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# On Forms Following Functions and Post-Modernism

By JAN MICHL

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I

The relation between form and function is a problem which invariably emerges in every discussion of modern design. In that connection the well-known functionalist rule FORM FOLLOWS FUNCTION is usually mentioned. Usually, however, there is too little time to discuss this rule, which is why I here offer these reflections.

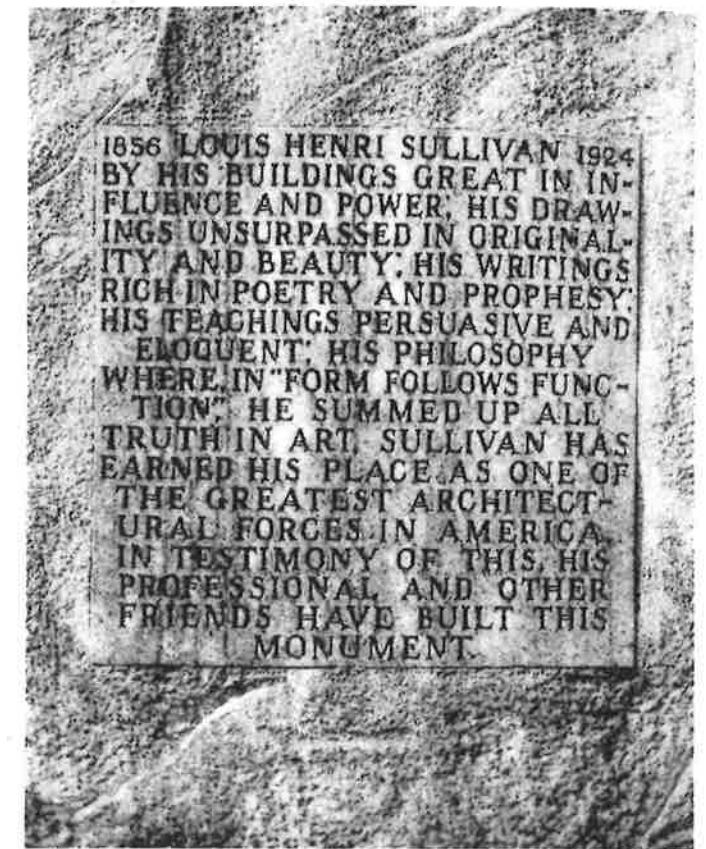
This is an important subject, I feel, because our respect for this rule, and our respect for post-modern aesthetics, seem to be growing mutually exclusive. If we have doubts about the feasibility of this rule – and by feasibility I mean whether it is at all possible for a designer to use this rule to obtain any definite non-subjective and non-arbitrary results – if we have such doubts, we will probably be more open-minded about post-modernism, as it seems to be defying precisely that rule. If, however, we believe that the rule FORM FOLLOWS FUNCTION is feasible, then we are more likely to view the

emergence of post-modern architecture and design with suspicion. For, if we believe that functionalist forms as we know them from 1920s and onwards were, in contrast to pre-modern forms, unavoidable and necessary results of functions – as the functionalists' own rule indicates – then we would hardly see any reason to stop practicing such a rule today. Thus we would have to believe, together with functionalists, that this putative method of deriving forms from functions does result in forms that are non-arbitrary – objective and independent of pressures of tastes and fashions. Above all, we would be obliged to continue to use this method because it would be the only way of achieving *moral* forms – moral forms because the only *true* forms, and the only true forms because the only true results of functions. And if we believe that such non-arbitrary, objective, true and necessary forms have been achieved by functionalists – or if we believe that such forms are at all possible – there is a further implication. We must view post-modernism, including the present exhibition, as an irresponsible and immoral movement, one which ignores the true forms as perversely as the pre-modern formalist periods did.

## II

Let us ask now: is the rule FORM FOLLOWS FUNCTION (or rather FORM *OUGHT* TO FOLLOW FUNCTION, since this is a rule, not a description) – is this rule really as practicable as functionalists seemed to believe, and made others believe too?

At first glance it may seem to offer some practical guidance. It tells you to let form be decided by the technical, or functional solution. But does it say anything more concrete? If we are to understand it as a practical rule, leading to



*The idea of a deterministic relationship between function and form can be found in writings of several design reformers of the last century. The best known wording of this relationship, the mesmeric formula form follows function, was coined by the US architect Louis Sullivan (1856-1924) in the 1890s.*

a definite objective and true form, it must mean that for one and the same function there is only one true form possible. Thus, for a tool serving one simple function, there will be only one possible true form of which it could be said that it really follows its function.

Now it is of course well known that even a tool with one simple function can be found in virtually myriads of different forms. The FORM-FOLLOWS-FUNCTION rule, however, would indicate that there is only *one* true form among these myriads. This presents us with two problems.

The one is how we should view all those forms which do not happen to have the true form. Will all be equally untrue, i.e. immoral? Or will some of those which are visually closer to the only true form, be considered more true than those which are visually entirely different? The major issue is, however, this: how shall we *know*, how shall we *identify* the true form? I am afraid that we cannot, by definition, find any objective criterion for such an identification. Nor can we ever hope to find one, for this simple reason: to identify the true form, and agree with others that it really is *the* true form, we would have to recognize it visually. But to recognize it visually, we would have to know this form in advance. Yet if we knew in advance what the true form of a certain function was supposed to *look* like, there would be no point in making the form follow the function: instead we could simply copy that known form.

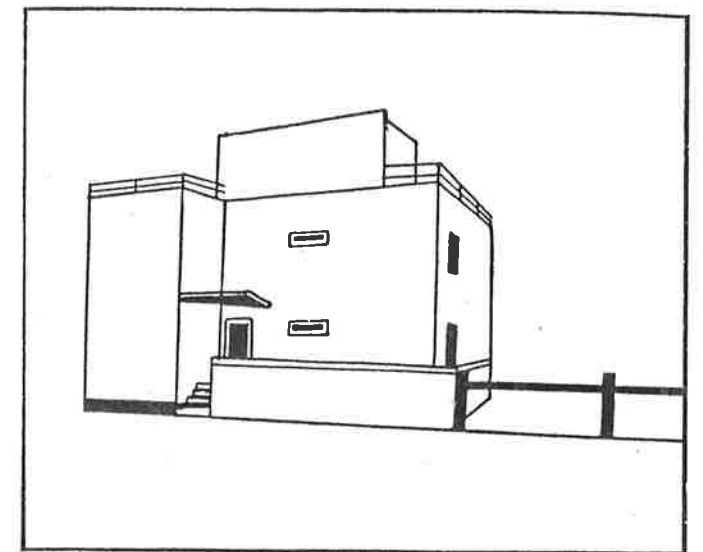
In summary then: it is impossible for a designer to obtain any definite form by making the form follow function. Even among functionalist designers, the same function will lead to dozens of different forms, but neither the designer nor anybody else can ever produce a visual criterion which would

make it possible to recognize the true form among the non-true ones. The very absence of such a criterion is nevertheless as strong an argument against the practicability of the functionalist rule as would be the discovery of such a criterion. While the absence of the criterion makes the rule impossible to use, the presence of such a criterion would make the rule superfluous. All this suggests strongly that functionalist forms as we know them could not have come about the way functionalists maintained, namely as the result of following functions.

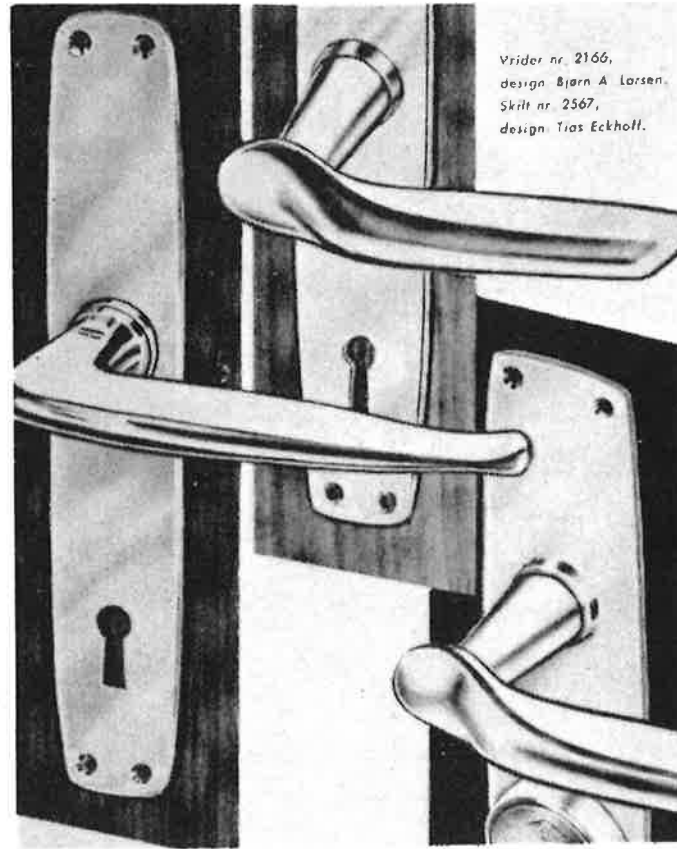
### III

Here it is natural to ask: how did the FORM-FOLLOWS-FUNCTION rule come to play such an important role in modernism? Let me try to outline briefly a possible answer. According to functionalists themselves, functionalism was a result of *material* determinants of the time. Now whatever we may think of this explanation, it is plain that functionalism as we know it would be unthinkable without the *immaterial* determinant of its time, i.e. the scientific, materialistic and deterministic interpretations of the world which were strong around the turn of the century and again between the two world wars. This view of the world became the functionalist *credo*.

In this deterministic view everything – both in nature and culture – was understood exclusively in terms of cause and effect. Notions like *choice* or *intention* – which constitute the very backbone of the common-sense understanding of all human activity including the production of new things – had no place in this scientific view of the world. Thus the idea of



*Functionalists maintained that the reason why their architecture and design was so strikingly different from the buildings of the past was that their forms were now determined by functions. There are, however, many reasons for doubting this explanation.*



*If form does follow function, then for one and the same function there must be only one form available. If we find two different forms for one function, as in case of these door handles, one of them, according to the same logic, must have followed something other than function. But how can we tell which is which, especially if both are modernist forms? (Illustration from an advertisement in BONYTT 1958.)*

man as *homo faber*, as producer of things, started to be considered an obsolete, antiquated and unscientific notion. It was replaced by the new, scientific discovery that the architect or designer was not really the creator of artifacts: he produced not through choice but through causal necessity. To be a modernist meant to face and accept the view that the designer is not really designer, but rather a sort of a medium through which the objective material determinants of the modern time operate.

This is in short the background to the FORM FOLLOWS FUNCTION idea: it is an embodiment of the strictly causal, scientific view of human activity. It is a statement of fact, and as such it is no doubt true: form does follow function. But the trouble with this statement, from the designer's point of view, is that it is true of any form ever intentionally produced by a human being. This statement is a general statement which is valid about every form in general – and no form in particular: it is true of any human product no matter what it looks like, or is going to look like. Stating that function comes first and form comes second means in fact no more than saying that first comes the cause and then comes the effect.

If you, as a designer, happen to be working on, say, a door handle and I come to you and advise you that cause must come first and effect afterwards, this will hardly help you in your deliberations as to what form to choose for your design solution: effect will follow cause whatever form you may choose.

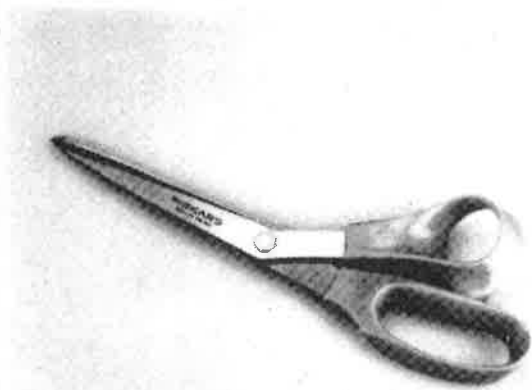
Modernists believed that the determinist conclusions of science – since these were by so many considered the new truth about all human affairs – must somehow be binding for

architects and designers as well. Neither the modernists nor the other protagonists of determinism were willing to see that such conclusions are always abstractions – abstractions from the concrete, generalizations from the particular and theroizings about the practical. And because they were abstract, general and theoretical, these conclusions could not at the same time be concrete, particular and practical; that is why they were useless in concrete, particular and practical situations.

This is the ultimate reason why an abstract, general and theoretical *statement* like FORM FOLLOWS FUNCTION cannot be made into a concrete, particular and practical *rule* for the designer.

Now if functionalism is not the result of forms following functions, how did functionalist forms come about? Here I am far from alone in believing that functionalism as a particular style must be seen in the first place as an employment and further development of Post-Cubist formalist aesthetics with its predilection for geometrical, technical-like shapes. It was in other words the formal experiments of the then contemporary art-scene – not contemporary technology or new functions – which gave birth to functionalist forms as we know them. It was Post-Cubist movements like Italian Futurism, Dutch De Stijl group, Russian Constructivism and Suprematism, Le Corbusier's Purism, and – in connection with design – also European abstract sculpture, which worked out the foundations of modernist formal language in architecture and design. On the basis of these foundations, several strong personalities among architects and designers developed a technical-like style. This was then presented in books, magazines and exhibitions as the right and proper and true, and by inference





Olof Bäckström's scissors for Fiskars (V-4) is a very successful design in which the form follows the natural forces of manual operations.

*When urged to explain why modernist forms looked the way they looked, modernist designers of the past sixty years have invariably referred to various kinds of objective factors. Such explanations, however, have in most cases served as a kind of excuse, intended to create the impression that the designer's subjective taste-preferences were absent when his designs were conceived. As the caption from the exhibition catalogue DESIGN SINCE 1945 (Philadelphia Museum of Art, 1983) indicates, to explain the designs one approves of by referring to factors other than taste (while reserving the taste-explanation for the designs one dislikes) is still common today.*

the obligatory style of our time. We may again summarize: functionalism, stripped of its rhetoric about forms necessarily following functions, reveals itself as an unconsciously formalistic movement.

#### IV

Here again it is natural to ask: how was it possible that a movement which understood itself, and presented itself, as a bastion of anti-formalism, could turn out to be a company of unconscious formalists? There would seem to be only one possible explanation, and a rather depressing one at that. Functionalists simply did not know what they were doing. This again, like the rule FORM FOLLOWS FUNCTION, had to do with their scientific – or rather *scientistic* – aspirations.

Having embraced the philosophy of necessity, functionalists considered the forms they produced, not as a result of their choice (for the idea of 'choice' would be considered unscientific), but as a result of necessity. Consequently they considered their own production basically beyond any suspicion of formalism, since formalism had to do with choices – and functionalists had renounced choosing!

Now if a person starts believing he acts not by his own decisions and choices but by some kind of necessity, certain things are bound to happen. The first problem he can stop bothering about is the problem of making mistakes, for such a thing has ceased to exist for him; now he can be certain. A mistake can exist only where a choice is believed to exist. Once he is certain that there really are no choices, he can consider himself a spearhead of necessity – historic necessity in case of functionalists – and then he has no use for reflection.

Because again, reflection is useful only for those who do not consider themselves owners of the Truth with capital T, those who are aware that they keep choosing and who consequently feel themselves in danger of making mistakes.

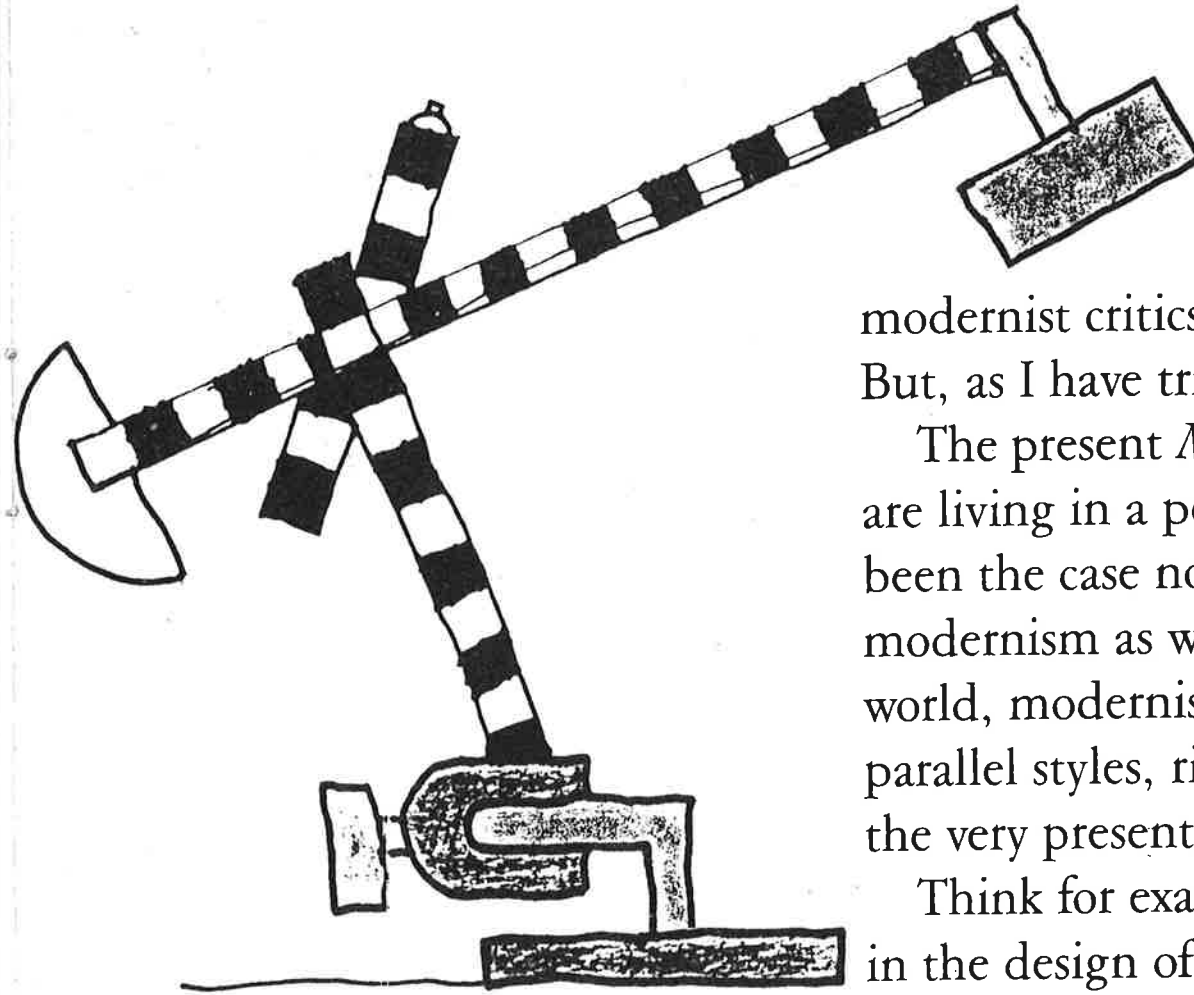
So as a consequence of believing in their historic mission, functionalists had no use for reflection, because by virtue of their belief they felt themselves beyond fallibility. Their quasi-religious belief in necessity made them blind to the possibility that their belief – like all beliefs – might be a self-deception, a piece of wishful thinking, an excuse for bolstering their self-esteem and for legalizing their formal preferences.

In saying this, my intention is not to criticize the fact that functionalists were formalists. I have nothing against formalism as long as it does not sail under a false flag, nor have I anything against functionalist style. What I nevertheless think was so destructive with functionalism, was the almost total lack of self-reflection on the part of functionalists, which resulted in their never quite understanding that their movement was formalist through and through, and that it never could be otherwise.

## V

The conclusion that functionalism has really been a formalism, and that there are no grounds for considering it a morally superior formal language, is, I feel, the major key to appreciating new, post-modern formalism in general, and the present exhibition in particular. For if it were possible to prove the moral claims of functionalism, based on the belief that functionalist forms follow functions and that these forms have consequently nothing to do with formalism – if it were indeed possible to prove this claim, then I am afraid we would have to join





*One way to define post-modernism would be to say that it is what is done by designers who ceased to believe that forms follow functions. Despite all the modernist rhetoric to the contrary, designs ultimately always follow the designer's intentions. (Drawing for a lamp by Michelle De Lucchi, 1981.)*

modernist critics in their rejection of post-modern formalism. But, as I have tried to show, such a proof does no exist.

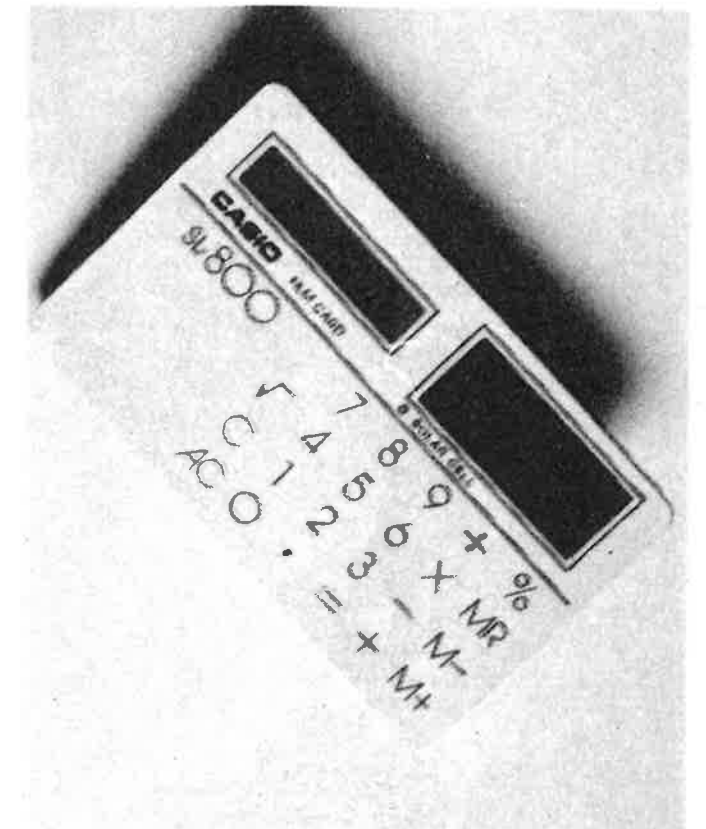
The present *Mephis* exhibition can serve to remind us that we are living in a period of stilistic pluralism, and that this has been the case not only *after* modernism, but actually *under* modernism as well. Even if we limit ourselves to the Western world, modernist design has always been only one of several parallel styles, right from the beginning of the century to the very present day.

Think for example of the continuous stream of historicisms in the design of furniture and tableware which has been largely ignored in design histories, as if it did not exist at all. Why have design historians paid so scant attention to this undercurrent, this *under-modernism*, as it might be called? There seem to be two reasons. The first is that, as a consequence of modernist self-advertisement, historicist design was considered immoral and consequently inherently inferior. But since we know that there are no *moral* forms really, this can no longer be an excuse for such omission. The second reason for ignoring this kind of design is that it has too often been rather poor. But it has often been poor because – again as a consequence of modernist self-advertisement – top designers would not dare to accept such commissions, since these were considered both immoral and purely commercial, and designers would not risk losing their professional prestige.

Consequently, mostly designers of less than the first rank accepted such commissions. But there is no reason why these things cannot be done much better, with far better taste and artistry, as soon as quality designers are willing to accept this kind of work.

The present exhibition not only reminds us of the existence of stylistic pluralism: it would also seem to provide evidence that such pluralism is becoming legitimate again. The idea of pluralism – meaning that no particular style is ‘obligatory’, and that all styles are optional and in principle mutually tolerant – would imply that this exhibition does not present us with a choice of either accepting and practicing this style, or of falling behind. We can, but we do not necessarily have to, start re-using and re-interpreting cubist and pop-cubist forms of Art Deco, as *Memphis* designers seem to do. We can, but we do not need to, import post-modern forms from Milan or California. Every country has a large reservoir of formal traditions of its own, now after the demise of functionalism being gradually made accessible for new formal interpretations and novel use.

This does not, however, mean that the functionalist style is dead. In some areas, as for example in ‘hard’ industrial design, it will with all probability continue to be used, undisturbed by formal novelties such as *Memphis* represents. But even in those areas, functionalist style might be used with a liberating recognition that it is a style to choose among other possible styles, and not a necessary result of forms following functions.



**Casio 'SL-800' Calculator, 1984**  
*New technology offers designers extraordinary opportunities. The Casio 'SL-800' has the power of a computer in a package the size of a credit card . . . but what should it look like now that function has nothing to do with form?*

◀ According to some designers, miniaturization of electronic components has brought about an entirely new design situation. It is maintained that since in many electronic products the traditional mechanical functions are almost absent, designers no longer know what the electronic products should look like. The idea seems to rest on a mistaken assumption that modernist forms until now really were determined by mechanical functions. (The illustration and caption come from THE CONRAN DIRECTORY OF DESIGN, edited by Stephen Bayley, London, 1985, p. 63.)

#### Four books for further browsing

BROLIN, BRENT C.  
*Flight of Fancy: The Banishment and Return of Ornament.* London: Academy Editions, 1985, 340 p., 274 ill.

COLLINS, PETER  
*Changing Ideals in Modern Architecture 1750-1950.* London: Faber and Faber, 1965, 310 p., 16 ill.

PYE, DAVID  
*The Nature and Aesthetics of Design.* London: The Herbert Press, 1978, 160 p., 47 ill.

TJALVE, ESKILD  
*A Short Course in Industrial Design.* London: Newnes-Butterworth, 1979, (207 p, 209 ill.)  
English translation of *Systematisk udforming af industriprodukter: Verktøjer for konstruktøren.* København: Akademisk forlag, 1976, 233 p., 201 ill.

