

RE-DESIGN TO ADAPT

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I. M. MERLEAU-PONTY, *Phenomenology of perception*, Translated by C. Smith; London: Routledge and Kegan Paul, 1962, p.320.

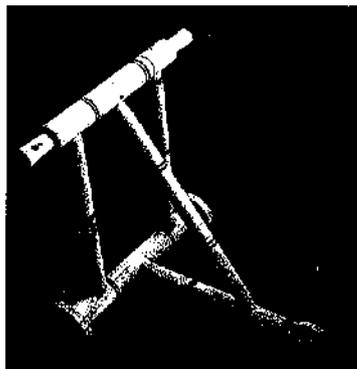
In a person-artifact relation the person's experience of the artifact, his physiological configuration in this relation and the artifact are distinct but inextricably linked phenomena.

The thing is inseparable from a person perceiving it, and can never be actually in itself, because its articulations are those of our very existence, and because it stands at the other end of our gaze or at the terminus of a sensory exploration which invests it with humanity.¹

Underlying the artifact and the activity interdependent with it is a link that runs through all other artifacts and activities. This is the meaning-context constituted by the socio-cultural past, the person's life experiences, the moment's experience and his anticipations. The meaning-context denotes and is denoted by all levels of contexts, from the immediate to the family, community, social and world contexts. Awareness, at any moment and place, is not as sharp and gets more and more blurred with each respective context -synchronical- and with respect to the distance into the past or the future in the form of memory, unconscious or anticipation -diachronical. At the moment of awareness, an artifact constituted through the intentional act in which a person experiences it as a physical object or an idea is surrounded by such an aura where the relevant aspects at that moment are central and in the 'foreground'.

An artifact is expressive and interpretive against the background of a meaning-context which is practical and social. The artifact as used for what it signifies is expressive; its interpretiveness is the identification or attribution of a signified which it signifies.

The relation of a person to an artifact is not passive. So long as it is one of many possible concrete forms with reference to the meaning-context which he carries with him as constituted through his body, he reconstitutes the artifact in his experience of it. The expressive and the interpretive are not segregated. He can find the signified in the artifact as what it stands for and the signifier adequate to the signified.



A vernacular craft-made walker, a booster and a plaything at one, for the baby just starting to walk. There are walkers for earlier stages commercially available, but there is none, as yet, for this particular stage in the child's development.

The significance of a thing inhabits that thing as the soul inhabits the body: it is not behind appearances. The significance of the ash-tray is not a certain idea of the ash-tray which co-ordinates its sensory aspects and is

accessible to the understanding alone, it animates the ash-tray, and is self-evidently embodied in it...

The thing is correlative to my body and, in more general terms, to my existence, of which my body is merely the stabilised structure. It is constituted in the hold which my body takes upon it; it is not of all a meaning for the understanding, but a structure accessible to inspections by the body.²

2. M. MERLEAU-PONTY, *Phenomenology of Perception*, Translated by C. Smith; London: Routledge and Kegan Paul, 1962, p.319.

The experience of an artifact, physical or as an idea, involves an intentional act; it is directed toward something. This is essentially the same, whether it be the material perception of an artifact, the crystallisation of an idea of it, or actually making it. Making an artifact or an act that affects it is irreversible, whereas an idea is reversible.

Be it the endowment of an artifact with meaning, the coupling of a signifier with a signified, ideation, or the making of it, all, based on personal or interpersonal relevances, have the essential value of *adaptation*. They involve a way of doing and dealing with things. This is the precondition of *style*. Their change corresponds to a knowledge of the reality. Whatever this change may be, it co-exists with a basic unity and permanence of the world. This sense belongs to man's nature as an historically incarnated experience of the world. It gives the term adaptation its human significance.

Adaptation requires expressions based on personal and interpersonal relevances, not those that are imposed, though it has the power to contain the imposed at the cost of alienation. It channels creative energy and guides creative work.

VEILING OF THE IMMEDIATE REALITY OF PERCEPTION

In the traditional preindustrial era, making and codes of making things as well as their expression and interpretation were based on a long and widely established common sense perception of the immediate reality. Influences of industrialisation, technology and science brought about a new perceptible reality through the medium of its products. While these products pervaded everyday life, a new conception and interpretation of reality was being popularised, though inadequate for immediate experience. For the people, specialist and non-specialist alike, reality had become the reality of mediated experience due to the interlocution of the abstract and the conceptual. Things and the aura around them in the immediate perception were veiled by this new reality which turned them into 'sign-objects' talked about or written about.

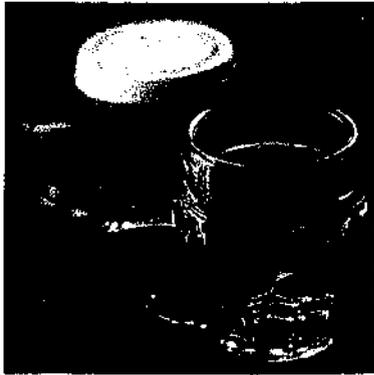
Experimental thinking in sciences, technology and art and its judgement were within the domain of specialists. The rest were submitted to a passivity. Language of the specialist intervened everywhere. Media of the written word, the transmitted sound and the transmitted sound with visual image facilitated this and the power of metalanguage in the control of everyday life through its compulsions (even though it may be tolerant, persuasive or rhetorical.) The foremost of these compulsions being the consumption of metalanguage in all its manifested cultural forms.

One significant feature of metalanguage was that it was isolated from the social context and, far from being a product of social expression, imposed the ideological, individualistic and elitist



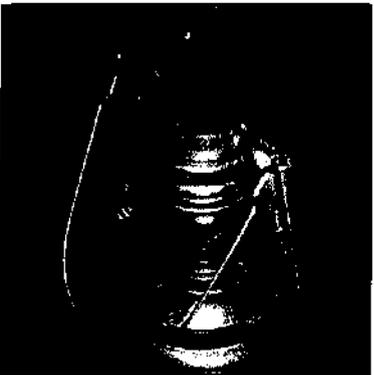
The locally contrived shopping baskets on wheels preceded their mass-produced and commercialised counterpart. The re-cycled wheels once belonged to, maybe, a baby carriage. Old baby carriages themselves, too, are re-used for the purpose.





Built-in re-cycling: The glass mug is originally the container of a patent mustard of a brand which is commercially sold. The use of the idea of re-cycling to eliminate the obsolescence of the container is, in this case, made with an intention to promote sale.

The phenomena of re-cycling as observed in actual life becomes just another abstract design method to be used and talked about. The method is purged out of context and becomes a reference by itself. Is it a method defined in a process which emerged due to scarcity of materials and means? Is it a conceptual method proposed as a solution to world's diminishing resources or to pollution? Or, is it just another chic in design for sales or intellectual talk?



The level, the source and the context of demand and the kind of use intended are reflected in the sale price of products. This kerosene lamp which has become almost an archetype due to its wide and popularized use is one of the basic lighting elements where there is no electrical light.

J. S. GIEDION, *Mechanization Takes Command*, New York: Oxford University Press, 1970 (1947), p. 608.

relevances and myths.

Penetration of industrially produced product and mechanisation into all spheres of everyday life happened between the two world wars in the industrialised countries of the West. A *mass-culture* came to be institutionalised levelling down the extant and diverting the possible cultural distinctions. Cultures do not 'exist' any more, because they are deprived of the type of productivity they were in dialogue with.

This mass-culture came to oppose style, which is a way of doing things, e.g., living, adapting. Adaptation is substituted by, or rather, interpreted as conforming to metalanguages which formulate the needs and prescribe the exactly corresponding products for their satisfaction.

RE-DESIGN

In the pretechnological era, there used to be a link or cohesion between the work of the artist or the designer and the everyday world. At the same time, design, as a specialised activity, had not entered or created problems to be solved so ubiquitously as today. It was traditional and inherited rules (believed to be absolute, universal-metaphysical) and techniques elaborated over time with regards to method, material and tools, as well as social expression.

With the transformation of wealth accumulated by trade into capital (18th C.) there were aims to increase the production of goods with trade value. What made this increase possible was not machinery which already existed, but their utilization for the first time in the mechanisation of production.

The cult of individualism, the possibility of the individual's gain to power through wealth and capital was resounded in the possibility of the individual's gain to power through inventions to be utilised in the mechanisation of production. There was the mass of the proletariat as liberated individuals to be exploited for their labor, craft and inventiveness.

By the end of the 19th C., decrease of production cost could no longer be maintained through increase of productivity by inventions which were no longer beyond insignificant improvements. As a solution scientific management emerged for a rational organisation of the work process in order to decrease the time of production and to increase its efficiency. Later supplemented by experimental psychology and time-motion studies, it was eventually to be replaced by automatism which removed its subject matter - the worker.

Further developments occurred with an eye for improving the product so that it is cheaper to make, lighter (new or less material, removal of excesses), but strong and working well, as well as for promotion of sales through emotional appeal and the creation of public taste. These motives brought about, respectively, the birth of product engineering, industrial design and market research. The concept of *re-design*,³ that is, improvement of the product in itself, emerged at about the same time with the Depression.

METALANGUAGE OF DESIGN

Though initiated by a common interest, that of decreasing cost and promoting sale, a gap between the practice of product



The lamp and the bottle with this interchangeable metal cap both have the same price. The ease of use and efficiency of the cap as well as its potential for re-use is not as widely distributed and made available, though it is much cheaper to produce than the kerosene lamp.



Kitsch: artificial flora poured in plastic dwell on pre-established taste and practice in artificial re-productions of natural elements which find their way into new means and methods of producing.



The rubber over-shoes in combination with shoes is a practical contrivance that serves well especially where it is muddy. social customs demand taking off shoes upon entering a house, or the use of a soft inner-shoe that is kept clean for five-times-a-day prayer which require taking off shoes.

engineering and industrial design can be observed. Theories of design and design evaluations are talks about the practice and its products. These are full of attempts at tracing the isomorphisms in the two fields of practice and at filling the gap. One such isomorphism could be found as the experimental thinking which, while based on the isolation of phenomena for observation, penetrated into the spheres of human sciences (as ergonomics, psychometry, sociometry) and art. This was the modern aesthetics versus the traditional aesthetics of the 'ruling taste' with its heavy decorations.

Through the collaborative and individual work of specialists a metalanguage of design came to be institutionalised. This metalanguage, which prescribes and talks about the design act and practice and is consumed with the products, derived its symbols and logic from technology, art and the consumer world. It is an intellectually communicable system by which designers and design theorists talk about all aspects of the phenomena related to design. The phenomena isolated from its social context is frozen into abstract ideas and methods. Each new phenomenon is thus assimilated with the proper rhetoric that the specific theoretical inclination demands.

There are overlaps with the metalanguages of sciences, art, as well as, of fashion, publicity and all other fragments of mass-culture. The individual specialist lives in an intergalaxial communication system of metalanguages from which all the rest of the people and he himself, to a variable extent, is excluded.

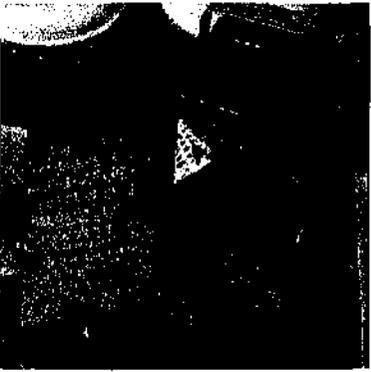
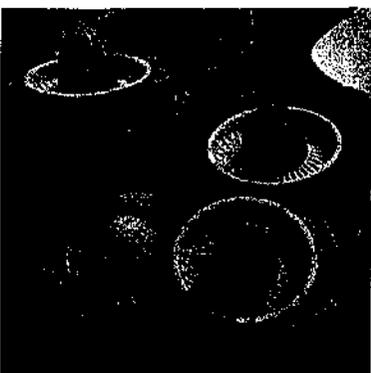
More and more the making, evaluation and consumption of any artifact is accompanied and veiled by an abstract intellectual knowledge of reality which tend to govern and dominate by replacing the meaning context of the immediate physical reality. This is not true for only the products of Modern Design. The traditional and the commonsensical survive, but not without the everincreasing assimilation and influence of the metalanguage. One can trace the change in the consciousness brought about by the terminology which has entered everyday life and used in referring to artifacts: cubic, modern, stream-line, technical (with a sense for precision and perfection achieved), functional...

There is no need to mention the assimilation of escapes and fantasies of traditional objects, dream objects and kitsch through intellectual interpretations.

Objects are analysed in their three distinct but inseparable aspects of form, function and structure. Each aspect becomes, like the object itself, an abstraction removed from the meaning context it used to or is going to belong. Like the prescribed exact correspondance of a product to the need it is to satisfy, an exact correspondance is prescribed between its form, function and structure. Rightness or wrongness of a function or solution relies on intellectual rules and principles of organization or empirically verified judgement. There is little or no interest in the intent and constitution of that organisation or judgement in the consciousness or its relation to the lived reality. Meaningfulness of a design or the meanings that inhabit it rely on an established system of meaning. Semantics is an inventory and classification of meanings of the 'sign-objects' which have become institutionalised in the consciousness of the people. The semantic evaluation of their life in the social context is



The practise by the very poor of using over-shoes over bare feet, because it is cheaper than any pair of shoes, was fed back to its design and manufacture. It was given a false shoe image. Cheap copy and the cheap-copy image is a well-established fact due to the differentiation of design according to income levels and the exploitation of aspirations. In this case, it is not a cheap copy, but only a resemblance that is bought.



Increasing dependence on objects of use 'designed' and sold leave the user in a situation of having a single choice or a choice among a number of basically the same products. Whether it is functional and the only possible solution to the prescribed function, or not, does not matter much. Created demand for the designed object through display and publicity is enough to make it mass-produced and sold to be used. At what level does the business of squeezing a lemon, grinding a carrot, or soaping hands?

like making an inventory of the rate of deaths resulting in car accidents - a fact which has become daily news as a side product of the design and production of cars.

LEVELS OF DESIGN ACTIVITY

There are different levels at which design activity is taking place:

- a) state institutions,
- b) private companies and sponsored institutions,
- c) private design offices,
- d) studios,
- e) workshops,
- f) any place, any time as human need and aspiration requires (so long as there is time, place and means.)

The people who participate in this activity range from the professional designers and engineers to technicians, anonymous commercial designers with little or no design education, commercial artists with art education or talent and experience, craftsmen and everybody else.

Through the professional body of specialists design is institutionalised as a specialised and organized activity which has an intellectually communicable system. Popularization through the media, shows and exhibits create a demand for it due to the competitiveness of the trade business, complexity and specialisation of problems to be solved, and, with its institutionalisation, disappearance of design activity from everyday life.

AREAS OF DESIGN PRACTICE

Some areas of design activity at various levels can be identified as :

- Design work which require and achieve sophisticated technology at a high institutional level (new products, new tools and processes, new materials)
 - . Military arms and equipment
 - . Technical equipment for scientific and institutional use
 - . Tools of production and extraction
 - . Tools and equipment for exploration under extreme situations
 - . Infrastructural networks
 - . Construction
- Design of consumer products (daily objects of use utilising a technology which resists 'real' innovation)
 - . For communal use
 - . For individual use
- Design at the user level
 - . Ad-hoc combinations, re-use, multi-use and personalisation of consumer products
 - . Artifacts which are the expression of a communal practice

Professional designer involved in modifying the form or in total design, individually or participatong in a group of specialists,



The advantages of a washing machine is not widely distributed due to:

- acceptance of levels of income as corresponding to certain levels of demand
- differentiated distribution of electrical energy

The level of income does not tell us about aspirations to what is considered to belong to a higher level of demand. With the end in view being human adapting, a consideration and promotion and promotion of these aspirations is necessary and should rule out the equation of a certain level of income corresponding to an ascribed level of demand.



is actually experimenting by isolating and defining the problem. Yet, he is doing more; he is bringing forth a solution embodied in the form of a product which will be introduced to the life world. Whether it be a new form to an old function or a new form for an unprecedented one, there are consequences which need to be tracked down. They are difficult to predict. The results hardly become an input for re-design. They enter the domain of sociological, economical and psychological analysis and may add only to the cumulative aspects of design. These analyses which employ similar experimental techniques are not more useful, in this sense, than market research which may make use of them in its major preoccupation with opening new and profitable fields for design products.

Designer due to his training and subject matter of his work, is more in a position to measure the distance of ideas to the everyday world than most specialists. Yet, unless he is involved in designs which are for 'real' use (not only under extreme situations) and not for trade value, and unless he has an understanding of adaptation and ecological principles, he will be limited in this capacity.

Design considers every possible item of use and applies its rules and principles (obsolescence, modernity, functional rationality, efficiency, dispensibility...) but not the adaptation of the flexible and spontaneous human behavior in ordinary situations. Technology with its achievements at higher levels has created a myth of progress and miracles in the consciousness of the people. It can be re-oriented to create the 'miracle' of transforming everyday life by supplying it with the means of restoring its power to create and adapt. This is a possibility that require alternative norms and values to operate. It does not, however, mean abolishing of misery through affluence and its distribution.

An evaluative scale of the designs and areas of the design practise can be developed as to their relation, distance or relevance to the concrete (theoretical and practical) life problems faced in human adaptation. Such a scale can also be developed for the problems of adaptation created by each area of design. These problems would be due to the designer dealing merely with symptoms and creating problems where they do not exist. If such scales were to be developed we would expect to find infrastructural networks and design at the user level to be more on the positive side of the scale.

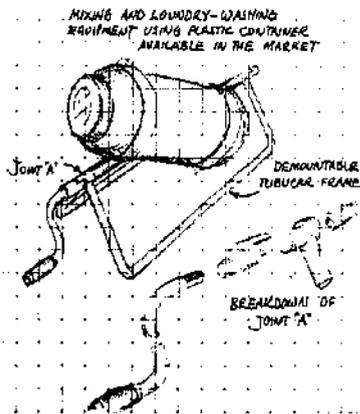
Basic presuppositions about the potential of mass-production for availability for all and social equality are refuted by a reality which has been organised and established hierarchically. This hierarchy is one of regions (developed and underdeveloped; rural and urban; poor and rich neighborhoods), institutions and social income and status. These constitute levels of distribution. Distribution of mass-produced goods vary in:

- . Kind - according to the type and sector of specialised activity defined.
- . Quality - according to the level of the source of demand.
- . Quantity - according to the market created and the market value to be maintained.

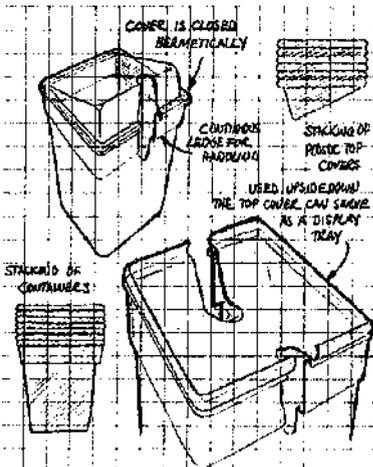
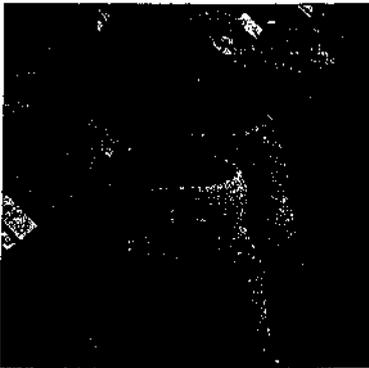
Neither the determination of kind, quality and quantity, nor their distribution can be told to be based on a rationality other than that of segregation and control achieved by controlling consumption. Designer's work, too, being related to production

and to such a control, is not distributed on any other pattern. Areas and subjects as well as ecological concerns neglected in this distribution have the need and potential for *re-design*. Re-design not for increasing sale or merely decreasing cost, but to adapt. Some characteristics of the method to re-design may be:

- . Recognition of the specificity of the context of design and relating the conceptual tools and concepts of design to the life as lived so that they come to develop and be modified in the process - separation of the conceptual and the perceptual, the theoretical and the practical are overcome ;
 - . Formulation of aspirations;
 - . Making available any level of technology, as required by the end to be achieved;
 - . Prototype put to use for user experience before finalisation and mass-production;
 - . Mass-production is a means for ease of production, removal of toil-some work and control of quality. Its use and development must be along an understanding of feasibility not based on an abstract notion of a quantity or value that will be economical to produce, but on social grounds where quantity is meaningful quantity corresponding to areas of need and actual requirements;
- Design to be evaluated and judged as well as participated in by the user.



One area where the designer can make a break through the established use and distribution of his expertise is the existing self or traditionally devised artifacts for communal use. The users can participate in the design and be the judge of the designed product.



UYUM İÇİN YENİDEN TASARLAMA

ÖZET

Kişi-eşya ilişkisinde kişinin eşya ile girdiği deneyim, o eşyaya karşı davranışı, vücudunun fizyolojik olarak aldığı şekil, ve eşyanın kendisi birbirinden ayırdelebilir, fakat bölünemez olaylardır.

Bir eşyanın ifade ediciliği ve yorumlanabilmesi kılğısal ve toplumsal bir anlam ortamını gerektirir. Kişi eşya ile ilişkisinde edilgen değildir; ifade edilenle, yorumlananın birbirinden bölünmediği bir anlam ortamıyla ilgisi kurulabilecek somut biçimlerden biri olduğu sürece, eşyayla girdiği her deneyim o eşyanın etken olarak yeni baştan oluşturulmasıdır.

Eşyanın algılanması, düşüncesinin oluşturulması, ve yapılmasının tümü birşeye yönelmişliği, amaçlı bir eylemi taşır. Yapma tersinmez, düşünce ise tersinebilir olaylardır. Bunların kişilerarası ve kişi için bir geçerliliğe dayanmaları uyum yapma değerini taşır.

Endüstri öncesi dönemde eşyanın yapılmasında olduğu kadar ifade edilmiş ve yorumlanması, dolaylımsız gerçeğin ortak duygusal algılanmasına dayanmaktaydı. Endüstrileşme, teknoloji ve bilim, ortaya çıkardığı ürünleri ile yeni bir algılanabilir gerçek yarattı. Dolaylımsız gerçek bu yeni gerçekle perdelendi; soyut ve kavramsalın araya girmesi gerçeği dolaylımlı kıldı. Eşyalar haklarında konuşulan ve yazılan birer simge oldular. Dolaylımsız algıya dayanan anlam ortamının yerini dil aldı.

Uzmanlaşma, uzmanların dışındakileri edilgenliğe yöneltti. Uzmanın dili her yere girdi. Bu ve yaratılan üst-dilin metalanguage empoze ettikleri ile Yaşantıyı denetim altına almadaki gücü iletişim araçları ile kılğısal olarak sağlandı. Üst-dilin önemli bir özelliği toplumsal ortamdaki yalıtılmış olması ve toplumsal ifadenin ürünü olmaktan çok uzak olduğundan, ideolojik, bireysel ve elit çıkar, ve efsaneleri empoze etmesidir.

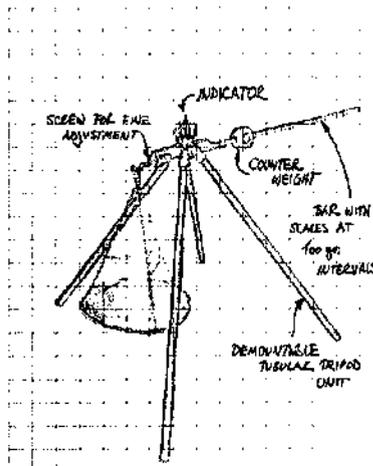
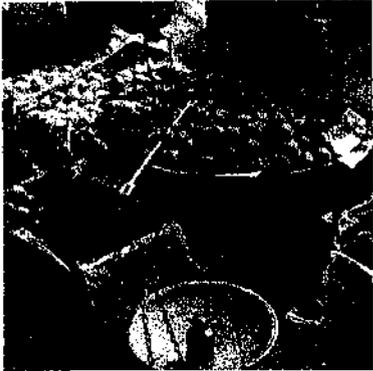
Batının endüstrileşmiş ülkelerinde üretimin makinalaşması, ve günlük yaşantıyı etkilemesi ile birlikte ortaya çıkan kitle kültüründe, uyum yapmanın yerini gereksinmeler ve bunları karşılayacak ürünleri reçete haline getiren üst-diller almıştır.

Üretimin makinalaşmasında buluşların üretimi arttırarak, üretim maliyetini düşürmedeki rolünü - buluşların artık önemsiz geliştirmelerden öteye gidemediği 19. yy. sonunda - üretimde bilimsel yönetim yöntemleri almıştır. Daha sonra, özellikle büyük kriz sırasında, ürünün kendisi ele alındı. Gerek ürün mühendisliği, gerekse endüstri tasarımı, ürünün daha ucuza ve daha az malzemeyle yapılabilir olması, çekicilik kazandırılması ve beğeni yaratılması ile, yani ürünün kendisinde uyarlamalar yapma anlamında bir "yeniden tasarlama" kavramı ile bütünleşmiştir.

Uzmanların kişisel ve ortak çalışmaları ile tasarımda bir üst-dil kurumlaştırıldı. Ürünlerle birlikte tüketilir duruma gelen bu üst dilin sembelleri ve mantığı teknoloji, sanat ve tüketim dünyasından alınmıştır. Tasarım üst-dili bilimlerin, sanatın, modanın, kitle tanıtımının ve kitle kültürünün diğer kültürel parçalarının üst-dilleriyle çakışır. Uzman geri kalan insanların ve değişen ölçülerde kendinin de dışında kaldığı bir

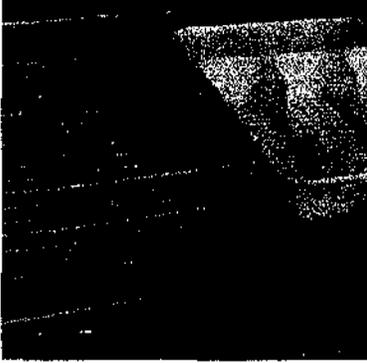


A portable vacuum-formed plastic container and sale unit. As a container, it can be used in rural and urban settings for keeping any kind of stuff, especially those that need to be prevented from dust and humidity, e.g., grain, flour, dried fruit, etc. It is a portable container for such stuff to be carried to and from the market places; the top, when turned over, can serve as a counter for display and sale.

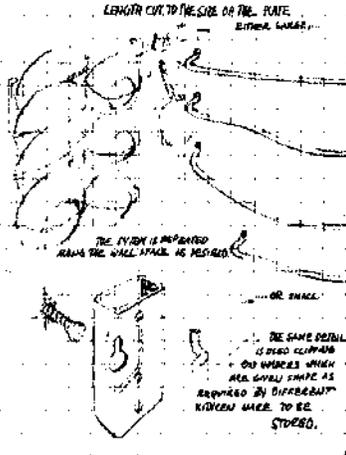


Weighing device that eliminates manual handling and use of 'loose' counterweights which currently prevail in the market place practice of weighing things.

There are good examples of the use of plastic technology, but not without lack of considerations, or rather, lack of a feed-back into design of user experience before deciding on the type and volume of mass-production.



These plastic units used for letting the water on the kitchen and tableware to drip off after washing them occupy much space on small kitchen counters. The traditionally wide use made of the wall-space could have initiated a different design solution.



Availability of materials easily responding to the user/maker and a few basic principles may turn out imaginative examples of what we call 'system design'.

üst-diller evreninde yaşar. Bir eşyanın yapıma, değerlendirilme ve tüketilmesi dolayısıyla fiziksel gerçeğin yerini alan ve egemenliğini kuran soyut anlıksal (entellektüel) bir bilgi ile perdelenmiştir. Bir tasarımın anlamlılığının ve taşıdığı anlamların yaşanılması varoluşsal anlamını örten kurumlaşmış bir anlıksal anlam dizgesi, bir üst-dil, ile bağımlıdır. Tasarım eylemi değişik düzeylerde yer almaktadır. Bir mesleğin uğraşısı olarak tasarım anlıksal düzeyde iletişimi olan, uzmanlaşmış ve örgütlenmiş bir eylem olarak kurumlaştırılmıştır. Bu kurumlaşma beraberinde tasarımın günlük yaşantıdan kaybolmasına, günlük yaşantının fakirleşmesinde atılan adımlardan biri olarak, günlük yaşantının "tasarimsız", dolayısıyla "stilsiz" oluşunu ve uyum yapmadan uzaklaşmasını getirmiştir.

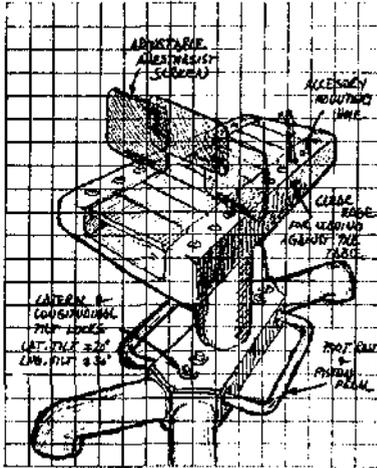
Değişik düzeylerdeki tasarım alanlarını, yüksek kurumsal düzeyde gelişmiş bir teknoloji gerektiren ve gerçekleştiren tasarım, tüketim ürünlerinin tasarımı, ve kullanıcının yaptığı tasarımlar olarak tanımlayabiliriz.

Tasarımcı, eğitimi ve çalışmasının konusu bakımından düşüncelerin günlük yaşantıya olan uzaklığını diğer uzmanlardan daha iyi ölçebilecek durumdadır. Ancak, değişime değil de gerçek kullanıma yönelik tasarımlarda bulunamadıkça, uyum yapma ve ekolojik ilkeler konusunda anlayışı gelişmedikçe bu yeteneğinde kısıtlı kalmak durumundadır.

Kitlesel üretimin toplumsal eşitlik yaratma ve herşeyin herkesin faydalanmasına açık kılınmasındaki gücü hakkındaki varsayımlar koramsal (hiyerarşik) olarak örgütlenmiş ve yerleşmiş olan gerçek tarafından doğrulanmamaktadır. Tür, nitelik ve nicelik olarak dağılım düzenlerini saptayan bu koramsal örgütlenme, bölgeler, kurumlar, toplumsal statü ve gelire göre olmaktadır.

Ne tür, nitelik ve niceliğin saptanmasının, ne de dağılımlarının, tüketimi denetleyerek bölme ve denetim sağlamadan başka bir rasyonele dayandığı söylenebilir. Üretim ve böyle bir denetimle ilişkisinden ötürü, tasarım çalışması da bu dağılıma uymaktadır.

Satış arttırmak ve maliyet düşürmek için değil, uyum yapmak için yeniden tasarlanmanın gerçek ve güçlü kaynağı, bu dağılım dolayısıyla ihmal edilmiş olan alanlar, konular ve ekolojik sorunlardır.



A surgery table that can be adapted so that it gives support for any bodily configuration required in various types of surgeries (simple or complex, of infants or adults.)

On the whole and in its details it is simple and economical; at the same time, it is a precise and responsive instrument. It could be made available to the small medical centers where it could serve doubly as a diagnosis table and for surgeries, from the simplest to the complicated.

A wider distribution of provisions for medical care and surgery require a design work that aims to provide solutions for neglected areas, for use under different conditions and by using any means that would be appropriate - without making discriminations.

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