

**b i t e l**

INTERNATIONAL

dizajn

design

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tomas maldonado  
matko meštović  
radoslav putar  
claud schnaidt



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*matko meštović*

u počast  
ulmu

*matko meštović*

homage  
to ulm



Tri slova — HfG — koja označuju kraticu Visoke škole za oblikovanje (Hochschule für Gestaltung) u malom zapadnonjemačkom gradu Ulmu na Dunavu, u pokrajini Baden-Württemberg, nisu samo određeni pojam nego gotovo simboliziraju najavangardnije idejne pozicije do kojih je teorija i praksa industrijskog oblikovanja u međunarodnim razmjerima danas došla. U našoj sredini taj je pojam poznat u užem krugu stručnjaka, premda se utjecaj Ulmske škole rasprostranio veoma široko, od Moskve i Japana do Latinske Amerike. Svi oni koji su se suočavali s istinskim problemima dizajna, ne samo u okviru profesionalnih pitanja odgoja dizajnera nego i s fundamentalnim pitanjem značenja, smisla i uloge te discipline u suvremenom svijetu, nisu mogli — svjesno ili nesvjesno, izravno ili neizravno — mimoći Ulm. Jer, HfG je jedina institucija u svijetu u kojoj su se u internacionalističkom duhu suvremenosti razvijali visoki stručni kriteriji i etički principi dizajnerske profesije na temeljima naučne zasnovanosti pedagoškog, istraživačkog i praktičnog rada. Upravo iz Ulma potječe danas u svijetu sve raširenija spoznaja o potrebi naučnog pristupa dizajnu kao i spoznaja o potrebi jačanja i izoštravanja historijsko-kritičke svijesti dizajnerskog stava. Takav stav nije mogao zanemariti idejnu dimenziju dizajna, pa ni njene političke implikacije. Na kraju, HfG se u tom pogledu otvoreno pozivala na najsvjetlije tradicije svojih historijskih predstavnika.

Visoka škola za industrijsko oblikovanje u Ulmu osnovana je kao duhovni nastavak isto tako poznate internacionalističke pedagoške institucije Bauhaus, čije je historijsko značenje za razvoj ideologije dizajna bilo presudno i koju je 1933. likvidirao nacistički režim. I sam nastanak HfG imao je takav predznak: finansijski i pravni nosilac škole bila je fundacija Scholl osnovana 1950. u spomen revolucionarnih studenata Hansa i Sophie Scholl koje su nacisti pogubili. Odnoseći se beskompromisno kritički prema svemu, HfG se prva založila i za demitologizaciju samog Bauhauusa. »Govoreći o značenju Bauhauusa za današnjicu, ili, još bolje, o njegovoj ponovnoj aktualnosti, mi imamo drugi Bauhaus na umu, Bauhaus koji je često bio proklamiran ali jedva kada i ostvaren, onaj poraženi Bauhaus koji je, iako bezuspješno, pokušavao otvoriti humanističke perspektive tehničke civilizacije, tj. gledati na ljudsku sredinu kao konkretno polje aktivnosti dizajna. Mislimo pri tom na Bauhaus koji je, iako bez uspjeha, pokušavao preuzeti odgovornost za otvorenu i progresivnu kulturu u Njemačkoj.«

The three letters HfG -- the abbreviation for the College of Design (Hochschule für Gestaltung), in the little West German town of Ulm on the Danube, in the province of Baden-Württemberg, does not suggest only a definite idea but it is almost the symbol of the most avantgarde views reached by international theory and practice of industrial design today. In this country only a limited number of specialists are familiar with it in spite of the fact that the influence of the College in Ulm has spread a long way, from Moscow to Japan and to Latin America. Everybody facing the real questions of design today, not only concerning the professional education of designers but also concerning fundamental questions of the meaning, purpose, and role of this discipline in the world, could not have — consciously or unconsciously, directly or indirectly — by-passed Ulm. The HfG is the only institution in the world where the high professional criteria have been developing in the spirit of international co-operation and based on scientific, pedagogic, and scholarly research and integrity. The ever more widespread conviction on the need for a scientific approach to design comes from Ulm, as well the knowledge that the conceptions of design must be based on the development of historical and critical sensibility. Such a view cannot overlook the conceptual dimension of design, nor even its political implications. Last but not least, the HfG relies in that respect quite frankly on the brightest traditions of its predecessors.

The College of Industrial Design in Ulm was set up as a spiritual continuation of the equally well-known internationalist pedagogic institution called Bauhaus whose crucial historical role in the development of ideology of design was brought to an end by the Nazi regime in 1933. The very origin of the HfG has the same symbol: the financial and legal sponsor of the school is the Scholl foundation, set up in 1950, in memory of the revolutionary students Hans and Sophia Scholl, executed by the Nazis. Taking an uncompromisingly critical attitude towards everything, the HfG was the first to lift the myth from the Bauhaus. »Speaking about the significance of the Bauhaus for our own time, or, which is even more to the point, of its renewed relevance, we have another Bauhaus in our mind, the Bauhaus which was often proclaimed but which was hardly ever realized, the defeated Bauhaus which was trying, although unsuccessfully, to inaugurate the humanistic perspectives of modern technical civilization, i. e. it wanted to approach human society as a concrete field of action for design. We are thinking of the Bauhaus which did its best, even if without success, to assume the responsibility for an openminded and progressive culture in Germany.«

Objašnjavajući poraz Bauhausa, Tomas Maldonado, uz čije je ime najtješnje vezan razvoj i djelovanje Ulmske škole, govori ovako: »Bauhaus se nije ograničavao na to da samo razmišlja o kretanjima u svijetu; više od toga, on je pokušavao da svijet preobrazi . . . On se uvijek suprotstavljao jer je težio prema budućnosti. To je bio razlog mržnje prema Bauhausu.«

HfG nije imala velike iluzije da i sama neće izazvati takvu reakciju. Maldonado je izjavio već 1963: »Moramo sa žaljenjem konstatirati da ista ona gospoda, koja su se dvadesetih godina borila protiv Bauhausa do njegova uništenja (a to nisu bili samo nacisti), ponovo stupaju na pozornicu. Glumci su se izmijenili, ali suština ostaje ista. Lako ih je prepoznati: ista netolerantnost uobraženih filistara . . . ista agresivna podozrivost prema svemu što prelazi uske horizonte nacionalne, regionalne ili jednostavno lokalne tradicije.« Ipak, zahvaljujući svom autonomnom statusu, HfG je uspjela okupiti najprogresivnije stručnjake i pedagoge iz čitavog svijeta i odgojiti nekoliko generacija studenata od kojih 50% iz 25 stranih zemalja. U školi je ostvaren poseban način suradnje između nastavnika i studenata i uvedeni su principi studentskog samoupravljanja. Dizajneri školovani u Ulmu dali su pečat i proizvodima najnaprednijih njemačkih firmi od »Brauna« do »Porschea«. Sam Maldonado postao je najveći stručni i idejni autoritet dizajna u svijetu, što mu je priznao i ICSID (International Council of Societies of Industrial Design) izabravši ga na nedavnoj generalnoj skupštini u Montrealu za svoga predsjednika.

Svejedno, krug političkih intriga oko HfG sve više se stezao i Maldonado je bio prisiljen 1967. napustiti školu izjavljujući u oproštajnom govoru: »HfG je od svoga osnutka bila primorana da se suočava s alternativom: ili kompromis ili revolucija.«

Možemo se zapitati: je li takav stav bio realističan? Ili, još bolje: koji je radikalni stav uopće realističan? To ovisi o tome što se ima na umu i kakvi se ciljevi zastupaju. HfG je zastupala progresivne ciljeve dizajna neovisna o bilo kakvim i bilo čijim partikularnim interesima, vizionirajući ulogu dizajnera kao čovjeka koji rješava probleme suvremenog društva. A to društvo nije samo zapadnonjemačko, ili evropsko, ili američko — društvo obilja, već suvremeno

Explaining the defeat of the Bauhaus, Tomas Maldonado, whose name is closely associated with the development and activity of the Ulm school, says the following: »The Bauhaus did not limit itself to thinking about the tendencies in the world today; more than that, it tried to transform the world . . . It was always in opposition because it was turned towards the future. This was the reason why the Bauhaus was hated.«

The HfG did not cherish illusions that it would not encounter a similar reaction. Maldonado wrote in 1963: »With regret we must conclude that the same gentlemen who fought the Bauhaus in the twenties until its destruction (and the Bauhaus was not destroyed only by the Nazis) are again entering the scene. The actors have changed but the essence is still the same. It is easy to recognize it: the same intolerance of smug philistines . . . the same aggressive scepticism towards anything that exceeds the narrow horizons of the national, regional, or simply local tradition.« But thanks to its autonomous status the HfG has managed to attract the most progressive specialists and pedagogues from all over the world, and they have brought up several generations of students, fifty per cent of whom came from twenty-five foreign countries. The relations between the teacher and student are at Ulm unlike at any conventional institution, and the students have their own self-government. The designers of the Ulm School have given their imprint to the products of most advanced German firms including *Braun* and *Porsche*. Maldonado, himself, has become the greatest professional and theoretical authority on design in the world which was recognized by ICSID (International Council of Societies of Industrial Design) when it elected him for president at the recent general assembly in Montreal.

But the noose of intrigues around the HfG was getting tighter and Maldonado was forced to leave the school in 1967; in his farewell speech in 1967 he said: »The HfG has been confronted ever since its foundation with the dilemma: compromise or revolution?«

We might ask whether such an attitude is realistic. In other words, is any radical attitude realistic? This depends largely on what we have in mind and what aims we keep before our eyes. The HfG represented progressive ideals of design, independent of any particular interests, visualizing the role of designer as of a man who is solving the problems of contemporary society. And this society is not only West German, West European, or American — it is the

svjetsko društvo oskudice. Upravo zemlje u razvoju i potrebe njihova puta u industrijsku civilizaciju jedan su od ključnih elemenata »historijske svijesti« na koje HfG i Maldonado ukazuju.

Premda je eskalacija reakcionarne društvene klime, osobito lokalne, rapidno rasla, HfG se relativno dugo održala. Pomogla joj je upravo visoka reputacija koju je stekla u svijetu i internacionalno značenje problema koji su u njoj istraživani. I 19. veljače 1968. ona se obratila međunarodnoj javnosti s apelom za podršku svom nezavisnom statusu. Taj status, pa i mogućnost očuvanja principa koje škola zastupa, ozbiljno su dovedeni u pitanje. Pred odlučnošću svih nastavnika i studenata da sačuvaju svoje pozicije lokalne su gradske i pokrajinske vlasti u vrlo složenoj kronici događaja forsirale pripajanje HfG Visokoj tehničkoj školi u Ulmu, uzimajući kao izliku teško financijsko stanje u koje je dospjela fundacija Scholl, pošto su prethodno uskraćene normalne subvencije koje je škola dobivala i od lokalne i od savezne vlade.

Mi ne možemo komentirati te događaje drugačije i preciznije nego što su to učinili sami nastavnici i studenti kolektivno u protestnim materijalima koje su razaslali po svijetu. Oni su te događaje okarakterizirali riječima »kulturno-politički skandal i političko umorstvo«.

U govoru studenata, pripremljenom za proslavu 25-godišnjice pogibije Hansa i Sophie Scholl tihim demonstracijama, ima i suptilnijih analiza i konstatacija: »Križa HfG nije izolirana pojava. Ona je simptom prijelaza jednog liberalnog i pluralističkog društva u integrirano društvo (»formierte Gesellschaft« — pod čim se razumije konzumentsko društvo u kojem bi se htjele zbrisati sve klasne razlike). Križa HfG križa je čitavoga visokog školstva Savezne Republike. Ona u isti mah odražava ekonomske poteškoće i krizu.«

»Iza teza o integriranom društvu očrtava se koncepcija takvih formacija koje bi odgovarale kriterijima maksimalnog profita, što su na snazi bilo na području proizvodnje, potrošnje ili distribucije. Nema ničega u tom društvu što bi išlo za tim da zadovolji njegove objektivne potrebe.«

Odjek ulmskih događaja bio je značajan i u međunarodnoj javnosti a i u kulturnoj i stručnoj javnosti Zapadne Njemačke. Osnovan je odbor za održanje HfG, a javile su se

contemporary world society of poverty. It was the developing countries and the requirements of their road to industrial civilization that were one of the crucial elements of the »historical consciousness« that the HfG and Maldonado had in mind.

Although the reactionary social climate — especially in local terms — was rapidly getting worse, the HfG managed to survive for quite a while. Its survival was due to its exceptional international reputation as well as the importance of the topics the School was dealing with. On February 19, 1968, the School appealed to international public opinion asking for support of its autonomous status. This status, together with the cherished principles of the School were seriously jeopardized. In spite of the resolute stand of all teachers and students to preserve their own positions, the local and provincial authorities forced the merger of the School with the Technical College in Ulm after a complex chronicle of events. The official explanation for the pressure was the grave financial state of the Scholl foundation, after all normal subsidies the School was receiving from local and federal authorities were withdrawn.

Our commentary on these events cannot differ from what the teachers and students collectively said in their protests which they sent around the world. They characterized these events as »a politico-cultural scandal and political murder.«

In the speeches made by the students, organized as part of the silent demonstrations on the occasion of the twenty-fifth anniversary of the death of Hans and Sophia Scholl, there were some subtler analyses and contentions: »The crisis of the HfG is not an isolated phenomenon. It is a crisis within the transition from a liberal and pluralistic society to a stream-lined society (»formierte Gesellschaft« — a Consumer Society in which all class distinctions are to be wiped out). The crisis of the HfG is part of the crisis of higher education in the German Federal Republic. It also reflects economic difficulties and a crisis.«

»Behind the thesis of a stream-lined society we can see the outlines of a conception of formations that would fulfill the criteria of maximum profit in production, consumption, or distribution. There is nothing in this society that would attempt to meet its objective demands.«

The reaction to the Ulm events was sharp, both abroad and among the cultural and professional circles in West Germany. A committee was set up for the preservation of the

i brojne ponude iz inozemstva nudeći preseljenje čitavoj školi ili utočište pojedincima. Međutim, bilo je jasno da se HfG drugdje, izvan Ulma, ne može ni ponoviti ni nastaviti već zbog samih psiholoških razloga.

Trideset i prvog prosinca 1968. prestala je svaka aktivnost na Ulmskoj školi. Ministarski savjet pokrajine Baden-Württemberg, naime, odlučio je da HfG likvidira i osnuje novu, državnu školu s posve novom koncepcijom, koju će osnivački odbor razraditi u toku 1969. godine.

Pripremajući ovaj broj BIT-a o dizajnu, redakcija je smatrala shodnim da ga posveti Visokoj školi za oblikovanje u Ulmu i da prenese ključne studije i članke iz njena glasila »ULM«. U njima je rezimirana ne samo duhovna povijest te jedinstvene pedagoške i istraživačke institucije, nego i esencija najnaprednije misli dizajna u suvremenom svijetu. Idejna problematika dizajna, koja se u njima vidi, baca jarko svjetlo i na interne metamorfoze njemačkog društva i na veoma slojevitu i složenu problemsku situaciju svjetskog društva.

A iz same činjenice da je praktički likvidirano takvo idejno žarište kao što je bila HfG neposredno proizlaze pitanja: čija je to pobjeda, kojih snaga, i čiji je to poraz?! Kakva je istina i kakva realnost posrijedi?!

I u spektru naših vlastitih društvenih, privrednih i idejnih problema ta bi pitanja morala izazvati određene refleksije.

HfG and there were numerous offers from abroad suggesting that the whole staff of the school should move or at least that individuals should be offered positions elsewhere. But it was clear that the work of the school cannot be continued in some other place, if for nothing else, for psychological reasons.

On December 31, 1968, all activities of the School at Ulm ceased. The ministerial council of the province of Baden-Württemberg decided to close down the school and set up a new one, a state school with a completely new conception which will be worked out by the foundation committee in the course of 1969.

Preparing this number of BIT its editorial boards thought it appropriate to dedicate it to the school at Ulm and to take over the basic studies and articles from its journal, ULM. In these writings we do not only find the spiritual history of this unique educational and scholarly institution but also the essence of the most advanced contemporary thought on design. The conceptual problems of design, as they emerge from these articles, throw a good deal of light on the internal metamorphosis of German society and on the complex problems of world society in general.

Several questions derive from the fact that the seat of such ideas as the HfG had to discontinue its activities: whose victory is it, which are the forces standing behind this victory, and whose defeat is it? What are the truth and reality involved?

In the spectrum of our own experience, economic, ideological and moral, these questions should call for various reflexions.

Translation: Dr. Miro Beker



*tomas maldonado*

je li bauhaus  
aktualan?

*tomas maldonado*

is the bauhaus  
relevant today?



Na pitanje je li Bauhaus danas relevantan ponekad smo davali negativan odgovor, a ponekad smo izbjegavali dati bilo kakav odgovor. Bilo nam je samo po sebi jasno da dizajn i edukacija za dizajn danas nisu isti niti mogu biti isti kao dvadesetih godina. Ipak, naš negativan odgovor ili izbjegavanje odgovora nije ovisilo isključivo o tom razlogu koji je i danas na snazi. Kad smo osporavali ili sumnjali u relevantnost Bauhausa za sadašnjicu, vjerovali smo da time učvršćujemo vlastitu važnost i originalnost. Priznavali smo onu staru premisu idealističke filozofije povijesti: postojati uvijek znači biti u sukobu sa svojim prethodnicima. Vjerovali smo da na taj način dokazujemo vlastiti *raison d'être*.

Činjenice su pokazale kako se razvoj ideja ne može na silu podvrgnuti tako jednostavnim kalupima, barem ne linearno i nepovratno. Izjave o relevantnosti (ili irrelevantnosti) kulturnih pojava samo su efemernog i prolaznog karaktera. Očito je da ono što danas zamišljamo relevantnim sutra to više nužno ne mora biti, ali ono što se jučer činilo irrelevantnim može danas, iz raznih razloga, ponovo zadobiti svoju raniju važnost.

To se upravo dogodilo s Bauhausom na kraju svega. Na pitanje je li Bauhaus danas relevantan odgovaramo potvrdno, iako uz neka ograničenja. Pod nazivom »Bauhaus« ovdje više ne mislimo na ono na što inače to ime asocira, tj. na pedagošku instituciju ili na pokret u arhitekturi dvadesetih godina. Govoreći da Bauhaus danas ima važnost ili, tačnije, da je ponovo zadobio važnost, mi mislimo na jedan drugi Bauhaus — onaj koji je često bio proklamiran a jedva ikako ikada ostvaren: frustrirani Bauhaus koji je nastojao, doduše bezuspješno, da razotkrije i otvori humanističku perspektivu tehničkoj civilizaciji, odnosno da na ljudsku okolinu gleda kao na »konkretno polje aktivnosti dizajna«. Ovdje mislimo na Bauhaus koji je pokušao, također bez uspjeha, da promovira otvorenu i naprednu kulturu u Njemačkoj.

To je onaj Bauhaus koji je za nas važan danas, ali on to nije zato što bi uvjeti za nj danas bili naročito pogodni, već naprotiv zato što se uvidjelo kako uvjeti nisu pogodni, pa zaista to nikad nisu ni bili. Uvjeti nisu pogodni ne stoga što bi Bauhaus bio asimilirana, opće priznata ili institucionalizirana tradicija, nego naprotiv zato što je on takva tradicija čija je životna snaga odjednom ponovo otkrivena i neočekivano se pojavila u formi programa koji tek treba ostvariti.

Posvuda zapažamo nedostatak uvjerljive humanističke perspektive za tehničku civilizaciju i posvuda opažamo da su začeci nove orijentacije prema svijetu ozbiljno ugroženi.

The question »Is the Bauhaus relevant today?« we have in the past answered sometimes negatively, sometimes evasively. It was obvious to us that design and education for design are not the same today and cannot be the same as in the twenties. Our negative or evasive answer however was not entirely determined by this consideration still valid today. Disputing or calling into question the present-day relevance of the Bauhaus, we believed to confirm our own importance and originality. We recognised an old premise of the idealistic philosophy of history: to be is always to be in conflict with one's predecessors. In this way we believed to prove our own *raison d'être*.

Facts have shown that the development of ideas cannot be forced into such simple schemes — certainly not into a linear and irreversible pattern. Statements about the relevance (or irrelevance) of cultural phenomena are but ephemeral and fruitless. Obviously, that which we today conceive as relevant will necessarily not be so tomorrow. But that which yesterday seemed to be irrelevant can today for various reasons regain its lost importance.

This is what happened to the Bauhaus in the end. The question: »Is the Bauhaus relevant today?« we answer today in the affirmative, if not without reservation. By 'Bauhaus' we do not mean here what is usually associated with this name i.e. a pedagogical institution or an artistic or architectural movement of the twenties. In saying that the Bauhaus is of importance today, or better, that it has regained importance we have another Bauhaus in mind, a Bauhaus which has often been proclaimed but hardly ever realised, a frustrated Bauhaus, which tried, though without success, to lay open a humanistic perspective of technical civilisation, i.e. to regard the human environment as a »concrete field of design activity«. We are thinking here of a Bauhaus which tried, also without success, to sponsor an open and progressive culture in Germany.

This is the Bauhaus which is of importance for us today. But not because the conditions are especially favourable today, on the contrary, because it has been recognised that the conditions are not favourable and indeed perhaps never were. Not because the Bauhaus is an assimilated, recognised or institutionalised tradition, on the contrary, because it is a tradition whose vigour has suddenly been re-discovered and which has unexpectedly turned out in the form of a programme yet to be realised.

Everywhere we perceive the lack of a convincing humanistic perspective of technical civilisation. Everywhere the beginnings of a new orientation towards the world are under

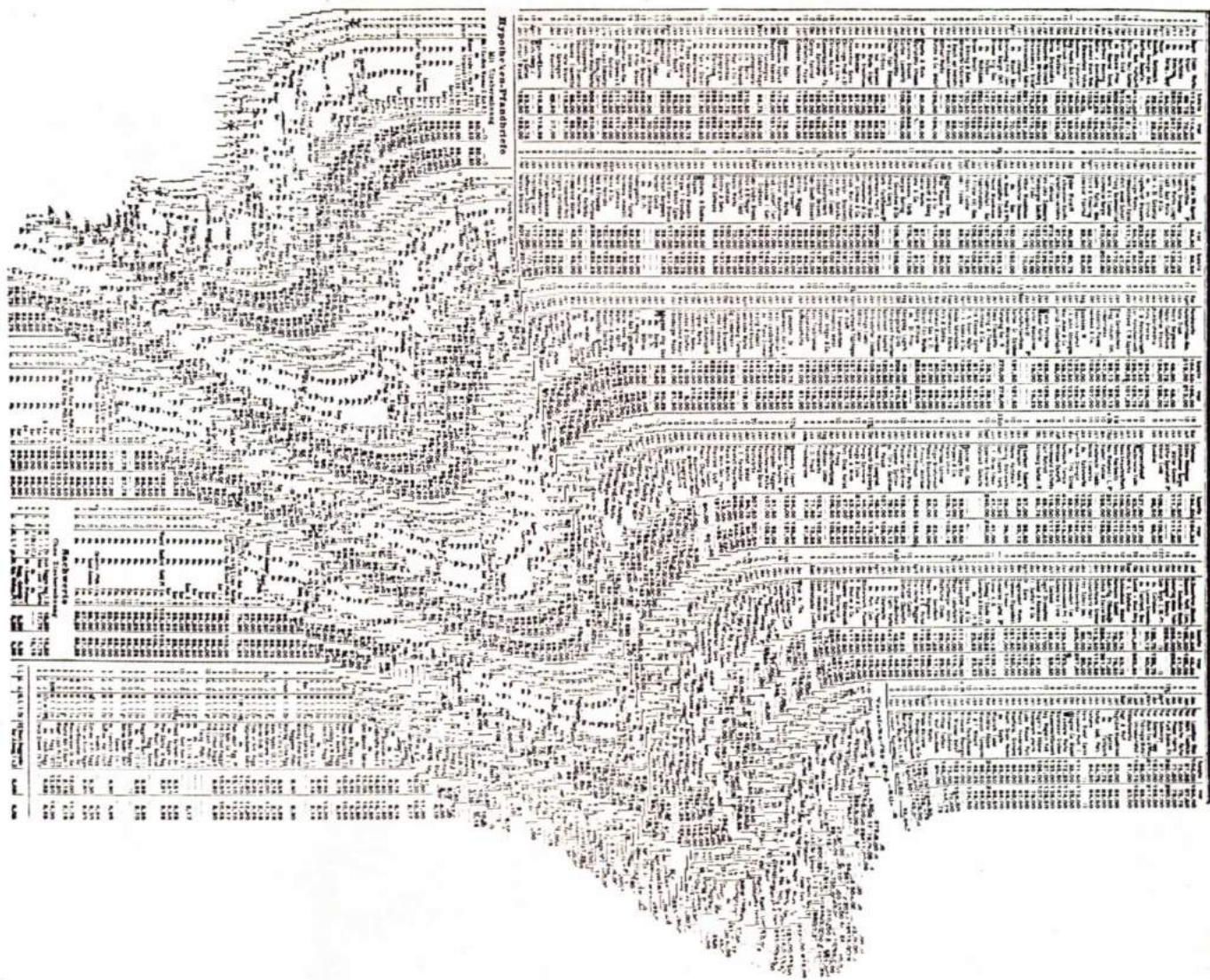
Usprkos tome moramo priznati da Bauhaus nikad još nije bio od većeg aktualnog interesa (u opisanom smislu) nego što je danas u Njemačkoj. Razočarali smo se u nadanjima da će se poslijeratna Njemačka napokon odlučiti za otvorenu i naprednu kulturu. Kampanja klevetanja protiv HfG u Ulmu dovoljno to dokazuje. Sa žaljenjem moramo konstatirati da se ona gospoda, koja su se borila protiv Bauhausa u dvadesetim godinama sve do njegova totalna uništenja (a to nisu bili jedino nacisti!), ponovo pojavljuju na pozornici. Glumci su se izmijenili, ali suština ostaje ista. Njih je lako prepoznati: pokazuju jednaku netrpeljivost arogantnih filistara koji su više nego spremni da promatraju ljude i stvari jedino očima suca, cenzora ili poreskog obveznika. Nadalje, pokazuju isto agresivno nepovjerenje prema svemu što prelazi uski horizont nacionalne, regionalne ili naprosto lokalne tradicije.

Ima li razloga za zabrinutost? Posve sigurno ima. Manje uznemiruje njihova ponovna prisutnost, jer su oni ionako uvijek bili pored nas, nego činjenica da su nedavno uspjeli ponovo osvojiti vlast i utjecaj. Manje uznemiruje to što oni kleveću napredne kulturne institucije, jer to su ionako oduvijek činili, nego što su u poziciji (kao što se pokazuje u slučaju HfG) da uvjere javnost (i organe javne vlasti) kako su dotične institucije nepoželjne.

Historija se ponavlja. Kad bi se Bauhaus iz 1923. godine mogao prenijeti s istim ljudima i istim idejama u Njemačku 1963. godine, sigurno je da bi bio napadan istim argumentima kojima je napadan Bauhaus prije 40 godina, kao i HfG Ulm prije nekoliko mjeseci. Sigurno je da će se tvrditi kako ova izjava nije istinita i aludirati na činjenicu da se negdje toliko ne njeguje tradicija Bauhausa kao ovdje u Njemačkoj. Podsjetit će nas da je Walter Gropius definitivno prihvaćen kao ličnost u galeriji heroja sadašnje njemačke kulture, zatim da se pedagoški utjecaj Bauhausa opaža u svim važnim područjima umjetnosti te u školama arhitekture i primijenjene umjetnosti u našoj zemlji, a naročito u osnovnim tečajevima, kao i da pripadnici Bauhausa zauzimaju ovdje najmoćnije položaje u kulturnom i akademskom životu. Također će nas podsjetiti da velike njemačke novine u svojim feljtonima gotovo bez prekida objavljuju članke u vezi s Bauhausom ili da objavljuju kritičke osvrtne na radove onih ljudi koji su bili nastavnici ili studenti Bauhausa u Weimaru, Dessau ili Berlinu. Međutim, ne smijemo sebi dopustiti da se zavaramo. Bauhaus biva prihvaćen samo na površan konzervativan način. Nema nikakva razumijevanja realne važnosti Bauhausa, a pogotovo ne njegove relevancije za naše današnje probleme. Konačno, nema tu ničeg osim pukog privida, odnosno pokušaja kanoniziranja Bauhausa ili, još tačnije, njegova pretvaranja u arheološku iskopinu i

serious threat. But nevertheless we must admit that the Bauhaus has never been of greater topical interest (in the above mentioned sense) than in the Germany of today. We have been disillusioned in our hope that post-war Germany would finally decide for an open and progressive culture. The defamatory campaign recently launched against the HfG sufficiently proves this fact. We must state with regret that those gentlemen who fought against the Bauhaus in the twenties until its total annihilation (and these were not only the Nazis!) re-enter the stage. The actors have changed, but the essence remains the same. They are easily recognisable: the same intolerance of the presumptuous philistine who is too ready to regard men and institutions only through the eyes of the judge, the censor or tax payer. The same aggressive mistrust against everything which extends beyond the narrow horizon of his national, regional or simply local traditions. Is there reason for concern? Yes, doubtless. It is less disturbing that they are here again — they have always been with us — than that they have recently succeeded in regaining power and influence. It is less disturbing that they defamate the progressive cultural institutions which they always have done, than that they are able (as seen in the case of the HfG) to persuade the public (and public authorities) that these institutions are undesirable.

History repeats itself. If the Bauhaus of 1923 with the same persons and with the same ideas were transplanted into the Germany of 1963, it would certainly be attacked with the same arguments which were used 40 years ago against the Bauhaus and a few months ago against the HfG. The truth of this statement will be denied, alluding to the fact that the Bauhaus tradition nowhere is so highly cultivated as here in Germany. We shall be reminded that Walter Gropius has definitely been accepted into the gallery of heroes of present-day German culture, that the pedagogic influence of the Bauhaus, especially of its preparatory course, can be seen in all important art, architecture and applied art schools of this country, that Bauhaus people occupy the most powerful positions in cultural and academic life here, that the feuilletons of the big German newspapers, almost without interruption, publish articles concerning the Bauhaus or critical appreciations of the works of those men who have been teachers or students of the Bauhaus in Weimar, Dessau or Berlin. But we must not allow ourselves to be deceived. The Bauhaus is only accepted in superficially conservative way. There is no understanding of the real importance of the Bauhaus, above all in relation to our present-day problems. After all this is no more than a mere appearance, an attempt, to canonise the Bauhaus or still better to archeologise it and to transform it into a relic only shown on festival occasions,



Početni tečaj Josefa Albersa: Studija fenomena optičkih promjena  
(prividna trodimenzionalnost) (Okolo 1928)

Foundation course of Joseph Albers: Study of optical changes  
(apparent three-dimensionality) (About 1928)



*Walter Funkat: Predvorje  
zgrade Bauhauusa sa  
dekoracijom za »zabavu  
metala« (1929)*

*Walter Funkat: Porch of  
the Bauhaus building with  
decoration for the  
"entertainment of metal"  
(1929)*

transformiranja u relikviju koja se jedino pokazuje u svečanim prilikama, u objekt divljenja koji ponekad ispunjava funkciju totema a ponekad tabua. Tako se Bauhaus potpuno uklanja s pozornice, i njegovo je umiranje odlučeno — upravo suprotno onome što je danas toliko potrebno.

Urgentno je potrebno da Njemačka uđe bez straha u historijsku konfrontaciju s Bauhausom, svojim Bauhausom: da se konfrontira uz nesmiljeno samopreispitivanje uzroka koji su triput doveli do zatvaranja te institucije između 1919. i 1933. i onemogućili da se pronađu povoljni uvjeti za nesmetani i plodonosni razvoj u toku 14 godina postojanja Bauhauusa. Potrebno je, dakle, nesmiljeno samopreispitivanje koje bi spriječilo da se ponovo jave oni isti uzroci i posljedice u Njemačkoj

Opsežno djelo o Bauhausu Hansa Marije Winglera (*»Das Bauhaus 1919—1933, Weimar, Dessau, Berlin; izdavači: Gebr. Rasch und Co, Bramsche i M. DuMont Schauberg, 1962*) vrlo je pogodno za tu svrhu. S obzirom na prijašnje knjige o istoj temi ova je originalna po tome što je prvo djelo u kojem se pokušava dati kompletna, a ne fragmentarna povijest Bauhauusa. Upravo se po tome bitno razlikuje od knjige Herberta Bayera, Waltera i Ilse Gropius (*»Bauhaus 1919—1928«, izdavač: Museum of Modern Art, New York, 1938*), u kojoj su autori nastojali dokumentirati samo jednu važnu fazu Bauhauusa. Na isti se način razlikuje i od knjige Giulija Carla Argana (*»Walter Gropius et la Bauhaus«, Giulio Einaudi editore, Torino, 1954*) koji sociološki interpretira samo porijeklo filozofije edukacije i umjetnosti Gropiusa ili Bauhauusa, i koji historijsku važnost te filozofije prikazuje u okviru *»fragile democrazia tedesca«* Vajmarske Republike. Originalnost Winglerove knjige s druge je strane u njenu svojstvu antologije dokumenata. U toj antologiji široka se javnost prvi put suočava s dokumentima, pa je prvi put kadra donijeti sud o činjenicama i idejama a ne o mišljenjima o činjenicama i idejama. Izjaviti, međutim, da je ta knjiga, od svih dosad objavljenih, najbolje dokumentirana, ne znači nužno tvrditi da je ona i uvjerljivo dokumentirana, niti to mora značiti da je treba smatrati završnom riječi o Bauhausu. Sve antologije nužno su nepotpune jer nije moguće objaviti sve postojeće dokumente. Osim toga, antologija je i subjektivno djelo jer se ne može dogoditi da izbor dokumenata ne odrazi tačku gledišta samog sastavljača. Međutim, Winglerov izbor je posebno nepotpun i subjektivan. Na sreću, neke je od najčešćih zabluda u interpretaciji djelomično ili posve korigirao. Ostale je, naprotiv, zadržao i uvećao. Evo nekoliko primjera: ličnost i rad Hannesa Meyera, koji je dosad bio potiskivan u duboku sjenu i u *»zonu šutnje«, obrađuje naoko veoma detaljno.*

to transform it into an object of adoration which sometimes fulfills the function of a totem, sometimes of a taboo. In this way the Bauhaus is completely removed from the scene and its death is decided — exactly the contrary of what is so necessary today.

It is urgently necessary for Germany to accept a fearless historical confrontation with the Bauhaus, her Bauhaus; a relentless selfexamination of those reasons which caused this institution to be closed three times between 1919 and 1933 and prevented its finding favourable conditions for unimpeded and fruitful development during the fourteen years of this existence; a relentless selfexamination which could avoid a repetition of these same causes and effects in Germany.

The comprehensive work on the Bauhaus by Hans Maria Wingler (*»Das Bauhaus 1919—1933, Weimar, Dessau, Berlin, Publishers Gebr. Rasch & Co, Bramsche, and M. DuMont Schauberg, 1962*) lends itself well to this purpose. In comparison to former books on the same subject its originality consists in being the first work which attempts to give a complete, not a fragmentary history of the Bauhaus. In this point it differs essentially from the book by Herbert Bayer, Walter and Ilse Gropius (*»Bauhaus 1919—1928. The Museum of Modern Art, New York 1938*) which sets out to document only one important phase of the Bauhaus. In the same way it differs from the book by Giulio Carlo Argan (*»Walter Gropius et la Bauhaus. Giulio Einaudi editore, Torino 1954*) which interprets sociologically the origins of the education and art philosophy of Gropius or of the Bauhaus only, and shows the historical importance of this philosophy in the frame of the *»fragile democrazia tedesca«* of the Weimar Republik. On the other hand the originality of Wingler's book consists in being an anthology of documents. In this anthology the general public is confronted for the first time with the documents themselves. For the first time it can pass judgment about the facts and ideas and not, as up to now, about opinions on facts and ideas. But to declare that this book is the best documented of all those published up to now, does not necessarily mean that it is convincingly documented, any more than it can be regarded as a definite book on the Bauhaus. Every anthology is necessarily incomplete. You cannot publish all existing documents. An anthology is also subjective. You cannot avoid that the selection reflects the point of view of the compiler. However, this selection of Wingler is especially incomplete and subjective. Some of the commonest errors of interpretation are fortunately partially or totally corrected. Others however, have been retained and even worsened. Here are some

Usprkos tim hvalevrijednim pokušajima objektivnog prikazivanja, Wingleru ne uspijeva rastrgati mrežu površnih anegdota političke i osobne naravi, koja je tako dugo sprečavala formiranje objektivnog suda o Meyerovom doprinosu Bauhausu. Štaviše, ta je mreža postala čvršća zahvaljujući tipovima dokumenata koje je odabrao za ilustraciju Meyerove misli: 1. »Govor studentskim predstavnicima« (1928), 2. »Građenje« (1928) i 3. Otvoreno pismo gradonačelniku Hesseu pod nazivom »Moje izgnanstvo iz Bauhause«. Prvi dokument vrlo je koristan za lakše razumijevanje pedagoških ciljeva Meyera dva mjeseca prije službenog preuzimanja uprave nad Bauhausom. Ali to je sve. Drugi dokument, koji je jedan od najvažnijih manifesta modernog funkcionalizma, trpi od istih nedostataka kao i svi manifesti toga doba: formulacije su apodiktične i polemične, a taj način formuliranja problema s današnjeg gledišta doživljavamo kao nedovoljno izdiferenciran, pa ponekad čak i naivan. Treći je dokument jednako toliko važan, ali u njemu zapažamo uglavnom osjećaje prevelike napetosti koji su vladali Meyerom onih dramatičnih dana ljeta 1930. Ta dva posljednja dokumenta pridonose, barem djelomično, učvršćenju predodžbe o Meyeru, a to je slika agresivnog, dogmatičnog i subjektivnog čovjeka, iracionalnog racionalista i egocentrika. Ako je ta slika tačna, tada može zanimati samo one koji su nekad imali prilike da trpe (ili ne trpe) prijateljstvo ili neprijateljstvo Meyera. Za nas koji ga nismo nikada poznavali zanimljive su jedino njegove ideje i to koliko one još danas vrijede. Autor bi našoj nepristranoj radoznalosti udovoljio da nam je pored prva tri dao i četvrti tekst s naslovom: »Bauhaus Dessau 1927—1930. Iskustva s politehničkom izobrazbom« koji je objavljen u meksičkom časopisu »Edificacion« (broj 34, srpanj-rujan 1940). U tom članku, napisanom objektivno i vedro, Meyer daje svoju verziju povijesti ideja Bauhause i svoj poseban doprinos toj povijesti. Treba žaliti što Wingler nije iskoristio sve prednosti svoje pozicije nezavisnog kroničara, pozicije čovjeka koji studira historijski fenomen u kojem nije bio primoran sudjelovati ili o njemu svjedočiti. U nekim slučajevima Wingler pokazuje predrasude za koje nema opravdanja. Iznenaduje što se priklanja jednoj strani kad interpretira Meyerov antiformalizam kao ogorčenost »čovjeka koji iz nižih klasa dolazi u novu kozmopolitsku sredinu«. To je običan animozitet i, što je još gore, posuđeni animozitet.

examples: the personality and the work of Hannes Meyer up to now condemned to a shadow existence in the »zone of silence« may seem to be treated with surprising fulness of detail. But in spite of these laudable endeavours towards objectivity, Wingler does not succeed in destroying the web of casual anecdotes of a political and personal nature, which has prevented for a long time an objective evaluation of the contribution of Meyer to the Bauhaus. Even more, this web is knit closer by the kind of documents selected to demonstrate Meyer's thought. The following papers have been published: 1) 'Address to the student representatives' (1928); 2) 'Building' (1928); 3) the open letter to Mayor Hesse 'My expulsion from the Bauhaus' (1930). The first paper is very useful in helping us to understand the pedagogical aims of Meyer two months before he officially took over the direction of the Bauhaus. But that is all. The second, one of the most important manifestoes of modern functionalism, suffers from the disadvantages of all manifestoes of that time: the formulations are apodictical and polemical; this way of formulating problems sometimes strikes our present-day view as being insufficiently differentiated, sometimes even naive. The third text is just as important. But we perceive here mainly the overcharged feelings dominating Meyer in those dramatic days of the summer 1930. The two last texts contribute, at least in part, to confirm the widespread image of Meyer: the image of an aggressive, dogmatic and subjective man, of an irrational rationalist, of an egocentric. Supposing this to be true, this fact can be of interest only for those who at various times had to suffer (or not to suffer) the friendship or enmity of Meyer. For us who never knew him, it is of interest only to learn what were his ideas and in how far some of these are valid still today. Our unbiased curiosity more easily would be content if the author had offered us, apart from the above mentioned text, a fourth one: 'Bauhaus Dessau 1927—1930. Experiences of a Polytechnical Education', published in the Mexican magazine 'Edificacion' (No. 34, July-September 1940). In this article written with objectivity and serenity Meyer offers his version of the history of the Bauhaus ideas and his special contribution to this history. It is to be regretted that Wingler has not exploited all the advantages of the position of an independent chronicler, of the enviable position of the man studying a historical phenomenon without having taken part in or witnessed it.

In some cases Wingler indeed becomes prejudiced without any justification. Surprisingly he takes sides when he interprets the antiformalism of Meyer as the resentment of a »man coming from the lower classes into the new cosmopolitan environment«. This is pure animosity, even more, borrowed animosity.

Drugi je slučaj, ne toliko ekstreman ali jednako indikativan, njegova metoda obrade jedne druge kritične tačke iz povijesti Bauhauusa — utjecaj Thea van Doesburga. Osim instruktivnog pisma Lyonela Feiningera Juliji Feininger (7. rujna 1922) Wingler nije pokušao naći nove dokumente koji bi bacili više svjetla na to sporno pitanje. To možda treba objasniti činjenicom da je Wingler oduvijek imao svoje mišljenje o tome. Tek nekoliko redaka posvećenih van Doesburgu u uvodu očito imaju poslužiti tome da prikažu kako je njegov utjecaj na Bauhaus bio neznatan. U takvoj dokumentarnoj knjizi o Bauhausu neke su teme, nasuprot općem očekivanju, manje detaljno obrađene i dokumentirane nego u drugim publikacijama koje tu temu tek usput dotiču. Tipičan je primjer knjiga »Poetica dell'architettura neoplastica« (Editrice Politecnica Tamburini, Milano, 1953) Bruna Zevija koji detaljno ocrtava utjecaj van Doesburga na Bauhaus. Informativno pismo Waltera Gropiusa u dodatku toj knjizi nedostaje npr. u Winglerovoj.

Osim toga, eventualni izravni ili neizravni utjecaj sovjetskih pokreta Wingler nije čak ni spomenuo, što ostavlja čudan dojam. Ne možemo poreći da je taj utjecaj imao glavnu ulogu u razvoju didaktike Bauhauusa zahvaljujući inicijativi Moholy-Nagya, poznatog obožavaoca radova Maljeviča, Tatlina, Rodčenka, El Lissitzkog, Gaboa i Pevsnera, osobito nakon što je Itten napustio Bauhaus. Nadalje, moramo se potužiti na suviše shematsku i nedovoljnu prezentaciju dostignuća Josefa Albersa. I to radi razjašnjenja pitanja koje je neprestano predmet rasprava: kome da se pripíše važnost didaktike Bauhauusa, tadašnje i sadašnje. Mislimo pretežno na pripremnu godinu (tzv. Vorkurs koji se sastojao od Werklehre — upoznavanja tehnike i obrade materijala, i od Formlehre — upoznavanja objektivnih zakona oblika i boja), a tu Winglerova knjiga slabo koristi. Inicijatora didaktike Bauhauusa, Ittena, Wingler precjenjuje; Moholy-Nagya kao neumornog stimulatora ocjenjuje ispravno, ali Albersa potpuno potcjenjuje. (Nije dovoljno Albersov doprinos objasniti samo pohvalom, kao na strani 498, o »historijski najplodnijim dostignućima Bauhauusa«.) Čini se da je Wingleru promaklo da je Albers preuzeo na sebe možda najteži zadatak u razvoju didaktike Bauhauusa, i briljantno ga riješio, tj. transformirao je različite i djelomično kontradiktorne komponente (pedagoški aktivizam, mistički ekspresionizam i pretjerani konstruktivizam) u sistematsku, koherentnu i operativnu nastavnu materiju. Albersova nedavno objavljena knjiga »Interaction of Color« (u izdanju Yale University Press, New Haven and London 1963)

Another case, not so extreme but not less indicative, is Wingler's method of dealing with another critical point of the Bauhaus history: the influence of Theo van Doesburg. But apart from the instructive letter of Lyonel to Julia Feininger (September 7, 1922) Wingler has made no effort to find new documents throwing light on this debated case. This is perhaps to be explained by the fact that Wingler has had always his opinion on this point. The few lines dedicated in the introduction to this subject evidently serve to make the influence of van Doesburg on the Bauhaus appear a slight one. In a book of documents on the Bauhaus some points are — contrary to general expectation — dealt with and documented in less detail than in other publications only of indirect concern for this subject matter. Typical of this is the book by Bruno Zevi 'Poetica dell' architettura neoplastica' (Editrice Politecnica Tamburini, Milano 1953) which delineates the influence of van Doesburg on the Bauhaus in detail. The informative letter of Walter Gropius in the appendix of this book or similar material are lacking in Wingler's book for instance.

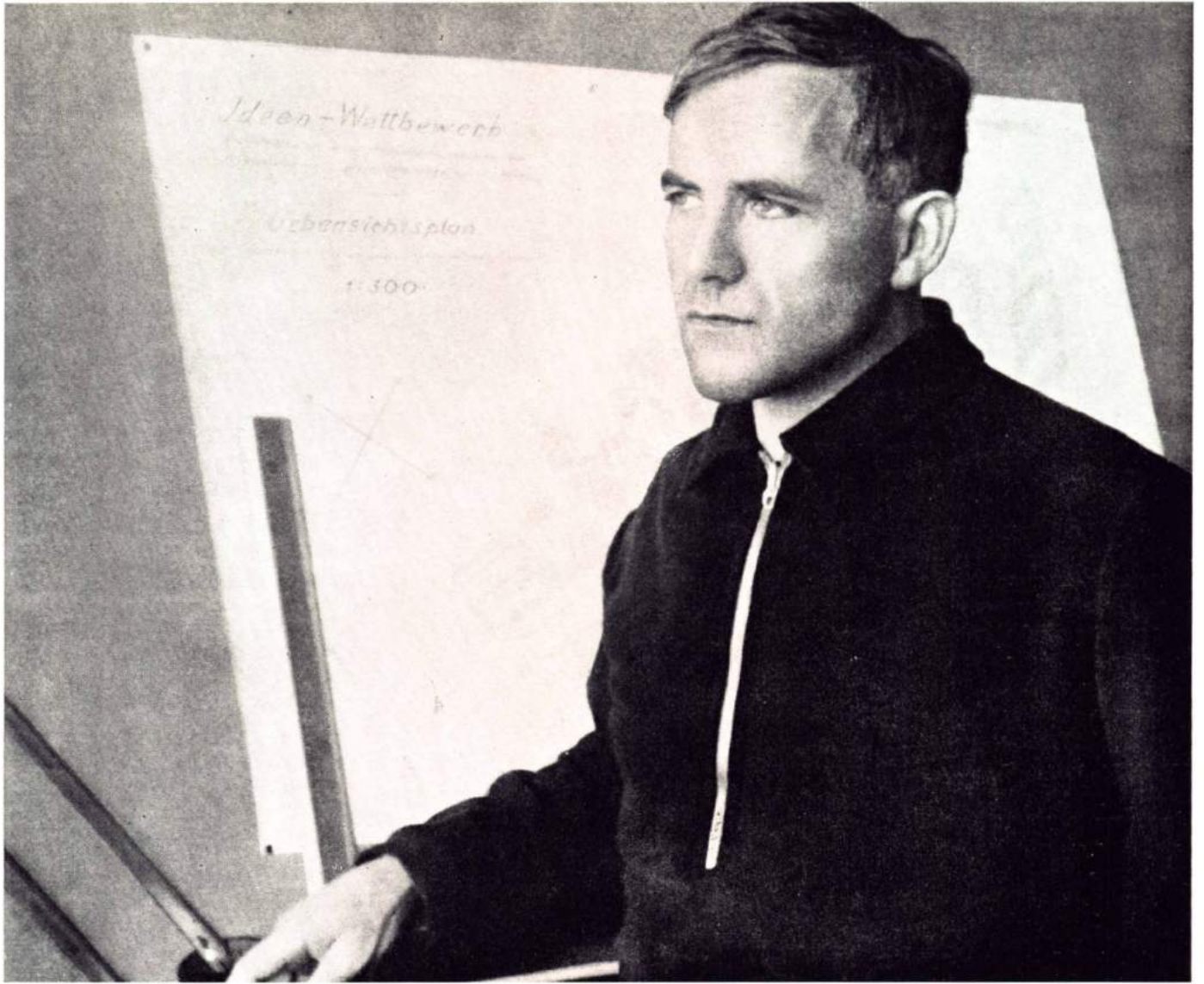
Furthermore it makes a strange impression that Wingler has not even mentioned the eventual direct or indirect influence of the Russian movements. We cannot deny that on account of the initiative of Moholy Nagy — known as an admirer of the works of Malewitsch, Tatlin, Rodschenko, El Lissitzky, Gabo and Pevsner, this influence assumed a leading role in the development of the Bauhaus didactics, especially after Itten had left the Bauhaus. Besides this we must complain about the overschematic and insufficient presentation of the achievements of Josef Albers. As a clarification of the again and again debated question of to whom the importance of the Bauhaus didactics of that time and of today must be ascribed — we are speaking here mainly of the preparatory course (practical and formal education) — the book of Wingler is of little help. Itten, as initiator of the Bauhaus didactics, is overestimated by Wingler, Moholy Nagy, as indefatigable stimulator, is evaluated correctly, but Albers is completely underestimated. (One cannot do justice to Albers' contribution with a mere laudatory mention (as on p. 498) of the »historically most fruitful achievements of the Bauhaus«.) Wingler seems to have overlooked the fact that Albers took upon himself perhaps the most difficult task in the development of the Bauhaus didactics, a task, which he solved brilliantly, i.e. he transformed the different and partly contradictory components (pedagogical activism, mystical expressionism and exaggerated constructivism) into a systematic, coherent and operable subject of teaching. The recently published book by Albers 'Interaction of Color' (Yale University Press, New Haven and London 1963) shows only

pokazuje kako visoko treba ocijeniti tu aktivnost, iako se ograničuje na samo jedno specijalizirano područje, područje boja.

Možemo se nadati da će ti malobrojni premda ozbiljni nedostaci biti uklonjeni iz budućih publikacija Winglera i drugih autora. Jedan dio njegove knjige ipak treba smatrati uspješnim. To je dio u kojem se prikazuje zla sreća Bauhausa izložena u političkom, društvenom i ekonomskom kontekstu. Iz materijala se jasno vidi do koje je mjere sudbina Bauhausa od početka bila povezana sa sudbinom demokracije u Njemačkoj. Povijest Bauhausa drama je u tri čina kao i povijest Njemačke od potpisivanja versajskog ugovora pa do imenovanja Hitlera za državnog kancelara. Paralelizam iznenađuje. Teško je oteti se iskušenju da se utvrde uzročne veze između oba toka događaja. Tri faze Bauhausa bile su: od 1919—1924/25. u Weimaru, Gropiusova era — zakašnjela ekspresionistička nada i njen konflikt s racionalizmom u porastu; od 1925—1930. u Dessauu era Gropiusa i Meyera, tj. era racionalističke nade i njen sukob s ostacima prethodne faze; od 1930—1933. u Dessauu i Berlinu era Miesa van der Rohea odnosno era samootuđene racionalističke nade i njenog sukoba s iracionalizmom u porastu. Tri faze njemačke historije bile su: od 1919—1924. neredi, nezaposlenost i politička umorstva; od 1925—1929/30. doba varljivog prosperiteta Dawesova plana uz međunarodne kredite i tehničku racionalizaciju, a od 1930—1933. ponovo neredi, nezaposlenost i politička umorstva. Međutim, Bauhaus se nije ograničio na to da odrazi pad i uspon svijeta; više od toga, on je pokušao taj svijet preobraziti. Kad su ljudi namjeravali ovjekovječiti nered, Bauhaus je inzistirao na redu (Gropius). Kad su kasnije ljudi pokušavali ovjekovječiti opresivni i nestabilni red tehničkog racionalizma, Bauhaus je tvrdio da toj racionalizaciji može pružiti društveni sadržaj (Meyer). Bauhaus se uvijek kretao u suprotnom pravcu jer se kretao prema budućnosti. To je bio uzrok mržnji prema Bauhausu. Wingler je uspio potražiti, pronaći i odabrati dokumente koji pokazuju opseg i žestinu te mržnje. To su podjednako dokumenti i o Bauhausu i o suvremenoj Njemačkoj. U članku pod naslovom »Javna opskrba smećem — državna institucija Bauhaus u Weimaru« gospodin K. Nonn piše: »Rad Bauhausa pokazuje znakove krajnje mentalne bolesti i truleži« (24. travnja 1924). Sakupljeni su i dokumenti o prvim reakcijama članova Bauhausa koji pokazuju utučenu i povrijeđenu svijest što i dalje protestira postidjena zbog brutalnosti i gluposti društvene sredine. Mogli bismo citirati riječi Gropiusa iz njegova pisma general-lajtnantu Hassee, vojnom

within the limits of one special field, the field of color, how highly these activities stretching over many years are to be evaluated.

We may hope, that these few although serious shortcomings will be avoided in future publications by Wingler or others. One part of the book however is to be regarded as successful. This is the part representing the misfortune the Bauhaus was exposed to in political, social and economic context. The material shows clearly how far the fate of the Bauhaus from the beginning was connected with the fate of democracy in Germany. The history of the Bauhaus is a drama in three acts just as the history of Germany from the signing of the Versailles-Treaty to the nomination of Hitler as chancellor of the Reich, was a drama in three acts. The parallelism is surprising. It is difficult to resist the temptation to establish a causal relationship between both developments. The three phases of the Bauhaus were: 1919—1924/25, Weimar, the Gropius era, the retarded expressionistic hope and its conflict with the rising rationalism. 1925—1930, Dessau, the Gropius and Meyer era, the rationalistic hope and its conflict with the remainders of the preceding phase. 1930—1933, Dessau/Berlin, the Mies van der Rohe era, the rationalistic self-alienated hope and its conflict with the rising irrationalism. The three phases of the history of Germany were: 1919—1924, the disorder, the unemployment and the political murder, 1925—1929/30, the deceptive prosperity of the Dawes-Plan, of the international credits and of the technical rationalisation, 1930—1933, disorder again, the unemployment and the political murder. But the Bauhaus did not restrict itself to a reflection of the ups and downs of the world; more than this it tried to transform this world. When people intended to perpetuate disorder, the Bauhaus insisted on order (Gropius). When later on people tried to perpetuate the oppressive and unsteady order of technical rationalisation, the Bauhaus claimed to provide this rationalisation with a social content (Meyer). The Bauhaus moved always in the opposite direction because it moved towards the reason for the hatred against the Bauhaus. Wingler has managed to search, to find and to select those documents exemplifying the extent and the ferocity of this hatred. Documents of the Bauhaus, but likewise of the Germany of that time. »The Bauhaus work shows the signs of extreme mental remoteness and decay«, wrote M. K. Nonn in an article entitled 'Public supply of rubbish. The public Bauhaus at Weimar' (April 24, 1924). Documents too, about the first reactions of the Bauhaus members which show the beaten and wounded consciousness still protesting, ashamed of the brutality and the stupidity of the social environment. We may quote the words of Gropius in his letter to the



*Hannes Meyer, direktor Bauhausa u Dessau (Oko 1928)*

*Hannes Meyer, director of the Bauhaus at Dessau (About 1928)*



*Berlin 1933. Odredi SA na Hitlerov rodendan  
kod Brandenbuških vrata*

*Berlin 1933. SA detachments on the celebration  
of Hitler's birthday near the Brandenburg  
gate*

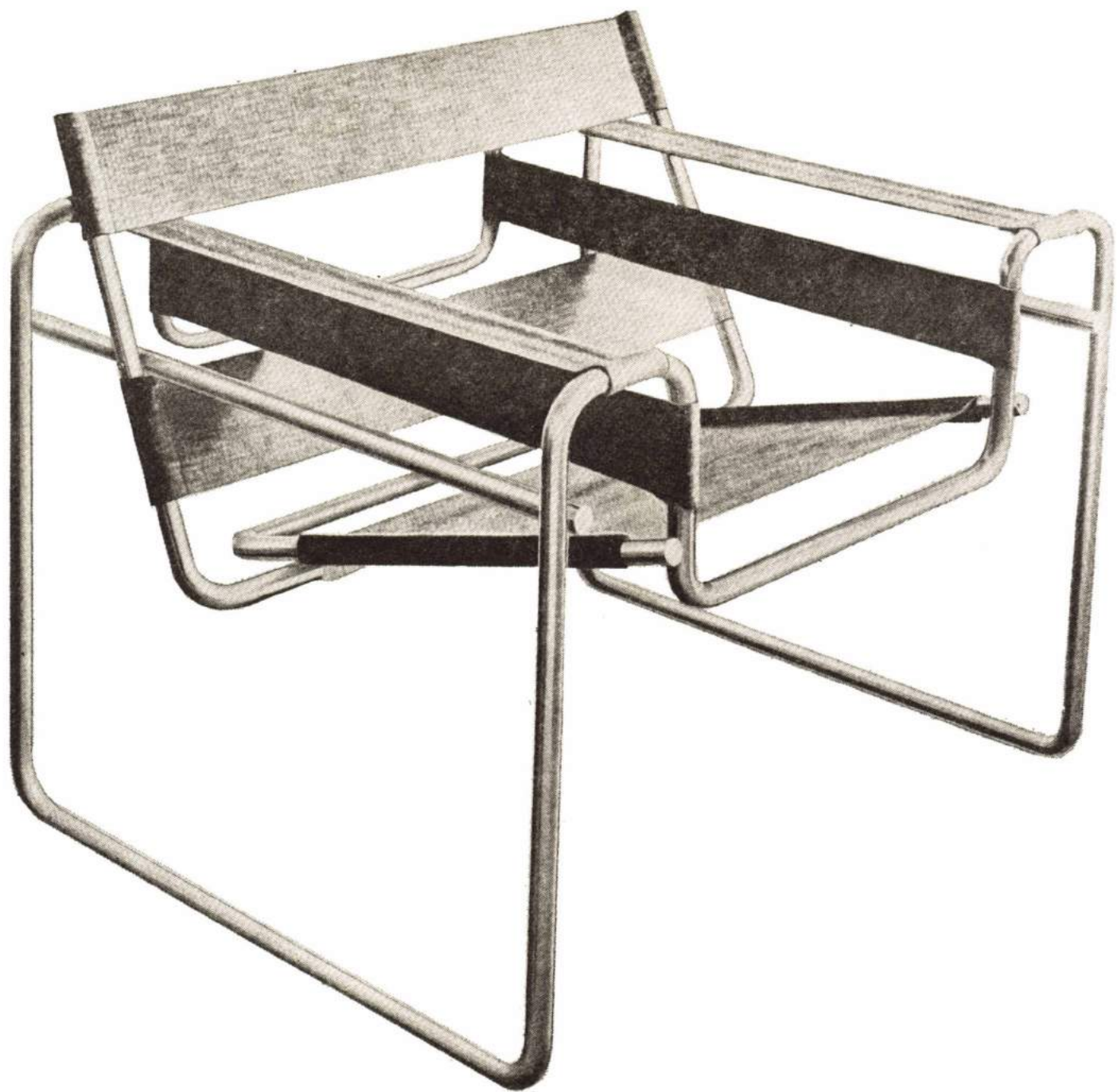


*Berlin 1933. Požar Reichstaga (28. II)*

*Fire of the Reichstag, february the 28th*

komandantu Turingije, koje je napisao u povodu premetačine izvršene u njegovoj kući radi pronalaženja subverzivnog materijala: »... Stidim se za svoju zemlju, Vaša Ekscelencijo, što sam usprkos svojim uspjesima u vlastitoj zemlji relativno nezaštićen...« (6. studenog 1923). U kasnijim dokumentima svijest članova Bauhauusa više ne protestira nego se tek pribire u rezignaciji. Sjetimo se riječi Meyera iz njegova pisma gradonačelniku Hesseu (16. kolovoza 1930): »Ja vidim kroza sve to, ali ništa ne razumijem.«

Generallieutenant Hasse, military commander of Thuringia, after a search of his home for subversive material: »... I am ashamed for my country, Your Excellence, that I am apparently unprotected in my own country in spite of my achievements...« (November 24, 1923). And later, documents in which the consciousness is no longer protesting, but only recollecting itself in resignation. Let us remember the words of Meyer in his letter to Mayor Hesse (August 16, 1930): »I see through it all, but understand nothing.«



*Marcel Breuer, stolica*

*Marcel Breuer, chair*



*tomas maldonado*

kako se boriti protiv  
samozadovoljstva  
u izobrazbi dizajnera

*tomas maldonado*

how to fight  
complacency  
in design education



Dok su dizajn slavili kao umjetnost u službi industrije, tj. kao aktivnost koja ima za cilj uljepšavanje industrijski proizvedenih predmeta, izobrazba dizajnera bila je, kako je 1837. definirao. B. R. Haydon, stručno obrazovanje za »najniže grane umjetnosti«. Ta tipično viktorijanska koncepcija dizajna iz različitih razloga više nije relevantna. Riječ je, međutim, ne samo o koncepciji nego prije svega o pedagoškom sistemu. Bila je to specifična akademska struktura u kojoj se ta koncepcija održavala. Za sadašnju krizu u edukaciji dizajna možemo zahvaliti tome što je viktorijanski pedagoški sistem nadživio viktorijansku koncepciju. Doktrina je propala, ali strukture su ostale, a dosad ih ništa nije uspjelo slomiti, te one u biti ostaju neokrnjene.

Dva važna eksperimenta dvadesetih godina, Bauhaus u Njemačkoj i Vhutemas u SSSR-u, nisu ni sami uspjeli da se oslobode institucionalnih relikvija 19. stoljeća. Revolucionarni doprinos Bauhauusa treba potražiti u ideji izobrazbe dizajnera, a posebno u ideji koju su postavili Gropius i Hannes Meyer, kao i u didaktici osnovnog kursa, u ovom posljednjem osobito kako su ga razvili Albers i Moholy-Nagy. Revolucionarni doprinos ne treba tražiti u akademskim strukturama, jer je u tom pogledu Bauhaus bio relativno konzervativna škola, a isto se može kazati za Vhutemas. Trojica istaknutih iz te škole: Altmann, Tatlin i Maljevič zahtijevali su radikalnu promjenu u postojećim akademskim strukturama, a reformu su nazvali »čišćenje augijskih staja«. Te su promjene ipak završile anarhijom u starim strukturama. Kao što se može očekivati, nije trebalo dugo čekati na reakciju protiv reforme. Tako je uskoro sve opet vraćeno na stari kolosijek, tj., nađena je sigurnost u udobnosti »augijskih staja«. Sigurno je da bi nama, iz naše današnje perspektive, bilo lako uputiti prigovore i na račun Bauhauusa i Vhutemasa zbog njihova konzervativizma, ali to ne bi bilo pošteno. Zaista je očigledno da te škole nikako nisu mogle biti prije 40 godina svjesne onoga što mi tek sada počinjemo uvidati — da nije moguće otvoriti novi put edukaciji dizajna bez revizije njenih akademskih struktura. Drugim riječima, novi put ne može se otvoriti sve dok se ne dogodi jedini i konačni sukob kojim bi se »očistile augijske staje.«

Ipak, treba unaprijed upozoriti na suprotnu opasnost. Ako je tačno da je odlična filozofija edukacije dizajna osuđena na neuspjeh ako ne nastupi odgovarajuća strukturalna promjena, isto je tako tačno da nikakva strukturalna promjena nije izvediva bez odlične filozofije dizajna. Sadašnje statičko stanje škola dizajna i u Americi i u Evropi može se objasniti institucionalnim konformizmom. Isto toliko može se ono

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 typically 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 Vhutemas 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 Vhutemas. The first men of this school — Altmann, Tatlin and Malewitsch — 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 Vhutemas for their conservation, 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.«

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

objasniti i činjenicom da je nova filozofija edukacije dizajna, koja se pojavila posljednjih godina, tj. ideja škole dizajna okoline, još uvijek slaba.

Ta filozofija još je u ranoj fazi razvitka jer je ideja dizajna okoline, koja joj služi kao baza, također u ranoj fazi razvitka. Mnogi i danas vjeruju da je dizajn okoline samo novi naziv, i rafiniraniji naziv, za sveobuhvatni i totalni dizajn. Vjeruju da je to novo ime za staru ideju dizajna kao skupa formalnih oblika koje treba primijeniti na najraznovrsnije predmete »od žlice za kavu do velegrada«, kako se nekoć govorilo.

Postoje, dakako, ažurniji načini shvaćanja dizajna okoline, osobito u SAD gdje su dani dragocjeni teoretski doprinosi novoj ideji dizajna okoline. Moram priznati da po mom mišljenju, usprkos tim doprinosima, a ponekad baš zbog njih, ideja dizajna okoline nije postala nimalo jasnijom. Stoga je najhitniji zadatak, koji ima prioritet pred svim ostalima na tom području, pokušaj razjašnjenja ideje dizajna okoline i oslobađanje od sadašnjih dvosmislenosti i proturječja. Jedino to omogućuje nam da formuliramo dosljednu filozofiju edukacije dizajna, a tek pošto se to ostvari, moći ćemo tačno znati kakve su nam promjene u strukturi potrebne. Imajući na umu taj cilj pokušat ću obratiti pažnju, iako po nuždi površnu, ideji dizajna okoline.

U posljednje tri godine zapala je u krizu jedna od iluzija koju je establishment dizajna najviše gajio: počela se javljati sumnja mora li suma dobro dizajniranih objekata nužno dati i dobar dizajn okoline. Zapravo, sve dosad se uvijek pretpostavljalo da mogućnost kontrole nad sadašnjim procesom deterioracije (kvarenja) ljudske okoline ovisi isključivo o onome što čovjek može učiniti sa svakim objektom ponaosob. Čini se da je ta pretpostavka bila lažna. Ekolozi su dali mnogo suptilniju i izdiferenciraniju verziju strukture ljudske okoline. Naš je habitat otvoreni sistem čije komponente nisu naprosto »proizvodi ljudskih ruku« niti su naprosto »stvari«. Ideja koju su formulirali R. E. Park i drugi sociolozi urbanizacije sa Harvardskog sveučilišta, da je biotički ili subsocijalni okvir osnovni faktor koji strukturira ljudsku okolinu, već se smatra pretjeranom simplifikacijom. Činjenica je da postoje ne samo »neživi agensi okoline« već i »živi agensi okoline«, a isto tako da postoji ne samo

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 stages, because the idea of environmental design, which serves it as the foundation, is also in its early stages. 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 a 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 a 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 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

materijalna okolina nego i okolina ponašanja. K. Lewin i F. Heider istakli su koliko snažno ta dva tipa agensa utječu jedan na drugi i koliko su počeli ovisti jedan o drugome. Heider je, slijedeći stavove Brunswicka, dokazao kako je lažno odvajanje »percepcije stvari« od »percepcije osoba«.

Čovjekova okolina sastoji se i od predmeta i od osoba kao i od događaja. Među ljudima postoje konflikti. Konflikti postoje i među predmetima, a što je još čudnije, konflikti među predmetima vrlo su često odraz konflikata među ljudima. Odnos »svidanje-nesvidanje«, koji ljudi pokazuju prema predmetima, nešto je više od pukog odraza odnosa »svidanje-nesvidanje« među ljudima. Shvaćanje čovjekove okoline isključivo kao problema »mrtvih varijabli« jest »problem sa samo jednim igračem« kako je kazao O. K. Moore, to je problem tipa Robinson Crusoe. Brojni dizajneri zauzeli su upravo taj stav i još ga se pridržavaju. Oni u najboljoj vjeri u istinitost svoje tvrdnje kažu da svijet odmah postaje boljim čim se poboljšaju predmeti u svijetu.

Ta tvrdnja ostaje nedokazana. Nije istina da su loše oblikovani predmeti jedini uzrok erozije naše okoline. Vrstama pojedinačnog i kolektivnog ponašanja, koje danas prevladavaju u suvremenom društvu, može se pridati barem jednaki dio krivice, ako ne i veći. U svijetu, u kojem caruju nasilje, sadizam, agresija, predrasude, rasipanje, vulgarnost, cinizam i razmetanje, dizajn okoline može za vrlo kratko vrijeme postati farsa ili posve utopistička razonoda. Da se ta opasnost izbjegne, dizajn okoline morao bi se ubuduće baviti ne samo »mrtvim varijablama« nego i »živim varijablama«. Prije pola stoljeća Patrick Geddes već je bio predvidio izlaz: »čovjeka i okolinu treba zajedno poboljšavati«. Do toga, međutim, još nije došlo. Svaki dan jača tendencija vjerovanja u poboljšanje čovjeka neovisno o njegovoj okolini, i u poboljšavanje okoline neovisno o čovjeku.

To naročito dolazi do izražaja u svjetlu današnjih argumenata koji se iznose u prilog apsolutne kibernetizacije čovjekove okoline. S. Chermayeff i C. Alexander ističu, iako ne bez rezerve, da bi i podmornica na atomski pogon i svemirski brod mogli služiti kao modeli »svestrano funkcionirajućeg okvira za ekološku ravnotežu«. Mora se priznati da je ideja privlačna, ali je ne možemo olako prihvatiti kao opravdanu, jer ostavlja nepoznatima suviše brojne i važne varijable. Štaviše, mnogi su učenjaci izrazili sumnje o shemama te vrste. Sigurno je da je čovjekova sposobnost adaptiranja velika, ali nije beskonačna.

much these two types of agents mutually influence one another, and how much they come to depend on each other. Heider, following in Brunswick'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 by 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 the 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, this attitude. With apparent good faith, they affirm that the world is improved by just improving the objects of the world.

Nevertheless, this remains unproved. It is not true that the 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 man 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 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«. 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.

Švicarski biolog A. Portmann podsjetio je ne tako davno da specifični ljudski medij, s biološkog gledišta, nije mikrokozmos već makrokozmos, koji je sigurno njegov »oikos«, njegov dom. Iz filogenetskih i ontogenetskih razloga čovjek je osuđen da ostane u mediokozmosu a povremeno može činiti izlete u makrokozmos, ali dok to čini mora sa sobom ponijeti umjetni mediokozmos.

Ideja o postepenom pretvaranju čitave planete u umjetni mediokozmos možda će se pokazati, prije nego što mislimo, tehnički moguća. Pa čak i tada moramo priznati da ne možemo znati hoće li čovjek, kad bude prisiljen neprekidno živjeti u tom umjetnom mediokozmosu, moći tako preživjeti a da ne postane žrtvom ozbiljnog procesa degeneracije živčanog, osjetilnog i motoričkog sistema ili homeostatskog sistema.

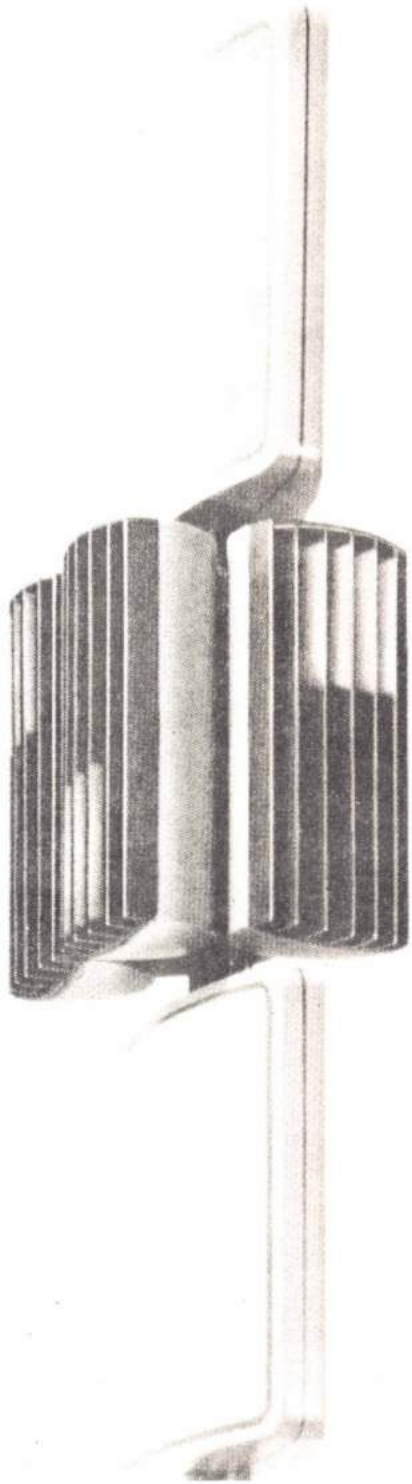
Ponekad se rađa sumnja da se iza svih tih spekulacija o ljudskom habitatu skriva stanovit tehnokratski eskapizam. Čini se zapravo da se tim izbjegavanjem uzmiče pred konfrontacijom s najtežim i najurgentnijim od svih zadataka, zadatkom koncipiranja, već ovog momenta, jednog novog tipa mediokozmosa u kojem bi se mogao optimalizirati ne samo sistem objekata nego i sistem čovjeka. Ali, kada se god namjerava optimalizirati čovjekova okolina, nailazimo na pitanje kakvom krajnjem cilju treba težiti.

U bliskoj će budućnosti i nauka i tehnologija radikalno izmijeniti strukturu čovjekove okoline. Ta nova čovjekova okolina, tako nam kažu, donijet će sa sobom čovjeku novo življenje. Pojave posthistorijskog čovjeka, postpismenog čovjeka i postpolitičkog čovjeka već se najavljuju. Neki autori proriču kako će cijela ta transformacija biti usmjerena isključivo prema pozitivnome, a drugi predviđaju da će sve ići prema najgorem. Meni se čini da su argumenti onih koji proriču najgore uvjerljiviji nego argumenti onih koji tako spremno pozdravljaju najbolje. Činjenica je da sada najgore ima veće izgleda da se ostvari nego najbolje. Ako ipak nekakvi izgledi za najbolje postoje, moramo im obratiti pažnju pa ma koliko bili mali i ma koliko se njihovo ostvarenje činilo malo vjerojatnim. Dužnost nam je da istražimo postoje li realne mogućnosti za ono što je L. Mumford nazvao »čudom«, ukratko, hoće li nastupiti nagla i neočekivana promjena koja će omogućiti da izbjegnemo nastup svijeta negacije čovjeka.

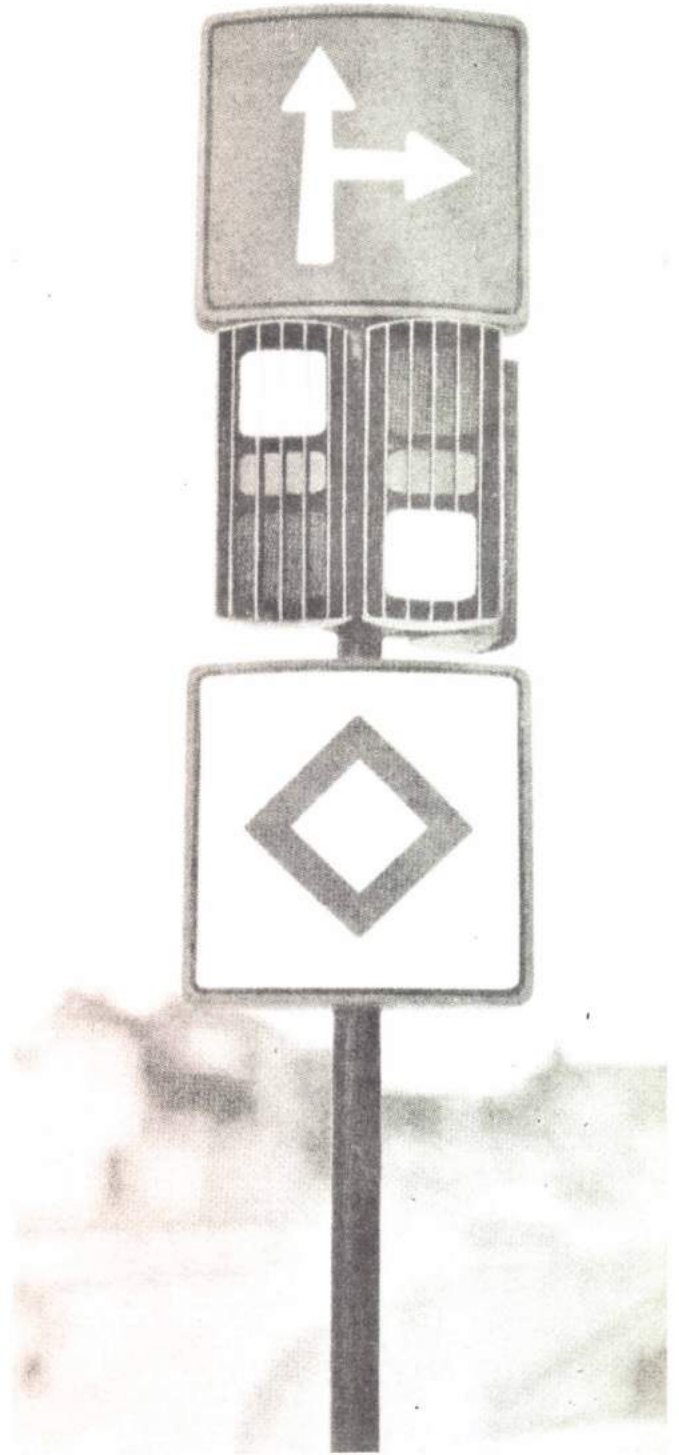
A. Portmann, the Swiss biologist, reminded us not so long ago, that the specific human medium — biologically speaking — is neither the microcosmos nor the macrocosmos but the mediocosmos. This is unquestionably his »oikos«, his home. For phylogenetic and ontogenetic reasons, man is condemned to stay 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.

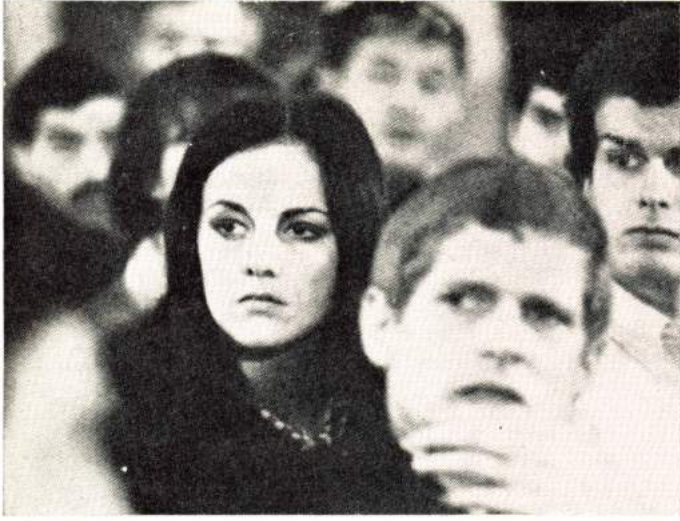
In the near future, both science and technology will radically change the structure of human environment. This new human environment, so we are told, will bring about a new human condition. The advent of the post-historic man, of the post-literate man, of the post-political man is announced. In this 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 for the present, the worst has more chances of success than the best. While 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.



*R. Schaerer, student: Prometni signali (1965—1966)*



*R. Schaerer, student: Traffic Sign Equipment (1965—1966)*



*Studenti HfG*

*Students of the HfG*

To čudo bilo bi sasvim specifične prirode. Ono ne bi bilo rezultat neke natprirodne intervencije, već prije rezultat naše vlastite intervencije. Mi smo sada obvezani da stvorimo to čudo, da provedemo program koji je A. Comte sarkastično i bezbožno definirao kao »planiranje božje milosti«. Budući razvoj svijeta očito će ovisiti o našoj akciji, ali i o stupnju efikasnosti naše akcije. Pa i pojam se efikasnosti revidira. U prošlosti se efikasnim ponašanjem smatralo ponašanje usmjereno samo jednom cilju, a zadatak se sastojao pretežno u otkrivanju jednostavnosti iza kompleksnosti. U naše vrijeme efikasno ponašanje teži da postane ponašanjem usmjerenim prema mnogo ciljeva, a pri tom se zadatak sastoji u otkrivanju kompleksnosti iza maske jednostavnosti. Efikasno ponašanje više ne djeluje »redukcijom« već »diferencijacijom«.

Mumfordovo čudo može se postići jedino pomoću toga novog načina mišljenja i djelovanja. Drugim riječima, pruža nam se mogućnost da jedino pomoću novog načina mišljenja i djelovanja ostvarimo — i teoretski i praktički — kreativni odnos koji postoji između svijeta negacije čovjeka i njegove suprotnosti — svijeta čovjekove afirmacije.

Apsolutna kibernetizacija svih procesa proizvodnje, distribucije, administracije i komunikacija sigurno će implicirati kraj vladavine nužde. Tehnologija, proizvod nužde, sigurno će postati transhumana aktivnost. Kao što su već bili najavljeni posthistorijski, postpismeni i postpolitički čovjek, dopustite mi da predskazem dolazak posttehničkog čovjeka. Nauka će još jednom obratiti svoju pažnju čovjeku i njegovoj sudbini.

Sve to, naravno, pripada budućem svijetu u kojem još možemo, premda uz teškoće, razlikovati elemente utopije od onih koji se mogu naučno verificirati. Međutim, trenutno i do daljnega živimo u svijetu nužde. Taj svijet više nije monolitan. Dok se u nekim zemljama prisila koju vrši nužda ublažuje, u drugima teži jačanju. Kao što se moglo predvidjeti, takav kontrast pobudio je živu svijest o nuždi u siromašnijih nacija. Rezultat je, kao i uvijek, bilo nasilje. Nužda udružena sa svijesti uvijek je eksplozivna. Suočeni s tim uznemirujućim stanjem stvari neki vjeruju da je jedina mogućnost obračuna s nasiljem — nasilje. Drugim riječima, smatraju da nasilje nužde treba ukinuti nuždom nasilja. Tako se, dok diskrecija i nadalje ostaje bolji dio časnog ponašanja, moraju pronaći drugi načini.

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 too. In the past, efficient behaviour was a onepurposed behaviour. The task consisted mainly in discovering the simplicity behind the complexity. In our days, efficient behaviour tends to become a many-purposed behaviour, and the task consists in 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 be easily 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.

Buckminster Fuller nedavno nas je uvjeravao da, potencijalno, na zemlji postoji sve za svakoga, i da bi revolucija dizajna ili, tačnije, revolucija pomoću dizajna mogla naš svijet preobraziti u raj. Ako zanemarimo pretjerani optimizam koji ta ideja uključuje, vjerujem da nam ona otvara neke posve nove vidike u razmatranju naše teme.

Osobno nisam nesprijetan prihvatiti ideju revolucije dizajna, odnosno, tačnije, revolucije pomoću dizajna. Ograđujem se time što ona ne bi morala biti rezultat mobilizacije tehničke imaginacije nego i sociološke imaginacije kako ju je opisao C. Wright Mills.

Dosad sam pokušao iznijeti, nužno u grubim crtama i ograničeno, neke od tačaka za koje smatram da su još ranjive u današnjoj koncepciji dizajna okoline. Ni u kom slučaju nije mi bila namjera da predložim rješenja problema o kojima sam govorio, već prije da stvorim svijest o njihovu postojanju i velikoj kompleksnosti i raznolikosti varijabli. Pokušao sam dokazati kako čovjekovu okolinu treba shvatiti kao sistem sastavljen od podistema, i da između tih podistema postoji uska međuzavisnost. Istakao sam koje sve opasnosti proizlaze iz ignoriranja te činjenice. Stoga su moje kritike usmjerene protiv sadašnjeg partikularizma i protiv raširene tendencije odavanja velikih počasti nekim podsystemima uz istovremeno stavljanje tabua na ostale. Vjerujem da sam čineći to poduzeo efikasan, ako ne i odlučan korak prema stvaranju nove filozofije edukacije dizajna. Također se nadam da se ideja škole dizajna okoline može koherentnije definirati pomoću ove analize i preciznije postaviti unutar općeg sistema edukacije.

Škola dizajna okoline treba, po mom mišljenju, da obuhvati sva područja aktivnosti koja mogu osmisлити i strukturirati čovjekovu okolinu.

To nas može podsjetiti na D'Alembertov enciklopedijski san, san o ujedinjenju svega znanja iz jedne tačke gledišta i sredenog po jednoj namjeri. Sličnost je, ipak, tek prividna. Nastavni program za školu kakvu zamišljamo ne sastoji se u dodavanju disciplina raštrkanih po katedrama već u artikulaciji tema oko kojih bi se takve discipline mogle grupirati. Ako dobro razmislimo o programiranoj nastavi, ona je postala vrijednim instrumentom koji stoji na raspolaganju za realizaciju ideje interdisciplinarnosti. Jer dok je

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 to 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 in 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

konvencionalna izobrazba zahtijevala razdiobu predmeta po katedrama, dotle programirana nastava omogućuje oslobađanje disciplina od katedri.

Zato je sada moguće koncipirati izvanredno suptilne, adaptabilne i transparentne pedagoške strukture. Ali, da bi se to postiglo, nužno je imati hrabrosti i istrijebiti ne samo pojam katedre kao zatvorene i iskristalizirane realnosti već i tradicionalne katedre kako one postoje u većini škola dizajna. Katedre koje poznajemo: arhitekture, dizajna interijera, dizajna proizvoda, tekstila, namještaja, planiranja gradova, grafičkog dizajna, mode, komercijalne umjetnosti, stakla, keramike, srebra, fotografije itd. rezultat su nepromišljenog superponiranja filozofija umjetnosti, primijenjene umjetnosti i Bauhauusa. One su jedna od najsmješnijih nedosljednosti koje je ikada registrirala povijest edukacije. Da to uvidimo, moramo se sjetiti logičke rafiniranosti krupnih srednjovjekovnih edukacionih struktura ili vibrantne rigoroznosti Komenijeve Pansofije iz 17. stoljeća.

U narednim godinama područje izobrazbe dizajna morat će se dosljednije organizirati. Dopuštajući da moj prijedlog možda nema trajnu vrijednost, škola dizajna okoline kako je ja zamišljam trebalo bi da bude podijeljena na dva glavna sektora: sektor dizajna materijalne okoline i sektor dizajna okoline ponašanja. Prvi sektor bavio bi se onim što ću radi kratkoće nazvati trima skalama fizičke okoline: skalom gradske ili urbane okoline, skalom okoline građenja i izgrađene okoline i skalom okoline dizajna opreme ili dizajna proizvoda. Teme kojima bi se bavio sektor dizajna okoline ponašanja uglavnom bi odgovarao području dizajna komunikacija.

Ni sektori ni podsektori ne bi nosili karakteristike katedri, a transakcioni odnosi između jednog sektora i ostalih kao i između jednog podsektora i ostalih odvijali bi se kontinuirano. Implikacija je tog sistema da je škola dizajna okoline autonomna ali ne autarhična niti sama sebi dovoljna. Interdisciplinarna priroda interne strukture treba da bude rezultat interdisciplinarne prirode opće strukture edukacije u koju je uključena. Idealno mjesto školi dizajna okoline bilo bi na pola puta između škola prirodnih znanosti i škola znanosti ponašanja.

hand conventional instruction required departmentalization, on the other hand, programmed instruction enables de-departmentalization.

It is now possible to conceive extremely subtle, adaptable and transparent pedagogic structures. But to achieve this, it will be necessary to have the courage of eradicating not only the idea of the department as a closed and crystallized reality, but also 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 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 or 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 interdisciplinarian nature of its internal structure should be the outcome of the interdisciplinarian 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.

Ovdje bih citirao jednog istaknutog Amerikanca kojemu se osobito divim. Mislim na Charlesa S. Piercea, legendarnog prognanika iz Milforda, pokajnog oca pragmatizma i »Vulkana« kako ga je nazvao Bertrand Russel. Njegovi kolosalni filozofski i naučni radovi, koje je koncipirao u toku druge polovice 19. stoljeća i u početku ovoga, ostali su i danas neiscrpnim izvorom novih ideja. Pierceove slutnje, koje je izrazio u vezi s najrazličitijim područjima, smatraju se čak i sada fasciniranim i smjelim, u današnje vrijeme kada se više ništa ne smatra dovoljno fasciniranim ili smjelim. Jedno je od tih područja filozofija edukacije. To je bez sumnje igra sudbine, jer je Pierce, iz razloga koji još nisu razjašnjeni, bio prisiljen da napusti sveučilište. On je uspio koncipirati sveučilište koje nadmašuje sveučilište i koncipirati edukaciju koja nadmašuje postojeće obrazovno-odgojne institucije.

God. 1882. pisao je: »Ovo je doba metoda, te sveučilište koje mora biti eksponent životnih uvjeta ljudskoga uma mora biti sveučilište metoda. Priznajem vam da kazati kako je ovo doba razvoj novih metoda istraživanja nije ni približno isto što i kazati da je ovo doba teorije metoda, i da to gotovo znači ustvrditi obrnuto. Na žalost, praksa općenito dolazi prije teorije, i čovječanstvo obično zapada ista sudbina: da je nešto učinjeno najprije nekako pobrkano, a naknadno se opaža da je moglo biti učinjeno mnogo lakše i savršenije. Tako se mora priznati da mi kao istraživači modernih metoda predstavljamo tek glas u pustinji koji uzvikuje: otvarajte put ovom bogu nauke koji će doći.« Sveučilište metoda, koje je Pierce predvidio 1882, to sveučilište budućnosti, nikome još dosad nigdje nije uspjelo uspostaviti. Međutim, ono nadolazi sa svih strana i otvoreno i prikriveno. Škola dizajna okoline bit će bitni dio sveučilišta metoda, a to je izazov pedagozima dizajna. U skoroj budućnosti morat ćemo revidirati svoje stavove, i ne samo stavove već i metode. To znači da moramo razviti svoje specifične metode rada prilagođujući ih specifičnim tipovima problema koje ćemo morati riješiti. Nakon toga moći ćemo se uspješno suočiti sa zadatkom koji nam je društvo povjerilo, zadatkom rekonstrukcije čovjekove okoline u novoj eri naučnog humanizma. Tako ćemo prevladati proturječnost između teorije i prakse, znanja i akcije, svijesti i stvarnosti, slobode i nužde.

*Predavanje održano 5. siječnja 1966. na Arhitektonskom fakultetu sveučilišta u Princetonu, objavljeno u časopisu ULM br. 17/18 1966.*

Prijevod: Vilim Crlenjak

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 Russel 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.

Peirce's intuitions, in the most varied fields, are even now considered as both fascinating and bold, even in our days in which nothing more 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 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 practice 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 this 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 methods 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.

*tomas maldonado*  
*i gui bonsiepe*

znanost i dizajn

*tomas maldonado*  
*and gui bonsiepe*

science and design



Ne može se baš sve što se pripisuje Visokoj školi za oblikovanje u Ulmu opravdano uvrstiti u bilancu njena uspjeha i neuspjeha. Ipak se u jednoj tački i činjenice i fikcije o HfG podudaraju, a to je njen interes za metodologiju dizajna i interes za odnos znanosti i dizajna.

Ona zaista zaslužuje reputaciju tvrđave metodolatrije. Polaganje težišta na primjenu i znanstvenih spoznaja i znanstvenih metoda u procesu dizajna važna je karakteristika njena nastavnog programa. Ta rigoroznost nalazi odjeka u različitim mišljenjima o Ulmskoj školi, a donijela joj je i pristaša i protivnika. Neki skloni da unaprijed odbace nauku i naučnu misao smatraju ulmski pristup samo još jednom varijantom furora teutonicusa hladnoće, skrupuloznosti, odsutnosti humora, sitničavosti i tvrdoglavosti. Drugi smatraju Ulmsku školu manje-više uspješnim modelom sinteze znanosti i dizajna. Tako je na jednoj strani ulmska metodologija, ili barem ono što se smatra ulmskom metodologijom, potakla i izazvala otpor koji čak pojačava romantičarski odnos prema dizajnu, a na drugoj je potakla neodređene i često neosnovane nade u dizajn pod znamenom nauke.

Daljnja zapažanja pokušaj su da se osvijetli niz problema nagoviještenih u naslovu. Riječ je samo o površnim bilješkama koje su autori prikupili iz vlastitih opservacija u toku diskusija i kritički asimilirajući relevantne napise. U ovom članku namjerno su izostavljene sociologija i socijalna psihologija, dva faktora koji utječu na metodologiju dizajna, budući da je važnost tih disciplina za dizajn općenito priznata, i danas u nju više nitko ne sumnja. Isto vrijedi za konstruiranje i proizvodnju.

### granice matematskih tehnika

Metode su određene ciljevima. Izraženo terminima psihologije, metoda je dio ponašanja usmjerenog cilju, a također dio ponašanja usmjerenog rješavanju problema. Za rješavanje problema mogu se upotrijebiti različite metode. Ako se problem rješava metodički, pristup je kontroliran ili planiran. Prisutnost toga racionalnog faktora u metodi navela je Benthamu da je definira kao implementaciju onog što bi se moglo nazvati »taktički faktor«<sup>1</sup> ili, prema Buchlerovoj definiciji, »metoda je strateško širenje intelekta«. Imaginacija je dijalektički suprotna metodi, a metoda je racionalna

Not everything attributed to the HfG can be legitimately recorded on its credit and debit ledger-sheets of achievements and failings. Nevertheless, both fact and fiction surrounding the HfG at one point, namely the interest in design methodology, the interest in a relationship between science and design.

The HfG has in fact deserved the reputation of being the citadel of methodolatry. An important characteristic of its curriculum manifests itself in the emphasis laid on the application of both scientific knowledge and scientific methods in the design process. This rigour is reflected in the various opinions about the HfG, which has earned for it supporters and opponents. Some, who are inclined from the start to distrust science and scientific thought, consider the Ulm approach no more than a new variant of the furor teutonicus — cold, scrupulous, humourless, niggardly, obstinate. Others consider the HfG a more or less successful model of a synthesis of science and design. Hence, on the one hand, the Ulm methodology — of what is considered to be the Ulm methodology — has given rise to a resistance which even reinforce the romantic attitude towards design. On the other hand, it has brought about an altogether indiscriminate, and often unfounded hope in design under the scientific aegis.

The following notes shall attempt to throw some light on the range of problems indicated in the title. They are no more than notes of a cursory nature gathered by the authors from their own observations, in discussions, and in a critical assimilation of relevant writings. In this article sociology and social psychology, two factors which influence design methodology, have intentionally been omitted for the reason that the importance of these disciplines for design is generally accepted and undisputed nowadays. The same applies for product engineering and manufacturing.

### the limits of mathematical techniques

Methods are determined by goals. Expressed in psychological terms: method is part of a goal-directed behaviour; method is part of a behaviour directed towards the solution of problems. In solving problems one can employ various methods. If one solves problems methodically, the approach is controlled or planned. This rational factor occasioned Bentham to define it as the implementation of what one could term 'tactic faculty'<sup>1</sup>; or according to Buchler's definition: »Method is the strategic dissemination of prudence.« Imagination is the dialectic counterpart of method

primjena određenih tehnika unutar inventivnog procesa. »Invenција je, oslobođena regulatornih ograničenja, fleksibilna. Metoda . . . uvodi fiksnošću.«<sup>2</sup> Drugim riječima, funkcija metode sastoji se u reguliranju neobuzdane imaginacije i u njenom usmjeravanju određenim putovima, te u dobivanju rezultata takvim postupkom. J. C. Jones zastupa slične argumente govoreći da je metoda sredstvo za izmirenje konflikta između logičke analize i kreativnog mišljenja.<sup>3</sup> Metoda operira u polju mogućnosti u rasponu od slučajnog uspjeha do racionalnog određenja. U skladu s uobičajenim mišljenjem, neka je metoda to više znanstvena što više može eliminirati slučajnosti i što se u većoj mjeri uspjeh može prognozirati. Metode su u nauci usmjerene prema dva cilja: prvi je otkrivanje istine — kako se dolazi do istinitih formulacija (pomoću spekulacije, hipoteze i eksperimenata), a drugi je kontroliranje istinitosti formulacija — kako biti siguran da su formulacije istinite (pomoću logičkih usporedbi i verifikacije). Te metode okarakterizirane su ovim svojstvima: one su kvazi-općenite (tj. vrijede za više od jednog slučaja) i intersubjektivne (tj. može ih ponoviti više istraživača).

Sve metode zajedno, koje se primjenjuju kod dizajna proizvoda, kao i njihova sistematska klasifikacija nazivaju se metodologijom dizajna proizvoda. Taj termin ne bi smio implicirati pretpostavku, premda izaziva takav dojam, da postoji ili da bi mogla postojati cjelovita uniformna metodologija dizajna i da bi bilo posve dovoljno razviti je iz znanstvene metodologije. Znanstvena metodologija, međutim, usprkos naporima pokreta za ujedinjenje nauke, ni sama još nije definirana. U toj zbrci metoda neki su matematički postupci privukli veliku pažnju. Oni pretežno izvire iz područja finite matematike, tj. grane matematike koja pri obradi problema ne pretpostavlja ni pojam kontinuiteta ni prijelazne limese ni beskonačne veličine.<sup>4</sup> Čini se da se vektorska analiza i analiza matrice zajedno s linearnim programiranjem mogu primijeniti pri rješavanju problema dizajna. Ali i u dizajnu se kao i u ostalim disciplinama postavlja pitanje adekvatnosti metoda ciljevima. Često se javljaju »dobri« problemi kojima se prilazi s »lošim« metodama i, obratno, »loši« problemi kojima se prilazi s »dobrim« metodama.<sup>5</sup> Između kvalitete problema i kvalitete metoda treba uspostaviti korelaciju.

A. Moles je u predgovoru svom članku o strukturalnoj i funkcionalnoj kompleksnosti proizvoda<sup>6</sup> predvidio jednu pluralističku metodologiju dizajna. Budući da postoje različiti

— the rational application of definite techniques within the inventive process. »Invention, free of regulatory restraints on imagination, is flexible. Method . . . introduces fixity.«<sup>2</sup> In other words, the function of a method consists in the regulation of unbridled imagination, in its guidance into definite avenues, and in the obtaining of a result in this manner. J. C. Jones argued similarly, saying that method is a means of arbitrating in the conflict between logical analysis and creative thinking.<sup>3</sup> Method operates in the range of possibilities lying between random success and rational determination. According to customary opinion, a method is the more scientific, the more that chance can be eliminated — the more that success can be predicted. Methods in science are directed towards two goals: first the discovering truth — how are true statements obtained? (speculation, hypothesis, experiment) — and secondly, the checking of their truthvalue — how does one ensure oneself of the correctness of the statements? (logical compatibility, verification). These methods are characterised by the following features: they are quasi-general (i. e. they refer to more than one case); and they are intersubjective (i. e. they can be repeated by several subjects).

The ensemble of methods employed in designing products, their systematic arrangement, is called the methodology of product design.

This term should not imply the assumption — although the appearance might suggest it — that there is, or can be, a uniform general design methodology: as though nothing further need be done that to develop a design methodology from scientific methodology — which has still not been defined despite the efforts of the »unity of science« movement. Within this array of methods some mathematical procedures have attracted particular attention. They stem predominantly from the domain of finite mathematics, i.e. the branch of mathematics that does not presuppose the term of continuity nor limit transits nor infinite quantities in the treatment of problems<sup>4</sup>. It seems that vector analysis and matrix analysis together with linear programming, may be applied to the solution of design problems. But in design the same applies as elsewhere: which methods are adequate for which aims? There are frequently »good« problems which are approached with »bad« methods, and inversely »bad« problems approached with »good« methods<sup>5</sup>. The quality of the questions and the quality of the methods must be correlated.

In the preface to an article by A. Moles dealing with the structural and functional complexity of products<sup>6</sup>, a pluralistic methodology for design was envisaged. Insofar as there are

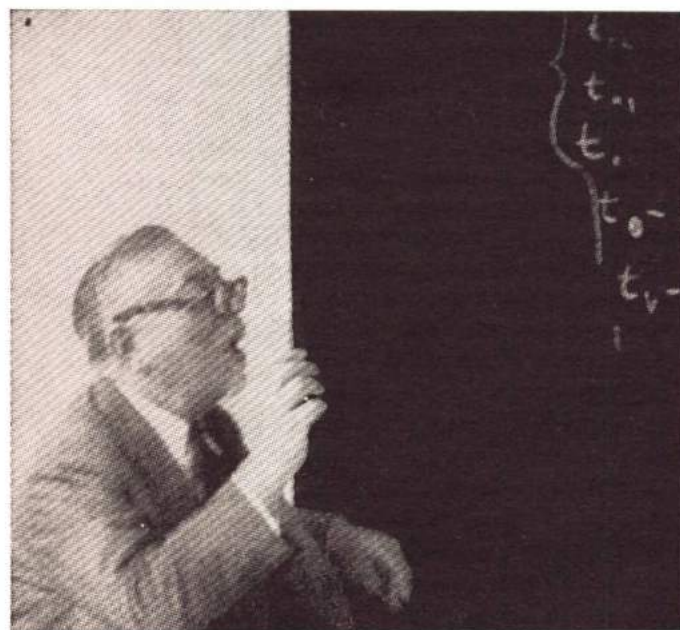
stupnjevi kompleksnosti, njima treba pridati odgovarajuće metode kako bi se mogli razriješiti problemi koji nastaju na različitim nivoima. Nije ni ekonomično ni prikladno pristupiti dizajnu pribora za jelo, kuhinjskog posuđa ili radio-prijemnika sa čitavim arsenalom tehnika koje proizlaze iz operacionih istraživanja. Postoje, međutim, i primjeri na granici između dizajna proizvoda i dugoročnog planiranja proizvoda. Kao što bi bilo pogrešno pretpostaviti da se tehnika poput linearnog programiranja može primijeniti bez modifikacije u dizajnu ili redizajnu proizvoda, tako ne može biti ni sumnje u njenu korisnost za razvoj novih proizvoda u okviru određene politike firme; napokon, i dizajn proizvoda dio je tako određenog razvoja.<sup>7</sup> Štaviše, teorija sistema i teorija regulacije mogu dizajneru biti korisne pri kombinacijama s matematskom logikom kao opća podloga za razumijevanje teorije strojeva. Teorija informacija može dizajneru pružiti stručnu terminologiju za analiziranje i kvantitativno prikazivanje strukturalnih odnosa među proizvodima. Oslanjajući se na stečeno iskustvo može se reći da su ove matematičke discipline korisne za dizajnera proizvoda u njegovoj praksi:

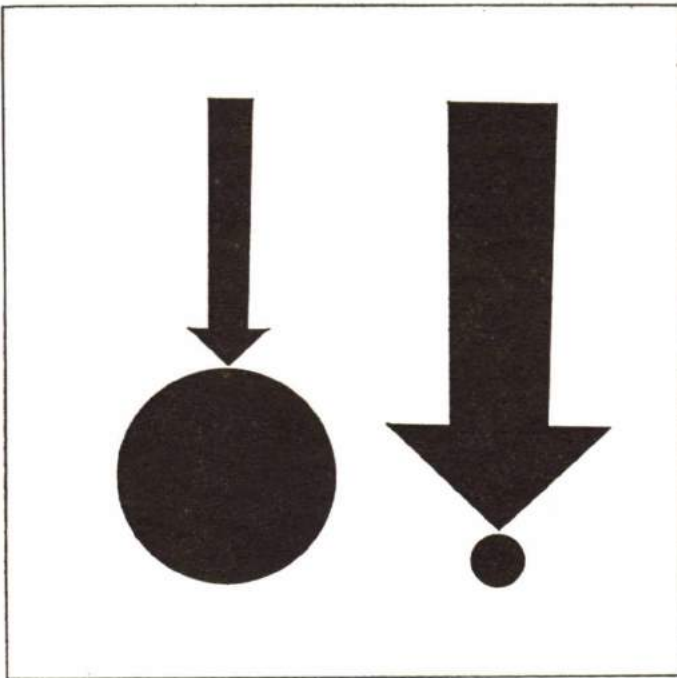
1) kombinatorika (za baukasten-sisteme i za rješavanje problema koordinacije izmjera), 2) teorija grupa (kao teorija simetrije namijenjena konstruiranju rastera i trodimenzionalnih struktura), 3) teorija krivulja (za matematičku obradu prijelaza i transformacija), 4) poliedarska geometrija (za konstrukciju pravilnih, polupravilnih i nepravilnih tijela), 5) topologija.

various degrees of complexity, appropriate methods must be allotted to them in order to deal with the problems occurring at the various levels. To approach the design of cutlery or cooking utensils or a radio cabinet with an arsenal of techniques derived from operations research is both uneconomical and inappropriate. But there are cases on the boundary between product design and farreaching product planning. If it confuses the issue to assume that a technique like linear programming may be employed without modification in the design or redesign of products then the usefulness of this discipline is quite out of the question in the development of new products in the framework of a definite company policy; and, finally, product design is also included in this new development<sup>7</sup>. Moreover, system theory and theory of control could be useful for a designer in combination with mathematical logic as a general background for the understanding of a machine theory. Information theory may furnish the designer with a vocabulary of terms to analyse and to quantify the structural relationships of products. According to experience gathered hitherto, the following mathematical disciplines may be considered useful for the product designer in his practical design activities: 1) theory of combinations (for modular systems and problems of dimensional coordination); 2) group theory (in the form of symmetry theory for the construction of grids and threedimensional lattices); 3) theory of curves (for the mathematical treatment of transitions and transformations); 4) polyhedral geometry (for the construction of regular, semi-regular and irregular bodies); 5) topology.

*Norbert Wiener, za vrijeme predavanja na HfG (1955)*

*Norbert Wiener during a lecture at the HfG (1955)*





*»Loša« metoda za »dobre« probleme i »dobra« metoda za »loše« probleme*

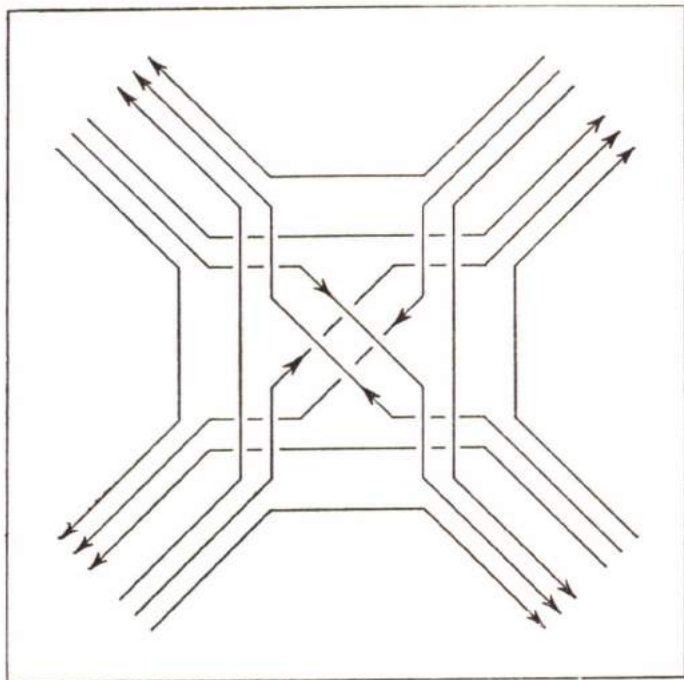
*»Bad« method for »good« problems and »good« method for »bad« problems*

### bliži pogled na topologiju

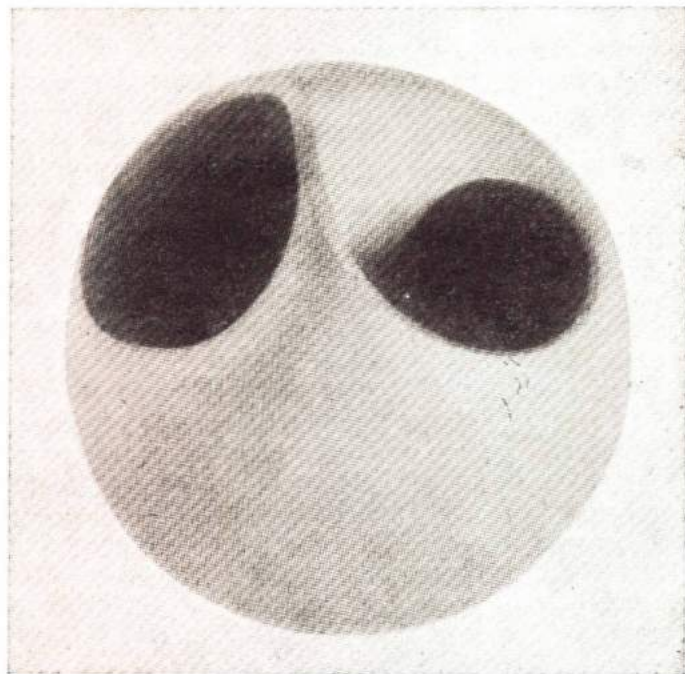
Engleski učenjak J. D. Bernal bio je jedan od prvih koji je još 1937. obratio pažnju na buduću važnost topologije za arhitekturu, urbanizam i regionalno planiranje.<sup>8</sup> (Riječ je o kombinatoričkoj ili algebarskoj formi topologije, a ne o topologiji skupova ili o općoj topologiji.) Bernalova su se predviđanja ispunila, ako ne za sve grane topologije, onda barem za jednu. Teorija linearnih grafikona ima priličnu instrumentalnu vrijednost za dizajn građevina kod kojih treba riješiti veoma kompleksne probleme cirkulacije: bolnica, aerodroma, stadiona, tvornica, kazališta i izložbenih prostora. Ako pod terminom arhitektura mislimo i na građevinske konstrukcije, tada moramo priznati da je tu Bernalova prognoza ostvarena tek u skromnoj mjeri. Današnje građevinske konstrukcije još malokad prelaze granice projektivne ili diferencijalne geometrije, tj. one su većinom ili prostorno-projeksione konfiguracije poput cijevnih konstrukcija B. Fullera, K. Wachsmanna i Z. S. Makovskog ili su jednostavne, dvostruke ili nepravilne modulacije zaobljenih površina poput školjkastih struktura P. L. Nervija, T. Torroje i F. Candele. Ovjješeni krovovi svih vrsta samo su specijalan tip zaobljenih površina koje se ponekad kombiniraju s prostorno-projeksionim konfiguracijama. R. Le Ricolais pripadnik je malobrojne škole koja se danas pokušava

### a closer look at topology

In 1937 the British scientist J. D. Bernal was one of the first to draw attention to the future importance of topology for architecture and town and regional planning.<sup>8</sup> (In this case the combinatorical or algebraic form of topology is meant, and not the set-theoretical or general topology.) Bernal's prediction has been confirmed, if not in all branches of topology, at least in one of them: the theory of linear graphs possesses a considerable instrumental value in the design of buildings where extremely complex circulation problems must be solved — hospitals, airports, stadiums, factories, theatres and exhibitions. If we include in the term architecture also building structures, we must admit that in this field Bernal's prognosis has proved true to a modest degree only. Nowadays building structures rarely overstep the limits of projective or differential geometry, i. e. the majority are either spatial-projective configurations as in the case of the tubular constructions of B. Fuller, K. Wachsmann, and Z. S. Makowski or single, double, or irregular modulations of curved surfaces such as the shell structures of P. L. Nervi, E. Torroja, and F. Candela. The suspended roofs of all kinds are only a special type of curved surfaces combined sometimes with spatial-projective configurations. R. Le Ricolais belongs to the small school which is nowadays attempting to liberate



*Željezničko čvorište*  
*Railway junction*



*Topološke vježbe na HfG*  
*Topological exercise at the HfG*

osloboditi tradicionalnog repertoara struktura i uputiti se u novo i teže područje — topologiju. Ricolais ističe nužnost da se napuste čisto kvantitativne strukture »pobrojanih elemenata« i prihvate kvalitativne strukture — »pravih živčanih sistema«.<sup>9</sup>

Poljski matematičar i inženjer L. Tomaszewski, koji je nedavno ukazao na moguće iskorištavanje neorijentabilnih struktura u arhitekturi, usmjerio se istom cilju, ali se ogradio uvjetom da treba najprije proširiti mršave spoznaje o funkciji tih površina. On piše: »Za praktičnu primjenu neorijentabilnih površina koje bi služile oblikovanju novih arhitektonskih i industrijskih oblika prijeko je potrebno dublje, poznavanje i širenje spoznaja o geometriji tih površina kao i otkrivanje njihova funkcionalnog značenja.«<sup>10</sup> Fleksibilna arhitektura, kojoj se tako često nazdravlja, mogla bi postati stvarnost tek u slučaju da se ta arhitektura transformacija ostvari pomoću geometrije transformacija, odnosno da se ta

itself from the traditional structural repertoire and to venture into the new, more difficult, domain of topology. He stresses the necessity of abandoning the purely quantitative structures — »numbered entities in a kind of tin can« — and of adopting qualitative structures — »proper nervous systems«.<sup>9</sup>

The work of the Polish mathematician and engineer L. Tomaszewski, who recently drew attention to the possible utilisation of nonorientable surfaces in architecture, is directed towards this end — but only with the condition that the meagre knowledge of the function of these surfaces is enlarged. Tomaszewski writes: »The practical utilisation of non-orientable surfaces for shaping new architectural or industrial forms necessitates a deeper knowledge and spread of the geometry of these surfaces, as well as the discovery of their functional meaning.«<sup>10</sup> Flexible architecture, which has been hailed so often, could become a reality if this architecture of transformations could be realised with the aid of the geometry of transformations, i. e. if this »rubber«

»pneumatska« arhitektura izrazi pomoću »pneumatske« geometrije. To je, međutim, samo hipoteza koju bi trebalo dokazati, drugim riječima, ta se hipoteza još ne može dokazati.

Prije nekoliko godina na Visokoj školi za oblikovanje u Ulmu topologija je uvedena u nastavni program. Time je škola pokazala povjerenje u odgojnu vrijednost te discipline. Štaviše, HfG je smatrala taj predmet važnim instrumentom ne samo za arhitekturu i urbanizam i za regionalno planiranje, kako je to Bernal zamislio, već i za dizajn proizvoda. Danas više nema sumnje u edukativnu vrijednost topologije, osobito što se tiče njene uloge u izobrazbi dizajnera. Topologija pruža dizajneru još jedan pristup problemima. Pomoću nje dizajner može otkriti da problemi dizajna nisu samo problemi dimenzija, oblika i položaja već i problemi organizacije, kontinuiteta i približenosti. Drugačije rečeno, topologija stimulira dizajnera da ne promatra svijet tehničkih objekata isključivo kroz prizmu metra već i sa stanovišta neomjerljivog. S druge strane, što se tiče primjene topologije na nivou konkretnog dizajna proizvoda, rezultati nisu bili ni uvjerljivi ni zadovoljavajući. U nekim područjima dizajna proizvoda njena je primjena teoretski moguća, ali se nailazi na teškoće uslijed nedostatka iskustva, na što je aludirao Tomaszewski. Zaista, posljednjih su godina neke grane topologije doživjele brz razvoj, dok su druge, naročito one koje bi bile korisne kod dizajna proizvoda, zaostale.

### **pokušaj doprinosa analizi proizvoda**

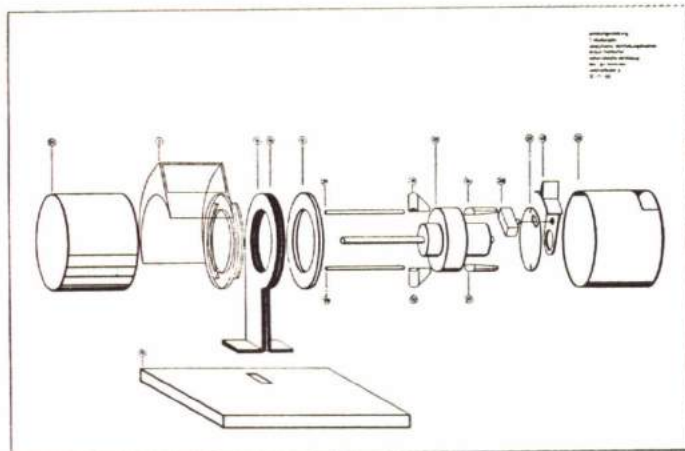
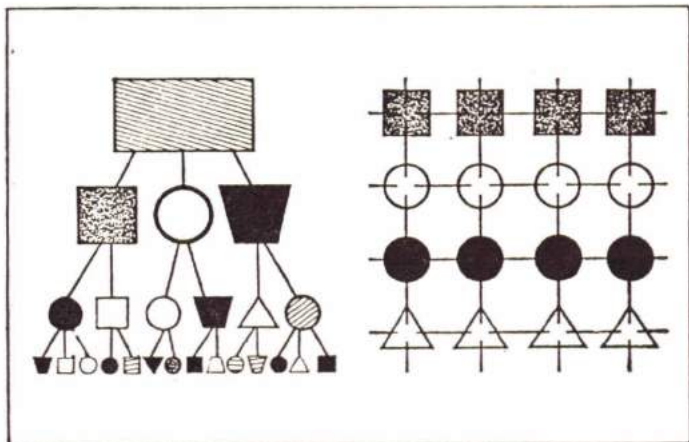
Pokuša li se ustanoviti kakva je instrumentalna vrijednost matematskih metoda u dizajnu, treba se držati pretpostavke da u krajnjoj liniji u dizajnu nalaze odraza i ona područja ljudskih spoznaja koja su prividno s dizajnom slabo povezana. Uzrok su brojne posredne veze. Od matematskih metoda ne treba tražiti trenutnu primjenljivost. Abraham Moles uveo je termine »strukturalna kompleksnost« i »funkcionalna kompleksnost« kao operativne pojmove koji služe izučavanju interne strukture proizvoda, a potrebni su dizajnerima da se uvježbaju analizirati neformalna svojstva proizvoda. Objekt analize u našem je primjeru »Braunov« stolni ventilator. Proizvod se može promatrati kao sistem sastavljen od podsistema koji se opet sastoje od komponenata. To znači da se proizvod može smatrati hijerarhijski sređenim skupom komponenata. Moramo uočiti razliku interakcija između podsistema i interakcija unutar podsistema.<sup>12</sup> Za potrebe takve analize proizvod je podijeljen na svoje komponente

architecture would be expressed in a »rubber« geometry. But that is a hypothesis, the validity of which must first be proved — in other words a hypothesis which cannot be confirmed yet.

Some years ago the HfG introduced topology to its curriculum. In this manner the School showed a confidence in the educational value of this discipline. Furthermore, the School believed to have found in topology an important instrument — not only for the benefit of architecture and town and regional planning as Bernal imagined — but for product design too. Nowadays, there are no doubts about the educational value of topology, least of all in the training of a designer. Topology provides the designer with yet another approach to his problems. With the aid of topology he can discover that they are not only dimensional, form, and position problems, but also problems of organisation, continuity, and neighbourhood. In other words topology encourages the designer not to approach the world of technical objects solely in metric terms but also in non-metric terms. On the other hand, with regard to the application of topology at the concrete level of product design, the results were neither convincing nor satisfactory. In some fields of products design its application is possible in theory, but encounters difficulties due to lack of experience, to which Tomaszewski alluded. And, in fact, some branches of topology have been greatly developed during recent years, whereas other branches, and particularly those that could be useful for product design, have lagged behind.

### **a tentative contribution to product analysis**

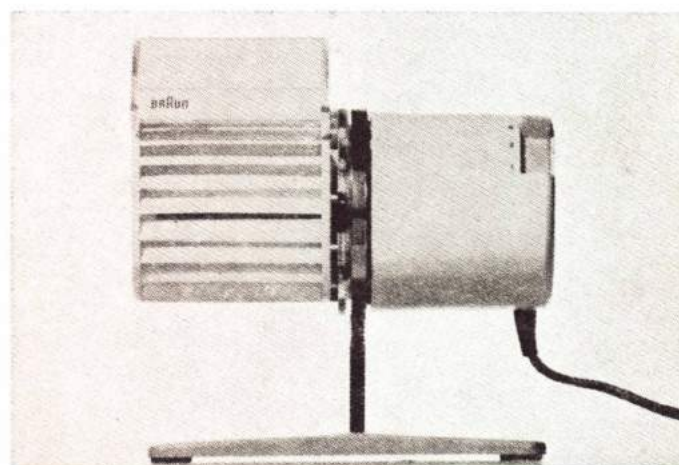
If one searches for the instrumental value of mathematical methods in design, he must also respect the assumption that in the end even seemingly less related fields of knowledge are reflected in the work via many mediations, in order not to submit to the strong pressures of instant applicability. In order to study the interior structure of products, i.e. in order to train the analytical eye for non-formal properties the attempt has been made to operate with the terms »structural complexity« and »functional complexity«, introduced by Moles.<sup>11</sup> The object of analysis was a table ventilator by Braun. The product may be considered a system composed of sub-systems, which in turn consist of components. This means that a product may be considered a hierarchic assemblage of components. We must differentiate between interactions between sub-systems, and between interactions within sub-systems.<sup>12</sup> For the purpose of analysis the product was broken down into its components (N = 65), which belong



*Komplicirano i kompleksno po A. Molesu*  
*Complicated and complex after A. Moles*

*Braunov stolni ventilator*  
*Gore desno, analitički prikaz*

*Braun table ventilator*  
*Right above, Analytical representation.*



( $N = 65$ ) koje pripadaju različitim klasama (broj klasa komponenata iznosi 37, a gustoća 1,75 komponenti po klasi). Motor se promatra kao jedna komponenta uključujući osovinu i mjenjačku kutiju, a isto vrijedi i za lemljene spojeve, sve vodove, sve vijke itd. U skladu s Molesovom jednadžbom<sup>13</sup> strukturalna kompleksnost iznosi 319,8, a funkcionalna kompleksnost, koja se izražava kao broj mogućih operacija prilikom korištenja, iznosi 7 (uključivanje u prvi položaj, zatim u drugi, pa isključivanje ventilatora, zatim vertikalno i horizontalno strujanje zraka, fiksiranje ventilatora na zid i napokon postavljanje ventilatora na horizontalnu površinu). Veze između komponenata prikazane su shematski na grafikonu. Ovdje bismo uveli termin »topološka kompleksnost« koji Moles odlučno izbacuje iz svoje koncepcije. Broj grana koje istječu iz bilo koje tačke (komponente) određuje ono što bismo nazvali »stupanj povezanosti«. Taj se broj može očitati na dijagramu (ili na

to different classes (number of classes of components = 37; density per class: 1,75 components/class). The motor, including shaft and bearing box, was considered one component, likewise each solder point, each piece of cable, each screw etc. According to Moles's equation,<sup>13</sup> the structural complexity is 319.8. The functional complexity — expressed by the number of possible operations in use — is 7 (switching on to 1st position, to the 2nd position, switching off, air flow vertical and horizontal, fixing the unit on a wall, placing the unit on a horizontal surface). The interconnections of the components were presented in schematic form, in a so-called graph. Here we can introduce the term 'topological complexity', which Moles decidedly excludes from his concept. The number of branches departing from any one point (component) determines what we can call 'degree of connectivity'. This number can be read from the diagram (or a connection matrix). The average number of branches per

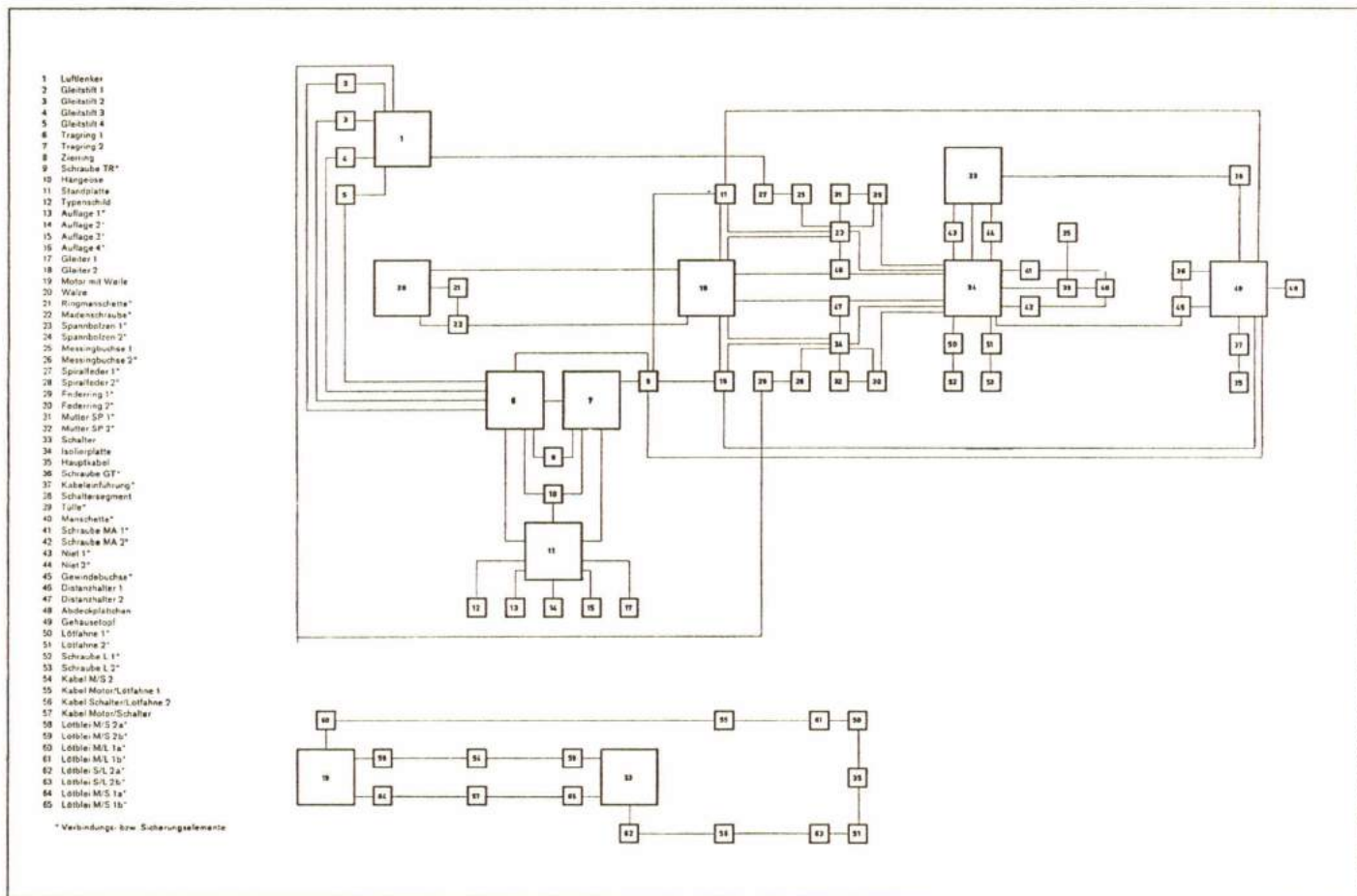


Diagram strukture Braunovog ventilatora

matrici veza). Prosječan broj grana po komponenti iznosi 3,51. Od 65 komponenti čitavog proizvoda 38, odnosno 58,5%, takozvane su vezivne ili zaštitne komponente. Je li taj procent visok ili nije, može li se na temelju toga donijeti zaključak o tehničkoj kvaliteti proizvoda, moguće je reći tek nakon nekoliko takvih komparativnih analiza. Detaljna topološko-strukturalna analiza proizvoda može pomoći postavljanju hipoteze pri izradi konstrukcionih ili tehničkih nacrti koji su slični blok-dijagramima upotrebljavanim u programiranju elektronskih strojeva za obradu podataka. Razlika je u tome što se u toj prilici ne opisuju procesi, kao kod programiranja, nego komponente, tj. statička stanja stvari. Otkrivanje konstrukcionih shema koje se ponavljaju bio bi cilj topološke analize, a jednako bi tako cilj bio otkrivanje podsistema i potpodsistema koji se ponavljaju. Molesov pokušaj klasificiranja i hijerarhiziranja svijeta tehničkih objekata, koji se bazira na samo dva kriterija: broju

Diagram of the structure of Braun-tablefan

component is 3.51. Of the 65 components incorporated in the entire product, 38, i.e. 58.5%, are so-called connecting or protecting components. Whether this is a relatively high percentage which permits a conclusion on the engineering quality, cannot be ascertained until several comparative analysis of this kind have been made. The detailed topological-structural analysis of products could help — to make a hypothesis — in the preparation of construction or engineering diagrams similar to the block diagrams used in programming electronic data-processing machines, but with a difference, namely, that here components, static states of affairs, are described rather than processes. The object would be to detect repetitive construction patterns, recurring sub-systems and sub-subsystems with the aid of such topological analysis. Moles's attempt at a classification and an ordering of the world of technical objects, taking into account only the number of components and functions,

komponenata i broju funkcija, može se rafinirati uzimanjem u obzir tipova odnosa koji djeluju između komponenata. Osim toga treba istaći, usprkos čisto spekulativnoj naravi te hipoteze, da će se budući inženjeri oslanjati na standardizirane podsisteme višeg reda baš kao što se danas ispomažu standardiziranim dijelovima, npr. vijcima. Pomoću komparativne strukturalne analize proizvoda moguće je utvrditi standardizirane podsisteme, tj. oni se mogu razlučiti. Ta komparativna analiza možda će igrati ulogu anatomije tehničkih objekata. Ipak, treba spomenuti mnoštvo teškoća na koje će se nailaziti u primjeni takvih konstrukcijskih dijagrama. Te su teškoće u vezi s definicijom tipa. Sve dok se ta definicija teoretski ne postavi tako da se jedan element ne može klasificirati u više klasa funkcija po kojima se u isto vrijeme katalogizira spektar funkcija komponente, taj se oblik topologije konstrukcija neće razviti dalje od elementarnog stadija. Može se ipak sa sigurnošću reći da će pročišćenje definicije značiti velik korak naprijed prema objektivnosti u dizajnu, zahvaljujući uspoređivanju nivoa konstrukcije s nivoom dizajna, i to na nivou metoda.

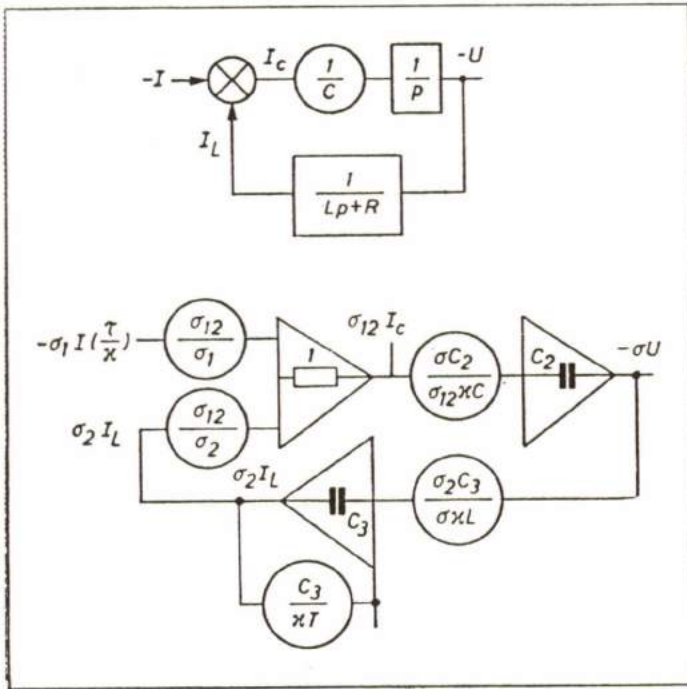
#### dizajn — zanemarljiva veličina?

Poput svih ljudskih aktivnosti koje teže da integriraju različite specijalne discipline, i dizajn kao takva specifična aktivnost mora se braniti od svih tih disciplina pojedinačno, budući da svaka od njih teži da ga objedi za nekompetentno miješanje i da ga dezavuirao kao površnu aktivnost. Na samom početku odvijao se konflikt između dizajnera i inženjera, bilo da se radilo o inženjeru konstrukteru ili tehnologu. O tom konfliktu tako se često diskutiralo u detalje da ovdje nije vrijedno ni ulaziti u to. Nasuprot tome, vrijedilo bi ukratko razmotriti kritičke primjedbe koje su nedavno uputili pobornici matematičkih metoda na račun dizajna. Njihovo je gledište da se dizajn proizvoda jedva nešto razlikuje od dizajna sistema bez obzira na tipove, i da je u svim slučajevima primarni zadatak dizajna riješiti problem ili neki kompleks problema. Nadalje tvrde, pošto se jednom sumiraju sve varijable koje ulaze u rješenje problema, da je tada dovoljno postaviti matematsku formulu pomoću koje se zahvaćaju svi podaci o detaljima odnosno svi determinativni podaci, te da bi to omogućilo donošenje optimalne racionalne odluke oslobođene od svih elemenata koji nisu racionalno dokučivi. Napokon, iako oni priznaju da postoji stanovito specifično problemsko područje koje je dizajnerovo, pa se zato ne može olako reducirati na oblik

could, be refined by taking into account the type of relationship between the components. Furthermore — and again the purely speculative nature of this hypothesis must be stressed — one can imagine that in the future engineers will call upon standardised sub-systems of a higher order, just as they utilise standard hardware such as screws nowadays. These standardised sub-systems could be determined, and as it were filtered out, by a comparative structural analysis of products — an anatomy of technical objects. A number of difficulties, however, must be mentioned which will arise in the application of such construction diagrams. These difficulties are connected with the type definition. As long as this definition is not precisely stated at a theoretical level in such a manner that one component can belong to several functional classes, whereby the functional span of the components is catalogued at the same time, this form of constructive topology will not advance beyond an elementary stage. But it can definitely be said that a great step forward towards objectivity in design will have been made with the mapping of the level of construction on the level of design, and this on the level of methods.

#### design — a negligible quantity?

Like all human activities intended to integrate various special disciplines, the specific activity of design must defend itself against each of these disciplines if, and for the reason that each wants to dispute the legitimacy of design and expose it as superfluous. In its earliest form, the conflict was contestet between the designer and the engineer, whether he were engineering designer or production engineer. This point has already been discussed in detail so often that it is not worth-while taking up now. On the other hand, it is worth-while discussing briefly the critical remarks which have recently been brought forward by advocates of mathematical methods against design. According to them, the design of a product scarcely differs from the design of a system, whatever its type: in all cases the prime task is the solution of a problem or complex of problems. Once all the variables which enter into the solution of a problem have been summarised, a mathematical formulation would be sufficient, whereby all the detailed data or determinative data would be covered. This would then permit an optimal rational decision divorced from the imponderabilia of the subject. Though the existence of a specific area is admitted, which cannot be so readily reduced to the form of determinative data; this area — the designer's area — is said to be so small that one may consider it a negligible quantity.



Blokšema i računsko uklapanje

Block circuit diagram and computing circuit

determinističkih podataka, drže da je ono toliko neznatno da se može smatrati zanemarljivom veličinom. (Totalni tehnički racionalizam samo je izraz partikulariziranog rezoniranja, o čemu će biti govora kasnije.) Teza o kontinuiranom matematskom strukturiranju polja odlučivanja u dizajnu znači samo to da se svi problemi dizajna mogu rješavati algoritamski, tj. pomoću matematičke ili logičke konstrukcije koja djeluje kao program ili kao priručnik s uputama.<sup>14</sup> Takav algoritam trebalo bi formirati pomoću ovih matematičkih disciplina, zavisno od slučaja kombinatoričke analize, teorije igara, teorije informacija, matematičke logike, algebre, linearnog programiranja, teorije sistema, teorije slijedova i kombinatoričke topologije. Kako je već spomenuto, neke od tih tehnika imaju instrumentalnu vrijednost pri rješavanju složenih problema dizajna, ali samo u slučaju kad se ne primjenjuju kao lijek za sve. Spomenute matematske discipline ne bi trebalo da zavedu na pogrešan zaključak da se kreativno mišljenje i akcija i na području nauke i dizajna mogu potpuno svesti na algoritme. Uostalom, pogrešno je pokušavati odnos dizajnera prema problemu kojim se bavi simulirati modelom koji je jednostavno determinirani sistem. Kod procesa o kojem govorimo, kao uostalom kod svakog kreativnog i inventivnog ljudskog ponašanja, taj se odnos može simulirati, ako je to uopće moguće, jedino pomoću

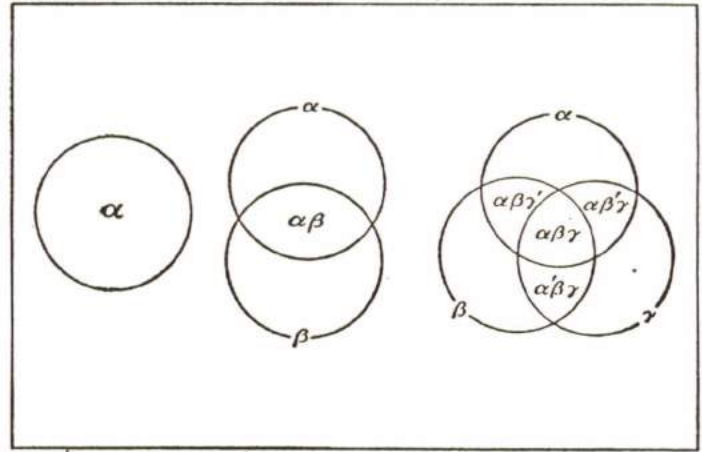


Diagram koji prikazuje preklapanje klasa

Diagram, illustrating the overlapping of classes

(That this total technical rationality is only the expression of particularised reason will be dealt with later.) The thesis of continuous mathematical structuring of a decision space for a design means nothing less than that all design problems can be solved algorithmically, i.e. by the employment of a mathematical or logical construction that acts as a program or as an instruction manual.<sup>14</sup>

Such algorithm would have to be established with the aid of the following mathematical disciplines that vary from case to case: combinatorial analysis, theory of games, theory of information, mathematical logic, switching algebra, linear programming, system theory, theory of queues and combinatorial topology. As has already been mentioned, some of these techniques certainly possess an instrumental value for the solution of complex design problems. But this only if they are not practised in the sense of a scientific panacea but simply from the aspect of their instrumental value. The mathematical disciplines mentioned should not lead to the erroneous conclusion that creative thought and action in both the fields of science and design can be totally reduced to algorithms. For it is wrong to attempt to simulate the relationship of the designer to the problems facing him with a model in the form of a simply determined system,

modela na nivou složenih probablističkih sistema.<sup>15</sup> Time se ne osporuje mogućnost kvantitativnog izražavanja i formaliziranja problema dizajna radi optimalizacije ili suboptimalizacije rješenja tih problema unutar dane sheme. Govorimo samo o impliciranom relativizmu matematičkih instrumenata teorije odluka u odnosu na dizajn i pokušavamo spasiti od racionalističkog vjerovanja one koji se ponašaju racionalistički. Međutim, alternativu svodenju procesa dizajna na matematiku očito ne treba tražiti u »artističkom putu«, kako se izrazio Chermayeff. Svojom izjavom kako nema nikakve magike u manipuliranju bojom, kao što je nema ni u manipuliranju brojevima, Chermayeff je upro prstom na činjenično stanje gdje se sve odvija u polju trezvene ostvarivosti.

### **sistematske metode bez muke**

Brojni pobornici naučnog dizajna istinski se zalažu za primjenu naučnih disciplina pri rješavanju zadataka dizajna. Osim njih postoje i teoretičari koji naučni dizajn uzimaju grubo. Oni izjednačuju znanost i znanstvene postupke s predznanstvenim racionalizmom poštujući u neku ruku kartezijansku metodologiju kao pravila za usmjerivanje intelekta, a napuštajući u isto vrijeme kartezijansku sumnju. Pobornici te sistematske metode pretežno nalaze oslonca u modernim heurističkim metodama G. Polije koje je on izložio u knjizi »Kako riješiti problem« (»How to solve it«, 1945/48). Njegova heuristička metoda bavi se rješavanjem problema i, posebno, misaonim procesima koji se mogu odvijati na primjeran način. U seriji članaka pod naslovom »Sistematske metode za dizajnere« B. Archer je dao primjere za moderniziranu Polijinu heurističku metodu. Zasada su rezultati te sistematske metode vidljivi u skromnim razmjerima.

Ti rezultati ostaju na razini reduciranja procesa dizajna na određenu shemu, tj. na linearan slijed faza koje su djelomično povezane povratnom vezom. Započinje se prikupljanjem potrebnih informacija i slijed završava komuniciranjem dizajna. Ta shema samo ukazuje na ono što svaki dizajner ionako čini i što mu je i samom poznato o vlastitoj aktivnosti. Međutim, Polijine namjere leže u drugom pravcu, jer on navodi samo slijed faza potreban pri rješavanju problema dizajna, a ne metode kojima se treba služiti. Možda te sheme imaju didaktičku vrijednost, ali je karakteristika sistematske metode da u njoj ima previše sistema a premalo metode. Primjeri citirani radi ilustracije efikasnosti sistematske metode

because, after all, the process here discussed — as in every creative and inventive human behaviour — can, if at all, only be simulated with models on the level of complex probabilistic systems.<sup>15</sup> Here the possibility to quantify and formalise design problems in order to optimise or suboptimise the solution of these problems within a definite scheme is not disputed. The relativism implied here of the mathematical instruments of decision theory, in conjunction with design, aims at saving those who behave in a rationalistic manner from a rationalistic belief. However, as Chermayeff said, arty way is definitely not the alternative to reducing everything to mathematics. In the statement: »There is no magic in the manipulation of colour, anymore than there is in the manipulation of numbers«<sup>16</sup> he pins down only the plain state of affairs that everything moves in the field of sober feasibility.

### **systematic method the easy way**

Many advocates of scientific design do actually suggest the application of scientific disciplines in solving design problems. In addition there are theorists who understand scientific design in a really wholesale sense. They equate science and scientific proceedings with a pre-scientific rationalism — a kind of observance of cartesian methodology, of rules for the guidance of the intellect, which has resigned from cartesian doubt. The advocates of this systematic method rely predominantly on the modern heuristic methods of G. Polya explained in his book 'How to solve it' (1945/48). This heuristic method deals with the solution of problems and particularly with the thought processes, which in this operation may be employed in exemplary manner. In a series of papers entitled 'Systematic Method for Designers'<sup>17</sup> B. Archer has given examples of Polya's modernised heuristic method. The results of this systematic method for designers operate as yet within a modest framework.

They remain on the level of reducing the design process to a scheme, i.e. a linear sequence of steps, partly in a feed-back relation, starting with the gathering of required data and proceeding to the final communication of the design. These schemes indicate what each designer does in any case, and knows already about his activities. Hence, Polya's intentions are led in another direction, since only the sequence of the steps in solving design problems is stated, but not the methods to be employed. Perhaps these schemes have a didactic value; but the systematic method is characterised in that it suffers from an excess of system and a lack of method. The examples cited to illustrate the efficiency of the

ostaju u okvirima metodskog protokola nizanja činjenica koje su toliko očite same po sebi, da se može steći dojam kako se čitav problem sistematski uveličava. Dokle god se argumenti kreću na teoretskom nivou, iz sveobuhvatnih kontrolnih lista prividno se ništa ne čini izostavljeno, i kao da su kontrolne liste uzori racionalizma. Stvar postaje poučna tek kad prijedemo na konkretne probleme, kao npr. na estetski faktor u dizajnu. Istog momenta cjelokupna sistematska metoda napadno podbacuje i zaostaje za stvarnošću. To bi se moglo pripisati činjenici što prije nisu učinjeni nikakvi pokušaji definiranja estetskih aspekata. Osim toga, u skladu s tradicijom idealista estetika se smatra »teorijom percipiranja lijepoga«. U praksi se pitanja estetskog faktora u dizajnu prepuštaju intuiciji. »U većini slučajeva mnogo je brže i jeftinije obraditi čitavu estetsku stranu dizajna intuicijom, uz uvjet da postoji adekvatna suma prethodnog iskustva na kojem se ona može zasnivati.« To zaista nije blistav završetak vrlo pretencioznog pristupa sistematskoj metodi za dizajnere. Pomoću sistematske metode može se promašiti cilj ako se ostaje vjeran racionalizmu koji se bavi entelehijama i sprečava njihovu profanaciju. To opasno podsjeća na stav onih sociologa o kojima Mills piše: »Oni su posve racionalni, ali ne žele razmišljati.«<sup>18</sup>

### fechner i posljedice

Često se tvrdi da je eksperimentalna psihologija začeta onog jutra 22. listopada 1850. godine kad je G. T. Fechner iznenada shvatio »da je porast duševnog intenziteta osjeta proporcionalan rastu životne snage«.<sup>19</sup> U toj »iznenadnoj spoznaji« nalazi se osnovna misao njegova djela »Elementi psihofizike« (Elemente der Psychophysik, 1860) koje je bilo, iako ne prvi, ipak najefikasniji doprinos izgradnji moderne znanstvene osnove psihologije. Treba, međutim, naglasiti da je Fechner bio istaknuti prirodoslovac, ali ne i autentični znanstvenik, barem ne u smislu današnje definicije znanstvenika. Njegovi su interesi bili mnogostrani: od filozofije, misticizma i poezije do humora, a ne zna se pouzdano nisu li te aktivnosti u njegovim očima bile za nj i najvažnije. Teško je ustanoviti čemu je pridavao najveću vrijednost: svom eksperimentalnom radu ili svojim filozofskim i mističkim spekulacijama.<sup>20</sup> Očito je da eksperimentalna psihologija — ako se pretpostavi da je njen osnivač Fechner a ne J. Müller, E. H. Weber ili W. Wundt — nema zadovoljavajuće znanstveno porijeklo. Jasno je, moglo bi se prigovoriti da se nijedna znanost ne može pohvaliti zadovoljavajućim porijeklom. Ipak taj »prvotni grijeh« u

systematic method, remain within the frame of protocol method of stating facts, which are so self-evident that one gathers the impression that the whole matter is being systematically stretched. As long as the argument runs on an abstract level the comprehensive check lists seemingly leaving nothing out, behave as paragons of rationalism. The matter becomes self revealing, however, when concrete problems are tackled, as, for example, design aesthetics. At this moment the entire systematic method becomes remarkably short-winded, and lags behind reality. This may be attributed to the fact that no previous efforts were made to define the aesthetic aspects; furthermore in agreement with idealistic tradition, aesthetics are considered the »theory of the perception of the beautiful«. In a concrete situation questions of design aesthetics are left to intuition. »In the majority of cases it is far, far quicker and cheaper to handle the whole of the aesthetic side of design by intuition, provided that there is an adequate body of prior experience to base it upon.« This is truly not a very glamorous end for a rather presumptuous approach to a systematic method for designers. One misses the target if one remains true to rationalism only insofar as he is occupied with entelechies and avoids their profanation. In a precarious manner this position calls to mind the social scientists about whom Mills writes: »They are fully rational, but they refuse to reason.«<sup>18</sup>

### fechner and the consequences

It is often maintained that the origin of experimental psychology dates from the morning of October 22, 1850 when G. T. Fechner suddenly realised that »the growth of mental intensity of a living power«.<sup>19</sup> In this »sudden enlightenment« lies the thought underlying his »Elemente der Psychophysik« (1860) which, although it was not the first, was the most effective contribution in providing psychology with a modern scientific basis. One must stress, however, that Fechner was an excellent naturalist; but he was not an avowed scientist, at least not according to the customary modern definition. He was occupied with many side-interests — philosophy, mysticism, poetry and humor — and it is not sure that these side activities were not the main activities in this own eyes. It is very difficult to ascertain to which he attached most value: his experimental work or his philosophic and mystic speculations.<sup>20</sup> It is obvious that experimental psychology — assuming Fechner to be its founder and not J. Müller, E. H. Weber or W. Wundt — had no satisfactory scientific origin. One can object, of course, none of the sciences is able to present a satisfactory origin. But in respect to experimental psychology this »original sin« intensified the already

slučaju eksperimentalne psihologije samo je pojačao već širok otpor protiv »takozvane nauke koja želi duševne procese kvantitativno izraziti«.

Da bi kompenzirala posljedice tako štetnih uvjeta, eksperimentalna je psihologija morala od početka pretendirati na to da bude najznanstvenija od svih znanosti. Upravo zato nijedna od naučnih disciplina 19. stoljeća nije tako bezrezervno prihvatila tada još neizdiferencirani program nauke kao mlada eksperimentalna psihologija. Prihvaćeni program pokazivao je podložnost utjecaja doktrinarnog mehanicističkog načina mišljenja. U međuvremenu je napredak nauke pridonio da taj program izgubi svoju vrijednost. Međutim, eksperimentalna psihologija još se uvijek ne želi odreći svih tačaka starog programa, a to naročito dolazi do izražaja u ergonomiji. Ergonomija je grana primijenjene psihologije koja izučava sisteme čovjek — stroj. Predrasude koje vuku korijen iz prvog programa zadržavaju se u ovoj disciplini. F. V. Taylor o tome piše: »Premda su psiholozi postali znanstveniji u svojim instrumentalnim postupcima upotrebljavajući sve bolja i bolja pomagala u svojim istraživanjima i sve moćnije statističke metode, oni još uvijek barataju s manje-više starim tipovima sintaktički osiromašenih koncepcija.«<sup>21</sup>

Ako ergonomičaru kažemo da postoje i takvi faktori sistema čovjek — stroj koji se, iako se mogu tačno vrednovati, ipak ne mogu precizno verificirati i iskalkulirati, tada će on potražiti utočište u argumentu da faktori koji se ne mogu verificirati ni kalkulirati uopće ne mogu biti predmet njegova istraživanja. Ima mnogo ljudi koji čak tvrde da su naučni problemi jedino oni koji su jednodimenzionalni ili oni koji se mogu riješiti linearnim pomagalima ili sredstvima u mjerilu. Očito je da takvi ignoriraju dugogodišnju praksu prirodnih znanosti: fizike, astronomije i biologije, koje prihvaćaju multidimenzionalnost naučnih problema i koje primjenjuju neskalaru matematiku.<sup>22</sup>

Opužiti sve protivnike toga zakašnjelog kulta — čiji su pristalice neki ergonomičari — za metafizičke, idealističke, mističke ili samo romantičarske tendencije značilo bi pristrano pojednostavniti stvari. Isticanje kompleksnosti onih sistema u kojima je čovjek važna komponenta, kao npr. u sistemima čovjek — stroj, više ne može biti najomiljenija i isključiva tema protivnika empirijskih znanosti. Ne nedostaje kvalificiranih ergonomičara koji bi skrenuli pažnju na tu kompleksnost i na opasnosti od njena potcjenjivanja. A. Chapanis je napisao: »Prije nekoliko stotina godina bilo je moderno izjaviti da je čovjek samo sistem sastavljen od složenih poluga i gumenih

prevailing resistance against this »so-called science which wants to quantify mental processes«.

In order to counter the effect of such detrimental conditions, experimental psychology was compelled to pose from the outset as the most scientific of all sciences. For this reason no 19th century scientific discipline adopted with so few reservations the then scarcely differentiated program of science as did early experimental psychology — a program which suffered from the influence of a doctrinal mechanistic mode of thought. In the interim the progress of the sciences in our century has contributed to depriving this program of its validity. Nevertheless, experimental psychology still hesitates to separate itself from all of the points of the old program. This is particularly evident in the case of ergonomics, the branch of applied psychology dealing with the study of man-machine-systems. Prejudices that originate from the first program continue to persist in this discipline. F. V. Taylor writes on this subject: »Although psychologists have become more scientific in their instrumental procedures, using better and better research tools and employing statistics of ever-increasing power, they are still working with pretty much the same old types of syntactically impoverished concepts.«<sup>21</sup>

If one points out to the ergonomist that there are factors in man-machine-systems, which, although they can be precisely evaluated, cannot be precisely verified and computed, he takes cover behind the argument that non-verifiable and non-computable factors cannot be the subject of his investigations. There are many who go so far as to maintain that only one-dimensional problems, or problems that can be solved by linear or scalar means, are scientific problems. Evidently they ignore what has long been practised in the natural sciences — physics, astronomy, biology — the acceptance of the multi-dimensional nature of scientific problems and the use of non-scalar mathematics.<sup>22</sup>

It would be a prejudiced simplification to accuse all the opponents of this belated cult, practised by some ergonomists, of metaphysical, idealistic, mystic, or simply romantic tendencies. To stress the complexity of systems where man constitutes an important component — as in the man-machine-systems for example — can no longer constitute the favourite and exclusive subject of the opponents of empirical sciences. Surely there are qualified ergonomists who draw attention to this complexity and to the dangers of underestimating this complexity. A. Chapanis writes: »A couple of hundred years ago it was the vogue to say that man

cijevi (izdanci živaca i krvne žile) što sadrže fluide koji daju energiju. Prije nekih petnaestak godina popularno se govorilo kako je čovjek samo servomehanizam. A danas se govori kako je čovjek samo kanal za obradu informacija. Tko baš želi, može čovjeka nazvati strojem, ali ga ne treba potcijeniti tada kad se s njim eksperimentira: čovjek je nelinearni stroj, odnosno stroj programiran na vrpici koja se ne može pronaći. Osim toga, to je takav stroj koji neprestano mijenja programe a da nikoga o tome ne obavještava; stroj koji je, čini se, osobito podložan smetnjama slučajne buke; stroj koji misli, koji ima svoje stavove i emocije i napokon stroj koji vas može nastojati prevariti i omesti u vašim pokušajima da pronađete ono što ga pokreće, a on u takvom svom nastojanju ponekad, na žalost, uspijeva.«<sup>23</sup> Trend prema simplifikaciji, koji Chapanis u svojoj knjizi opisuje i zbog kojega opominje, može se djelomice objasniti specifičnom prirodom istraživanja kojima su se u novije vrijeme ergonomičari posvetili. Istraživanja su se u prvom redu odnosila na regulacione sisteme u kojima čovjek mora djelovati kao operater u krajnje nepovoljnim uvjetima sve do granica svojih senzomotoričkih sposobnosti, u kritičnoj zoni »u kojoj se čovjekova efikasnost pogoršava sve do neprihvatljivog stupnja«.<sup>24</sup> Istraživalo se pomoću izvanrednih strojeva — ofenzivnih i defenzivnih oružja — i njihovih ništa manje izuzetnih operatera — vojnika. Budući da se ergonomija toliko specijalizirala za rješavanje kritičnih problema u vezi s vojnom opremom, ponekad je teško zapaziti razlike između ergonomije i vojne psihologije. »Strojevi se ne mogu boriti sami«, parola je modernih ergonomičara. Centralni problem te discipline bio je, a i danas je, kako adaptirati oružje vojniku, ali se vrlo često događa — usprkos svemu što ergonomičari svečano objavljuju — da se vojnik adaptira oružju.<sup>25</sup>

Nema sumnje da empirijski podaci dobiveni u toku ispitivanja vojne opreme imaju stanovitu vrijednost prototipa za sva područja, pa čak i za takva koja su posve daleko od vojne opreme. S druge strane, neprekidno bavljenje tim pitanjima sigurno je izazvalo određenu jednostranost u gledanjima ergonomičara, koja se izražava upravo kao težnje prema odviše apstraktnoj varijanti čovjeka operatera. Kod vojne se opreme ljudska komponenta ili komponenta »H«, kako je nazivaju ergonomičari,<sup>26</sup> po nuždi odvađa od vlastite svakidašnje stvarnosti, tj. svojih specifičnih društvenih, individualnih i kulturnih koordinata. Takav pristup obavezan je u interesu efikasnosti sistema kojega je komponenta »H« dio.

is nothing more than a system of complicated levers and pneumatic tubes (the nerves and blood vessels) which carry energizing liquids. Fifteen or so years ago, it was popular to say that man is nothing but a servo. Now it is the thing to say that man is nothing but an informationhandling channel. Call man a machine if you will, but do not underestimate him when you experiment on him. He is a non-linear machine; a machine that is programmed with a tape you cannot find; a machine that continually changes its programme without telling you; a machine that seems to be especially subject to the perturbations of random noise; a machine that thinks, has attitudes, and emotions; a machine that may try to deceive you in your attempts to find out what makes him function, an effort in which, unfortunately, he is sometimes successful.«<sup>23</sup> The trend towards simplification with which Chapanis deals here and against which he warns, may be explained in part by the special nature of investigations to which ergonomists devoted themselves in latter years. They were primarily investigating control systems where man operated under extremely unfavourable circumstances to the limit of his sensomotorical capabilities, i.e. in the critical zone »at which human performance deteriorated to an unacceptable degree«.<sup>24</sup> Investigations of these exceptional machines — offensive weapons or defensive weapons — and of their not less exceptional operators — the soldiers. Because ergonomics has specialised to such a great extent in the solution of critical problems in military equipment it is sometimes difficult to distinguish between ergonomics and military psychology. »Machines cannot fight alone« was the slogan of the modern ergonomist. The central subject of this discipline was, and still is today: adapt weapons to the soldier, and very often — despite all that ergonomists proclaim — adapt the soldiers to the weapons.<sup>25</sup>

Without doubt the empirical data obtained from investigations of military equipment possess a prototype value for all fields, and even for such fields which are completely removed from military equipment. On the other hand, constant occupation with such issues has no doubt resulted in a certain one-sidedness in the ergonomist — that particular tendency towards a too abstract version of the human operator. In military equipment the human component — the component H as the ergonomist says<sup>26</sup> — had of necessity to be separated from its daily reality, its specific, social, individual and cultural coordinates. This course is required in the interests of the efficiency of the system, of which H is a part.

## kozmonaut i žongler

Redukcija čovjeka na nivo stroja postaje posebno evidentna u domeni svemirskih letova s ljudskom posadom. A. Chapanis, međutim, u nedavno objavljenom referatu zauzima suprotno gledište: da se svemirski let s ljudskom posadom može interpretirati kao pobjeda ljudi operatera.<sup>27</sup> Uz mnogo dobre volje možda bismo se mogla složiti s tom interpretacijom. Ali, čini se da sve ukazuje na to da će budući slijed događaja sa svemirskim letovima poći drugačijim tokom. Idealni kozmonaut bit će čovjek kojega fizičari svemira nazivaju »gospodin optimalni čovjek«. To će biti optimalan čovjek potpuno adaptiran ne samo na zatvoreni sistem čovjek — stroj nego i na mnogo složeniji sistem u obliku zatvorenog ekološkog sistema. »Budući kozmonaut, piše A. F. Martfeld, neće smjeti ni jesti ni disati; te će tjelesne funkcije na sebe preuzeti droge i automatski baterijski uređaji. Pri tom će neki strojevi čak biti instalirani i u kozmonautovu tijelu. To znači ni manje ni više nego da čovjek namjerava umjetno usavršiti tzv. nesavršenu konstrukciju čovjekovu.«<sup>28</sup> Ako će u budućnosti gospodin Optimalni zaista predstavljati uzornog operatera u očima ergonomičara, onda dizajner proizvoda više neće moći izvući mnogo vrijednih podataka iz ergonomije osim onih koji se tiču pokaznih i regulacionih instrumenata. Jer, najprominentnija je karakteristika dizajna proizvoda interes za poboljšanje svakodnevne okoline tzv. relativnog čovjeka, a ne interes za apstraktnu okolinu tzv. apsolutnog čovjeka.

Interes dizajnera proizvoda usmjeren je na sisteme čovjek — stroj u skali svakidašnjice, tj. skali u kojoj individualni, društveni i kulturni faktori igraju važnu ulogu. Ergonomičari će biti prinuđeni napustiti sadašnje granice metoda i ciljeva i posvetiti se istraživanju mnogih dosad nerasvijetljenih problema u domeni operativnih odnosa između čovjeka i stroja i dobara široke potrošnje uopće. Neki ergonomičari upravo su počeli uočavati spomenute nedostatke, a u isto vrijeme zapažaju nova polja djelatnosti za svoju disciplinu, do čega dolaze prije svega uviđajući važnost društvenih nauka. A. B. Cherns u svom predavanju na Prvom internacionalnom kongresu o ergonomiji održanom 1961. u Stockholmu istakao je tu činjenicu ovako: »Odsad nam cilj mora biti razvoj ergonomskog pristupa faktorima socijalne psihologije i sociologije. To neće biti korisno samo za ergonomiju. Ergonomski pristup stimulirao je eksperimentalnu psihologiju svojim novim pogledima i metodama; sad bi trebalo da otvori nov eksperimentalni napad na probleme socijalne psihologije i sociologije.«<sup>29</sup> U prošlosti je ergonomija te faktore potcjenjivala. Razmotrimo na primjer temu »stručne vještine«. Ako proanaliziramo što je o toj temi napisano

## the cosmonaut and the juggler

Reducing man to the level of a machine becomes manifest, particularly in the field of manned space-flights. However, in a paper recently published, A. Chapanis adopts the apposite view, namely that manned spaceflight may be interpreted as a victory of humans as operators.<sup>27</sup> With quite a bit of good will one could perhaps agree with this interpretation. But everything seems to indicate that future developments in manned space-flight will take another turn. The ideal cosmonaut will be a human whom space physicians call »Mr. Optiman«: the optimum man who is completely adapted not only to a self-contained man-machine-system but to a much more complex system, in the form of a closed ecological system. »The future cosmonaut«, writes A. F. Marfeld, »shall have to neither eat nor breathe. Drugs and automatic battery-operated units shall relieve him of these body functions. Some of these machines shall even be fitted in the cosmonaut's body. This means nothing more and nothing less than that man intends to improve artificially the 'imperfect human construction'«. <sup>28</sup> If in the future Mr. Optiman shall represent the operator par excellence of the ergonomists, then the product designer will be able to draw but few conclusions from ergonomics, with the exception of some valuable hints regarding display and control devices. The most evident feature of product design is the interest in improving the down-to-earth environment of so-called relative man, and not the abstract environment of a so-called absolute human.

The interest of product designers is directed to man-machine-systems on a daily scale, the scale where the individual, social and cultural factors play an important role. The ergonomist will have to abandon the present boundaries of methods and aims and devote his efforts to the investigation of many problems, which have hitherto not been clarified, in the field of operative relationships between man and machine, and consumer goods in general. Some ergonomists are beginning to perceive these present shortcomings and, at the same time, to perceive new outlets for their discipline — above all by recognising the importance of social sciences. In his lecture to the First International Congress on Ergonomics at Stockholm in 1961 A. B. Cherns stressed this point: »We must now aim to develop an ergonomic approach to social psychological and sociological factors. Not only will this be to the benefit of ergonomics. The ergonomic approach has stimulated experimental psychology with its new outlook and methods; it should be able to open up a new experimental attack on problems of social psychology and sociology.«<sup>29</sup> In the past ergonomics has underestimated these factors. Let us consider the

po brojnim »kratkim referatima« posljednjih godina, stječemo dojam da je stručna vještina za ergonomičare posve izolirani fenomen. Zapravo je stručna vještina (kao i efikasnost) fenomen koji ovisi o drugim, širim i mnogo složenijim, fenomenima.

Dva tipa stručne vještine dijametralno su suprotna: stručna vještina kozmonauta i stručna vještina žonglera. Obojica moraju stvarati efikasne sisteme povratne sprege. Međutim, dok onaj prvi postiže efikasnost apsolutnim neutraliziranjem djelovanja svih faktora koji bi mogli smetati sistemu, ovaj drugi iskorištava baš te faktore da bi učvrstio svoj sistem. Stručna vještina žonglera (kao ni vještine akrobata, bubnjara, igrača biljara i artista koji hodaju po užetu) ne može se objasniti ni talentom ni praksom. Drugim riječima, ritualni pokreti virtuozna važan su dio njegove virtuoznosti. Tu nije riječ toliko ni o »showu« ni o »teatru«, kao što se često pretpostavlja. Jednako kao kod svih uloga, i društvena uloga virtuozna dolazi do izražaja pomoću vidljivih atributa, u ovom slučaju onih virtuozna. Ali ne samo što se uloga tako izražava već i biva ostvarena pomoću vidljivih atributa. Efikasno obavljanje uloge više od svega ovisi o tim atributima, pogotovo ako se uloga zove »efikasnost«.

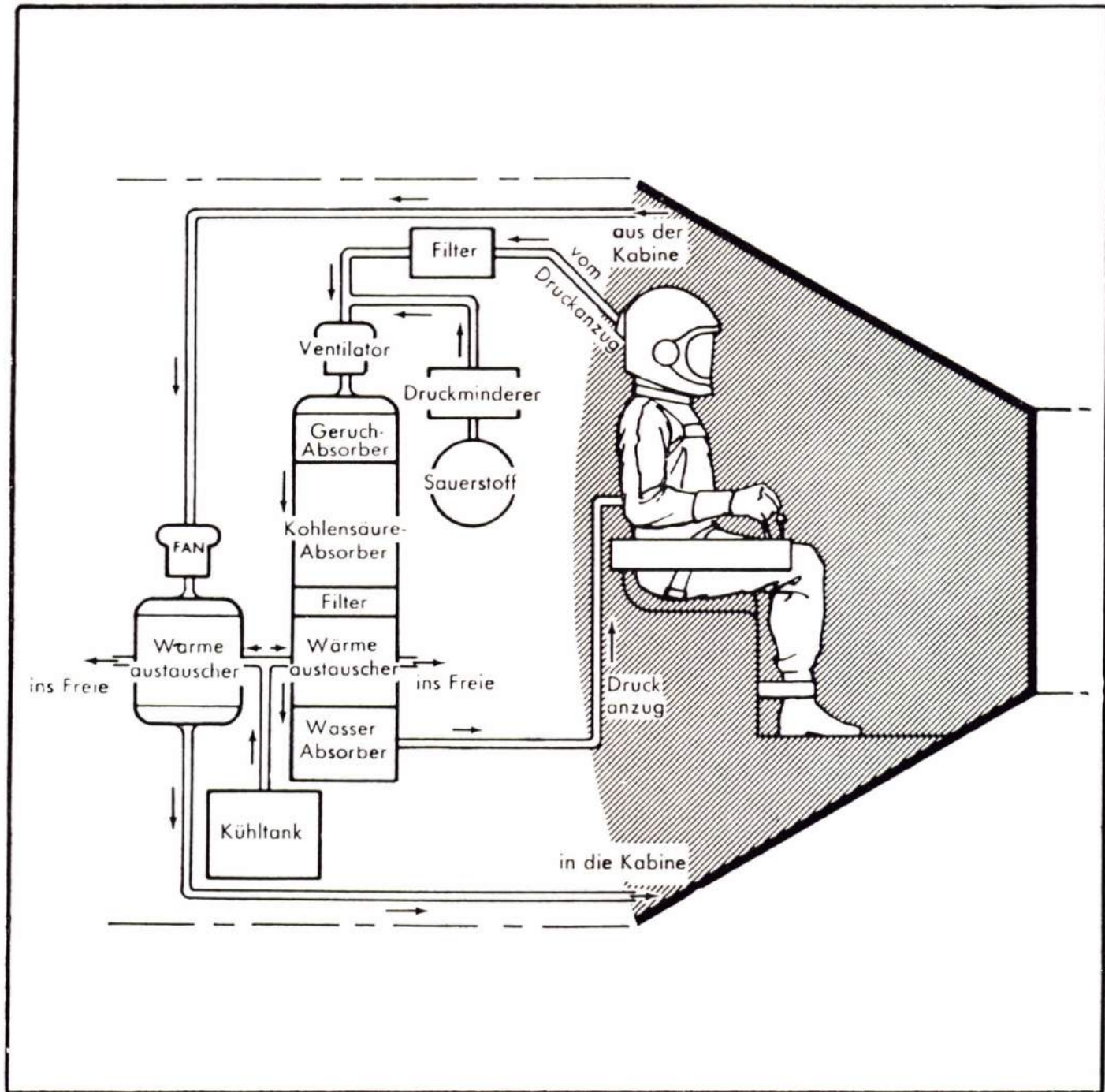
Vidljive šare na nekim životinjama nisu puka dekoracija već imaju ulogu kamuflaže i upozorenja. One su adresirani poticaji, kako bi to rekli biolozi.<sup>30</sup> Što se tiče žonglera, njegova prividno nepotrebna elegancija pokreta, njegova artistska izražajnost neodoljiva je od postojanja efikasnog odnosa prema objektima s kojima žonglira. Ali kao i astronautov, i žonglerov je slučaj ekstrem. S druge strane, on pokazuje tipove operativnog ponašanja koji se mogu u ograničenom obliku naći u brojnim drugim operativnim situacijama. Ljudsko tijelo nije samo mjera, kao što neki antropometri dogmatičari tvrde. Pokret nadilazi mjeru, a u pokretu je kultura.

M. Mauss je 1936. definirao »tehnike tijela« (techniques du corps) kao novo područje etnoloških istraživanja.<sup>31</sup> To je područje svijet poza, stereotipova tijela, što je vrlo važno za ergonomičare i dizajnere proizvoda. U prije spomenutom predavanju, održanom u Stockholmu, A. B. Cherns je ustvrdio da ergonomija više ne može zanemarivati istraživanje kulturnih faktora u operativnom ponašanju čovjeka. Posve ispravno, on je savjetovao svojim kolegama da pročitaju odličan referat G. W. Hewesa s naslovom »The Anthropology of Posture« (Antropologija poza).<sup>32</sup> Antropolog Hewes, koji je nastavio istraživanja što ih je započeo Mauss prije 20 godina, bavi se uglavnom kulturnom-antropološkom važnošću poza. Međutim, Hewes se u svom referatu ne zadovoljava prezentacijom »arheologije tjelesnih navika«, kako je Mauss

subject »skill« for instance. If we analyse the multitude of »little papers« written on this subject during latter years, we gather the impression that skill is a completely isolated phenomenon for ergonomists. In fact skill (and efficiency) is a phenomenon which is dependent on other larger and more complex phenomena. Two kinds of skill are diametrically opposed: the cosmonaut's skill and the juggler's skill. Both form effective feed-back systems. However, whereas the former achieves efficiency by an absolute neutralisation of factors that could interfere with the system, the latter exploits these factors to strengthen the system. The juggler's skill (as well as the skill of acrobats, drummers, billiard players, tight-rope artists for example) cannot be explained by talent and practice. Everything seems to indicate that skill is likewise influenced by a ritual presentation of skill. In other words, the ritual movement of the virtuoso is an important part of the virtuosity. 'Show' and 'theatre' are not involved as much as is frequently assumed. As almost all roles, the social role of the virtuoso is disclosed in visible attributes, in this case those of the virtuoso. But it does not only disclose itself, it is also realised by visible attributes. The efficiency of the role is, above all, dependent on these attributes, if it is the role 'efficiency'.

The visible patterns on some animals are not just decoration; they fulfil the functions of camouflage or warning. They are addressed stimuli, as the biologists call them.<sup>30</sup> In respect to the juggler his apparently superfluous elegance of movement, his artistry, is inseparable from his effective relationship to the objects with which he juggles. But like the astronaut, the juggler is surely an extreme case. On the other hand, he shows operative behaviour patterns which one finds in a qualified form in many other operative situations. The human body is not only a measure as some dogmatic anthropometrists maintain. Movement transcends the measure, and movement is culture.

In 1936, M. Mauss defined the »techniques du corps« as a new field of ethnological investigation.<sup>31</sup> It is the world of posture, the stereotypes of the body, which is highly important for ergonomists and product designers. In the aforementioned lecture in Stockholm, A. B. Cherns maintained that ergonomics can no longer dispense with the investigation of cultural factors in the operative behaviour of man. Quite rightly he advises his colleagues to read the excellent paper by G. W. Hewes entitled 'The Anthropology of Posture'.<sup>32</sup> The anthropologist Hewes, who continued the investigations started by Mauss twenty years ago, is occupied primarily with the cultural-anthropological importance of posture. However, in his paper Hewes does not rest content with a presentation of the 'archeloge des



Zračni opskrbni uredaj svemirske kapsule Mercury, po K. W. Gatlanu

Air supply installation of the Mercury space capsule after K. W. Gatlanu



*Žongler Fred Lony izvodi tačku balansiranja*

*The juggler Fred Lony in a balancing act*

tražio. On je pošao dalje. Upozorio je kako je nužno uzimati u obzir »navike tijela« pri oblikovanju predmeta naše tehničke civilizacije. »Poze i s njima povezane motoričke navike u intimnoj su vezi s mnogim aspektima dnevnog života. One utječu na dizajn odjeće, cipela, namještaja, stanova, ureda, vozila, alata i strojeva... Trenutno su gotovo svi naši kompleksni alati, ploče s instrumentima, komandne ploče, klupe, stolovi itd. planirani da ih upotrebljavaju ljudi koji su se već navikli na tradicije poza zapadnih kultura.«<sup>34</sup> Dani kad su dizajneri mogli raditi na proizvodu ignorirajući naučne doprinose ergonomije pripadaju prošlosti. Radi ostvarenja plodne suradnje između dizajnera i ergonomičara mora se promijeniti ne samo dizajnerov stav prema nauci općenito, već se moraju revidirati i sadašnje metode i ciljevi ergonomije, a povrh svega više se pažnje mora posvetiti utjecajima kulturnih faktora na operativno ponašanje čovjeka.

### **dvosmjerni zadatak**

Naučne metode dizajna ne sugeriraju uvijek samo to da treba primjenjivati matematske ili heurističke tehnike ili da se treba služiti rezultatima ergonomije. Mnogi misle da se naučni dizajn ostvaruje jedino onda kada dizajner problemu pristupa uz pomoć istraživanja tržišta i istraživanja motiva. Prema tom prilično raširenom mišljenju dizajner je samo interpret potražnje na tržištu u danom momentu. Dosljedno takvom shvaćanju naučni bi dizajn bio samo znanstveno tumačenje ukusa, želja, pa čak i snova potrošača. Drugim riječima, naučni dizajn bio bi isključivo replikacija; nikako heuristička već samo hermeneutska aktivnost; nipošto inventivna već samo interpretativna aktivnost. Na prvi pogled to se čini uvjerljivim. Nema sumnje da potrošači imaju stanovit ukus, želje pa čak i snove kojima daju prednost. Svi mi uviđamo da se kao potrošači pridržavamo neke orijentacije. Stoga je očito da dizajner koji želi obavljati svoju funkciju u demokratskom društvu na odgovarajući način mora pokušati otkriti tu orijentaciju što je moguće, preciznije, te da mora pokušati u skladu s tim razviti svoje proizvode. Međutim, stvarnost nije tako jednostavna, pa je zaista potrebna velika doza naivnosti, ili možda cinizma, da se prihvati ta teza.

Ona se zasniva na ovim lažnim premisama: 1) da su i istraživanje tržišta i istraživanje motiva toliko zrele discipline da pružaju dovoljne informacije o spomenutoj temi; 2) da potrošačev ukus i snovi iskrsavaju spontano i da su rezultat onog što bismo mogli nazvati automatizmom preferiranog izbora; 3) da je dizajnerova funkcija čisto interpretatorska. U stvarnosti su dosad i istraživanje tržišta i istraživanje

habitudes corporelles' as Maus demands. He went further. He referred to the necessity of taking the 'habitudes corporelles' into account in the design of objects in our technical civilisation. »Postures and related motor-habits are intimately linked with many aspects of daily life: they affect the design of our clothing, shoes, furniture, dwellings, offices, vehicles, tools and machines... At present nearly all our complex tools, instrument panels, control boards, benches, tables, etc., have been planned for the use of people accustomed to the postural traditions of Western cultures.«<sup>35</sup> The days have passed when product designers could work without the scientific contribution of ergonomics. In order that the cooperation between the product designer and the ergonomist bears fruit, not only must the designer's attitude change towards science in general; but the present methods and aims of ergonomics must be revised; and, above all, greater attention must be devoted to the influence of cultural factors in the operative behaviour of man.

### **the two-sided commission**

Scientific design methods do not always suggest only the application of mathematical or heuristical techniques or the utilisation of the results of ergonomics. Many share the opinion that scientific design is performed only when the designer approaches the problem with the aid of market and motivations research. According to this rather widespread opinion the designer is only an interpreter of what the market demands at a given time. In consequence scientific design would be the scientific interpretation of taste, wants, and even consumer's dreams. Scientific design would merely be replication. In other words: not a heuristical but a hermeneutical activity, not an inventive but an interpretative activity. At first this may sound convincing. Without doubt consumers have taste, wants, and even dreams, to which they give preference. We all realise that our behaviour as consumers has a certain orientation. It is thus obvious that the designer, who wishes to fulfil his function satisfactorily in a democratic society, must try to detect this orientation as accurately as possible and must endeavour to develop his products accordingly. Reality is more complex, however; and one must be endowed with a good deal of naivety — or perhaps cynicism — in order to accept this thesis.

It is based on the following false premises: 1) that both market and motivations research really are such mature disciplines that they supply sufficient information on this subject; 2) that consumer's taste and dreams spring up spontaneously and are the result of what we could call the automatism of preference; 3) that the designer's function is purely interpretative. In reality both market and motivations

motiva akumulirali samo fragmentarno i pokusno iskustvo na svojim područjima aktivnosti. Treba priznati da je istraživanje tržišta nedavno usavršilo svoje metode, ali ozbiljni se nedostaci još uvijek mogu otkriti, a oni proizlaze iz sadašnjeg nedostajanja precizne terminologije. Na mahove se stječe dojam da istraživači tržišta smatraju kako je moguće egzaktno kvantitativno vrednovanje ponašanja potrošača, i to bez razmatranja kvalitativnih aspekata. Ako se s jedne strane istraživačima tržišta može uputiti prigovor zbog ograničenosti njihove kvantitativne metode, onda se istraživačima motiva može prigovoriti zbog jednostranosti. Istraživanje motiva služi se u njihovoj interpretaciji isključivo instrumentima dubinske psihologije, bilo one frejdovskog bilo one nefrejdovskog tipa. Takva jednotačna metoda pristupanja kompleksnim problemima motivacija jedan je od razloga zašto toliko malo znamo o načinima i putovima pretvaranja neizdiferenciranih potreba u određenu tržišnu potražnju. Promatrani s tog stanovišta i istraživanje tržišta i istraživanje motiva trpe od istog nedostatka: oba istraživanja odnose se na jasno iskazanu potražnju a nikada na još neku nepostojeću potražnju, ili na onu koja upravo nastaje; oba betoniraju status quo umjesto da ga nadmaše. Čini se da u oba istraživanja postoji neshvaćanje da već strukturirana tržišna potražnja nije nastala partenogenezom ili po diktatu nekog malog broja psiholoških kategorija. Ove posljednje jedva da se čine uvjerljivima ako se prisjetimo da su klijenti i istraživanja tržišta i istraživanja motiva u svim slučajevima one iste interesne grupe koje utječu u golemim razmjerima — sigurno u mnogo većim razmjerima nego psihološke kategorije — na ukus, želje pa čak i snove potrošača. Istraživač motiva ponekad nas podsjeća na detektiva s dvoličnim zadatkom: s jedne strane mora zavesti ženu, a s druge pronaći tko je njen ljubavnik; proizvesti motive i pronaći koji su to motivi.

U našem društvu nije lako prozreti ni svijet robe, a u brojnim slučajevima ni dizajn proizvoda koji utječe na taj svijet robe. Usprkos svim tim nepovoljnim okolnostima, jedno se ipak jasno ističe: u budućnosti se funkcija dizajnera proizvoda ne bi smjela sastojati u dizajniranju proizvoda prema već iskazanoj potražnji, kako je još uvijek uobičajeno u našoj slobodnoj tržišnoj privredi. Bilo bi mnogo bolje da dizajner proizvoda bude taj koji pridonosi strukturiranju potražnje. U protivnom moći će igrati tek podređenu ulogu unoseći u postojeće proizvode samo površne modifikacije. Dizajner proizvoda ne bi smio smatrati da se njegova funkcija sastoji u držanju jezika za zubima, nego u širenju nemira.

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Prijevod: Vilim Crlenjak

research have had up to now fragmentary and tentative experience in their fields of activity. Admittedly, market research has perfected its methods of late; but serious shortcomings can still be detected, which stem from the lack of an accurate terminology. At times one gains the impression that market researchers consider an exact quantitative evaluation of consumer behaviour possible without taking the qualitative aspects into consideration. Now, if one can research have had up to now only fragmentary and tentative reproach market research for its restricted quantitative method, then one can reproach motivations research for its one-sidedness. In interpreting motives, motivations research calls exclusively upon the instruments of depth psychology, whether of Freudian or neo-Freudian character. This single-track method of approaching the complex problems of motives is one of the reasons why we know so little about the ways and means of converting undifferentiated needs into definite demands. Viewed from this aspect both market and motivations research suffer from the same shortcoming: both refer to a clearly outlined demand, but never to a nonexistent or coming demand; both cement the status quo rather than transcend it; both seem to misunderstand that this outlined demand did not arise by parthenogenesis or the dictates of some few psychological categories.

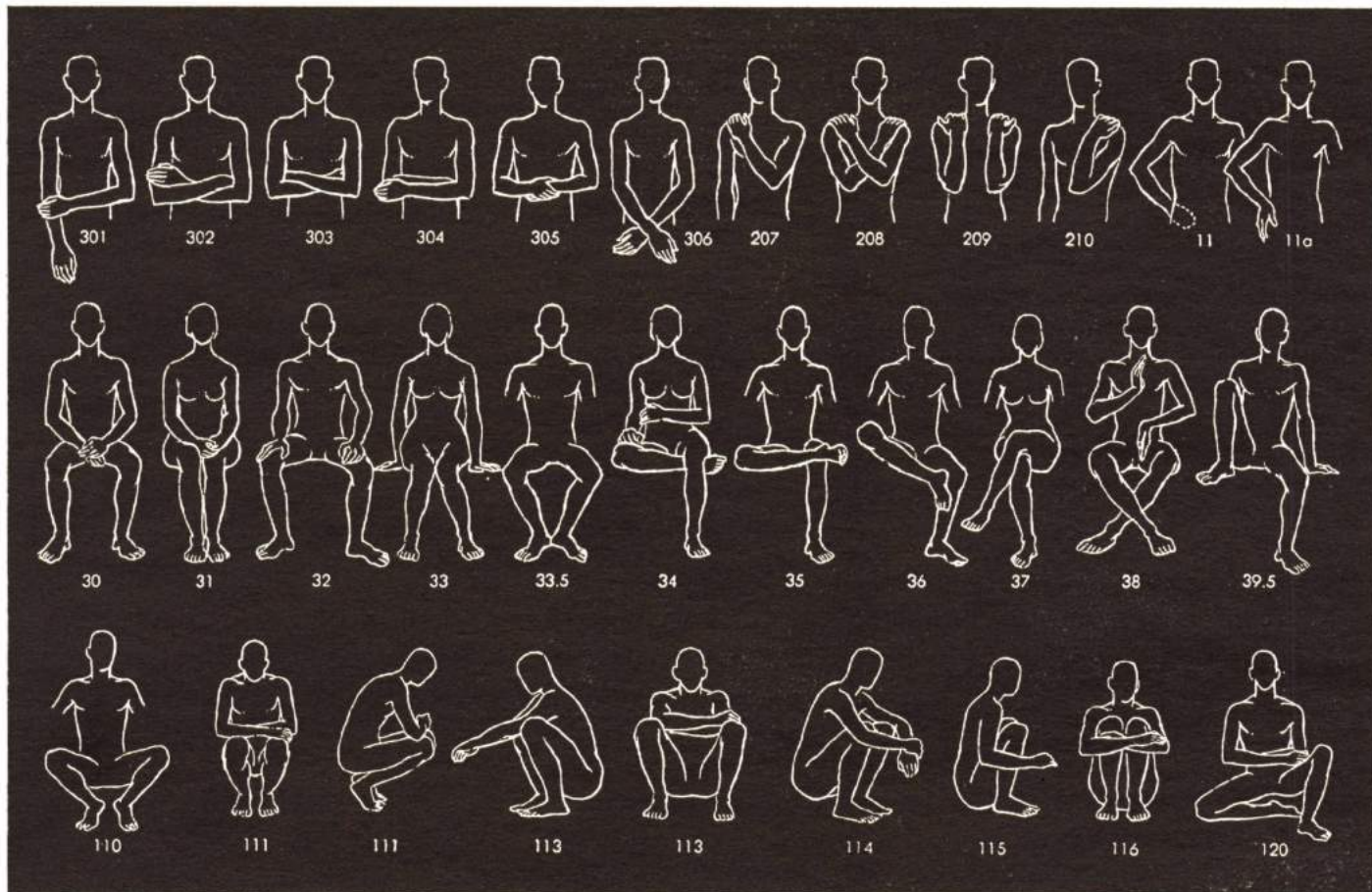
The latter hardly appears convincing when one calls to mind that the clients of both market and motivations research are, in all cases, the very interest groups who influence on a large scale — on a far larger scale than psychological categories — the taste, wants, and even dreams of the consumers. The motivations researcher sometimes reminds us of a detective with a two-sided commission: to seduce the wife on the one hand, and to find out who is her lover on the other hand. To produce the motives and at the same time to find out what they are.

In our society neither the world of merchandise can be easily penetrated nor, in many cases, product design which influences this world of merchandise. Despite all these unfavourable circumstances one thing emerges: in future the function of the product designer should not consist of designing products according to an outlined demand, as is still the custom in our free economy. Rather more, the product designer should be the one who contributes to the creation of demand; otherwise he will be able to play only a subordinate role and preserve the existing products with only superficial modification. The product designer should not consider his function to keep quiet but to promote disquiet.

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*Tipologija držanja tijela po G. W. Hewesu*

*Typology of posture after G. W. Hewes*



*gui bonsiepe*

edukacija  
za vizuelni  
dizajn

*gui bonsiepe*

education  
for visual  
design



Riječi — edukacija za vizuelni dizajn — mogle bi najaviti manifest. Moglo bi se očekivati da je tu sadržan program. Ali to mi nije namjera. Rezervirani smo prema obrazlaganju programa, možda zbog toga što naša društvena sredina ne prihvaća otvorenost potrebnu kod formuliranja i predstavljanja programa. Moj je cilj skromniji. Pokušat ću ukazati na neke putove koji bi mogli dovesti do filozofije vizuelnog dizajna uključujući edukaciju.

### **svcobuhvatnost dizajna**

Ako bih upotrebljavao termin »dizajn« bez specifikacije, tj. kao da se ne misli ni na dizajn arhitekture, ni na vizuelni dizajn, ni na dizajn proizvoda, uvjeren sam da bi taj nejasan i neodređen termin stvorio pogrešne ideje. »Dizajn« obuhvaća široku raznovrsnost ljudskih aktivnosti. Njegovo područje seže od dizajna tapeta za zidove do dizajna izložbi i zahvaća najnovije varijante dizajna: oružje i obrambene sisteme. U toku izlaganja ograničit ću se na često preslobodno upotrebljavani termin »dizajn«. Posebno ću pokušati da opišem sadržaj izraza »vizuelni dizajn«.

### **o povijesti dizajna**

Povijest dizajna službeno započinje 1919. kada je Walter Gropius otvorio Bauhaus. Ono što je bilo novo i specifično za tu danas legendarnu školu činjenica je da je prvi put čitava ljudska okolina sagledana kao predmet dizajna. Prvi je put formuliran široki zadatak da se čovjekova okolina, zasnovana na modernoj tehnologiji i industriji, mora humanizirati. Težnje ljudi iz Bauhauusa bile su usmjerene poboljšanju okoline primjenom tehnologije. Program Bauhauusa imao je društveno-politička obilježja.

Naravno da Bauhaus nije počeo od nule. Začeci filozofije Bauhauusa datiraju već od sredine 19. stoljeća.

### **estetika i društvo**

Ruskin je, užasnut rušilačkim estetskim i društvenim posljedicama industrijalizacije, izjavio prije sto godina: »Život bez industrije je grijeh, a industrija bez umjetnosti je brutalnost.« Nije samo estetska odvratnost pomamne ekspanzije svijeta strojeva navela Ruskina da bude nepovjerljiv prema takvom društvu i da traži lijeka protiv barbarske tehnike. Još više on je osjećao da je bijeda estetike

Education for visual design — these words could announce a manifesto. They could nourish the expectation that a program is presented here. But that is not my intention. We have become reserved in regard to programs, probably for the reason that our social environment is not conducive to the candour necessary to formulate and to present programs. My aim is more modest. I shall try to show some ways which might lead to a philosophy of visual design including education.

### **all-embracing design**

Using hitherto the term 'design' without specification, that is talking neither about architectural design, nor visual design nor product design, I am aware of the fact that this vague and undefined term could foster false ideas. 'Design' embraces a large variety of human activities. Its range reaches from the design of a wall carpet, to the design of an exhibition and ends in the most recent variant of design: the weapon and defense systems. In the course of my talk I will limit the often too loosely used term 'design'. Especially, I shall try to describe the content of the term 'visual design'.

### **on the history of design**

The history of design started officially in 1919 when Walter Gropius opened the Bauhaus. What was new and specific on this nowadays already legendary school was the fact that for the first time the total human environment was regarded as an object of design. For the first time the broad task was formulated that a human environment based on modern technology and industry has to be humanized. The impulses of the Bauhaus people were directed towards improving the environment through the use of technology. The program of the Bauhaus contained political-social traits.

Of course the Bauhaus did not start from zero. The origins of the philosophy of the Bauhaus date back to the mid 19th century.

### **aesthetics and society**

It was Ruskin who terrified by the devastating esthetic and social consequences of industrialization stated about 100 years ago: »Life without industry is guilt, and industry without art is brutality.« But it was not only the esthetic abhorrence of the rampant expansion of the world of machines which caused Ruskin to search for precautions against and remedies for the barbarian technique. Rather he left that the esthetic

izraz društvene bijede. Nadao se da će estetski razvitak svijeta poboljšati društveni svijet.

Ruskin je isto tako mogao reći da ljudskim pravima također pripadaju prava na humanu okolinu, na sredenu i funkcionalnu okolinu. Cinič bi danas lako mogao odbaciti takve ideje kao naivnu i pogrešnu ideologiju. Ne bismo, međutim, smjeli zaboraviti da bi siguran položaj estetike u društvu mogao da je očuva od redukcije na element apstraktnog anemičnog ili komercijalnog eksploatiranja, kao što je slučaj sa stajlingom.

### **posljedice bauhausa**

Osnovni kurs potvrdio se kao jezgra koncepcije Bauhausa. Svi umjetnički pokreti dvadesetih godina, kao što su njemački ekspresionizam, ruski konstruktivizam i holandski De Stijl, pridonijeli su osnovnom kursu Bauhausa. Jedino francuski nadrealizam na prvi pogled nije ostavio jasnih tragova, ako na čas zanemarimo foto-montaže Moholy-Nagyja. Da bismo rasvijetlili taj problem, potrebna je dulja historijska analiza. Teško je tačno procijeniti domet utjecaja Bauhausa na čitavu edukaciju umjetnosti i dizajna. Premda o tome predstoji još povijesno izučavanje, ipak se može ustvrditi da nema umjetničke škole koja nije, ovako ili onako, preuzela Bauhausov osnovni kurs.

### **industrija komunikacija**

Ulmska škola formulirala je program vizuelnog dizajna, koji se ne samo razlikuje od sličnih nastojanja u Bauhausu već je suštinski nov. U Bauhausu se takav program uopće nije mogao koncipirati, jer za to nije bilo objektivnih uvjeta. Industrija koju mi danas nazivamo komunikacijskom industrijom — film, televizija, radio i štampa — utemeljena je tek dvadesetih godina, odnosno nakon zatvaranja Bauhausa. A upravo u komunikacijskoj industriji odigravaju se danas farse i drame komunikativnog života. Osim toga, prelaskom iz privrede nestašice u privredu izobilja pomaknuta je ekonomska propaganda, kao nova institucija socijalne kontrole, u središte vizuelnog dizajna. Te promjene u tehnologiji i ekonomiji ne dopuštaju da se ideje Bauhausa presade u cjelini. Ali novi dijelovi programa nisu uzrok uzdržanog stava mnogih škola prema HfG u Ulmu. Napetost i animozitet uzrokovani su činjenicom što Ulmska škola pridaje veću važnost pitanju kako se dizajn odnosi prema znanostima nego pitanju kako se odnosi prema umjetnosti.

misery was an expression of the social misery. By improving the world esthetically he hoped to improve the societal world. Ruskin might well have said that the human rights also include the right of a human environment, of an ordered and functioning environment.

A cynic today could easily renounce such ideas as naive and false ideology. We should, however, not forget that the anchoring of esthetics in society kept it from shrivelling to an element of abstract anaemic beautification or commercial exploitation as in styling.

### **the consequences of the bauhaus**

The basic course has proved to be the core of the Bauhaus concept. All the various art movements of the twenties have contributed to put a mark on this basic course, which are the German expressionism, the Russian constructivism and the Dutch Stijl. Only the French surrealism left at first sight no clearly visible traces if you disregard for a moment the photo-montages of Moholy-Nagy. But to clarify this problem a more profound historical research is needed. It is difficult to evaluate exactly the extent of the Bauhaus influence on the whole art and design education. Although we still lack a historical study on these ramifications we might be justified in saying that there is hardly any art school which has not incorporated the basic course be it modified or not.

### **communication industry**

The Ulm School has conceived a program for visual design which not only differs from similar attempts of the Bauhaus but also is essentially new. The Bauhaus is not to be blamed for this, because the historical conditions simply did not allow it. The industry which we denote today by the term 'communication industry' — this is film, television, broadcasting and mass printing — began to establish itself during the twenties respectively after the Bauhaus had been closed. And it is exactly in communication industry where dramas and farces of the communicative life take place today. Furthermore, the transition from an economy of scarcity to an economy of abundance placed advertising as a new institution of social control into the center of visual design. These changes in technology and economy prohibit the transplanting of the Bauhaus en bloc. But the new parts of the program of the Ulm School are not the cause for the reservations with which other schools of design regard Ulm. Causes for tensions and animosity are provided by the fact that the Ulm School gives greater attention to the question how design is related to science, than to the question how design is related to the arts.

## dizajn između umjetnosti i znanosti

Dizajn je novajlija koji se ne uklapa u shemu tradicionalnih institucija. Međutim, mnogi predstavnici umjetnosti s jedne strane i znanosti s druge osporavaju mu i odbijaju to pravo na samostalnost. Profesija dizajnera — koja zahvaća jedva jednu generaciju — neprestano se mora braniti od napada s objiju strana. Beaux-arts tradicionalisti ne vide u dizajnu ništa više od manjevrijedne, tehnikom inficirane varijante umjetničke djelatnosti. Dizajn proizvoda čini im se kao nastavak skulpture drugim sredstvima, a vizuelni dizajn kao niža kategorija slikarstva i grafike. Futuristički znanstvenici i neki predstavnici inženjerskih disciplina objašnjavaju dizajn kao fenomen čije se postojanje može pripisati promašaju inženjera i koji stoga treba vratiti na pravo mjesto. U oba se slučaja poriče samostalnost dizajna. Ipak, dizajn se ne može reducirati ni na umjetnost ni na znanost. U onih, kojima je dizajn tek posrednik vlastite ekspresije, navodna hladna racionalnost Ulmske škole izaziva nespokojstvo. Suprotno tome, vrhovnim svećenicima znanosti Ulmska škola nije dovoljno znanstvena i racionalna već odviše intuitivna i protkana idealizmom. Tako se Ulmska škola kreće u polumraku, između onih koji žele da od dizajna stvore umjetnost i onih koji ga žele učiniti znanost.

## umjetnost kao institucija koja se ne može planirati

Običaj Beaux-arts tradicionalista da dizajn podređuju umjetnostima izazivao je u samom polju dizajna paradoksalnu reakciju: istinita umjetnička djela 20. stoljeća — prema tom mišljenju — upravo su djela dizajna; dosadašnja umjetnost slika i skulptura bit će nadomještena plakatima, ambalažom, zaštitnim znakovima, proizvodima i strojevima; scenerija profane svakodnevnice zauzet će mjesto uzvišene izuzetnosti.

Bitna razlika između dizajna i umjetnosti tu nije spoznata — što ne znači da između oba područja ne mogu postojati plodonosne veze. Umjetnost je jedna od malobrojnih zona gdje je individuum zaštićen od kolizije s opresivnim snagama i gdje može držati otvorenim svoj iskustveni horizont. Otkada se umjetnost emancipirala — a taj se proces zbivao paralelno s industrijalizacijom — ona je nagrizana sumnjom i izložena nesigurnosti. Ona se suprotstavlja principu administriranja, koji je, čini se, princip industrijskog društva. Umjetnost se ne

## design between art and science

Design is a new-comer, which does not fit into the scheme of traditional institutions. The right of autonomy, however, is not acknowledged and even refused by the representatives of the arts on the one hand, and by the representatives of the applied sciences on the other hand. The profession of the designer — hardly more than one generation old — has to defend itself continuously against usurpation tendencies from both. The beaux-arts-traditionalists take design as nothing more than a variant of art activity, overmore of a mediocre art activity because design is technologically infected. Product design appears to them as a continuation of sculpture with different means, and visual design as a subcategory of painting and graphics. The futuristic scientists now try to explain design as a phenomenon, the existence of which we have to attribute to the failure of an older profession, for instance engineering, and which therefore has to be brought back to its proper place. In both cases the autonomy of design is denied. But design cannot be reduced to either art or science. He who uses design primarily as a vehicle of self-expression the cool rationality — or what is believed to be the cool rationality of the Ulm School — causes some uneasiness. For the high priest of relentless scientific method on the other side the Ulm School is not scientific enough, too much inclining to the intuitive side and too interwoven with some strange ideals. Thus the Ulm School moves in twilight. It stands between those who want to make out of design an art and those who want to make out of design a science.

## art as unplanable institution

The habit of the beaux-arts-traditionalists to classify design under the arts has now caused a paradoxical reaction in the field of design itself: the real art works of the 20th century — according to this opinion — are the design works; the previous art in form of painting and sculpture will be succeeded by the posters, packaging, trademarks, products and machines; the scenery of the profane ordinary day will take the place of the elevated exception. Here, the essential difference between art and design is not recognized which does not exclude that between both areas of human activity fruitful relationships can exist. Art is one of the very few zones in which the individual is protected against the collision with the oppressive forces and in which the individual can hold open his horizon of experience. Since art emancipated itself — this process runs parallel to the process of industrialization — it is affected with doubts and exposed to insecurity. It resists the principle of administration

može planirati kao što se može planirati izgradnja brana. Umjetnost se ne može opravdavati, ne može se izvesti iz neke funkcionalne sheme. Umjetnost je suvišna u društvu izobilja. U umjetnosti — i filozofiji — dopušten je još luksuz negacije. Baudelaire je u svojim varijacijama uvoda za »Cvijeće zla« inzistirao na pravu negacije: »Nisam ove retke pisao ni za svoje žene, ni za svoje sestre, ni za svoje kćeri, ni za žene svog susjeda, ni za njegove sestre i kćeri. To prepuštam onima kojima je interesantno da dobre namjere zamjenjuju strašću za lijep jezik.« Ta negacija sadrži više istine od bilo kojeg iskričavog pozitiviteta. Umjetnik interpretira; dizajner ne interpretira. Dizajner usmjeruje svoje napore na konkretno poboljšanje ljudske okoline. Umjetnik pokazuje kako se ta okolina s individuumom poigrava. Dosad je umjetnost bila arhetipsko područje estetskog iskustva. To bi mogao biti razlog što je u početku dizajn promatran kao umjetnička djelatnost, jer je i on upleten u estetiku. Ali pogrešno je nastojati primijeniti umjetničku estetiku na dizajn.

### značenje dizajna

Na početku sam govorio o potrebi preciziranja pojma dizajn. To je moguće isključenjem onoga što dizajnu ne pripada. Kao prvo, isključio bih sudjelovanje dizajnera u projektiranju oružanih i obrambenih sistema. Jer od početka, filozofija dizajna shvaćala ga je uvijek kao oblikovanje za život, a ne za preživljavanje i razaranje. Na pitanje kako dizajner sudjeluje u projektu jedne rakete postoji danas samo jedan odgovor: nikako.

Drugo, želio bih iz područja dizajna izuzeti one sektore na koje još uvijek utječe obrtnička tradicija. Za područje vizuelnog dizajna to je kaligrafija, tipografija dragocjenih unikata, drvorez, radirung, bakropis i ilustracija. U Ulmu te djelatnosti namjerno nismo uvrstili u nastavni program. Mi želimo koncentrirati svoju energiju na moderne komunikacijske medije i tehnike, gdje se već uvriježio termin vizuelna komunikacija.

### persuasivna i nepersuasivna komunikacija

Kako je Tomas Maldonado na svjetskoj konferenciji dizajnera 1960. u Tokiju upozorio, navikli smo da vizuelnu

which seems to be the principle of industrial society. One cannot plan art as one can plan the construction of Boulder dams. Art cannot be justified, cannot be derived from some functional scheme. Art and philosophy still permit the luxury of negation.

Baudelaire for instance insisted on the right of saying 'no' in an exemplary manner writing in his variations of the introduction to the 'Flowers of Evil': »It is not for my women, nor for my sisters, nor for my daughters that I have written these lines; nor for the women of my neighbour, nor for his sisters nor for his daughters. I leave this to those who have an interest in confusing the good intentions with the passion for the beautiful language.« This negation contains more truth than any radiant positivity. The artist interprets. The designer does not interpret. The designer directs his efforts toward the immediate improvement of the human environment. The artist shows how this world afflicts the individual. Hitherto art was the archetypical area of esthetic experience. This may have furnished the reason for the fact that design at first was regarded an art activity, because design too was involved in esthetics, but it is misleading to force the esthetics of art onto the esthetics of design.

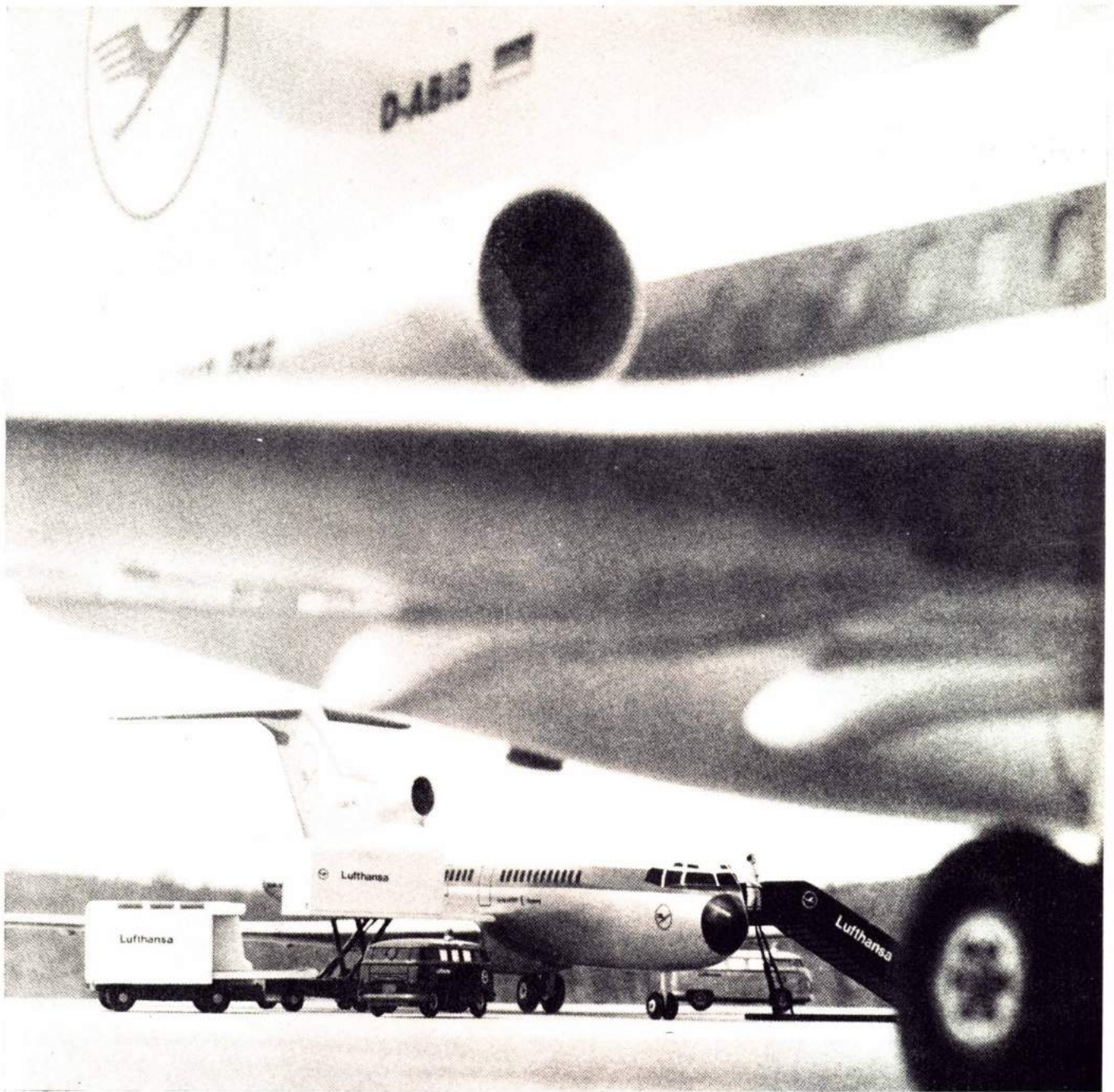
### the meaning of 'design'

At the beginning of my talk I emphasized the necessity of giving to the concept of design a precise meaning. This can be achieved by cutting off.

First I want to exclude from the activity of the designer the planning of weapon and defense systems. For from its beginnings the philosophy of design interpreted design as a design for living, less than for surviving and destruction. To the question: What has the designer to do with space rockets? there is today only one answer: nothing. Secondly, I want to separate within the fields of design those sectors which remain under the influence of an arts and crafts tradition. Concerning visual design, these sectors are: calligraphy, the typography of the precious single book, wood cutting, etching, engraving and illustration. In Ulm we have decidedly not introduced these because there are already many schools offering an education in mentioned fields; secondly, we want to concentrate our energies on the modern communication media and techniques, for which the term 'visual communication' has become customary.

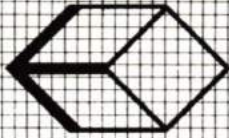
### persuasive and non-persuasive communication

As Tomas Maldonado said in a seminar on the occasion of the world design conference in Tokyo 1960 — we tend to



*Lik firme Luŝthanse (1962). Dizajn Otl Aicher, Suradnici  
Tomás Gonda, Fritz Querengässer, Nick Roericht*

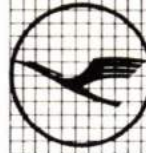
*Corporate Image of Luŝthansa German Airlines (1962). Design  
Otl Aicher. Collaborators Tomás Gonda, Fritz Querengässer, Nick  
Roericht*



**S**

**Super**

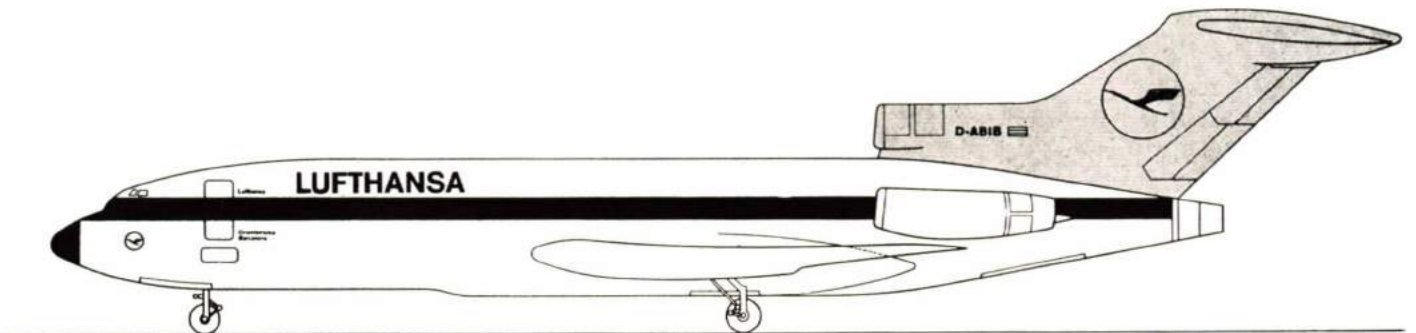
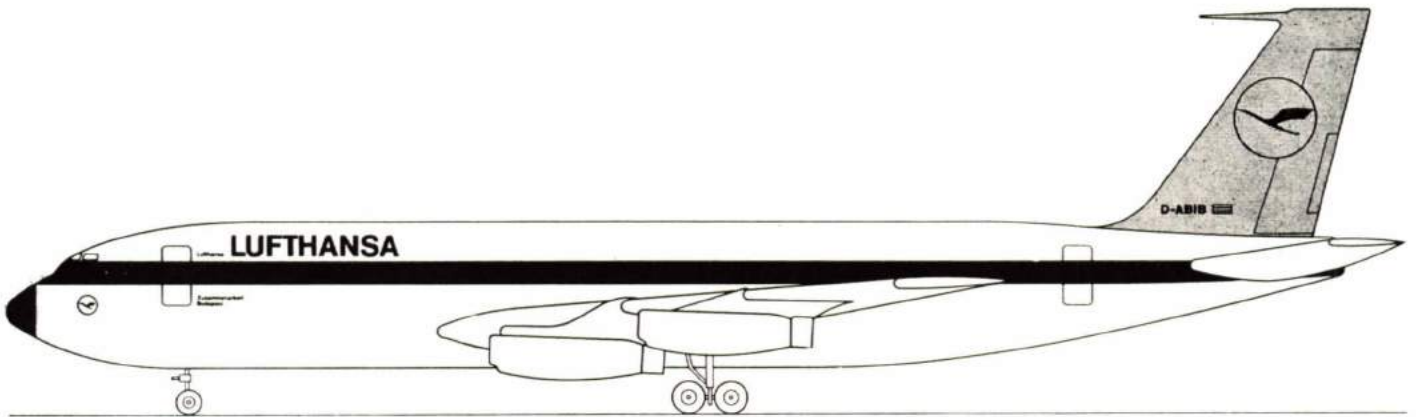
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**hansa**



komunikaciju pretežno, ako ne i isključivo, poistovjećujemo s reklamom, ekonomskom propagandom. Ali postoje i takvi oblici vizuelne komunikacije kojima ne nagovaramo potrošače na kupnju ovog ili onog sapuna ili izbor nekog kandidata. Bez sumnje, persuasivna komunikacija toliko prevladava da kritika posljednjih godina postaje sve glasnija. Reakcija javnog mnijenja protiv poplave propagandnih poruka dakako da nije mogla biti ugodna onima koji se reklamom služe i financiraju je. Nisu izostali branioci reklamiranja. Kritike i apologije ekonomske propagande razjašnjavaju mnoge antagonizme našeg društva. Najčešće se ekonomska propaganda kritizira iz ekonomskih razloga. Ne uznemiruje samo socijalne kritičare činjenica da SAD investiraju u ekonomsku propagandu gotovo isto toliko novca koliko i u cjelokupno nacionalno obrazovanje (1963. oko 12,5 milijardi dolara). Na tu ekonomskim terminima izraženu sumnju u socijalnu funkciju ekonomske propagande apologeti ekonomske propagande odgovaraju da ona društvu i privredi pruža servis koji ne treba potcjenjivati, jer se široki slojevi stanovništva informiraju o proizvodima i uslugama o kojima inače ne bi znali.

### **informacija i ekonomska propaganda**

Krajnje neodređen pojam »informacije« ne treba da nas zavede da polovičnu istinu uzmemo za cijelu. Nitko neće zaniijekati da ekonomska propaganda informira. To ipak ništa ne govori o kvaliteti i društvenoj potrebnosti informacije. Nitko neće poreći da je ekonomska propaganda nužna u određenom tržišnom sistemu. Ali nitko ne može osporiti ni to da ekonomska propaganda želi utjecati na sklonosti i ponašanje potrošača. Drugim riječima, ekonomska je propaganda — htjela to ili ne — vezana uz ekonomske snage koje sebi mogu dopustiti da stupe na sve pozornice komunikacijskih medija, bez obzira na ulogu koju će kasnije zaigrati. Ekonomska propaganda kao informacija ne služi se informacijom kako se njome služi ili kako bi trebalo da se njome služi edukacija. Nagovaranje nekoga ili manipuliranje njime sve je drugo nego izgrađivanje emancipirane ličnosti. Ne bih želio ovdje isticati krajnje alternative. Nije riječ o tome nagovara li se netko ili ne, ili da li se na nj utječe, već o namjerama koje iza toga stoje.

equate visual communication with advertising. But there is a form of communication in which the problem is not to persuade consumers to buy this or that soap, or to elect this or that candidate. Without doubt, persuasive communication has the leading parts, and in such a manner that a few years ago there arose an increasing critique. The reaction of the public mind against the oversupply of advertising messages could of course not wholeheartedly be welcomed by those which use advertising and which finance it. There was no lack of defenders of advertising. Apologies for and critiques of advertising disclose some antagonisms of our society. Most frequently advertising is criticised on the basis of economic considerations. Not only social critics are alarmed that the United States invest half as much money in advertising as in education of the whole nation (in 1963 about 12,5 billion dollars). This doubt of the social function of design is disguised in economical terms. The apologists of advertising now argue that it does a considerable and important service to the whole society and economy. Broad layers of the population are informed by advertising about merchandises and services which otherwise they would never know of.

### **information and advertising**

The conspicuously neutral concept of 'information' shall not seduce us to take the half for the whole truth. Nobody will deny that advertising gives information. This statement, however, does not tell us anything about the quality and societal necessity of these informations. Nobody will deny that advertising is an indispensable institution within a specific market system. But nobody can deny that advertising aims at influencing the preference behaviour of consumers. In other words: advertising is willy-nilly chained to economical powers which can afford to enter at all the stages of the communication media, let alone the role they will play after that.

He who praises the educational and information giving role of advertising easily overlooks the fact that there are essential differences between education through an institution as school and education through an institution as advertising. Advertising as information does not make use of information in the way education does, or should do. For to persuade somebody, to manipulate somebody is anything else than making him an emancipated person. I do not intend to force reality into a rigid alternative.

The question is not about persuading, or not persuading, about influencing or not influencing, but about the intentions standing behind it.

## trivijalnost komunikativnog života

Vizuelni dizajner podvrgnut je strujanjima antagonističkih interesa. Na eksponiranom mjestu koje zauzima, često je žigosan kao krivac svih zala, kao da je on sam odgovoran za trivijalnost i vulgarnosti u komunikativnom životu suvremenog industrijskog društva.

Premda se tom globalnom optužbom pitanje odviše pojednostavnjuje, ipak veliki dio zamjerki vizuelnim dizajnerima — da pridonose širenju kolektivnog transa više nego subjektivnoj humanizaciji — nije posve bez osnove. Nadalje, valjalo bi biti vrlo naivan ili vrlo ciničan pa nekoga poistovetiti s takvim oblikom komunikacije koji se iscrpljuje u neprestanom opjevavanju kvaliteta strojeva za pranje rublja, pudinga, deodorana, deterđženata, tableta protiv glavobolje, filter cigareta, sredstava za bojenje kose i krema za pomlađivanje. Nema sumnje, spektar je ekonomske propagande bogatiji. Ali filozofija edukacije ne može zatvoriti oči pred ekstremima. Naprotiv, ona se mora suočiti s neugodnim i proturječnim činjenicama, što ne znači da im mora podleći ili postati njihov advokat.

## kulturni totalitarizam

Izjava »posao je posao i ništa više« odbacuje ispod maske oprezne agresivnosti nedoumicu je li time rečena cijela istina. Edukacija dizajna treba da dizajneru ucijepi spoznaju o njegovoj društvenoj odgovornosti i da ga imunizira od napetosti da produkciju i distribuciju dobara posmatra isključivo kao stvar poslovanja.

Vizuelni dizajner odgovoran je za vizuelnu kulturu društva, u kojem je poslovanje samo jedna strana, a ne cjelina. Poslovni interesi nisu uvijek usklađeni s društvenim, i to spoznaje svatko tko radi s komunikacijskom industrijom. Komunikacijska industrija izgrađuje i svijest i podsvijest članova jednog društva. Ona utječe na ljudsko ponašanje. Ona kanalizira, kontrolira i manipulira. Ona ima mnogo veću moć — a prema tome i mnogo veću odgovornost — nego što se zna i nego što su i sami oni koji se tom industrijom koriste za svoje svrhe spremni priznati.

## vizuelni dizajner i unapređenje prodaje

Prije nekoliko godina bila je javnost, koja je dotad imala sasvim maglovite slutnje o povezanosti moći i komunikacija, razdražena serijom publikacija. Ako je prije i postojalo

## the triviality of communicative life

The visual designer is submitted to the drifts of antagonistic interests. Standing on an exposed spot he often serves as the scapegoat for all communicative evils. He is depicted thus as the man being the sole responsible for the triviality and vulgarity of the communicative life of the society. Although this global accusation simplifies the matters a great deal the reproaches of the visual designer to lend his aid to the spread of collective trance rather than for subjective humanization are not completely unfounded. Furthermore, it requires a sound quantity of naivety or cynicism in order to identify oneself with a form of communication which consumes itself in the continuous praise of the qualities of laundry machines, cake-mixes, deodorants, detergents, painrelievers, charcoal, filter cigarettes, hair dyes and rejuvenating face creams. No question, the spectrum of advertising is richer. But a philosophy of education cannot close its eyes in front of the extremes. On the contrary, it must face the uncomfortable and contradictory facts without, however, succumbing to these facts and without becoming and advocate of these facts.

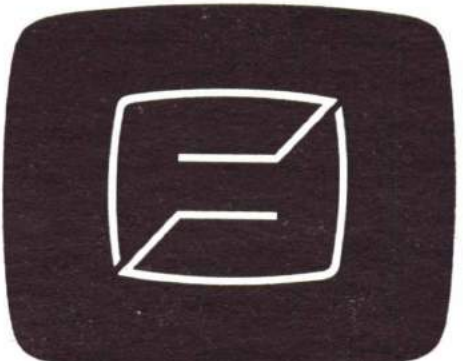
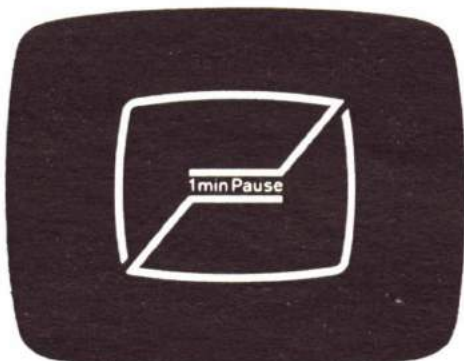
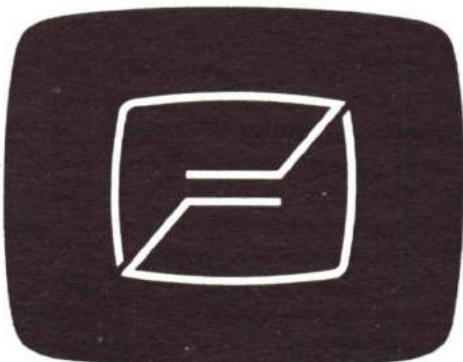
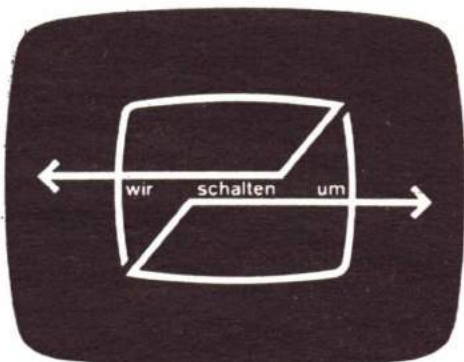
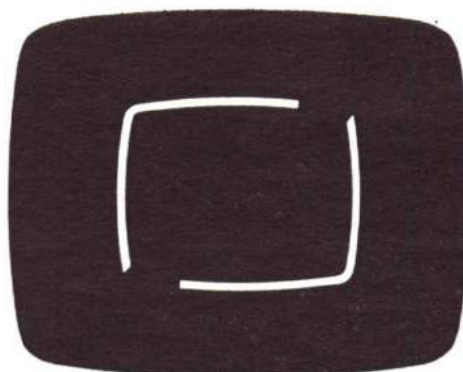
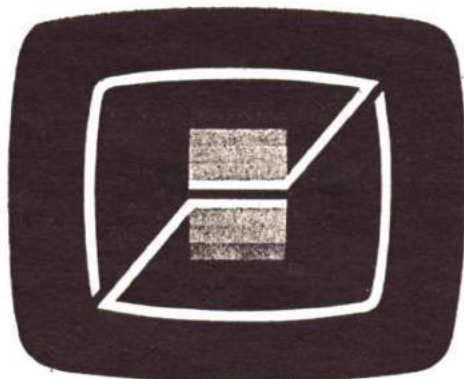
## cultural totalitarianism

The statement: »Business is business, and nothing else« repels under the mask of alert aggressiveness the modest doubt whether this statement really covers the whole truth. An education for design should turn the student's mind to his social responsibility and make him immune against temptations to regard the production and distribution of goods and services exclusively as a matter of business. The visual designer is responsible for the visual culture of a society in which society business is but one facet and not — as it is often tempted to claim — the whole.

That the interests of business do not always coincide with the interests of society is a recognition nobody can avoid when working together with communication industry. Communication industry shapes the conscious — and the unconscious mind of the members of a society. It canalizes, it controls and it manipulates. It enjoys much more power — and has therefore much more responsibility — than is generally known and than those people who use this industry for their purpose are ready to admit.

## visual design and sales promotion

Some years ago the general public having hitherto rather nebulous ideas about the connections between power and communication was irritated by a series of publications. When



Varijante znaka na ekranu:  
ukapčanje, prekapčanje, stanika,  
smetnja, početak emisije

Variants of the SWF symbol:  
grey value control, switching to  
another transmitting station,  
interval noise, beginning of a  
transmission

Design: Herbert W. Kapitzki

nesvjesno nepovjerenje prema postupcima i interesima komunikacijske industrije, nejasne pretpostavke odjednom su se kristalizirale u spoznaju koja je izražena ne baš laskavim terminom »skriveni nagovarači«. Oblik i sadržaj informacija, kao i intencije koje stoje iza njih, postale su pakostan problem u radu vizuelnog dizajnera. Edukacija treba da ga pripremi da ne prihvati bezbrižno ulogu koja mu se nudi i u kojoj će biti zlorabljen za bešćutno ubrzanje obrtaja robe.

### područja vizuelnih komunikacija

Područje nepersuasivne komunikacije još je intaktno. Svijet sistema znakova za promet i raspored znakova na instrumentima i strojevima, vizuelno predočavanje znanstvenih sadržaja, komunikacija za odgojne svrhe, pružaju dizajneru široke mogućnosti i izazov. Tu komunikacija nije prvenstveno ekonomski motivirana kao u propagandnim plakatima, ambalaži, oglasima i TV filmovima.

U Ulmu se bez poteškoća možemo posvetiti tim novim djelatnostima, jer slijedimo princip da treba obrazovati generaliste a ne specijaliste. Mi ne obrazujemo specijaliste tipografe, fotografe ili dizajnere za ambalažu, već vizuelne dizajnere koji raspolažu dovoljnim znanjem i umijećem da se nakon studija uvedu na različita područja i da se tamo prema potrebi sami specijaliziraju.

there had existed a subliminal mistrust against the procedures and interests of communication on industry the vague assumptions suddenly seemed to crystallize into an insight by using the really not flattering term 'the hidden persuaders'. Form and content of informations and in addition the intentions backing them turn to virulent problems in the work of the visual designer. Education has to prepare him not to accept carelessly the role offered to him in which he is abused for the relentless acceleration of the turnover of merchandise.

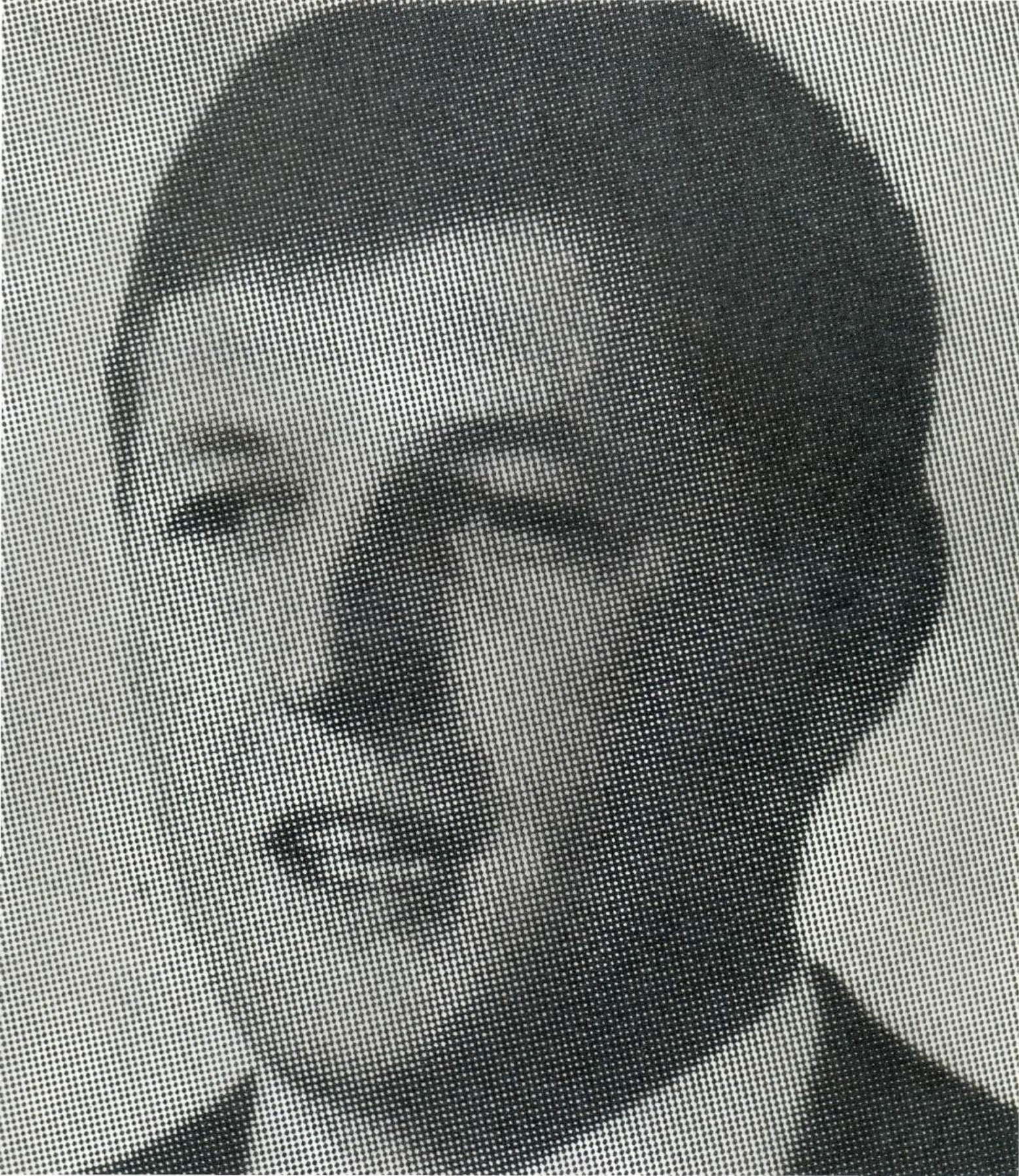
### areas of visual communication

So far the notes on persuasive communication. Its counterpart, non-persuasive communication is an almost untouched region. The world of sign-systems for traffic and displays on machines, the world of communication for educational purposes, the world of visual representation of scientific facts offer rich opportunities and challenges to the visual designer. Here communication is not primarily economically motivated as in persuasive communication with its advertisements, billboards and TV spots.

In Ulm we could enter this new field of activity without difficulties because we follow the principle to educate a generalist rather than a specialist. We do not train a specialized typographer, packaging designer or photographer, But a visual designer having at his hand enough basic knowledge to adapt himself after graduation to certain areas and specialize himself when necessary.

*Predavanje održano u svibnju 1964. na Američkom institutu za grafičke umjetnosti u New Yorku, objavljeno u časopisu ULM br. 12/13 1965.*

Prijevod: Dubravka Kritovac



*claude schnaidt*

arhitektura  
i političko  
angažiranje

*claude schnaidt*

architecture  
and political  
commitment



U početku su pioniri moderne arhitekture mislili, poput Williama Morrisa, kako bi arhitektura trebalo da bude »umjetnost naroda za narod«. Umjesto da podilaze ukusu nekolicine privilegiranih, željeli su udovoljiti potrebama zajednice. Željeli su izgraditi nastambe u skladu s ljudskim potrebama, tj. izgraditi »cité radieuse«. Nisu računali s komercijalnim navikama buržoazije, koja je odmah prisvojila njihove ideje da bi iz njih izvukla profit. Konceptija korisnosti brzo je zamijenjena koncepcijom rentabilnosti. Antiakademske forme postale su dekor za vladajuću klasu. Racionalan stan pretvoren je u najmanji stan, »cité radieuse« u urbanu aglomeraciju, a strogo određene linije u siromaštvo oblika. Sindikati arhitekata, kooperative i socijalističke zajednice postali su najamnici prerađivača viskija ili deterdženata, bankara ili Vatikana. Moderna arhitektura, namijenjena oslobođenju čovječanstva pomoću novih oblika života, pretvorena je u veliki pothvat za degradiranje stanovanja; proklamirala je kraj formalizma — pretvorila se u dokolično poigravanje oblicima; u početku je težila da pruži životno zadovoljstvo čovjeku — pretvorila se u sredstvo tiranije i čovjekova otuđenja. Ima nečeg vrlo čudnog u transformaciji velikog pokreta u svoj antipod. Je li to bilo neizbježno, i može li se proces okrenuti u suprotnom pravcu?

Već od prve industrijske revolucije zadatak arhitekata nije više građenje za nekolicinu privilegiranih, već zadovoljenje sve većih potreba stanovništva. Problemi arhitekata i planera gradova postali su društveni problemi, tj. problemi koje društvo postavlja i koji se njemu postavljaju. Tu činjenicu više nitko ne osporava. Posljedica te tvrdnje, kojoj se malo tko usuđuje pogledati u oči, jest da nitko ne može utjecati na ekonomsku i društvenu stvarnost a da se stvarno ne bavi politikom. Mislioci 19. stoljeća kao Owen, Cabet, Fourier i Morris, na čijim se radovima i zasniva moderno planiranje gradova, to su vrlo dobro uviđali. Njihovi urbanistički prijedlozi uvijek su bili sveobuhvatna kritika kapitalističkog društva.

Stotinu godina kasnije, do prvoga svjetskog rata, to politički angažirano gledanje na planiranje gradova mnogo se manje širilo. Ipak, revolucionarni val, koji je zapljusnuo Evropu, ponovo je oživio takve stavove. Sovjetska revolucija donijela je radikalno nove dimenzije s novim uređenjem u kojem je sve spremno za stvaranje gradova budućnosti. U Njemačkoj

In the days when the pioneers of modern architecture were still young they thought like William Morris that architecture should be an »art of the people for the people«. Instead of pandering to the tastes of the privileged few, they wanted to satisfy the requirements of the community. They wanted to build dwellings matched to human needs, to erect a »Cité radieuse«. But they had reckoned without the commercial instincts of the bourgeoisie who lost no time in arrogating their theories to themselves and pressing them into their service for the purpose of moneymaking. Utility quickly became synonymous with profitability. Anti-academic forms became the new decor of the ruling class. The rational dwelling was transformed into the minimum dwelling, the »Cité radieuse« into the urban conglomeration, and austerity of line into poverty of form. The architects of the trade unions, co-operatives and socialist municipalities were enlisted in the service of the whisky distillers, detergent manufacturers, bankers and the Vatican. Modern architecture, which wanted to play its part in the liberation of mankind by creating a new environment to live in, was transformed into a giant enterprise for the degradation of the human habitat. Modern architecture which proclaimed the end of formalism became itself a pastime for those who like to toy with forms. Modern architecture which began by aspiring to set man free so that he could enjoy the good things of life ended up by enslaving and alienating him. Admittedly there is something very odd about this transformation of a great movement into its opposite. What has happened? Was this development inevitable? What can be done to reverse it?

Ever since the first industrial revolution it has been the job of the architect and the city-planner have become social problems, i.e. problems which are propounded to society by society. This fact is no longer disputed. Yet there are very few who are ready to look squarely at a consequence that flows from it, viz. that no one can bring influence to bear on social and economic realities without becoming politically involved. Those 19th century thinkers like Owen, Cabet, Fourier and Morris, the fathers of modern city-planning, were very much alive to this fact. Their proposals as urbanists were inseparable from an all-out criticism of capitalist society.

When World War I came to an end one hundred years later, this committed view of city-planning was much less current than before. Nevertheless it was revitalized by the revolutionary wave that swept over Europe. The Russian Revolution engendered high hopes of an entirely new order in which everything was set fair for the creation of the city of

se javila nada da je s padom monarhije došao čas za drastične društvene reforme, koje će stanovništvu pružiti gradove i kuće novoga doba. Vladalo je uvjerenje da će internacionalnim sređenjem političkih, ekonomskih, kulturnih i društvenih problema i promjenom društvenih odnosa započeti nov život. Ljudi su bili odlučni da stvore materijalne okvire za to novo društvo. San je kratko trajao; privredna kriza učinila mu je kraj. Red je ponovo uspostavljen. Samo: ne onaj kojem se težilo, već kapitalizam koji se ponovo stabilizirao. Zatim se pojavio Adolf Hitler sa svojom vizijom »novoga reda«. S njegovom pojavom san je postao mora, čiji je kraj došao 1945. Nakon toga uslijedio je hladni rad i neokapitalizam s potrošačkim društvom, što je druga mora suvremene historije.

U pozadini krize, nasilja, opsesije, razaranja, napetosti i eksploatacije posljednjih 50 godina uvijek se nalaze iste sile. One, da bi zaštitile svoje privilegije, onemogućuju zadovoljenje potreba naroda. Upravo su one spriječile arhitekta i planera gradova da svijet učine dostojnim mjestom za stanovanje.

No, jesu li arhitekti i planeri gradova učinili sve što je u njihovoj moći da to stanje izmijene?

Mora nam biti jasno da čovjek živi u polju suprotnih interesa. Realizacija arhitektonskih projekata ovisi o posjedničkoj i vladajućoj klasi, ali se moraju braniti interesi masa potrošača. Ta dvosmislena pozicija ne može služiti za opravdanje da se držimo dvosmislenih stavova. To nas ne prisiljava da bježimo od istine ili da je skrivamo od ostalih i od samih sebe u pasivnom iščekivanju eventualne promjene situacije. Ako arhitektov položaj u društvu i nije ugodan, ako mu i jest dnevni rad težak i ako i ne može slobodno izraziti svoje misli, to sve još nije dovoljno opravdanje da ne pokuša poboljšati situaciju. Ako želimo promijeniti društvo, moramo ga poznavati, imati jasne ideje o boljim rješenjima i politički se angažirati da bismo ih proveli u djelo. Te jasne ideje u društvu i potrebi aktivnog angažiranja nedostajale su većini arhitekata i graditelja gradova u prvoj polovici 20. stoljeća.

Uzmimo za primjer Le Corbusiera, Wrighta, Gropiusa, Geddesa ili Mumforda. Njihove teorije uvijek pokazuju ovu karakteristiku: kritiku posljedica građenja gradova u postojećem režimu. Riječ je zapravo o kritici kapitalističkog režima, ali se to gotovo nikada ne spominje. Ističu nered i

the future. In Germany people hoped that once the monarchy had been swept away the time had come for drastic social reforms which would provide the population with the houses and cities of a new age. It was felt everywhere that the international settlement of political, economic and social problems and a change in social attitudes would mark the beginning of a new era. And people were determined that a material framework should be created for this new society. The dream was short-lived. The economic crisis brought a rude awakening. Then order was restored. But it was not the order people had dreamed about; it was the order imposed by capitalism, which was beginning to find its feet again. And then came Adolf Hitler with his own version of the »new order«. With him the dream became a nightmare that ended in World War II. There followed the cold war and finally neo-capitalism with its consumer society, another nightmare but this time fully air-conditioned.

Behind the depressions, the violence, the oppression, destruction, tension and exploitation of the last fifty years we always find the same powers of money and reaction. It is they who, to maintain their own privileges, prevent satisfaction of the needs of the people. It is they who so far have prevented the architects and city-planners from making the world fit place to live in. And having said that, it is pertinent to ask whether the architects and city-planners have done everything they might to rectify this situation. We must realize that we live in a field of conflicting interests. We are dependent on the propertied and ruling class for the execution of our projects but we must defend the interests of the mass of consumers. All the same this ambivalent position does not warrant our taking up an ambivalent attitude. It does not compel us to hide the truth from ourselves or others while we passively wait for some hypothetical change in the situation. If the architect's position in society is not a happy one, if his daily work is difficult, if he cannot give free rein to his thoughts, this is no reason why he should do nothing to remedy the situation. But if we want to change society, we must know it, and we must know exactly what is to be done to solve its problems, and we must commit ourselves politically so we can give effect to the solutions we devise. Now most architects during the first half of the twentieth century simply did not have these clear ideas about society or this political commitment.

If we take Le Corbusier, Wright, Gropius, Geddes and Mumford, to mention only some of the most familiar names, and look at their theories, we always find the following general features: they criticize what the existing regime (capitalist but the fact is hardly ever mentioned) has done

nečovječnost tog stanja, ali napuštaju svaki konkretan revolucionarni plan i nastavljaju rad na jednom idealističkom i utopističkom planu. Ne otkrivaju značajnu dijalektičku povezanost između budućeg i sadašnjeg društva — da buduće nastaje slomom sadašnjeg. Umjesto toga, historijski razvoj podvrgavaju realizaciji jedne ideje, kojoj pripisuju apsolutnu vrijednost. Između sadašnjosti i budućnosti povlače oštru granicu, koja se gotovo identificira s razlikom između dobra i zla. Sadašnjost je simbol potpunog nereda, a budućnost simbol savršenog reda. U tom kontekstu pokušavaju dokazati kako će budući svijet neizbježno nastati već zbog same moralne superiornosti. Kako su nesposobni da ostvare bilo kakvu stvarnu promjenu u društvu i okolini, zadovoljavaju se vjerovanjem da je razvoj društva pretežno uvjetovan idejama. Stoga u svojim prijedlozima naglašavaju dostignuća razuma, a ne angažiranje i zajedničku političku akciju s nepriviligiranim klasama.

Takva akciona koncepcija oduvijek se pokazivala neplodnom. Upravo zbog svoje neplodnosti gušila je osjećaj društvene odgovornosti, pa su iz nje proizišle tendencije manjevrijednih oblika izražavanja. Kao primjer možemo uzeti formalizam arhitekture dvadesetih i tridesetih godina. Taj formalizam potječe uglavnom iz nejasne predodžbe arhitekata o proturječnosti njihova humanističkog obrazovanja i industrijske civilizacije, s jedne, i merkantilizma građanskog društva, s druge strane. Ti arhitekti nisu znali kako bi svoju akciju prilagodili stvarnosti, te su pokušali naći rješenje u estetskim elementima ekonomskih i društvenih problema, što ih nameće transformacija koju oni zastupaju. Obmanuli su se, misleći da mogu ignorirati historijske uvjete koji su nužno potrebni za realizaciju njihova ideala, žarko se angažirajući na traženju novoga formalnog jezika.

Nije naš posao da sudimo bivšim generacijama. Svaka je radila u svjetlu vlastitih iskustava, do kojih je dolazila praksom. Za to im treba odati zahvalnost. Moramo, međutim, konstatirati da prijašnje generacije nisu nikada dostigle onaj stupanj naučne apstrakcije koji je neophodan za prodiranje u srž društvene stvarnosti i za njeno tačno odražavanje. Premda su mnogi arhitekti i planeri gradova željeli postati racionalisti, njihove akcije prije ulaze u područje društvene mistike zbog nedovoljno racionalnog poznavanja činjenica,

in the way of city-planning and dwell on its confusion and injustice. Then they abandon any concrete revolutionary plan in their projects and proceed to an idealistic utopian plane. They fail to show the necessary dialectic connection between the society of the future and that of the present from which the former takes its rise in the very process of breaking away from it. Instead they subordinate historical development to the realization of an idea to which they ascribe an absolute value. They create a sharp contrast between present and future and modulate this into an antagonism of good and evil. The present is the symbol of complete confusion; the future the symbol of perfect order. And then they try to show how the future world will inevitably come into being by the very fact of its moral superiority. Incapable as they are of producing any actual change in society and their environment, they are induced to believe that social development is essentially determined by ideas. Hence in their proposals the accent is on the achievement of reason and not on commitment and political action side by side with the under-privileged classes. They imagine it is enough to convince men of the virtues of their projects for the latter to be put into effect.

This conception of action has invariably proved futile. And by its very futility it has stultified the sense of social responsibility and thus fathered on legitimate movements a progeny of bastard forms of expression. Witness formalism in the architecture of the twenties and thirties. It arose in large measure from the architects' faint inklings of a contradiction existing between their humanistic idea of industrial civilization and the commercialism of bourgeois society. Not knowing how to fit their action to reality, these architects sought to find a solution in aesthetic terms to the economic and social problems posed by the transformation they advocated. They deluded themselves they could dispense with the historical conditions essential for the realization of their ideal by engaging in a fervent search for a new formal language.

It is not for us to sit in judgment on preceding generations. They worked in the light of their experience placed out with empirical observations. And we are indebted to them. But we must concede that they never attained that degree of scientific abstraction which is essential for penetrating to the heart of social realities and thus for truly reflecting them and coming to grips with them in their entirety. Many architects and city-planners like to think themselves rationalists, it is true, but their action is nerved by a social mystique rather than by a rational knowledge of the facts and a whole-hearted desire to put that knowledge to work. This is why modern

što im nije dopustilo dosljedno angažiranje. To nas navodi da danas provjerimo pitanje društvene odgovornosti. Na žalost, u tome se nije daleko dospjelo. Umjesto da potraže korijene zla koje napadaju, arhitekti su nabacili brzoplete argumente i drogirali se jakim osjećajima, brutalnom spontanošću, živahnom vizijom i tehnokratskim predviđanjima.

Neki arhitekti reagirali su na devijacije i pokvarenost prethodne epohe ističući emocionalnu arhitekturu na mjesto geometrijskog formalizma i čistog utilitarizma. Njima je bio cilj da nađu lijeka za sterilnost, nesređenost i monotoniju racionalne arhitekture. Zbog toga zamućuju i kompliciraju ono što je tehnologija već otkrila i pojednostavnila. Mnogi njihovi ekscesi podsjećaju na ekscese Art Nouvea. To nije slučajno. Uzrok je želja za zaštitom od tehnološke civilizacije, želja za rehabilitacijom individualne kreativnosti i želja da se arhitektura još jedanput svede u okvire umjetnosti.

Taj put nikamo ne vodi, jer ne pogađa korijen zla. Izmišljanjem novih oblika ne može se dati veća istinitost, neposrednost i dubina ljudskim odnosima. Deformirani život u modernom gradu ima dublje društvene korijene nego što je oblik nastambi. Izgradnja spomenika — a jedino historija odlučuje što je spomenik a što nije — ništa ne pridonosi ljudskoj sreći. Samoslava ne usrećuje. Tehnika se ne da ukrotiti leptirastim formama kazališta ili onduliranim formama aerodromskih zgrada. Umjesto da eliminira inženjere, suvremeni barok samo povećava njihov trijumf. Što vrijedi obarati se na shematski formalizam, ako ne napadamo buržoaski komercijalizam? Što, nadalje, vrijedi optuživati racionalizam kad je on mehanicistički, ograničen i zastario? Ako je moderna arhitektura u ćorsokaku, to nije zbog zloupotrebe racionalizma, već zbog nepoznavanja istinske naučne misli, i napokon uzrok nije toliko pogrešan društveni osjećaj, već prije nedostatak konkretnog društvenog sadržaja. Već godinama neki arhitekti pokušavaju radikalno izmijeniti ideju grada. Smatraju da je modernim tehničkim pomagalima moguće ostvariti i najsmjelije koncepcije u arhitekturi i planiranju gradova. Njihova je osnovna težnja traženje nastambi koje podsjećaju na svemirske brodove, sanduke za transport, kompjutere, rafinerije za naftu ili umjetne otoke. U svojim projektima ističu prirast stanovništva i intenzivniju rasonodu u slobodnom vremenu, koje se zbog automatizacije povećava, kao nužne faktore prilagodljivosti prostora za

architecture and city-planning have failed in their task, which was to bring their influence to bear as instruments of progress in the modern world. This failure obliges us today to re-examine the question of the architect's social responsibility. Unfortunately a poor start has been made on this vital enterprise. Instead of going to the roots of the evil which they purport to denounce, architects have rushed in with hasty arguments and drugged themselves with stiff doses of stark sensation, brutalist spontaneity, fanciful vision and technocratic prediction.

Some architects react to the obliquities and degradations of the immediate past by setting emotional architecture in the place of geometric formalism and forthright utilitarianism. They aim to remedy the aridity, the humdrum, the monotony, and the tedium of rationalist architecture. And to this end they disguise and complicate what technology had stripped and simplified. Many of their efforts recall the excesses of Art Nouveau. Nor is this merely a coincidence. They spring from the same desire to protest against technological civilization, from the same intention to rehabilitate creative individuality, and to restore to architecture its status as an art.

This leads nowhere at all because it does not get at the root of the evil. Greater truth, directness and depth cannot be given to human relations by the invention of novel forms. The aberrations of modern city life have deeper social causes than the shape of the buildings. The erection of monuments — and only history can decide what is a monument and what is not — will add nothing to human happiness. Self-glorification has never made men happy. Technology cannot be domesticated by putting up lepidopterous theatres and sinusoidal airport buildings. Far from settling the hash of the engineers, contemporary Baroque emphasizes their triumph. What is the use of Impugning the formal schematics of the rationaliste if one leaves unassailed the utopian ideas behind them. What is the use of decrying the squalor of urban conglomerations and the degradation of the modern habitat without at the same time denouncing the bourgeois commercialism which gives rise to them. What is the use of accusing rationalism, when, in point of fact, the rationalism accused is mechanistic, limited and obsolete. If modern architecture is at a dead-end, it is not through any abuse of rationalism but through ignorance of genuine scientific thought, not through any abuse of social sense, but rather through a lack of concrete social content. For some years other architects have been trying to find a radical reformulation for the idea of the city. It is their philosophy that even the most audacious concepts in

različite potrebe. Oni zastupaju ideju jake koncentracije stanovništva i vertikalni ramještaj onih elemenata gradskog života koji su prije bili smješteni horizontalno. To, dakako, uključuje stvaranje umjetne klime u svim dijelovima grada. Takvo je istraživanje vrlo interesantno ukoliko daje rješenja specifičnih problema. Ako bi se takvi planovi primijenili, to bi značilo transformaciju cijele naše okoline. Najvažnija je konzekvencija što to vodi emancipaciji od zastarjelih sistema mišljenja, koji su osobito čvrsto ukorijenjeni upravo kad je riječ o građevinskim objektima.

Taj novi sistem donosi i rizik. Arhitektima futuristima mogla bi se pripisati zasluga da tehnologiju provode do logičkog završetka, ali njihov stav često ne ide dalje od obožavanja tehnologije. Rafinerija i svemirski brod mogu poslužiti kao modeli tehničkog i formalnog savršenstva, ali ako ih smatramo za objekte obožavanja, tada će sve što bismo iz njih mogli naučiti promašiti svrhu. Neograničeno povjerenje u mogućnosti tehnologije poklapa se s neočekivanom naivnošću pretpostavki o budućnosti čovječanstva. Tek kad čitavo čovječanstvo osigura životni minimum, bit će dovoljno vremena da se misli kako manje raditi i šta sa slobodnim vremenom. A kad to vrijeme dođe, malo je vjerojatno da ćemo ga provoditi u »Las Vegas stilu«, koji fascinira arhitekta-futuriste. Yona Friedman tvrdi da će radnik koji obrađuje sirovine gubiti na važnosti i da će se pretvoriti u »promatrača« ili »potrošača«. Time zapravo zastupa potrošačko društvo koje je dosada potiskivalo sve društvene potrebe. Ne možemo poreći da fantastične slike u revijama izazivaju sanjarenje naših suvremenika. Pruža im se prilika da pobjegnu od stvarnosti svakodnevnog života, koji se danas sastoji od neprekidnog niza frustracija. Takve vizije umiruju mnoge arhitekta: uz toliku tehniku i povjerenje u budućnost osjećaju se sigurni i opravdani u svojoj društvenoj i političkoj abdikaciji. Simptomatično je da se taj kasni utopizam poklapa s oživljavanjem interesa za umjetnike vizionare 18. stoljeća. Bouillée, Ledoux i Lequeu maštali su o onome što im stvarnost nikada nije dopustila da ostvare, tj., njihov ideal nije imao

architecture and city-planning are feasible with modern technological aids. This is what lies behind their quest for something resembling space ships, packing crates, filing systems, refineries or artificial islands. In their projects the focus is on population growth, on the increased leisure brought about by automated production and mechanized transport, on adaptability to variable needs. They advocate very dense concentrations of population and propose to arrange vertically those elements of urban living which were previously disposed horizontally. This, of course, implies the creation of an artificial climate in every part of the city. In so far as it is concerned to find solutions to specific problems, this research is unquestionably of great interest. It finds its final expression in plans which, if implemented, would certainly mark a transformation of the whole environment. Moreover, it is conducive to emancipation from outmoded systems of thought which are peculiarly resistant to thought where buildings are concerned.

But it is not free from hazards. These futurist architects may well have the merit of taking technology to its logical conclusion but more often than not their attitude ends up in technolatriy. The refinery and the space capsule may serve as models of technical and formal perfection but if they become the objects of a cult, the lessons they can teach will completely miss their mark. This unlimited confidence in the potentialities of technology goes hand in hand with a surprising degree of ingenuousness concerning the future of man. When the rest of humanity has been assured of the basic minimum it needs to live, then will be time enough to think of working less. And when this time comes, it seems likely that leisure will not be spent in the Las Vegas style which seems to fascinate futurist architects. When Yona Friedman states: »The raw material 'worker' will lose its importance and change into 'spectator' or 'customer'«, he is a partisan of the consumer society which, so far, has suppressed all social needs. At all events, we cannot deny that the fantastic pictures we see in every magazine help to feed the dream life of our contemporaries. It affords them a chance of escape from the realities of everyday life, which today is made up of one frustration after another. Such visions as these are soothing to many architects: braced by so much technology, by such confidence in the future, they feel reassured and justified in their social and political abdication. It is symptomatic that this latterday utopianism should coincide with a renewed interest in the visionary artists of the 18th century. Boullée, Ledoux and Lequeu dreamt more extravagant dreams than ever reality would allow them to put into concrete form. Their ideal had no chance of being realized under the monarchy. Besides, the royal treasuries

nikakvih izgleda da se realizira u monarhiji, a uz to su kraljevske riznice bile prazne. Nadajmo se da će njihovi današnji sljedbenici iz toga povući pouku.

Za neke se arhitekta govori da su realistični, jer se zalažu za prefabrikaciju. Svojom aktivnošću izazvali su opći entuzijazam za prefabrikaciju, koja sama po sebi nije loša kad ne bi služila da zamagli neke mučne probleme. Pogrešno je prefabrikaciju suprotstaviti tradicionalnim metodama građenja, koje su u posljednjih 15 godina podvostručile produktivnost te mogu konkurirati prefabrikaciji kad nisu izložene promjenama potražnje. Ako se od napretka tehnologije očekuje sniženje proizvodnih troškova, bilo bi bolje stvoriti osnovne uvjete kontinuirane proizvodnje nego jednu metodu gradnje suprotstaviti ostalima. U uvjetima tržišne ekonomije kakva danas prevladava vrlo je teško, ako ne i nemoguće, osigurati kontinuitet potražnje. Iskustva u poslijeratnoj obnovi pokazala su da liberalna ekonomija ne može dati rješenje tog problema. Država, suočena s velikom nestašicom stanova i potrebom osiguranja tempa građenja, morala je sve više preuzimati posao neefikasnih privatnih poduzeća nakon drugoga svjetskog rata. To se činilo naglo, na mahove i prekide pod pritiskom događaja; te akcije većinom nisu rezultat primjene nekog idejnog principa, pa su i rezultati takve treperave politike više puta bili suprotni očekivanjima. Da bi tržište postalo prikladno za industrijalizirano građenje, treba učiniti prvi korak — ekonomski planirati. Pod tim ne mislimo na sisteme planiranja, koje izmišljaju birokrati po diktatu moćnih grupa tajnih interesa, već na stvarno demokratski plan namijenjen zadovoljenju potreba zajednice. Demokratski planirati znači npr. provjeriti je li ispravno provesti velike tehničke zahvate da se smanje troškovi gradnje, ako se u isto vrijeme ništa ne poduzima protiv često pretjerane visoke kamatne stope na investirani kapital; ili, npr., je li pravilno investirati dvaput više u automobile nego u stan ili kuću. Privatno vlasništvo i fantastična cijena zemljišta danas zaustavljaju svaki ozbiljan pokušaj planiranja gradova, a bez planiranja gradova, tj. bez mogućnosti predviđanja i planiranja ekspanzije gradova, promašen je svaki pokušaj krupnog razvoja prefabrikacije u građevinarstvu. Novi zakon o zemljištu, za kojim planeri gradova vape već godinama, jednako je važan za razvoj prefabrikacije kao i za rekonstrukciju gradova. Budućnost industrijalizacije ovisi o rješenju tog problema. Stoga je pogrešno, pa čak i nepošteno, govoriti samo o tehnologiji, kad se diskutira o problemima koji se tiču budućnosti. Pred nama nije da biramo, kako nam to neki sugeriraju, između

were empty at this time and the grandiose dreams of these architects were never carried out. Let us hope that their disciples today will take lesson of their failure to heart.

Some architects are accounted more realistic because they have become the apostles of prefabrication. Their activities have helped to rouse a general enthusiasm for prefabrication, which would not in itself be a bad thing, if it were not for the fact that it served to obscure a number of troublesome problems. It is wrong to set up prefabrication in opposition to the methods of traditional building. The latter has doubled its productivity in the last fifteen years and can compete with prefabricated construction when it is not subject to fluctuations of demand. If technological progress is expected to bring down production costs, it would be more sensible to create the basic conditions for continual production than to set one method of construction against the others. Under the form of market economy prevailing at present, however, it is extremely difficult, if not impossible, to ensure continuity of demand. Experience obtained during reconstruction has show that a liberal economy was incapable of affording a satisfactory solution to this problem. Faced with a housing shortage on a vast scale and the need to ensure a sustained rhythm of building, the state has had to take over more and more from inefficient private enterprise since the end of World War II. But it has done so by fits and starts, under the pressure of events, and for most of the time its actions did not stem from any coherent philosophy. The results of this wavering policy were more than once the direct opposite of the ends which it was intended to achieve. If the market is to be made amenable to the industrialization of building, the first essential step must be taken, i.e. economic planning. Nor do we mean one of those planning systems worked out by bureaucrats at the dictation of groups of powerful and clandestine interests but a truly democratic plan aimed at satisfying the needs of the community. Democratic planning means, for example, to ask whether it is fair to make enormous technical efforts to reduce the costs of construction if nothing is done at the same time to reduce the often exorbitant rate of interest charged on the capital invested, and whether it is reasonable to invest in a motor car twice the amount one invests in a flat or house. Private property and the fantastic price of land are at present hamstringing all serious attempts at city-planning. And without city-planning, i.e. without the possibility of predicting and planning the expansion of cities, it is useless to attempt any substantial development of prefabrication in building. The new land law for which city-planners have been clamouring for years is every bit as essential for the development of prefabrication as for the reconstruction of cities. It is on the solution we find

tzv. tradicionalnog građenja i prefabrikacije. Treba birati između skokovitog, polaganog i nesigurnog progressa u građevinarstvu i industrijalizacije koja je koherentna, brza i planirana za opće dobro.

Dok arhitekti traže zaklon u estetici, fantaziji i tehnokraciji, čovjekova okolina i svakodnevni život neprestano se degradiraju. Megalopolisi, koji su u nastajanju, paralizirani su pri najmanjim poremećajima svoje preopterećene strukture. Za njihovu izgradnju traže se golema sredstva kako bi mogli iole funkcionirati, a ipak sav taj trošak ne može spriječiti pogoršanje produktivnosti i životnih uvjeta. Godišnja subvencija pariskom odboru za gradski saobraćaj četiri puta premašuje budžetske investicije za industrijalizaciju Bretanje u toku 10 posljednjih godina. Parižani dnevno troše 3 milijuna sati na putovanje od stana do radnog mjesta, što je ekvivalentno jednom radnom danu za 400.000 zaposlenih. Jasno da se godišnje u nacionalnoj ekonomici gube milijarde.

Koncentracija industrije i uprave u megalopolisima i neprestani porast najamnina prisiljava zaposlene da stanuju što dalje od grada. Mogućnost skraćivanja radnog vremena ponovo se pretvara u iluziju. Doista, za 6 ili 8 sati kraći radni tjedan malo vrijedi kad zaposleni ionako svaki dan putuju 2 do 3 sata na posao i s njega. To izgubljeno vrijeme ide na račun slobodnog vremena, za kojim ljudi uvijek žude. Ekonomski gubitak nije ovdje jedini; njemu treba dodati i broj povrijeđenih u saobraćajnim nesrećama. Godišnje se u Americi povrijedi ili pogine 4,700.000 ljudi. Pored gubljenja vremena, života i novca, udaljenost od mjesta stanovanja do mjesta rada izaziva i teškoće socijalne prirode čije reperkusije osjećaju i pojedinci i urbane regije. Te su regije prešle na »poluvrijeme«, a njihovi stanovnici brzo su se povelili za tim. Tako zaposleni polaze u zoru iz sela, predgrađa ili satelitskog grada u grad u kojem rade. Čitav dan odsutni su od kuće i vraćaju se navečer iscrpeni, ne tražeći ništa osim mira i tišine. Upravo je zato rijetkost da ti ljudi išta pridonose društvenoj zajednici u kojoj žive. Oni su bez ideja, kritike i stimulansa da kritiziraju. Što se njihove okoline tiče, zaposleni mogu biti isto tako i mrtvi, a bez njih, njihova okolina također umire, i to osobito onda kad u njoj raste broj umirućih.

to all these problems that the future of industrialization in building will depend. This is why it is wrong, or even downright dishonest, to talk only of technology when discussing decisions concerning this future. It is not a choice, as some people would have us believe, between so-called traditional building or prefabrication. It is between irregular, slow, and uncertain technical progress in building as a whole or industrialization which is coherent, rapid and planned for the common weal.

While architects take refuge in aestheticism, fantasy and technocracy, man's environment and everyday life are steadily deteriorating. The megalopolises which are taking shape are stricken at the least failure of their over-burdened infrastructures. They call for prodigious amounts of money to function at all and yet all this expenditure is incapable of preventing productivity and living conditions from growing worse. The annual subsidy received by the Paris Passenger Transport Board is four times larger than all the allocations made to help industrialization in Brittany during the past ten years. Home-to-job travel costs Parisians 3 million hours per day, which is equivalent to a full day's work by 400 000 employees. This means that billions are lost every year to the country's economic system.

The concentration of industries and their head offices in and around the metropolises and the continuous increase in rents which compels those working there to put up their homes far afield have made certain reductions in working hours a purely illusory gain. After all, a cut 6 to 8 hours a week means very little when 2 to 3 hours a day are lost travelling to and from work. And all this lost time comes off the leisure which people are forever talking about. Nor is the economic damage all. To it must be added the toll of human lives taken by traffic accidents. A total of 4,700,000 are killed or injured on the roads of the USA every year. Apart from the loss of time, money and lives, the problem of home-to-job distance causes another kind of trouble, this time of a social nature with repercussions on both the individual citizen and the urban region. The latter has gone onto »half time« and its inhabitants have followed suit. Thus a man sets off at dawn from his village, his suburb, his satellite town which provides the labour needed by the big city. He is away the whole day and he comes home in the evening depleted of energy and longing for nothing else but peace and quiet. And for this reason it is rare for him to contribute anything to the community in which he lives; he has no ideas, no criticism, no impetus to give it. As far as his environment is concerned he might just as well be dead. And, without him, his environment dies too, particularly when these moribund individuals grow in numbers.

Dok neki gradovi rastu u skokovima, dotle se čitave regije osipaju. Te regije napuštaju fizički sposobni muškarci, žene i većina onih koji imaju nekakvo obrazovanje, te ostaju naseljene djecom i penzionerima. Za 10 ili 20 godina izgubit će sve stanovnike koji bi im mogli vratiti blagostanje. Te regije nemaju nikakvih financijskih, tehničkih, kulturnih, administrativnih ili upravnih centara na koje bi se stanovništvo moglo osloniti. Kako nemaju nikakvih autonomnih prava, oskudijevaju sredstvima da dokažu svoju ekonomsku i kulturnu individualnost, i ne mogu se razviti onako kako žele. Budućnost provincijske divljine odlučuje se po bankarskim kriterijima i kriterijima industrijskih firmi i vladinih odjela koncentriranih u gradu. Rekonstrukcija i premještanje industrijskih postrojenja postali bi ekonomski ostvarivi i opravdani kad bi bili povjereni ljudima koji se na licu mjesta bore za život svoje regije. Regija nije tek komad zemlje već njihov dom, čije mogućnosti i vrijednosti oni osjećaju i za koji su spremni podnijeti žrtve i napore koje gradski bankar i tehokrat ne mogu ni zamisliti. Što je uzrok koncentraciji? Kad se proizvođač smjesti u razvijenom području, može se koristiti postojećom infrastrukturom i opremom: voda, plin, struja, telefon, kanalizacija, komunikacije, javni transport i javne zgrade koje plaća zajednica. Tako proizvođač izbjegava troškove instalacija, obnove i adaptacije te infrastrukture i opreme. Stoga se povećava stopa profita. Drugim riječima, zajednica mora podnijeti »društvenu cijenu privatnog pothvata«. Političko angažiranje traži da se postavi zahtjev da privatna poduzeća umjesto društva sama snose veći dio društvene cijene svog pothvata. Time bi se nanio udarac centralizaciji, a velik broj upravnih centara našao bi se bliže radnim i životnim zajednicama. Takve bi mjere bez sumnje pomogle uravnoteženom razvoju zemlje.

Svagdje nailazimo na veliki nedostatak dječjih domova, vrtića, klubova za omladinu, biblioteka, kulturnih centara, plivačkih bazena, sportskih igrališta i higijenskih uredaja.

Whereas certain towns are growing by leaps and bounds, there are whole regions which are running to seed. These areas have been abandoned by able-bodied men and women, and by most of those who have received any kind of education, and are becoming regions peopled by children and dotards. In ten or twenty years they will have lost forever the human resources which would enable them to restore their fortunes. These regions have no financial, technical, cultural, administrative, or decision-making centres on which the inhabitants can depend. Having no autonomous powers, they are bereft of the means of asserting their economic and cultural personality, and of realizing their desire to develop in the manner they wish, towards the kind of life they aspire to, and within the bounds of their practical possibilities. The future of the provincial wilderness is decided according to the criteria of banks, industrial corporations and government departments centred on the city. The reconstruction and resiting of industries which, seen from the big cities, seem impossible or hardly logical, would become economically feasible and sound if the planning and execution were entrusted to the men on the spot who are fighting for the survival of their region. For this region is not merely a stretch of land; for these men it is their home — a place whose potentialities they can gauge, and for which they are ready to make sacrifices and efforts which are quite beyond the imagination of the city banker and technocrat.

What is the basic cause of concentration? When a manufacturer sets up in a developed area he can use the existing infrastructure and equipment. And these — water, gas, electricity, telephones, sewage, communications, public transport services, public buildings — are paid for by the community. Thus the manufacturer is enabled to avoid the expenditure involved in setting up, renewing and adapting this infrastructure and equipment. He is thus able to increase his profit margin. Put differently, the community has to bear what has been called the »social cost of private enterprise«. Political commitment requires one to demand that the brunt of the social cost of private enterprise should no longer be borne by the community but by the enterprises themselves. This would strike a blow against the centralization of power and for a plurality of decisionmaking centres as close as possible to working and living communities. Measures such as these would unquestionably put the brake on concentration and help to balance the development of the country.

Everywhere there is a desperate shortage of day nurseries, kindergartens, youth clubs, libraries, cultural centres, swimming pools, grounds, sewage farms. Hospitals and old

Javni je transport neefikasan. Bolnice i starački domovi često nisu u najboljem stanju. Međutim, naše potrošačko društvo teži da stvori raj na zemlji. Cilj mu je da stroj za pranje rublja, tranzistor, mini suknju i automobil učini svima dostupnim. Galbraith to naziva »javnom bijedom usred privatnog obilja«. S kapitalističkog stanovišta javni objekti i službe nisu rentabilni. Potrebe kojima ti objekti služe ne mogu se izraziti novcem. Iz njihova udovoljenja ne proizlazi trenutno profit, a zakoni tržišta tu ne djeluju. Jasna je stoga težnja kapitalizma da ignorira te objekte ili da ih potisne, a prioritet daje individualnim potrebama. Kapitalistu se više isplati da umnoži potrebe potrošača nego da stvori javne servise. Tako se velik dio nacionalnog dohotka rasipa i razbacuje, a troškovi javnih objekata i službi ne mogu se pokriti. Ako arhitekt želi ponijeti cijeli teret odgovornosti, on mora biti potpuno upoznat s takvim stanjem stvari i igrati važnu ulogu u ispravljaju te politike društvene nepravde. On mora pokazati da, nasuprot onome što se tvrdi, na prvo mjesto dolazi zadovoljenje kolektivnih potreba, koje zaista mogu izmijeniti naše životne uvjete

Uzmimo za primjer rasonodu. Vrijedi se zapitati: Ne bi li bilo bolje civilizirati iskorištavanje slobodnog vremena, umjesto neizmjernog razvoja turizma? Zasada nam bijeda naših gradova pruža uzak izbor: nedostaju parkovi, šetališta, bazeni. Čisti zrak, tišina i odmor nisu na dohvat građana u toku tjedna. Skraćeno radno vrijeme znači jedino da se radnik prije vraća u bijednu četvrt gdje živi. A šta on radi kad se vrati s posla? Šetanje po ulici ne dolazi u obzir, jer ulica nije za to projektirana. Ne može otići ni u omladinski klub, kulturni centar, hobi klub ili knjižnicu, jer ih — nema. Kazalište? Ono je predaleko, preskupo, a programi i početak predstava izričito su podešeni za srednju klasu. Što mu preostaje? Televizija! A to je premalo. Istina je da ima više slobodnog vremena na kraju tjedna. Ali i tada se postavlja isti problem. Jedva da ima rijeka, jezera ili šuma namijenjenih građaninu, do kojih on može doći brzim i čestim vlakovima ili autobusima. Zato mora imati auto samo da bi mogao otići na vikend radi zraka i relaksacije. Ali, da bi kupio auto, mora imati novca, a ako hoće zaraditi, mora raditi prekovremeno. To je začarani krug. Budući da se nitko ne brine za njegov tjedni odmor, jedino što može učiniti to je da se jedanput godišnje uputi u Jugoslaviju. Ulijeva benzin i juri. Napokon preuzima stvari u svoje ruke i na svakoj milji puta donosi dvadesetak hitno potrebnih odluka. U jednom danu putovanja na cesti pokaže više samoinicijative nego u godinu dana u uredu ili tvornici. Auto je njegova

people's homes are often in a deplorable condition. Public transport is inefficient. Yes our consumers' society still aspires to produce a paradise on earth: its aim is to bring the washing machine, the transistor, the miniskirt, and the motor car within the reach of everyone. This is what Galbraith calls 'public squalor amidst private opulence'. Why should this be? Because from the capitalist's point of view, public utilities and services do not pay. The needs which these utilities should serve are not translatable into monetary terms. Their satisfaction does not earn an immediate profit. The law of the market does not apply to them. Consequently capitalism tends to neglect them or to suppress them and to give priority to individual needs. It is more remunerative for him to multiply consumer needs than to create public services. Thus a substantial part of the national income is wasted and squandered while the costs of public utilities and services cannot be met. If the architect is willing to assume the full burden of his responsibilities, he must be alive to this state of affairs and play an active part in rectifying this policy of injustice. He must show that — contrary to everything we are told — it is first and foremost the satisfaction of collective needs which can really change our living conditions.

Take leisure for an example. It is worth asking whether it would not be a better idea to civilize the leisure time of everyday rather than develop tourism to the nth degree. At present the squalor of our cities leaves us little choice. There is a lack of parks, walks, swimming pools. Fresh air, silence and relaxation are virtually beyond the reach of the citizen during the week. Shorter working hours simply mean that the worker returns earlier than before to the dreary district where he lives. And what will he do when he gets there? A stroll in the streets is out: the streets are not made for that. Nor can he go to a youth club, a cultural centre, a hobbies club, a library: there are none. The theatre? It is far away, it's expensive, and its programmes and particularly its hours are for the middle-class. What else is there? Television. Which is precious little. Of course, there could be more time off at the end of the week. But the same problem crops up again. There are next to no rivers, lakes, or forests set out for the citizen and served by rapid and frequent rail or road services. So he must have a car, simply to get away at the weekend and find fresh air and relaxation. But to buy a car he must have money. And to earn the money he must work longer hours. It becomes a vicious circle. Because there is no provision for the weekly relaxation of the city worker or for his everyday leisure, there is nothing for him but to set off in his car once a year to Yugoslavia. He puts a tiger in his tank and off he goes. On his trip, he can take his

sloboda. On, međutim, ne uvida da je njegov glavni motiv: kako pobjeći, jer ono što je uložio u auto ne može više uložiti u poboljšanje okoline.

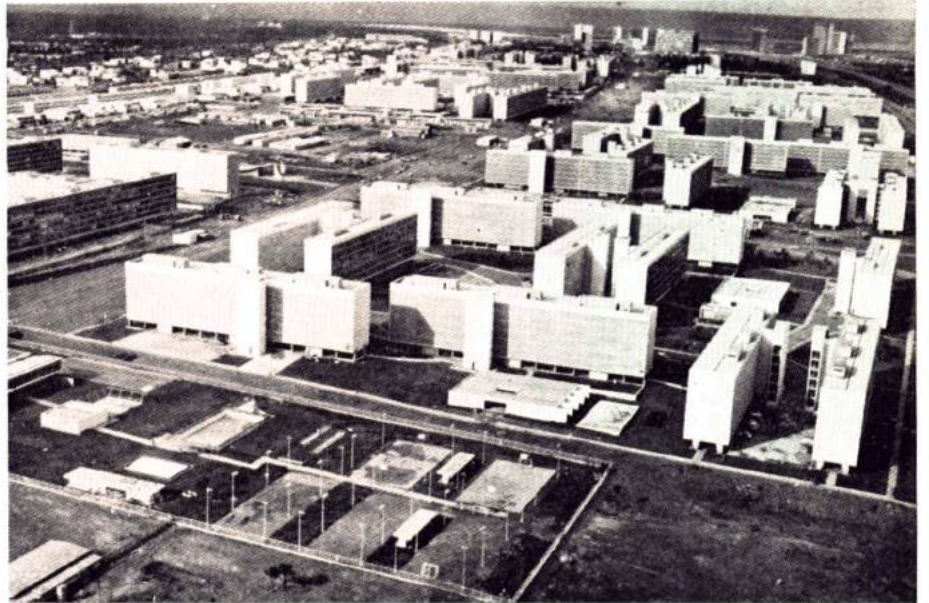
U taj škripac dovelo nas je to što su monopoli, trustovi i banke postali pravi gospodari naše civilizacije. Oni diktiraju vladama. Izdižu se nad zakon i volju naroda. Pa ipak, moguće je odmah provesti drugu politiku. Moramo se suprotstaviti odlukama koje predlažu finansijski magnati, a čiji je jedini cilj da povećaju profite, našim rješenjima koja su zajednička čitavom narodu. Prvo i najvažnije, što je osnova budućeg napretka, jest ograničenje i zatim uništenje svemoći monopola. Treba poduzeti korake da se gigantski profiti kapitalističke ekonomije namijene poboljšanju životnih uvjeta običnog čovjeka i općem razvoju zemlje. Do tog cilja vode različiti putovi. Prvi je i najvažniji da se nacionaliziraju krupne banke, najkrupniji trustovi i ona poduzeća koja obavljaju funkciju javne službe; da javnost preuzme kontrolu nad investicijama i kreditom kao i nad cijenama glavnih izvoznih i uvoznih artikala; da se uvede porezna politika koja bi stvarno pogodila višak profita korporacija; zatim konkretne mjere protiv špekulacije zemljom i nekretninama i, napokon, razvoj pravih kooperativnih sistema.

Biti politički angažiran znači pružati podršku svim pokretima, organizacijama, asocijacijama, partijama i savezima koji se bore da tim sredstvima postignu te ciljeve. Treba steći snagu koja bi omogućila da se kontrolira i usmjerava razvoj društva, te da se uspostave mehanizmi za kočenje i preorijentaciju snage kapitala. Treba se boriti za mir. Dok s jedne strane nema dovoljno novca za poboljšanje ljudske okoline, uvijek ga ima previše za razaranja. Sjedinjene Države troše mjesečno 2 milijarde 800 milijuna dolara za agresiju na Vijetnam. Prepuštam vama da izračunate koliko bi se stanova dalo izgraditi za tu sumu. U svijetu se godišnje troši 150 milijardi dolara na naoružanje — jednako polovici prihoda svih nerazvijenih zemalja. Ako arhitekti namjeravaju igrati ulogu u poboljšanju životnih uvjeta, tada se moraju ponovo pridružiti redovima onih koji pokušavaju privesti kraju rat

personal revenge. At last he can shoulder his own responsibilities and make 20 urgent decisions every mile he travels. During one day on the road he shows more initiative than in a year at the office or in the factory. His car is his personal freedom. But he does not realize that it is the prime cause of his needs to escape, because it is the capital invested in his car which is not available for improving his environment.

We are in this plight because the monopolies, the trusts and the banks have become the real masters of our country. They dictate their orders to governments. They place themselves above the law and the will of the people. Even so, there is another policy which can be implemented right away. We must oppose the solutions proposed by the financial powers — which are intended merely to swell their own profit — with solutions of our own which are those of the people as a whole. The first and the most important, the very foundation stone of all future progress, consists in limiting and then in destroying the omnipotence of the monopolies. Steps must be taken to ensure that the giant profit margin of the capitalist economy should be devoted to improving ordinary people's living conditions and the general development of the country. The means to this end are many and various. First and foremost comes the nationalization of the big banks, the most important trusts and those enterprises which perform a public service function; the public control of investments and credit, of prices and of the main imports and exports; a tax policy which would really hit the excess profits of the corporations; concrete measures against land and property speculation; and the development of a cooperative system worthy of the name.

To be politically committed means to lend one's support to all the movements, organizations, associations, parties and unions which are fighting to use these means and attain these ends. It means to acquire the powers which enable the development of society to be controlled and given direction and to set up mechanisms to restrain and reorient the power of capital. It also means to fight for peace. For while there is never enough money for improving the human environment, there is always enough and to spare for destruction. At present the United States is spending 2,800 million dollars a month on their aggression in Vietnam. I will leave you to calculate how many dwellings could be built with this sum. The world spends 150 000 million dollars a year on armaments. This is equivalent to half the income of all the underdeveloped countries in the world. If architects want to play a part in improving living conditions, they must rejoin the ranks of those who are trying to end the war in Vietnam

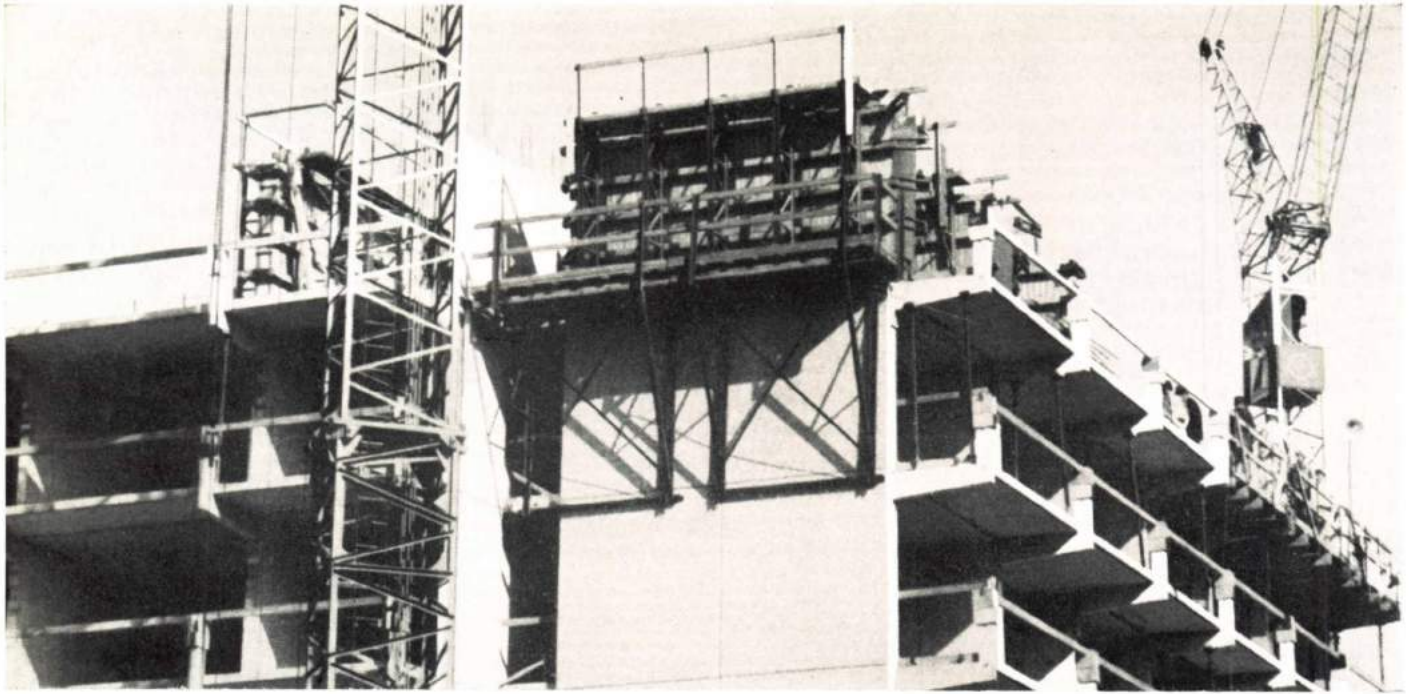


*Gore:*  
*Peta avenija u New Yorku*

*Dolje:*  
*Brazilija = tri nosača aviona*

*Top:*  
*5th Avenue in New York*

*Bottom:*  
*Brazilia = 3 aircraft carriers*



*Gore:*  
*Racionalizirani način gradnje, sistem allbeton*

*Dolje:*  
*968 prefabriciranih stanova u Parizu*

*Top:*  
*Rationalised building method, Allbeton system*

*Bottom:*  
*968 prefabricated dwellings in Paris*

u Vijetnamu, dovesti do atomskog razoružanja, do regionalnih sporazuma o ograničenju naoružanja, do ukidanja vojnih blokova i do opće politike popuštanja zategnutosti.

S gledišta tehnike i strategije, naoružanje i svemirska trka usko su povezani. Rakeete, sateliti i istraživanje svemira treba da zadovolje čovjekovu želju za bijegom kad se osjeća frustriran i zabrinut. Još će mnogo vremena proći prije nego što se bude moglo pomišljati na emigraciju na drugu planetu. S tog stanovišta investicije u svemirska istraživanja bile bi neopravdano visoke. Moguća je ušteda proširenjem tih investicija na duži period i izbjegavanjem natjecanja između SAD i SSSR. Jer, istraživanja se dupliraju. Polovina te sume mogla bi se dati na istraživanja u korist ljudskih bića čiji je život na zemlji otupljen siromaštvom i nestašicom, a da svemirska istraživanja ne bi stagnerala. Danas je nemali problem pronaći bolje sredstvo za iskorištavanje prirode u službi čovjeka. Čovječanstvo nam izmiče, Mjesec valja staviti u drugi plan.

Napokon, imamo i obaveza prema zemljama u razvoju. Stambena je situacija u tim zemljama katastrofalna. Vrlo je teško proračunati tačne potrebe na tom području, ali je sigurno da nedostaje na stotine milijuna stanova. Uz to, naravno, treba još izgraditi i infrastrukturu i opremu. Budući da te zemlje moraju još rješavati probleme gladi, bolesti, neznanja i stvaranja sredstava za proizvodnju, one se moraju obraćati za pomoć drugim zemljama. Sadašnja pomoć jedva pokriva gubitke koji nastaju uslijed isplate profita stranim firmama i sve veće razlike između cijena sirovina i cijena finalnih proizvoda. Od 1951. do 1962. Latinska Amerika je, npr., izgubila tako 12,3 milijarde dolara. U istom razdoblju primila je 10,3 milijarde u obliku privatnih investicija i poklona. Takva je pomoć, dakle, trojanski konj. Zemlje u razvoju moraju se u rješavanju svojih problema osloniti na vlastite snage i prisiliti zemlje, koje danas dominiraju, da ih tretiraju kao ravnopravne. Ali, u međuvremenu, moramo pomoći svima koji se u zemljama u razvoju organizirano bore protiv vanjskih i unutarnjih pritisaka.

U Evropi moramo inzistirati na vanjskoj politici integralnog razvoja, razvoja koji ne ovisi o stranim licencama, o izvozu automobila i rasipanju, već o iskorištavanju prirodnih i ljudskih mogućnosti zemalja u razvoju.

Stanovništvo godine 2000. bit će gotovo dvostruko veće. Da bi planeta mogla biti pogodna za stanovanje 6 milijardi ljudi, moramo smjestiti odbaciti iluzije esteta, vizionara, tehnokrata

and bring about nuclear disarmament, regional agreements on the limitations of armaments, the dissolution of military blocs and a general policy of detente.

In regard to both technology and strategy the armaments and the space race are closely linked together. Interplanetary rockets, artificial satellites, and exploration of the universe also serve to satisfy man's desire to escape when he is frustrated and anxious. It will be a long time before he can think of emigrating to another planet. From this point of view, the investment in space research is excessive. Economies could be made by spreading research over a longer period and avoiding competition between the United States and the USSR. In both camps fantastic sums are being spent on the same object. Half of these sums should be devoted to research to benefit human beings whose lives on this earth are dogged by poverty and deprivation. Today it is no longer simply a matter of finding better means of utilizing nature in the service of mankind. It is mankind itself which is getting beyond us. That is why the moon will have to wait,

Finally we have our duties towards the under-developed countries. The habitat situation in these countries is catastrophic. It is very difficult to make accurate assessments in this connection. Nevertheless the number of dwellings to be built runs into hundreds of millions, to which must be added the necessary infrastructure and the equipment. And since these countries also have to solve the problems of hunger, disease, ignorance and the creation of means of production, they must appeal to foreign countries for aid. Unfortunately this barely covers the losses they suffer as a result of their economic dependence. These losses are incurred by the repatriation of the profits of foreign firms and the growing gap between the prices of raw materials and the prices of manufactured products. Latin America, for instance, lost 123 000 million dollars in this way between 1951 and 1962. During this period it received only 103 000 millions in private investments and public gifts. The under-developed countries must tackle their problems by their own means and make the countries that dominate them today treat them as equals. But in the third world, are fighting against external and internal oppression. At home we must demand a foreign policy of balanced development: a development depending not on licence agreements, car exports, wastage but on the utilization of natural and human resources.

In 33 years the population of the world will have almost doubled. If we want to make the planet inhabitable for these 6 000 million people we must give up at once the

i udružiti napore na angažiranju za realističku promjenu svijeta. Snove o blistavoj nezavisnosti moramo zamijeniti stalnim prilagođivanjem stvarnosti svijeta koji je u dinamičnoj mijeni.

illusions of the aesthetes, visionaries and technocrats and bend our efforts to bring about a real transformation of the world. We must exchange the dreams of hallowed independence for a policy of permanent adaptation to the reality of a dynamically changing world.

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Prijevod: Vilim Crlenjak

*gui bonsiepe*

*gui bonsiepe*

komentar  
o položaju hfg

commentary  
on the situation  
of the hfg



Članovi uprave Visoke škole za oblikovanje (HfG) u Ulmu donijeli su 23. veljače 1968. odluku da će svoje aktivnosti na toj instituciji smatrati okončanim 30. rujna 1968. ako vlada i parlament pokrajine Baden-Württemberg ustraju u provedbi svojih prije najavljenih planova i uvjeta za nastavak rada te visoke škole. U času zaključivanja ovog broja redakcija časopisa »Ulm« nije sigurna hoće li, i u kojem obliku, HfG dalje postojati i hoće li ostati u Ulmu ili će morati naći novo sjedište. Zahvaljujući uglavnom naporima nekih novinara i prijatelja HfG, preostaju još neke alternative, te zasad nismo suočeni sa svršenom činjenicom. Njima je uspjelo javnosti objasniti da bi provedba vladinih mjera osujetila stvar Visoke škole za oblikovanje. Spomenuti planovi u potpunosti su prožeti duhom mjera što su već 1963/64. značile udarac autonomiji HfG, čime je još više ograničena već tada ozbiljno sustegnuta sloboda njena djelovanja. Sloboda je u prvom redu i prije svega ekonomska sloboda. U tom smislu položaj HfG već od samog početka ni u jednom trenutku nije bio osobito povoljan. Pretpostavka da jedna obrazovna institucija može i treba da se financira izvršavajući naredžbe industrijskih firmi pokazala se lažnom. Stručno obrazovanje ne može se samofinancirati. Stoga je HfG morala tražiti oslonac u javnim fondovima, pa je tako ovisila o dobroj volji i razumijevanju narodnih zastupnika. Međutim, ni na prve ni na druge izvore nikad nije mogla sigurno unaprijed računati. Često su nadležne komisije izglasavale novčanu pomoć minimalnom većinom glasova suprotstavljajući se oštrom otporu. Kako je internacionalna reputacija Ulmske škole rasla, tako su opadala sredstva potrebna za ispunjavanje zahtjeva koje takva reputacija automatski povlači za sobom. Posve nedovoljna sredstva pretvorila su ostvarivanje tih ciljeva i zahtjeva u lakrdiju. Pošto je godinama vegetirala, najprije na skromnom a zatim na minimalnom budžetu u zemlji čiji se predstavnici bezbrižno busaju u prsa kao predstavnici industrijski razvijenog društva, HfG je jednodušno odlučila da se brani objavljujući nimalo bojažljivu rezoluciju. Liberalno raspoloženi ljudi, koji se rado drže srednjega puta, nazvali su teške i zaista oštre riječi njezina manifesta irespektabilnima, jer su stvari bez oklijevanja nazvane pravim imenom. Međutim, umjesno je zapitati se tko očekuje dobit ulagajući se vlasti neznanja i neznanju vlasti. HfG sigurno ne!

Rasprave o kontinuitetu rada Visoke škole za oblikovanje u Ulmu započele su i prije polaganja kamena temeljca. Pored politički motiviranog neprijateljskog raspoloženja koje je izazvala svojim decidiranim antinacizmom, HfG kao institucija još se morala boriti i s negativnim mišljenjima ukorijenjenim u običnoj provincijskoj ignoranciji i kulturnom konzervatizmu. Razlog je bio u tome što se ona nikako nije

On February 23, 1968 the members of the HfG decided to terminate their activities at this institution with effect from September 30, 1968 if the government and parliament of the Land of Baden-Württemberg persisted in their previously published plans and conditions for continuing the HfG. As we go to press, it is not certain whether and in what form the HfG will continue its existence at Ulm or elsewhere. It is mainly due to the efforts of certain journalists and friends of the HfG that there are in fact any alternatives at all and that we are not presented with a *fait accompli*. They succeeded in bringing home to the public that the government's measures do not do justice to the HfG. These plans, however, were conceived entirely in the spirit of those measures which as far back as 1963/64 betokened an encroachment on the autonomy of the HfG and curtailed still further its already seriously restricted freedom. Freedom is first and foremost economic freedom. And in this respect the position was never very favourable right from the start. It was a mistake to assume that an educational institution could and should be financed by earnings from industrial commissions. Education cannot be run out of its own resources. The HfG had therefore to rely on public funds and thus became dependent on the goodwill and understanding of elected representatives. Neither could be taken for granted. On the responsible committees grants were often authorized only by narrow majorities in the teeth of stiff opposition. As the international reputation of the HfG continued to grow, the means whereby the demands arising from such a reputation might be met dwindled because the utterly inadequate funds made a mockery of its aims and commitments. After the HfG had eked out a day-to-day existence on an economy budget year after year and then on an emergency budget in a country whose representatives blithely pose as members of a developed industrial society, the HfG unanimously turned at bay in a resolution which was couched in no uncertain terms. Disrespectful was the word used by liberal-minded middle-of-the-road men to describe the hard and indeed harsh language of the manifestos, which did not hesitate to call a spade a spade. For it is pertinent to ask who stands to gain from pandering to the power of ignorance and the ignorance of power. Certainly not the HfG.

Arguments about the continuation of the HfG began even before a brick was laid. Apart from the politically motivated hostility engendered by the avowed anti-nazism of the HfG, the institution also had to contend with adverse opinions rooted in sheer provincial ignorance and cultural conservatism. The reason was that it did not fit into the traditional cultural scheme in which no provision is made

# Bauhaus Weimar Exodus 1

# Hochschule für Gestaltung Ulm Exodus 2

Even before the beginning of the Nazi regime the existence of the Bauhaus people in Weimar was put under pressure and finally made impossible. They drew the only conclusion: they left.

In Dessau they found a new home and a more apt environment to continue their work.

Today the HfG is confronted with an alternative similar to the one faced by the Bauhaus. Those employed at the HfG were informed on Monday, 19th Feb 1968 that on the 30th of September 1968 their contracts would be terminated. They have to (and they are allowed to) seek other activities elsewhere. Several proposals have been declared as to how the HfG might be carried on; preservation, rescue, consolidation and fusion with another institution under a cover association have been spoken of, but whatever the details of these plans, one point remains evident: What will be left of the HfG, is at best the name and a memory of better times, nothing else.

Therefore members of the HfG Ulm are looking for a chance to work, that is to say, a new atmosphere to work in, which enables them not only to accept survival under imposed alien concepts but to live according to their own ideas.

The members of the HfG will bring with them ideas and experiences from an institution which has been called one of the best and most progressive design schools in the world. We want to work in the field of product design, film, visual communications, architecture and prepare a science of design.

We ask:

which individual  
which institution  
which company  
which city

which government  
will grant the HfG residence? A residence which would enable them to be productive, and to continue what began so promisingly.

Please contact:

Hochschule für Gestaltung 79 Ulm Postfach 362 Germany

19 Feb 1968

Teachers and Students of the Hochschule für Gestaltung

uklapala u tradicionalnu shemu kulturnih djelatnosti u kojoj nije predviđeno mjesto za dizajn okoline. Ona nadilazi takvu koncepciju kulture u čijem je središtu pažnje odgoj ekonomski neovisnog pojedinca i koja ne vodi računa o društvenim aspektima. Kultura u svom buržujskom obliku ne čini štete, ne ugrožava ništa i nikoga a najmanje ono društvo koje sebi takvu kulturu može dopustiti. Izvan političke linije ona sve ostavlja tačno onako kako je zatekla. Doduše, Hegel je odgovarajući na kritike kazao da filozofija nikada ne može izmamiti pseto iz njegova zapečka, jer to nije svrha filozofije. Isto bi se moglo reći i za kulturu. Međutim, kultura je pasivno prihvaćena predstava sve dok ne pokušava učiniti nešto gotovo nemoguće. A da su takve stvari ipak moguće, tj. da filozofija može učiniti mnogo više a ne samo izmamiti pseto iz zapečka, neki događaji iz svjetske historije daju nam obilje dokaza.

Koncepcija kulture koja okolinu smatra svojim područjem bavljenja ne može izgubiti iz vida društvo koje u toj okolini živi. Naprotiv, takva će koncepcija neprestano i neizbježno voditi računa o društvu. Tačno je da od dobro dizajnirane reklame ili dobro izvedene kvake na vratima nikakav ravan put ne vodi prema boljem društvu. Premda je na Ulmskoj školi postojala instinktivna svijest o povezanosti dizajna i društva, ona nije bila u promišljenom obliku utjelovljena u nastavnom programu. Društveno-politički elementi bili su potisnuti i razvodnjeni u nejasnim govorima o društvenoj odgovornosti dizajnera. Sigurno je da bi bilo naivno očekivati da će se društveni uvjeti poboljšati ako se kvalitativno poboljša svijet znakova i predmeta, premda, bez sumnje, napore da se svijet učini nešto ugodnijim mjestom za život treba smatrati legitimnima. Ako se prebacimo u pragmatiko, možemo se osloboditi sumnji i subjektivnim pristupom ustanoviti što je pravo. Uostalom, budući da okolinu stvaramo i da ćemo je i ubuduće stvarati kao superprotezu, ona nipošto neće ostati najbeznačajniji faktor pri donošenju odluka treba li, i kako, neko društvo ili društveni sistem da živi i preživi. Međutim, uzvišeni zahtjev da čovjek-krustaš mora živjeti u školjci dostojnoj svoje ljudskosti ne može se odvajati od nekih kontradikcija koje proizlaze iz promjena u historijskim okolnostima.

Sredinom pedesetih godina, kad je Visoka škola za oblikovanje u Ulmu započela rad, gotovo nitko u industriji nije bio svjestan nužnosti dizajna. Zato su prvi prosvjetiteljski napori bili upravljani prema onima koji posjeduju sredstva za proizvodnju. Ti su ih napori imali uvjeriti da dizajn i poslovanje nisu nepomirljive suprotnosti te da je sretan »brak« između dizajna i poslovanja moguć. Tada se uvidjelo, a otada je često i potvrđeno, da proizvod koji zadovoljava dizajnerove kriterije o kvaliteti može također donositi i profit

for environmental design. It transcends a conception of culture where the focus is on the cultivation of the economically independent individual and social aspects are ignored. Culture in its bourgeois form does no harm; it jeopardizes nothing and nobody, least of all a society which can afford such a culture. Beyond the political line it leaves every thing precisely as it was. Admittedly Hegel answered the criticism that philosophy can never tempt a dog from behind the stove by saying that it was not its purpose to do so. The same might be said of culture. Yet it tends to become a passively accepted proceeding unless it does in fact attempt the next to impossible. And that such things are possible, i.e. that philosophy can do far more than tempt a dog from behind the stove, is amply demonstrated by some events in world history.

A concept of culture which takes the environment to be its province cannot overlook the society living there; indeed, it is made constantly and urgently mindful of it. To be sure, there is no straight path from a well-designed advertisement or a well-turned doorknob to a better society. And although there was an instinctive consciousness at the HfG of the relationship of design to society it was not actually embodied in its curriculum in a pondered form. The socio-political elements of the HfG were relegated in dilution to vague speeches about the cultural responsibility of the designer. Certainly, it would be naive to expect an improvement of the world of signs and objects, although efforts to make the world a slightly more pleasant place to live in must undoubtedly be regarded as legitimate. By taking a leap into the pragmatic, one might rid oneself of doubts and find what is right by a subjective approach. For since the environment is created and will continue to be created as a superprothesis, it will not be the least of the factors deciding whether and how a society of whatever system will live and survive. Yet his noble demand that man the crustacean should be surrounded by a shell worthy of his humanity is inseparable from certain contradictions resulting from changes in historical circumstances.

In the mid-fifties, when the HfG was opened, there was still virtually no realization in industry of the necessity of design. The first missionary endeavours were therefore directed at the owners of the means of production with a view to convincing them that design and business are not irreconcilable opposites and may therefore contract a harmonious marriage. It was found then, and has frequently been confirmed since, that a product satisfying the designer's criteria of quality can also be a moneymaker. Today design

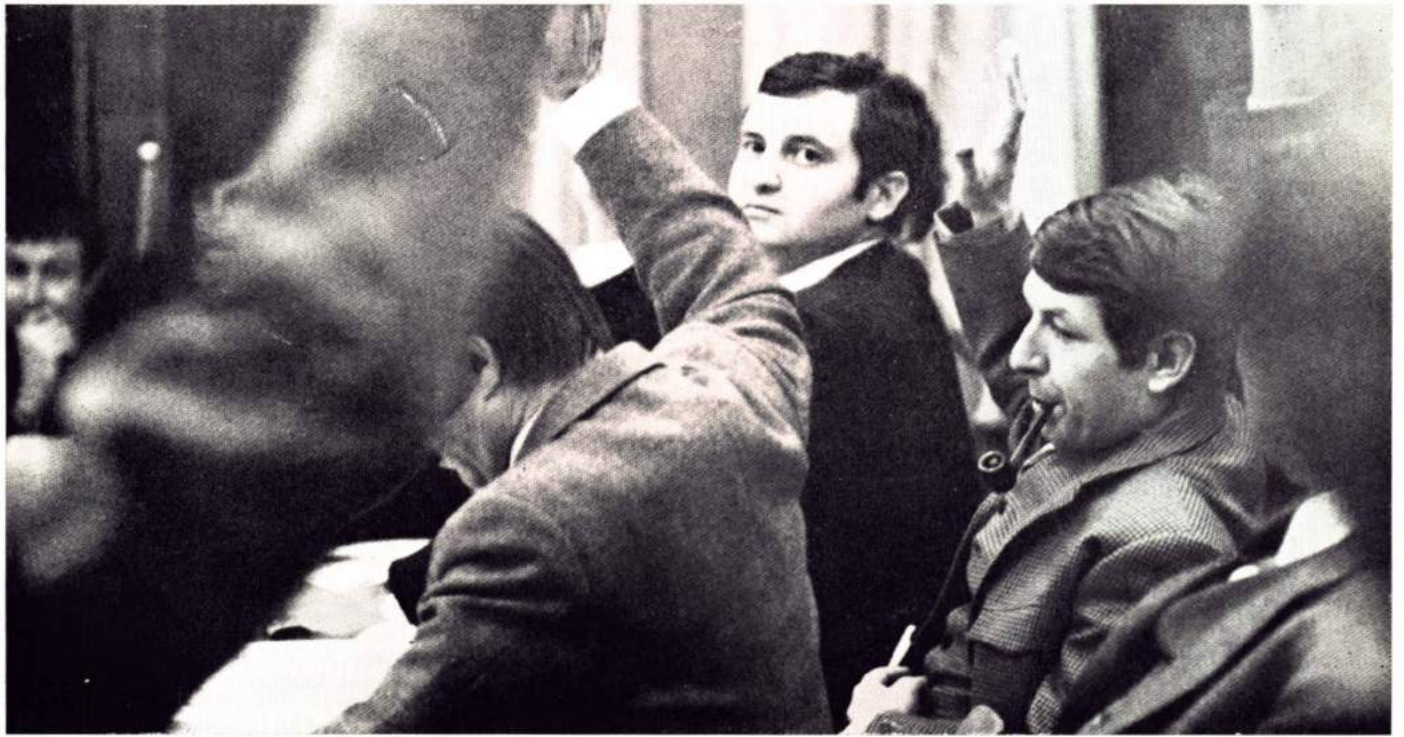
proizvođaču. Danas je dizajn potpuno integriran s industrijom, i samo bi se neki hipokrit mogao tužiti da nije poboljšan funkcionalni i estetski standard proizvoda. Industrija u kojoj djeluju dizajneri u prednosti je pred industrijom bez dizajna ili antidizajnskom industrijom. U toku toga procesa integracije i asimilacije pojavile su se suprotnosti između zadovoljenja stvarnih potreba i konzumerizma, ali to se ne može upotrijebiti kao argument protiv samog dizajna. Dok bi u skladu s teorijom dizajna dizajner morao biti predstavnik i tumač interesa društva kao cjeline, dizajn se u praksi pretvorio u element strategije moderne poslovne politike u kojoj je prijašnji rat cijena zamijenjen diferencijacijom proizvoda na bazi dizajna. Ta promjena situacije nosi sa sobom sasvim posebne reperkusije za škole dizajna koje više ne mogu kao nekoć proizvoditi stručnjake jednako neupadljivo.

Tehnički racionalizam, koji HfG zastupa svim srcem, bio je element progresivnosti, osobito u ranim godinama njena postojanja. Prije je bio napadan, ali je sada svagdje prihvaćen. Međutim, društveno-politički faktor koji je povezan s tim racionalizmom manje je dobrodošao jer se ne može glatko uklopiti u procese produkcije i reprodukcije društva. Da bi preživjela, industrijski razvijena društva trebaju inteligenciju. Naročito se favorizira jedan tip inteligencije, a to je instrumentalna inteligencija koju rado zapošljavaju, dok je kritički nastrojena inteligencija manje poželjna ili nipošto nije poželjna. Pod prisilom kvantitativnog vrednovanja, HfG je morala dokazivati, naročito u toku posljednjih 5 godina, svoje pravo na egzistenciju postajući centrom za proizvodnju kvalificiranih dizajnera. Postala je tvornicom dizajnera pokušavajući da pomoću sramno malih fondova ispuni jedan dio svog programa, tj. da stručno obrazuje dizajnere. Pošto je surađivala na pretvaranju neriješenog problema stručnog obrazovanja suvremenog dizajnera u riješeni problem, preostalo joj je da ostvari ostala dva dijela svoga programa, a to su razvojni projekti i osobito istraživanja na području dizajna okoline. U svakom slučaju, mimetički proces stručnog obrazovanja u kojem pedagogija oponaša praksu trebalo bi napustiti, jer je danas industrijska praksa razvijenija od pedagogije, iako je prije 10 godina stanje bilo obrnuto. Dakle, ako ne želimo da stručno obrazovanje postane slijepo crijevo industrije, onda moramo stvarati modele i strukture samog stručnog obrazovanja kako bi se buduća praksa ravnala po nekom kompasu. U protivnom, stručno bi obrazovanje bilo naprosto dupliciranje postojećega i tako nesposobno da stimulira praksu u industriji.

Još u toku školske godine 1966/67. vodila se interna diskusija o reviziji sadržaja i načina nastave i o reorganizaciji HfG. S obzirom na prividno mnogo važnija razmatranja u vezi s

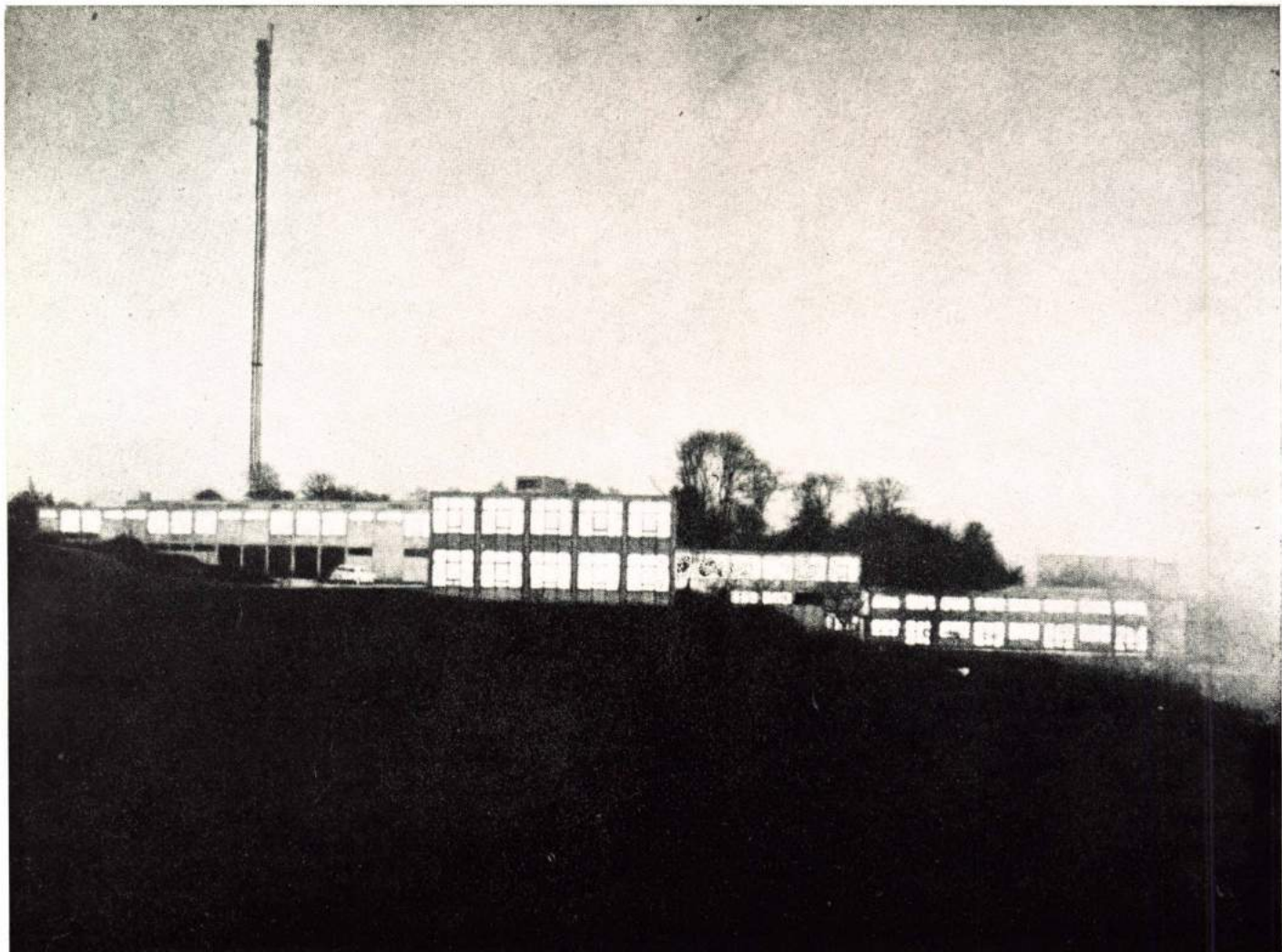
is part and parcel of industry and only a hypocrite could complain about the improvement in the functional and aesthetic standard of the products. An industry with designers is an advance over a designless industry or an anti-design industry. During this process of assimilation, however, antinomies have sprung up between the satisfaction of needs and consumerism, although this cannot be turned as an argument against design itself. Whereas in theory the designer was to be the representative and interpreter of the interests of society as a whole, design was changed into an element of strategy in modern entrepreneurial policy in which the price war between competitors has been replaced by a design-based differentiation of products. This change in the situation has very special repercussions on the schools of design where kind professionalists can no longer be produced as a matter of course as in times gone by.

The technical rationalism advocated whole-heartedly by the HfG constituted a progressive element particularly during the earlier years of its existence. Previously opposed, it has now gained acceptance everywhere. The socio-political factor associated with this rationalism is, however, less welcome; for it cannot be fitted snugly into the productive and reproductive process of society. Industrial societies need intelligence to remain alive. One brand of intelligence in particular is favoured. Instrumental intelligence is taken into service but critical intelligence is desired to a lesser degree or not at all. Evaluated willy-nilly in terms of output, the HfG — particularly for the last 5 years or so — has had to prove its right to existence by becoming a production centre of qualified designer. It became a designer factory which endeavoured with shamefully slender funds to fulfil one part of its programme, viz. the training of designers. After the HfG had cooperated in turning the unsolved problem of training designers for today into a solvable one, two other parts of its programme would have had to be implemented: development projects and, more particularly, research in the field of environmental design. In any case the mimetic process of training (pedagogics copying practice) would have had to be abandoned: today industrial practice is more advanced than pedagogics whereas ten years ago it was the other way round. Now if training is not to become an insignificant appendage of industry, it must create its own models and patterns so as to give future practice its bearings; otherwise training will be merely duplication. And thus it would be unable to give a stimulus to practice in industry. Internal discussion on a revision of what was taught and how it was taught, including a reorganization of the HfG, had already begun during the academic year 1966/67. In view of the apparently more weighty considerations bound up



*Studenti HfG*

*Students of the HfG*



*HfG Ulm, projektant Max Bill (1955)*

*HfG Ulm, Design Max Bill (1955)*

prijetnjom samoj egzistenciji Ulmske škole, te su diskusije postale prilično nerealne. Premda se nužno prestrukturiranje škole bez sumnje moglo dogoditi za kasnije, od njega se ipak nije moglo posve odustati. Da je HfG bila oslobođena vanjskih pritisaka, sigurno bi uviđanje da monolitna koncepcija dizajna danas više nije održiva donijelo već svoje plodove. Zapravo, uzdrmano je stanovište da se problemi dizajna mogu prvenstveno, pa čak i isključivo, rješavati dizajniranjem. Nametnula se potreba da se iznova promisli o odnosu dizajnera i nauke. Sve dosada dizajneri su se držali uloge potrošača nauke, nadajući se da će negdje netko drugi proizvesti neku sumu znanja koju će oni moći primijeniti i iskoristiti ako manje-više slučajno na to znanje naiđu. Danas takav receptivni stav nema više nikakve budućnosti. On se mora pretvoriti u produktivni stav, a to se može postići ako škole dizajna prestanu stručno obrazovati dizajnere koji će samo oblikovati predmete, i počnu obrazovati takve dizajnere koji će stvarati znanje o dizajnu i o organizaciji dizajna. U krajnjoj analizi dizajn je nešto više od stvaranja trodimenzionalnih oblika. Aktivnosti dizajnera morat će se međusobno izdiferencirati. Jedni će dizajneri projektirati za crtaćim stolom, drugi će se baviti istraživanjem, a treći će se baviti organizacijom i planiranjem. To su eto smjernice koje ćemo morati slijediti ubuduće i u isto vrijeme napuštati eklektički stav prema znanosti. Dizajn, da bi mogao pretendirati na to da organizira visoko artifičijelnu i u budućnosti izvanredno kompliciranu okolinu i da joj dađe svoj pečat, nužno iziskuje stvaranje nauke o dizajnu kao grane buduće nauke o okolini.

Promatrana iz budućnosti, Visoka škola za oblikovanje u Ulmu može se činiti kao institucija prijelaznog tipa koja je pokušala udružiti nauku i dizajn, ali je uspjela samo u početnim fazama sinteze. Kao novopridošlica među klasičnim centrima znanja, HfG nije mogla živjeti neovisno o njima. Ovisnost njena funkcioniranja o centrima proizvodnje znanja dolazila je sve više do izražaja. Međutim, kako su ti drugi centri znanja i sami zapleteni u ozbiljnu krizu političke naravi i moraju duboko razmišljati o svom odnosu prema društvu, malo mogu učiniti što bi pomoglo dizajnu da iziđe iz svoje krize koja je ukorijenjena u naravi samog predmeta njegovog interesa.

S obzirom na hitnost i na sve veće razmjere problema s kojim se suočavaju stanovnici svjetske okoline, bilo bi beznađno čekati na to da sveučilišta reformiraju svoju organizaciju i svoje aktivnosti. Slično je s organizacionom formom industrije, a to posebno vrijedi za kapitalističku industriju. Zapravo ta forma ne dopušta da se obrađuju i rješavaju problemi koji se tiču društva u širokim razmjerima, tj., onemogućuje rješavanje

with the threat to the very existence of the HfG, these discussions became somewhat unreal. Yet although the necessity of overhauling the HfG could no doubt be postponed, it could not be dropped altogether. If the HfG had been relieved of these external constraints, the realization that a monolithic concept of design is no longer tenable today would have produced its fruit. For the view that the problems of design can be solved primarily if not exclusively by designing has been shaken. The relationship between the designer and the sciences must be thought out afresh. So far designers have clung to the role of consumers of science hoping that someone somewhere will produce a piece of knowledge which they will apply and utilize if they come across it more or less by accident. Today there is no future in this receptive attitude; it must be converted into a productive one. This can be achieved if the design schools do not train their students merely to make design objects but also to create design knowledge and design organization. In the last analysis design is more than the creation of three-dimensional forms. The activities of the designer will become differentiated. There will be designers who work on the drawing board; there will be designers who research; and there will be designers who organize and plan. These are the lines along which we shall have to proceed in the future and at the same time the eclectic attitude towards the sciences will have to be abandoned. Design which might claim to organize and leave its imprint on a highly artificial and in future extremely complicated environment needs the creation of a science of design as a branch of a future science of environment.

Viewed from the future the HfG might appear to be a transitional institution which attempted to conjoin science and design but only succeeded in the initial stages of the synthesis. As a newcomer among the classical seats of learning the HfG could not live independently of them. Its functional dependence on the production centres of knowledge became increasingly apparent. But since the latter are themselves bogged down in a serious crisis of a political nature and must ponder their own relationship to society, they can do little to help design out of a crisis which is rooted in the nature of the subject.

In view of the urgency and the rapidly increasing proportions of the problem confronting the occupants of a world environment it would be hopeless to wait for the universities to reform their organization and their activities. Similarly the organizational form of industry — and this applies in particular to capitalist industry — will not allow it to tackle and solve problems affecting society at large, i.e. problems including such fields as community design. This touches on

problema u područjima kao što je community design. Ta vrsta dizajna odnosi se na golemo područje javnog iskorištavanja nasuprot privatnoj potrošnji. Danas su grad, bolnica ili škola zbrka nagomilanih pojedinačnih proizvoda ili dijelova proizvoda koji ne predstavljaju neki sistem već prije anti-sistem. Za rješavanje takvih značajnih problema bilo bi nužno stvoriti nove, fleksibilne institucije u kojima bi se dizajn okoline mogao izučavati na širokoj, interdisciplinarnoj osnovi. Tu se pruža polje za eksperimentiranje i suradnju sociologa, psihologa, ekonomista, inženjera, doktora i dizajnera, čemu se tako često teži a što se tako rijetko ostvaruje. Samo bi se tako moglo izići iz začaranog kruga zastarjelog »konzultiranja« dizajnera i arhitekata s učenicima.

Mogle bi se, također, iskušati nove didaktičke spoznaje po kojima svaki student više nije konkurent svima ostalima. Potvrde o prisustvovanju nastavi kao izraz represivnog principa, kao uostalom i svaki drugi didaktički sistem koji djeluje zahvaljujući prijetnji frustracijom, bili bi zamijenjeni emancipiranim oblikom nastave. Ukinula bi se predavanja kao veoma neekonomičan način prenošenja znanja (osim u slučaju kad se predaju sasvim nove spoznaje), te bi bila zamijenjena programima podučavanja u kojima bi se koncentriralo postojeće znanje. Heuristički orijentirano instruiranje bilo bi zamijenjeno instruiranjem u kojem je u centru pažnje iznalaženje rješenja za određeni problem. Članovi radnih grupa udruživali bi se na osnovi svojih motivacija i interesa, a ne po proizvoljnom kriteriju datuma upisa. Tako bi proces učenja umjesto reproduktivnog postao produktivan.

Možda se HfG mogla lišiti tih spekulativnih razmišljanja pokusnog karaktera, ali valja se sjetiti kako iskustvo dokazuje da regeneracija ne dolazi sama po sebi niti se zbiva spontano proizlazeći iz stvari same, nego mora biti kreirana poduzimanjem revolucionarnih zahvata nad stvarima. Za nešto takvo Visokoj školi za oblikovanje u Ulmu bila je potrebna slobodnija klima, a ne nužnost da moljaka milost od izabranih predstavnika čije ruke kontroliraju kese s novcem i kojima nikada nije godila njezina sklonost inovacijama i eksperimentima.

Zbog toga je život HfG gotovo pri kraju. Treba se nadati da neće doživjeti sudbinu Bauhauusa, da neće biti učinjena bezopasnom i postavljena kao eksponat u muzeju kulturnih objekata. Isto tako nije potrebno u zvijezde kovati rezoluciju pripadnika Ulmske škole kao herojski gest. Nije herojski njen završetak, već nada koja je dovela do njena osnutka. Vrijednost HfG ne treba mjeriti po onome što je postigla već po svemu onome što su joj osujetili da postigne.

*Objavljeno u posljednjem, 21. broju časopisa ULM koji je izašao u travnju 1968.*

Prijevod: Vilim Crlenjak

the immense sector of public use as against private consumption. Today a town, a hospital, a school make up a hotchpotch of individual and part products which do not form a system or at best only a jerry system. To deal with the problems looming up there it would be necessary to create new, versatile institutions where environmental design could be studied on a broad and interdisciplinary basis. Here would be a field of experiment for that collaboration between sociologists, psychologists, economists, engineers, doctors and designers which has so often been aimed at and so seldom attained. And at the same time this would spell the end of the obsolete arrangement whereby designers and architects are »advised« by scientists.

Trials could be made with new didactic ideas according to which each student is no longer the competitor of the others. Certificates of attendance as the expression of a repressive principle of performance, and indeed any didactic system which operates with the threat of minimal frustrations, would be replaced by an emancipating form of instruction. Lectures, which are a highly uneconomic way of imparting knowledge unless it is new, would drop out and be replaced by teaching programmes in which existing knowledge is concentrated. Heuristically oriented instruction would be replaced by instruction in which the solution of a problem is the focus of attention. The members of working groups might team up on the basis of their motivations and interests rather than assembled according to the fortuitous criterion of their date of registration. The learning process would become productive instead of reproductive.

Perhaps the HfG could have stripped these speculations of their tentative character although it must be remembered that experience shows that regeneration does not come about of its own accord or arise spontaneously from the matter itself but that it must be created by taking a revolutionary grip on things.

But for this the HfG would have needed a freer climate and not had to solicit in fear and trembling the favour of the elected representatives whose hands control the money-bags and who have never found the HfG's desire for innovations and experiments congenial.

The HfG is therefore almost at an end. It is to be hoped that it will not suffer the same fate as the Bauhaus, i.e. to be rendered harmless and put on show as an exhibit in the museum of cultural objects. Nor should the resolution of the members of the HfG be decked out as a heroic gesture. It was not the end of the HfG that was heroic but the hope presiding at its inception. The HfG is not to be gauged by what it achieved but by what it was prevented from achieving.

*radoslav putar*

dizajn proizvoda  
u jugoslavenskoj  
industriji \*

*radoslav putar*

product design  
in jugoslav  
industry

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\* Tekst napisan za knjigu OBLIKOVANJE U  
JUGOSLAVIJI, izdanje SLUPUJ.



Kad je u početku pedesetih godina u krugu Studija za industrijsko oblikovanje (SIO), unutar Udruženja likovnih umjetnika primijenjenih umjetnosti u Zagrebu, nikla jedna od najranijih inicijativa za uvođenje i unapređivanje dizajna u našoj sredini, nije još bilo gotovo nikakve predodžbe, pa ni slutnje, o težini i zamršenosti problematike koja je tom inicijativom načeta. Opće koncepcije dizajna kretale su se tada na razini plodonosnoga povezivanja umjetnosti i industrije, i od te se veze očekivalo sve. U većini ideja o dizajnu dominirala su plastička pitanja te kompleksne discipline a prve su informacije o značenju službe dizajna obuhvaćale uglavnom dvosmjerne linearne relacije između konstruktorskih i oblikovnih komponenti pripreme produkcije. Odmah je uočena urgentna potreba visokoškolske institucije koja bi na temelju specifičnoga obrazovnog i odgojnog programa stvarala nužno potrebne kadrove dizajnera. Nije bilo teško ustanoviti nekoliko osnovnih nedostataka i praznina koji su u samoj industriji predstavljali izvore teškoća i otpora. Začetnici su ideje o dizajnu jednu od najkritičnijih tačaka situacije realno sagledali u strukturi i razini prometanja industrijski proizvedenim dobrima, tj. u trgovini, napose u maloprodajnoj trgovačkoj mreži koja je tek izašla iz faze poslijeratnog racioniranog snabdijevanja. Uskoro nakon prvih vijesti o razvoju dizajna u industrijski razvijenim zemljama, uočena je i potreba osnivanja institucije koja bi bila stalan izvor inicijativa za uvođenje suvremeno koncipiranoga dizajna. U primarnoj predodžbi o toj instituciji koncentrirale su se gotovo sve aktivnosti koje je trebalo uvesti da se ostvari neka vrsta garancije za ispravan start i usmjerenje dizajna u zemlji. Ipak, moralo je proći deset i više godina do dana kad su otvorena vrata Centra za industrijsko oblikovanje u Zagrebu, a toga istog dana započela je i burna i dramatična povijest te institucije, koja u strukturi industrijskoga rasta zemlje još nije dobila ono mjesto koje bi joj trebalo dati od samoga početka njezina djelovanja.

U međuvremenu, od ranih pedesetih godina do sredine sedmoga decenija, industrija je u zemlji prošla kroz nekoliko sudbonosnih faza i prešla je razvoj od situacije u kojoj je svaka proizvedena količina bila pozitivni rezultat — do danas kad su u punom jeku naponi da se nacionalna industrijska produkcija uklopi u sisteme kontinentalnih pa i globalnih razmjera. Taj razvoj učinio je potrebu izgradnje sistema službe dizajna još mnogo urgentnijom nego što je bila u vrijeme prvih inicijativa. No, kako se taj razvoj ne može shvatiti kao jasno orijentirano, linearno ili frontalno kretanje, tako se i problematika dizajna, kao organskog sklopa ideja, predodžbi, normi i interdisciplinarnih metodologije dinamično razvijala i — do danas — osjetljivo izmijenila. Zapravo,

When one of the earliest initiatives for the promotion and improvement of design in this country was started in the early fifties in Zagreb in the Centre for Industrial Design, and within the Association of Applied Arts, nobody had any idea about the gravity and complexity of the problems that were initiated by that move. The general conceptions of design were then in the phase of fruitful association between arts and industry, and a great deal was expected from this co-operation. Most ideas on design were then dominated by plastic problems of that complex discipline, and the first information on the importance of the designing service comprised mainly the relations between the constructor and designer in the preparation of industrial production. The urgent need for a high-level school was immediately realized which would produce the badly needed designers on the basis of a specific programme of studies. It was not difficult to single out several basic drawbacks and gaps which were the source of trouble and resistance in industry. The initiators of the idea on the promotion of design saw very clearly that one of the most critical points was structure and level of trading of industrial goods, above all among the network of retailers which had just emerged from the phase of postwar rationing. Very soon after the first news on the development of design in industrially advanced countries reached us the need was realized for the setting up of an institution which would become a permanent source of initiatives on contemporary design. In the original idea of this institution nearly activities were concentrated which had to be developed so as to insure some kind of guarantee for a right start and direction of design in this country. Yet, over ten years had to elapse before the opening of the Centre for Industrial Design in Zagreb, and the day of its opening meant the beginning of its turbulent and dramatic history; the Centre still has no proper place in the industrial growth of the country, the place that it should have enjoyed since its foundation.

In the meantime, between the early fifties and the middle sixties, Yugoslav industry passed through several crucial stages; it has outgrown the phase when any goods that it produced were considered a success — up to the present phase when great efforts are being made to integrate Yugoslav industrial production in the continental and even global economic framework. This development has made the need for a system providing for contemporary design even more imperative than in the days of the first initiatives. But as this growth cannot be taken as a straight or linear movement, so have the problems of design — as an organic complex of dynamically developing ideas, assumptions, norms, and interdisciplinary methodology — changed a

valja konstatirati da je opći progres te oblasti danas stupio u kritičnu fazu temeljite mijene koja je u neposrednoj vezi s najnovijim dostignućima na području industrijske tehnologije, u uvjetima pojave novih materijala i tehničkih sredstava. Samo u vezi s pojavom eksplozivnog širenja primjene novih materijala, a napose u vezi s neočekivanim stupnjem razvoja automatizacije i primjene elektronike (kompjuteri i minijaturizacija regulacijskih, komunikacijskih, pa i pogonskih uređaja), mogu se uočiti izvori kapitalnih mijena, koje ne uzrokuju tek jednostavno širenje ili pozitivno pomicanje elementarnih normativa dizajna, nego u cijelim ciklusima principa industrijske produkcije rađaju upravo — negacije tek nešto ranijih pretpostavki i iskustava. »Klasični« principi adekvatnog tretiranja materijala konstrukcije; norme ekonomičnosti; osnove motivacija; poslovna načela; racionalni marketing; taktika i strategija ekonomske propagande; uvjeti transporta, pa i društveno-političke implikacije industrijske ekspanzije — sve je to dospjelo pod znak pitanja ili je već u naprednoj praksi temeljito izmijenjeno. Jednom riječju, od trenutka kad su u zemlji odjeknuli prvi signali o dizajnu kao bazičnom modulatoru industrijskoga razvoja pa do danas, na mnoge stvari moramo gledati na posve nov način i u akciju treba krenuti s novim principima i novim sredstvima, a težiti valja prema ciljevima čiji se obris veoma izmijenio. Sve tješnje povezivanje nacionalne industrije s industrijskim kompleksima drugih državnih zajednica i kontinenata, sve neposrednije djelovanje velikih regionalnih i globalnog tržišta industrijskih proizvoda, a napose nova načela strukturiranja asortimana, stavili su i našu zemlju u položaj neminovne i hitne potrebe revizije prijašnjih predodžbi i koncepcija dizajna kao jednog od osnovnih uvjeta modernizacije industrijske proizvodnje. Neposredni, pa čak i »krajnji« operativni i ekonomsko-politički ciljevi postali su kompliciraniji, a njihova problemska raslojenost više nije dostupna klasičnim pa ni nedavnim metodama djelovanja i upravljanja.

U tipičnom slučaju dizajna za serijsku produkciju na početku prošlog perioda (od ranih pedesetih godina do sredine šezdesetih godina) unapređenje forme bilo je pitanje individualne inicijative koja je najprije češće potjecala iz krugova izvan industrijskog poduzeća. Netko je na temelju vlastitih informacija i vlastitih shvaćanja zamislio poboljšanje oblika nekog proizvoda i, nakon niza neuspjelih pokušaja, pošlo mu je za rukom da upravi poduzeća ili odgovornom (ili manje ili više neodgovornom) faktoru sugerira izmjenu.

great deal. As a matter of fact, it should be noted that general progress in this field has entered the critical stage of fundamental change which is closely associated with the latest achievements in industrial technology, the appearance of new equipment and materials. If we take only the rapid expansion of the use of new materials, above all in connection with the unexpectedly fast development of automation and electric devices (computers and miniaturization of regulation, communication, and industrial plant equipment) we might expect radical changes which will not only consist of the spread and growth of the elementary norms of design, but will bring about in whole cycles of industrial production the negation of earlier assumptions and experience. Traditional principles of the proper treatment of construction material, norms of what might be considered economical, the basis of motivation, business principles, rational marketing, the tactics and strategy of advertising, means and conditions of transport, as well as the socio-political implications of industrial expansion — all of it has been questioned or radically changed in progressive practice. To put it in a nutshell: since the first signals on design as the basic modifier of industrial development were received, up to the present day many things have changed so that we must approach them in a completely new way. Our action must be prompted by new principles and instruments, and our efforts should be directed towards the aims whose profile has radically changed. The increasingly closer association between Yugoslav industry and the industries of other countries and continents, the more direct influence of large regional and global markets of industrial goods, and above all the new principles concerning variety and assortment have underlined the pressing and inevitable need for revision of earlier ideas and concepts on design as one of the basic conditions for modernization of industrial production. The immediate but also the ultimate operative politico-economic aims have become more complicated and the complexity of issues cannot be approached any more by traditional, not even by some more recent methods of work or management.

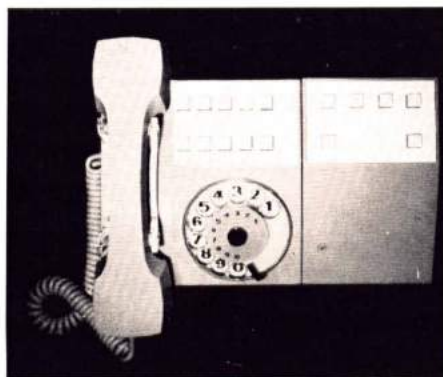
In the typical case of design for mass production at the beginning of this period (i.e. between the early fifties and the middle sixties) the development of form was a matter of individual initiative which originated most often outside the industrial plant. Based on private information or personal initiative it has occurred to some people that they could improve the design of a product, and after a series of persistent attempts they have succeeded in persuading the management of the firm (or its ir/responsible representative)



1



4



2



5

1  
 Telefonski aparat ATA 31. Dizajn ISKRA, Kranj  
 Telephone set ATA 31. Design ISKRA, Kranj

2  
 Telefonski aparat ATA 31, sekretarska naprava. Dizajn ISKRA, Kranj  
 Telephone set ATA 31, secretary equipment. Design ISKRA, Kranj

3  
 Telefonski aparat ATA 31, zidna izvedba. Dizajn ISKRA, Kranj  
 Telephone set ATA 31, wall type. Design ISKRA, Kranj

4  
 Telefonski aparat ATA 34 bez broječanika. Dizajn ISKRA, Kranj  
 Telephone set ATA 34 without dial. Design ISKRA, Kranj

5  
 Telefonski aparat ATA 22. Dizajn ISKRA, Kranj  
 Telephone set ATA 22. Design ISKRA, Kranj



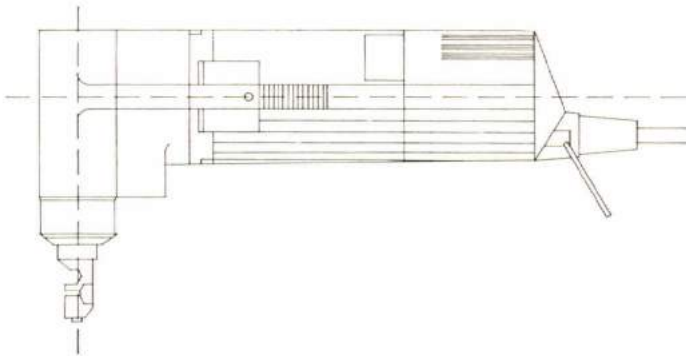
3



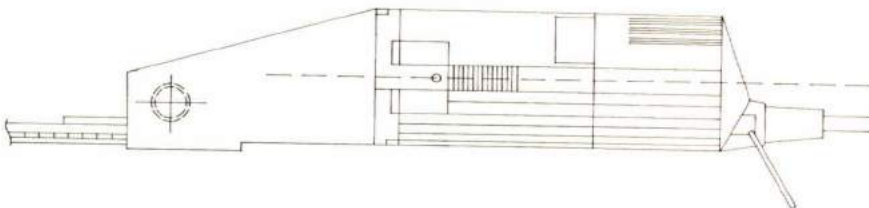
1



2



3



1  
Električna ručna bušilica EVS-06/II. Dizajn  
ISKRA, Kranj  
Electric tool EVS-06/II. Design ISKRA,  
Kranj

2  
Električne ručne škare za lim UNI RS 1.  
Dizajn ISKRA, Kranj  
Electric sheet-iron shears UNI RS 1. Design  
ISKRA, Kranj

3  
UNI sistem. Dizajn ISKRA, Kranj  
UNI system. Design ISKRA, Kranj

Pri tom nije djelovao naoružan nekom pozitivnom argumentacijom, nego je bio vođen slutnjom. Njegova inicijativa nije imala mogućnosti nikakva jamstva o prometnoj vrijednosti inovacije, a tehnološko je rješenje trebalo prilagoditi pogonskim uvjetima. Tako je realiziran veći broj relativno uspješnih oblikovnih rješenja, koja su imala značenje improvizacije i posve parcijalne akcije. Te su akcije u načelu bile redovito izolirane, i samo su u rijetkim prilikama predstavljale prvu kariku u lancu novih akcija. Najpovoljniji teren za takve izolirane akcije bila su ona industrijska poduzeća kojih je opća tehnologija u svojoj suštini klasična, tradicionalna, a u konstrukciji objekta postoje mogućnosti velikih tolerancija. To su »grane« staklarske, keramičke i drvene industrije. Akcija je u takvim uvjetima zamirala kad se inovacija nije odrazila kao poslovni uspjeh ili se iscrpila ambicija autora novog oblika. Nije poznat slučaj da bi takva inicijativa potakla i strukturalne promjene u politici poduzeća. Drugi je tip slučaja unapređivanja »dizajna« mogao poteći iz sugestije komercijalne službe poduzeća, koja je primila sugestiju od značajnijeg kupca i paralelno je s općom sugestijom o inovaciji primila i prijedlog o samom rješenju. Takvi su slučajevi imali sretniji završetak, jer su bili sigurnije povezani s pozitivnim poslovnim rezultatom. Autor sugestije o meliorizaciji oblika proizvoda bio je zadovoljan — svojim rješenjem.

Poznat je veći broj slučajeva u kojima je pokretač poboljšanja oblika proizvoda bio netko iz uprave poduzeća tko je intuitivnom »statistikom« svojih dojmova na međunarodnim sajmenim forumima uočio neki formalni trend i u svojoj je radnoj organizaciji predložio imitiranje toga trenda. Lako se može zaključiti da se to najčešće događalo u poduzećima tekstilne industrije i modnih artikala (konfekcije i sl.). U »grani« drvene industrije, tj. industrije namještaja, koja je među prvima osjetila pritisak situacije na međunarodnim tržištima, sugestije su nerijetko dolazile od eksportnih poduzeća, ali tu nije bila posrijedi sugestija o uvođenju ili unapređenju službe dizajna, nego prijedlog o modifikaciji postojećeg modela ili — o prihvatanju uzora iz strane produkcije. Modifikacija prijašnjeg modela ili prihvatanje stranoga uzora kretali su se u okviru tradicionalne tehnologije i pogonskih uvjeta u domaćoj tvornici, a poruka o oblicima stigla je do svojega novog cilja redovito tragično deformirana. Ona ni u čemu nije pozitivno djelovala na strukturu proizvodne i poslovne politike producenta. Tako je ostvaren stanovit napredak nevelikog dometa; opći je formalni profil domaće proizvodnje drvenog namještaja krenuo u smislu općih trendova oblika na međunarodnim tržištima, ali moderna služba dizajna u »drvnoj« industriji ostala je samo na pragu velikih potreba i sjajnih mogućnosti.

to accept the suggested alteration. Such a person was not equipped with any argumentation but was rather inspired by hearsay. His initiative could not offer any guarantee concerning the commercial value of the innovation, and the technological solution had to be adjusted to the technical resources of the industrial plant. In this way a considerable number of relatively successful new designs were launched, always having the imprint of improvisation and partial action. These actions were as a rule isolated and they were only in very few cases the first link in a chain of new actions. The most suitable ground for such actions were the industrial plants whose general technology was essentially traditional, and which tolerated a great variety in the construction of its products. This applied to some glassworks, ceramics, and wood industries. In such conditions the new action came to an end when the innovation did not have any commercial effect or when the ambition of the innovator dried up. No case is known when such an initiative would give rise to structural changes in the general policy of the firm. Another type of design promotion came from the commercial department of the firm which received the suggested from a customer and accepted — together with the general suggestion on innovation — the proposed solution. And the author of such suggestions was also satisfied — with his own solution. Quite a number of cases are known where the author of the idea for design improvement was someone from the management of a firm who, through sheer intuitive »analysis« of his impressions on international fairs, noticed a new trend and suggested to his own firm that this trend should be followed. It is not difficult to guess that this happened most frequently in the textile industry and with fashion articles (for example ready made clothing). In the wood industry (for example furniture manufacture) which was one of the first to feel the pressures of the international market, the suggestions frequently came from export firms, but these proposals did not suggest the setting up or promotion of designing departments but only the modification of existent models. The modification of an earlier model or the acceptance of a foreign model moved within the range of the firm's technological resources, while the description of the new shapes as a rule reached its destination ludicrously deformed. Such proposals never had any positive effect on the structure of commodities and on the commercial effect of the firm. In this way the progress achieved in those years was of a limited scope. While the general profile of Yugoslav wood furniture industry moved parallelly with the trends on international markets, the modern designing service in wood industry remained only at the threshold of luring possibilities and large demands.

Na rubu ili tek u susjedstvu operativne oblasti industrije drvenog namještaja djelovao je i još djeluje priličan broj slobodnih projekatara koji na temelju intuitivnih iskustava ili povremene empirije konstruiraju pojedine modele opreme za stan. Ti projekti katkada raspolažu vrlo dobrim i ažurnim informacijama o trendovima na međunarodnim tržištima. Ali, u nedovoljno organiziranoj i još manje sistematskoj kolaboraciji sa činiocima u industrijskim poduzećima, »dizajniraju« konstrukcije koje već u pripremi rada u seriji moraju doživjeti osjetljive izmjene. Tako se redovito njihove predodžbe iskripljuju u stihiji tradicionalne tehnologije i posve nekompetentnih utjecaja. Nekoliko je industrijskih poduzeća pod pritiskom izvoznika i inozemnih klijenata prilično energično krenulo u smislu »modernizacije« oblika svojega asortimana, ali bez strukturalne baze kompletne suvremene službe dizajna ta su ista poduzeća nakon nekoliko godina pozitivnog nastojanja poklekla pred utjecajima fenomena »krize« dizajna koja traje na međunarodnim tržištima već više godina. Navedena pozitivna kretanja, naime, nisu bila zasnovana na strukturalnoj inovaciji cjelokupnog sistema produkcije i, u trenutku poslovne labilnosti, nisu našla drugog izlaza iz nesigurne situacije nego u — koraku natrag prema provjerenim starim oblicima ili bar u stagnaciji. Tako su neke svijetle inicijative ugasle.

U grani metaloprerađivačke industrije, uza svu nedovoljnu modernizaciju sredstava produkcije i uz kadrove koji su još »otporniji« na inovacije oblika, uvjeti su strukturalnih promjena još krući. S druge strane, riziko je većih serija znatniji i tehnološke su inovacije izvori zamašnjih konzekvencija. Zanimljivo je da su u smislu modernog dizajna u toj grani učinjeni veći naponi u onom dijelu produkcije koja je namijenjena investicijama i koji obuhvaća proizvodna sredstva, nego u robama koje su adresirane na potrošačke mase. U industriji kapitalne elektroopreme i alatnih strojeva ima više dobro orijentiranih napora nego u oblikovanju masovnih artikala. Tu su se, u većim poduzećima koja proizvode kapitalnu opremu, pojavili i dizajn-biroi čije je nastojanje energičnije i dalekovidnije nego u proizvodnji artikala za individualnu potrošnju. U toj se oblasti razvoja dizajna u zemlji mogu već konstatirati i težnje prema planiranju čitavih sistema.

U industriji elektronike, koja je namijenjena širokim slojevima potrošača, najosjetljivije se manifestirao posredni utjecaj standarda na stranim tržištima. Neke su grane ili veći kombinati prihvatili čak i specificirane utjecaje nekih dominantnih regionalnih sfera. Oprema za domaćinstva nalazi se upravo pod pritiskom formalnih trendova koji su karakteristični za produkciju SR Njemačke, dok je dio

A relatively large number of free-lance designers are active at the periphery of the Yugoslav wood industry; they are designing furniture for flats, basing their ideas on intuition and casual experience. Sometimes these designers have very appropriate and up-to-date information concerning international trends in design. But because of lack of co-operation with responsible factors in the wood industry, their designs very often have to be considerably altered in the course of preparation for mass production. In this way their ideas get deformed by the dictates of traditional technology and under the influence of incompetent individuals. Several industrial firms for a time moved under the pressure of export firms and foreign customers rather energetically in the direction of modernization of design but without the structural basis of a complete designing service these firms had to give in after a few years before what is referred to as the »crisis« of design which has been felt on international markets for quite a few years. These positive trends were not based on structural innovation of the complete system of production, and in a moment of commercial instability they did not find any alternative but to go back to the popular old designs. This meant the end of several promising initiatives. In the metal industry the conditions are even more adverse because of obsolete equipment and responsible bodies which are even more impervious to any idea on innovation of design. On the other hand, it is true that the risk of mass production is much larger in this branch of industry and it could be the source of far-reaching consequences. The fact is interesting that greater efforts towards modernization were made in this branch of industry in the section of investment goods than in consumer goods. In capital electric equipment and machine tools the efforts have been more successful than in the design of consumer goods. In larger firms, manufacturing capital equipment designing offices were set up whose efforts have been more energetic and far-sighted than in the production of consumer goods. In this field of the development of design the tendency can be noted towards the planning of whole systems.

In electronics industry whose products are meant for masses of customers the pressures of foreign standards has been most perceptible. Some industrial branches or combines have accepted and even specified influences of some leading regional spheres. Household appliances are under the pressure of trends in West Germany while the telecommunication industry (radio, TV, telephone) has accepted the influence

industrije sredstava telekomunikacija (radio, tv i telefon) prihvatio utjecaje japanske i talijanske industrije. Pri tom su ostvareni rezultati koji se u neku ruku mogu označiti kao »pomodni«, ali se u svojoj vrsti mogu takmičiti s istovrsnim artiklima druge i treće klase na globalnim tržištima. U tom je smislu u velikoj mjeri djelovao i faktor razvoja poslovnih i tehničkih kontakata, pa i suradnje sa snažnim partnerima izvan granica zemlje.

Dizajn pripada onoj kategoriji komponenata društvene proizvodnje koja se ne može pojaviti ni razvijati bez cijelog višeslojnog i višesmjernog povratnog djelovanja svake akcije. Drugim riječima, nijedna tendencija razvoja, pa čak ni pojedinačna akcija u okviru dizajna, ne može se ni zamisliti bez reagiranja koja će osjetljivo djelovati na sam izvor akcije. A to znači da unapređenje dizajna mijenja strukturu i profil svoga adresata — tržište, pa će ono izmijenjeno povratno djelovati i na »subjekt« dizajna. No, adresat je u našem slučaju napose kompleksan, i njegovo je reagiranje višestruko neinteligibilno, jer nam nedostaju egzaktno referencije o njegovu ponašanju. Tom prilikom još jednom treba istaknuti kapitalnu činjenicu da se u burnom i skokovitom općem društvenom razvoju zemlje ne mogu još zabilježiti dovoljni pokazatelji, i sve su projekcije toga razvoja zasada dostupne jedino analizama s velikim rasponom »rasipanja« konstatacija.

Zato i vlada u profilima robnih fondova kojima raspoložemo tako neobuzdano šarenilo da ga je teško i fiksirati. U tome leže izvori golemih teškoća, no istodobno su to i široki putovi velikih šansa. Kad budemo raspolagali efikasnim instrumentima politike dizajna proizvoda jugoslavenske industrije, optimistički bi nam pogled u vlastitu situaciju mogao obećati da ćemo — možda — moći izbjeći nekim kobnim negativnostima ili njihovim popratnim efektima koji su se odavna već manifestirali u »neokapitalizmu«.

Ukoliko nam se situacija ne ukazuje odviše dramatičnom, pred institucijom koja je još uvijek jedan od najplodnijih izvora poticaja za unapređenje dizajna u zemlji, a to je zagrebački Centar za industrijsko oblikovanje (CIO), nalaze se velike šanse. Dosada je taj Centar realizirao cijeli niz dragocjenih akcija. Od svog osnutka u početku 1964. godine CIO je organizirao dvije velike izložbe dizajna (iz SR Njemačke i Velike Britanije), pa je tako odgovorio na jednu od svojih najvažnijih zadaća: da zorno informira našu sredinu o dostignućima službi dizajna u industrijski naprednim zemljama. CIO je najprije izdavao »Bilten«, a zatim i jedini stručni časopis u kojemu je objavio niz vrlo aktualnih tekstova iz pera svojih unutarnjih i vanjskih suradnika, kao i prijevode značajnih tekstova iz stranih stručnih publikacija.

coming from Japan and Italy. Some of the results achieved in this way could perhaps be called fashionable but they can rival second and third class products of the same type on world markets. The development of trade relations and technical exchange, as well as co-operation with powerful foreign partners, has contributed a great deal in the direction of modernization.

Design belongs to the category of social production which cannot develop and thrive unless there is multiple response to each action. In other words, each tendency in development, even each single action concerning design, cannot be conceived without a response which will exercise a perceptible effect on the initiator of action. This means that the promotion of design changes the structure and profile of its destination — the market which will, in its turn, act in the opposite direction, i.e. on the »subject« of design. But the addressee is in our case very complex and its response is inscrutable because we do not possess exact knowledge on its behaviour. Once more we should stress the fact that in the rapid and turbulent social expansion of the post-war years it has been impossible to point out exact indexes, and all projections of this development have been so far accessible only to analyses with a good deal of »wasted« conclusions.

That is why we can see in the manufactured goods a variety which is difficult to classify. In this fact lie the sources of huge difficulties but also the promise of great opportunities. Once we have at our disposal successful instruments for the promotion of design in Yugoslavia we shall be able to look optimistically at our situation which will — perhaps — enable us to get rid of some negative features and their by-products which manifested themselves a long time in »Neocapitalism«.

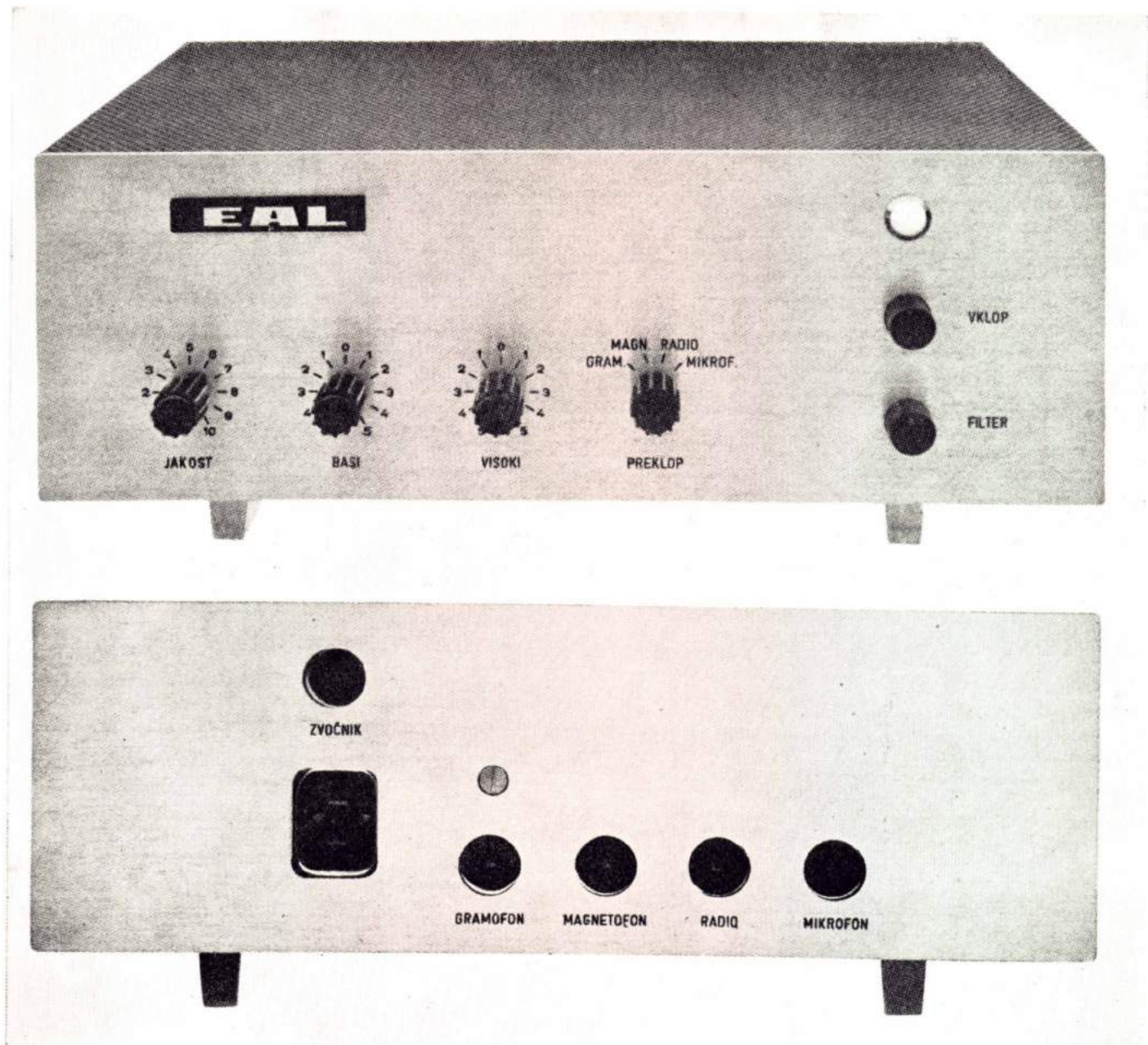
If we are not radically mistaken in our assessment, the chances are very promising for the institution that is still one of the most fertile sources of initiatives for the promotion of design in Yugoslavia — the Zagreb Centre for Industrial Design (CIO). So far the Centre has realized a series of valuable actions. Since its foundation in 1964 CIO has organized two large exhibitions of design (from West Germany and Great Britain) and it has thus fulfilled one of its basic tasks: to inform our public in a vivid and immediate way about the achievements of the designing service in industrially advanced countries. At the beginning CIO was issuing a journal, *Bilten*, and later the only professional journal in which it published topical articles written by its contributors as well as translations of texts

U toku nekoliko godina svoga opstanka ta je institucija razvila opsežnu djelatnost organizirajući simpozije i predavanja s temama iz oblasti dizajna; stručnjaci u CIO napisali su i veći broj jedinstvenih analiza o stanju i problemima industrijskog oblikovanja u zemlji; privrednim komorama (republike, grada i Saveznoj privrednoj komori) CIO je podnio niz izvještaja i predstavlja podstičući odnosno upravne organe na razvijanje društveno-političke brige za tu komponentu razvoja domaće industrije; u svom unutarnjem djelovanju CIO je prikupio mnoštvo dokumentacije o domaćem i stranom dizajnu, a sabrao je i specifičnu biblioteku koja je jedina svoje vrste i formata u zemlji i — na kraju — u neposrednoj suradnji s većim brojem domaćih industrijskih poduzeća razvio je seriju više ili manje kompletnih postupaka dizajniranja proizvoda i njihove opreme.

Uvjeti u kojima CIO djeluje nisu dopustili da se dosadašnji plodni rezultati svega toga djelovanja u cjelini sagledaju i objektivno ocijene. Naprotiv, upravo ti uvjeti o kojima je riječ razlog su da se djelatnost te industrije čini nedostatna i bez one perspektive koju je sredina od nje očekivala. Zagrebački Centar ne raspolaže jednim od najmoćnijih sredstava za djelovanje na sredinu u kojoj postoji i kojoj je namijenjen, a to je: stalna izložba primjeraka dobrog industrijskog dizajna. Djelomice tu funkciju ispunjava »Bijenale industrijskog oblikovanja« u Ljubljani koji je već triput (1964, 1966. i 1968. godine) domaćoj javnosti prezentirao izbor kvalitetnih primjera vizuelnih komunikacija i industrijski proizvedenih artikala na razini njegovanog dizajna. Karakteristično je da internacionalni ugled koji je BIO stekao nije imao značajnijeg odjeka u domaćoj industriji, što najbolje ilustrira njenu inerciju. U Ljubljani djeluje Studio za stanovanje i opremu, a ta institucija, čiji se program djelovanja bitno razlikuje od programa CIO u Zagrebu, nastoji da dizajn u svojoj sredini unaprijedi prije svega demonstriranjem konkretnih pozitivnih primjera. Uspjesi Studija počivaju na koncentriranoj aktivnosti koja obuhvaća objekte namijenjene arei stambenog ambijenta. Osim Centra u Zagrebu i Studija u Ljubljani, u zemlji djeluje još cijeli niz institucija kojih je bliži ili dalji cilj unapređenje industrijskih produkata, no pred cijelom tom frontom naći će se još veće šanse i evidentniji i osjetljiviji uspjesi tek onda kad sva njihova nastojanja u slojevima društveno-političke infrastrukture budu povezana sistematski planiranom režijom koja će biti zasnovana na jasno postavljenim općim ciljevima i sredstvima.

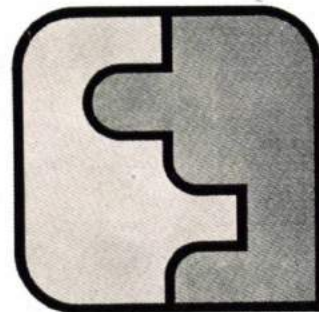
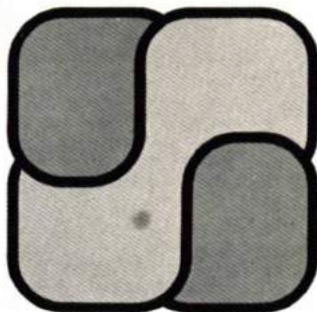
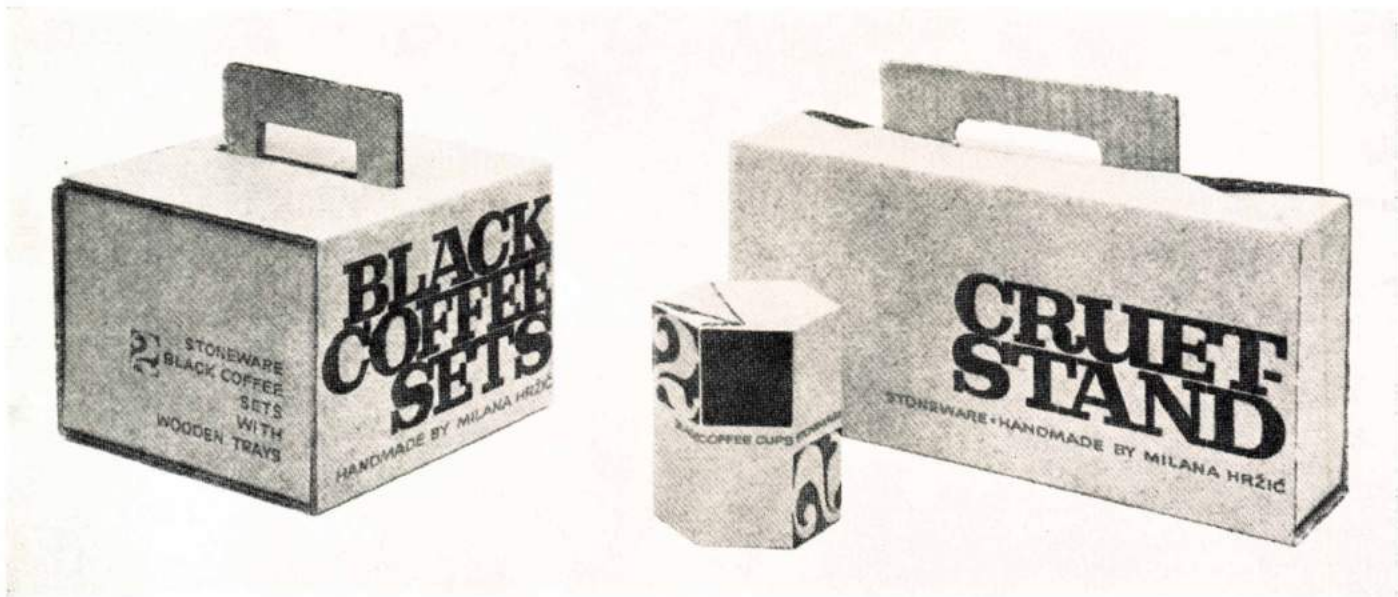
from foreign publications. In the course of the few years of its existence the Centre has developed a variety of activities, organizing symposia and lectures on design; experts from CIO have written a considerable number of unique analyses of industrial design in the country; CIO has submitted to the chambers of commerce (of the republic, city, and the Federal Chamber of Commerce) a series of reports and proposals reminding the administrative bodies of the sociopolitical aspect of this component in the growth of home-industry. Within its field of action CIO has assembled a great deal of documentation on Yugoslav and foreign design, it has compiled a library which is the only its kind and size in the country and, last but not least, it has developed a whole series of more or less complete designing processes for various products, in close co-operation with a large number of Yugoslav industrial firms.

The conditions under which CIO is operating have not offered a chance to assess objectively and in a proper perspective the fruitful results of these activities. On the contrary, these conditions are the main reason why the activities of this branch seem inadequate and without the perspective expected from it by the community. The Zagreb Centre does not possess one of the most powerful means of influence on the community in which it is active: a permanent exhibition of samples of good industrial design. This function has been partly fulfilled by the Biennial of Industrial Design which has been held so far three times in Ljubljana (1964, 1966, 1968). At these exhibitions the Yugoslav public was shown a variety of high quality design in visual communications and industrial goods. It is characteristic that the international reputation of the Biennial has not brought response in Yugoslav industry which is the best illustration of its inertia. There is a Studio for Apartment Furnishing and Equipment in Ljubljana whose programme is very different from the CIO programme in Zagreb. The Ljubljana Studio is trying to promote design in Slovenia by displaying successful specimens of modern household equipment. The success of the Studio is based on the intensity of its activities which comprise all equipment meant for flats and family houses. Apart from the Zagreb Centre and the Studio in Ljubljana there are quite a number of other establishments in the country the purpose of which is to a lesser or greater extent the improvement of industrial products, but the benefit of these institutions will be more evident and tangible only when their endeavours with the socio-political infra-structure become systematically associated with a well-planned action which will be based on clearly formulated general aims and means.



Pojačalo HI-FI. Dizajn Marko Turk, Ljubljana

HI-FI amplifier. Design Marko Turk, Ljubljana



*Gore:*  
Kartonske kutije na sklapanje za stolno posude. Dizajn Julija Glogoški-Pavelić, Zagreb

*Dolje:*  
Naslovna stranica revije. Dizajn Hrvoje Devidé, Zagreb

*Top:*  
Collapsible cardboard boxes for table dishes. Design Julija Glogoški-Pavelić, Zagreb

*Bottom:*  
Title-page of a review. Design Hrvoje Devidé, Zagreb

Industrijski proizvod koji danas izlazi iz jugoslavenskih tvornica i koji kola kanalima trgovinske razmjene u svom je »gornjem« prosjeku već daleko od one razine na kojoj se kretao u razdoblju prije deset ili petnaest godina. On se najprije počeo približavati intuitivno odabranim stranim uzorima, pa se tako oslobodio od prvotne primitivnosti, ali njegova sudbina još nije utvrđena tako da bi s jedne strane odgovarala uvjetima sredine u kojoj i za koju nastaje. Ta njegova sudbina nije još usklađena sa sudbinama objekata s kojima se susreće i uspoređuje na domaćim i stranim tržištima, a nisu jugoslavenskog porijekla. Uzroci njegova sastava nisu još dovoljno kontrolirani, glas sklopa poruka njegove pojave još je djelomice nesuvisao i stoga dinamika njegova nastanka i opstanka nije dovoljno energična. Takvu njegovu sudbinu svakako treba izmijeniti.

The average product leaving Yugoslav factories for the market today is far above the level of Yugoslav industrial goods some ten or fifteen years ago. At first this product started catching up intuitively with selected foreign models, thus abandoning its original crudeness, but its fate is still somewhat precarious; it still does not fully meet the demands of the community in which and for which it was created. This fate is still uncoordinated with the fates of goods it meets and compares on Yugoslav and foreign markets and which are not of Yugoslav origin. Its structure and composition is still largely out of control, the message of its appearance is still partly incoherent, and that is why the dynamics of its origin and existence is not yet sufficiently energetic. There is no doubt that this fate should be changed.







Utvrđiti rezultate na području grafičkog dizajna u Jugoslaviji, kao i posebnosti koje su toj djelatnosti u nas svojstvene, nije nimalo jednostavan zadatak. Pri utvrđivanju i vrednovanju onog što pri tom jest ili nije dostignuto nemoguće je, naime, izbjeći temeljno pitanje uloge grafičkog dizajna, tačnije, vizualnih komunikacija u današnjici. To pitanje uključuje toliki raspon problema koje nije moguće ispravno i u svim vidovima sagledati bez prethodnih analiza interdisciplinarnih pristupa, a što i zahtijeva karakter samog predmeta. Pojam vizualne komunikacije uključuje vrlo široka područja od proizvoda grafičkog dizajna malih serija do masovnih vizualnih medija, od primjeraka ograničene upotrebnosti namijenjenih uskim društvenim grupama do vizualnog dizajna javnog karaktera, drugim riječima, pojam vizualne komunikacije odnosi se na sav vizualni znakovni svijet kojim se svakodnevno saopćavaju i primaju poruke i preko kojeg se odvija međuljudsko sporazumijevanje; na različitim razinama i u još različitim oblicima sukladno mnoštvenosti njegovih ciljeva i namjena. Taj znakovni svijet sastavni je dio cjelokupne okoline (Umwelt, environment) u kojoj živimo, a ona upravo i slikom svoga znakovnog svijeta otkriva sliku društva koje je stvara. Ta činjenica pretpostavlja, dakako, u primjeru problemskog pristupa predmetu, ispitivanje i utvrđivanje međuzavisnih odnosa: društvo i okolina, odnosno vizualni znakovni svijet kao njezin neodvojiv dio. Da je vizualni dizajn bitni dio dizajna okoline ili, tačnije — prema danas postojećoj situaciji — da je sveukupni vizualni inventar, od tramvajske karte i natpisa na trgovini do cestovne signalistike i urbane opreme, odlučan činitelj u određivanju karaktera vizualnosti cjelokupnog urbanog ambijenta, to nije potrebno posebno dokazivati. Tek podsjećamo na činjenicu da od početka stoljeća do danas urbana grafika sve više postaje jedini »dekor« suvremenog grada i da sliku urbanog ambijenta ne određuje samo urbani plan, razmjeri i odnosi plastičkih i prostornih tijela, nego i sav trodimenzionalni i dvodimenzionalni, jednobojni i višebojni, statistički dinamički i kinetički vizualni inventar, koji u sve većoj mjeri napučuje grad, kako njegove prostore tako i površine plastike ulica i trgova. Zbog obilja tih novih vizualnih podataka, u urbanoj okolini našeg doba stvara se i nova vrsta umjetnog pejzaža, od čovjeka stvorenog novim umjetnim (artificijelnim) sredstvima suvremene industrije i tehnologije, a taj pejzaž mnogostruko i na različite načine utječe na samog čovjeka pa i određuje njegov odnos prema okolini. O ciljevima, o ulozi, o principima na kojima se temelji ta nova artificijelna slikovnost i znakovnost grada ovisi i to hoće li urbani pejzaž biti humaniziran ili dehumaniziran, hoće li u većoj ili manjoj mjeri odgovarati potrebama čovjeka, hoće li sadržavati veću ili manju količinu estetskog ili antiestetskog. Pri tom je odlučno pitanje

The task of presenting the achievements of graphic design in Yugoslavia and determining its specific features is not simple. In trying to say what has and what has not been done in this field, it is impossible to avoid considering the role of graphic design, or more precisely, visual communications to-day. The wide range of problems involved in such a consideration cannot be properly envisaged without previous interdisciplinary analysis. This is dictated by the character of the subject. The products of graphical design in small series to the visual mass media, and from objects of limited use, aimed at narrow social groups, to visual design for a wider public. In other words, the notion visual communications refers to the world of signs by which messages are sent and received, and by which men communicate with one another at various levels and in various shapes. Hence its many aims and uses. This world of signs is a component of the environment in which we live, and the environment with its sign world reflects the image of the society which has built it up. Therefore when approaching the subject one has to examine and determine the relationships between society and the environmental world of signs. There is no need to demonstrate that visual design is an essential component of environmental design, or, according to the existing situation, that the whole visual inventory from bus maps and shop signs to road signs and urban equipment, is a determining factor in evaluating the visual character of the urban environment as a whole. We must remember that from the beginning of this century to the present day, urban graphic elements have become the only »decorations« of a contemporary city, and the image of the city's living moment is not determined only by its volumes and spaces but also by all the three-dimensional and two-dimensional, unicoloured and multicoloured, static and kinetic visual inventory which more and more cram its spaces, its streets, and squares. Through the abundance of visual data in the present-day urban environment a new kind of artificial landscape is emerging. It has been made by man with the help of modern industry and technology, and in turn it influences in various manners both man and his attitude towards his environment. It depends very much on the principles on which this artificial landscape is based and on its role and aims, whether it is going to be humane or dehumanized, whether it is going to satisfy the requirements of human life and in what degree, and how much of the aesthetic and anti-aesthetic it is going to contain. It is very important that this urban world of signs should function systematically, that it should contain a balanced ratio of persuasive and non-persuasive kinds of visual communication, and that a hierarchy of visual media — based on social priority — should be established. The situation in present

funkcioniraju li ta urbana slikovitost i urbani znakovni svijet unutar nekog sistema koji omogućava ravnotežu između persuasivnih i nepersuasivnih vizualnih komunikacija i uspostavlja li hijerarhiju uloga — po društvenoj važnosti — pojedinih vrsta vizualnih medija. Stvarnost suvremenih gradova pokazuje da je odnos između persuasivne, komercijalne reklamne grafike i nepersuasivnog vizualnog dizajna do krajnosti polariziran, na štetu posljednjeg. Štaviše, područja nepersuasivnih vizualnih medija društvenog karaktera ostaju zapuštena. To pomjeranje ciljevnosti i vrijednosti, svojstveno suvremenom urbanom pejzažu, izražava u potpunosti društvene strukture unutar kojih nastaje. Neumjerenost, preobilje i nered svojstven novoj vizualnosti umjetnog pejzaža velegradova Amerike i dijelom Evrope izraz je neravnoteže potrošačkog društva, društva izobilja (The Affluent Society, J. K. Galbraith) u kojem vlada »diktatura sistema što ga određuju slijepa snaga proizvodnje i potrošnje«. Ali, ono što je pri tom otežavajuća okolnost, ekscese konzumizma i etabliranog nereda novoga industrijskog društva, potpomaže i sama znanost i estetika.

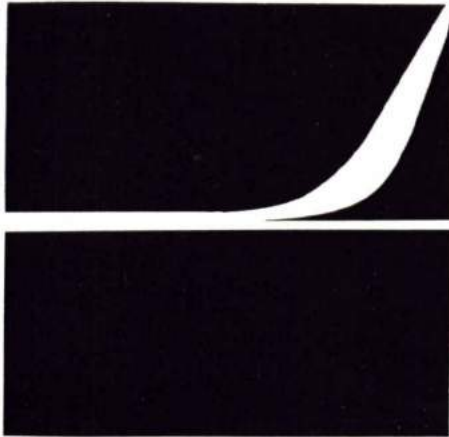
Opće je poznato da se teorija i praksa suvremene komercijalne reklame služi najnovijim rezultatima znanosti — na primjer psihologije — kao i vrhunskim dometima vizualnog i industrijskog dizajna. Prema podacima koje je iznio Vance Packard »skriveni ubjeđivači« (The Hidden Persuaders) uspješno upravljaju izborom kupca, njegovim odlukama i potrošačkim ponašanjem na temelju korištenja znanstvenih metoda »dubinskih analiza« i »istraživanja motiva«, pa se tako u službi tiranije potrošnje razvijaju sve suptilnije tehnike potpunog zarobljavanja čovjeka. Isto takvoj manipulaciji kupcem služi i vizualni i industrijski dizajn visoke razine, pojava na koju su već upozorili sociolozi, a koja proizlazi iz činjenice da je na tržištu konkurenciju cijena zamijenio izvanredan vanjski izgled ambalaže i reklame ili sam dizajn proizvoda. Pa upravo u reklamnim tehnikama postaje očevidna zakonitost tržišne strategije i nadmetanja radi što veće prodornosti, odnosno jačeg poticanja potrošnje. To dolazi osobito do izražaja u urbanoj okolini, koja je zasuta preobiljem najraznovrsnijih vizualnih izvora što kao prijenosnici informacija čak neispravno funkcioniraju zbog brojnih »smetnji na kanalima«, međusobnog potiranja i nereda, a u isto vrijeme stvaraju — osim u malobrojnim primjerima — obsoletan i dehumaniziran umjetni pejzaž. Svojom nadmetačkom bezobličnošću i agresivnim učincima koji iz nje proizlaze urbana slikovnost sigurno ne djeluje pozitivno na one koji u takvim ambijentima žive. Pri svemu tome community design, čija je društvena važnost prvorazredna, ostaje u drugom planu, iako sami dizajneri preko svojih organizacijskih foruma već godinama ukazuju na neophodnost boljeg i uspješnijeg rješavanja otvorenih


day cities shows that the ratio of persuasive commercial advertising compared to non-commercial visual design is extremely polarized at the expense of the latter. Moreover, non-persuasive visual media of a public character remain neglected. Such trends, characteristic of the present-day urban landscape, mirror clearly the social structures which have given rise to it. The immoderacy, and affluence, the lack of order so characteristic of the new visuality of the big cities artificial landscape in America and partly in Europe reflect the lack of equilibrium in the consumer society, the affluent society, which, according to Galbraith, is ruled by the dictatorship of a system regulated by the blind forces of production and consumption. What makes the situation even more difficult is that science and aesthetics support the excesses of the consumer society and its established disorder.

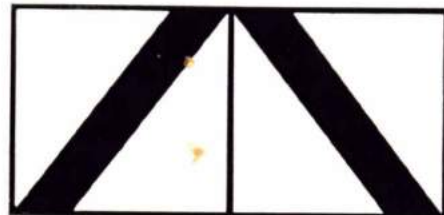
It is well known that both the theory and practice of advertising are based on the new achievements of science e.g. psychology, as well as the highest achievements of visual and industrial design. According to Vance Packard, the hidden persuaders in order to successfully control consumers' choice, decisions, and behaviour use the method of »depth-analysis« and those results of motivation research which help in developing subtler and subtler techniques whose end-product is the captive consumer. Industrial and visual design serve the same end. Sociologists have pointed out that price competition on the market has been replaced by the attractive appearance either of packaging or of the design of the goods themselves. Market strategy is thus most obvious in those techniques of advertising which aim at penetration and greater stimulation of consumption. Witness the urban environment with its profusion of different visual sources which can hardly function properly as information carriers owing to »noise in the channel«, mutual neutralization, and disorder. With rare exceptions they make an obsolescent and dehumanized artificial landscape. With their rough competitiveness, shapelessness, and aggressiveness they surely cannot have a positive influence on the people living in such an environment. At the same time community design with social importance of the highest priority remains neglected in spite of the designers themselves who through their professional organizations point out the necessity to solve the open problems in this area, in which decision-making is, however, beyond their reach. Proposals for introducing supra-national and universal sign systems are only partly accepted on special occasions (Olympic games etc.)

forma viva

**M**  
**Mercator**



ZMAJ 



Zaštitni znaki i listovni papiri, dizajn Grega Košak, Ljubljana  
Trade-marks an note-papers, Design Grega Košak, Ljubljana

# polet



revija mladih

broj 22  
godina 3 [16]  
listopad 1968

cijena 2 nd.

# polet



broj 23

godina 3 [16]  
revija mladih  
studen 1968

cijena 2 nd.



zagrebački jazz quintet

ivan picelj

sonja manojlović

o. depolo  
l. fidry  
b. petrović  
s. glojnaric  
m. prohaska  
z. dvoržak

saksofon  
truba  
vibrafon  
bubnjevi  
bas  
piano

i dok te grlim  
ljubavi moja  
ti si smrt daleka,  
u dubokoj noći.  
na te čeka zemlja bijela  
ljubavi moja  
kad te grlim  
ti si smrt daleka



## 4 lica

omladinski klub kulušić

## jazza



big brass stanka selaka

Gore:

Naslovna strana revije, dizajn Mibajlo Arsovski, Zagreb

Top:

Title-page of a review, design Mibajlo Arsovski, Zagreb

Dolje:

Program. Dizajn Boris Bućan, Zagreb

Bottom:

Programme. Design Boris Bućan, Zagreb

XX

pitanja s tog područja. Ali mogućnosti stvarnih rješenja leže izvan njihove moći. Tako se i prijedlozi za uvođenje novih nadnacionalnih i univerzalnih znakovnih sistema samo manjim dijelom prihvaćaju i ostvaruju u prigodnim prilikama (u povodu Olimpijada na primjer).

Još su uzaludnije težnje pojedinaca za promjenom situacije na području masovnih vizualnih komunikacija (štampa, TV) u masovnoj komunikacijskoj industriji koja je i masovna »industrija svijesti«. Kako i na tom području vizualni dizajn neposredno služi interesnim ciljevima potrošačkog društva i njegovoj ideologiji, pojedini teoretičari i praktičari dizajna danas s jetkom oštrinom ukazuju na dalekosežnost otvorenih etičkih pitanja u vezi s ulogom i dizajna i dizajnerske aktivnosti. U tom smislu ističe se činjenica da je i dizajn, posebno na području vizualnih komunikacija, sredstvo u ostvarivanju represivnih ciljeva društva i u održavanju njegove moći, te se sasvim jasno ukazuje ne samo na potrebu politizacije dosad uglavnom depolitiziranih dizajnera nego i na potrebu temeljite reforme nastavnih i odgojnih programa u školama za dizajn. Ta pojava kritičke svijesti kao i, s tim u vezi, pokušaj neposrednog političkog i ideološkog angažiranja među najprogresivnijim dizajnerima današnjeg neokapitalističkog društva jedan je od najvažnijih događaja u okviru problematike dizajna posljednjih godina. Posve shematski ocrtano, takav je dizajn u zemljama u kojima je on rođen, unapređivan i razvijan do vrlo visokih standarda.

Ako su međutim otvoreni problemi koje smo ukratko naznačili u isto vrijeme i neriješeni problemi samog društva, odnosno društvenih sistema, s obzirom na mnogostruku ovisnost dizajna o društveno-ekonomskim, ideološkim i političkim činiocima, tada se u razmatranju situacije na području dizajna u socijalističkom društvu ne može mimoći isto stajalište, a to je ono što se dosad uglavnom događalo. Pitanje čemu služi dizajn, koja je njegova uloga u suvremenosti, posebno u socijalističkom društvu, nije nikad u nas razmatrano na razini odnosa društvo (njegova politika i ideologija, njegova ciljevnost) i dizajn. Naprotiv, još danas se može utvrditi gotovo ista ona situacija koja je bila svojstvena prvom razdoblju izgradnje socijalizma u nas: još uvijek postoji raskorak između progresivnih težnji i mogućnosti stvaralaca na području prakse i teorije dizajna, s jedne strane, i društva, odnosno njegovog rukovodećeg kadra, s druge strane. Već je više puta upozoreno na činjenicu da se u našoj sredini mnogi otvoreni problemi dizajna, pa tako i vizualnih komunikacija, potpuno ignoriraju, da na primjer još uvijek nije shvaćeno koliko je vizualni dizajn prijenosnik i stvaratelj masovne vizualne kulture, i da su problemi oblikovnosti masovnih medija usko povezani sa sadržajem koji prenose. Štaviše, mnogo je puta istaknuta potreba brzog rješavanja

Equally useless are individual efforts towards changes in the mass visual communications industry (newspapers, TV) which is also a »mass consciousness industry«. As here visual design is also subordinated to the aims of the consumer society and its ideology, individual theoreticians and practitioners of design sharply and angrily point to the unsolved ethical questions concerning their activity. In this connection it has been emphasised that design, and in particular design in visual communications is a mean through which social systems embody repressive measures for their own preservation. It is required therefore that designers, very frequently apolitical and primarily aesthetically minded, should become interested in politics, and that a radical reform in the teaching programmes of design schools should be undertaken. The rise of this critical attitude and a trend towards a political and ideological engagement of progressive designers in the present day neo-capitalist society have been major events in the field in recent years. That would be, in brief outline, the situation in the field of design in the countries in which it was born and developed to high standards.

If the unsolved problems, which we have touched on briefly, are also the problems of the society or social systems — and this seems to be true owing to the multiple dependence of design on social, economic, ideological, and political factors — in considering the position of design in a socialist society we cannot avoid following the same point of view. However, this has frequently been avoided.

The purpose of design and its part in present-day society, and particularly in a socialist society, have never been discussed in this country through a consideration of the social system, its policy, ideology, and aims, in relation to design. We can see that the situation to-day has not changed much from that characteristic of the initial period of the socialist system. There still is a gap between the progressive intentions and capacity of the theoreticians and practical workers in the field of design on the one side, and the society and its leaders on the other. It has been pointed out on several occasions that a number of the open problems of design in Yugoslavia are totally ignored. Thus it does not seem to have become clear enough that visual design is in a great degree a creator of the mass visual and aesthetic culture, and that the problems of the form of mass media are closely related to the content they carry. The need for the education of

problema odgoja dizajnera (organiziranjem primjerenih škola i institucija) kao i odgoja njegovih potrošača (prestrukturacijom programa u školama svih stupnjeva). Kao i područje vizualnih mass media, tako je i community design u nas ostao zanemaren, a da ne govorimo o vizualnom »dizajnu« urbane okoline, o umjetnom pejzažu naših gradova u kojem se doduše još ne očituju zakonitosti tržišnog mehanizma, ali koji je oskudan i bezobličan, budući da mu je svojstvena odsutnost svakog sistema, odnosno antisistem društvene nebrige. A koristeći se upravo prednostima socijalističkog društvenog uređenja i na tom području, mogli bi se planski oblikovati urbani ambijenti, njihova nova slikovnost, znakovni svijet i cjelokupna urbana oprema. Studijskom razradom i interdisciplinarnim pristupom, a polazeći od ciljeva socijalizma, trebalo bi primjerom u praksi ukazati na aktualnu problematiku te nove urbane umjetnosti: na goleme mogućnosti koje se ukazuju u oblikovanju urbanog pejzaža novim sredstvima industrije i tehnologije. Dakako, sve to na temelju znanstveno razrađenog sistema koji bi omogućio ispravnu informacijsko i komunikacijsko funkcioniranje svih vrsta vizualnih prijenosnika, a unutar jedinstvenog koncepta vizualnosti i znakovnosti urbane okoline. Pri tom bi trebalo težiti ne samo ostvarivanju humaniziranog i estetiziranog prostora tradicionalnog tipa, nego stvaranju posve novih oblika artificijelnog urbanog pejzaža u kojem bi se pojavili i (programirani) urbani spektakli; na primjer, stvaralačkom primjenom višebojne kinetičke (reklamne) grafike i javne (reklamne ili ne) urbane plastike, odnosno smišljenim modeliranjem noćnog grada pokretom i svjetlima. Tako bi urbana sredina dobila i novu ludičku funkciju koja toliko nedostaje stanovnicima suvremenih gradova. (O tome među ostalim svjedoče i reagiranja stanovnika velegradova na višebojne, svjetlosne i kinetizirane reklamne opreme gradskih četvrti u povodu praznika.) U tom slučaju stvarao bi se i nov odnos čovjeka prema okolini u kojoj živi; odnos suučesnika i aktivnog korisnika nove vizualnosti gradova. A da pri tom ne spominjemo koliko bi takvo sustavno oblikovanje urbane okoline pridonijelo stvaranju funkcionalne slike grada, brze čitljivosti, preglednosti i identifikabilnosti, pogotovu na noćnoj urbanoj sceni, kad iščezavaju granice plastičkih tijela pa se u procesu vizualizacije grada kao odredišne tačke i mjesta fokalizirane optičke privlačnosti ističu jedino reklame, urbani lettering i cestovna signalistika. Međutim, nikakvi pokušaji u tom smislu u nas do danas nisu učinjeni, osim što se u povodu praznika gradovi »poljepšavaju« uglavnom neukusnim dekorom.

Ako je i dosad u socijalističkom društvu iz razumljivih razloga izostao razvoj persuasivnih vizualnih komunikacija (kao i razvoj dobrog industrijskog dizajna), opravdano je

designers at appropriate schools and institutes, as well as the education of the consumers of their product by the change of educational programmes in schools at all levels has been repeatedly required. Both visual mass media and community design have been neglected, not to mention the visual design of the urban environment, the artificial landscape of our cities, in which, to be sure, the law of market strategy cannot as yet be noticed, but which is, nevertheless, poor and amorphous, deprived of any trace of the system. What we have is an anti-system of social negligence.

However a lot could be done using the advantages of the socialist system. Urban environment could be planned together with visual elements, its world of signs, and urban equipment. Through a studiously worked out approach on an interdisciplinary basis, with the aim of socialism in mind, many current problems of this new urban art could be tackled in practice. Such practical work would reveal wide possibilities in forming the urban landscape by utilising the new means offered by modern industry and technology, within a precise system which would make possible a correct functioning of information and communication through every kind of visual element. The efforts should be directed not only through the realization of humanised and aesthetically treated space in the traditional sense but also towards new forms of artificial urban landscape in which programmed urban spectacle would find its place as well as the application of multicoloured kinetic advertising graphics and environmental sculpture, and also shaping of the town at night through light and movement. In this manner the urban environment would gain by obtaining a new entertainment function of which city inhabitants are very short. (Witness the reaction of big city inhabitants to multicoloured and kinetized advertisement in certain parts of cities on the occasion of various holidays.) This would stimulate a new relationship of man towards the environment. His attitude would become that of a participant and an active user of the new visuality of the city. It need not be mentioned how much a systematic shaping of the urban environment would contribute towards the building up of a functional image of the city, quick legibility, distinctiveness, and identifiability, especially at night when only urban lettering, advertisements, and road signs stand out in the process of the visualisation of the city as the target point and focus of optic attraction. However, no steps have as yet been taken in that direction, except that during holidays cities are decorated, mainly in poor taste.

If the development of persuasive communications in a socialist society is lagging behind for well-known reasons, a question still remains to be asked, namely, how is it that has

# razlog

43|44

KNJIŽEVNA REVIJA  
ZA  
SUVREMENE  
PROBLEME

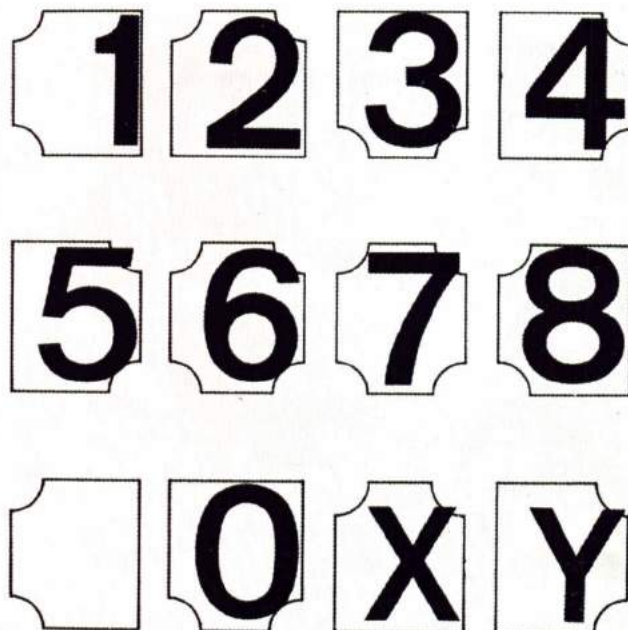
IVO VIDAN    Vraćanje irskog Odi-seja  
GREGOR STRNISA    Dvije pjesme  
KARL LOWITH    Hegel i jezik  
VLADIMIR KAVCIC    Termopile  
ZELIMIR FALOUT    Intelektualizam u dramaturgiji  
FRANJO ZENKO    Mounierov pokušaj personalističke kritike  
komunističke civilizacije  
DRAGUTIN MIKSIC    Odnos sociologije i ekonomije i ljudsko  
ponašanje

AKTUALNOSTI  
KRONIKA

omladinska  
radna  
akcija  
'sava 1968'

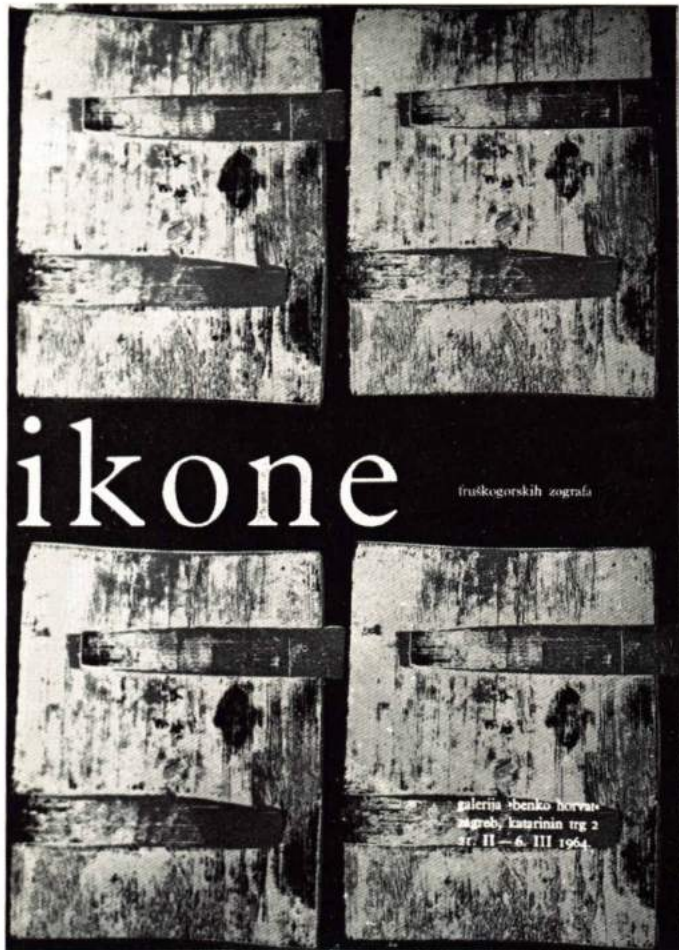
savske  
novine

9



Naslovna strana revije. Dizajn Mibajlo Arsovski, Zagreb  
Title-page of a review. Design Mibajlo Arsovski, Zagreb

Naslovna strana novina. Dizajn Zoran Pavlović, Zagreb  
Title-page of a newspaper. Design Zoran Pavlović, Zagreb  
XXI



*Gore lijevo:*

*Plakat. Dizajn Ivan Picelj, Zagreb*

*Gore desno:*

*Plakat. Dizajn Grega Košak, Ljubljana*

*Dolje:*

*Zaštitni znak. Dizajn Kastelec, Ljubljana*

*Top on the left:*

*Poster. Design Ivan Picelj, Zagreb*

*Top on the right:*

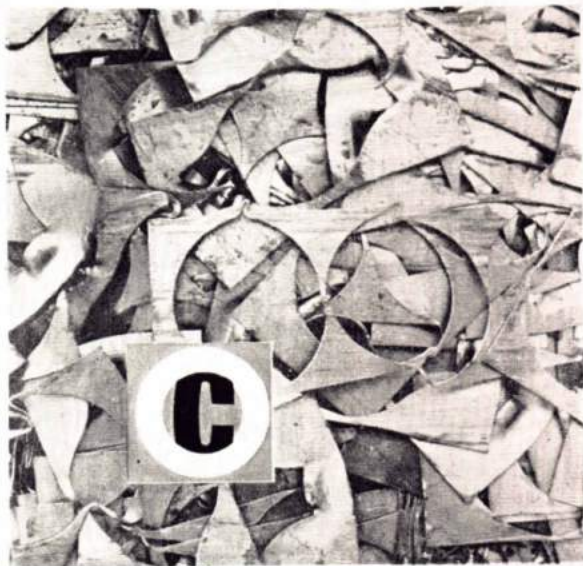
*Poster. Design Grega Košak, Ljubljana*

*Bottom:*

*Trade-mark. Design Kastelec, Ljubljana*



XXII



**ORFERON C**



REVIBOL TABLETS

PSIHOSTIMULANS



Gore:  
 Prospekti. Dizajn Milan Vulpe, Zagreb  
 Dolje desno:  
 Program. Dizajn Mihajlo Arsovski, Zagreb

Top:  
 Prospectuses. Design Milan Vulpe, Zagreb  
 Bottom on the right:  
 Programme. Design Mihajlo Arsovski, Zagreb

**& tD**

teatar iTD  
 komorna pozornica studentskog centra

Dušan Radović & Matija Bečković

**ČE** \*\*\*

Tragedija koja traje

studentski centar  
 svetošilitski u zagrebu  
 zagreb, savska cesta 25

Pratili li ti sudar dvojice otvora  
 Sokratova u izlazu  
 Prati li ti ljudski prvotvorenje  
 Svojesta ga prosjele!  
 OMAR KHAJJAN

dušan rado-  
 vić & matija  
 bečković:

**ČE**  
 † tragedija  
 koja traje †

# integrali ,67



Ujetnik  
**Zrcala**  
Mali oglasi!  
Borze  
Pozarjani  
**Ijudje**  
Centno-poklicni  
pesni  
Tezka situacija  
Valovi in drugi pranci  
**Luksuzne ženice**  
V OPOJ STRASTI  
Naša zemlja miruje?  
Samo še danes



➔  
srečko kosovel  
in  
konstruktivizem



*Srečko Kosovel*

postaviti pitanje, kako to da nije shvaćeno da dizajn nije samo posrednik u prodaji i reklamiranju robe nego prije svega sredstvo stvaranja humaniziranih društvenih standarda, odnosno da je danas problem dizajna problem od prvorazredne društvene važnosti. Odgovor na to pitanje pretpostavlja analizu (po mogućnosti znanstveno obrazloženu) djelovanja različitih činilaca, dakako društveno-ekonomskih, ali i političkih i ideoloških. U razmišljanjima o tom pitanju već je i prije istaknuta potreba (što još jednom ponavljam) da se svestrano ispituju uzroci i posljedice dosadašnjih odnosa politike, ideologije i kulture odnosno dizajna, svojstvenih socijalističkim društvima.

Pri takvoj analizi neće se moći izbjeći ni osvrt na uzroke nesporazuma koji su se događali u prvoj zemlji socijalizma, ne samo zbog toga što oni pružaju povijesne pouke nego i zato što takvi nesporazumi nisu bili bez odjeka na prilike u ostalim socijalističkim društvima. S tim u vezi ponovo ističem da se danas čini gotovo neshvatljivo kako je bilo moguće izrazito socijalistička htijenja sovjetske avangarde odbaciti i osuditi upravo u socijalističkom društvu u nastajanju. Objašnjenja sloma i progona sovjetske avangarde, koja smjeraju na to da se istakne utopizam i nepovezanost tih istinskih revolucionara s masama, čak su povijesno netačna, budući da je najveći i najljepiji dio pripadnika sovjetske avangarde bio orijentiran posve pragmatički: sačuvani spisi i dokumenti potvrđuju da su u mnogim svojim projektima kao i u samoj praksi polazili od potreba masovnog čovjeka. Tako su u vizualnim medijima tražili novu sintaksu na temelju koje su razrađivali nov jezik razumljiv upravo »masama« polupismenih ljudi« (El Lisitsky); u opremi grada, u oblikovanju ambijenta polazili su od »duha kolektivizma« (Tatlin), u oblikovanju upotrebnih predmeta uvažavali su uz ergonomske i estetske činioce (Tatlinov model radničkog odijela). Ukratko, u svojim revolucionarnim projektima i traženjima, od tipografskog dizajna do urbanog dizajna i dizajna okoline, polazili su od principa socijalističkog društva i socijalističke etike. Osim toga su shvatili da je rješenje problema odgoja stvaralaca novog profila istovremena i nužna pretpostavka razvoja posve nove socijalističke kulture. Zato su reorganizirali i revolucionirali odgojne institucije i škole, i, što danas zadivljuje, zahtijevali su već tada uvođenje znanstvene metodologije u nastavne programe.

Poznata parola Majakovskog (pjesnika koji je i sam za potrebe revolucije izveo tri tisuće plakata) iz 1918. godine »nisu nam potrebni mauzoleji umjetnosti s mrtvim djelima, nego žive radionice ljudskog duha na ulicama, u tramvajima, u tvornicama, u radničkim stanovima« nije bila samo politička i propagandna parola. Ona je zapravo izražavala politički program i etiku čitave jedne generacije

not yet been understood that design is not only a means of promoting and selling goods, but primarily one of building up humanistic social standards, and that nowadays the problem of design is a social problem of the first order. In order to answer this question a scientifically based analysis should be undertaken of the various factors exercising influence in this area, primarily social and economic, but also political and ideological. It has already been pointed out (and I repeat it here) that the relationship of politics and ideology to culture and design in socialist societies with all the consequences of this relationship so far should be examined. Such an investigation will inevitably touch on the misunderstandings which occurred in the first socialist state in this matter, not only because discussing those misunderstandings is historically instructive, but also because the mentioned misunderstandings had their echo in other socialist countries. It seems incomprehensible to-day that it should have been possible to dismiss and condemn the primarily socialist tendencies of the Soviet avant-garde in a rising socialist society. The explanation of the break-up of the avant-garde and its persecution by presenting it as utopian and out of touch with the masses is historically false. The majority of those most oriented to the left were very pragmatically minded. The documents that have been preserved show that in many of their projects as well as in practice they started from the needs of the man in the street. Thus in the visual media they looked for a new syntax and tried to build up a new language which would be comprehensible to »the mass of the half-literate« (El Lissitski). In creating urban equipment and in the shaping of the environment they had in mind »the spirit of collectivism« (Tatlin). In designing objects for everyday use they considered ergonomic and aesthetic factors (Tatlin's model of workman's suit). In their revolutionary research and projects, from typographic design to urban and environmental design, their points of departure were the principles of the socialist society and socialist ethics. It was also clear to them that the education of designers and researchers of the new type was a necessary prerequisite for the development of the new socialist culture. To that aim they reorganized and revolutionized educational institutions and, even at that time, required the introduction of scientific methodology into their programmes. This was an expression of the political programme and ethics of a whole generation of revolutionaries which, however, were rejected and ruined by a socialist society itself. This did not happen because they were utopians, as in this way one could consider utopian even the postulation of socialism. The most daring projects proposed at that time were nothing like a long-term utopia, as their critics from the right at the left insist. Such

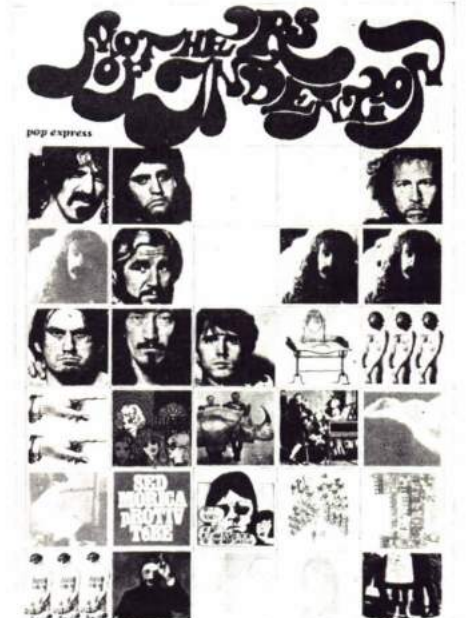
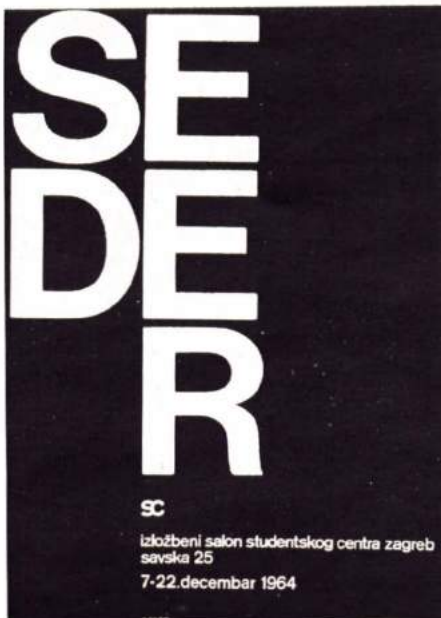
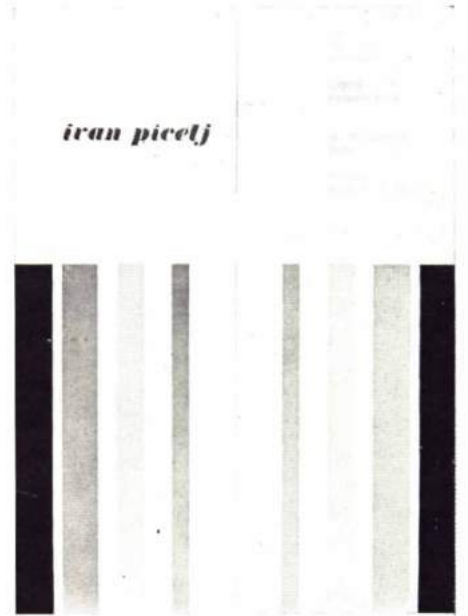
stvaralaca i revolucionarne inteligencije, koja je upravo u socijalističkom društvu odbačena i uništena. Ali ne zbog toga što su njezina htijenja bila utopijska, jer bi u tom slučaju i sami postulati socijalizma bili utopijski. Čak i najsmioniji projekti koji su tad nastajali nisu bili dugoročna utopija, kao što je danas ističu kritičari s lijeva i s desna, jer to opovrgava kasniji industrijski i tehnološki razvoj te iste, prve zemlje socijalizma.

Ispitivanje uzroka tih i sličnih pojava u socijalističkim društvima stavlja u središte pažnje pitanje odnosa političkog rukovodstva, tj. predstavnika vlasti i progresivne, kritičke i stvaralačke inteligencije, pitanje koje je ne samo još uvijek aktualno nego — za rješenje mnogih neriješenih problema unutar društvenih superstrukture u socijalizmu — od prvorazredne važnosti. Ono je u isto vrijeme i pitanje o položaju i ulozi duhovne (ne samo materijalne) proizvodnje u socijalističkom društvu koje ne može djelovati »u ime kopanje« i »žderačke kulture« kao što je već 1924. godine godine proročki isticao Kazimir Maljevič, suprotstavljajući društvu blagostanja takvo socijalističko društvo u kojem će djelovati i duhovni parametri. Ali takav zahtjev pretpostavlja ne samo revolucionarne zahvate i reforme na području materijalne proizvodnje i proizvodnih odnosa nego u isto vrijeme i na najvažnijim područjima duhovne proizvodnje i potrošnje, odnosno kulture u najširem smislu te riječi.

U Jugoslaviji je dosad razvoj vizualnog dizajna (kao i industrijskog) bio vrlo neravnomjeran i nedovoljan. Ali ne krivnjom samih dizajnera, kod kojih je barem u pojedinim slučajevima već odavno postojala svijest o tome koliko je problematika dizajna temeljna problematika suvremenog društva, posebno socijalističkog. Kao primjer za to navodim grupu EXAT-51 (Eksperimentalni atelier), koju su već 1951. godine u Zagrebu osnovali osmorica arhitekata, slikara i kipara. Polazeći od iskustva Bauhauusa i jednim dijelom od orijentacije sovjetske avangarde, oni su zahtijevali prije svega dokidanje granica između tzv. primijenjene i čiste umjetnosti, zalagali se za cjelovita i sintezna rješenja na području plastičkog stvaralaštva i za rješenja otvorenih problema upravo na području vizualnih komunikacija. Ta je grupa uspješno u toku nekoliko godina ostvarivala neke društvene zadatke, tako oblikovanje izložbenih paviljona industrije i trgovine (ponajviše namijenjene inozemstvu) koji su, iako su bili ambijenti kratkotrajne namjene, mogli poslužiti kao izvanredni primjeri rješenja takvih cjelina u kojima je provedena jedinstvena koncepcija od plastičko-prostornih do dvodimenzionalnih grafičkih rješenja. Ali ta grupa djelovala je samo kratko vrijeme i zbog nedostatka društvenih narudžbi i zbog nepostojanja

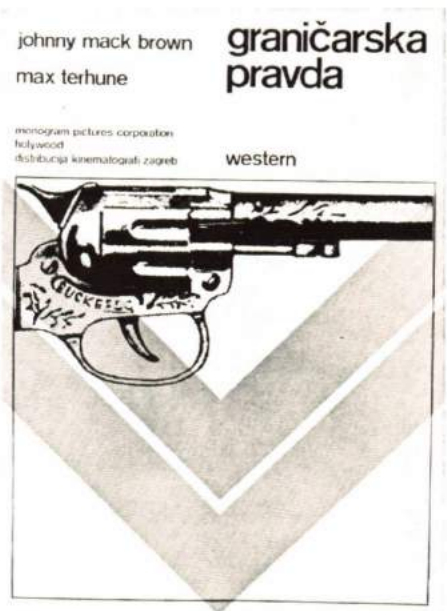
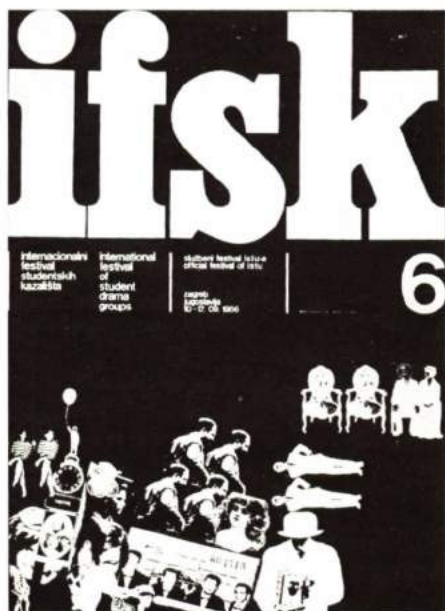
interpretations have been refuted by the subsequent industrial and technological development of the first socialist state itself. Any investigation of the reasons for such a state of things in socialist societies will have to concentrate the relationship between the political leaders, the representatives of the authorities, and the progressive, critical, and creative intelligentsia. The clarification of that relationship is of first rate importance for the solution of the open problems of social superstructures in the socialist society. This will also bring up the question of the position and role of spiritual (an not only material) production in socialism which cannot be developed in the name of the »through culture« (Futtertrogkultur) and »devouring culture« (Fressgierkultur) as Kazimir Malevitch had put it in 1924 contrasting a materially rich society to a genuine socialist society. In which spiritual parameters will have their role. A socialist system presumes revolutionary changes not only in the field of material production and productive relations but also in wide areas of spiritual production and consumption, in culture in the widest sense.

The development of visual and industrial design in Yugoslavia has so far been uneven and unsatisfactory. It would not be fair to blame designers for such a state of things as at least some of them have long been aware of the importance of design in contemporary society and particularly in a socialist society. As an example let us take the group called EXAT-51 (Experimental atelier) founded in 1951 in Zagreb and consisting of eight architects, painters and sculptors. With the Bauhaus and the Soviet avant-garde in mind they asked for the abolishment of the borders between the so called applied and pure arts, for large scale steps of a synthetic character in plastic arts and for the solutions of the open problems of visual communications. This group was working successfully for several years on various public tasks like designing representative exhibitions pavilions for industry and commerce (mainly for abroad) which, although of ephemeral character, can be taken as outstanding examples of work on which a unique conception has been imposed from the architectural three-dimensional, to the two-dimensional graphic elements. After some time the group dissolved for lack of orders and also of support in the area where it had been formed. Some members of this group have continued carrying on their theoretical and practical



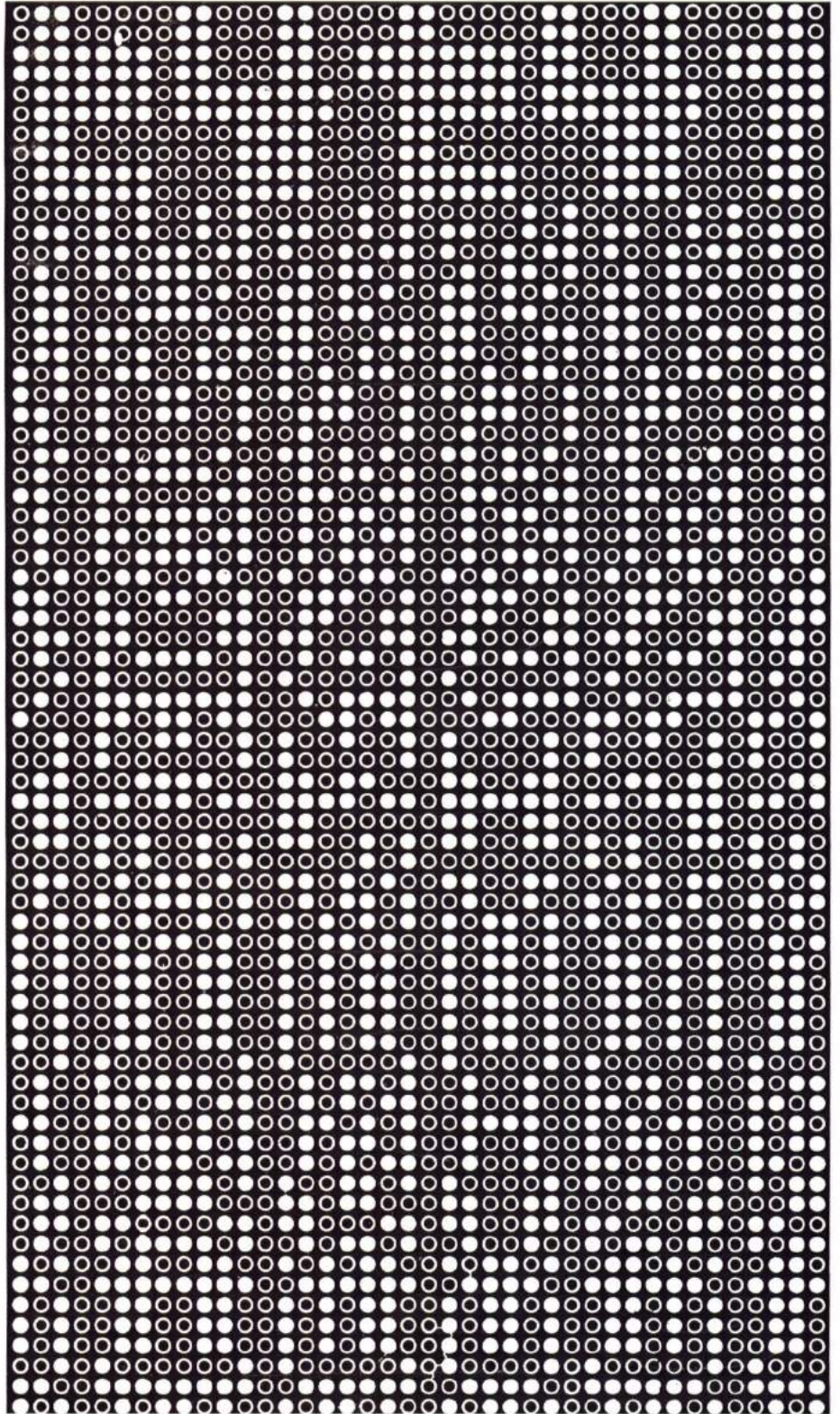
Plakati. Dizajn Mihajlo Arsovski, Zagreb

Posters. Design Mihajlo Arsovski, Zagreb

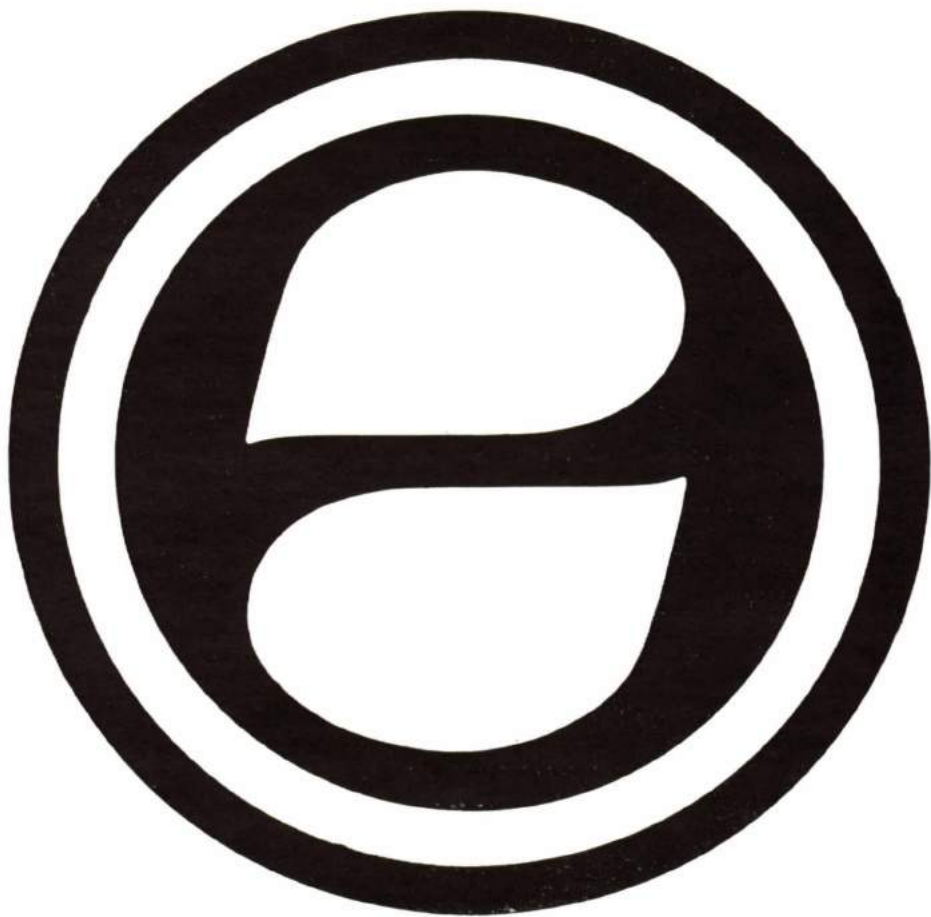


Plakati. Dizajn Mihajlo Arsovski, Zagreb

Posters. Design Mihajlo Arsovski, Zagreb



*Plakati. Dizajn Ivan Picelj, Zagreb*  
*Posters. Design Ivan Picelj, Zagreb*



g a p

*Zaštitni znak i logotip za poduzeće  
»gap«, Zagreb, design: Ivan Picelj*

*Symbol and logotyp for  
»gap«, Zagreb, design: Ivan Picelj*

bilo kakve podrške u sredini u kojoj je nastala. Djelovanje nekih pripadnika te grupe nastavlja se doduše i dalje, s istim težnjama u teoriji i praksi. Njihovom je zaslugom, na primjer, utemeljena Visoka škola primijenjene umjetnosti u Zagrebu, koja je usprkos tradicionalnom nazivu na mnogim područjima uvodila suvremenu didaktiku, ali je i ta škola nakon nekog vremena dokinuta. Mnogo su pripadnici te grupe pridonijeli i osnivanju Trijenala primijenjene umjetnosti, na kojem se izlažu prvi primjerci industrijskog dizajna, i organizirali Centar za industrijsko oblikovanje u Zagrebu koji još danas postoji, iako mu prijete opasnost da zbog nedostatka materijalnih sredstava, odnosno zbog neshvaćanja njegove uloge, i on bude dokinut. Sveukupna dosadašnja djelatnost nekih članova grupe Exat 51, koju su kao pojedinci u okviru ne baš velikih mogućnosti i uglavnom vlastitim ulaganjima mogli ostvariti, pokazuje koliko njihova progresivna usmjerenja i istraživanja (od sinteznog urbanizma do kinetičkih komunikacija i projekata četvorodimenzionalne reklamne urbane plastike) sadrže zalihe koje društvo ne iskorišćuje. Iz te grupe od samog se početka javljaju prvi primjerci vrlo dobrog grafičkog dizajna u Jugoslaviji, ali dobri grafički dizajneri, kako u Zagrebu tako i u Ljubljani i u Beogradu, uglavnom su dosad razvijali svoju djelatnost (jer nije bilo narudžbi) na uskom području grafičkog dizajna unutar kulturnih i umjetničkih institucija. Vizualni dizajn masovne štampe, masovne knjige, televizije i urbanog letteringa još uvijek je potpuno zapušten, u najboljem slučaju njegovi su stvaratelji slikari ili kipari koji grafički dizajn shvaćaju kao drugorazredni podprodukt »čiste umjetnosti«. Jednako je na području onoga što se kao vizualni »dizajn« pojavljuje u trgovini, turizmu i u industriji osim, dakako, izuzetnih primjera. Neshvaćanje uloge dizajna na svim razinama pokazuje i činjenica da još do danas nije primjereno, tj. u skladu sa zahtjevima suvremenosti, riješen problem odgoja i školovanja dizajnera, a da ne govorimo o neophodnoj potrebi osnivanja istraživačkih instituta.

Tačno je da se danas s razvojem slobodne, tržišne privrede u Jugoslaviji situacija postepeno mijenja; počinju djelovati elementarni poticaji razvoja, tj. konkurentski odnosi na domaćem i međunarodnom tržištu, a to će svakako dovesti do bržeg razvoja persuasivnih vizualnih komunikacija. Ali takav razvoj neće sam po sebi dovesti do rješenja otvorenih problema na područjima vizualnih komunikacija, a upravo planskim rješavanjem tih neriješenih problema može se spriječiti da obsolentna persuasivnost zavlada masovnim medijima i u urbanim sredinama. A to je proces koji je već započeo. Kao što smo na početku istakli, to su zadaci koji se ne mogu ostvarivati neplanski, djelomično i izdvojeno iz cjeline

activity in the same vein. Thanks to this group The School of High Studies of Applied Arts was started, which, in spite of its traditional name, introduced progressive teaching in many subjects. The school, however, was soon closed down. EXAT-51 also contributed to the foundation of the »Triennale of Applied Art« at which the original samples of industrial design are exhibited. They organized The Industrial Design Center in Zagreb which is still in existence although threatened by lack of funds and of any understanding of its role in society. The achievements of some EXAT-51 members in present circumstances, mainly through their private investments, show that progressively orientated research (from a new kind of urban planning to kinetic communications and four-dimensional advertisements) can yield interesting results but they are, however, inadequately utilized by the society. Some good graphic design was also produced by the members of EXAT-51. Unfortunately good graphic designers from Zagreb, Ljubljana, and Belgrade, owing to the shortage of other kinds of orders, have worked in the comparatively narrow field of graphic design for cultural and arts organizations. Visual in newspapers, popular books, TV, and urban lettering is still totally neglected. At best the work is done by painters and sculptors who consider it a by-product, a second class kind of work. The same is true of visual »design« appearing at shops and stores, in tourism, and in industry. The lack of understanding of the role of design is best shown by the unsolved problems of the education of designers, and also by the non-existence of any research institutes.

The situation in Yugoslavia is gradually changing with the development of market economy and under the influence of the internal and international competition. This will probably result in a faster development of persuasive visual communications. The development of persuasive visual communications will not of itself bring about the solution of the open problems of the other fields of visual communications. Only through planning can obsolescent consumer-oriented persuasion be prevented from imposing itself upon both the mass media and the urban environment. Effective planning cannot be partial and separated from the rest of the world of signs around us. Equally, individual efforts can achieve very little unless society as a whole,

znakovnog svijeta koji nas okružuje. Isto tako napori pojedinaca u tom pogledu ne znače gotovo ništa, ako se ne aktivira društvo u cjelini na svim razinama upravljanja. U protivnom, i u budućnosti će se ponavljati situacije u kakvoj je bila grupa Exat 51, tj. isti procijepi, isti raskorak između htijenja progresivnih grupacija i društva koje takva htijenja ne prihvaća. Tako, na primjer, dok se danas na jednoj strani u uskom krugu zagrebačkih stručnjaka raspravlja o ulozi kompjutera u vizualnim istraživanjima i o potrebi scijentifikacije dizajna, s druge strane uvodimo nastavu dizajna na likovnu akademiju, tj. rješavamo problem odgoja i školovanja dizajnera na način koji je već odavno u kapitalističkim društvima odbačen. Takvih primjera, na žalost, ima mnogo.

Samoupravljački sistem jugoslavenskog socijalizma u načelu pruža vrlo velike mogućnosti za uspješno rješavanje tih brojnih otvorenih problema s područja vizualnog dizajna. Razaranje etatizma, centralizma i birokratizma onemogućuje u isto vrijeme i djelovanje represivnih mehanizama odnosno u većoj mjeri dopušta slobodu kritike, ali bi ona morala u društvenim razmjerima postati djelotvornija. To spominjem stoga što mi se čini da se približavanje pozitivnim rješenjima u problematici dizajna može postići svestranom, otvorenom i radikalnom kritikom situacije u kojoj se nalazimo, a koja bi na temelju znanstvene analize interdisciplinarnog pristupa (uz suradnju ekonomista, sociologa, antropologa, psihologa, dizajnera i estetologa) utvrdila uzroke dosadašnjih promašaja i polazeći od ciljeva socijalističkog društva razmotrila mogućnosti pozitivnih i neophodnih rješenja. Rješenja koja sasvim sigurno nisu ni jednostavna ni jednoznačna, budući da sudbina dizajna u socijalističkom društvu Jugoslavije ovisi o odgovoru na pitanje: kako početi i ubrzati proces svjesnosti o tome — od proizvođača do političkog rukovodioca — da je problematika dizajna bitno društvena problematika, politička, kulturna, etička i estetska. Odnosno, kako i kojim je putovima i sredstvima moguće u samoupravljačkom socijalizmu, na razini društvenosti, postići pozitivna rješenja. Takva kritička analiza bit će utoliko oštrija ukoliko više bude zahvaćala u pitanja odnosa društva, njegove politike i ideologije prema dizajnu. Ali u načelu i toliko djelotvornija koliko bude tačnije utvrdila raspon interferencija tih odnosa; nadalje, koliko bude znanstvenija i svestranija, toliko će pružiti više mogućnosti da bude shvaćena i prihvaćena kao napor za optimiranje samog socijalističkog društva.

at all levels, becomes interested. Otherwise we shall repeatedly have situations similar to that of EXAT-51 resulting from the gap that exists between progressive groups, on the one hand, and a society unprepared to accept them, on the other. Thus e.g. while a select group of experts in Zagreb is considering the role of the computer in visual communications research and the necessity for scientifically based design, the teaching of design is being introduced at the Academy of Art i.e. the education of designers will be conducted in the way which was given up in the capitalist countries long time ago. Unfortunately, there are many such examples.

The self-governing system of Yugoslav socialism offers in principle great possibilities for a successful solution of many design problems. The abandonment of state control, centralism, and bureaucracy has also meant a weakening of repressive forces and a great deal of freedom in criticism. However, such criticism ought to become more efficient, and society ought to accept it. I believe that positive steps towards the solutions of the problems in the field of design can be taken only through free and radical criticism of the present situation which should find out, on the basis of an interdisciplinary scientific approach (in co-operation with economists, sociologists, anthropologists, psychologists, aestheticians, designers etc). the reasons for the failures that have occurred. It should then propose what is to be done bearing in mind the aims of the socialist society. And, indeed, there is a great deal of complicated work to be done. The future of design in Yugoslavia depends a lot on finding out first, how to demonstrate convincingly to everyone — from the self-governing factory worker to the political leader — that the problems of design are social, political, ideological, cultural, ethical, and aesthetical problems; second it also depends on finding ways of achieving positive solutions in the system of self-governing socialism. This criticism will be the more difficult the more it penetrates into the relationship of society, in its policy and ideology to design. It will be efficient if it states precisely the degree to which these phenomena interfere. If it is scientific and accepted as an effort towards the improvement of the socialist society and towards its undermining.

Translation: Dr. Damir Kalodera

*fedor kritovac*

*fedor kritovac*

dizajn

design

bez feed-backa

without feed-back



Je li uopće opravdano da u ovom broju BIT-a, posvećenom Ulmu, bude spomenuta i sudbina časopisa *Dizajn*? Časopisa koji (za razliku od crno ukoričenog, posljednjeg broja »Ulma«), još u lipanjskoj zažarenosti, kada je zapravo prestao izlaziti, upućuje nadobudno anketni list čitaocima spremajući se na kvalitetniji juriš u drugoj godini namjeravanog izlaženja.

Treba li sada u BIT-u, koji i eksplicitno nosi atribut internacionalnog, objaviti tu nacionalnu žalopojku za *Dizajnom* kao nekakav dug savjesti!? Možda. No, ne čini se opravdanom bojazan da se u javnosti neće dovoljno pisati o časopisu *Dizajn* koji je kao živ organizam iščezao, i tek se kao simbolički memento praši na policama knjižara i u prostorijama izdavača — Centra za industrijsko oblikovanje. Negativna vrijednost časopisa čini se da je interesantnija, pa urednik dobiva pismo jednoga drugog časopisa s molbom da piše o razlozima zašto *Dizajn* ne izlazi. A uzdasi negodovanja ili čuđenja kod mnogih sada su jači nego emocionalne reakcije u vrijeme izlaženja. Događaju se i druge stvari kojima ne nedostaje prizvuk šarmantne anegdote. Primoran u početku na ustupke, da bi kako-tako došao do skromno plaćenih oglasa, pola godine nakon prestanka izlaženja časopis dobiva iz inozemstva ponudu za oglas u deviznom iznosu koji je dovoljan za gotovo dvogodišnju članarinu izdavača u ICSID-u. Ali i pojedina, lakonski sročena odbijanja saveznih, republičkih i gradskih fondova, mjerodavnih za pomaganje izdavačke djelatnosti, kojima se izdavač obratio za pomoć, mogla bi, u časovima pogodnog raspoloženja, također poslužiti kao dobar anegdotski materijal. No, zaboravimo li privremeno (ali ne i prijevremeno) na konkretne situacije i adrese, i pokušamo li zbivanja oko *Dizajna* preslikati u jedan model i parafrazirano iskoristiti neke pojmove iz teorije komunikacija, čini se da bi to moglo biti instruktivno upravo iz gledišta one problematike koju je odlučio tretirati časopis BIT.

Spomenuti kao prvo frazu »uklapanje u sferu ili sistem« nije ovdje bezrazložno; rezimirajući pismene i usmene argumente koje je izdavač *Dizajna* dobio od organa za pomaganje izdavačke djelatnosti (a koji se striktno dijele na sferu kulturnih djelatnosti i sferu naučnih djelatnosti), proizlazi da dizajn na žalost ne ulazi ni u sferu (sistem) kulture (kao npr. časopis za književnu kritiku), ali ni u sferu (sistem) nauke. Ne zna se doduše kamo dizajn spada, ali svakako ne samo u kulturu ili samo u nauku. Autsajd na sreću uvijek postoji i ondje uvijek ima dovoljno mjesta. Upravo zato što dizajn ulazi i u kulturu i u nauku, jer ih po svojoj suštini integrira — prividno (bolje reći

Is it really justified to mention in this number of BIT, dedicated to Ulm, the fate of the journal *Dizajn*? The journal (which had lively covers unlike the black covers of the last number of ULM) was still addressing its readers with an ambitious questionnaire in June — the month when it actually ceased publication — preparing a campaign for better quality and announcing the second year of its existence. Do we really have to publish in BIT, which has even explicitly an international purpose, a national lament over *Dizajn*, as a burden on our conscience? Perhaps. But the fears do not seem justified that not enough will be written about *Dizajn* which has disappeared as a living organism, and which can be found lying under a layer of dust on the shelves of booksellers and the premises of the publisher — the CIO. The negative value of the journal seems to be more interesting so the editor has received a letter asking him to write about the reasons why *Dizajn* had to cease publication. And with many people the sighs of disagreement or wonder are now stronger than the emotional reactions while the journal was still alive. Other things are happening, too, with the flavour of pleasant anecdote. At first forced to make concessions so as to attract advertisements — even if for modest fees — some six months after the journal folded up, the editor has received an offer from abroad for an advertisement that would cover in foreign exchange dues for two years of membership in ICSID.

But the laconic refusals of federal, republican, and city authorities responsible for the subsidizing of publishing activities could serve — in moments of a congenial mood — as fine material for anecdotes. But if we forget for a time — but not too early — the crises and the places where they took place, and if we try to see a certain pattern in the events associated with *Dizajn*, and if we paraphrase these events within a theory of communications, we might reach something that could be instructive for the subjects and problems that BIT has decided to deal with.

To use as the first phrase »inclusion into a sphere or system« is not unjustified in this place; when summing up the written and oral arguments that the editor of *Dizajn* was given from the authorities in charge of subsidizing publishing activities (and which are rigorously divided into the sphere of cultural and the sphere of scientific activities), it becomes clear that design unfortunately does not belong either to the sphere (system) of culture (as, for example, journals on literary criticism) or to the sphere (system) of science. It is impossible to say where design belongs but certainly not exclusively to culture or science. Fortunately there is always some outsider and there is always some room for him. Just because design belongs to both culture and science, as it merges them by the

formalno-birokratski) čini se da istovremeno ni u kulturi ni u nauci, koje egzistiraju kao partikularni sistemi, nema što tražiti!

Pod pretpostavkom da se ta jednostavna dijalektika i uspije dokazati, ostaje još dovoljno mogućnosti za samoobranu nepristupačnog SISTEMA. Sada nastupaju argumenti: da nešto nije na dovoljno naučnom (ili kulturnom) nivou, da suradnici ili redakcija nema dovoljno ili nema uopće, naučne (ili kulturne) kompetencije, itd., itd. Dakako, bilo bi sve riješeno kad bi se u toj našoj sredini, gdje se ni malim prstom nije maklo za edukaciju profesija potrebnih za praksu dizajna, a kamoli uprlo kažiprstom ili lupilo pošteno šakom — moglo smjesta legitimirati položenim doktoratom iz dizajna. Ali kad bi se srušio i taj bedem Sistema, ostala bi još uvijek dovoljno čvrsta njegova unutarnja jezgra koja funkcionira nepogrešivo; ne preda li se zahtjev za pomoć tačno do tog i tog dana u toliko sati sa uredno i na tačno propisani način obrazloženim prijedlogom, predmet ide automatski ad acta. Tom u suštini potrebnom i normalnom načinu postavljanja uvjeta (kad ne bi bio birokratiziran i zlorabio formalne uvjete nužne društvene discipline) nemoguće je suprotstaviti se. Ali ni tu nije kraj. Postoji još jedan, možda i najefikasniji način samoobrane Sistema: totalna intaktnost. Sistem u tom slučaju uopće ne reagira; u poštanskom pretincu uzalud se čeka odgovor, a u telefonskoj slušalici sa signalom čekanja eventualno se izmjenjuje uljudni ili nervozni sekretarski glas apela na strpljenje.

I evo nas već u području komunikacija i izvan obranjenih Sistema Kulture i Nauke. Opraštajući se od napadača ovi Sistemi nisu zaboravili da ipak postoje i ostali sistemi — npr. Privreda — te su izdali uputnicu »okrenuti se Privredi«. Zaboravljajući pri tom da efikasnost, pa čak i elementarna mogućnost osvajanja tog »moćnog« sistema ovisi upravo i o učešću njih samih. Ali, *Dizajn* se najprije i okrenuo Privredi uvjeren da je upravo njoj potrebno efikasno cjepivo suvremene kulturno-naučne spoznaje teorije i prakse industrijskog dizajna, a Kulturi i Nauci obratio se tek kasnije — potraživanjem uložene akontacije. Spremajući se za aktivno komuniciranje izdavač se odlučio za intenzivno emitiranje informacija: u desetak navrata prije i za vrijeme izlaza časopisa, najčešće u povodu svakoga novog tematskog broja, izdavač je adresirao mnoštvo cirkularnih pisama na generalne direktore, tehničke i komercijalne rukovodioce i suradnike stručnih službi za oblikovanje ili razvoj, te svim privrednim komorama diljem Jugoslavije. Poslano je na stotine pisama, podijeljeno mnoštvo besplatnih brojeva, pozivalo se preko razglasa na Zagrebačkom

very essence of its function — ostensibly (in other words formally and bureaucratically) it has no place in either if they exist as separate systems!

Even if we assume that this simple dialectics can be proved, there is still enough room for the self-defence of the impervious *System*. New arguments enter the scene: something is not sufficiently scientific, scholarly, or »cultural«, the contributors and the editorial board have no adequate scholarly, scientific, or »cultural« background, and so on, and so forth. Of course everything would be immediately solved if someone could produce a doctorate on design — in this milieu where nothing has ever been done for the education of the professions needed for the designing service, let alone that someone has ever pointed out or protested the need of such education. But even if that wall of the System were pulled down, its inner core would still remain sturdy enough to work faultlessly; if the application for aid is not filed by a certain date and hour, in a strictly prescribed way, the subject is automatically shelved. It is impossible to oppose this procedure which is basically necessary and normal — if it were not bureaucratized and if the formal aspect of social discipline were not abused. But this is not the end. There is another and perhaps the most efficient method of the System's self-defence: its complete imperviousness. In this case the System does not respond at all; in vain one looks for an answer in the mail box; and the peep sound on the telephone receiver alternates with the polite or nervous voice of the secretary appealing for patience.

And here we are in the field of communications and outside the well-defended Systems of Culture and Science. Parting with the attackers the Systems have not forgotten that there are other Systems as well, for example Industry — so they have issued the instruction: »you should apply to Industry«. But in this case they have forgotten that the efficiency, even the barest chance of conquering this »powerful« System depends exactly on their participation. But *Dizajn* applied to Industry first, believing that it was the industry which needed an efficient tonic of contemporary cultural and scientific theory and practice on industrial design. To Culture and Science it turned only later, applying for the return of the invested advance. Preparing for an active exchange of communications the editor has decided to start an intensive emission of information; about ten times before and in the course of the publication of the journal (mostly when a new number covered a definite theme or topic) the editor mailed a vast number of circular letters to general directors, technical, commercial managers, and designing services, as well as to all chambers of commerce in Yugoslavia. Hundreds of letters

velesajmu, akviziteri su oblijetali osobe koje im se učiniše prijemljive, animiralo se za oglase. Reakcija je bila slaba; broj pretplatnika dovoljan za početno razočaranje ambicioznog pionirskog rada i apsolutno nedovoljan da pokrije financijske investicije. Tražeći u poduzećima suradnike koji bi nešto napisali o dizajnu u svojem poduzeću (što uz honorar za članak znači i besplatnu propagandu za samo poduzeće), naišlo se također na mlaku rezonanciju u koju su katkada utrošeni skupi telefonski razgovori i brzogovori, kao da se radilo o značajnim obiteljskim događajima. Neki prispjeli odgovori ankete na pitanja tko u poduzeću čita časopis i gdje se on pohranjuje bacaju pravo svjetlo na zagonetku slabog odaziva: u poduzećima naprosto *ne postoji primatelj za informacije o dizajnu*. Nije ništa slučajno da se *Dizajn* čitao i čuvao ondje gdje već postoji biblioteka koja prima i neke druge stručne časopise, gdje postoje dizajneri, rukovodioci za dizajn ili barem oni koji su samoinicijativno te dužnosti preuzeli. Inženjeri nekih poduzeća naručuju nekoliko brojeva ne znajući da su prije toga njihova poduzeća ponudu već »službeno« odbila. Jedini INPUT za časopis *Dizajn* (kao nove informacije u rukama činovnika kojem je slučajno ona dospjela i koji nije umio dekodirati njen sadržaj) bio je — koš za stare papire, i eventualno, kao OUTPUT, povratak poštom izdavaču. Već na početku akcija je, dakle, bila osuđena na neuspjeh zbog toga što informacija uopće nije ni mogla aktivno prodirjeti u Privredu, zahvaljujući tome što u strukturi poduzeća nema dovoljno ljudi koji bi mogli preuzeti ulogu dekodera i amplifikatora. Je li taj problem, kojem je prirodni začetak rješavanja već u edukaciji, rješiv bez početnih društvenih investicija, onih koje se zasad nerado vežu uz atribute kulture i nauke?

U takvoj ocjeni *neće se činiti paradoksalno* što su iz inozemstva uslijedile vrlo brzo pozitivne reakcije. One se uglavnom mogu sortirati u ove kategorije: direktna pisma pojedinih instituta i organizacija, objavljivanje vijesti u tekućoj stručnoj periodici, objavljivanje bibliografskih kartica pojedinih članaka u bibliografskim emisijama (ICSID, Moskovski institut, Berlinski institut). Nadalje: zahtjevi za prenošenje pojedinih članaka iz *Dizajna* u druge časopise, pretplate pojedinih knjižarskih kuća, pretplate nekih firmi, te naposljetku i oglasi.

Iz naše perspektive te se reakcije mogu činiti kao komplimenti koji su više znak čuđenja nad buđenjem jedne za dizajn

were sent, a large number of copies were presented, invitations were sent out at the Zagreb Fair, commercial agents were trying to contact persons who seemed to be interested in placing advertisements, etc. The response was poor, the number of subscribers was quite sufficient for initial disappointment in an ambitious pioneering undertaking, and absolutely insufficient to cover financial investment. The editor was looking for contributors who could write on the design policy in their own firm (which actually meant free advertising for their corporation plus the fee for the article), but this brought only a tepid response in spite of expensive telephone conversations and telegrams, as if the topic were some important family business. Some answers that have been received to the questionnaire (questions on who reads *Dizajn* and where the journal is kept) threw light on the enigma of the poverty of response: in the firms *there is simply no receiver of information on design*. It is by no means an accident that *Dizajn* was read and kept in firms where there is already a library which receives other professional publications as well, where there are designers, designing managers, or at least individuals who have assumed these responsibilities as part of their self-initiative. The engineers of some firms have ordered several numbers of the publication not knowing that their firms had already »officially« turned down the offer of subscription. The only INPUT for *Dizajn* (as completely new information to the clerk who happened to receive it and who was unable to decode its contents) was the waster paper basket, or perhaps, as OUTPUT, return to the editor by mail. This means that the initiative was doomed to failure from its very beginning because the information was unable to reach industry as there are not enough people in the structure of our firms who could act as decoders and amplifiers. The solution of this problem lies in education; but can it be solved without initial investments by those who have so far only unwillingly associated themselves with the attitudes of Culture and Science?

In such an assessment *it will not strike us as a paradox* that very soon the positive responses came from abroad. These responses could be classified as follows: letters from various institutions and organizations, news items in current professional publications, bibliographical notes (on articles in *Dizajn*) in bibliographical publications (ICSID, the Moscow Institute, the Berlin Institute). Further on: demands for permission to publish individual articles from *Dizajn* in other journals, subscriptions by booksellers, firms, and finally offers for advertisements.

From our own point of view these responses may be accepted as compliments but they were in fact expressions of surprise

nerazvijene sredine, nego priznanje »po stručnoj liniji«, ali u svakom slučaju mogu djelovati kao utjeha, mada fiktivna. Međutim, one su ipak sasvim normalna posljedica razvijene prakse, gdje dizajn mnogodimenzionalno i uvijek aktualno funkcionira i traži nadovezivanje.

Upitnik objavljen u posljednjem broju *Dizajna* bio je pokušaj organizirane uspostave takve povratne sprege uz najavljeno drugo godišnje u našoj sredini. Ali sa zakašnjenjem odgovor dolazi i spontano: niz novih pretplatnika i ponuđača oglasa, koji se nakon prestanka izlaženja *Dizajna* neprestano javljaju, morao je biti odbijen s nesigurnom nadom, a kasnije i nevjericom, u ponovno izlaženje. Poznato je da u inertnoj i nerazvijenoj situaciji sa zakašnjenjem dolazi do uspostavljanja povratne sprege, ali kad se ona uspostavi onda je to, u ljudskim relacijama, posljednja šansa. To znači: ako ispoljen interes onih kojima je emisija bila namijenjena ne bude *sada* zadovoljen, bit će dvostruko napornije nego na samom početku, ili gotovo i nemoguće, uspostaviti ponovni kontakt. A u međuvremenu buka u kanalu postaje sve glasnija.

Ovom transpozicijom problema oko časopisa *Dizajn* u zamišljeni krug nepostojećih komunikativnih veza nekorespondentnim odašiljačem i primaocem nije moguće analizirati suštinska pitanja, jer bi to vodilo u neopravdanu simplifikaciju. Ali i takvo razmišljanje navodi nas na prepoznavanje nesporazuma. Nesporazuma koji izvire iz neshvaćanja da kvaliteta, pogotovo ako je nova, sazrijeva kao proces, a nije zlatnik bačen na tržište za kojim će se svi ili odmah pojagmiti ili ga neće ni vidjeti.

Uostalom, netko će reći (misleći pri tom možda jednom i na časopis BIT), zašto se časopis i lansira ako ne postoji sigurnost da će se ekonomično plasirati. Nisu li dizajn ili kibernetika prerani za naše društvo; možda ono još nije »spremno da ih prihvati«, jer da ih treba, zvalo bi ih i pronašlo. U skladu s takvim i sličnim shvaćanjima — ako vjerujemo da su ona premoćna — jednostavnije bi bilo reći: ne samo prerani već i suvišni. No, i vjerovanje podliježe promjeni, a akcije se na tome i osnivaju.

over the emergence of design in a country that had been undeveloped as far as design was concerned. It was more surprise than recognition of value among equal partners; this might be accepted as comfort which is, however, quite fictitious. But these responses are a normal reaction of a well-developed practice coming from places where design is active in a number of dimensions, and where it is always relevant and asking for new associations.

The questionnaire in the last issue of *Dizajn* was an attempt to establish a feed-back, together with the announcement of continued publication in the second year. Although late, the answer came spontaneously: a number of new subscribers and offers of advertisements have been reaching the editor steadily ever since *Dizajn* ceased publication. These offers had to be turned down with the precarious hope, and even with growing scepticism that the journal will ever appear again. It is well-known that in an inert and undeveloped setting feed-back develops only after a considerable delay, but when it comes about, it is, in human terms, the last chance. And this means: if the interest manifested by those for whom the publication was meant is not satisfied *now*, it will be twice as hard — if not impossible — to establish a new contact. And in the meantime the noises in the channel are getting ever louder.

By this transposition of the problems around the journal *Dizajn* to an imagined circle of non-existent communicative links between a transmitter and receiver whose wave lengths do not correspond it is impossible to analyse the basic questions because it would lead us to unjustified simplifications. But even such an approach brings us to the recognition of a misunderstanding. The misunderstanding derives from the fact that people refuse to grasp that quality, especially if it is new, matures as a process; it is not a golden coin which is thrown on the market and after which everybody can rush, if it is not completely overlooked.

But when all is said someone might add (and he may also have BIT in mind): why is a new journal launched if there is no guarantee that it will be able to survive? Is not design or cybernetics premature for our society which is perhaps »not yet ready« to accept them, for, if it needed them it would call them and find them. In accordance with such and similar views — if we think that the odds are in their favour — it would be simpler to say: not only premature but also superfluous. But beliefs are also subject to change, and actions are based on this conviction.

Translation: Dr. Miro Beker

vijesti

news



## industrijski dizajn i privredno-društvena kretanja u jugoslaviji

Simpozij u organizaciji RAS, CIO, ZIT, za rukovodioce stručnih službi i predstavnike organa radničkog samoupravljanja industrijskih poduzeća bit će održan u rujnu u Zagrebu.

### nacrt programa

#### 1. Proizvodnja i dizajn

U prvom dijelu Simpozija predviđaju se referati i koreferati koji će obraditi ovisnost kvalitete dizajna o tehnološkoj i organizacionoj osnovi u proizvodnji, i to sa stanovišta:

- a) strukturalne definicije proizvoda (ili sistema proizvoda) i analitičkog pristupa kompleksnosti njegova ustrojstva;
- b) razvojne i poslovne politike koja vodi računa s jedne strane o planiranju proizvoda i koncepciji marketinga, a s druge strane o unapređenju tehnologije proizvodnje i inovaciji proizvoda;
- c) politike dizajna kao sastavnog dijela razvojne i poslovne politike poduzeća s obzirom na donošenje odluka o novim proizvodima, rukovođenje službom dizajna i realizaciju dizajna uz pomoć vanjske suradnje ili vlastitog dizajn-biroa.

#### 2. tržište i dizajn

U drugom dijelu Simpozija predviđaju se referati i koreferati koji će obraditi značenje i ulogu dizajna u kompleksnim uvjetima tržišne privrede, i to sa stanovišta:

- a) funkcionalne definicije proizvoda s obzirom na njegovu namjenu i svrhovitost i izražene ili neizražene potrebe tržišta odnosno potrošača ili korisnika;
- b) »tržišta kupca« odnosno ekonomske prisile na veću brigu o potrošaču i kvaliteti proizvoda;
- c) ekonomičnosti dizajna kao procesa kontinuirane racionalizacije koja se proteže kroz čitav ciklus proizvodnja—tržište—potrošač, s osobitim obzirom na slojevitost i neprozirnost jugoslavenskog tržišta i na činjenicu da jugoslavenski privrednici nedovoljno poznavaju strana tržišta, te na ulogu službe istraživanja tržišta i racionalnog iskorištavanja ekonomske propagande;
- d) formiranja i strukturiranja asortimana u smislu inovacije spektra funkcija i namjena proizvoda i stvaranja sistema ili grupa međusobno povezanih proizvoda;

## industrial design and economico-social changes in yugoslavia

A Symposium will be organised by RAS (Worker's University), CIO (Industrial Design Institute), ZIT (Marketing Research Institute) to be attended by managers and representatives of worker's selfmanagement from various firms in September in Zagreb.

### draft programme

#### 1) Production and Design

The first part of the Symposium will be taken up by papers and co-papers to deal with relationship of design quality and technology and organisation of production. The theme is to be looked at from three standpoints:

- a) structural definition of a product (or system of products) and analytical approach to product's complexity.
- b) development and business policy taking into account the product planning and marketing concept as well as advanced technology and innovation.
- c) design policy as constituent part of development and business policy of a firm as regards the decision-making process including new products, design management and product design being realised either through design consultants or design department.

#### 2) Market and Design

The second part of the Symposium envisages papers and co-papers on the theme of importance and role of design under the complex market economy requirements. The following viewpoints will be taken into account:

- a) functional definition of a product with regard to its end use and recognised or unrecognised consumer or user needs.
- b) »buyer's market«, i.e. the economic constraint forcing manufacturers to better satisfy the consumer through quality products.
- c) economic design as materialised through continual process of rationalisation covering the full cycle of production, market and consumption. This is to be viewed with special reference to multilayer opaque Yugoslav market and insufficient knowledge of world market among Yugoslav businessmen. Herein the role of market research and rational use of promotion should be worked out.
- d) planning and structuring a range of products from the viewpoint of innovation in a range of functions and products' forming the groups of products.

e) efikasnosti radničkog samoupravljanja u formiranju politike dizajna, s osobitim obzirom na to da je potrebno i idejno raščistiti dihotomiju socijalističkog čovjeka kao proizvođača i potrošača, a u vezi s tim i koncepciju lika socijalističkog poduzeća u tržišnoj privredi.

### 3. nauka i dizajn

U trećem dijelu Simpozija predviđaju se referati i koreferati koji treba da naglase nužnost naučnog pristupa teoriji i praksi dizajna, i to sa stanovišta:

- a) interdisciplinarnog karaktera djelatnosti dizajna koji obuhvaća i integrira doprinose tehničkih, ekonomskih i društvenih znanosti;
- b) osnovnih koncepcija teorije i prakse industrijskog dizajna koja obuhvaća veoma velik raspon od oblikovanja predmeta do prostornog planiranja (dizajn okoline) kao i posebnu problematiku vizuelnih komunikacija i odnosa čovjek-stroj (ergonomija ili human engineering);
- c) organiziranog naučnog rada kao preduvjeta naučne organiziranosti rada s osobitim obzirom na aktualnu problematiku odnosa sveučilišta i privrede.

### 4. politika i dizajn

Za završni dio Simpozija predviđaju se referati i koreferati koji bi trebalo da prikažu dizajn kao činioca društvene korekture proizvodno-tržišnog mehanizma, i to sa stanovišta:

- a) organizirane ingerencije industrijskog dizajna koja promiče društvene kriterije vrijednosti i kvalitete i stvara organizacione oblike i okvire prenošenja i koordiniranja uzajamnih utjecaja i interesa proizvodnje, tržišta (trgovine) i društva;
- b) nacionalne ekonomske politike koja bi u globalnoj razvojnoj politici morala voditi računa i o nacionalnoj politici industrijskog dizajna;
- a) različitih nivoa samoupravnih interesa od pojedinačnih proizvođača do društva u cjelini;
- d) mogućnosti političkog aktiviranja u rješavanju idejne i praktične problematike dizajna mobilizacijom potencijalnih snaga privrede, nauke, prosvjete i kulture.

e) efficient worker's self-management in formulating a design policy. This theme shall be viewed with special reference to ideological definition of dichotomy of the socialistic man as producer and consumer and, in this connection, the concept of socialist enterprise image under the conditions of market economy.

### 3) Science and Design

The third part of the Symposium envisages the papers and co-papers aiming to point out the necessity of scientific approach to design theory and practice. The theme will be dealt with from the standpoints of:

- a) interdisciplinary character of design activity which encompasses and integrates the achievements of engineering, economic and social sciences.
- b) basic concepts of design theory and practice which include a very wide range of tasks from products design to space planning (environmental design) as well as the special problem of visual communications and relationships man-machine (ergonomics or human engineering).
- c) organised scientific research with special reference to current problems of relations between university, business and management.

### 4) Politics and Design

The final part of the Symposium envisages papers and co-papers which should deal with design as a factor of social control of the production-consumption mechanism. This will be looked at from these viewpoints:

- a) organised authoritative industrial design promoting social criteria of value and quality and creating the framework for the transmission and coordination of mutual influences and interests of production, market (distribution) and society.
- b) national economic policy ought to take into account a national industrial design policy as part of the global development policy.
- c) many levels of self-managers' interests from individual producer to the society as a whole.
- d) possibilities of taking political action toward the solving of ideological and practical problems of design through mobilizing the potential forces of business, science, education and culture.

## aica o umjetnosti i televiziji

U okviru XX generalne skupštine AICA u Bordeauxu prošlog rujna priređen je kolokvij »Umjetnost i televizija«. Politička atmosfera u Francuskoj uzrokovala je da je taj skup donekle izgubio na predviđenom značenju, u prvom redu što se tiče brojnosti učesnika — stručnjaka i predstavnika zainteresiranih nacionalnih televizija i ustanova. Podneseni referati izazvali su ipak plodnu diskusiju koja je istakla neke osnovne principe djelatnosti televizije na tom području.

Uočena je, naime, specifična problematika televizijskog medija kao novog civilizacijskog fenomena koji se ne smije shvatiti i iskorištavati kao jednostavni transfer, nego treba razmišljati o onim oblicima televizijskih poruka koji su najsukladniji naravi medija.

U tom svjetlu izvrsno su kao primjeri poslužila dva filma holandske i švedske televizije. Prvi je negativno ocijenjen kao metodološki neispravan zbog prenaglašene verbalne eksplikacije u temi populariziranja umjetnosti, a drugi — film »Monument« — primljen je pozitivno kao eksperiment u smislu razumijevanja medija, ali i kritički kao suprotni ekstrem njegova iskorištavanja.

Bilo je i nekih razmišljanja o općenitom položaju televizije u suvremenom društvu, o čemu je voditelj diskusije, Giulio Carlo Argon, rekao da je televizija, na žalost, još uvijek više sredstvo moći nego sredstvo istinske masovne komunikacije.

Zapažen je referat Matka Meštrovića (u programu simpozija dano mu je uvodno mjesto) koji objavljujemo.

Odnos umjetnosti i televizije trebalo bi problematski razmotriti s više aspekata

1. s gledišta funkcije u umjetnosti
2. s gledišta komunikacije
3. s gledišta medija

1.1 Umjetnost u današnje vrijeme problematizira samu sebe: u tome je njezina posljednja vitalnost, njezina »otvorenost« u alternativni između traženja i istraživanja, između

## a.i.c.a. sur l'art et télévision

A la 20 ième Assemblée Générale de l'A.I.C.A. à Bordeaux qui a eu lieu septembre dernier, une colloque s'est tenu sur le thème de »L'Art et Télévision. «L'atmosphère politique en France était en partie la cause que l'importance de ce colloque n'était pas tout à fait ce que l'on a espéré, en premier lieu le nombre de participants-experts n'a pas été atteint et le nombre de représentants des télévisions nationales non plus. Toutefois les rapports ont stimulé une fructueuse discussion dans laquelle certains principes de base de l'activité de la télévision ont été mis en point.

En effet on a reconnu la spécificité de la problématique du médium de télévision comme nouveau phénomène de civilisation que l'on ne devrait prendre pour, et s'en servir comme, une simple transmission. Au contraire, on devrait réfléchir sur les formes les plus appropriées pour les messages télévisives lesquelles s'accordent le mieux avec la nature du médium même.

En ce sens on a en recours à titre d'exemple à deux films, un hollandais, l'autre suédois. Le premier a suscité une opinion négative pour ses qualités méthodologiques, en particulier pour l'explication verbale trop accentuée qui n'est pas appropriée pour le thème de popularisation de l'art. Le second film »Monument« était mentionné comme expérience réussie en ce qui concerne la compréhension du médium. En même temps on en a été critique le prenant pour un cas extrême de l'utilisation du médium.

Le colloque s'est prononcé sur la situation générale de la télévision dans la société moderne et le président Giulio Carlo Argon a dit que la télévision sert encore malheureusement plus comme moyen de pouvoir que celui d'une vraie communication de masse.

La conférence de Matko Meštrović était bien reçue (dans le programme du colloque on lui a accordé la place de rapport d'introduction). Son rapport, le voici:

Le rapport entre l'art et la télévision devrait être étudié sous plusieurs aspects du point de vue de sa problématique.

1. du point de vue de la fonction de l'art
2. du point de vue de la communication
3. du point de vue du médium

1.1 — L'art à l'époque actuelle problématise lui-même : c'est en cela que repose sa dernière vitalité, son »ouverture« dans l'alternative entre le fait de chercher et de rechercher,

reagiranja i osmišljavanja. To je njezin metodološki problem, a u krajnjoj liniji i idejni. Umjetnost je zatečena naukom i tehnološkom stvarnošću u kojoj ne nalazi svoju orijentaciju, jer su joj vlastita sredstva dimenzijski neadekvatna zbivanjima suvremenog svijeta. Zato svoju društvenu funkciju može naći upravo u odnosu prema i konfrontaciji s tekućim uzorcima društvenih vrijednosti. Ali ne smije ostati izvan konteksta naučno-tehnološke organizacije u kojoj mora postavljati pitanje njezine svrhovitosti kao i pitanje svoje svrhovitosti i dostatnosti.

1.2 Pitanje dostatnosti umjetnosti za njezinu vlastitu funkciju proizlazi upravo iz pitanja njezine tehničke (ne)doraslosti da dimenzijski svlada univerzalnost historijskih zbivanja, s druge strane da prevlada ukotvljenost u još uvijek »lokalizirane« društvene sredine, mentalitete i strukture.

1.3 Pitanje umjetnosti danas jest i pitanje prevladavanja njezine puke fenomenološke razine, to jest vlastite naravi: i u odnosu na sredstva i u odnosu na tipologiju mišljenja. U pogledu sredstava daleko je ispod suvremenog tehnološkog potencijala, u pogledu mišljenja na razini je infantilnog nonkonformizma ili je uključena konformistički u alijenantne procese industrijskog tržišta.

2.1 Tehničko shvaćanje komuniciranja predominantno je zbog konstantnog porasta tehnoloških izuma koji se odnose na fizičke mogućnosti komuniciranja. Tehnički specijalisti pa i teoretičari informacija zanimaju se za »kako« se može prenositi informacija, ali ne i za »što« treba prenositi. Taj nesemantički i nepragmatički interes nije usmjeren na probleme individualne i kolektivne (zlo)upotrebe sredstava i poruka. »Značenje«, o kojem ovisi ljudsko komunikativno ponašanje, oni stavljaju u navodne znakove, premda se u značenju nalaze najznačajnije i najsuptilnije implikacije.

2.2 Semantički i pragmatički interes za komunikacije sve više pokazuju predstavnici društvenih znanosti, od lingvista do sociologa, izražavajući zabrinutost zbog neautentičnosti komunikativnog življenja u metežu masovnog komuniciranja. To proizlazi iz činjenice što autentično komuniciranje nije garantirano, što se sloboda gubi u zavodjenju. To je uostalom

entre la réaction et la rationalisation. C'est son problème méthodologique et en dernier ressort, le problème idéologique. L'art est déconcerté par la science et la réalité technologique où il ne trouve pas son orientation, car ses propres moyens ne sont pas à la mesure des événements du monde contemporain. Pour cette raison, il peut trouver sa fonction sociale justement dans le rapport et dans la confrontation avec les modèles courants des valeurs sociales. Mais il ne doit pas rester hors du conduit poser la question de la finalité de celle-ci ainsi que la question de sa propre finalité et de sa suffisance.

1.2 — La question de la suffisance de l'art à sa propre fonction provient justement de la question posée de son inaptitude technique à dominer l'universalité du cours historique, d'autre part à surmonter son ancrage dans les différents milieux sociaux, dans les mentalités et les structures encore toujours localisées.

1.3 — La question de l'art est aujourd'hui aussi la question du dépassement de son pur niveau phénoménologique, c'est-à-dire de sa propre nature : et par rapport aux moyens et par rapport à la typologie de la pensée. Quant aux moyens il est aussi loin au-dessous du potentiel technologique contemporain, quant à la pensée il est au niveau du non-conformisme infantile ou il est inclus de façon conformiste dans les processus aliénants du marché industriel.

2.1 — Selon Tomas Maldonado, la compréhension technique de la communication est prédominante à cause de l'accroissement constant des inventions technologiques qui se rapportent aux possibilités physiques de la communication. Les spécialistes techniques ainsi que les théoriciens de l'information s'intéressent au »comment« les informations peuvent se transmettre, et non pas à »ce qui« doit être transmis. Cet intérêt non-sémantique et non-pragmatique n'est pas dirigé vers les problèmes du mésusage individuel et collectif des moyens et des messages. La »signification« dont dépend le comportement humain communicatif est mise entre guillemets, bien que la signification comporte les implications les plus importantes et les plus subtiles.

2.2 — Les représentants des sciences humaines, des linguistes aux sociologues, montrent un intérêt sémantique et pragmatique plus grand pour les communications, exprimant leur inquiétude à cause de la nonauthenticité de l'existence communicative dans le tumulte de la communication de masse. Ceci provient du fait que la communication authentique n'est pas garantie, que la liberté se perd dans la séduction.

vidljivo i u kontrastu između rafiniranosti tehnike komunikacija i mediokritetnosti samih proizvoda komunikacija.

2.3 Očita je želja određenih društvenih krugova koji predstavljaju dominantnu društvenu silu da se do maksimuma stereotipiziraju simboličke strukture i na minimum svedu svi rizici slobode. To je manipulativni stav prema ljudima koji teži dominaciji masovne kontrole, a izraz je heterodirigiranog društva.

2.4 Pored svojih inherentnih prepreka, umjetnost upravo u tim okolnostima susreće nepremostive barijere svome prerastanju iz fenomenološke razine do suvremene naučno-tehnološke osnove komuniciranja.

3.1 Marshall McLuhan tvrdi da je već sam medij poruka, ali bi bilo pogrešno optužiti ga zbog tehnicističkog duha. Njegovo razumijevanje medija najdublje je, najsmionije u bezgraničnom sagledavanju neposrednih i posrednih implikacija na ljudsko ponašanje. Ali možda ipak u nečemu ograničeno.

Razumna je njegova konstatacija da svaka tehnologija postepeno stvara posve novu ljudsku okolinu. Okolina nije samo pasivni omotač već aktivni proces što izaziva strukturalne promjene u ljudskim nazorima. U elektronsko doba klasifikacija podataka prelazi u obrisno prepoznavanje. Da bismo se ponijeli s podacima elektronske brzine u tipičnoj situaciji »preopterećenosti informacijama«, moramo se obratiti studiranju konfiguracija. Jer ovo nije više svijet kotača nego strujnih krugova, nije svijet fragmenata nego integralnih obrisa.

Nismo svjesni nove okoline koju stvara elektronsko doba. »Sadržaj« nove okoline koja je nevidljiva stara je mehanizirana okolina industrijskog doba. Umjetnost kao »anti-okolina« pomaže nam da percipiramo novu nevidljivu okolinu. Studiranje medija odjednom otvara vrata percepcije. Tehnologija poprima funkciju umjetnosti čineći nas svjesnim fizičkih i društvenih konzekvencija tehnologije. Mogle bi se tako u nedogled nabrajati njegove konstatacije koje šokiraju ali i zapanjuju neočekivanom uvjerljivošću, a takvi su i argumenti — primjeri kojima ih obrazlaže.

C'est d'ailleurs visible aussi dans le contraste entre le raffinement de la technique de la communication et la médiocrité des produits mêmes des communications.

2.3 — La tendance de certaines forces sociales dominantes à stéréotyper au maximum les structures symboliques et à réduire au minimum tous les risques de la liberté est évidente. C'est une attitude manipulative envers les hommes, qui tend à la domination du contrôle massif et elle est l'expression de la société hétérodirigée.

2.4 — A côté des obstacles inhérents à sa nature, l'art rencontre justement dans ces conditions les barrières infranchissables au dépassement de son niveau phénoménologique à la base scientifico-technologique de la communication.

3.1 — Marshall McLuhan affirme que déjà le médium même est le message; mais il serait faux d'accuser son esprit techniciste. Sa compréhension du médium est la plus profonde, la plus audacieuse dans l'appréhension illimitée des implications directes et indirectes sur le comportement humain. Mais elle est peut-être tout de même limitée en quelque chose. Sa constatation que toute technologie crée graduellement un environnement humain tout à fait nouveau est raisonnable. L'environnement n'est pas seulement une enveloppe passive mais le processus actif qui provoque des changements structuraux dans les vues de l'homme. A l'époque électronique la classification des données se transforme en »pattern recognition«. Pour être capable d'affronter les données de la vitesse électronique dans la situation typique de la »surcharge des informations« nous devons nous adresser à l'étude des configurations. Car ce n'est plus le monde des rouages mécaniques mais celui des circuits du courant, ce n'est pas le monde parcellaire mais celui des contours intégraux.

Nous ne sommes pas conscients du nouvel environnement que crée l'époque électronique. Le »contenu« du nouvel environnement qui est invisible est le vieil environnement mécanisé de l'ère industrielle. L'art en tant que »anti-ambiance« nous aide à percevoir une ambiance nouvelle invisible. L'étude du médium ouvre tout d'un coup la porte de la perception. La technologie revêt la fonction de l'art en nous rendant conscients des conséquences physiques et sociales de la technologie.

On pourrait énumérer ainsi sans fin ses constatations qui choquent mais surprennent aussi par leur pouvoir de persuasion inattendue, et tels sont aussi les arguments-exemples par lesquels il les explique.

3.2 Televiziji pripada odlučno mjesto među medijima elektronskog doba. Njene su implikacije bezbrojne i dalekosežne. Knjiga je »sadržavala«, televizija »obuzima«, izaziva unutarnje reagiranje — u dubinu. Sasvim iznenađuju konzekvencije toga »hladnog« medija koji McLuhan izučava u bezbrojnim aspektima čiju deskripciju još nije moguće obuhvatno reinterpretirati. Jer učinak televizije, kako i sam kaže, kao najnovije i spektakularne ekstenzije našeg centralnog nervnog sistema, teško bi bilo obuhvatiti. Otkako je zahvatila čitav naš osobni, društveni i politički život, bilo bi gotovo nereально pokušavati sistematizirati sve njezine utjecaje, sve njezine specifičnosti i moći mijenjanja naše percepcije. Ako je u razumijevanju Einsteinovih ideja jedina teškoća bila u tome što su tražile potpunu reorganizaciju našeg imaginativnog života, onda se upravo takva imaginativna reorganizacija zbiva posredstvom televizijske slike. Bez obzira na kulturni sadržaj.

3.3 Ostavljajući specijalistima detaljniji slijed ispitivanja fenomena televizije kao medija, i prihvaćajući McLuhanova otkrića medija kao tehnološki sredine — činioca formiranja mentalnih struktura, treba postaviti pitanje je li medij sam po sebi i presudni ideološki činilac, nisu li ideologije barem u aktualnoj historijskoj stvarnosti preponderantne? U najmanju ruku, one nisu neutralne jednako kao što ni mediji nisu neutralni. Čovjekov proizvod mijenja čovjeka, ali čovjekovo društvo ipak nije stihijna formacija.

4. Za odnos umjetnosti i televizije, problematiziran sa stanovišta društvene funkcije umjetnosti, s tehničkog i semantičkog stanovišta komunikacije i sa stanovišta karaktera medija, može se reći da je funkcija umjetnosti historijski progresivna i efikasna u univerzalnim dimenzijama kad su njezini semantički kriteriji na aktualnom tehničkom nivou, kad je medij funkcija semantičkih kriterija adekvatnih mediju i kad su semantički kriterij funkcija progresivnih idejnih uzoraka.

To su osnovni postulati istinske televizijske umjetnosti.

3.2 — La télévision occupe une place décisive parmi les médiums de l'ère électronique. Ses implications sont innombrables et de grande portée. Le livre »contenait«, la télévision »saisit«, provoque des réactions intérieures — en profondeur. Les conséquences de ce médium »froid« sont tout à fait surprenantes, du médium que McLuhan étudie sous les innombrables aspects dont il n'est pas possible de réinterpréter la description de façon étendue. Car, comme il le dit lui-même, l'effet de la télévision en tant que la plus nouvelle et spectaculaire extension de notre système nerveux central serait difficile à embrasser. Depuis qu'elle a saisi toute notre vie personnelle, sociale et politique, il serait presque illusoire d'essayer de systématiser toutes ses influences, toutes ses spécificités et ses pouvoirs de changement sur notre perception. Si dans la compréhension des idées d'Einstein l'unique difficulté reposait dans le fait qu'elles exigeaient la réorganisation complète de notre vie imaginative, c'est justement une telle réorganisation imaginative qui se passe par l'intermédiaire de l'image télévisée. Sans égard au contenu culturel.

3.3 — Laissant aux spécialistes la suite détaillée de l'étude du phénomène de la télévision en tant que médium, et acceptant les découvertes du médium de McLuhan en tant que milieu technologique — facteur de la formation des structures mentales, il faut poser la question si le médium est par lui-même aussi le facteur idéologique décisif, si les idéologies ne sont pas prépondérantes au moins dans la réalité historique actuelle. Tout au moins, elles ne sont pas neutres de même que les médiums ne sont pas neutres non plus. Le produit de l'homme change l'homme mais la société humaine n'est tout de même pas une formation non-organisée.

4. — Pour le rapport entre l'art et la télévision, problématisé du point de vue de la fonction sociale de l'art, du point de vue technique et sémantique de la communication et du point de vue du caractère de médium, on peut dire que la fonction de l'art est historiquement progressive et efficace dans les dimensions universelles quand ses critères sémantiques sont au niveau technique actuel, quand le médium est la fonction des critères sémantiques sont la fonction de modèles idéologiques progressifs.

Ce sont les postulats fondamentaux du véritable art de la télévision.

# bite

international

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numeriranim i  
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important original  
prints for museums  
& collectors signed  
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stojan čelić  
dušan džamonja  
mladen galić  
ksenija kantoci  
albert kinert  
ivan kožarić  
vlado kristl  
maxim krstulović  
frano šimunović  
ivan generalić  
oskar herman  
ordan petlevski  
ivan picelj  
ivan rabuzin  
ljerka šibenik  
miroslav šutej  
victor vasarely

plakati, formata  
70×50 cm,

art posters

chagall  
ben shahn  
debenjak  
dubuffet  
džamonja  
gorky  
herman  
kalajić  
léger  
mortensen  
petlevski  
picasso  
picelj  
pop art  
richter  
rodin  
srnec  
šibenik  
šutej  
tartaglia  
vasarely

## iskra

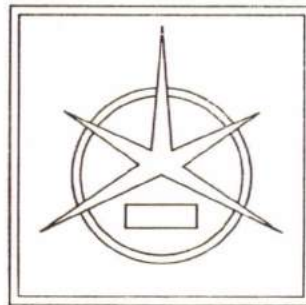
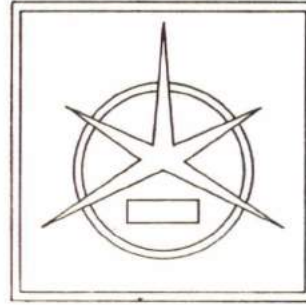
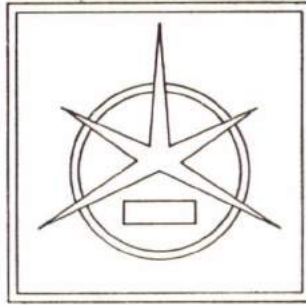
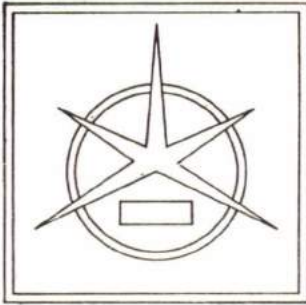
industrija  
za elektromehaniko  
telekomunikacije  
elektroniko  
avtomatiko in  
elemente

## iskra

industrija  
za elektroniku  
telekomunikacije  
elektroniku  
avtomatiku i  
elemente

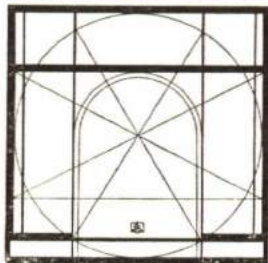
## iskra

electromechanics  
telecommunications  
electronics  
automation  
components



čokić

povijest arhitekture



rade čokić

povijest arhitekture

format 17 × 24 cm, strana 232,  
broširano, cijena 39.— din

nakon poglavlja o arhitekturi i njenom početnom razvoju i počecima arhitektonskog stvaranja, knjiga obuhvaća arhitekturu staroga egipta, srednje azije, dalekih naroda (amerika, kina, japan, indija), starih grka i rimljana, ranog kršćanstva, prelazno-karolinskog doba bizanta, islama, romanike, gotike, renesanse, baroka, klasicizma, historicizma ili eklektike i prijelaz u modernu arhitekturu.

knjiga je bogato ilustrirana (s preko 220 slika i crteža) i na kraju svakog poglavlja postavljena su pitanja za uvježbavanje i ponavljanje. knjiga još sadrži tumač pojmova i popis literature. knjigu je odobrio republički sekretarijat za prosvjetu, kulturu i fizičku kulturu.

knjiga se može nabaviti u svim knjižarama ili izravno kod izvođača.

izdavačko poduzeće  
»školska knjiga«  
Zagreb, Masarikova 28







