

Architectuurstudio HH, Diagoon housing, Delft,
The Netherlands, 1970

Diagram showing the relationship of floor units, and
plans and sections of typical floor units.



THE COMPETENCE OF FORM AND SPACE WITH REGARD TO DIFFERENT INTERPRETATION

Herman Hertzberger, founder of Amsterdam-based Architectuurstudio HH, espouses the view that to be effective space needs to be flexible, organic and open to interpretation, fit for purpose in an increasingly dynamic and uncertain world. But what does this mean for architectural space? How can architecture be a sufficiently blank canvas to accommodate changes in use while retaining its meaning, quality and identity? How might a ‘polyvalent’ approach be applied in such a manner as to enable buildings to cater for the unexpected?

The more narrowly you keep to the programme of your brief, the less you will be at the service of your client and, ultimately, of the community as a whole. This applies especially to the meticulously enumerated dimensions of spaces, now a firm fixture it seems, where each square metre is presumed tamed and with an indestructible penny-wisdom it is assumed that everything has been done well and done to advantage. Yet even before the building is taken into use the dream is dashed when this state of affairs fails to square with the demand, which has been modified in the meantime.

When designing a professional kitchen, not the least specialist of subjects, Architectuurstudio HH consulted the person we took to be the most appropriate and best informed – the chef who was to work in it. We then sought to determine with great accuracy all the distances between appliances and their relative positions as well as the right places for waste discharge, vapour extraction and other specifications vital to the kitchen’s proper functioning during all routine activities. When it was taken into use, however, we found a new chef we had never seen before wondering in stupefaction who on earth had thought up what to him was a totally unworkable situation.

That need to have everything under control fosters the compulsion to find lasting solutions for each component, which in turn leads to a fully crystallised outcome appropriate to some fictional static final state where everything is arranged for eternity; that is, where everything is hermetically defined, provided with a fixed meaning, an enclosed world devoid of freedom and change. As long as this illusion persists, more buildings will soon prove to be unusable and past their prime, condemned to an increasingly short useful life.

The more dynamic and uncertain the world becomes, the more space we have to leave: space for other ideas, for other eventualities, for time. We therefore have to avoid excessively specific responses and instead concentrate on all aspects that are adaptable and thus capable of accommodating change.

On the face of it, generic space would seem the best antidote to the constant changes in purpose and identity of buildings in the name of sustainability. Yet we should not simply strip architecture of all its qualities and meanings, leaving only a blank slate, without designing it so that it has precisely that competence to absorb (and also reject) all those qualities and meanings. Architecture must always have that competence, availed as it were of an inherent charge that can generate specific responses to each new situation.

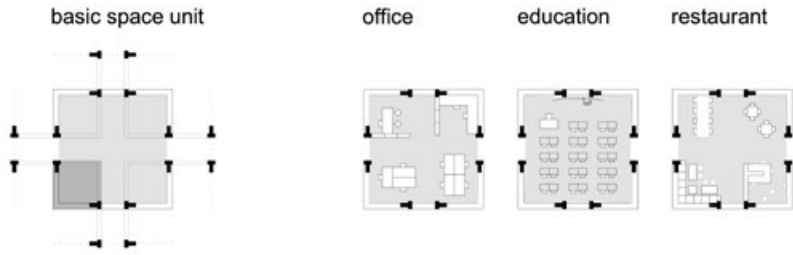


Architectuurstudio HH, Slingertouw elementary school, Eindhoven, The Netherlands, 2011
Sunken spaces for pupils to work on free projects.

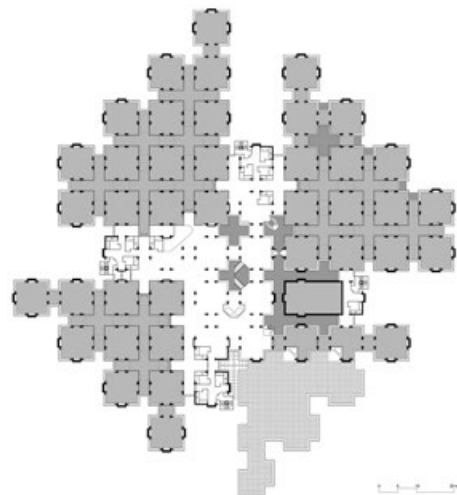
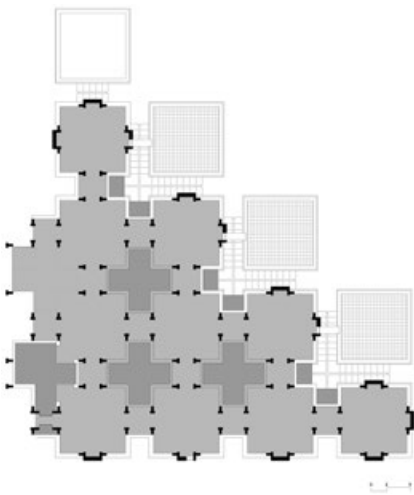
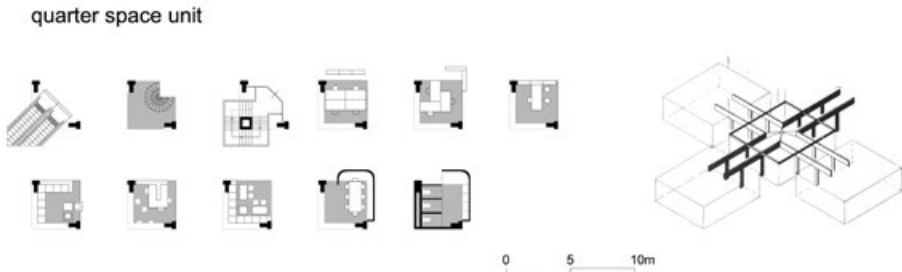
Instead of leaving out as much as possible, polyvalence entails introducing the greatest number of spatial conditions that can play a part in every situation whatever the function, and can simply be put to use on each new occasion.

This therefore presupposes, in contradistinction to the passive attitude to possible applications as in generic space, what is in effect an active stance that we call 'polyvalence'. The difference between multipurpose and polyvalence is that in multipurpose the design is deliberately made to suit the different predetermined ends, whereas the notion of polyvalence is where it is not established beforehand how a form or space will act in unspecified situations, in effect providing it with a competence to be able to handle unexpected applications. By looking ahead to these situations and designing the form of buildings and spaces accordingly, armed with what we know about general human behaviour, polyvalence can be said to provide for the unexpected.

Instead of leaving out as much as possible, polyvalence entails introducing the greatest number of spatial conditions that can play a part in every situation whatever the function, and can simply be put to use on each new occasion. All such facilities do nothing to hamper the freedom of users, even in situations where no direct application presents itself, but rather arouse and incite them to a more intensive use of space. Unlike the indifference of generic space, polyvalent space is essentially suggestive of that which presents itself. It is, in fact, what we call 'inviting form'.

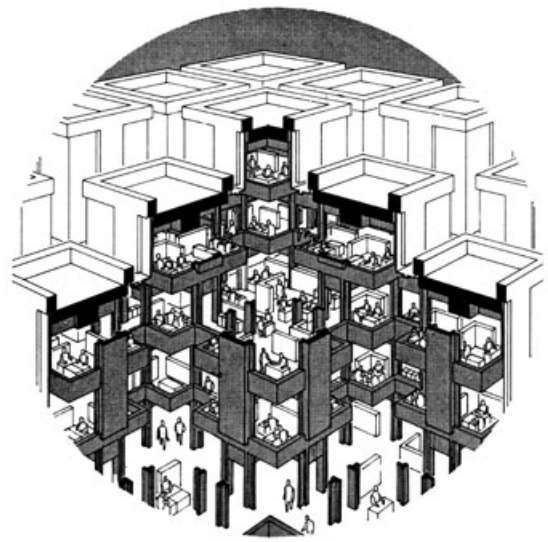


Architectuurstudio HH, **Centraal Beheer office complex, Apeldoorn, The Netherlands, 1972**
 Typical floor plan (below); quadrant of workspace (bottom left); schemes to indicate the different use possibilities of typical space elements (left); impression of 3D working space (bottom right).



As an illustration of polyvalent space, we can articulate a floor surface area as separated repeated space units. Thus, for example, the concept of the Centraal Beheer building in Apeldoorn (1972) consists of the consistent repetition of a single-space unit of 9 x 9 metres (30 x 30 feet) as a building block that can be subdivided into four 'places' of between 3 x 3 metres (10 x 10 feet) and a maximum of 3.5 x 3.5 metres (11.5 x 11.5 feet), depending on the in-between space left for circulation. The connecting bridges between pairs of contiguous 'islands', moreover, generate a further 'place' of analogous dimensions.

We chose these particular dimensions to accommodate the working components, but they are equally effective for the restaurant, toilet blocks and, on further consideration, for exhibitions, while a later study revealed that educational institutions could also fit effortlessly into this module, often with surprising results. These space units of explicit form thus prove to be independent of specific functions and interpretable; in other words, they are polyvalent.





**Architectuurstudio HH, Centraal
Beheer office complex, Apeldoorn,
The Netherlands, 1972**

Typical space unit (above); spatial
relationships of different floor units (right);
buildings as settlement (below).





In this way, it is also possible to design houses without coercively imposing such designations as bedrooms, dining room, living room and the like. The Diagoon housing in Delft (1970) consists of stacks of four equal living units that can be dedicated by the residents as they see fit and in accordance with family make-up, preferences of orientation and desired relative positions of the different domestic activities.

The stepping-off point in each of these examples is a basic organisation of places suitable for groups of, say, eight people in different settings, maybe with minor modifications if not a perfect fit.

Generally, polyvalence stands for quality, a quality that gives people a reference point and even incites them to turn their living environment into familiar ground while leaving how this is done up to the individual. That quality can be achieved not by reducing partitions to the minimum necessary but by making them fundamentally inclusive. And this requires breadth, or rather depth, for the space unit to be able to take up ever-new content and still remain itself: inclusiveness as a structure open to interpretation.

Polyvalence is premised on deliberately charging everything we make with points of leverage as opportunities for application and, accordingly, for interpretation. We describe a form

or space as 'polyvalent' when it is equipped with what we can call concealed availability, to be discovered by users when they appropriate it. A polyvalent form can be added to, and therefore given another content, without undergoing essential change, the difference in interpretation illustrating its suitability for multiple ends. Unlike the pre-programmed possibilities of appliances, polyvalent forms reveal their qualities with use, the way an instrument's output depends on the input of the player. Polyvalence is a broadening of the necessary minimum that in each situation can contribute to the quality of life and experience by targeting what can be regarded as universal, if usually unconscious human motives such as are expressed in ever-new guises.

Though we know little about future needs, by proceeding from the sum of all we do know, in other words from the past, and given the glacial speed of evolution, we should not be too far off the mark. To that end we need to ascertain which spatial qualities keep recurring throughout history, albeit in ever new forms, from which we can assume that they have played a key role for people everywhere and of all times and therefore possess a greater significance than the merely incidental. These are spatial means of apportioning enclosure and views, light and dark, of emphasising 'linger power', in

Diagram showing the relationship of floor units, and plans and sections of typical floor units.

Spatial relationships of different floor units.



other words of dimensions commensurate with the number of people and with what these expect, and in particular all means of articulating the space so as to generate the maximum competence for place.

Polyvalence is able to step up the potential, the competence of a space without emphasising its components by giving them expressive form. If generic space is about freedom and leaving out as much as possible to that end – reduction in other words – polyvalence is the outcome of the opposite, namely adding basic conditions for increasing the quality of the space – in other words, concentration – though stripped of too much expression. We seek to distil the essence without lapsing into too explicit a response.

Uncertainty about future use and thus leaving space for other use, by other users, means we should abstain from over-specific and over-expressive fabrications. A building should listen more than it should speak. Architects must provide, independently of changing designations, not neutral buildings, but buildings with character, explicit, recognisable, authentic, original yet without imposing a particular taste and without deriving their characteristics from the function or designation.

What we seek to achieve, in fact, is the programme for a 'programmeless' building. For this we must concentrate on what every conceivable building needs and what consequently must be regarded as the basic condition of architecture; that is, what people in every conceivable circumstance may expect so as to feel at home in their living environment. These, then, are the qualities of space as are given form in buildings, properties that belong to and, as it were, resonate with the basic human qualities that relate to the way we experience space. ▢

Translation into English by John Kirkpatrick

This article is part of Herman Hertzberger's book Architecture and Structuralism: The Ordering of Space (nai010 publishers, 2014).