Schoolhouse architecture: the response to social change

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The past few years have seen a growing dialogue develop between the architectural and the educational worlds on the issue of schoolhouse design. Two recent projects in Switzerland illustrate this well. The first is the Leutschenbach school building in Zurich, a picture of which you will find on our symposium website. In this case the school's principal was appointed as early as the planning and construction phases for the new building, and was involved in all the key discussions and decisions of the architects concerned. Our second example is the new building at Thurgau Teacher Training University (Pädagogische Hochschule Thurgau). Here a member of the university board was involved in all the work, from initial planning to the handover of the finished building. That person is Urs Dörig, who co-wrote my presentation today. Urs first studied to be an architect before becoming a teacher trainer, so he's ideally qualified to assess and comment on the present dialogue between the architectural and the educational worlds – a dialogue which, we are both convinced, will only increase in importance as time goes by.

Forty years ago, when another building was erected for the Thurgau Teacher Training University, this dialogue simply didn't exist. From today's perspective, it seems amazing that the architects of the time made hardly

any attempt to consider the needs of the teaching and learning processes involved when they drew up their plans. Their thoughts were dominated instead by what kind of design would best fit into the local topography and among the existing buildings. To be fair, they did strive to create the best possible environment for the student community. But there was no discussion between the architects and the educationalists on the interplay between space and learning processes. The educational discourse was totally separate from the architectural one. All the architects had were the bare parameters: room areas, window sizes, the number of music rooms needed, and a specific demand for raked auditoria for the chemistry and physics departments.

Things have clearly moved on since then. Indeed, our symposium today is proof in itself that this dialogue between dissimilar discourse styles, as Lyotard would put it, is very much alive. And we would like to show you what we feel this dialogue can give us, in the form of five architectural responses to social change in the field of schoolhouse design. Didactic considerations are not the prime focus of our presentation, and will play only a peripheral role.

1. Philosophers such as Jean-François Lyotard and sociologists such as Zygmunt Bauman have tried to use the terms “Modern” and “Post-Modern” to describe social change. By Modern they tend to mean largely stable conditions, established traditions and conventions, safety and security through personal and institutional ties and definitive “right solutions”. Post-Modern, by contrast, tends to mean accelerated change and volatile times, shifting identities and fragile habits, ever-loosening ties, uncertainties and insecurities. Under this kind of analytical approach,

today’s highly-industrialised societies are showing fewer and fewer facets of the Modern and more and more Post-Modern credentials.

If we really are living in an age that features such Post-Modern elements, we can also expect a fair amount of uncertainty in the educational field. It may, of course, be hard to say what “good teaching” is with any confidence or certainty: the scientific findings on this are changing all the time. “Right” solutions are never definitive, and are only relative at best. Teaching and learning arrangements can also come in many shapes and forms. The only real consensus tends to be that a didactic monoculture is problematic, and that students must gain their view of the world through a wide range of social situations and through their own activity.

This in itself has repercussions in architectural terms. It means that the internal structure of a schoolhouse must be flexible enough to meet the needs of a wide range of learning situations. It means the building’s architects must endeavour to provide solutions that are not final, and develop spatial concepts that can be changed. It means that the uses and functions of the rooms should be predefined as little as possible. And it means that flexibility is essential.

The 40-year-old building at the Thurgau Teacher Training University which I mentioned before is in some ways a negative example of what I have just said. The raked auditoria were intended to ensure that all the students could view the chemistry and physics experiments demonstrated and follow the lecturers’ remarks. They were pretty sure at the time that this was a good idea: they cast the steps in concrete! Today’s lecturers, however, would be more than happy to get rid of the raked seating and use the rooms in other ways – to have a more multifunctional space, in

other words. But for that, the whole building would have to be pulled down.

The new building at the Thurgau Teacher Training University, by contrast, is a positive example of flexible spatial design. The only load-bearing walls are the building's outside walls. Thanks to this, and to mobile elements and mechanically-deployable dividers, the inner space can be very flexibly used. Rooms can thus be temporarily created for a wide range of uses, from large-group gatherings to small workshop or even studio events. If experience shows that certain interior walls need to be installed or removed, this can be done without major technical adjustments, because none of these will be load-bearing walls. (One interesting side-effect of this is that the lecturers and the students come to feel less like objects within the building and more like subjects who are co-designing the space available.)

2. Architecture's response to the loss of security in the Post-Modern world can also go in the opposite direction. The inner walls in the new Thurgau building can be freely placed and removed, but the outer walls provide a clear and fixed framework. These outer walls form two cubes, with a simple and unambiguous basic form. One of these cubes is square, the other is rectangular. There are no nooks and crannies here: the building's architecture is a deliberate choice of highly traditional shapes – forms that suggest security in less-than-secure times.

3. In social interaction terms, the uncertainty of the Post-Modern is seen first and foremost in the ever-diminishing importance of traditional ties. Sociologists like Ulrich Beck and Zygmunt Bauman believe that in our highly-industrialised societies the family, the neighbourhood, the "job for

life”, the social stratum, the churches, the political parties and the trade unions are all losing strength. As a result, people are forced to rely more and more on themselves, rather than these traditional communities, to meet and master the challenges that life sends their way.

The educational world seems to be responding to this trend towards individualisation in our society in two different ways. On the one hand it promotes more individualised tuition (something I personally feel is a knee-jerk response to social trends, and is hardly the product of new findings or conclusions in the learning psychology field). And on the other hand it appears to be putting greater emphasis on a communal learning experience. The conviction here seems to be: if the sense of security and well-being are no longer self-evident in communities today, then let the school provide these instead. And if social relationships are no longer secured via traditional institutions, the school must help its students create and cultivate their own social networks. Rudolf Dreikurs from Chicago had a lot to say about this half a century ago, and much of what he had to say may well be topical again soon.

These two different reactions among educationalists to the various societal trends towards greater individualisation pose quite a challenge in architectural terms. On the one hand, the architects should build schoolhouses with spatial concepts that include large spaces for communal activities; but at the same time they should provide the niches that can generate a sense of comfort and security, and can enable students to develop closer friendships among themselves. And on top of this, the architecture should permit individualising forms of learning, too. These individualising forms, which are replacing classroom teaching to a certain degree, demand further differentiation within the classrooms

provided. So the schoolhouse will need to include areas for individual learning, access to the library and so on.

The new Leutschenbach schoolhouse in Zurich meets many of these requirements to an extensive degree. The building has a square floor plan and is five storeys high, with a large gymnasium on the roof. Its 400 students will all see each other on the wide staircases; and the fifth floor is home to a large assembly hall that can be used for communal events. Each classroom has four doors; all the rooms are interlinked; and every four or five rooms share a spacious central area that can be used for individual learning or for project group work. The library and lunch area are also integrated into the schoolhouse building. The only apparent shortcoming is the lack of any niche zones for the smallest social groups. But these can still be provided in the rooms' detailed furnishing and design.

4. The loss of "real" experiences is a further much-cited aspect of the Post-Modern society. Indeed, philosophers such as Baudrillard have even doubted whether real experiences still exist. There is, of course, a little of the exaggeration to which French philosophy can be prone in this assertion. But there is no doubt that in children in particular, real experiences are giving way more and more to media-generated substitutes. That's why Pestalozzi's demand that living and learning be linked has become so topical again. And it's a demand that has been taken up by many a leading European educationalist under the banner of "intergenerational exchange". What this means is opening up the school to the life and working worlds around it, to help its students to gain real experiences with other people.

The challenge here for the architectural world is to provide solutions that support the school in its endeavours to establish and maintain connections with the worlds and the people beyond its walls. Here, too, the Leutschenbach schoolhouse is a good example. The building stands on a large site that will be used not just by the school but by the public, too. This area extends, with no fences or other boundaries, into a public park that is itself bordered by residential developments and commercial concerns. The schoolhouse was intentionally built five storeys high to make its publicly-accessible grounds as extensive as possible. It's an unusual approach for Switzerland, but it has gained a lot of space: a two-storey schoolhouse would have stood in much smaller grounds.

With the Leutschenbach building, the contact between the school and the worlds outside it is also promoted through a further design element. All the school's outside walls are made of glass, allowing those within to look regularly outside and those outside to see what's happening inside.

5. This architectural transparency – the view out, in and through – also seems to be a response to a further phenomenon of societies today that is often quoted in Modern/Post-Modern discussions: the speeding-up of so many aspects of day-to-day living. With knowledge levels multiplying faster and faster, and the knowledge acquired growing so quickly and ageing immediately too, informal learning is becoming more and more important. We must learn constantly and everywhere: if we don't, the world will leave us behind. We must learn in our jobs, learn from the media and learn from other people. Informal learning must become virtually second-nature to us if we are to survive. And an architecture that extensively permits us to see what other people are up to will support this informal learning process. An architecture that offers as

many insights as possible will facilitate our unconscious and casual learning. Informal learning needs input and instruction from the educationalists too, of course. But the architecture is also important, in that it can help or hinder the process.

To sum up, then: if we use the terms “Modern” and “Post-Modern” to analyse society today, Modern tends to mean security and Post-Modern tends to mean a lack of it. It’s the Post-Modern tendencies that seem to be on the rise. And the educational world needs to respond these developments. One possible response, we feel, is for the educationalists to help students find their bearings in this uncertain and ambiguous world and develop a security of their own. And schoolhouses can be a great support here if they are architecturally designed to provide both a safe basic framework and the transparency and the flexibility that are needed to enable their students to engage in a wide range of orientational activities and acquire and develop their own knowledge within changing social contexts that extend all the way to contacts with the outside world. In this sense, there is probably no definitive “schoolhouse architecture”: just good examples that will help us further develop and refine the dialogue between the educational and the architectural worlds.