

Psychological Institute III
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Architectural and Psychological Evaluation of spaces for children

Why, why, why?

Anyone who does not ask remains ignorant... Riklef Rambow & Henning Rambow

The planning of spaces for children poses special problems. If the architect intends to consider the needs of future users he must begin correctly. This is more difficult, the further these needs differ from his own. The needs and exercise habits of children obviously differ radically from those of the average architect. How can sense be made of this difference?

The architect bases his work on his own childhood experiences. This can lead to serious miscalculations, as the personal experience is never representative of a whole generation's childhood experiences, but simply of a restricted group. Generational change and children's socialisation are happening increasingly fast and the diversity of children's needs within a generation can still remain unconsidered.

The architect has limited theoretical knowledge in areas such as education, psychology and medicine. The selectiveness of this knowledge is due to the time pressures in the planning and the high level of specialisation of these areas. It can be used with the future users, provided they are known and cooperate directly. In the case of a day-care centre, this means both the children and the caregivers. This path looks most promising, but it too is not without its dangers. At first glance it is an easy task but asking children and caregivers about their ideas and needs becomes much more complex upon closer investigation. The nature of the survey significantly influences the answers received. This applies to all surveys, but especially to those involving children, whose linguistic capabilities are still limited. The child's answers may differ from suggested examples. This is problematic, since little is often known about how these really work after completion. There is also the danger that it is the architect's ideas about what is good or bad and not those of the user that will go through to the long term. A day-care centre or a school which outlines strategies to combine ideas to varying degrees can in this way produce good results. Nevertheless, we believe the inclusion of a psychologist in the planning process is beneficial, especially in buildings for children, and it can also serve to avoid certain risks.

What can psychologists know that architects may not know? Part of psychologists' basic knowledge is of child development and pedagogical-psychological processes. They also have a sophisticated repertoire of techniques for gathering information through various types of survey. They can therefore function as a mediator between designers and users and help the architect incorporate his own ideas in cooperation with users of the project.

This does not mean that the psychologist becomes another "expert" in the planning process, which often offers the architect only a narrow margin for manoeuvre in the design through the addition of further requirements and restrictions. On the contrary, the role of the psychological adviser here should be more supportive and provide relief. Because of his methodical and communicative competence, the psychologist is in a position to broaden and systemise the experience base of the architect, and to mediate between the architect and the client / users. This in turn can lead to the

architect being able to concentrate better on the actual design tasks.

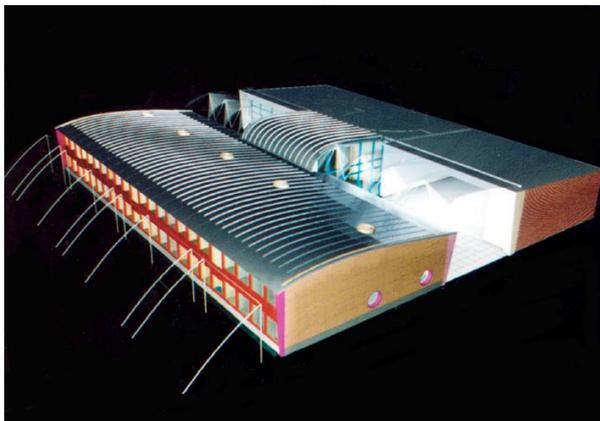
The involvement of psychologists in all phases of the planning process makes sense and can take many different forms.¹ The following example is one of cooperation which took place under extremely adverse temporal and financial conditions. It is therefore clear that the participation of psychologists is not limited to a few projects, but it is pragmatic and realistic to provide a tailored approach, while being profitable.

In early 1993, Ian Ritchie Architects Ltd., London, received from the mayor of the village Daours at Amiens in northern France the contract for the construction of an extension of its "Ecole Maternelle". The space requirements were for a reception area, two classrooms, a play room and a reading room as well as sanitary, withdrawal and rest areas and a swimming pool with shower. Both the cost (about 2000 DM/m²) and the time (three months to tender) were extremely tight. There was no separate budget for the exterior design.

Figure 1: Ian Ritchie Architects (London): Ecole Maternelle in Daours / Northern France. View of the new development from the southwest with untidy open space.



Figure 2: Layout of school after the expansion (scale of 1: 200).



¹ See e.g. Harloff, H.-J. Harloff, H.-J., ed. (Hrsg.) (1993). *Psychologie des Wohnungs- und Siedlungsbaus: Psychologie im Dienste von Architektur und Stadtplanung Psychology of housing and residential construction: Psychology at the service of architecture and urban planning*. Göttingen: Verlag für Angewandte Psychologie. Göttingen: Publisher of Applied Psychology. 1993.

The first talk with the client was carried out by Ian Ritchie on-site. The next talks, with the project manager, had to be limited because of the fees and the lack of time to have a tour of the existing building. Direct consultation with the future users, with the exception of a few phone calls and some reactions to the preliminary draft, did not take place.

Under these circumstances the psychological support originally planned in the first meeting was reduced to an appraisal of the plans and other proposals derived from them which, because of time pressure, could only partially be taken into account. The requested systematic user survey was a victim of the circumstances.

There was unanimous satisfaction at the small ceremony for the opening of the building in autumn 1994. The mayor, as the main initiator of the project, presented it as a piece of good architecture of the avant-garde, and it received a lot of attention from the regional press and was praised as an important asset for the town. The building is covered in cheerful colours and the form, unusual in a rural context, is immediate, without appearing intrusive. The entrance area and interior spaces appear friendly and welcoming and offer greatly improved opportunities in comparison with the old building. Evidently, the plan fulfilled its goal and therefore we could leave it until nearly two years of use, at which time we simply wanted to make a short psychological evaluation of the building, which we had not previously done.^{2, 3}

The head of the school, Monsieur Anselme, was receptive and cooperative towards our evaluation project from the outset. He gave us the opportunity to spend a whole day looking at the operation of the school, and gave the students, teachers and parents early warning of our visit. The class of older students had even had a preliminary discussion and had prepared the results by displaying them as a wall newspaper.

Our aim was, in the short-term, to gain as much information as possible about how the various user groups perceived the building and to assess what problems had occurred since commissioning, but also how the users had really appropriated the space and what their behaviour there was like. We therefore used three complementary methods: interviews and group discussions; observations of teaching and break-time activities; and the systematic analysis of routes around the school, with photographic documentation. Two psychologists and two architects participated in the inquiry, which meant we had the opportunity to divide ourselves and respond very flexibly to the opportunities offered in each conversation. We had prepared an extensive interview guide, which developed from open, very general questions, to very specific questions, but also left enough room to follow up on topics that were raised by the users.

Figure 3: Group discussion with parents in young children's classroom. In the background is one of the seldom-used sliding walls.

² The psychological investigation was financially supported by the Ludwig Sievers Foundation in the framework of the project "Technical Communication of architects and lay people".

³ We thank P. Stahl and A. Gerhardt for the competent assistance in the conduct of the investigation. Moreover, our heartfelt thanks to M. Anselme and his team, and all children and their parents at the Ecole primaire publique in Daours. Without their enthusiastic participation in this project it would not have been possible to undertake the study.

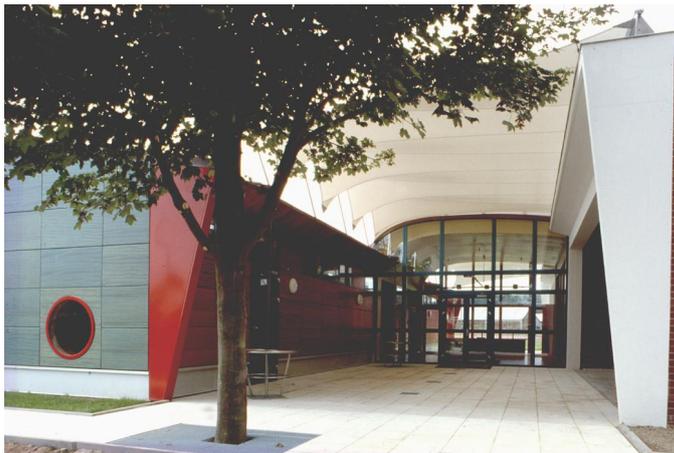


The survey was carried out on the headmaster and three teachers, a group of mothers, the cleaning lady and all the children of the three school classes (there is a combination of kindergarten, pre-primary and primary school children aged 2 to 10 years). Initially, in every conversation, great satisfaction was expressed. The building was said to be very nice and pleasantly "modern", the colour choice cheerful and positive. Problems were first raised as the length of the conversation increased, and it became clear that it was not praise across the board. In addition to many personal likes and dislikes there now also crystallised some basic main themes that kept being raised by various people with different emphases.

The deliberately low-maintenance surfaces of the rooms had led to increased noise levels, which made understanding over long distances difficult. The sound separation between the rooms through the sliding walls was not optimal, and led especially to disturbance in the class where the older children learnt reading and arithmetic, which is situated next to the play room. The sliding walls, which allow the entire room to be opened up, e.g. for Parents' Evenings and celebrations, were hardly ever opened. They were covered with drawings and posters, which would have to be removed if they were opened. The 1.5 m high dividing walls separate quiet areas with couches for the youngest children to have a lunchtime sleep but the sound levels were so impaired that sleep was rarely possible and then only if the surrounding rooms were also being used quietly. The smaller of the two quiet areas was now being used as a house for "maman et papa" games with dolls. A similar conversion had taken place with the shower in the water zone. Originally planned to teach the two to four year olds about contact with water and washing, the open entrance to classrooms and the large round window on the outside made the young children feel too public and embarrassed, so nobody wanted a shower. A different arrangement of the shower in a more private area, restricted from sight, was put forward by many as a better solution. The water zone was now a low-maintenance painting studio and the showers were not used. The children's comments on the colour scheme were interesting: the colour balance was repeatedly mentioned positively. However a number of children remarked critically that it was more of "a school for girls." Red and yellow were seen as "girl colours" while turquoise was considered to be neutral, meaning that the

children perceived there to be an imbalance. More blue was called for. It was not just the colour scheme as a whole which played a role, but more specifically the colours of individual elements. The children particularly wished for this in the niche spaces between the window divisions and the fixed cabinets, which were among the most popular play and rest areas, because the children consider them their own space. A second surprising association pertained to the parts covered by glazed plywood panels. Because these plates were a similar hue to older cupboards in the existing old building, they were felt to be old and therefore less beautiful. The contrast between colour and natural surfaces, in the perception of many children, comes down to one between "new and beautiful" and "old and ugly". A particular problem was the lack of involvement of the external areas in the planning. The building is on a flat, spacious lawn, on which a few ineffective playground toys were distributed. On the northeast side, there was badly visible access from the lawn to the car park. The feeling of intimacy, security and scale that the interior offered was lost in an anonymous open space. At break time, the teachers constantly had to compensate for this deficiency in spatial clarity through control measures and prohibitions. Individual entrances from the building to the courtyard were usually locked, which is different from the original intention.

Figure 4: The water zone – beyond the round window - which has been changed into a painting studio.



| Most of the problems in the examples shown here could have been avoided through better early consultation between architect, client and users. On the basis of systematic information about the needs of users, the design contract could have been clearer and the priorities could have been changed. In this regard, a psychological consultant independent from budgetary questions could possibly have strengthened the architect's position compared to that of the client.

When dealing with a project plan severely limited by time and finances, a phase of adjustment for the user is important, so the majority of the defects identified, even those not previously listed, can as far as possible be eliminated through cost effective

measures. Here, the involvement of a psychologist is also useful, in order to suggest behaviour patterns and clarify and specify user needs in relation to the building, through systematic questioning techniques and scientific monitoring methods, to help the architects and users in this period of adjustment.

The follow-up examination work we carried out is not part of the usual repertoire of architectural activity; it takes time and requires thorough preparation. However, everyone involved, including the respondents, can have a lot of fun, provided it does not grieve the architect excessively that both he and the users must admit to error.

While the analysis of structural damage is a common theme for publication in architectural magazines, since the architect is both legally and financially affected here, the analysis of the actual uses of a building in comparison to the architect's plans is virtually never on the agenda of the professional press. This is a shame because for the professional, an important and interesting opportunity to realise expert creations is lost.

Whether such analysis is carried out in a more anecdotal manner, or more strongly orientated towards scientific criteria, if the architect wants to plan better for people, he can learn from the mistakes and successes of his colleagues every time.