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Hans Loidl\_Stefan Bernard

*Opening*  
*Spaces*  
Design as Landscape Architecture



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开放空间：景观建筑设计

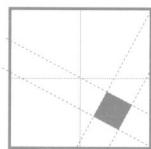
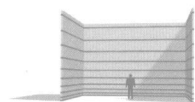
## [1] Form and forming



## [2] Designing and design



## [3] Space - place - path



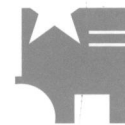
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#### [4] Design qualities



## Talking about design – a few introductory remarks

Can one (two?) talk about designs and exchange ideas about their qualities and defects in words, or would it be better to take as many designs as possible and show how they came into being (preliminary sketches, formal “building bricks”)? Can there be any way of verbalizing design that is more than just a colloquial version of something that the design itself says much more clearly and unambiguously?

And then another thing: what are we supposed to measure this sort of discussion against – if we think it is possible to have it at all? Are we not all too well aware that designs are largely ambivalent, imprisoned in a mass of detail or necessarily imprecise, or that essential information for realizing the concept is kept from the viewer?

Any attempt at analysis rapidly changes designs into a dead construct. Wouldn't it be better for absolutely all of us to get away from that as quickly as we can, and move on to the living work, or at least to images that are as close to reality as possible, and to talking about concrete things rather than drawn abstracts?

We know that historically we have always talked about design, and we still do today – in juries and professional magazines, at presentations or in the design groups themselves – and this definitely suggests that a viable link between word and design might emerge.

One reason could be that sign language and word language are coded very differently. So translation (both ways) seems helpful and necessary: it allows us to distinguish a subsequent reality from “seduction” by the design presentation. We can use language as an effective corrective to blurring and deception by colours and graphic games, resisting moving images and “beautiful pictures”.

That would be an “enlightened” argument. It is of course not enough.

The second reason also lies in the coding. The pressure to translate from a graphic sign into a linguistic sign, from images into words, always represents a thrust towards abstraction, a linguistic reduction to what is essential in

the image. This verbal transformation “automatically” makes principles clearer, or happens across them for the first time, shows themes and reveals connections. If we don’t (can’t) talk about designs, we are missing a chance to evaluate designs that is as simple as it is important. Movement in the opposite direction, translating linguistic abstractions into their pictorial equivalents, for example (pictograms), is just as important, and one of the most difficult and debilitating activities in the whole process of conveying design (anyone who has agonized painfully and endlessly over the correct way to represent a principle that is already perfectly clear from discussion will be all too aware of that).

The third reason – and an important one for this book – plops down from the tree of the above arguments like a ripe plum: I can only talk meaningfully and productively about something if the people I am talking to “speak the same language”, understand me and I them, i.e. if the semantics of my word/concept are largely the same as the other’s. And that is the snag: something that is taken for granted, indeed often constitutive, in the exact sciences, i.e. a fundamental understanding of certain concepts, (unfortunately?) does not apply to landscape architecture, architecture and similar creative disciplines. Here a conceptual Babel prevails, and putting your head over the design “description” parapet gets a little risky.

And for as long as we do not understand (to some extent) what we want to say to each other, talking to each other about design is an idle game (but still one that is often played).

If we can’t talk about it, can’t identify qualities and deficiencies precisely, then an important chance to improve things is being missed [1].

So this book attempts – or rather is compelled – to use more precise concepts about design and its content, components and qualities. We hope that this will make the content itself intelligible, and could perhaps help to cut the linguistic Babel of landscape architecture down a little.

[1] “One should always say what one sees. And above all – and this is even more difficult – one should always see what one sees.”  
(Le Corbusier)



## “In the form of open space”

At a medical conference in 1837, a French doctor called Marc Dax delivered a paper about his work with aphasia

[1] Aphasia: an inability to speak or understand speech as a result of brain injury. Difficulty with processing right-hemisphere, intuitively grasped material in the left hemisphere, logically.

[1] sufferers. He had observed that these patients had damage to the left half of the brain, whereas the right half seemed to be uninjured. Dax concluded from this that the two halves of our brains control different functions, and that the left hemisphere is responsible for our ability to speak.

Dax's ideas were not accepted at the time, but now the “hemisphere” theory is one of the foundations of modern brain research: it postulates that human perception and information processing are based on interaction between the intuitive right half of the brain, which specializes in rapid recognition and comprehension of connections, of form and space, and the logical (verbal) left half, which operates analytically and sequentially (linearly).

These insights are crucially important for this publication, which deals with design, with forming (landscape architecture objects): the perception of form (in other words the perception of landscape, space or nature as well) is a right-hemisphere action: our brain abstracts [2] large numbers of the individual pieces of information that impinge on us to make them “simple”, manageable and coherent – a gestalt.

[2] Abstraction in the sense of reducing diversity: cutting out (detailed) information with the aim of seeing essentials (more clearly).

A sobering thought for all designers: in fact whatever designers dream up and realize affects the formal perception of landscape architecture objects only to a limited extent: (a number of other parameters, situative variables that the designer can scarcely influence, have their own very definite parts to play. These include the weather (rain, sun, dark clouds, broken cloud, heat, cold, storm, light breezes etc.), the seasons, the time of day (the incredible interplay of colours at sunrise, hard shadows at midday, the softness of twilight etc.), the number of other users (the happy school class on the main pathway, the couple on the edge of the wood etc.) but also the robin singing in the bushes or the rumbustious drunk on the adjacent bench. This list

could be continued ad infinitum. All these parameters are "simply there", are permanent and more or less simultaneously effective, but just in different forms, relating to each other at different force levels. Objects in landscape architecture simply have to let these parameters "go over their heads", "put up with them", sometimes "suffer them". But often it is precisely these unpredictable elements that can create moments of intense harmony in their interplay with a designed landscape.

Perceiving form (in landscape architecture) – a right-hemisphere experience – is thus always more, and always more complex, than the things the designer really can affect. So what does the landscape architect actually do as a designer? The – admittedly materialistic – answer has to be: landscape architects distribute solid items within an area that is being worked on topographically and structurally; they design starting-points, signs, with the aim of (gently) leading and accompanying users to create form (or space).

Given the complex way in which form is perceived, we have restricted ourselves in this book to the "feasible", to what the left hemisphere can manage to say. Above all, we have reduced the phenomenon of "landscape architecture" to make it "tangible", "comprehensible", in other words morphological.

We hope that it will be possible to discern this.

[Stefan Bernard, April 2003]











*To find you in the infinite, must distinguish, then unite.*

*J.W. Goethe*



[1]

*Form and forming*

Forming – creating, designing – is a search for form. Form means coherence, unity. Forming means reacting to connections, and creating them. We  are ways in the middle. Without us there would be no forming process and no form. That is why this first section deals with the phenomenon of form and how people perceive it. We will show how our mind makes a  into a , and why shape can become form. We will see that we seldom see what we think we see  and why form is the mental result of our subjective prior experience. We will show that we always see a  as a , even if it looks different. And finally we will say what all that has to do with open space and how form is imposed upon it.









## — Point - line - area - solid

The **—point** has no dimensions and is non-directional; it has no spatial extent, so people can't imagine or represent it. Points can only be approximated by small round areas  in drawings. The **—line**, as a one-dimensional phenomenon, is a further development of the point, a directional sequence of points , as it were. This means that the line too is an idea [1] we

[1] Ideas, in Plato's sense, are phenomena that exist in our consciousness, even though they have never been recorded by our senses (our prior experience).

cannot imagine. For an approximative representation we show it as a longitudinal area . The

**—area** exists in two dimensions. This too exists only as an idea, as any area, however thin, will have a certain thickness, in other words an extent in the third dimension (and thus becomes a solid). In drawing, areas can be represented by outlines   and/or by the content of the area  . We can use point structures (**textures**)  , sequences of lines (**structures**)   or **colours** to represent the content of an area.

**—Solids** are three-dimensional and thus form the "real" components of the world around us, which we perceive with our senses. Even so, if they are to be drawn we have to go back to ways used for representing the 1st and 2nd dimensions (point, line, area).

## — Order

If a solid is represented in a drawing by its outlines , we see it [2] as three-dimensional, corporeal. If a solid is repre-

[2] Given the appropriate prior experience in seeing (cf. p.17, 19: context and prior experience).

sented by its surface (e.g. by hatching) , in order to understand it ("Aha, a solid") we need

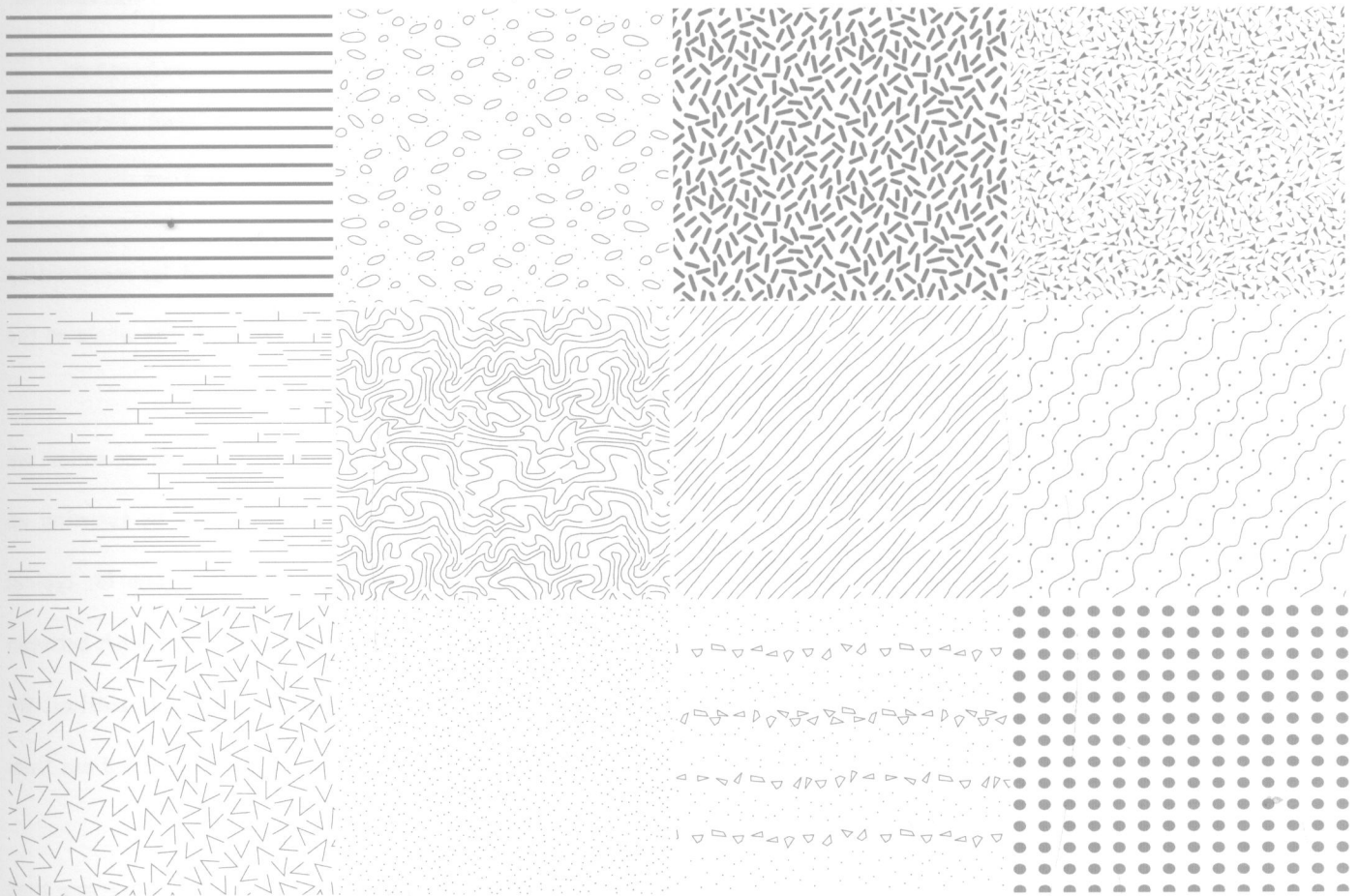
several different orders or arrangements for the chosen structure . The term **order** means regularly juxtaposed (ordered) indi-

vidual items (here: lines). The line itself is again the ordering concept (the context) for the regular sequence of points  (see above). An area is the ordering concept for the two-dimensional arrangement of several enclosing individual lines (out-

lines) ; it can also be the context for one  or several structures (linear structure) . Here the theoretical

line joining the end points forms the outline of the area.

Structures (linear structures) and textures (point structures) create a two-dimensional effect because of the way they are ordered. The more alike and uniform they are, the more clearly they stand out from their surroundings as a coherent entity, the more precisely the outline shape stands out from the area, the more clearly we are aware of its independence in the context.



> Areas created by structures and textures



Simultaneous representation of solids or areas by outlines (contour) and area character (structure, texture, colour) is not usually to be recommended. But if it has to be done: the more weakly an area is defined by its outline the clearer (more unified in contrast to the surroundings) the content of the area should be. And vice versa.



## — Shape and form

Outlines, structures, textures, colours and differences in brightness are the (limited) devices at our disposal for representing areas and solids by drawing; equally they are the prerequisite for our ability to see [3] solids, in other words the whole of the three-dimensional world that surrounds us, at all.

[3] What we "see" is a two-dimensional image on our retina of the three-dimensional world.

But for the complex requirements of human existence it is not enough simply to recognize solids; we have to be able to distinguish different types of solid from each other. For this reason we "give" them form by summing up different solids as units, so that we can recognize our surroundings more quickly. In this way, form is a term for typical arrangements of different qualities that make it possible – on the basis of our prior experience – for us to distinguish between visible characteristic-structures (solids) by seeing characteristic combinations of such qualities together as large entities. We call such structures made up of individual visual formations **form**. They are typical of our experience and clearly stand out from their surroundings (context).

The terms shape and form can be used analogously for (two-dimensional) line structures. But for solids "shape" is a step that leads to "form": their (out-)lines make up shapes that can be summed up as forms.