliko, premišljeno tveganje. Večini organizacij ne uspe, ker menijo, da bodo zaradi uspešnosti v preteklosti uspešne tudi v prihodnosti. In večina jih postane sužnjev zaradi merit, ki so si jih postavili sami. To jih je naredilo bogate, debele in samozadostne. Podjetja pravijo temu jedrna kompetenca. Strokovnjaki pravijo temu znanje. Akademiki pravijo temu disciplina.

Sam pravim temu nostalgija in nisem njen velik zagovornik.

Noben oblikovalec ne bi smel biti.

In nihče, ki mu je mar za vprašanja izobraževanja.

Namesto tega bi rad zagovarjal potencial ustvarjanja – vključno z enako pomembnim vidikom ustvarjanja, ki je uničenje – in vlogo, ki jo izobraževanje lahko odigra pri podpori ljudem, da postanejo mojstrski ustvarjalci prihodnosti, za boljšo prihodnost.

Z besedami Georgea Bernarda Shawa:

Ne verjamam v okoliščine. Ljudje, ki jim dobro gre na tem svetu, so ljudje, ki vstanejo in iščejo okoliščine, ki si jih želijo, in če jih ne morejo najti, jih ustvarijo.





most organisations become slaves to their own, self-invented inputs. That's what made them rich, fat and complacent. Companies call it core competency. Professionals call it expertise. Academics call it discipline.

I call that nostalgia, and I'm not a great advocate of it.

No designer should be.

And neither should anyone passionate about education be.

Instead, I'd like to advocate for the potential of creation – including the equally important aspect of creation which is destruction – and the role education can play in helping people become masterful creators of the future, for a better future.

In the words of George Bernard Shaw:

I don't believe in circumstances. The people who get on in this world are the people who get up and look for the circumstances they want, and if they can't find them, make them.



Design Education in a Broken World



As I will set out to show, getting to the issue of what design education needs to become requires a passage through three determinate contexts. The first is to acknowledge that the world we humans have created is broken [by us for us]. The second is to place design education within the framework of higher education [as a broken servant of a now broken institution]. And the third passage seeks to grasp the changing nature of what design now is as elemental to the broken and as an agent of breaking.

A Broken World

Unsustainability breaks the world – the world of our dependence: the anthropocene. The more of us there are, the more the resources of the planet are utilised and in many cases squandered. Of course, this situation is not new, but it is being amplified by the desires and conduct that have come with globalised mass consumption and associated impacts. The demonstrable forms of unsustainability have been made structural and as such are now beyond moral judgment – they simply are pure negation and intrinsic to the extant mode of human beings.

As the five major extinction events of planet Earth evidenced, the biomaterial world remakes life out of post-destruction remnants. Some two hundred and fifty-three millions years ago, over ninety percent of all living matter was destroyed. “We” are a product of the left-over life. It is with some irony then that there is now talk within science, based on the rapid rate of the loss of biodiversity, that the start of the sixth extinction event has begun – this as a result of the sum of our own defuturing actions. We are the breakers of our own future, as our collective actions negate time, thus defuturing the duration of our being. By implication, we anthropocentric beings are the essence of the unsustainable. While we and other species may, and in many cases will, become extinct, life on this planet will continue in some form.

World as evoked here is the locus of our being and those conditions that must be sustained in order for us to exist. It is the Anthropocene – the world-within-the-world of human creation that continually designs human beings. World is plural, not singular. Of course, we humans not only live in the world-within-the-world but equally in the biophysical world of our animality – our first and last condition of being.

TONY FRY

Izobraževanje na področju oblikovanja v zlomljenem svetu

Iskanje odgovora na vprašanje o tem, kaj mora postati izobraževanje na področju oblikovanja, zahteva, kot bom pokazal, prehod skozi tri jasne kontekste. Prvi pomeni priznati, da je svet, kot smo ga ustvarili ljudje, zlomljen [zaradi nas in za nas]. Drugi pomeni postaviti izobraževanje na področju oblikovanja v okvir visokošolskega izobraževanja [kot zlomljenega služabnika zlomljene institucije]. In tretji kontekst skuša zaobjeti spremenjajočo se naravo tega, kar oblikovanje kot element zlomljenga in kot agent loma danes je.

Zlomljeni svet

Netrajnost lomi svet – svet naše odvisnosti: antropocen. Več nas je, bolj se viri planeta izkoriščajo in v mnogih primerih zapravljajo. Ta situacija seveda ni nova, je pa podkrepljena z željami in ravnanjimi, ki spremljajo globalizirano množično porabo in z njo povezane učinke. Dokazljive oblike netrajnosti so postale strukturne in so kot takšne onkraj moralne presoje – so preprosto čista negacija in so immanentne obstoječemu načinu človeškega bivanja.

Kot potrjuje pet glavnih izumrtij na planetu Zemlja, biomaterialni svet poustvarja življenje iz ostankov po uničenju. Pred približno 253 milijoni let je bilo uničenih več kot devetdeset odstotkov vsega živega. »Mi« smo produkt preostalega življenja. Nekaj ironije je potemtakem v tem, da znanost, naslanjajoč se na bliskovitost izgube biološke raznovrstnosti, sedaj govorí, da se je začel šesti dogodek izumrtja – in sicer kot posledica seštevka naših razprihodnjениh dejanj. Mi smo lomilci naše lastne prihodnosti, naša kolektivna dejanja negirajo čas in tako razprihodnjujejo trajanje našega obstoja. Zato smo mi, antropocentrična bitja, bistvo netrajnostnega. Četudi bomo mi in druge vrste najbrž izumrli, in v mnogih primerih se bo zgodilo prav to, se bo življenje na tem planetu v taki ali drugačni obliki nadaljevalo.

Svet, kot ga tu opisujemo, je lokus našega obstoja in razmer, ki jih je treba ohraniti, da lahko sploh obstajamo. To je antropocen – »svet znotraj sveta« človekovega ustvarjanja, ki nenehno oblikuje človeška bitja. Svet je množina, ne ednina. Seveda pa ljudje ne živimo le v »svetu znotraj sveta«, ampak tudi v biofizikalnem svetu naše animaličnosti – v našem prvem in zadnjem pogoju obstajanja.

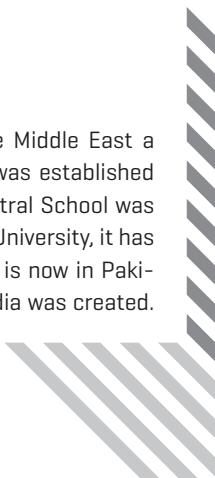
In our “dwelling in the world”, we all occupy ecologies of mind, image and dislocated exchange [misnamed as consumption]. What in fact human beings do is mostly to expend the use/functional and aesthetic value of things and then abandon them. Thus, not only are the things themselves broken but also so is that metabolic process of transformation – effective the process of consumption becomes arrested. If things were actually consumed, there would be no problem, but mostly they are not. The word, the economic category, lies.

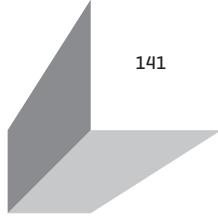
As said, unsustainability comes from the unchecked consequences of anthropocentrism. We, as “the most dangerous of animals”, are without constraint. The more of us there are, the more technology has accelerated the speed and volume of the appropriated resources, and the more our destructive power has increased. Somehow for all our “cleverness” an essential stupidity endures. Knowledge gets miscast as understanding, and wisdom, if recognised at all, is elevated above the everyday. In this respect, contrary to the trappings of material development, we “moderns” are not necessarily superior to the ancients and indigenous peoples of another time.

In sum, all those manifestations of a broken world that design so often assisted in bringing into being – environmental and climatic damage, proliferating conflict, hyper-consumption, mountains of waste, excesses of wealth and extreme poverty – are not causes of the unsustainable but its symptoms. The cause, once again, is “us”. In so many ways, humanity has been, and continues to be, destructive by design. There can be no resolution to this problem until there is an unqualified willingness to confront it and accept the enormity of the challenge before all of us. In fact, the problem will not be solved unless there is a dramatic and involuntary reduction in the size of the human population [which might happen]. More realistically, in terms of directed and thus designed human action, a significant mitigation of our defuturing propensity through redirective practices, environments and knowledge is needed. Realising the scale and complexity of this objective cannot be over-estimated – the challenge is gigantic.

Higher Education

The first institutions of higher learning came out of Asia and the Middle East a millennia ago. For example, Shangyang, “higher school,” in China was established sometime during the Yu period [2257-2208 BCE]; the Imperial Central School was founded during the Zhou Dynasty [1046-249 BCE]. The world’s first University, it has been claimed, was established in Takshila [or Takshashila] – which is now in Pakistan – in 700BCE. Two hundred years later, Nalanda University in India was created.





V našem »bivališču na svetu« smo okupirali ekologije razuma, podob in dislocirane izmenjave [napačno poimenovane poraba]. Ljudje pravzaprav večinoma porabljamo uporabne/funkcionalne in estetske vrednosti stvari, nato pa jih opustimo. Tako niso zlomljene le stvari same, temveč tudi metabolični proces transformacije – proces porabe je dejansko zaustavljen. Če bi stvari zares bile porabljenе, bi ne bilo nobenega problema, toda večinoma niso. Beseda, ekonomska kategorija, laže.

Kot rečeno, netrajnost izhaja iz nebrzdanih posledic antropocentrizma. Mi, »najnevarnejše živali«, smo brez omejitev. Več ko nas je, bolj tehnologija pospešuje hitrost in obseg prilaščenih virov in bolj se povečuje naša uničevalna moč. Elementarna neumnost kljub vsej naši »bistrosti« še kar traja. Znanje kot razumevanje in modrost dobi napačne prizvoki, ko pa je priznano, je povzdignjeno nad vsakdan. V tem smislu mi, »moderni«, kljub znamenjem materialnega razvoja nismo nujno boljši od starodavnih in avtohtonih ljudstev iz nekih drugih časov.

Skratka, vse te manifestacije zlomljenega sveta, ki jim oblikovanje tako pogosto pomaga pri nastajanju – okoljska in podnebna škoda, množični konflikti, izjemna poraba, gore odpadkov, ekscesi bogastva in skrajne revščine – niso vzroki netravnostnega, temveč njegovi simptomi. Vzrok, če ponovim, smo »mi«. Človeštvo je in bo še naprej na neštete načine namerno destruktivno. Dokler ne bo brezpojne pripravljenosti soočiti se s problemom in sprejeti obsežnost izzivov pred nami, ne bo rešitve. Problem dejansko ne bo rešen, dokler ne bo dramatičnega in neprostovoljnega zmanjšanja obsega človeške populacije [kar se lahko zgodi]. Realnejše in nujnejše, v smislu usmerjene in torej načrtovane človekove akcije, je znatno zmanjšanje naše nagnjenosti k razprihodnjenu s preusmeritvenimi praksami, okolji in znanjem. Obsega in kompleksnosti tega cilja ne smemo precenjovati – izziv je velikanski.

Visokošolsko izobraževanje

Prve visokošolske ustanove so pred tisočletji prišle iz Azije in z Bližnjega vzhoda. Shangyang, »visoka šola« na Kitajskem, je bila denimo ustanovljena nekje v obdobju vladarja Yu [2257–2208 pr. n. št.]; Imperialna centralna šola je bila ustanovljena v času dinastije Zhou [1046–249 pr. n. št.]. Prva svetovna univerza, kot se trdi, je bila ustanovljena v Takshili (ali Takshashili) – ki danes leži v Pakistanu – leta 700 pr. n. št. Dvesto let kasneje je bila ustanovljena univerza Nalanda v Indiji. Leta 1193 so jo uničili Turki, vendar pa se je pred kratkim, leta 2014, spet odprla – njen rektor je postal

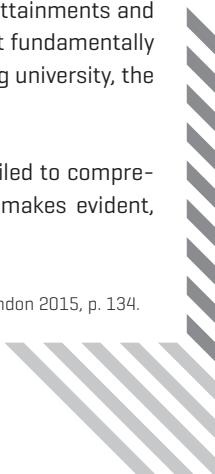
It was destroyed by the Turks in 1193 but has recently been recreated – opening in 2014 with the economist and Nobel laureate Amartya Sen as its chancellor.¹ These centres of learning covered many areas of knowledge, including military strategy, agriculture, astronomy and medicine. By contrast, the first European University – the University of Bologna – was not founded until 1088. Its *raison d'être* being: theology and the development of canon law (the law of the church). Slowly the knowledge appropriated particularly from the Middle East and Greece started to create and establish (a) hegemony of reason. Learning became secular. In 1694, the Martin-Luther University of Helle was founded in Wittenberg – this was first secular modern university. It abandoned the practice of Latin being the sole language of instruction. Other European universities quickly followed its lead.

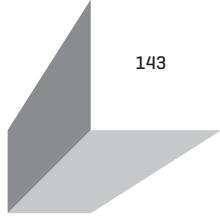
Drawing on the advancement of thought prior to and during the Enlightenment, the modern university became the epicentre of the production of modern knowledge and as such played a major role in the creation of the modern world. It was deeply implicated in the formation of the modern mind, the individuated and social subject, civil society and the state. Likewise, the preoccupation with the advance of reason and the sciences was a key factor in establishing industrial production and its products as well as civil society as directive of way of life and cultural institutions. Accompanying these developments was an age of colonial conquest. Not only did it put in place the inequity and appropriative material conditions of unsustainability as global norms, but also the associated excesses of colonialism caused deep psycho-social and cultural damage from which very many nations have yet to recover. Moreover, this damage underscored many geopolitical problems that still remain unresolved in the contemporary world.

In this context, and for all the claims of higher education being an affirmative force of civilisation, its darker side was fully engaged in the advancement of processes of “world breaking”. New learning gave impetus to the unsustainable, as it was used to delegitimise much traditional knowledge that had sustained the relations of native peoples in their environments for eons. One can say that both the attainments and horrors of the mind of the modern university were extraordinary, but fundamentally its age is over. So while there have never been more people attending university, the spirit of modern university is dying and is now almost dead.

One can say the modern university carried a foundational flaw. It failed to comprehend and accommodate that which the dialectic of sustainment makes evident,

¹ See Tony Fry, *City Futures in the Age of a Changing Climate*, Routledge/Earthscan, London 2015, p. 134.





ekonomist in Nobelov nagrajenec Amartya Sen.¹ Ti centri učenja so zajemali številna področja znanja, tudi vojaško strategijo, kmetijstvo, astronomijo in medicino. Prva evropska univerza – Univerza v Bologni – je bila ustanovljena šele leta 1088. Njen *raison d'être* je bil: teologija in razvoj kanoničnega prava [cerkvenega prava]. Znanje, ki so si ga prilastili zlasti z Bližnjega vzhoda in iz Grčije, je začelo počasi ustvarjati in vzpostavljati hegemonijo razuma. Učenje je postalо sekularno. Leta 1694 je bila ustanovljena Univerza Martina Lutra v Halle-Wittenbergu – to je bila prva sekularna moderna univerza. Opustila je prakso latinštine kot edinega učnega jezika. Druge evropske univerze so kmalu sledile tej poti.

Kar zadeva napredovanje miselnosti pred razsvetljenstvom in med njim, je moderna univerza postala epicenter produkcije moderne znanja in je kot taka igrala pomembno vlogo pri ustvarjanju modernega sveta. Bila je globoko vpletena v nastajanje modernega duha, individualiziranega družbenega subjekta, civilne družbe in države. Napredovanje razuma in znanosti je bilo ključni dejavnik tudi pri vzpostavljanju industrijske proizvodnje in njenih produktov, pa tudi civilne družbe kot smernice za način življenja in kulturne ustanove. Ta razvoj je spremljala doba kolonialnih osvajanj, ki ni le vzpostavila neenakosti in prilaščevalskih materialnih pogojev netrajnosti kot globalnih normativov, temveč so spremljevalni ekscesi kolonializma obenem naredili globoko psihosocialno in kulturno škodo, od katere si mnoge države še vedno niso opomogle. Ta škoda je povzročila številne geopolitične težave, ki v sodobnem svetu še vedno ostajajo nerezene.

V tem kontekstu in kljub vsem trditvam o visokošolskem izobraževanju kot afirmativni sili civilizacije je bila njegova temnejša stran povsem vpletena v pospeševanje procesov »lomljenja sveta«. Novo učenje je dalo zagon netrajnostnemu, saj je razvretnoto veliko tradicionalnega znanja, ki je dolgo ohranljalo vezi domorodnih ljudstev z njihovim okoljem. Lahko bi rekli, da so bili tako dosežki kot grozote duha moderne univerze izjemni, a v osnovi je njene dobe konec. Skratka, četudi univerze še nikoli ni obiskovalo toliko ljudi, duh moderne univerze umira in je skorajda mrtev.

Lahko bi rekli, da je moderna univerza vsebovala hibe v samih temeljih. Ni ji uspelo razumeti in sprejeti tega, kar je dialektiki trajnosti jasno, in sicer, da je uničenje nedeljivo od ustvarjanja in da mora biti sprejeta odločitev vezana na etični imperativ. Prevladujoči poudarek izobraževanja, tudi izobraževanja na področju oblikovanja v vseh oblikah, je bil dan kreativnim inovacijam, brez upoštevanja tega, kar je bilo v procesu uničeno, pa naj gre za material, vrednote, ideje, kulture, znanje ali prakse. Poleg tega

¹ Glej Tony Fry, *City Futures in the Age of a Changing Climate*, Routledge/Earthscan, London 2015, str. 134.

which is that destruction is indivisible from creation and that once recognised decision has to be bound to an ethical imperative. The dominant focus of education, not least design education in all its forms, has been upon creative innovation without due regard for what was destroyed in the process, be it material, values, ideas, cultures, knowledge or practices. Moreover, so often the past has been laid to waste, forgetting inscribed and traditional and informal knowledge erased without any informed critical interrogation.

Education has been, and is still being, totally instrumentalised: reduced to economic utility and made totally vocational. The key metrics of attainment are not based upon levels of understanding of socially critical knowledge, the exploration of radically new world views or the contestation of extant systems of belief but upon the number of jobs filled, the size of industry focused research budgets and the advancement of service to support the economic *status quo*.

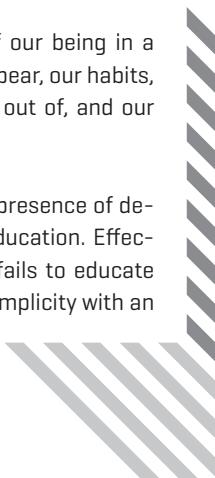
If the global undercurrent is any guide, the “good” news of the “bad” news of the state of the world for education is that humanity is on the edge of the third epoch of the university – by necessity, the university has to be based on the imperative of producing more than just the practical knowledge that circumstances demand. It also has to deliver social and cultural knowledge capable of dealing with the worlds the modern university helped bring into being – that is the broken world: the world made unsustainable; the world of hegemonic technology and design.

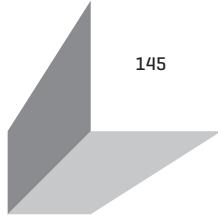
Design

Design almost totally pervades the environment in which we live. How we make the world-within-the-world, the anthropocene, how we use this world, how we see this world – this is all a product of design. More than this, in so many ways we as humans are a product of design, for the world of design equally designs us.

Our ontology, physiology and psychology significantly arrive out of our being in a designed world. What we do, how we live and for how long, how we appear, our habits, taste and health – these are but some markers of our emergence out of, and our being in, a designed world.

There is a huge disjuncture between the extreme complexity of the presence of design in the world-within-the-world and what is taught by design education. Effectively, design education bypasses this complexity and in so doing fails to educate the designer about the designed world. It does this because of its complicity with an





je bila preteklost pogosto odvržena; zapisana, tradicionalna in neformalna znanja so bila pozabljena, izbrisana, brez vsakega utelejjenega, kritičnega izpraševanja.

Izobraževanje je bilo in je še vedno popolnoma instrumentalizirano: zreducirano na ekonomsko koristnost in razumljeno povsem poklicno. Ključna merila za dosežke ne temeljijo na razumevanju družbenokritičnega znanja, raziskovanju radikalno novih svetovnih nazorov ali pretresanju obstoječih sistemov prepričanj, ampak na številu zaposlitev, obsegu k industriji usmerjenih raziskovalnih proračunov in izboljšanju storitev v podporo ekonomskemu *statusu quo*.

Če ima globalno podtalje kakšno vodilo, je »dobra« novica »slabe« novice o stanju sveta na področju izobraževanja ta, da je človeštvo na robu tretje dobe univerze – univerza mora nujno temeljiti na imperativu proizvajanja več kot le praktičnega znanja, ki ga zahtevajo okoliščine. Ponujati mora družbeno in kulturno znanje, ki se je sposobno ukvarjati s svetovi, ki jim je moderna univerza pomagala nastajati – in sicer z zlomljениm svetom: svetom, ki je postal netravnosten; svetom hegemonistične tehnologije in oblikovanja.

Oblikovanje

Oblikovanje skoraj povsem preveva okolje, v katerem živimo. To, kako naredimo »svet znotraj sveta«, antropocen, kako uporabljam ta svet, kako vidimo ta svet – vse to je produkt oblikovanja. Še več od tega, tudi mi, ljudje, smo na neštete načine produkt oblikovanja, saj svet oblikovanja oblikuje tudi nas.

Naša ontologija, fiziologija in psihologija na pomemben način izhajajo iz našega bivanja v oblikovanem svetu. To, kaj počnemo, kako živimo in koliko časa, kako se kažeemo, naše navade, okus in zdravje – to je le nekaj označevalcev našega obstajanja, ki izhajajo iz oblikovanega sveta, in našega bivanja v njem.

Med skrajno kompleksnostjo prisotnosti oblikovanja v »svetu znotraj sveta« in tem, kar se v izobraževanju na področju oblikovanja uči, obstaja velikansko razhajanje. Izobraževanje na področju oblikovanja se tej kompleksnosti uspešno izogiba in mu zato ne uspe izobraziti oblikovalca o oblikovanem svetu. To počne zaradi svoje sokrivde pri instrumentalni delitvi znanj in praks, pretežno podrejeni učenju, kako oblikovati v okviru restriktivne delitve dela.

Preprosto povedano, pri izobraževanju na področju oblikovanja gre za to, kako oblikovati v tržni ekonomiji in zanjo, ne pa prvenstveno za to, kaj oblikovanje je in kaj počne v

instrumental division of knowledge and practice that is dominantly subordinated to learning how to design within a restrictive division of labour.

Put simply, design education is about how to design in and for a market economy, rather than it being first of all about what design is and does in a global sense. Bluntly, designers are not adequately educated about the nature of design, its presence in the world and its futural consequences. I would even go as far as saying that in a real sense design education is not an education about design. Specifically, designers are taught how to bring things into being *without* any real understanding of how what they have designed has been prefigured by design and how what they have designed goes on designing in time.

Design Education as an education in design

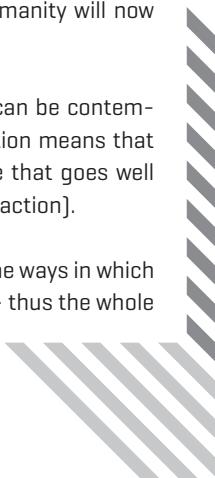
Step one of this transformation centre is about unlearning the mischaracterisation of design as a particular valorised mode of creative aesthetic expression [the culturally popularist way design is presented]. The idea “design” has to be destroyed, so that its meaning may be recovered/remade.

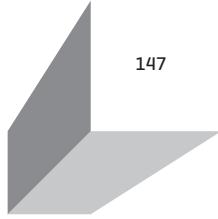
Step two, even more fundamental than step one: the “educational” pathway of induction into the restrictive *habitus* of design has to be blocked. What this means is not allowing the taken-for-granted actions, values and tropes of design unthinking to arrive and be occupied and carried by notions and assumptions of for instance: designers owning design practices and making the most important design decisions, design meeting needs, solving problems, adding value, being creative, having a special relation to taste making, of “incremental improvement” being improvement.

Step three is to commence learning the complexity of the designed world, what design now does and what it needs to do if humanity is to have a viable future. *De facto*, “Designers need to learn just how important design is, because humanity will now only get to have a future by design.”

New, non-productivist within the *status quo* openings into design can be contemplated, talked about, developed and embraced. In all cases, this action means that a far more developed understanding of practice be deployed – one that goes well beyond it being-in-the-world viewed simply a “doing” [instrumental action].

Practice is a compound activity in time. What this means is that all the ways in which it will now be outlined can be understood as folding into each other – thus the whole





globalnem smislu. Odkrito rečeno, oblikovalci niso zadostno izobraženi o naravi oblikovanja, njegovi prisotnosti v svetu in prihodnjih posledicah. Dejal bi celo, da izobraževanje na področju oblikovanja sploh ni zares izobraževanje o oblikovanju. Natančneje, oblikovalci so naučeni, kako naj naredijo stvari, *brez* pravega razumevanja, kako je to, kar oblikujejo, že vnaprej določeno in kaj se bo s tem, kar oblikujejo, dogajalo v času.

Izobraževanje na področju oblikovanja kot izobraževanje o oblikovanju

Pri prvem koraku tega transformacijskega centra gre za razpustitev napačnega označevanja oblikovanja kot posebnega valoriziranega načina kreativnega estetskega izraza [kulturno-populistična predstavitev oblikovanja]. Idejo o »oblikovanju« je treba uničiti, da bomo lahko obnovili/poustvarili njegov pomen.

Drugi korak, še pomembnejši od prvega: »izobraževalna« pot indukcije v restriktivni *habitus* oblikovanja mora biti blokirana. To pomeni, da samoumevnim akcijam, vrednotam in tropom oblikovalskega nemšljenja ne dovolimo, da zasedajo in preناšajo predstave ter predpostavke, kot so: oblikovalci imajo v lasti oblikovalske prakse in najpomembnejše oblikovalske odločitve, oblikovanje realizira potrebe, rešuje probleme, dodaja vrednost, je kreativno, ima posebno vez z ustvarjanjem okusa, »postopno izboljšanje« je izboljšanje.

Tretji korak je vzpostavitev učenja kompleksnosti oblikovanega sveta, tega, kar oblikovanje počne in kar mora početi, če naj ima človeštvo uspešno prihodnost. *De facto*: »Oblikovalci se morajo naučiti, kako pomembno je oblikovanje, kajti človeštvo bo le tako imelo prihodnost.«

O novih, znotraj *statusa quo* neproduktivnih rezih v oblikovanje lahko razmišljamo, govorimo, lahko jih razvijamo in sprejemamo. Ta akcija vsekakor pomeni, da moramo razviti mnogo bolj poglobljeno razumevanje prakse – takšno, ki močno presega pogled na »bivanje v svetu« kot zgolj »počenjanje« nečesa [instrumentalna akcija].

Praksa je sestavljena dejavnost v času. To pomeni, da vse načine, s katerimi bo opisana, razumemo kot medsebojno prepletene – celota je torej večja od svoje razčlenjene karakterizacije, a brez te razčlenitve jo je nemogoče opisati.

Prva stvar, na katero je treba opozoriti, je, da je praksa način, s katerim nekaj (materialnega ali nematerialnega) postane to, kar mu nameni oblikovanje. Praksa je tako vedno določena vnaprej in torej vedno usmerjena k načrtovanemu cilju [pa naj gre za realizacijo objekta, razvoj veščine ali napredovanje procesa]. Medtem ko te teorija

is greater than its disaggregated characterisation indicates, but it is actually unable to be described without this dismemberment.

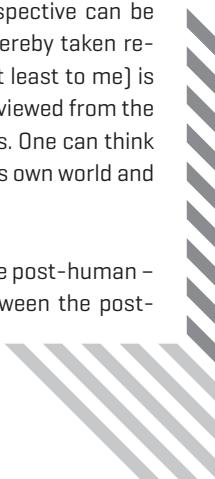
The first thing to point out is that practice is the means by which something [material or immaterial] becomes what designs destined it is to be. Practice is thus always prefigured and therefore always directed toward an intended end [be it the realisation of an object, the development of a skill or the advancement of a process]. As such, while theory can lack a practice other than itself, practice cannot be without theory, be it that the basis of that theory is embodied or experientially grounded in tacit knowledge. By implication, practice implies an inchoate *praxis*, understood here as a concern with the application of what one knows. It follows from this that the advancement and exercise of practice requires a process of continual repetition [practice in another sense].

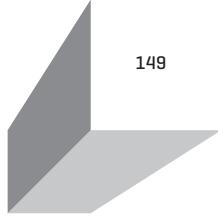
Practices are not finite – they are not of a fixed number but continually being created and abandoned. What this means is while they always come out of a situated context, they can and are created to return and transform that context. This is exactly how redressive practice invites being understood, both in its relation to extant design practice itself and as a futural design practice.

There can be no real advancement of design or design education without a transformation of practices. The theoretical impetus to do this comes from a critique of design practice and is generative of a re-formed praxis seen as, but more than, “mere practice”.

The ten examples to be presented now are informed by such thinking on practice as well as being underpinned by an acknowledgement that designing in time is: designing in the medium of time with a strong sense of urgency.

1. Learning to see via the animal that we are in a world of animals [imagine!]. There is no assumption here that the anthropocentric perspective can be transcended. There is a view it can be made present and thereby taken responsibility for. What becomes so experientially apparent [at least to me] is how materially out of control we humans have become when viewed from the viewpoints of our residual animal selves and all other animals. One can think this realisation, but its profundity comes from looking at one's own world and feeling it.
2. Learning to think how to become the being we need to be – the post-human – that is if “we” are to continue being [the contest is on between the post-





lahko brez prakse, pa praksa ne more biti brez teorije, saj je osnova teorije utelešena ali izkustveno utemeljena v implicitnem znanju. Praksa implicitno vsebuje še nepopolno *praxis*, ki jo tu razumemo kot ukvarjanje z aplikacijo tega, kar vemo. Iz tega sledi, da napredovanje in izvajanje prakse zahtevata proces nenehnega ponavljanja [prakso v drugačnem pomenu].

Prakse niso končne – ne sestavlja jih fiksno število ponovitev, temveč se nenehno ustvarjajo in opuščajo. To pomeni, da so, četudi vselej izhajajo iz situacijskega konteksta, ustvarjene tako, da se lahko vrnejo in preoblikujejo ta kontekst. Točno tako razumimo preusmeritveno prakso, tako v odnosu do obstoječe kot do prihodnje oblikovalske prakse.

Resničnega izboljšanja oblikovanja ali izobraževanja na področju oblikovanja ne more biti brez transformacije praks. Teoretski zagon za to prihaja iz kritike oblikovalske prakse in je generativen za reformirano *praxis*, ki je razumljena kot – četudi več kot – »zgolj praksa«.

Deset primerov, predstavljenih v nadaljevanju, temelji na takšnem razmišljjanju o praksi in na stališču, da je oblikovanje v času oblikovanje v mediju časa z močnim občutkom nujnosti.

1. Učiti se videti z očmi živali, da živimo v svetu živali [predstavljajte si!]. To ni predpostavka, da lahko presežemo antropocentrično perspektivo. To je pogled, ki ga lahko ustvarimo in tako prevzamemo odgovornost. To, kar postaja tako izkustveno očitno [vsaj meni], če gledamo s stališča naših preostalih živalskih jazov in vseh drugih živali, je, kako zunaj nadzora smo ljudje. Temu lahko rečemo zavest, njena globina pa izhaja iz gledanja in čutenja sveta.
2. Učiti se razmišljati, kako postati bitje, kakršno moramo biti – postčlovek – če želimo še naprej obstajati [tekma poteka med postčlovekom, človekom onkrat sedanjih meja človeškosti in kurzweilovskim tehnoidom, izbrisanim človekom].

Kot vemo, je Kurtz osrednji lik romana Josepha Conrada *Srce teme* – človek povsem brez omejitev, tako kot Ray Kurzweil, direktor inženiringa pri Googlu in prvak »singularnosti« [ki v največji skrajnosti pomeni ambicijo prenesti človeške možgane in narediti človeško telo odveč].

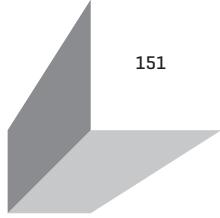
3. Učiti se razumeti in živeti po dialektiki trajnosti – živeti dejstvo uničenja kot nedeljivo od ustvarjanja [in tako zavrniti kratkovidni pogled na ustvarjanje in

human, the human beyond current limits of humanity and the Kurzweilian technoid, the human erased).

As will be remembered, Kurtz is a central figure in Joseph Conrad's *Heart of Darkness* – he was a man totally without constraint, as is Ray Kurzweil, director of engineering at Google and champion of "singularity" (which at its most extreme is the ambition to download the human brain and render the human body redundant).

3. Learning how to understand and live by the dialectic of Sustainment – living the fact of destruction as indivisible from creation [and thereby rejecting a myopic view of creativity and "creative practice"] – means that the designer has to ever walk the ethical line dividing creation from destruction, recognising the designed evidences on what side of the line designer has fallen.
4. Learning to understand the nature of exchange as the primary foundation of design (the essence of the general economy in which all matter exists in a condition of exchange) rather than service being provided to the dislocated restricted economy [of capitalism] as it exits disconnected to exchange at large. What this means is that anything within the restricted economy cannot function with a fundamental sustaining ability. This is not a matter of form but of location. It mattered not a jot if the deck-chairs on the Titanic were made sustainably from a sustainable material and could be recycled or even up-cycled or not for they were being carried by a doomed vessel.
5. Learning how to stop designing most of what is currently designed – that is, learning how to stop being designed as designers of illusory needs! Simply put, the assumption that "the solution" to "solving" the unsustainable is to bring something into being by design as elemental to the ontology and practice of the designer has to be totally discredited. By implication, this means ripping design from "capital logic" and embedding it in another kind of economy. Asserting this is not to claim a solution but to identify a hugely complex long-term task.
6. Learning how to repair what has already been designed and is broken. The broken can announce itself, but mostly it does not. Neither is it restricted to the singular, system, technical, functional or operative. We are design, we are broken, and this manifests itself in almost everything we metaphorically touch. The broken breaks.





»ustvarjalno prakso«] – pomeni, da mora oblikovalec vselej hoditi po etični liniji, ki ločuje ustvarjanje od uničenja, in na podlagi oblikovanih dokazov priznati, na katero stran linije je padel.

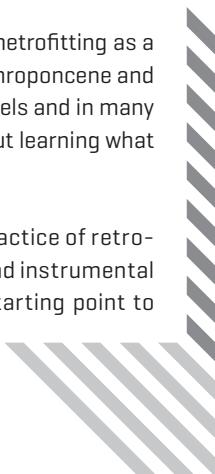
4. Učiti se razumetiti izmenjavo kot primarni temelj oblikovanja [bistvo splošne ekonomije, kjer vse obstaja v razmerah izmenjave], ne pa kot storitev, ki se ponuja dislocirani, omejeni ekonomiji [kapitalizma] in ki je nepovezana z izmenjavo na splošno. To pomeni, da v omejeni ekonomiji nič ne more delovati s temeljno sposobnostjo trajnosti. To ni vprašanje oblike, ampak lokacije. Prav nič pomembno ni, če so ležalniki na Titaniku narejeni trajnostno, iz trajnostnega materiala, ki se lahko reciklira ali predela, kajti nosi jih na skorajšnji propad obsojeno plovilo.
5. Učiti se, kako ustaviti oblikovanje večine tega, kar se trenutno oblikuje – učiti se, kako ne biti več oblikovan kot oblikovalec iluzornih potreb! Preprosto povedano, predpostavka, ki je za ontologijo in prakso oblikovalca tako zelo elementarna, da »rešitev« netrajnostnega pomeni narediti nekaj preko oblikovanja, mora biti povsem diskreditirana. To pomeni iztrgati oblikovanje iz »kapitalske logike« in ga vključiti v drugačen tip ekonomije. To ne pomeni govoriti o rešitvi, ampak identificirati izjemno kompleksno in dolgoročno nalogu.
6. Učiti se, kako popraviti, kar je že oblikovano in zlomljeno. Zlomljeno se lahko pokaže, a večinoma se ne. Prav tako ni omejeno na ednino, sistem, tehnično, funkcionalno ali operativno. Mi smo oblikovanje, mi smo zlomjeni, in to se kaže skorajda v vsem, česar se metaforično dotaknemo. Zlomljeno se lomi.
7. Učiti se, kako preusmeriti že oblikovano, da podaljšamo njegovo življenje, uporabo in vrednost. Preusmerjanje je postavljeno pred produkcijo novega; pomeni popravilo. Pomeni prepoznanje velikanske nujnosti ukvarjanja s tem, kar že obstaja. S takšnim remitiranjem moramo zavarovati mesta, industrijo, institucije, pa tudi »stvari«.
8. Učiti se, kako z oblikovanjem odpraviti oblikovane stvari. Tudi to pomeni velikansko naloži in izziv. Na svetu obstaja ogromno stvari, ki bi izboljšale sposobnost trajnosti biofizikalnega in sociokulturnega sveta, če bi le bile ustrezeno izvedene.
9. Učiti se, kako delovati v času. Oblikovanje je večinoma usmerjeno k oblikovanju v prostoru in zanemarja oblikovanje v mediju časa. Zato so časovni

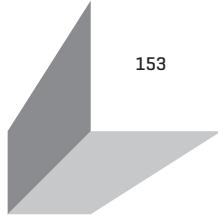
7. Learning how to redirect what has already been designed to extend its life, use and value. Redirecting is posed against the production of the new; it does, or can, enfold repair. It embodies the recognition that there is an enormous need to deal with what already has been brought into existence. Cities, industries, institutions as well a “things” need to be covered by its remit.
8. Learning how to eliminate designed things by design. This again is a huge task and challenge. There are a huge number of things in the world that would improve the sustaining ability of the biophysical and socio-cultural world if they were just completely emanated.
9. Learning how to act in time. Design predominantly has focussed on designing in space and neglected to design in the medium of time. Consequentially, the effects over time of what design brought/brings into being are neglected. What has to be learnt here is how do design back from well informed possible design futures. Likewise, design in time also implies designing what actually “needs” to be designed with a sense of urgency.
10. Learning how to sustain oneself and survive in the borderlands of design. What all these points add up to is a recognition that the critical designer who takes them seriously will unavoidably be placed between design as it is and design as it needs to be. This implies existing in this borderland culturally and economically, redirecting commissions, finding funding and projects and creating strategies. Motivation is as much, if not more, a determinate and means.

Finally, against the backdrop of this paper, it is important to make clear that I am not only just advocating change and new ways to approach design but that I strive to act on what I propose – this as a designer/thinker/writer/educator, as the two examples below aim to illustrate.

As a designer, I now work on rethinking cities and a concept called metrofitting as a way of thinking and addressing the city as a central figure of the anthropocene and as such a domain of the broken that requires repair on numerous levels and in many cases on a huge scale. Crucially, the task is one that is primarily about learning what needs to be learnt.

What undertaking this task means is exploring the concept and practice of retrofitting in order to take it beyond a way of engaging the functional and instrumental operation of structures and the city. In this way, it becomes a starting point to





učinki tega, kar je oblikovanje ustvarilo/kar ustvarja, zapostavljeni. Moramo se naučiti, kako oblikovati s perspektive dobro utemeljenih, možnih prihodnosti oblikovanja. Oblikovanje v času pomeni oblikovanje tega, kar dejansko »mora« biti oblikovano, z občutkom nujnosti.

10. Učiti se, kako se ohraniti in preživeti v mejnih območjih oblikovanja. Navedene točke prispevajo k spoznanju, da bo kritičen oblikovalec, če jih bo jemal resno, neizogibno postavljen med oblikovanje, kakršno je, in oblikovanje, kakršno bi moralo biti. To pomeni obstajati, kulturno in ekonomsko, v tem mejnem območju, preusmeriti naročila, iskati finančne vire in projekte in kreativne strategije. Tudi motivacija je, če ne še bolj, določilo in sredstvo.

In ne nazadnje, v luči te razprave je pomembno pojasniti, da ne zagovarjam le sprememb in novih načinov pristopa k oblikovanju, temveč si tudi sam prizadevam delovati tako, kot predlagam – in sicer kot oblikovalec/mislec/pisatelj/pedagog, kot bosta ponazorila primera v nadaljevanju.

Kot oblikovalec ponovno premišljujem o mestih, tudi s konceptom *metrofitinga*, obnavljanja mesta, kot načinom razmišljanja in ukvarjanja z mestom kot osrednjim likom antropocena in kot takšnim domeno zlomljenega, ki zahteva popravilo na številnih ravneh in pogosto v velikanskem obsegu. Ključno je to, da gre pri tej nalogi v prvi vrsti za učenje, kaj se je treba naučiti.

Ta naloga pomeni raziskovanje koncepta in prakse *retrofitinga*, prenavljanja, s katerim lahko presežemo ukvarjanje s funkcionalnim in instrumentalnim delovanjem struktur in mesta. To postane izhodišče za razvoj *metrofitinga*, torej najprej kot kritična preiskava, zmožna razmišljanja o transformaciji družbenega in kulturnega tkiva mest, pa tudi njihovega materialnega tkiva.

Ta dejavnost nato poveže *metrofiting* z naracijami in kompleksnostjo, ki ponese pristope k oblikovanju onkraj njihove obstoječe in formalne karakterizacije. To storii s priznavanjem vse večjega pomena neformalnih urbanih procesov gradenj in grajenih oblik ter spremenjajočih se oblik ekonomskega in kulturnega življenja, ki spremljajo okoljske, politične in socialne probleme ter z njimi sovpadajo. *Metrofiting* si torej prizadeva izpodriniti evrocentrične predpostavke o tem, kaj sestavlja mesto, kako se ga razume, pa tudi, kdo ali kaj ga lahko preoblikuje. Dandanes je povsem jasno, da zaradi hitre urbanizacije, neformalnih gradenj in ekonomij mnoge obstoječe ideje o oblikih mesta – tako v novih kot v starih mestih, še zlasti v Aziji, Afriki in Latinski Ameriki – postajajo odvečne.

develop metrofitting, this initially as a pathway of critical inquiry that is able to consider the transformation of the social and cultural fabric of cities as well as that of their material fabric.

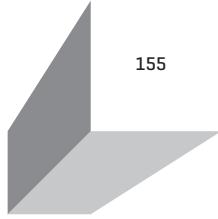
Thereafter, this activity can link metrofitting to narratives and complexity that can take approaches to design beyond their existing and formal characterisation. It can do this by recognising the growing significance of informal urban processes of construction and built forms together with changing modes of economic and cultural life as they accompany, overlap and engage environmental, political and social problems. By implication, this means that metrofitting strives to displace Eurocentric assumptions of what constitutes a city, how cities are understood and who or what can transform them. Moreover, it is now clear that in both new and old cities, especially in Asia, Africa and Latin America, rapid urbanisation, informal construction and economies are making many existing ideas of the form of the city redundant.

Likewise, there is an increasing need to understand that internal perceptions by diverse urban populations frequently do not correspond with the external projections of cities' local authorities and elites. Equally, there is a need to acknowledge that megacities and megaregions are now arriving in ways that dramatically change the political and economic urban landscape, especially in relations between large and small cities and states. Yet another contemporary factor of growing importance is the arrival of "multi-levelled and relational risks" like climate change, civil unrest, conflict, economic breakdown and disease. All these risks have the potential to converge in different configurations. Seen against this backdrop, the existing agenda of sustainability is inadequate. It cannot articulate with such issues on a sufficient scale, with sufficient complexity or over a sufficiently long timeframe. By implication, metrofitting implies: a very long term project, but one that needs to commence now; that urban transformation cannot any longer just be engaged and delivered instrumentally or within a Eurocentric sensibility.

As a writer, I work on issues of importance, aiming to communicate them in new ways in order to advance better understanding of and links with metrofitting. In this context, I recently published *City Futures in the Age of a Changing Climate*. Currently, I am contracted to write a book on *Remaking Cities* to be published in 2016.²

² Additionally, in 2015 I co-authored *Design and the Question of History* with Clive Dilnot and Susan Stewart as well as *Steel: a Design, Cultural and Ecological History* with Anne-Marie Willis.





Prav tako je treba vse bolj razumeti, da se notranje percepције različnih urbanih populacij pogosto ne skladajo z zunanjimi projekcijami mestnih oblasti in elit. In prav tako je treba priznati, da megapolisi in megaregije nastajajo na načine, ki dramatično spreminjajo politično in ekonomsko urbano pokrajino, predvsem v odnosih med velikimi in malimi mesti ter državami. Še en, vse pomembnejši sodobni dejavnik je nastanek »večnivojskih in relacijskih tveganj«, kot so podnebne spremembe, državljanski nemiri, konflikti, ekonomski zlomi in bolezni. Vsa ta tveganja se lahko spojijo v različne konfiguracije. Glede na ta kontekst je obstoječi program trajnosti nezadosten. Ob takšnih temah se ne more artikulirati v zadostnem obsegu, z zadostno kompleksnostjo ali dovolj dolgoročno. *Metrofiting* torej pomeni: zelo dolgoročen projekt, toda takšen, ki se mora začeti zdaj; pomeni, da se z urbano transformacijo ne moremo več ukvarjati le instrumentalno ali znotraj evrocentrične senzibilnosti.

Kot pisatelj se ukvarjam s pomembnimi vprašanji, skušam jih posredovati na nove načine ter tako izboljšati razumevanje *metrofitinga* in povezav z njim. V zvezi s tem sem pred nedavnim objavil delo *City Futures in the Age of a Changing Climate*. Trenutno sem zavezan pisanku knjige *Remaking Cities*, ki bo objavljena leta 2016.²

Kot **pedagog in raziskovalec** sodelujem z univerzami na globalni ravni, a sem v neodvisnem položaju. Pred nedavnim sem denimo delal s skupino magistrskih študentov v Hongkongu, ki je raziskovala vpliv dviga ravnih morja na delta Biserne reke (eno od najbolj tveganjih območij na svetu), da bi bolje razumela okoljske, sociokulture in ekonomske težave, ki jih povzroča ta situacija.

Vse te dejavnosti zdaj želim združiti v svojem nedavno vzpostavljenem oblikovalskem možganskem trustu in učnem studiu – **Studio at the Edge of the World** [Studio na robu sveta], s sedežem na Tasmaniji. Kot kopno, najbližje Antarktiki, je ta avstralska država geografsko na robu sveta. V metaforičnem smislu govorí o tem, da človeštvo vse bolj živi na robu svojega sveta. Studijski projekt je nastal v partnerstvu z inštitutom Creative Exchange tasmanske univerze in šteje dvajset sodelavcev z vsega sveta.

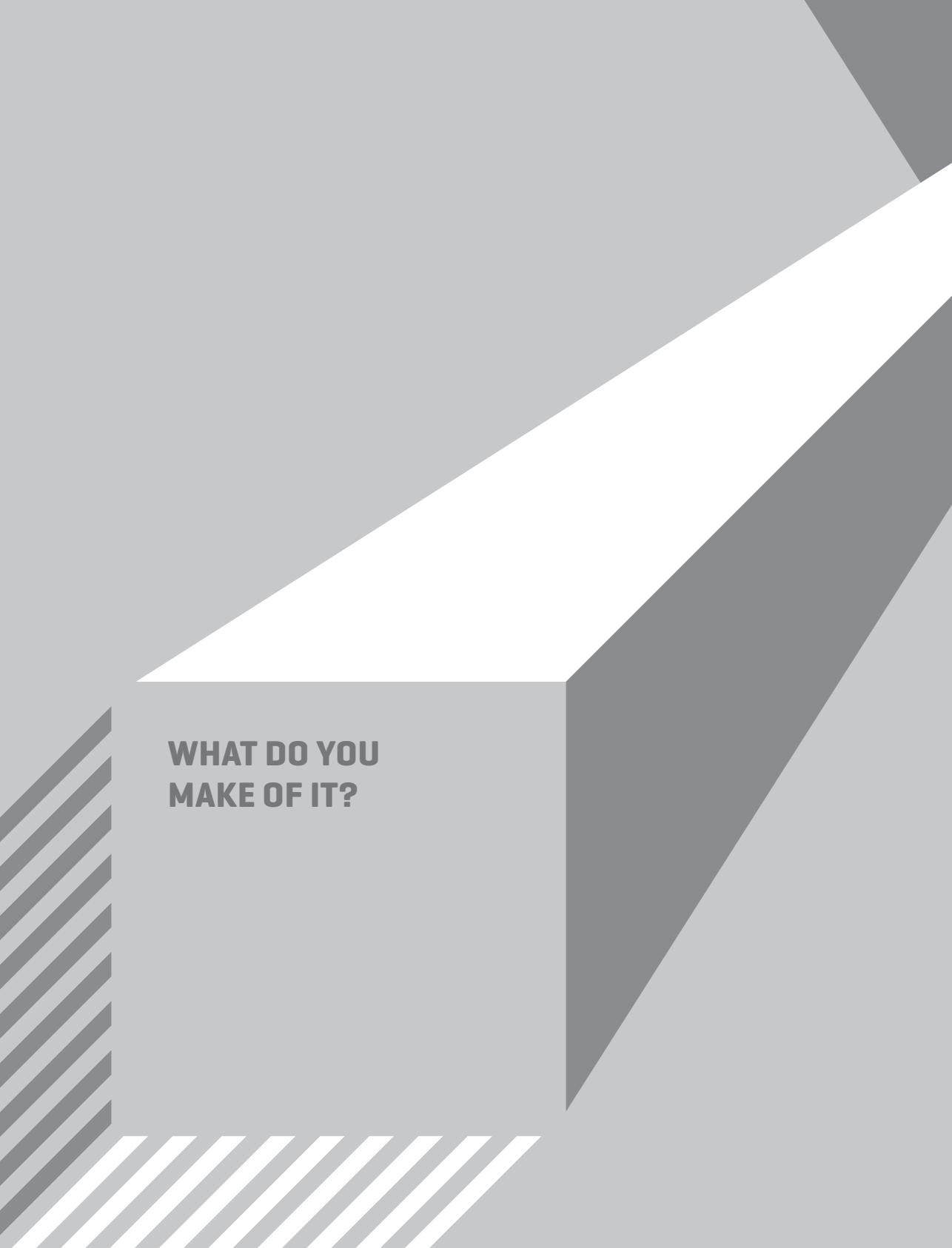
2 Poleg tega sem leta 2015 skupaj s Clivom Dilnotom in Susan Stewart napisal delo *Design and the Question of History*, z Anne-Marie Willis pa Steel: *A Design, Cultural and Ecological History*.

As an **educator and researcher**, I work globally with universities but in a position of independence. For instance, most recently I worked with a group of master's students in Hong Kong looking at the impact of rising sea levels on the Pearl River Delta [one of the most at risk regions in the world] in order to better understand the environmental, socio-cultural and economic problems that this situation poses.

What I am now setting out to do is to bring all these activities together in my recently formed design think tank and learning studio – **The Studio at the Edge of the World**, which is based in Tasmania. As the nearest landfall to Antarctica, this Australian State is geographically on the edge of the world. Metaphorically, it also recognises that humanity is increasingly living on the edge of its world. The studio project was formed in partnership with the Creative Exchange Institute of University of Tasmania and with twenty associates from around the world.





The background features a minimalist, abstract design. It consists of several large, overlapping triangles in different shades of gray. A prominent white triangle points upwards from the bottom left. Another large gray triangle is positioned diagonally across the upper right. The overall composition is clean and modern, with a focus on geometric shapes and negative space.

**WHAT DO YOU
MAKE OF IT?**



KAJ S TEM NAREDIŠ?





Petra Černe Oven is a designer of visual communication and a design theorist. She graduated from the Department of Design of the Academy of Fine Arts and Design, University of Ljubljana. She showed early promise after graduation, working for clients in the field of education and culture, and in 1999 winning one the most prestigious design awards for her work: the Type Directors Club [NY]. In 2004, she received her doctoral degree from the Department of Typography and Graphic Communication at the University of Reading [UK], where she then became involved in the research project *The Optimism of Modernity*.

Černe Oven was the curator of the exhibition, and editor of the book, *Edward Wright: Readings, Writings* [2007]. In 2009, she developed the concept for "Information Design 2009/2010", a series of talks by international experts organized by the Museum of Architecture and Design in Ljubljana and the Pekinpa Association. She also edited the monograph *Miljenko Licul* [2011] to accompany a retrospective exhibition of the work of this graphic designer at the National Gallery of Slovenia. She won the contest for designing the visual identity for the UNESCO event *Ljubljana – World Book Capital 2010*. In 2011, she won the award for the best-designed Slovenian book [Saša Pavček, *Obleci me v poljub*].

Since 2010, Černe Oven has teamed up with her colleague, Barbara Predan, to edit the collection entitled 42, which publishes books on the subject of design. Up until now, four books have been published in the series: *Service and Information Design: Examples of Good Practice*, *The Utopian Seminar, Designing an Agenda, or, How to Avoid Solving Problems That Aren't*, and *The Public Sector: Agent of Progress?* The books are always part of larger projects, seminars, workshops, and exhibitions. Černe Oven has also published professional and scholarly articles in *Eye*, *Typography Papers*, *Baseline*, *2+3D*, *Emzin*, *Typomag*, *Hyphen*, *Oris*, *Ampak*, and other magazines and journals. In 2014, Černe Oven and Predan were invited to contribute a text to the *Gower Handbook of Information Design* [Gower Publishing, London 2015].

Černe Oven is the Slovenian representative of the typography organization Atypl, a founder and member of the board of the Brumen Foundation, and head of the section for information design of the Pekinpa Association. She is a member of several scholarly boards for international conferences [International Conference on Typography & Visual Communication, Cyprus; CIDI: Information Design International Conference, Brazil], and the co-founder of the Institute of Design, a scientific research organization. Under the auspices of various institutions and events in Slovenia, Černe Oven and Predan have hosted over thirty world-renowned experts in the field of design. She regularly lectures at symposia and academic conferences at home and abroad. She teaches a course in the development and theory of design at the Department of Visual Communication Design at the Academy of Fine Arts and Design, University of Ljubljana.

After co-founding the world renowned Hyper Island school [1996] and the digital service design agency Doberman [1999], **David Erixon** spent over 10 years in senior commercial and marketing leadership positions at Vodafone, including six years as Global Brand Director where he worked on all the major M&As and business, brand and culture transformations, opening

BIOGRAFIJE

Petra Černe Oven je oblikovalka vizualnih komunikacij in teoretičarka. Po diplomi je delala za različne naročnike s področja kulture in izobraževanja ter za svoje delo prejela najprestižnejšo nagrado Type Directors Cluba [NY]. Leta 2008 je zmagala na natečaju za projekt vizualne identitete dogodka »Ljubljana – svetovna prestolnica knjige 2010« in leta 2011 prejela nagrado »najlepša slovenska knjiga«.

Strokovna in znanstvena besedila ima objavljena v revijah *Eye*, *Typography Papers*, *Baseline*, *2+3D*, *Emzin*, *Typomag*, *Hyphen*, *Delo*, *Oris* in *Ampak* ter v številnih drugih publikacijah. Redno predava na simpozijih in znanstvenih konferencah doma in v tujini.

Leta 2004 je doktorirala na priznanim Oddelku za tipografijo in grafično komunikacijo na Univerzi v Readingu [VB], kjer se je kot *post-doc research fellow* skupaj s Paulom Stiffom raziskovala na projektu *The optimism of modernity*. Bila je kuratorka razstave in urednica knjige *Edward Wright: Readings, Writings* [2007]. V letu 2009 je zasnovala koncept cikla predavanj mednarodnih strokovnjakov *Informacijsko oblikovanje 2009/2010* [z Muzejem za arhitekturo in oblikovanje ter društvom Pekinpa]. Leta 2011 je za projekt *Miljenko Licul* ob razstavi v Narodni galeriji uredila obširno monografijo.

Z Barbaro Predan od leta 2010 urejata knjižno zbirko 42, katere rdeča nit je oblikovanje. Dosej so izšle štiri publikacije: *Storitveno in informacijsko oblikovanje – primeri dobre prakse*, *Utopični seminar*, *Oblikovanje agende ali kako se izogniti reševanju problemov, ki to niso* in *Javni sektor: nosilec napredka?* Knjige so vedno del širših projektov, seminarjev, delavnic in razstav. Leta 2014 sta bili povabljeni, da prispevata tekst za *Gower Handbook of Information Design* [Gower Publishing, London 2015].

Petra Černe Oven je nacionalna predstavnica svetovne tipografske organizacije Atyp; je soustanoviteljica in članica nadzornega sveta Fundacije Brumen; vodja sekcije za informacijsko oblikovanje društva Pekinpa, članica znanstvenih odborov mednarodnih konferenc [International Conference on Typography & Visual Communication, Ciper; CIDI: Information Design International Conference, Brazilija] in soustanoviteljica znanstvenoraziskovalnega Inštituta za oblikovanje. V okviru različnih institucij in dogodkov sta skupaj s Predanovo v Slovenijo pripeljali že več kot 30 vrhunskih in svetovno znanih strokovnjakov s področja oblikovanja.

Petra Černe Oven predava razvoj in teorijo oblikovanja na Oddelku za oblikovanje vizualnih komunikacij Akademije za likovno umetnost in oblikovanje.

Potem ko je **David Erixon** soustanovil svetovno znano šolo Hyper Island [1996] in agencijo za digitalno storitveno oblikovanje Doberman [1999], je preživel več kot deset let na vodilnih komercialnih in trženjskih položajih pri podjetju Vodafone, od tega šest let kot globalni direktor za blagovno znamčenje, kjer je sodeloval pri vseh glavnih združitvenih in prevzemnih poslih, blagovnih in kulturnih transformacijah ter pri odpiranju trgov, kot so Kitajska, Indija, Gana, Katar, Nova Zelandija, Romunija, Češka republika in Južna Afrika.

Je tudi programski direktor inštituta Strelka v Moskvi in vodi raziskovalni studio o osredotočenosti na potrošnika in urbanem načrtovanju. Je predavatelj na šoli Hyper Island, kjer

up markets such as China, India, Ghana, Qatar, New Zealand, Romania, the Czech Republic and South Africa.

David Erixon is also Programming Director at the Strelka Institute in Moscow and runs a research studio on customer focus and urban planning. He's also a Senior Lecturer at Hyper Island on Customer Focus and Digital Transformation and, together with Prof. Sandra Vandermerwe, Erixon runs Executive Training in Customer Centric Innovation, Technology and Business Transformation at the Imperial College Business School in London.

He was appointed Vice President of Products & Customer Experience for the Russian telecom innovator Yota, and was part of the leadership team that created the world's most advanced 4G network, successfully branching out into entertainment and media services, banking and linked products. He is now working as a consultant, facilitator, coach and speaker on Customer Centricity, Disruptive Innovation and Business Transformation, on industry projects, corporate accelerators, research initiatives and executive training.

Board experience includes Lunar Mobile [the first youth oriented MVNO in Sweden], Lansforsakringar [one of the biggest insurance and banking companies in Scandinavia] and Megafon OSC [the second largest mobile operator in Russia]. He is a Board Trustee for D&AD, a member of the Talent Board for Bulo and a senior advisor to The Pop-up Agency.

Clients over the past five years include Unilever [Home Care, Personal Care, Refreshments, Global Marketing], Target, Mondelez LatAm [Cadbury-Kraft merger], Raiffeisen Bank Czech Republic, P&G Oral Care, Grey Advertising, JWT, RKCR, DDB, Volcom, Puma, Sky UK, Viasat / MTG Emerging Markets and Delvaux.

Alain Findeli, trained as an engineer in physics [INSA, Lyon] and a researcher in materials science [IIT, Chicago and Polytechnics, Montreal], he reoriented his career and interests toward the human and social aspects of engineering, technology and design [M.A. in Architecture, Montreal; Doctorate in Aesthetics, Paris].

He concluded his extensive study of the history of design education in his book *Le Bauhaus de Chicago: l'oeuvre pédagogique de László Moholy-Nagy* (1995). He is also the founder and was scientific and pedagogical director of the Master's programme in "Design & Complexity" in Montreal. He worked as Full Professor at the School of Industrial Design of the University of Montreal, where he taught for about 30 years.

After 2006, he was at first Visiting Professor and since 2009 works as Full Professor at the University of Nîmes [France]. When he started teaching there, he introduced a research agenda on the most recent developments of design theory and methodology [service and social design, sustainable public projects, quality of place in urban living environments]. Together with Brigitte Borja de Mozota and Georges Schambach, he also founded *Ateliers de la recherche en design* (ARD), an international network of francophone design researches, and is its president.

Findeli is a member of the editorial board of the magazines *Design Issues* [MIT Press], *The Design Journal* [Bloomsbury], *Design and Culture* [Bloomsbury], *The International Journal of*

predava o osredotočenosti na potrošnika in digitalnih transformacijah, skupaj s profesorico Sandro Vandermerwe pa na londonski šoli Imperial College Business School vodi usposabljanje menedžerjev o inovacijah, osredotočenih na potrošnika, tehnologiji in poslovnih transformacijah.

Bil je podpredsednik sektorja za produkte in potrošniško izkušnjo pri ruskem telekomunikacijskem inovatorju Yota – del vodstvene ekipe, ki je ustvarila najbolj napredno 4G-omrežje na svetu ter uspešno razvila razvedrilne in medijske storitve, bančne in povezljive produkte. Sedaj kot svetovalec, moderator, trener in predavatelj dela na področju osredotočenosti na potrošnika, disruptivnih inovacij in poslovnih transformacij pri industrijskih projektih ter na področju korporativnih pospeševalcev, raziskovalnih pobud in menedžerskega usposabljanja.

Izkušnje v poslovnih odborih je pridobil pri Lunar Mobilu, prvem k mladini usmerjenem mobilnem virtualnem mrežnem operaterju na Švedskem, v Lansforsakringarju, enem od največjih zavarovalnih in bančnih podjetij v Skandinaviji, in v podjetju Megafon OSC, drugem največjem mobilnem operaterju v Rusiji. David Erixon je član nadzornega odbora sklada D&AD, član odbora za talente pri podjetju Bulo in višji svetovalec v agenciji Pop-up.

Njegove stranke v zadnjih petih letih so: Unilever [nega na domu, osebna nega, osvežilni napitki, globalno trženje], Target, Mondelez LatAm [rezultat združitve podjetij Cadbury in Kraft], Raiffeisen Bank v Češki republiki, P&G Oral Care, Grey Advertising, JWT, RKCR, DDB, Volcom, Puma, Sky UK, Viasat/MTG Emerging Markets in Delvaux.

Alain Findeli je inženir fizike [INSA, Lyon] in raziskovalec v znanosti o materialih [IIT, Chicago, in Politehnika, Montreal], a je svojo kariero in interesu preusmeril k človeškim in družbenim vidikom inženiringa, tehnologije in oblikovanja [magisterij iz arhitekture, Montreal; doktorat iz estetike, Pariz].

Svoj obsežni študij zgodovine izobraževanja na področju oblikovanja je sklenil v knjigi *Le Bauhaus de Chicago: l'oeuvre pédagogique de László Moholy-Nagy* [1995]. Je ustanovitelj magistrskega programa »Oblikovanje in kompleksnost« v Montrealu, bil je tudi njegov znanstveni ter pedagoški predstojnik. Kot redni profesor je delal na Šoli za industrijsko oblikovanje Univerze v Montrealu, kjer je poučeval približno trideset let.

Po letu 2006 je bil sprva gostujoči profesor in od leta 2009 redni profesor na Univerzi v Nîmesu [Francija]. Ko je začel tam poučevati, je uvedel raziskovalni program o najnovejšem razvoju teorije oblikovanja in metodologije [storitveno in družbeno oblikovanje, trajnostni javni projekti, kakovost prostora v urbanih bivalnih okoljih]. Skupaj z Brigitte Borja de Mozota in Georgesom Schambachom je ustanovil Ateliers de la recherche en design [ARD], mednarodno mrežo frankofonskih oblikovalskih raziskav. Je njen predsednik.

Findeli je član uredniškega odbora revij *Design Issues* [MIT Press], *Design Journal* [Bloomsbury], *Design and Culture* [Bloomsbury], *International Journal of Design Sciences and Technologies* [PUF] in *Sciences du Design* [PUF]. Napisal je več kot štirideset člankov v referenčnih revijah in trideset knjižnih poglavij ter pripravil več kot dvesto pogоворov in plenarnih predavanj.

Design Sciences and Technologies [PUF] and *Sciences du Design* [PUF]. He has written more than forty articles in refereed journals, thirty book chapters and prepared more than 200 talks and plenary lectures.

His current research topics and recent publications cover more general philosophical issues of the theory and practice of design [logic, aesthetics, ethics] as well as some key pedagogical aspects of design research education. Today, Alain Findeli is Honorary Professor at the University of Montreal and professor of design science at the University of Nîmes, where he is responsible for the Master-Design-Innovation programme. Together with Stéphane Vial, he runs a research group called PROJEKT, which he also founded.

Tony Fry BA [Hons] Design, MA, PhD Cultural Studies, is a designer, design theorist, cultural theorist, educator and author. He is the creator of The Studio at the Edge of the World, an Adjunct Professor at Griffith University, and a contributing editor of the e-journal *Design Philosophy Papers*.

Tony Fry was Professor of Design Futures, Griffith University [2007–2014], the founding director of the EcoDesign Foundation, Sydney [1991–2001], an Adjunct Professor at the Faculty of Design, Architecture and Building, University of Technology, Sydney, [1998–2001]; Honorary Research Associate, University of Sydney [1996–2001]; Associate Director, University of Sydney National Key Centre of Design Quality [1991–1992]; and Senior Lecturer in Design and Theory, Power Institute, University of Sydney, [1985–1996]. He has held visiting professorships, lectureships and fellowships at universities in Australia, Asia, Europe and North and South America. He has also run many professional development courses and seminars for the Royal Australian Institute of Architects (NSW and Queensland Chapters).

As a consultant, Fry has worked in many areas of design, sustainability and futures for the corporate sector, professional organizations and government. These included: UNESCO, BHP Steel, the Institution of Engineers Australia, Toyota, the former Australian Federal EPA, the New South Wales State EPA, the New South Wales Departments of Urban Affairs, Planning, Housing, the Department of State Development, The Learning Federation, Arts Queensland and the South East Queensland Western Catchments Group. He was an environmental design manager for several Sydney Olympic venues. He also led a Griffith University, AusAID funded research and development project to create a college of indigenous creative industries in East Timor [2009–2012], and Design Leadership workshops in Paris [2012], Thessaloniki [2013], and Cairo [2014].

He was also a selected member of the EU-funded International City Move workshop in Gellivare, Sweden in 2009. In 2011 Tony Fry was a co-leader of the 'Suma Vada' Research Laboratory, Kerala, Southern India [Australia Council Project]. Currently he is working on a project in Cairo and with the Ibagué University [Colombia].

Tony Fry is the author of twelve books, has edited three, has essays in twenty-four collections and has over 200 published articles and conference papers. His latest book *City Future in*

Njegove sedanje raziskovalne teme in nedavne publikacije zajemajo več splošnih filozofskih tem s področja teorije in prakse oblikovanja (logika, estetika, etika), pa tudi nekatere ključne pedagoške vidike izobraževanja na področju oblikovalskih raziskav. Danes je častni profesor Univerze v Montrealu in profesor znanosti oblikovanja na Univerzi v Nîmesu, kjer je odgovoren za magistrski program Oblikovalske inovacije. Skupaj s Stéphanom Vialom vodi raziskovalno skupino PROJEKT, ki jo je tudi ustanovil.

Tony Fry, univerzitetni diplomant humanističnih študij, magister oblikovanja in doktor kulturologije, je oblikovalec, teoretik oblikovanja, kulturni teoretik, pedagog in pisec. Je ustanovitelj podjetja Studio At the Edge of the World, izredni profesor na Univerzi Griffith in redakcijski urednik e-revije *Design Philosophy Papers*.

Bil je profesor v okviru programa Oblikovalske prihodnosti na Univerzi Griffith (2007–2014), ustanovni direktor fundacije EcoDesign v Sydneyju (1991–2001), izredni profesor na Fakulteti za oblikovanje, arhitekturo in gradbeništvo Univerze za tehnologijo v Sydneyju (1998–2001), častni raziskovalni profesor na Univerzi v Sydneyju (1996–2001) ter v okviru iste univerze tudi pomočnik direktorja centra National Key Centre of Design Quality (1991–1992) in višji predavatelj oblikovanja in teorije oblikovanja na inštitutu Power (1985–1996). Bil je gostujoči profesor, predavatelj in štipendist na univerzah v Avstraliji, Aziji, Evropi ter v Severni in Južni Ameriki. Na Kraljevem avstralskem inštitutu arhitektov [sekciji za New South Wales in Queensland] je vodil številne strokovne razvojne tečaje in seminarje.

Kot svetovalec je deloval na številnih področjih oblikovanja, trajnostnega razvoja in prihodnosti, in sicer za vlado, podjetniški sektor in strokovne organizacije (UNESCO, BHP Steel, Zavod inženirjev Avstralije, Toyota, Avstralska zvezna okoljska agencija, Okoljska agencija New South Walesa, Ministrstvo za urbanizem, načrtovanje in stanovanjske zadeve New South Walesa, avstralsko Ministrstvo za državni razvoj, Learning Federation, Arts Queensland in South East Queensland Western Catchments Group]. Bil je menedžer za okoljsko oblikovanje za več sydneyjskih olimpijskih prizorišč. Na Univerzi Griffith je vodil raziskovalni in razvojni projekt, ki ga je financiral AusAID, za ustvarjanje kolegija avtohtonih kreativnih industrij v Vzhodnem Timorju (2009–2012), vodil pa je tudi delavnice za oblikovalsko vodenje v Parizu (2012), Solunu (2013) in Kairu (2014).

Leta 2009 je bil v Gällivareju na Švedskem član vabljene delavnice Mednarodna mestna mobilnost, ki jo je financirala EU. Leta 2011 je bil sovodenitelj raziskovalnega laboratorija Suma Vada v Kerali v južni Indiji [projekt Avstralskega sveta]. Trenutno se ukvarja s projektom v Kairu in sodeluje z Univerzo Ibague v Kolumbiji.

Tony Fry je avtor dvanajstih knjig, uredil je tri, eseje je objavil v štiriindvajsetih zbornikih, objavil je tudi več kot dvesto člankov in konferenčnih referatov. Njegova zadnja knjiga *City Future in the Age of a Changing Climate* je bila objavljena v Evropi in ZDA oktobra 2014. Trenutno pripravlja knjigo *Remaking Cities*, ki temelji na konceptu sodobnih urbanih transformacij, tako imenovanega metrofitinga. Njegovi knjigi *Design and the Question of History* [v soavtorstvu s

the Age of a Changing Climate was published in Europe and the USA in October 2014. Currently he is working on a commissioned book *Remaking Cities*, based on the concept of 'Metrofitting'. His books *Design and the Question of History*, jointly authored with Clive Dilnot and Susan Steward, and *Steel: A Design, Cultural and Ecological History*, jointly authored with Anne-Marie Willis, were published in early 2015.

Tomás Maldonado, born in 1922, in Buenos Aires, Argentina is a painter, designer and theorist. Maldonado's artistic formation took place at Escuela Nacional de Bellas Artes Prilidiano Pueyrredón. In the early 40s, together with Jorge Brito, Alfredo Hlito and Claudio Girola, he signed a manifesto rejecting the selection carried out at the Salón Nacional, quoting the Italian Carlo Carrà's statement: "The suppression of imbeciles in art is essential".

By the end of 1945, he was part of the intense ideological activity linked to the Argentine avant-garde movements and was one of the founders of the painters' movement called *Arte Concreto-Invención*. With his brother Edgar Bayley, he wrote the *Inventionist Manifesto*, published for the first exhibition of the *Arte Concreto-Invención* in March 1946. In 1951, he took part in the organization of *Nueva Visión* magazine with Alfredo Hlito. His ideas drove him steadily away from fine arts towards design and, by the mid-50s, he had abandoned painting.

In 1954 he moved to Germany to teach at the Hochschule für Gestaltung of Ulm, a new experimental School of Design founded in 1953 by Inge Aicher-Scholl, Otl Aicher and Max Bill, the latter being the first Rector of the school. Maldonado's new curriculum was introduced at the school in 1958 and to this day he is considered one of the main theorists of design theory of the legendary "Ulm Model", a design philosophy developed during his tenure [1954–1967] at the Ulm School of Design.

Maldonado's subsequent extensive academic involvements included the Lethaby Lectureship at the Royal College of Art in London in 1965, Visiting Senior Fellow [1966–1967] of the Council of Humanities and Chair of the 'Class of 1913' 1967–1970 at the School of Architecture at Princeton University, and a professorship in environmental planning [1976–1984] in the School of Philosophy and Letters at the University of Bologna. Between 1976 and 1984, he worked as full professor of Environmental Design [Progettazione Ambientale] at the University of Bologna's Faculty of Humanities and Philosophy. In 1984, he transferred his professorship in environmental planning to the Faculty of Architecture at the Milan Polytechnic where, from 1993, he coordinated the doctoral research programme in industrial design and, in the following year, established the first Italian degree course in industrial design.

Between 1964 and 1967, in collaboration with his German colleague Gui Bonsiepe, he created a system of codes for the design program of the Italian firm Olivetti and the department store La Rinascente. From 1966 to 1969 he served as president of the Executive Committee of ICSID.

Maldonado is one of the key figures of design in the second half of the 20th century. He has participated in major movements that have marked this discipline, both at the school of

Clivom Dilnotom in Susan Steward] in Steel: A Design, Cultural and Ecological History [v soavtorstvu z Anne-Marie Willis] sta bili objavljeni v začetku leta 2015.

Tomás Maldonado, rojen leta 1922 v Buenos Airesu v Argentini, je slikar, oblikovalec in teoretik. Njegova umetniška formacija je potekala na Escuela Nacional de Bellas Artes Prilidiano Pueyrredón. V zgodnjih štiridesetih letih je z Jorgejem Britom, Alfredom Hlitem in Claudiem Girolo podpisal manifest, ki je zavrnil selekcijo Salona Nacional, citirajoč izjavo Italijana Carla Carraja: »Zatrje imbecilov v umetnosti je bistvenega pomena.«

Do konca leta 1945 je sodeloval v intenzivni ideoološki dejavnosti, povezani z argentinskim avantgardnim gibanji, in bil eden izmed ustanoviteljev slikarskega gibanja Arte *Concreto-InvenCIÓN*. Z bratom Edgarjem Bayleyjem je napisal *Invencionistični manifest*, ki je bil objavljen na prvi razstavi Arte *Concreto-InvenCIÓN* marca 1946. Leta 1951 je z Alfredom Hlitem sodeloval pri organizaciji revije *Nueva Vision*. Njegove ideje so ga vztrajno vodile od likovne umetnosti k oblikovanju in do sredine petdesetih let je slikarstvo opustil.

Leta 1954 se je preselil v Nemčijo, da bi poučeval na Hochschule für Gestaltung v Ulmu, na novi eksperimentalni šoli za oblikovanje, ki so jo leta 1953 ustanovili Inge Aicher-Scholl, Otl Aicher in Max Bill, ki je bil tudi njen prvi rektor. Maldonadov novi učni program je bil uveden leta 1958, in tako on sam še dandanes velja za enega od glavnih teoretičnih teorije oblikovanja legendarnega »modela Ulm«, oblikovalske filozofije, ki se je razvila med njegovo profesuro (1954–1967) na Visoki šoli za oblikovanje v Ulmu.

Njegove naslednje bogate akademske angažmaje sestavljajo Lethabyjeva predavanja na Kraljevi umetnostni akademiji v Londonu leta 1965, bil je gostujuči izredni profesor (1966–1967) Sveta za humanistiko in med letoma 1967 in 1970 predsednik »Razreda 1913« na Šoli za arhitekturo Univerze Princeton, profesor za okoljsko planiranje (1976–1984) na Šoli za filozofijo in literaturo na Univerzi v Bologni. Med letoma 1976 in 1984 je delal kot redni profesor za okoljsko oblikovanje [Progettazione ambientale] na Fakulteti za humanistične študije in filozofijo Univerze v Bologni. Leta 1984 je profesuro v okoljskem planiranju preseil na Fakulteto za arhitekturo milanske Politehnike, kjer je od leta 1993 dalje koordiniral doktorski raziskovalni program na področju industrijskega oblikovanja, leta 1994 pa je ustanovil prvi italijanski univerzitetni študij industrijskega oblikovanja.

Med letoma 1964 in 1967 je v sodelovanju z nemškim kolegom Guijem Bonsiepejem ustvaril sistem pravil za oblikovalski program italijanskega podjetja Olivetti in veleblagovnice La Rinascente. Med letoma 1966 in 1969 je bil predsednik izvršnega odbora ICSID.

Maldonado je ena ključnih osebnosti oblikovanja iz druge polovice 20. stoletja. Sodeloval je v glavnih gibanjih, ki so zaznamovala to disciplino, tako na šoli v Ulmu kot kasneje v italijanskem oblikovanju. Vpliv, ki ga je imel kot ideolog, ostaja v veljavi, po zaslugi njegove preudarne in ustvarjalne narave, ki ga je privedla k analizam modernosti. Sedaj dela skoraj povsem znotraj filozofije in kritike pod vplivom semiotike. V eseju »Heterodoks« trdi, da je vloga intelektualca prebujati ali razkrivati kolektivno zavest.

Ulm and later in Italian design. His influence as an ideologue remains in effect thanks to his thoughtful and prolific nature, which has led him to analyse modernity and is now working almost entirely in philosophy and criticism influenced by semiotics. In his essays, "The Heterodox", he claims that the role of the intellectual is to awaken or reveal the collective conscience.

Norman Potter¹ [1923–1995] was an English designer, cabinet-maker, poet, writer, and political dissident. During the Second World War and the years after it, Potter mastered the craft of cabinet-making. During the 1950s, he teamed up with George Philip to organize a workshop in Corsham [Wiltshire] where he lived. Potter was familiar with all the important examples of European modernism and he produced in his workshop modern furniture that was unusual for that place. His work has been compared to that of Gerrit Rietveld.

Potter's design work bears some relation to the Arts and Crafts movement and thinkers such as the greatly valued W. R. Lethaby. Nevertheless, in opposition to the principles of this movement, Potter had a positive opinion about the use of tools and machines. He also had an exceptionally strong impulse for auto-didacticism. While running his workshop, Potter read the main works of the key thinkers of his time, for example the works of Herbert Read.

When he was a teenager, Potter had joined and lived in communes, and the Second World War marked the intensive beginnings of Potter's interest and belief in anarchism. Potter went to jail a number of times for his convictions (among other things, because he did not recognize or carry the national Identity Card), and this contributed to his long-life anti-institutional stance. He actively participated in the student protests of 1968. He was especially involved in the protest at the Hornsey College of Art in London, which lasted several months.

At the end of the 1950s, he was invited to lecture at the Royal College of Art in London, where he developed his pedagogical principles. As Tanya Harrod wrote: "Those able to take the heat and fire found themselves embarked on an invigorating, far-reaching, occasionally unsettling dialogue with their tutor".

In 1964, Potter joined with a group of likeminded colleagues to found the Construction School, an experimental educational program at the West of England College of Art in Bristol. His unconventional pedagogical method inclined toward collaboration and an interdisciplinary approach, which was resisted by the institution. The experience only inflamed his anti-institutional nature. He resigned at the end of the 1960s but returned in the mid-1970s to attempt a radical anti-hierarchical structure of teaching. His negative experience at various schools

1 This biographical note emerged on the basis of the following texts: Tanya Harrod, "Norman Potter obituary", The Independent [London], December 16, 1995, www.independent.co.uk/news/people/obituary-norman-potter-1525950.html [19. 5. 2015]. Robin Kinross, "Norman Potter, 1923–1995", Unjustified Texts: Perspectives on Typography, Hyphen Press, London 2002, pp. 68–71. Annie Godfrey Larmon, "An Interview with James Langdon on the Legacy of designer Norman Potter", Frieze, January 15, 2013, <http://blog.frieze.com/an-interview-with-james-langdon-on-the-legacy-of-designer-norman-potter> [8. 6. 2013]. Norman Potter, http://en.wikipedia.org/wiki/Norman_Potter [19. 5. 2015].

Norman Potter¹ [1923–1995] je bil angleški oblikovalec, mizar, pesnik, pisatelj in politični disident. Potter se je med drugo svetovno vojno in v letih po njej priučil mizarstva. V petdesetih letih je v Corshamu (Wiltshire), kjer je živel, z Georgeom Philipom organiziral delavnico in izdeloval moderno in [za tisto okolje] nenavadno pohištvo, saj je poznal vse pomembne in aktualne primere evropskega modernizma. Njegove izdelke so primerjali z izdelki Gerrita Rietvelda.

Njegovo zgodnje delo se je delno napajalo iz impulzov gibanja Arts and Crafts in mislecev, kot je bil na primer z njegove strani izredno cenjeni W. R. Lethaby. Kljub temu je Potter v nasprotju z načeli omenjenega gibanja pozitivno gledal na uporabo orodij in strojev. V njem je bil tudi izredno močan impulz samoizobraževanja. Vzporedno z delavnico je posegal po delih ključnih mislecev svojega časa, npr. delih Herberta Read-a.

Že v najstniških letih se je pridružil komuni in tam živel, med drugo svetovno vojno pa že beležimo intenzivne začetke njegovega spogledovanja z anarhističnimi prepričanji. Zaradi svojih nazorov je bil večkrat zaprt [med drugim zaradi tega, ker ni priznaval osebnih dokumentov] in je skozi to življenjsko izkušnjo izoblikoval svojo protiinstitucionalno držo. Aktivno je bil vključen tudi v študentske proteste leta 1968, še posebej na večmesečnih protestih na šoli Hornsey College of Art v Londonu.

Konec petdesetih so ga povabili predavat na Kraljevo akademijo v Londonu, kjer je razvil svoje pedagoške principe. Kot piše Tanya Harrod: »Tisti, ki so zdržali vročino in ogenj, so se znašli sredi poživljajočega, daljnosežnega, občasno neprijetnega dialoga s svojim učiteljem«.

Leta 1964 je z enako mislečimi kolegi soustanovil Construction School, eksperimentalni izobraževalni program na šoli West of England College of Art v Bristolu. Njegov nekonvencionalni pedagoški pristop je bil naklonjen sodelovanju in interdisciplinarnosti, kar je bilo pri instituciji sprejeto z odprom. Vse to je še podčigalo njegovo protiinstitucionalno naravnost. Konec šestdesetih je v Bristolu odstopil, a se je vrnil sredi sedemdesetih, ko je preizkusil radikalno novo protihierarhično strukturo poučevanja. Negativne izkušnje z različnimi šolami so njegov fokus sčasoma odvrnile od poučevanja in ga preusmerile v pisanje. Leta 1974 je napisal igro *In:quest of Icarus* – ki je alegorična meditacija o njegovem boju proti institucijam – in jo istega leta s svojimi študenti v Bristolu tudi uprizoril.

Glavna razmišljanka o oblikovanju [in izobraževanju] je Potter leta 1969 strnil v legendarni knjigi *What is a Designer*, ki jo je izdal pri londonski založbi Studio Vista. Zaradi njenе pomembnosti in teže ga je tipograf, urednik, mislec in [sedanji] lastnik založbe Hyphen Press Robin Kinross leta 1980 nagovoril k pripravi spremenjene in razširjene izdaje. Od takrat je bila knjiga večkrat ponatisnjena in ostaja med klasiki na področju oblikovanja, saj se

1 Besedilo je nastalo na podlagi naslednjih tekstov: Tanya Harrod, »Norman Potter obituary«, *The Independent* [London], 16. december 1995, www.independent.co.uk/news/people/obituary-norman-potter-1525950.html [19. 5. 2015]. Robin Kinross, »Norman Potter, 1923–1995«, *Unjustified Texts: Perspectives on Typography*, Hyphen Press, London 2002, str. 68–71. Annie Godfrey Larmon, »An Interview with James Langdon on the Legacy of designer Norman Potter«, *Frieze*, 15. januar 2013, <http://blog.frieze.com/an-interview-with-james-langdon-on-the-legacy-of-designer-norman-potter> [8. 6. 2013]. Norman Potter, http://en.wikipedia.org/wiki/Norman_Potter [19. 5. 2015].

gradually turned his focus from teaching toward writing. In 1974, he wrote the play *In:quest of Icarus*, an allegorical meditation about his struggle against institutions, and staged it with his students in Bristol the same year.

In 1969, Potter recorded his main reflections about design [and education] in the now legendary book *What is a Designer*, which was published by the London house Studio Vista. Because of its importance and gravity, in 1980, Robin Kinross, typographer, editor, thinker and owner of Hyphen Press, persuaded Potter to introduce certain changes and prepare an expanded version of the book. Since then, there have been several reprints and the work has become a classic in the field of design, though it "flows" across the undefined edges of design into a philosophical-political-ethical discussion about the role of design in the world.

Barbara Predan received a Bachelor's degree in industrial design, and then a master's degree in the theory and development of design at the Department of Design at the Academy of Fine Arts and Design, University of Ljubljana. In 2012, she received her doctoral degree from the Scientific Research Centre of the Slovene Academy of Sciences and Arts and the University of Nova Gorica.

Predan is the co-author of the books *Back to Design: An Anthological Survey of the Theory of Design in Slovenia* (Litera and Pekinpah, 2007; in the Slovenian language) and *Sustainable Alternatives in Design: It's High Time We Start Losing Time* (Museum of Architecture and Design and Pekinpah, 2009). She is the co-author of the books and exhibitions *Iskra: Non-Aligned Design 1946–1990* (Museum of Architecture and Design and Pekinpah, 2009; Museum of Yugoslav History, 2013) and *Niko Kralj: The Unknown Famous Designer* (Museum of Architecture and Design, 2011; Architekturzentrum Vienna, 2012); is the author of the exhibition *Gorenje with Vision* (Gorenje and Velenje Gallery 2012); and is the co-author of the exhibition *Past Future Perfect* (SKICA in Österreichisches Museum für Volkskunde, Vienna, 2014–15). Since 2010, with Petra Černe Oven, she has been co-editing *Zbirka 42*, a series of books on design, under the auspices of the Pekinpah Association. She has also participated as author or editor in the following four volumes: *Service and Information Design: Examples of Good Practice* (2010), *The Utopian Seminar* (2011), *Designing an Agenda, or, How to Avoid Solving Problems That Aren't* (2013) and *The Public Sector: Agent of Progress?* (2015).

Predan has published professional and scholarly articles in *Design Issues*, *Design Principles and Practices*, ČKZ, 2+3D, *Oris*, and *Piranesi*, among others. In 2014, she and Petra Černe Oven were invited to contribute a text to the *Gower Handbook of Information Design* (Gower Publishing, London 2015).

Predan is a co-founder and leader of the department of design theory at the Pekinpah Association, and, since 2014, the director of the Institute of Design, a scientific research organization. Under the auspices of various institutions and events in Slovenia, Černe Oven and Predan have hosted over thirty world-renowned experts in the field of design. She regularly lectures at international academic and professional conferences, and, with Černe Oven,

»razliva« čez nedefinirane robove polja oblikovanja v filozofsko-politično-etično razpravo o vlogi oblikovanja v svetu.

Barbara Predan je diplomirala iz industrijskega oblikovanja ter magistrirala iz teorije in razvoja oblikovanja na Oddelku za oblikovanje Akademije za likovno umetnost in oblikovanje v Ljubljani. Leta 2012 je doktorirala na Znanstvenoraziskovalnem centru SAZU na Univerzi v Novi Gorici.

Strokovna in znanstvena besedila ima objavljena v zbornikih in revijah, kot so *Design Issues*, *Design Principles and Practices*, ČKZ, 2+3D, Oris, Piranesi idr. Leta 2014 je bila skupaj s Petro Černe Ovn povabljena k pripravi besedila za *Gower Handbook of Information Design* (Gower Publishing, London 2015). Redno predava na mednarodnih znanstvenih in strokovnih konferencah, skupaj s Černe Ovnovo pa doma in v tujini vodita tudi številne mednarodne delavnice s področja storitvenega in informacijskega oblikovanja.

Je soavtorica knjig *Nazaj k oblikovanju: Antološki pregled teorije oblikovanja v slovenskem prostoru* [Litera in Pekinpah, 2007] in *Trajnostne alternative v oblikovanju: skrajni čas, da začnemo izgubljati čas* [MAO in Pekinpah, 2009], soavtorica knjig in razstav *Iskra: neuvrščeno oblikovanje 1946–1990* [MAO in Pekinpah, 2009; Muzej istorije Jugoslavije, 2013] in *Niko Kralj: neznani znani oblikovalec* [MAO, 2011; Architekturzentrum Wien, 2012], avtorica razstave *Gorenje z vizijo* (Gorenje in Galerija Velenje, 2012) in soavtorica razstave *Past Future Perfect* [SKICA in Österreichisches Museum für Volkskunde, Dunaj, 2014–15]. Skupaj s Černe Ovnovo od leta 2010 pod okriljem društva Pekinpah ureja knjižno zbirko 42, katere rdeča nit je oblikovanje. Doslej so izšli štirje zvezki [pri vseh sta sodelovali kot avtorici ali urednici]: *Storitveno in informacijsko oblikovanje* (2010), *Utopični seminar* (2011), *Oblikovanje agende ali kako se izogniti reševanju problemov, ki to niso* (2013) in *Javni sektor: nosilec napredka?* (2014).

Kot gostujoča predavateljica poučuje predmet Razvoj in teorija oblikovanja in izbirni predmet Storitveno oblikovanje na Oddelku za industrijsko in unikatno oblikovanje Akademije za likovno umetnost in oblikovanje v Ljubljani.

Je soustanoviteljica in vodja sekcijs za teorijo oblikovanja pri društvu Pekinpah in od leta 2014 direktorica znanstvenoraziskovalnega Inštituta za oblikovanje. V okviru različnih institucij in dogodkov sta skupaj s Černe Ovnovo v Slovenijo pripeljali že več kot 30 vrhunskih in svetovno priznanih strokovnjakov s področja oblikovanja.

Teal Triggs je profesorica grafičnega oblikovanja in prodekanja Šole za komunikacije Iondonske Kraljeve umetnostne akademije [School of Communication, Royal College of Art, London]. Je tudi izredna profesorica na Univerzi RMIT v Avstraliji. Pred tem je bila sodirektorica raziskovalne skupine Informacijska okolja v okviru raziskovalne mreže Umetnostne univerze v Londonu, pa tudi vodja raziskovalnega magistrskega študija Informacijska okolja ter direktorica magistrskega študija Kritičko pisanje o oblikovanju.

leads a number of Slovenian and international workshops in the field of service and information design.

Teal Triggs is a Professor of Graphic Design and Associate Dean, School of Communication, Royal College of Art, London. She is also an Adjunct Professor at RMIT, Australia. Previously she was Co-Director of Information Environments – a research network across the University of the Arts in London, as well as Acting Course Director, MRes Information Environments and Course Director, MA Design Writing Criticism.

As a graphic design historian, critic and educator, she has lectured and broadcast widely and her writings have appeared in numerous edited books and international design publications. Her research has focused primarily on design pedagogy, self-publishing and feminism. Teal has received several project grants for her work on feminism and design [AHRC] and more recently, she was recipient of a Harry Ransom Center Fellowship for the Humanities, University of Texas at Austin, where her research focus has been on the American editor Fleur Cowles and her influential lifestyle magazine *Flair* [1950–1951]. Her research has also extended into community-based learning projects, including 'A Sense of Place: Life Histories of Residents on the Aylesbury Estate' funded by the Department of Business, Innovation and skills, as well as 'Creative Connexions: Thinking about Thinking', exploring craft and design education at the National Institute of Design, India. She has also led a number of interdisciplinary research teams in developing methods combining social science and design-led solutions including co-Investigator on Designing for the 21st Century Research Cluster: 'Digital Design, Representation, Communication and Interaction: Screens and the Social Landscape' [AHRC].

Teal is also Editor-in-Chief of the *Journal of Communication Design* [International Council of Design], co-editor of *Visual Communication* [Sage] and Associate Editor of *Design Issues* [MIT Press]. Teal has just completed her first children's book entitled *The School of Art* [Wide Eyed Editions] and is currently co-editing *The Graphic Design Reader* with Leslie Atzmon [Bloomsbury]. Her previous books include: *Fanzines* and *The Typographic Experiment: Radical Innovations in Contemporary Type Design*, both published by Thames & Hudson. She is a Fellow of the International Society of Typographic Designers, the Royal College of Art and the Royal Society of Arts.

Kot zgodovinarka, kritičarka in pedagoginja s področja grafičnega oblikovanja se pojavlja v mnogih kontekstih. Njene razprave so objavljene v številnih zbornikih in mednarodnih oblikovalskih publikacijah. Njeno raziskovanje je usmerjeno predvsem k pedagogiki na področju oblikovanja, k samozaložništvu in feminismu. Prejela je več projektnih donacij za delo na področju feminismata in oblikovanja (denimo s strani AHRC/Raziskovalnega sveta za umetnost in humanistiko), pred nedavnim pa je dobila štipendijo za humanistiko Centra Harryja Ransoma (Teksaška univerza v Austinu); tu se je osredotočila na preučevanje ameriške urednice Fleur Cowles in njene vplivne revije za življenjski slog Flair (1950–1951). Njeno raziskovanje se širi tudi na skupnostne učne projekte; med njimi je denimo projekt »Občutek prostora: življenjske zgodovine prebivalcev naselja Aylesbury«, ki ga je financiral Oddelek za poslovanje, inovacije in veščine, ali projekt »Kreativne povezave: razmišljanje o razmišljanju«, ki je preučeval obrtno in oblikovalsko izobraževanje na Nacionalnem inštitutu za oblikovanje v Indiji. Teal Triggs tudi vodi več interdisciplinarnih raziskovalnih skupin, ki razvijajo metode z združevanjem družbenih ved in oblikovalskih rešitev; tako denimo v raziskovalni skupini Oblikovanje za 21. stoletje sodeluje pri projektu »Digitalno oblikovanje, reprezentacija, komunikacija in interakcija: zasloni in družbena pokrajina« (AHRC).

Teal Triggs je tudi glavna urednica revije *Journal of Communication Design* (International Council of Design), sourednica revije *Visual Communication* (Sage) in pomočnica urednika revije *Design Issues* (MIT Press). Pravkar je končala svojo prvo knjigo za otroke z naslovom *School of Art* (Wide Eyed Editions), trenutno pa z Leslie Atzman ureja knjigo *The Graphic Design Reader* (Bloomsbury). Njeni prejšnji knjigi sta *Fanzines* in *The Typographic Experiment: Radical Innovations in Contemporary Type Design*; obe sta izšli pri založbi Thames & Hudson. Teal Triggs je članica Mednarodnega društva tipografskih oblikovalcev, Kraljeve umetnostne akademije in Kraljeve družbe za umetnost.

A

- Aicher, Otl: 65, 66
 Albers, Josef: 26, 27
 Alexander, Christopher: 30, 31
 Altman, Nathan Isaevič: 26, 27
 Andreou, Alex: 15, 16 and/in n/op., 17 n/op.
 Appadurai, Arjun: 108, 110, 111

B

- Beckwith, Gerald: 92, 93, 110, 111
 Boekraad, Hugues C.: 58 and/in n/op.,
 59 and/in n/op., 70 n/op., 71 n/op.,
 85 n/op., 86 n/op.
 Briggs, Jonathan: 114, 115
 Brinkley, John: 94, 95, 110, 111
 Brody, Neville: 102, 103, 105, 110, 111
 Brown, Tim: 17, 18
 Brunswik, Egon: 30, 31
 Buchanan, Richard: 75 n/op., 76 n/op.

C

- Chapman, John Jay: 112, 113
 Chermayeff, Serge: 30, 31, 65, 66
 Comte, Auguste: 33, 34
 Conrad, Joseph: 149, 150
 Cook, Samuel P. N.: 118–121, 128, 129
 Crusoe, Robinson: 30, 31

Č

- Černe Oven, Petra: 8, 9

D

- d'Alembert, Jean-Baptiste le Rond: 36, 37
 Darwin, Robin: 94–97, 110, 111
 Dewey, John: 123, 124
 Dewey, Melvil: 102, 105
 Dilnot, Clive: 104, 107, 110, 111, 154 n/op.,
 155 n/op.
 Dostoevskij, Fjodor: 92–95, 98, 99, 110, 111
 Dweck, Carol S.: 122, 123, 128, 129

E

- Einstein, Albert: 17 n/op., 18 n/op.
 Eriksen, David: 112, 113

F

- Feininger, Lyonel: 62, 63
 Findeli, Alain: 8 and/in n/op., 9 and/in
 n/op., 10, 11, 19, 20, 58 and/in n/op.,
 59 and/in n/op., 77 n/op., 78 n/op.
 Foucault, Michel: 75 n/op., 76 n/op.
 Frayling, Christopher: 94–97, 110, 111
 Fry, Tony: 19 and/in n/op., 20 and/in n/op.,
 0138, 139, 142 n/op., 143 n/op.
 Fuller, Buckminster: 17 n/op., 18 and/in
 n/op., 19, 35, 36

G

- Gaiman, Neil: 17 n/op., 18 n/op.
 Garland, Ken: 18, 19
 Geddes, Patrick: 30, 31
 Gerber, Anna: 110, 111
 Goethe, Johann Wolfgang von: 66, 67, 72, 73
 Goodden, Henrietta: 96, 97, 110, 111

- Groethuysen, Bernhard: 60 n/op., 61 n/op.
 Gropius, Walter: 26, 27, 62, 63, 64 n/op.,
 65 and/in n/op., 66, 70 and/in n/op.,
 71 and/in n/op.
 Guyatt, Richard: 92, 93, 94 and/in n/op.,
 95 and/in n/op., 96–111

H

- Hadot, Pierre: 80 n/op., 81 n/op., 84, 85
 Haydon, Benjamin Robert: 26, 27
 Heider, Fritz: 29–31
 Herdeg, Walter: 94, 95, 110, 111
 Hickling, Allen: 74 and/in n/op.,
 75 and/in n/op.
 Hunter, Dale: 128, 129

I

- Illich, Ivan: 48, 49

J

- Jobs, Steve: 17 n/op., 18 n/op.
 Jonas, Wolfgang: 60 n/op., 61 n/op.,
 73 n/op., 74 n/op.

K

- Kafka, Franz: 8, 9
 Kandinsky, Wassily: 67, 68
 Kelly, David: 133, 134
 Kenda, Boštjan Botas: 6, 7
 Kinross, Robin: 56, 57
 Klee, Paul: 67, 68
 Kolb, David A.: 123, 124
 Koszerek, Pippa: 110, 111
 Kurzweil, Ray: 149, 150

L

- Lattuca, Lisa R.: 104, 105, 110, 111
 Le Moigne, Jean-Louis: 68 n/op., 69 n/op.
 Lewin, Kurt: 29, 30, 123, 124
 Lewis, John: 94, 95, 110, 111
 Longford, Michael: 94 n/op., 95 n/op.
 Lundh, Lars: 114, 115

M

- Maeda, John: 133, 134
 Maldonado, Tomás: 26 and/in n/op.,
 27 and/in n/op., 40, 41, 64 and/in n/op.,
 65 and/in n/op., 66
 Malevič, Kazimir: 26, 27
 Manzini, Ezio: 19 and/in n/op., 20 and/in
 n/op., 82, 83, 85, 86
 Marzano, Stefano: 90, 91
 McCarthy, Fiona: 94, 97, 110, 111
 Meyer, Hannes: 26, 27
 Moholy-Nagy, László: 65, 66
 Moore, Omar K.: 30, 31
 Morris, Charles William: 62, 63 and/in
 n/op., 64 and/in n/op.
 Mumford, Lewis: 32–35

O

- O'Brien, Sean: 24, 25
 Ohl, Herbert: 65, 66

Ompteda, Karin von: 108–111
 Ouspensky, P. D. [see/glej Uspenskii]

Wotton, Henry: 42, 43
 Wright Mills, Charles: 35, 36

- P** Papanek, Victor: 18, 19
 Park, Robert Ezra: 28, 29
 Pass, Greg: 133, 134
 Peirce, Charles Sanders: 38–40
 Piaget, Jean: 123, 124
 Piper, John: 98, 99
 Portmann, Adolf: 31, 32
 Potter, Norman: 17 n/op., 18 n/op.,
 42, 43, 56, 57
 Predan, Barbara: 8, 9

- Y** Yelavich, Susan: 108, 110, 111

- R** Rancière, Jacques: 10–14 and/in
 n/op., 15 n/op.
 Reich, Wilhelm: 42, 43
 Rittel, Horst: 65, 66
 Rogers, Carl: 123, 124
 Russell, Bertrand: 38, 39

- S** Samson, Frederic: 52, 53
 Schlemmer, Oskar: 72, 73
 Schön, Donald: 68 n/op., 69 n/op.,
 70, 71
 Schutz, William: 123, 124
 Schwartz, Robert: 112, 113
 Sen, Amartya: 142, 143
 Shaughnessy, Adrian: 110, 111
 Shaw, George Bernard: 135, 136
 Simon, Herbert A.: 68 and/in n/op.,
 69 and/in n/op.
 Simpson, Veronica: 102, 103, 105,
 110, 111
 Smiers, Joost: 58 and/in n/op.,
 59 and/in n/op., 70 n/op., 71 n/op.,
 85 n/op., 86 n/op.
 Starck, Philippe: 82, 83
 Stewart, Susan: 154 n/op., 155 n/op.

- T** Talgam, Itay: 18 and/in n/op.,
 19 and/in n/op.
 Tatlin, Vladimir: 26, 27
 Triggs, Teal: 92, 93, 110, 111
 Tunhill, Dan: 100, 103, 110, 111

- U** Uspenskii, Peter D.: 96, 97

- V** Vitruvij [see/glej Vitruvius]
 Vitruvius Pollio, Marcus: 42, 43

- W** Walker, Kevin: 108–111
 Wheelan, Susan: 128, 129
 Willis, Anne-Marie: 154 n/op., 155 n/op.
 Wingler, Hans Maria: 62 n/op., 63 n/op.
 Wong, Robert: 133, 134