

Introduction

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Good morning, ladies and gentlemen,
let me say some words about the people meeting in this room here today: By yesterday's count, we have 185 participants, 80 of them coming from Austria, the others from 28 different countries. Among them, we have a variety of professions: about one third of the participants come from the field of education, one third are architects and one third are people involved in other ways in school development. We also have a number of students from a Viennese high-school, who will spend these two days with us.

We are very happy about this mix of people, as we believe that any discussion about the future architecture of schools can only be successful if at least these four groups – teachers, architects, students and people from administration and financing – are actively involved.

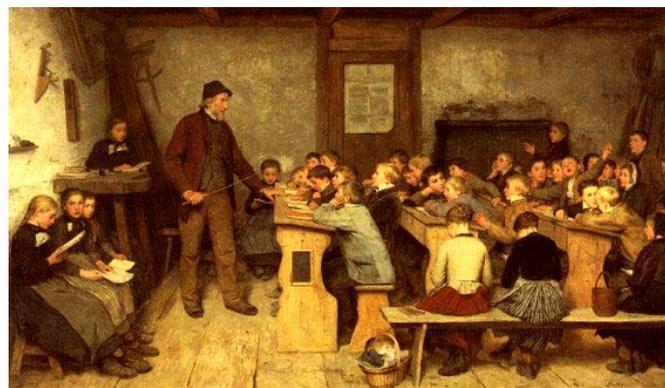
This requires a certain amount of humility on all sides: Architects tend to over-estimate the importance of space for education, while teachers often argue that good teaching will be successful in any environment. But over the last 10 years we have experienced a change in attitude, an increase of teachers who start to regard architecture as a medium they can work with, and of architects, who are interested more in social space than in signature forms. This is a general trend. It is not by occasion that the title of this year's Biennale of Architecture in Venice, curated by the Japanese architect Kazuo Sejima, was "People Meet in Architecture", and that architecture as a social art was one of the key issues there. The Rolex Learning Center by Sejima, prominently presented at the Biennale, a large open space with little more functional specification than being a meeting place for people, can be regarded as a key building reflecting this trend.



Although this is a university building, it reflects some new ideas about learning and teaching that may also hold true for schools. Let me show you just a few slides about the

development of learning spaces over the past centuries that in my opinion indicate that we again are at a critical point of development today.

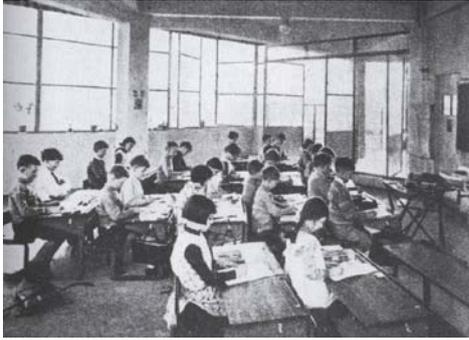
The first slide takes us back over three centuries to the year 1670. It shows a painting by Jan Steen of a Dutch village school. It looks a bit chaotic, some children are sleeping, others are standing on the table, the teacher himself is rather laid back, as his wife is actually doing the work. Some art-historians claim that this painting refers to an earlier print by Albrecht Dürer, “The donkey in School” from 1556, which obviously is a sarcastic comment on certain teaching practices of the times. But I rather believe that Jan Steens image is a realistic and neutral depiction of the situation. The contemporary book “Orbis Sensualium Pictus” by Jan Comenius – the man who coined the word didactics – shows quite the same arrangement, a large space with tables and the teacher’s desk in the middle.



Let’s now move 200 years into the future. This slide shows a painting by Albert Anker of a “German Village School in 1848”. Obviously the setting is very different. There are rows of benches; boys and girls are now separated, with the boys occupying the pole position and the girls placed on the sidelines. The teacher is armed with a cane, which helps him to at least impress the first two rows of pupils.

What has happened in between these two pictures? At least two revolutions, a political one and an industrial one. I believe that the industrial revolution is more helpful in explaining the development: In the 19th century, the school has become an institution that drills people for the economy of the machine age, which depends on a reliable and productive workforce.

Now let’s make another jump, to the 20th century. This photograph shows one of the iconic buildings of early modernism, the Open Air School by Jan Duiker in Amsterdam. As modern as this school may look from the outside, the classroom has hardly changed. Certainly it is not dark and windowless any more, and girls and boys are again treated as equal. But this is obviously a control space, symbolizing the idea of a functionally homogenous society. It is noteworthy that not only the cane has vanished as an instrument of power, but that the photograph does not show a teacher at all. It seems, as if the spatial setting is by itself sufficient to control the children. Again we can connect this image to a further developed stage of the industrial revolution, the rise of the third sector and its increasing need for people working in administration.



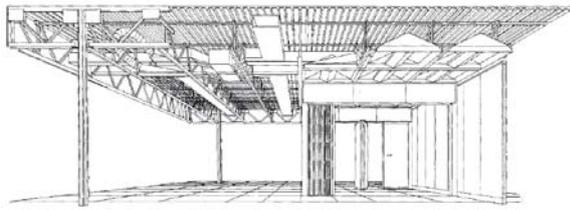
But where are we standing today? This image shows a recent photograph from a classroom which is probably still the predominant model, at least in Germany and Austria, not only in existing schools but also in newly built ones. (I have to admit that I took this image from an advertisement of the company selling the yellow plates that should avoid cheating. But even without these elements the image makes me uneasy: Is this actually the setting that helps children to grow into the complexity of our world? I admit that we will need situations like this on certain occasions, but it is clear to more and more people within the educational system that these will be the exception, and not the rule.

It is far less clear, however, what the alternatives are.

Do buzzwords like “knowledge society” and “globalization” offer enough substance to lead the way? In a study on key-qualifications from 2003, the OECD has defined a set of only three top-level qualifications: “act autonomously”, “interact in heterogeneous groups” and “use tools interactively”. Are these qualifications sufficient? What other values do we have to consider when designing a learning environment? Will these actually bring about a different way of teaching, one that leads to individual learning programs, with students willing and able to autonomously choose their course of studies, using Information Technology to connect with other students worldwide? And will this finally lead to a radically changed environment necessary for teaching and learning?

When we started to plan this conference last November in cooperation with the Centre for Effective Learning Environments of the OECD, we had these questions in mind, and so we decided for the title “Exploring Radical Visions for Tomorrow’s Schools”.

At the same time I was doing research on school architecture of the 1960ies and 70ies, and I noticed that we are today replaying history at least to some extent. Most of the ideas we are discussing have already been around 40 years ago, and they were not only discussed, but also built. Just to show an example: The School Construction Systems Development – SCSD – developed by the American architect Ezra Ehrenkrantz in the early 1960s, a system for schools without classrooms, became a model for hundreds of schools in the US until the mid-seventies. In Germany and Austria, too, schools were created that followed the same principles.



Practically all of these schools shared a similar fate: Due to problems with acoustics, with artificial lighting and due to a lack of concepts for teaching in these spaces, the initial enthusiasm of teachers vanished quickly, and these schools were soon refurbished or demolished, and with them disappeared concepts like team teaching and individualization of learning.

For our conference, this made us cautious, and so we added a second sentence to the original title: "Exploring Radical Visions for tomorrow's schools ... and how to make them work."

As Alan Kay, one of the early pioneers of the personal computer and inventor of graphic user interfaces, once observed, "the best way to predict the future is to invent it". Visions are important, but they are not enough. Invention needs experimentation and learning from errors. It needs both: visionary thinking and the creative pragmatism of problem-solving under conditions uncertain and ill-defined.

We hope that this conference will offer an occasion for inventors to discuss models for the school of the future, or rather: the schools of the future, as we can expect that different solutions will emerge.

So apart from the panels and case-studies presented today, the conference tries to offer an opportunity for exchange in its workshops. As you know from the program, we have set up workshops on ten themes we believe to be of special importance for school development. We chose to give them rather catchy titles and descriptions that we hope will quickly lead to a discussion.

These ten themes are:

1. **Breaking Down the Walls** (schools without classrooms)
2. **Building for Change** (adaptability in a changing world)
3. **Thinking Green** (energy questions, low energy buildings)
4. **Micro Environments** (small interventions, flexible learning spaces)
5. **Community Connection** (schools as part of a greater network of learning...)
6. **Designing (for) Diversity** (organizing school spaces for heterogeneous groups)
7. **Outdoor Learning** (exterior spaces for learning)
8. **Burning Down the School** (fire regulations, safety, security)
9. **Value for Money** (questions of funding, standards)
10. **Expanding Virtually** (IT support for learning)

On day one, we will offer two short 45 min sessions on each theme. You will be able to choose the two groups you want to attend in the coffee break after the first panel. There will be a limited number of tickets for each workshop on the flip-charts you see in the room, with the workshop number and description. Please take one ticket for the first and one for the second session. (You can also take a whole package and start to exchange it during the coffee break against ... whatever, but this would not be fair play).

What is the idea of these two short workshops? We hope that the groups can clarify the issues at hand and set the task for the longer workshop sessions tomorrow. Let me show an example, the workshop number 04, "building for change".

The theme here is (as you can find in the program)::

The school is an essential component of a diverse and complex knowledge economy, and it must respond to its changing needs and demands. But how can a school constructed today most effectively serve the needs of learners in 30 years time? What can we learn from experiences with refurbishing structures over the last 30 years? What dimensions of change are there?

As a starting point for the discussion in each workshop, we have prepared a challenging scenario that hopefully is controversial enough to spark a discussion. For workshop 04 this is:

In order to serve changing requirements over the life cycle, schools should basically be designed as neutral and generic structures. A specific atmosphere will emerge naturally through interventions of the users over time.

I can conceive of several objections to this scenario ... and there are certainly more:

a) It is naïve to expect users to create decent architectural solutions on their own. We should rather build memorable and specific spaces with a high internal variety.

b) Generic structures are often more expensive in the long run. We should rather find quick and dirty solutions with a shorter lifespan that exactly reflect users' needs.

b) New forms of pedagogy are so flexible that almost any typology will work (apart from the standard model of classrooms).

And I can conceive of sub-issues that emerge by zooming in on the details of the solution or zooming-out into more general aspects of the problem, e.g.

- Zooming in

What strategies must be used as catalysts for the following forms of change and which typologies could best support them:

a) changing the classroom/learning configuration on a daily or weekly basis (variability)

b) changing the configuration in response to new requirements (flexibility)

c) changing not the configuration but the function of spaces (adaptation)

- Zooming out

a) What are the main change agents for educational facilities?

We hope that the two first sessions of the workshops will come up with questions like these, and maybe partial answers and ideas for further discussions tomorrow. Each group has a facilitator, who in most cases is an architect, and we asked the facilitators to very briefly present one of their projects at the beginning of the sessions. These projects may help the group not get too abstract in its discussions and they may act as a testing ground for radically new programs and specifications.

45 minutes are quite short, and with the large groups it might be helpful to start with a short round of global discussion, but then give time for reflection individually or in small groups and spend the last 10 minutes for clustering the ideas. You have large sheets of paper and cards on all the tables.

There will be no plenary session to present the results, so you do not have to prepare for some “competition of ideas”. In the best case we will have filled the flip-charts with interesting issues for tomorrow’s workshops.

We will have a short meeting among the facilitators after the last panel session in the afternoon just to check if any additional material is needed. If group e.g. decides to build a model of a classroom, we will get the material and tools necessary for tomorrow morning.

Tomorrow’s workshop will follow a model called “open space” that some of you may be familiar with. For the two sessions, there are no specific rules and procedures. Some of you will stay with a specific group for the whole day, others will move freely between the groups or form sub-groups of their own. Participants are thus given both the right and the responsibility to maximize their own learning and contribution.

What results can we hope for? Probably all of the groups will come up with a map of the positions and counter-positions that were discussed in relation to the theme; we expect research questions to emerge, areas where further in-depth exploration would be necessary, and maybe people have met that form a network to carry on this research. We believe that you will use the internet to point out to some resources that could be helpful. And we will collect video statements from each group that may summarize some of the ideas, which can then be found on the website of the conference together with the other materials.

I admit that this sounds a little over-ambitious for a two-day’s conference. We initially had planned this to be a “normal” conference with a set of lectures and a few workshops in different spaces and parallel sessions. But we finally decided that this would be a contradiction in itself: If we believe that open spaces (in the physical and in the wider sense) are the model of the future, we should use this model at the conference.

So in any case - please don’t make yourself too comfortable, you will have to move a lot at this conference, at least on day one. This is an experiment, and we are a little overwhelmed by the number of participants. But at least we will learn a lot, even by failure.

So let’s start with a rather traditional format, a panel discussion, and I ask John Worthington to take over.