MARLIES ROHMER

BUILDING FOR THE

When you ask grownups about where they used to play as kids, they don't talk about springy chickens but about bits of wasteland.

Children play outdoors much less than they used to and get less exercise.

NEXT GENERATION

NAi Uitgevers

veilig en wel

ENGLISH VERSION

Preface

In 1997, our practice (which has existed since 1986) received a commission for a discotheque. It was our first design specifically for the younger generation. This was followed by a youth hotel and we soon started accepting commissions to design schools. These projects raised many new questions for us. How can we design buildings attuned to the world of young people? What is the nature of their experiential world? How can a hotel for young people have an extra social and cultural significance to the city? What function does a school have for its surrounding district? Can a school building contribute to the multicultural society? Is architecture capable of fostering social and cultural development? Questions like these, combined with my own experience as a parent, prompted my efforts to document everything to do with the changing social environment of the younger generation. I started collecting newspaper cuttings, photographs, articles and studies about youth culture and related topics. This collection has grown into a substantial archive of text and images, which eventually provided the basis for this book.

With the conviction that the currently situation of young people cannot be considered separately from the world that surrounds them, we undertook to conduct a wide-ranging analysis of new developments in society with a special focus on the role children play in it. The research which underlies this book connects our designs for housing and schools within their urban context to a wide range of sociocultural issues, such as the emergence of an experience economy, the spread of new communication technologies, cultural diversity, changes in the family, changes in education, the persistence of 'black' and 'white' schools, physical and social unsafety, increasing childhood obesity, and recognition of the importance of public space. Connections like these form the glue that binds *Building for the Next Generation* together.

The text is richly illustrated with my personal selection of newspaper and journal cuttings, combined with samples of our work that illustrate how we integrate the insights we have gained into our design practice, as well as parallels in work by other architects. We show how an understanding of youth culture has helped us elaborate and refine the project requirements, and how these requirements can be transposed into designs and models at various levels. It has been our constant goal to establish a practice of more long-lasting building for young people by pursuing integral solutions for metropolitan problems.

This book's illustrated account of our building work for the 'Next Generation' is preceded by two essays. IJsbrand van Veelen starts by describing the changes the world of childhood has undergone in recent years. He characterizes the interests and attitudes of youth towards

society. Conversely, what does society do for its children? What changes are taking place in the family circle, on the street, at school and in youth entertainment? The second essay by Gijs van Oenen addresses the problem of realizing a building project in an excessively compartmentalized society. From his background in political philosophy, he presents a picture of the modern community in which 'procedural forces' and 'delegation' predominate. How can we break out of this impasse to build buildings that are economically sustainable?

This book is a distillation from today's information overload. It does not show everything, but selects aspects that are important to our own architecture practice. We could treat it as a working document that helps us decide a direction for our designs and which may, more specifically, provide starting points for our projects for school and social environments.

As a former employee and student of Rem Koolhaas and Herman Herzberger, I try to draw on the achievements of these two architects. Rem Koolhaas made it clearer to me than anyone how daily life and social trends and phenomena can be a source of inspiration to architecture. Both of them spurred me on my personal quest. We have condensed the work of many researchers, theorists and authors into a unique synthesis. A number of authors have been especially influential on our investigations, namely Arnold Rijndorp, Lia Karsten, Joke van der Zwaard and Paul Scheffer. It is their conclusions that provide our starting point.

Marlies Rohmer

1 Living in the city

A hundred years of housing
The standards we set for housing have changed vastly in the last hundred years. Around 1900, a city family – typically with three, four or five children – occupied a space of about 30 square metres. By 1920, the area had grown to 47 square metres and by the 1970s around 80 square metres. Nowadays a floor area of 100 to 120 square metres is considered normal for a family with two children. So family sizes have declined but the requirement for living space has expanded enormously. Individualization and increasing prosperity have led to a different way of using the home compared to the past, when the study was reserved for father, while mother and the children spent their time in the living room. More leisure time available to spend at home and the growth of teleworking have resulted in a more intensive use of domestic space than ever.

The Kitchen
The kitchen used to be the mother's sole domain, forbidden to the children. Now the kitchen is a place where babies bounce around in walkers and toddlers make colourful drawings .

Changing lifestyles and domestic patterns
The territory of the children has expanded hugely in recent decades. The domestication of children's free time, in which more and more play activities have moved from outdoors to indoors, has been matched by a democratization of space in the home. The whole house has become a potential playground. The strict rules that determined what happens where in the household have given way to spaces with less well-defined functions and multiple uses. This represents a loss as well as a gain for children, since they are less able to escape their parents' surveillance. The loss seems to have been partially compensated by the internet, which has given children a new degree of freedom at home. The surfing and chatting behaviour of children is hard to monitor and is hence a source of concern to parents. What is more, sitting for hours at the computer has a similar effect to watching too much television: children do not get enough exercise. Childhood obesity is rampant.

Child's bedroom
The modern home lacks exciting places like the cellar or the attic, where children once could do what they pleased out of sight of their parents. This loss too seems to have been compensated by the virtual world of the internet. A child with a computer and TV in the bedroom is less closely supervised than children playing in the street where adults can keep a continual eye on them.

Forbidden territory?
Children are no longer banished from the parental bedroom.

Oversize
Space *à la carte* in the attic. Oversize at relatively low cost.

House layout
This Amsterdam house from the mid nineteenth century has many obscure corners which can be put to all kinds of uses.

A beautiful house is a big house
Homes which are spacious and affordable are needed to keep families living in the city; but they must also satisfy the changing domestic patterns and lifestyles of the occupants. Houses with oversize – with a room for every child, with a workroom for home office work and with *à la carte* space such as an attic, a large hall or an ample staircase – offer wider possibilities for use. An extra 20 to 30 square metres can make all the difference. Another attractive option is a house with a generic floor plan which can be organized by the occupants themselves.

Customizing the home
This is not everyone's cup of tea but it's something many people would like to do. There is no problem for people with plenty of money. The idea is to give occupants on a tight budget the luxurious feeling they can change the home to suit themselves.

Diversity of housing needs demands a flexible layout
Changing patterns of cohabitation place different demands on a home: more space, less space, different space, more rooms, less rooms etc. Designing a 'universal' home that can be organized and expanded in many different ways is a way of meeting the varying demands.

Villa Villekulla
A spacious, fantasy-inspiring house full of fascinating corners and spots – a house which can be occupied in countless ways, which stands the test of time and is comfortable and welcoming. Who wouldn't love to live in a house like that of Pippi Longstocking? A derivative of this idea is the clip-on model, which anyone can afford.

Clip-on extensions
It is normal in the car industry to offer versions of a model which can be customized with packages of accessories. The options for expanding a house could be approached in a similar way. In Japan, optional components like balconies, sliding glass doors and oriels are made in factories so that a house could be assembled from a kit. Sadly, the result still tends to look rather mass-produced.

Inexpensive houses with extension options
Houses in Lelystad have been designed to accept an extension package which can be added on to the house whenever the owner wishes. Since the construction cost of this project had to be kept to a minimum, the design provides a minimal basic house of 100 square metres with possible expansion to 150 square metres. The result has been to create a stock of low-cost owner-occupied houses which are easy to expand once the occupant can afford the increased housing investment.

Clip-on in Lelystad 1999-2001
The home extension packages in the Lelystad project are of two kinds. Firstly, there is a rear extension in the form of a sun lounge to match the existing one at the front. The second package is full-width roof superstructure with an optional adjacent roof terrace. Addition of both extensions produces the maximum possible extension (to 150 square metres). Planning permission applications for the home extensions are included with the purchase contract. Construction of the extension can start as soon as the wish and the finances coincide. A pre-placed facade screen ensures continued visual unity of the block of houses, regardless of which individual extensions have been added.

Forced out of the city
Houses in the city are too dear, too small and have too little space to play outdoors. Many middle-income families are therefore leaving the city, a trend which has substantial side effects. Loss of their joint spending power is bad for the city economy, parents lose touch with their social networks and congestion explodes due to rising commuter traffic.

The choice of a new domicile gives two-career families sleepless nights. Should we seek somewhere to live halfway between our jobs? How much time will we spend on the road? Do we need a second car? If so, where can we park it? Should we go for a creche and a school close to home or close to work? One approach to these problems has become something of a trend – the 'commuter marriage'. One parent spends the working week living in a pied-à-terre close to work, returning to the family home only at the weekend.

These developments have a considerable effect on the children. They are driven all over the place by car and see their parents even less than ever because of the increased time spent travelling. Out of school hours, they can only reach their school friends by SMS, by e-mail or in a chat room. They barely know children of the same age living nearby, since they go to different schools or come from a different ethnic background. So they nestle in with their game consoles instead of going out to play with other children, building huts, playing football or climbing trees.

The allotment is dead, long live the allotment

The image of allotment gardens has changed considerably over the decades. When low-income families lived in cramped homes, they could spend the weekend or a holiday on the allotment and also grow their own vegetables there. Allotment gardens have now become popular among a range of city dwellers who vary in age, nationality and social background. For some it is a place to withdraw from the pressures of daily life and quietly work at cultivating vegetables, fruit and flowers. For others it is a family garden. And for children the allotment is one big jungle. Large blocks of allotments give a sense of camping out in the country without really having to leave the city. Besides their recreational functions, allotment gardens have a social purpose. There is always something to talk about with the allotment neighbours – the weather, how the flowers are growing – and in any case the communal work of maintaining the footpaths brings people together.

Alice in Wonderland

For children, the allotment is a wonderland, a realm of liberty. They can escape the supervision of their parents and let their hair down. At home, in the street and at school, children are continually subject to surveillance and must obey countless rules. Rules and prohibitions apply so widely nowadays that children barely know the meaning of adventure. When they are at the allotment they can run and cycle along paths and through puddles in complete freedom; they can wander and disappear for hours. This kind of freedom is very important to their motoric, social, emotional and cognitive development.

Green oasis
Allotment gardens form valuable areas of greenery in the city, and they boost the quality of life in densely built environments. This effect can be reinforced by connecting the blocks of allotments up to form part of an urban green structure. Green oases like these occupy relatively large areas of land, so they are regularly a topic of discussion among local policymakers. Instead of sacrificing the allotments to urban expansion, every effort should be taken to preserve them for the city and its inhabitants. Several solutions are conceivable. For example, why not build residential tower blocks in the middle of allotments? This would have a dual advantage: it would save the allotments and give the residents unobstructed views.

Karspeldreef, **Amsterdam-Zuidoost**
Highrise with allotments
The 'green islands' concept underlying the original landscape design of De Bijlmer gave rise to four autonomous enclaves. Allotment gardens are created around the existing highrise blocks of flats and parking garages, for the benefit of present tenants as well as for occupants of the newly built dwellings. The continuous area of allotments, the 'enclave', is bordered by a clear glass fence, resulting in a transparent counterpart of a gated community.

Living with a child in Amsterdam
Who are we?
We are Simone, 40 years old, staff architect at the firm of Marlies Rohmer;
Jan Willem, also 40, teacher as a primary school in Amsterdam-West; and
Gijs, age 5, in class 2C at De Catamaran primary school. We live in a two-bedroom apartment of roughly 90 square metres on Haarlemmerweg, in the Amsterdam district of Westerpark.

You know what we like most of all?
We live on the GWL Site, where cars are banned and Gijs has a safe place to play. We can keep a keen eye on the plaza, Watertorenplein, from our balcony. Gijs knows he is allowed to play there as long as he stays in view. The site also has a number of small playgrounds. Gijs is too young to play there alone, but on a fine day they are a fine place to sit reading the newspaper. And you meet the parents of other children from the neighbourhood.

The renovated Westerpark is just to the north of our block, across Haarlemmerweg. The park is ideal for walks, skating, picnics and playing. It has several children's playgrounds, restaurants, a cinema, a children's farm and school gardens. Some of our neighbours even

have a summerhouse right next to the park. The gasometer and the transformer house in the park are used for all kinds of events, for example a fairground, a cultural market and theatre spectacles. Twice we have held a birthday party for Gijs in the park.

Gijs's school is just five minutes walk from our home. The route there has only one zebra crossing which crosses a fairly busy road (Van Hallstraat) but the rest of the way is on the pavement. So Gijs already cycles to school quite regularly.

All the children in his class come from this neighbourhood, so looking after one another's children at lunchtime or after school is fairly straightforward. It also makes it easy for the children to make appointments to play together.

Other activities and facilities in the neighbourhood – which is just like a big village – include a children's theatre with Sunday afternoon performances, an open air swimming pool, the Marnixbad sports centre, some lovely little shops and our favourite cinema, The Movies, in nearby Haarlemmerdijk. There are plenty of small restaurants in the area, and the Saturday "farmers' market" on Noordermarkt is only five to ten minutes away by bike. Centraal Station, Sloterdijk Station, Dam Square, the Bijenkorf, the Jordaan, museums, theatres, Paradiso and the Concertgebouw can all be reached in a cycle trip of ten to fifteen minutes.

Why would we ever think of moving?
We enjoy living in the city. We both cycle to work, about twenty-five minutes away. We have a car which we use for visiting family outside Amsterdam and for weekend trips and holidays. It's nice living on a car-free estate, but it means there are only a hundred resident's parking permits available for six hundred households. And there's a waiting list for permits with a minimum wait of four years. So we pay a small fortune for garage space, 110 euros a month (and that's the price after the subsidy we get while on the waiting list). The garage is within walking distance from home. We signed Gijs up for swimming lessons; there's also a waiting list for that, one year at least. I haven't even dared ask about other sports.

It often happens that both of us bring work home. In my case that means working with large sheets of paper and sketches. I work on the kitchen table. That's where we eat our meals so I have to clear everything away whenever I want to work. The desk and computer are in our bedroom, so we cleared an area for Gijs to play in the living room. Actually, we don't need all that much more space than we have: about 15 to 30 square metres more would be enough. Last year, there was a maisonette up for sale in our block with 120 square metres on the sixth and seventh floors – 30 square metres more than we have

now. The asking price was 370 thousand euros. Our present apartment is worth 260 thousand euros now (although when it was built in 1997 with a municipal subsidy for first-time buyers it cost us 90 thousand). A difference of 110 thousand for the extra 30 square metres would simply be beyond our means. Our costs – not only the mortgage but also the service and heating costs – would shoot up. There would be nothing left for other nice things.

We decided not to buy the maisonette, even if it might have been our last chance to get a bigger apartment in this neighbourhood, which suits us so well in many ways. The high house prices, the steep parking fees (not just for us but for friends and family, who nowadays only visit on Sundays), and the waiting lists for sports activities, even for essential things like swimming lessons for Gijs, are our reasons for looking for somewhere suitable to live outside Amsterdam. Probably it'll mean the end of cycling to work, though.

The development of inner city projects gains from an integral approach to establishing the essential links between the separate poles of city-child, work-health care, hard paving-greenery and public-private. Improving older districts close to the centre can only succeed if the zoning plans include facilities for young and for old and for different demographic groups, with transition zones between private and public and with safe pedestrian routes. Space for children must be explicitly included at all levels, from floor plans to the public domain.

Urban renovation
Transvaalbuurt, **The Hague, 2000-2005**
The Transvaal district borders on Hoefkade, the road joining the city centre to Zuiderpark. This lively urban street and the huge street market Haagse Markt are important features of this area. Transvaalbuurt has declined economically in recent decades. Business premises stand empty and the lack of good-quality, reasonably sized housing has prompted a large proportion of the original inhabitants to move to Vinex suburbs on the outskirts of The Hague. Those who remain are people in low income groups and include many ethnic minority families. Rebuilding is needed to make the district attractive to a wider variety of city dwellers.

The plan for Transvaalbuurt contains several types of housing for the rental sector and for owner-occupiers. They include compact apartments, large family dwellings, housing for disabled residents and a residential care centre for the elderly. The middle block of the three residential blocks, the care home, is set back from the building line leaving room for a plaza with playground amenities. Live-work units and a supermarket are situated on the market side. Most of the dwellings have an individual street entrance. The recessed entrance creates a

transitional zone between private and public in the form of a veranda, which enhances the liveliness and public safety of the street. Each block of dwellings has a family look, but the use of architectural elements such as niches and reliefs make the individual dwellings apparent. The architecture demurely adapts to the existing buildings: the simplicity, rhythm, brickwork relief and entrance niches are modelled on the older blocks.

City districts and the house-moving dynamic

It is not only the departure of the 'white' middle class from the older districts that weakens local demographic diversity, but the ethnic minority middle class is also increasingly moving to new suburbs in the periphery. The homes they leave behind are reoccupied by newcomers. This house-moving dynamic hinders mutual familiarization, social cohesion and social control. It gives schools problems because wave after wave of new children have to be helped to settle in to their new surroundings. This consumes much effort at the expense of pupils who are by contrast able to follow the ideal uninterrupted learning trajectories. The parents of the latter children are concerned about the 'black school' phenomenon, which gives them yet another motive to move elsewhere. A brisk house-moving dynamic is, in short, bad for residential quality.

Immigrant minority families are falling in size. The decline is evident among minority families who are able to buy their own homes.

It is a challenge to build dwellings suited to families with children in the city. Projects with mixed programmes and with dwellings in various categories have been realized in several cities as part of urban regeneration schemes that involve the redesignation of former factory and dockland sites. They provide green streets with restricted traffic, safe pedestrian routes and possibilities and amenities for playing children. They also provide local employment, schools and childcare. The success of these projects shows that there can be room for children even in densely built surroundings. As long as the distances between home and friends, and between home, school and sports club, are small, children can get about independently at quite an early age. The presence of other parents in the neighbourhood makes it possible to share care commitments, which promotes mutual contact, the cement of the neighbourhood.

Jan Vet site, Amsterdam, 1994-1998

The housing blocks are situated on a plaza with play amenities. Each block has five storeys. The ground-floor and first-floor dwellings have front doors at street level. A gallery on the fourth floor gives access to the top three storeys. The apartments vary in size from 100 to 125

square metres and can be internally organized in a variety of ways. Anthracite-coloured concrete 'TV screens' form a base at ground floor level. The receding space of these screens creates a transition between the dwelling's outdoor space and the public domain.

Slatuinenweg

The linked one-family houses in Slatuinenweg have a timber-frame construction. The rear facade towards the plaza has a large overhang, reminiscent of the Toraja houses of Indonesia. This prominent design feature creates a sheltered intermediate zone, half interior and half exterior.

Terrorized by children?

E-mail from a resident of Slatuinenweg, reacting to a request to help with a survey by taking photos of the home interior.

----- Original Message -----
From: MdeB
To: info@rohmer.nl
Sent: Monday, September 26, 2005 6:07 PM

Dear Mrs. Van der Burg,
I was quite astonished to receive a letter from you asking what it is like living with children in the Slatuinenweg housing project. You seem to forget that many one-person and two-person households live here too! Personally, I am totally fed up with the way everything in this neighbourhood revolves around children, and no consideration is given to people who have none. The children cause a huge amount of nuisance, and that is why I am replying.

The houses are poorly insulated for sound. I get woken up early every morning by the racket of my neighbours' ill-mannered offspring. I understood from Marlies that it was a matter of tight municipal budget... and I could always try earplugs ;). The area behind the gardens is so badly organized that I have screaming kids at the end of my garden all day, and there are teenagers lounging around in the entrance halls smoking joints at night.

Whenever I try to speak to their parents about it, I just get bawled out – the neighbourhood is meant for the children, they say. The police know about the nuisance problems but they don't do anything when the courtyard is overrun by children from nearby schools using it as a free playground.

In my view, an architecture firm like yours ought to consider what it's like for non-parents, living in a neighbourhood with children who don't give a damn about anyone else. I find myself forced to move

away because of the above problems. It will break my heart to leave this house of which I have become so fond. But living with the children here in Amsterdam West is awful and unbearable. What happened to the days when children showed a bit of respect for their elders?

Yours faithfully, M. de B.
(full name withheld for reasons of privacy).

Dobbleman Site, Nijmegen, 2001–2007

The grounds of the former detergent manufacturers Dobbelman are in the Bottendaal district, in the lee of the city centre of Nijmegen. The master plan for redevelopment of this zone consists of a composition of volumes of different scales which relate to the original layout of the factory site, and a construction programme that stimulates the mixing of cultures, social classes and religions.

Three industrial-style residential buildings provide differentiated living accommodation to meet the needs of families, students, working couples, ethnic minorities and yuppies. 'Building L', a former factory of which only the shell remains, has been converted into studios for artists or designers and large loft dwellings over three floors. Each loft has a high, freely-disposable space around a fixed core containing the kitchen and bathroom. On top of the core there is an entresol which could be used as a play area, a sleeping zone or a storage space.

Each of the other two residential buildings has six storeys. The ground floor contains commercial and studio spaces, a social centre for the residential care complex elsewhere on the site, and a judo school. The other five floors consist of small studio apartments, roomier open-plan apartments and large maisonettes in the roof volume.

Entrances to the dwellings adjoin the inner open space, which is paved with reinforced concrete slabs reutilized from the original factory grounds. This semipublic space is not designated for building and is for the use of children and adult residents.

De Buurtfabriek, Amsterdam, 2004–2007

The Bellamy neighbourhood in the Amsterdam Oud-West district, a stone's throw from the inner city, was built in the 19th century and has a villagey character. The main principles of the construction programme drawn up for this complex were to create a mix of living, working and amenities, and to cultivate a lively atmosphere and improved public safety in the neighbourhood.

The plinth of the building has an open character. Small-scale commercial and studio spaces, a 'youth point' and a grand café with a view of the water are located on the ground floor and first floor of the halls. The upper floors contain a diversity of dwelling types: one-bedroom and two-bedroom apartments, dwellings with additional

facilities for the elderly, maisonettes and a penthouse with a roof terrace. Each dwelling has large folding windows which can be opened completely, making the outdoor space effectively part of the interior.

68 Street Culture
Public space

Not all that much has changed in the private realm over the centuries: at home, everyone does as he or she pleases. But public space is a different matter. Since the 1980s, the government has taken an increasingly hands-off approach to what goes on there. The public domain has been left to the market, with the consequence that the street now belongs to everybody – and thus to nobody. Nobody cares any more about the pavement, the street, the plaza across the road or the public gardens in the neighbourhood. The outcome is vandalism and dilapidation, against which the security cameras battle in vain. An effective policy towards the organization of public space could effect a change in this situation: in other words, we need a strategy that recognizes the relation between social developments such as feelings of insecurity and the demand for surveillance, and the organization and use of public space.

Cameras
Perceived dangers of traffic and other hazards in the street is one reason why children play outdoors less than they used to. Is permanent camera surveillance a potential solution?

Social control
Working parents have no time to take their children to the playground, but they are also afraid to let them play in the street. People used to spend more of their everyday life outdoors and there were generally enough adults around to keep an eye on things. The grocer had a view of the street from his shop, the housewife would hang her washing from the window, grandma followed everything that was going on through her door viewer, and there was always a policeman in the vicinity. Now that everyone has withdrawn into their shell, parents bear the sole responsibility for supervising their children; and they have enough calls on their time.

New trend?
An inflatable effigy on the road to keep traffic in check.

Cars
In 2000, there were twice as many cars in Amsterdam as there were children. Built parking facilities relieve public space of an excess of cars.

Footpath

Claiming space in suburbia. In Vinex districts, people park their car in front of the house. Extreme cases exist where the pavement has been completely privatized. Loss of the footpath takes away space for children to play and so precludes a lively street atmosphere.

Dilemma

Parents try to combine their busy working commitments with care for their children. Their hurried lifestyle results in putting unhealthy meals on the table with a preponderance of convenience foods. Bad diets and a lack of exercise are producing more and more obese children.

Children nowadays rarely play outdoors and get little exercise

The importance of the pavement

Street cafés promote a lively atmosphere in the public space. Local festivals and street or neighbourhood parties can add to that atmosphere, but the livability of the street begins with the quality of the immediate surroundings of the home. It is crucial to put some effort into organizing and detailing those surroundings, which must be attuned to the use and the experience of the residents. For example, adjusting the length and width of the street to create small recreation areas can considerably increase the liveliness of the surroundings. The siting and form of the dwelling entrance and the placing of functions on the ground floor also can contribute to the street atmosphere – for example if a workroom or a kitchen-dining room faces directly into the street. Explicitly including the zone in front of the house in the design can promote interaction with the neighbourhood. People do not feel the need for intensive neighbourly contact at all times, so the private domain must also be shieldable from view.

The past

Marlies Rohmer grew up in a block of flats on Statenweg – which was a busy road even then – in Rotterdam. She played in the street. Her mother kept an eye on her from above.

Street culture, Plantage Badlaan, Amsterdam

Wide pavements with benches and floral planters create an easily overseen territory with natural boundaries for young children and their parents. There is always someone sitting outside, perhaps with a laptop, newspaper, cell phone etc., keeping at least half an eye on what the children are doing. Often enough, coffee, tea and wine will make their rounds among the neighbours sitting outdoors and they will share their joys and sorrows too. Privacy is available indoors but the communal territory starts at the front door. Without that convention, things don't

work the same way. The architect can dramatize the transition from the dwelling to the street and use it to stimulate the development of street life, and so encourage children to play outdoors more often.

Playing outside the front door...
The porch, the recessed entrance with a step down, unambiguously marks a private domain which people automatically respect.

... and along the street
Play by the bottle bank a little way along the street – 'far away' but still within hearing distance. It's 'ordinary' things which are most fun to play with and which spark the imagination. No need to embellish the pavement with springy animals.

Veranda feeling
Older houses in Amsterdam often have an 'stoop', a raised area of pavement, in front where the residents often put a bench or potted plants. With the Toraja houses of Indonesia, and the basement entrances of Edinburgh, the Amsterdam Stoop is a salient example of the 'veranda feeling'. We can design an area in front of a house as a variant on the Amsterdam Stoop in several ways: as a semi-public strip, a verandah, a niche or as large 'garage' doors which open, for example, onto a kitchen/dining room. These are all interactive transitions from private to public. The use of benches and flower planters enables residents to take possession of this area and hence to appropriate the margin of public space. Municipalities and housing corporations ought to donate a bench to the residents, as already happens with flower planters in Amsterdam.

Transitional zone
A transitional zone has possibilities. People are more likely to go and sit in front of their house, and they have contact with whatever is happening in the street. This increases the sense of responsibility and involvement with the neighbourhood.

The stoop
The stoop is a natural place for social contact. For children from the same street who go to different schools, it is often an ideal place to meet and play together. The stoop promotes mutual contact between children and parents develop contacts as a result. These neighbourly contacts are often important to immigrant minority parents as a way of putting down roots in society; and conversely the indigenous residents can develop greater sensitivity towards other cultures. It is precisely this social contact that is vital in a society dominated by feelings of insecurity and anxiety. Social contact is the cement of the neighbourhood and can

contribute to the erasure of ethnic barriers. Lively social networks offer children more freedom of movement within a safe environment, which allows them to go to school, to friends, to the park or to the sports field without adult accompaniment.

In the space in front of the house, an adult can sit with a laptop keeping an eye on things, so combining the realms of care and work.

Double facade
Housing Exhibition, Almere 2001
The double frontage creates an intermediate zone where you can sit indoors and outdoors at the same time.

Barn doors
Housing on Borneo Island, Amsterdam.

Street-level kitchen/dining rooms with large doors that can be opened in several different ways.

Overhanging roof
Rear of houses on Jan Vet Site, Amsterdam
The roof overhangs create a sheltered zone, half indoors and half outdoors.

WSST, Breda: Colonnade
The housing block is in the shape of a tapering rectangle. The outside of the block has a fringe of private gardens, and the front doors of the one-family houses face into the courtyard. The courtyard has been designed as a collective space. The roof overhang with columns and benches outside each house forms an interactive transition zone between private and collective space. A variant of the Amsterdam Stoop was designed for the street side.

The dynamic of postwar suburbs
The urban extensions of the 1950s and 1960s have always been popular with families for the green, spacious layout of these areas. The public housing policies of recent decades have, however, resulted in demographically monotonous housing estates with mainly ethnic minority families and elderly residents, and too few amenities. But these areas still have potential. If the windowless plinths containing resident storage spaces were transformed into kitchen/dining rooms or business spaces, the wide pavements would be an excellent factor in a lively residential environment. With a street market, small corner shops, bars, cafés, and more amenities and play facilities, they could turn into districts that are attractive to middle-income families.

Contact and privacy – expressed in metres

Sense of privacy as experienced by people separated by varying distances. Tested by three different facial expressions: angry, surprised, happy.

Distance measured between two persons: 15 metres
- All facial expressions are clearly visible
- Eye contact is strong
- Subjective privacy is low.

Distance measured between two persons: 20 metres
- Facial expressions are clearly visible
- Eye contact is less strong
- Subjective privacy is somewhat higher.

Distance measured between two persons: 25 metres
- Facial expressions identifiable from specific features: anger is evident from eyebrows, happy state from mouth and surprise from widened eyes.
- Eye contact is minimal, so that people are more attentive to body language.
- Sense of privacy is higher again.

Distanced measured between two persons: 30 metres
- Expressions are legible from specific facial features in combination with body language
- Eye contact is absent because eyes are no longer distinguishable
- Sense of privacy is high.

Conclusion:

A turning point appears between 25 and 30 metres. Once eye contact becomes limited, at 25 metres, the subjective privacy rises sharply. Facial expressions are still legible, however. Above 30 metres, the sense of privacy is maximal.

This is the outcome of an experiment with faces fully illuminated. If the faces are partly shaded, facial expressions become harder to read at a shorter distance. When the other person is backlit, the limiting distance is even closer. Shading of the face could also be produced by a canopy, trees or columns.

WiMBY (Welcome into My Backyard)

Besides taking utilizing the street as a collective domain, a factor that could make living in the city attractive would be to offer a wider choice than either a house with garden or a flat with balcony. An alternative

is to build dwellings that combine urban character with quiet and greenery. New residential blocks – either closed or open – can be given a collective interior zone with a garden, woods or a tennis court for the enjoyment of all the residents. The fences between private gardens in existing perimeter block could similarly removed to form a collective garden. This huge garden, when combined with a spacious apartment, could be a competitive inner city alternative to the leafy suburbs.

Dialectic between urban anonymity and recognizability

The subjective privacy that we perceive in relation to other persons at various distance can be expressed in terms of a number of metres. Eye contact is inoperative at distances over 25 metres and the sense of closeness vanishes accordingly. Beyond 30 metres facial expressions are no longer distinguishable and the sense of privacy is total. Shadow can reinforce this effect, for we cannot establish eye contact with someone 20 metres away whose face is shaded.

WSST, Breda 2003-2008

WSST is a residential block of an urban character which lies adjacent to the centre of Breda and is intended for families with children. The architecture, with two stories and a ridge roof, adopts the small scale and the orientation of the adjacent streets. A taller section with apartments lies along the main road. The courtyard has been designed as a collective garden for the residents. A roof overhang with columns marks the transitional zone. This transitional area is one step higher than the courtyard, which has partly-sunken parking facilities built beneath it.

The courtyard measures approximately 30 x 75 metres excluding the transitional zone of the gallery which is approximately 25 x 70 metres. This transitional zone is particularly important for the usage and management of the collective space.

Collectivity

As a semi-public space that is accessible to residents only, a courtyard is principally for use of the surrounding dwellings. It is safe there, there is supervision, and it is easy for residents to maintain contact. The result is a varied experiential world for children. The differentiation in dwelling types, including both social sector and owner-occupied homes, engenders a diversity of residents, so that everyone can come into contact with people from different social echelons and ethnic groups. A collective domain does not have to become a kind of gated community for an inward-looking, homogeneous group which is cut off from the outside world, but it has the potential to be an open community which is as heterogeneous as urban society itself.

Spaarndammerdijk, **Amsterdam**
Owner-occupied and social-sector dwellings around a collective courtyard, with a supermarket, a coffee shop and a car park.
2002-2007
Located at the pivot between the old Spaarndammer neighbourhood and the new scheme for residential islands in the former docklands area Houthavens, this apartment block forms the decor for a future plaza. Behind the screen of slender brickwork pillars, wide, perforated galleries connect groups of five dwellings. The kitchen/dining rooms of the apartments adjoin the galleries, while the living rooms face into the sunny communal courtyard garden, which has a labyrinthine, exotic character. Most of the dwellings in the project are intended for the social sector. The garden is a green, calm space where birdsong prevails. It is collective but at nearly 30 x 60 metres it is sufficiently large for residents to enjoy a good measure of privacy. The collective staircase accesses the garden. The ground floor includes a supermarket and other neighbourhood amenities.

Borneo Island, **Amsterdam**
One-family homes, **studio apartments and a car park**
1997-2000
This is a compact, urban residential block with two collective courtyards. The site is bounded on one side by water (the former inner harbour) and on the other by the main street of the island. The water side (with views) is on the north and the street side on the south. The dwellings are arranged back to back around two collective courts each measuring 28 x 10 metres. The outer ring consists of one-family houses of three floors. The inner ring (adjacent to the courts) consists of two-floor studio apartments. The courts are tiled with a pattern of earth-coloured Spanish tiles, which contrast with the outer surface of the block. Each courtyard contains a linden tree and a large picnic table.

Rozenhof, **Breukelen**
Publicly accessible residential court in the centre of Breukelen,
with apartments, upstairs/downstairs dwellings, one-family houses and a car park
2003-2008
The historic centre of Breukelen consists of small-scale residential and retail buildings which fall into two recognizable zones: an area where the buildings form an unbroken street facade, and the northern part of the centre which is characterized by freestanding buildings. The Hazeslinger site lies at the transition between the two historic areas, and at present it forms a yawning gulf between them. This is to be filled in with the Rozenhof residential ensemble. The block has a public inner area on which a proportion of the house entrances are situated. The

houses lack gardens but have a largely hardened 'margin' between the house and the collective plaza.

Rozenhof consists of residential buildings whose varied size and arrangement is consistent with the present morphology of Breukelen. The buildings share a family look but show individual differences in colour, brickwork bond, roof slope, fenestration pattern and window detailing. Each of the houses has a floor area of about 100 square metres. They have a three-way orientation and share an intimate square courtyard (measuring about 20 x 20 metres), views and spectacular interior spaces under the large roof volumes. Some of the houses have an entrance on the courtyard and others have one on the street, so that both will have a lively atmosphere.

National spatial strategy was long dominated by the separation of urban functions

If living, working, amenities and recreation exist alongside one another without direct relation, it does nothing to improve city life. The rigidity of a monofunctional approach to organizing the city is also contrary to the reality of life in the city, in which many different spatial and social networks overlap and form linkages. You don't have to live in a house, because you could instead live in a converted factory. Equally you could work in an apartment, take recreation in a shopping centre, or shop at home on your computer. The interlacing, stacking and overlapping of functions boosts the vitality that is typical of a city, because situations are then not used merely for a few hours a day and they lend themselves to different forms of use. To benefit maximally from this effect, it is very important for the urban networks to have inviting public places – hybrid places, which have something to offer to more than one target group and which can be used in more than one way.

Quality street

Everyone experiences the city as the sum of various places that are of importance to the person concerned. Patterns of separate enclaves organize the city into cultures. This compartmentalization not only separates groups and generations, but also penetrates the realm of childhood. The child's world is divided into separate little islands that are no longer geographically connected. 'White' and 'black' children go to their own schools and their own sports clubs. Although the belief that the dividing line between black and white ought to be erased is widespread, most people gravitate towards homogenous situations. It is questionable whether neutral places for all groups, regardless of social class, age and ethnicity, really work. A public place must have identity. This means that the place will be dominated by a relatively homogeneous group – which is not to say that other groups are excluded.

The territory of children has shrunk

The concerns and anxieties of parents are the main reason why children are nowadays less often allowed to play in the street than in the past. At the same time, the children of these concerned parents have become more mobile. They hop from one 'island' to another – with supervision, of course. They come into contact with a diversity of activities, and some of them, the 'Easyjet generation', go farther than earlier generations of children. But the space for children to go in search of adventure for themselves and their freedom to choose their own social contacts have declined tremendously. Today's children suffer from the lack of spatial

and social links between islands. Even playgrounds and other amenities are often not connected to home or school in a way that allows them to go there independently. If that is to change, playgrounds will have to become an integral part of the urban fabric.

The liveliness and identity of the city are determined by what you can do there – in all shapes and sizes. Large: from sailing to city-wide flea-markets. Medium: from informal neighbourhood playing fields to rafting in the canal. Small: from wide, multifunctional pavements to semi-public and collective courtyards.

The way from home to school
A network of child-friendly routes links all these lively places so that children can move safely through the city. That does not mean changing the whole city into a huge pedestrian zone or funfair. A city must rise above what you yourself want and can imagine. Unpredictability is part of the urban character and it is what makes cities so exciting, for children as well as adults.

Independence
If we are to enrich the dwelling environment at more than one level, it requires a coherent concept for youth, the elderly, the multicultural society, play, personal transport and public space. The city is not just a set of buildings, but also a spatial network that includes logical walking and cycling connections. That network not only makes it possible for children and adults to go from A to B in safety, but also provides opportunities for meeting.

Children and teenagers ought to be able to use the city's public space independently. This, unfortunately, this is far from often the case, mainly because parents consider it too risky for whatever reason, even though research shows that children are less often victims of traffic accidents than in the past, despite the huge growth in car use. It is important to children's development that they learn to appreciate hazards for themselves. The dilemma for parents is how much freedom to give them, and how far to go with surveillance. Do you have to follow their every footstep with a GSM tracking device?

Backseat generation
Parents are more concerned about their children than ever. Children of the 'backseat generation' are conveyed to school by car, which leaves parents with the paradox that they themselves are making the route to school unsafe with their vehicles. Other consequences are that the walk or cycle trip to school is at risk of disappearing entirely from childhood experience – and that children get too little exercise.

Child-friendly routes
A network of safe walking and cycling paths that are easily recognized by other road users, of child-friendly routes, gives children an opportunity to move safely through their home environment. It is a blessing parents and children alike: children prefer to go to school, the sports club or neighbourhood centre unaccompanied as soon as they can, without being constantly monitored by adults.

Safe routes
Schools, neighbourhood centres, sports clubs and other amenities should be easily reachable for children and teenagers along safe walking and cycling routes or by public transport.

'This is quite a clear bike route from home to school, isn't it? I can't think why I was scared to let my little girl go by herself.'

Wateringseveld is cut in half by a double traffic artery. This makes it hard for some children to reach the De Vijver school complex.

More than football
Many sports facilities are aimed principally at boys. The wishes of girls tend to be ignored, even though it is now compulsory for government expenditures in the public sector to represent the wishes and interests of the whole target group.

Keizersplein, Nieuwmarkt neighbourhood, Amsterdam
The steel mesh of the sports cage has been replaced by textile nets which can be opened and closed. This simple measure transforms the sports field into a multidimensional place for diverse user categories.

Places 4all
Old people are staying young longer and they wish to continue playing a part in urban life. Plazas and playgrounds are just as important to the elderly and to parents as they are to children. So let the place of play become a meeting place for young and old, an urban microcosm. The place could be a bit of unused land, a small park, public playgrounds, school playgrounds or church squares. It should be somewhere where parent and the elderly can meet, or can keep themselves to themselves in the company of others, and where children can play safely. Combine it with a running track, a boules court, draughtboard tables, an outdoor café, benches in the sun and a winter skating rink. Put up wind screens so people can sit outside in less than calm weather. Provide spots with different detailing for different play activities, so that one form of play can take place without interfering with one another: an open field for ball games, an inline skating track, a recreational nature reserve, places

to build huts, to play hide-and-seek, for dirt biking, as well as a specific playground area with climbing frames, slides and seesaws.

Multidimensional play space

It is welcome that a draft law (in preparation at the time of writing) aims to dedicate three percent of built-up land to play space . This plan deserves full support, but it should be added that the aim should be to achieve the multidimensional use of the land. The mixed character of the resulting places would make them not only safer but also more sustainable. They will be less prone to vandalism and they will last longer. It will also be possible to equip them in an inventive, adventurous way, since manageability will no longer predominate over other considerations.

Bottom-up

Involve the users in the design of public spaces so that they will become the result of a bottom-up process. Teenagers rarely have any say. If they have no place to run a bit wild it does little to enhance public safety. Many people feel threatened by gangs of youths hanging around in the street, whether the danger is real or not. That is why it matters to involve teenagers – both boys and girls – in the design and furnishing of public space.

Flexibility

Our design of eighteen houses for the 'Wild/Gewild Wonen' housing exhibition in Almere was based on an idea of maximal flexibility and freedom. A standard core containing all the essential services such as stairs, corridors, sanitary services, storage room, central heating and, optionally, a kitchen, forms a functional, spatial and financial backbone for the house. Neutral, flexible halls – large, freely configured volumes – can be placed between adjacent cores. It is possible of course to omit the hall and park a camping van next to the core, so the resident can enjoy an occasional change of scene. This idea should appeal to the new generation of 'snowbirds', the actively travelling seniors.

Homo ludens

When you are young you play and you go to school, but when you are older you work and there is no time for playing. This compartmentalized thinking is characteristic of our society. But the idea that schooling and games are a thing of the past once you reach twenty-five does not tally with reality. People are nowadays supposed to engage in lifelong learning – as is evident from the courses offered by HOVO, the Netherlands university for students over fifty. And a walk through a city park quickly disabuses you of the presumption that play is the exclusive domain of children.

Play tradition

The Netherlands has a deep-rooted tradition of play; see for example the paintings of Pieter Breughel, the photography of Ed van der Elsken and New Babylon, the utopian ideal of Constant Nieuwenhuis, in which 'man the playing animal' or *homo ludens* lives in a wholly automated world, free of the need to work and able to devote all his time to creativity. Homo ludens could be an excellent starting point for the design of public space.

Aldo van Eyck's playgrounds

The architect Aldo van Eyck designed about 730 children's playgrounds in Amsterdam between 1947 and 1978. They illustrate his outlook on how the city can be used. He transformed unappealing leftover spaces, which he combined with nearby walls and rows of windows into playgrounds that were both usable and architecturally interesting. Their emphatic presence (both optical and numerical) made these playgrounds into an important feature of the city. In this 'playful' city, conceived by urban designer Jacoba Mulder and Aldo van Eyck, Amsterdam, a city blighted by urban decay and slum clearance gained a new structure thanks to a network of playgrounds. Several of Van Eyck's playground apparatus designs are still in production, for example the funnel, the tumbling rack and the climbing globe.

Sports cage

Sports cages are appearing everywhere. This is not objectionable as such, but unlike Aldo van Eyck's playgrounds they are one-dimensional, closed-off spaces. Younger children, girls and the elderly feel unwelcome there. If they were to become part of a richer arsenal of play facilities, with a grandstand and benches for example, they could contribute more to the public domain and to the safety of the surroundings.

Instead of erecting a single sports cage you could lay out a couple of panna courts (for a form of street football). More children could then play at the same time.

School playground full of varied zones for different play activities. The plaza, the assembly hall and the meeting place in the school merge into one another, producing a lively social situation.

City Hostel, Houthavens, Amsterdam, 2001–2003 (design)
The public space and hotel lobby merge to form an openly accessible whole. The staircase/grandstand functions as an outdoor theatre or as a breakfast rendezvous. The interior and exterior together form an accessible context that contributes to the liveliness of the public domain.
Interaction between visitor, building and city

Schools for secondary and further education
Secondary schools (see for example the Amsterdams Lyceum on Olympiaplein or the Barlaeus Gymnasium on Weteringschans) have a specific position in relation to the city. They do not need the intimacy of a residential neighbourhood. A primary school must be coupled to the dwelling environment and to playground networks, but secondary schools and universities are linked to the city as a whole. A school's architecture and the image it projects must match a sliding scale from intimate for primary schools, which are neighbourhood-oriented, to extravert for secondary schools and higher education, which are city-oriented. The same applies to play locations. For young children, these are embedded in a distinct network. Older children are capable of seeking out a favourite hangout for themselves, wherever that may be for the time being.

School construction is an integral task which relates to more than the architecture of the building. It requires a collaboration among urban designers, landscape architects and the city spatial planning and traffic departments. If schools, especially primary schools, are located within a dwelling zone (a network of schools, playgrounds, neighbourhood centres, shops etc.), this reduces car traffic and hence enhances road safety. The pedestrian and bicycle routes within these networks must be as free of intersections as possible. And where an intersection is inevitable, it must be carefully designed with consideration for foot traffic.

School construction is an urban planning issue. A primary school must be designed to have a pivotal function in the neighbourhood, and to be capable of forming the centre of a small-scale spatial network. Secondary schools, unlike primary schools, do not need the intimacy of a residential area. On the contrary, a secondary school needs a location that is well-connected. The literal and figurative distance between home and the school can rise with the age of the pupils. Just as a primary school benefits from bonds with the dwelling environment and play network, secondary and higher education need connections to the road infrastructure and public transport lines of the city.

Public space *à la carte*

Why should we, as designers, designate the functions of all public and semi-public spaces in advance? A liveable environment may well be better off with a proportion of undesignated space. The development of urban design concepts that facilitate the multiple use of public space makes it possible to establish a connection between top-down planning and bottom-up implementation. It allows and stimulates the emergence of spontaneous developments. Moreover, the users involvement increases in concert with the opportunity they have to decide the shape of their immediate environment. Leave some places unused so that there is room for experience and adventure.

Security utopia

In their effort to come to grips with the risk society, people have become obsessed with security-mindedness. Road humps, smoking bans and surveillance cameras – we try to eliminate risk in all kinds of fields. In recent years we have even had a national integral security policy. It will lead to a stringently normalized society. Anyone who does not come up to standard will be branded as deviant and excluded as an undesirable. Public space has, partly for this reason, become in many places a neutral, minimized and standardized context where control and surveillance prevail above all else.

Fear

The 'Frauenparkplatz' sign reserves parking slots for women next to the entrance of the restaurant, so that female drivers can reach the door in safety. It is typical of an over-the-top safety measure.

Safety versus adventure

The rising tide of safety regulations goes hand in hand with a growing compensation culture. These are caught in a vicious circle. A schoolchild only has to bruise a knee in the playground, for example, and the parents come knocking on the headmaster's door. The outcome is even more rubber tiles in the playground. The compensation culture makes it impossible to even think of the issue of safety from a different angle and ask how much risk we are prepared to accept. Safety and regulation are the polar opposites of adventure, and the freedom to discover what you can or can't yet do, and of learning to recognize hazardous situations. If the parents are overprotective, the child will not learn to be resourceful and independent.

Top-down, bottom-up

Promote the involvement of users by putting forward an urban plan (top down) in which they can fill in the details themselves (bottom up). Develop urban concepts that facilitate the multiple use of public space, which can accommodate, combine and elicit spontaneous developments in unexpected ways – concepts that give people the freedom to make the neighbourhood their own. Above all, don't try to control every little detail.

Ragged edges

Undeveloped land, building sites and buildings due for demolition – these are favourite play places for children. Only in places like these can they establish their 'free realm'. Places where something of that freedom recurs are the urban beaches that many cities have today. Unfortunately they are often temporary in character and vanish as soon as the zoning plans come into operation.

Designing for the unexpected

The ragged edges are often the nicest meeting places. These informal spaces offer excitement and sensation, which are such characteristic aspects of the city. But is it actually possible to design the city for informal, spontaneous use? Is it possible to created places that invite people to take part in temporary, spontaneous and unpredictable activities, in different behaviour and play, which make it possible to experience the city as something different and so discover a different city?

Neglected spaces

The architect Aldo van Eyck perceived the value of lost places in the city, which he introduced into architecture using the term 'inbetween'. The hundreds of playgrounds in Amsterdam by Aldo van Eyck and Jocoba Mulder were special because they were inbetweens in the urban fabric which together formed a spatial and social network. There is every reason to devote attention today to this kind of inbetween and for the special meaning it could have for the functioning of public space in the city. In this inbetween space, it becomes possible to take initiatives that would have no chance of success elsewhere. Spontaneous uses can compel an official designation. Consider the spaces under viaducts, which have gained the status of sports facilities through their persistent use for this purpose by young people.

Free realm

The passion for planning and regulations has eliminated practically every place where children might give free rein to their imagination. Outdoor play has been constrained everywhere to specially designated places

furnished with one-dimensional playground apparatus. In Holland, the springy chicken has become the standard ingredient and the sad symbol of these places. The design of play objects like these satisfy every imaginable safety requirement so that the playing child cannot possibly do itself mischief. But why isn't there more public discussion, and can't parents help to decide where the boundary between safe and risky lies? A challenging play environment stimulates the imagination and promotes motoric, sensory and cognitive development. And, if there isn't a parent in the vicinity to settle every little childhood quarrel, the children will learn to resolve their own conflicts, which is good for their socio-emotional development.

Jeugdland
Jeugdland (Youth Land) is an adventurous 'building site' for children. Children can let themselves go in an untidy marginal area, where they can create their own little territories and build huts. The initiative has been repeated in several places in the Netherlands.

The cell phone has make meeting less dependent on fixed places. The urban explorer is no longer confined to a specific location for his contacts. You could set up an ad hoc Friday Night Skate with your friends anywhere.

2 School

164   **A palace of education**
           More than a school

Today's school is a community school. Community schools may seem motivated by idealism, but in essence they are often the result of mergers between educational institutions and local social and cultural amenities, prompted by financial considerations. The question is just how inclusive a community school can become – without it turning into a fun fair for schoolchildren – if it is to function optimally in an integrated approach to youth problems, and contribute to integration and the social cohesion of the district and neighbourhood. Ideally, the community school should be like a beating heart of the district, sustaining its life by encouraging families to stay in the city.

The new 'church'
Community schools fill the gap left by the declining social role of churches of various denominations. This is reflected in the school's aura and location: rather than being tucked away in the outskirts, the school and its playground act as a social magnet in the middle of the district.

Community school
As a public or semi-public building with a diversity of communal, societal and cultural functions, the community school forms an intensive part of urban life. Not only is the building used until 6 PM by pupils and the children in post-school childcare, but a wide range of adult activities take place there in the evening. Associations meet, evening courses take place and the sports facilities operate flat out. The assembly hall could turn into a disco or a concert hall.

As a place of encounter, interchange and social education, the community school plays a pivotal role in the community. The school develops a multiple identity. A good school building backs this multifaceted relevance with its architectural concept and its physical appearance. An advantage of a wide-ranging community school is that it develops a focal function for the surrounding neighbourhood. But a disadvantage of the concentration of amenities is that the rest of the district is left to become uniformly residential.

Conflict with bureaucracy and low budgets
The budgets made available for school construction are atrocious; far more is spent per square metre on ordinary office space. The norm of an office is eight square metres per person, but in a school the

same eight square metres must be shared by five people. Four hundred euros are typically allocated to building services for each square metre of office space but for schools the equivalent is less than two hundred euros. The usual construction budget for a school is about 850 euros per square metre; offices typically exceed this figure by about forty percent.

Schools come off badly not only for space but also for interior conditions. As research has shown, a poor air climate is detrimental to learning performance. One in three schools has too much dust in the air. Nearly half of all schools are too hot in summer, and one in five is too cold in winter. Airborne fungal spores are present in 20 percent of schools. Four out of five schools exceed CO_2 norms. There are even schools with windows that cannot be opened – something that is actually forbidden by the Dutch building regulations.

The open-air schools that were built in the Netherlands and elsewhere after 1920 were based on the belief that daylight and fresh outdoor air had a salutary effect on the health and performance of pupils. At least one wall of the classroom could be opened fully to the outside atmosphere. A primary school of this type still operates in Brasschaat, Belgium. They do not close the sliding doors until the temperature drops below -5°C. The pupils wear appropriate clothing – ski suits and woolly hats in winter, for example.

Several studies have shown that children can concentrate better and perform better by daylight. That is why experiments are now taking place with full-spectrum daylight lamps in the classroom. Daylight seems almost an enemy of modern school design: if the school is too well-lit, it will fail to meet energy performance standards unless it has a powerful ventilation system, and that is out of the question on a normal budget. The lighting norm for a classroom is 500 lux, but this proves to be insufficient to keep the body in synch. So should classrooms have bigger windows? For comparison, the light level outdoors on a clear day is 100,000 lux and on a cloudy day 30,000 lux.

Schools adopt shopping centre

In most Dutch towns, the heart of any residential area is formed by a suburban shopping centre. Often it has offices and public service facilities in the immediate vicinity. Many of these shopping centres are out-of-date, needing refurbishment and upgrading with new functions. Their central location and the available car parking space makes them ideal sites for community schools. Building a community school has the effect of revitalizing the shopping centre and its environs.

Holleblok urban redevelopment, Huizen 2001 (design)
Shops and school landscape

De Huizermaat in Huizen is a spacious district with ample greenery. It has a central area called Holleblok, which has shops, schools and a social centre. The 1970s centre suffers from many structural and organizational problems; it is also too large and too inflexible in its layout. Our urban development proposal entails several changes, some of them practical and some of them idealistic.

'Hollow block' with a filling

For various reasons, preservation of the shopping centre and old-age care facility is clearly the best approach. Our proposal entails building a sturdy shell around these two amenities to form a kind of 'fort'. The shell incorporates housing for elderly residents. The dwellings interact intensively with the care facility and are therefore little troubled by the dense setting. The roofs of the centre are topped with grass or sedum and so provide green terraces for the dwellings. Prominent entrances give a glimpse from outside of the colourful lining of this urban coat. The fort is a prominent feature of the surrounding district, and is accessed by an obvious ring road. The result is to introduce a distinctive, unambiguous structure into this otherwise amorphous suburb.

Green fingers

The schools and the social centre will be demolished. This will draw the splendidly rural Bad Vibelpark into the central area in the form of a number of green 'fingers': the park embraces the fort, as it were. In (or actually under) these green lobes, are three schools with shared facilities and youth housing. A route rises from the centre to give access to the rooftop park.

Holleblok buzz

With its mix of different functions and housing types, Holleblok will develop into an animated but coherent entity – a hyper-community school in which differing functions support one another and facilitate all kinds of dual use.

Vinex

Vinex, the name that has become attached to the new towns and housing estates developed under the Dutch national housing policy of that name, is typified by an absence of culture or commerce. A Vinex development usually lacks amenities like cinemas, bars, bingo halls, restaurants, churches, reception halls, street markets or dance schools. Schools – especially community schools – have therefore developed an important function as a meeting place for the district.

Changing family structures

The Dutch family culture has undergone huge changes in recent times. Traditional living patterns and relationships within the family have declined to be replaced by dynamic social patterns with new forms of communication. The classic nuclear family with two parents and an average of two children, has become more the exception than the rule, especially in cities. Parents divorce and enter into new relationships, with the result that many children grow up as part of more than one family circle. But even where the traditional family structure still exists, significant changes have occurred. Families have grown smaller, resulting in a greater focus on the needs of the individual child.

Democratization of the family

Changing social outlooks on upbringing, individuality and authority have brought about a change in the relation between parent and child. Instead of being purely leaders, parents have also become managers. The family circle has become democratic. During quality time on a Sunday, children strike deals with their parents about how to spend their time and money, and about school results and behaviour.

The child as a project

In a society where success and getting results go before all else, children are increasingly treated as a project that must not be allowed to fail.

Sketch for a new school

Changes affecting childhood such as the relationships within the family, new ways of spending leisure time, change in children's relation to society, interactions between groups from different cultural backgrounds and changing lifestyles, all have an impact on school life. These developments place new requirements on school buildings. Education has itself undergone changes, with a new focus on self-fulfilment. The child's individual capacities and interests have become the starting point for the acquisition of knowledge and skills.

Home away from home

Teachers complain that parents increasingly regard the school where they can 'buy' education for their children. Parents have less and less time to spare for their children. They bend over backwards to park the kids somewhere during the day, so that they can continue pursuing their own wishes. The result is that children have to spend longer and longer on the school premises: arrive at 8.30, lessons, lunch at school, lessons again, and 3 pm go to the post-school childcare facility which is often in the same building. By the time their parents pick the children up at 6 pm, they have spent 9.5 hours at school. This compares to

4 hours (excluding sleeping time) that they spend in the household environment. From this point of view, the school is more significant as a context for childhood life, experience and development than the home. Together with the trend towards self-realization and individualization for schoolchildren, this impels a new look at what a school building should really be like, and what form it can give to all these new concepts.

From intimate to extravert

Young school children need a school with an intimate character. A primary school pupil who stays in the school's own post-school facility after lessons is spending the whole day in the same building. The school becomes the child's second home, where he or she 'dwells' with many others. The child must therefore have a chance to withdraw from the crowd. Each pupil should have an individual working spot, a kind of enclave, with personal guidance from the teacher. The school then becomes an archipelago of these enclaves, and the intervening zones – the hall, staircases and corridors – operate as the socialization places. For cultural activities, the stairs can double as a grandstand. Getting to know children of the same age is at least as important as the actual lessons, especially in secondary education.

Theatre of life

Romance, quarrels, envy, gossip, backbiting, world-weariness, sadness, friendship, teasing, gain, loss, uncertainty and self-assurance: these are the great emotional vicissitudes of life that have their first, most intense, impact during a child's school years. The school building must have places where all this can take place, in private or in public. Vestibules, corridors, stairs, niches, corners, the assembly hall, the playground and the sports field all form the stage for these milestones of socialization. Besides interaction, the school must present opportunities for solitude, quiet and introspection.

De Vijver school complex, Wateringseveld, The Hague 1998-2001

The school complex is located in Wateringseveld, a Vinex suburb in The Hague. This new district consists largely of rows of two-story housing in a radial plan. With its tapering H shape, the schools complex conforms to this pattern, but its tall sports tower has an exceptional prominence in the district.

Freedom by virtue of clear logistics and structure

The complex consists of a primary school for 28 classes and the De Joppe day centre for children with multiple complex handicaps. The building has a formal layout with easily distinguished loci that help the children to develop a sense of where they are in the school. This

lucid general structure also contains an informal circuit, a world to be discovered. There are numerous corners, niches and voids where the children can play hide-and-seek, and where adults are not likely to enter – for example, the space under the grandstand.

Separate entrances

About 1,500 children, parents and staff arrive at the school every morning – equivalent to the population of a small village. The extended H-shape provides separate entrances for nursery, primary, secondary and senior pupils. This reduces the effective scale of the huge school and makes for improved social manageability – nobody has to feel lost in the crowd.

Post-school reception

To the children, the post-school reception is more than just a waiting room, but is a world in its own right. So the building section it occupies must have a recognizable identity.

De Vijver school complex, Wateringseveld, The Hague 1998-2001, and De Joppe Day Centre for children with multiple complex handicaps

Back to school together?

De Joppe is a day centre for children with multiple complex handicaps in the age range from birth to 18 years. The facility forms part of the De Vijver school complex. The original intention was to integrate De Joppe and De Vijver more fully within complex, which was the preferred solution of the day centre itself. In the end, the city's education, culture and welfare department (the client for the primary school) decided to place the schools literally back to back without any connection between them. Perhaps the formal functions were too different.

De Joppe occupies space on the ground floor of the complex in a U-shaped structure enclosing a small playground on the canal side. There are six child groups. The children need to use mobility appliances of many kinds such as standing tables. Niches and cupboards have been designed to store the appliances ought of sight when they are not in use. The day centre's programme includes a swimming pool, a motor development room, physiotherapy facilities, a multi-sensory stimulation room (a soft-furnished room where a child can lie listening to music and calm down) and room for parents.

A corridor is not just a neutral connection between classrooms. It is a place in its own right and has niches and sliding partitions behind which there are small, semi-public spaces. Here pupils can seek intimacy and quiet. The purpose of this approach is partly to meet contemporary

requirements e.g. for self-expression and for new, individualized forms of education such as working on a computer, and partly to provide much-needed places for contemplation. This approach is a response to the current educational model which treats the child as an autonomous individual, as opposed to the classic model in which childlike behaviour is constantly reinforced. This 'small adult' needs a small but real world – a world waiting to be discovered. The teachers have to remain more or less invisible here. The architectural model is that of the street and the jungle with a touch of Alice in Wonderland.

Flexible use of space

Teaching in this primary school uses the Dalton method, whose precepts are freedom of choice, the ability to work independently and cooperation. The children learn in a situation of liberty, taking responsibility for their actions and collaborating with others to solve problems.

Niches and the tapering corridor respond to the need for independent working and play areas. The niches are designed for flexible use. They can be joined to the classrooms, together with part of the corridor, whenever required. Designing the corridor to include educational functions makes the school into more than a set of conventional classrooms. All the classrooms are situated on the street-facing side, away from the distracting noise of the playground. The floors are covered with linoleum in differing shades of red. These colours extending into the corridor, making the classrooms easily identifiable when seen from the long corridor.

Corridor as play and work area

The cheerful corridors are the children's domain. Large areas of cork sheeting provide pin-up boards, and large areas finished in blackboard paint fill the wall space below the door-height wall rail in all the spaces.

Wardrobe cupboards

Specially constructed cupboards accommodate the bulk of children's coats and bags. They also protect the expensive prestige-label clothes that many children wear nowadays.

Theatre

The main entrance is under the gym, between the two playrooms. The two partly-sunken playrooms ('cages' enclosed in wire netting) can be linked together with the corridor into a single, large assembly hall with an elevated stage or catwalk. The gym changing rooms, situated one floor higher, can then be used as dressing rooms. The children ascend the stage/catwalk via the two staircases.

Grandstand

The grandstand is the social and cultural focus of the school. It functions as an outdoor theatre, as a rendezvous or just as a place to hang around and see what happens. Every building must have a heart of this kind, a place of interaction and meeting.

A plaza for the neighbourhood

If the school playground stays open after school hours, it reinforces the school's social role. A plaza of this kind is not only a children's playground and a flirting opportunity for parents. It is a meeting ground for everyone. An attractive plaza contributes to the vivacity and social cohesion of the neighbourhood. People from different ethnic backgrounds can make acquaintance here. If the plaza fulfils this kind of role, it can also lower the threshold for ethnic minority parents who otherwise find it difficult to take an active role in their children's school life.

Sports tower and childhood obesity

The playrooms, the gym and the basketball court on the roof have a central position within the building, and they are acoustically isolated from the classrooms. Transparent steel-grid floors give a view of the whole sports tower from the inside. A huge opening with skylights at the top splits the interior in two. Daylight penetrates deep into the building.

In a time when children are increasingly overweight, and when parents hardly ever let their children play outdoors, sport and exercise must have a prominent place in the school. The basketball court is a public playground that enjoys a view over the whole Vinex suburb. At the same time, people in the surrounding neighbourhood have a view of the playing children. Sporting users of the gym are visible through a large window in the evening.

Het Spectrum primary school, The Hague 2001-2005

The project location is Schilderswijk, a typical urban regeneration area in The Hague. The neighbourhood has a multicultural population which includes over thirty original nationalities. On the site of an existing school, now demolished, we built a new school for 22 primary classes, two toddler playgroups, a parents' meeting room, a classroom for adult courses in Dutch and a mediatheque. The only part of the old school to be retained was the gym with changing rooms.

The new school is surrounded by a district with a fragmented urban character. Nineteenth-century perimeter blocks alternate with large urban redevelopment projects from the 1980s and 1990s.

Instead of a single, large playground (as in the former situation), we built two smaller, more intimate plazas, one on each side of a T-

shaped school building, adjoining the street and relating better to the urban fabric. This allows children to enter the school in two streams. The relatively small plot necessitates a three-storey building and dual use of the land: a third playground is located on the roof of the central volume.

Hall

All parts of the building connect at the atrium-like hall. A corridor would be irrelevant here. It is unusual to have a second upper-floor level in school building, but it has is advantages. A multistorey building can be very compact, and the central opening in the volume provides a view of what is going on on the galleries above and below.

Quiet and concentration

The classrooms are located along quiet corridors which are acoustically isolated from the dynamic centre. The corridors have been made extra wide, so that they can be used in future for individual work locations and similar purposes. The large glass sliding doors that separate the classrooms from the corridors allows teachers to keep an eye on the individual work locations, and also to see one another at work and so to maintain professional contact. It is a transparent working environment where people can learn from one another and intervene when necessary.

The corridors also contain small cubicles which can be used as à la carte working spaces, for example for staff management, teacher-parent meetings or concentration spaces for teachers and pupils. These cubicles are separated from the corridor by large glass sliding doors.

Playrooms as an assembly hall

The playrooms on the ground floor, which also form an assembly hall during festivities for pupils, staff and parents, are bounded by low cupboards which contain the games equipment. The cupboards can double as benches for spectators during festive events. The transparent industrial curtains reduce noise and function to trap flying balls. When the curtains are open, the playrooms, corridors and staircase form a single, lively whole. The sliding doors of the chair storage space under the stairs can double as stage wings, and children can ascend via the staircases like true stars of the stage.

Parents' room

A separate room is provided for parents bringing and collecting their children. Tea and coffee are provided and they can chat in comfort as they wait.

Communication with parents

The involvement of parents is very important to the school and to the community as a whole. The primary school is often the only place where parents from different backgrounds come together. The parents set great store by the moments when they deposit or collect their children, so there must always be a congenial, inviting entrance – not a large vestibule, but something like a coffee corner in the school restaurant where parents can meet.

Sports and games

The school playground on the roof and the glass aquarium-style windows of the playrooms on the ground floor give the building a recognizable individuality. This is unmistakably a building for children where sports and games have due prominence. Give children plenty of opportunities for sports participation, and give them plenty of walking to do in the school: that is probably a more effective way to combat the obesity trend than putting warning stickers on fast foods.

An eye for scale

Schoolchildren must be able to identify with their surroundings. When a school is turned into a community school, the scale must not become overpowering. The school environment must be appropriate to the child's experiential world. A community school is not a city, nor is it a microcosm of society. Clarity and structure are calming, promote contact and give pupils a sheltered feeling. The school staff also need a clearly structured working environment with facilities that meet contemporary requirements. If people can identify with a building and feel at home there, they are more likely to feel responsible for it.

De Matrix community school , Hardenberg 2004-2006

Education, childcare, healthcare and welfare are equal partners within the community school concept. The brief for the De Matrix community school included a Protestant primary school (thirteen classes), a public primary school (seven classes), a creche (three groups), post-school childcare (one group), a toddler playgroup, a practice for physiotherapy and speech therapy, two gyms, a 'multi sport plaza' on the roof, a communal hall, two conference halls and a large shared kitchen. Parts of the building will be used in the evenings for Stichting De Stuw (a foundation for youth and old-age social work), courses, association meetings and religious services.

Small scale and manageability as a basis for the design of learning environments

The large scheduled floor space of approximately 5 thousand square metres is divided into ten intimate clusters which are grouped around a

central 'heart'. The participants are individually recognizable. A primary school is supposed to have a maximum of 500 pupils. Including the toddler playgroup and the day centre, De Matrix has about 550 children. Gigantic schools with thousands of pupils sap the energy of a district and cause traffic snarl-ups.

Meeting place and landmark for the neighbourhood
The complex has a prominent presence in the district as a building for young people with sports and play. The heart of the building consists of an assembly hall which can be expanded by combination with the adjacent play spaces and conference rooms to form a single large space. The building is topped by a rooftop sports ground. As a multi-storey structure, the building towers above the surrounding low-rise fabric and creates a recognizable landmark in the new suburb.

Central place
The concept of a central place is continued down to a micro-level. A play/work space in which communal activities can occur gives access to the classrooms. The classrooms for the lower school on the ground floor similarly have a separate access directly from the outside. The section of the building dedicated to post-school childcare has a distinct atmosphere, so that the children do not feel they are being kept behind at school for hours on end. The arts and crafts workshop is included in this section of the building.

Schools and the multicultural society

Half the population of Holland's larger cities is likely to consist of people who originate from other countries within the foreseeable future. The kind of society that will result is presently still under discussion. On the one hand, there are indications that we are heading towards a hybridized community with a mix of cultures, styles, functions and objectives. Culinary practices and fashion are often the first domains in which different cultures fuse. Many normal Dutch city-dwellers have long found their way to the Moroccan butchers, and fusion cuisine is on the menu in many restaurants. Conversely, immigrant communities have adopted some aspects of Dutch culture. Here and there, the Eid festivity which marks the end of Ramadan is celebrated with a children's party with traits of the traditional Dutch Sinterklaas such as presents, drawing lots and writing rhymes for one another. Some Muslim households have even been noted with Christmas trees at Christmas.

Since the events of 9/11 and the murder of the Dutch film maker Theo van Gogh, on the other hand, there have been signs of a sharpening of ethnic tensions and a greater tendency towards segregation. Concentrations of ethnic minorities in deprived urban districts, and the tendency of Dutch education to fracture into 'black' and 'white' schools, have only added to this trend. The national debate on integration has in recent times focussed on cultural and religious differences. This however glosses over the disadvantaged socioeconomic circumstances in which a large proportion of the Dutch ethnic minority population lives. The young are our future. Education and better-mixed schools must therefore receive priority. A mixed-community school is also the foremost place where parents can become acquainted with one another. It is against this background that the designing of schools concerns us as architects.

Schools for the Next Generation

Continual reports of petty crime and aggression which more often than not involve ethnic minority youths have been fuelling widespread dissatisfaction with the so-called multicultural society. The journalist Paul Scheffer tried to sum up the discussion of these issues in the Netherlands through a much-discussed article 'The Multicultural Drama'. Our inclination not to speak our minds because we fear committing the sin of discrimination has undermined the whole national integration strategy. Contrary to the belief that openness and tolerance prevail everywhere in the Netherlands, this country is home to different cultures living side by side but with little mutual understanding. Segregation is also reflected in our schools to a significant degree. The number of so-called 'black' schools is increasing all the time. The sense

of alienation within society as a whole is growing and there is a risk that social dissatisfaction will continue to rise, with highly undesirable consequences.

The school is one of the few domains where Dutch citizens of differing ethnic origins can meet in a more than superficial way. This saddles schools with yet another special responsibility. A question to be considered is how these developments in society can be reflected in built concepts for schools for the Next Generation.

A new demography

In ten years time, some half of the inhabitants of Holland's main cities is likely to consist of people with non-West European roots. Many schools in the Randstad conurbation already have a preponderance of ethnic minority pupils. A large proportion of the minority group families function not only in Dutch society but also alongside it. They are in a weak socio-economic position and their cultural background is does not align well with Dutch education. What educations requirements can be placed on them, and which must be? And what kind of architecture and design is best suited to their needs? In order to gain a better understanding of this group's cultural background, we compared schools in Turkey and Morocco and Islamic schools in the Netherlands with the main categories of school education available in the Netherlands: public schools, non-denominational special schools (e.g. Montessori, Dalton and Jena Plan systems) and denominational special schools (Catholic and Protestant).

Article 23 of the Dutch constitution proclaims the freedom of education, and special schools as well as public ones are funded by the government. Denominational special schooling has expanded since the mid 1980s to include Islamic schools, which fall under the Education Act like any others. Out of a total of about 5 thousand primary schools, about 35 are presently Islamic. Two schools for secondary Islamic education have been established, in Amsterdam and Rotterdam.

A comparison with other schools makes it obvious that Islamic schools require a different architecture. Boys and girls have separate gym and swimming lessons, and in some cases the classroom is divided by a curtain between the sexes. Islamic schools are also distinguished by the presence of a prayer room and washing facilities.

As to the education provided, there is considerable contrast between Montessori, Dalton and Jena Plan teaching on the one hand and that provided by Islamic schools on the other. The former category stresses autonoomy, individuality, self-expression and freedom, but Islamic schools – like many other denominational special schools – have a top-down approach with a curriculum chosen by the school governors and delivered by the teachers. So the teacher does not stand among but above the pupils, which yields a different social dynamic. The roots

of this educational model may be found in the schooling of Morocco and Turkey.

Article 23 of the Dutch Constitution entitles special schools to reject pupils who do not support their doctrinal standpoint. This means, for example, that a Christian school is allowed to refuse admission to a Muslim pupil and vice versa. Ethnic minority students therefore often have to rely on either public or special Islamitic schools for their education.

Primary education in Morocco and Turkey
Compulsory education begins at age 7 in both Morocco and Turkey. Primary education is divided over state and private schools. There is no primary education on a religious basis, although in Turkey lessons on the norms and values of Islam are compulsory.

In Morocco, the curriculum is identical for all primary schools: teachers deliver the same lessons at the same time in every school. Lessons in the state schools are mostly given in Arabic but those at the private schools generally in French. Pre-school education for young children (age 4 to 6) is provided by private and Koranic schools. Primary school teaching is given on six days per week, and the children wear school uniforms.

Turkey, too, has the same curriculum and lesson timetable for every school. As in Morocco, primary education at state schools is free, but parents have to pay for teaching materials and school uniforms themselves. Pre-schooling/kindergartens are available for children aged from 3 years upwards, but only ten percent of children take advantage of them.

A combination of limited facilities and a large number of pupils in Turkish primary schools makes it necessary to divide the school day into two sessions, one in the morning and one in the afternoon. The typical class size ranges from 25 to 40 pupils. Unlike in the Netherlands, a teacher is attached to a class in its first year and continues teaching this class until they leave primary school. A portrait of Atatürk, the founder of secular Turkey, and the lyrics of the national anthem hang above the blackboard in every classroom. The pupils recite an pledge at the start over every day in which they promise to protect those younger than themselves, to respect their elders and to love their country more than they love themselves. The pledge concludes with 'Happy is he who can call himself a Turk'.

The fixed timetables and curricula in Morocco and Turkey and the methods of teaching used preclude the development of alternative educational practices such as those of Montessori or Dalton. Unlike children in the Netherlands, the pupils are not treated above all as individuals but the communal interest takes priority. The teaching

methods are classical and the teacher is a figure of authority. Teachers are much stricter in their discipline than here: a rap across the knuckles is not infrequently the punishment for disobedience. This is considered beneficial to development of the child's character. Creativity and individualism are much less highly valued than in the Netherlands, where self-motivation is stimulated. This leads to differences in the degree of participation in classical teacher-class situations and in group activities: in situations where Dutch children typically react with disinterest, Moroccan and Turkish pupils prove eager to learn and to take an active part in discussions.

From Morocco to The Hague
Schools in the Netherlands reflect the ideals and wishes of society for the development of its children. Morocco and Turkey are no different in this respect. Schools in these countries generally have a central communal space such as a schoolyard, a courtyard or an assembly hall, which fosters a collective mentality. The family norms and values that dominate the raising of children are also represented in the curriculum and the school building. For young people in Morocco and Turkey, the situation is clear: what applies at home applies at school too.

Problems arise for ethnic minority children in the Netherlands because the norms and values they know from home do not apply at school and vice versa. It is hardly surprising that pubescent boys get confused if the strict rules they learn at home practically prohibit them from so much as looking at a strange girl, while the street scene is teeming with naked skin and erotic imagery. Similarly, there is a gulf between the domestic milieu and a school system such as that of Montessori which promotes individuality and independence.

Main educational values in immigrant populations

- Social success
Finish school, diplomas extremely important, find a job, personal dedication and diligence
– Conformism
Obedience, respect for parents, politeness, good manners, modest behaviour, staying on the straight and narrow
– Sociability
Helpfulness, being loving and warm, showing understanding, showing respect, reliability, tolerance, making allowance for others
– Autonomy
Independence, resourcefulness, honesty, responsibility, strong character

Source: J. Van Der Hoek, 'Niet met zoveel woorden. De opvoeding in migrantengezinnen' in Ineke van der Zande (ed.), *Deugt de jeugd?*, Maarssen 2000, p. 83-104

'When it rains in society, it pours at school'
Young children play together in an unprejudiced way. If they grow up together from infancy they will get on together better as adults. But Dutch majority and ethnic minority children seem to live in different worlds, with their own schools and their own sports clubs. The socioeconomic disadvantages of many ethnic minorities often begins at school. A high percentage of the pupils who leave school early and later have fewer opportunities are from immigrant communities. The third-generation children grow up in a vacuum. They become alienated from society. Their Dutch is often substandard but neither do they speak the language of their parents. The anti-Western sentiments increasingly expressed by children of the Moroccan immigrant community are the outcome of a poor self-image and the lack of a vision of the future. These factors are reinforced by actual experiences with discrimination and prejudice. The faltering coherence of society as a whole is perpetuated at school. As Kees Schuyt has stated, 'Social unrest is more tangible than anywhere in the educational context. When it rains in society, it pours at school.'

The Netherlands has five million young inhabitants in the age range 0 to 23 years. Out of these five million, 750,000 have above average problems and 40,000 have complex problems.

A plea for community schools at VMBO level
Customized curricula are important to preventing early leaving among secondary school pupils, but they are not sufficient. VMBO schools (secondary schools which prepare pupils for direct employment or for non-degree further training) should become community schools which

collaborate with homework clubs, small businesses and workshops such as bicycle repairers in which pupils can gain working experience, where there is room for sports and computer clubs, a reporting office for child abuse, a legal advice centre, a youth social work office, youth probation service, or a district centre where parents can take courses in language and child upbringing. They should be buildings where everyone – including 'new' Dutch citizens – can be proud of and where they will feel at home.

The secondary school could also respond to the anticipated demand for post-school reception facilities for older pupils, in the form of a youth activity centre linked to the school. In the Baltic States, for instance, centres like these for youth aged up to 21 are very popular. A centre of this kind could also provide leisure activities during the summer holidays.

Parents would have an important part to play in a community VMBO school. It is crucial to involve them in the educational process to enable the children to bond with the school. Minority parents are often unwilling to attend evening parent-teacher meetings because they are embarrassed by their own ignorance or because they do not speak Dutch. Sometimes they do not know what kind of school their children are attending, what they learn there or what they do with their time. A community school can lower the threshold, promote social contact and improve the parents' understanding of their children. With all its amenities and functions, the community school becomes the social focus of the neighbourhood, a place where a fusion and mixing of cultures can become reality. As things are, neighbourhoods often resist the establishment of a VMBO school in their midst.

Best of two worlds?
A Morrocan child, who has a much stricter upbringing at home than is usual among Dutch families, must find it very confusing to find himself or herself in a Montessori school – let alone to experience other aspects of our much more liberal culture. The panopticon model assigns the centre a supervisory function, but designing the centre of a building instead as a meeting place gives this space a favourable connotation.

Homework guidance
Minority parents attach considerable importance to their children having a good education, but they are not always able to help them with their homework. Homework guidance and contact with parents are growing increasingly important. Every schedule of requirements should make spatial provisions for that activity.

Safety 1

It is impossible to design a safe building, because safety is a relative concept. But it is possible to create conditions which promote a safe environment, for example by designing spaces that combine supervision and encounter. Security is a means – it can never be an end. Too much security is self-defeating. The greater the pride of the users in their surroundings, the safer those surroundings will be.

Safety 2

Requirements to ensure the safety of pupils and teachers dominate the architecture of schools and outdoor spaces. Instead of integration and a sense of security, the result is isolation. We are heading towards having in-house security services in schools. The money this costs could instead be invested in the building, in meeting places or in spaces for parent participation. If it is necessary, simply have the teachers remain in school from 7.45 am to 5 pm.

Panopticon

As long as the melting pot is a future dream, we must respond to the current situation. For school design, this means we must find a way to develop models in which different (if not opposite) upbringing ideals – the Western values of liberty and self-expression, and the disciplined upbringing of other cultures – can coexist. An example of an architectural model which lends itself to this combination is the panopticon. Its centre is a hall which functions as a social and cultural focus but which also facilitates supervision. This is surrounded by informal rooms, niches and corners where children can withdraw and briefly escape the supervision.

Meeting and supervision
Het Spectrum primary school, The Hague 2001-2005

The knowledge we gathered in our study of schools and school systems in Morocco and Turkey formed an ingredient of our design for the Spectrum primary school in Schilderswijk, an economically disadvantaged district of The Hague with a high immigrant population. This multicultural school combines meeting and supervision in a single model. The 24-class school is mainly populated by children from ethnic minority backgrounds. The typically authoritarian style of non-Western schools is contradictory to the equality mind-set that characterizes Dutch education. In the design of the school, we sought a synthesis between the two approaches. The transition from the home milieu to the school is considerable for many ethnic minority children. A child brought up in a strict home may feel lost in a liberal educational format. This expresses itself in an ambiguous interpretation of an unambiguous

spatial organization: both supervision and meeting at the heart of the school. The school thus offers minority children the comforting familiarity of watchful adults (in the form of a janitor, teachers and visiting parents), while at the same time having the opportunity to gain experience of the Western educational values of liberty and self-expression.

Hybrid
Fusion, Amsterdam 2006-2008

Fusion, hybrid architectural culture, a quest for synergie and a new iconography. The requirement for Fusion, the name we have given the multifunctional building in the Transvaal neighbourhood of Amsterdam, was to combine a Turkish/Moroccan cultural centre (including spaces for prayer and for courses) with a Dutch institution for employment creation. The ground plan follows a generic, flexible scheme so that it will retain a capacity for different uses in the future.

It is unusual to accommodate Turkish, Moroccan and Dutch community functions in a single building. The central staircase provides space for interaction between the communities. We tried to achieve a blend of Arabic architectural styles with the geometrical brickwork motifs of the Amsterdam School style, resulting in a hybrid architecture whose exterior does not immediately disclose what takes place inside.

Problems have gradually arisen about the facades. We were asked to remove Turkish and Moroccan symbols because the building was not supposed to have an Islamic look. The 'multicultural' ideal seems to refer nowadays primarily to these ethnic minority groups. In 50 years time it may have become a non-issue, as in the United States which has been a melting pot for several centuries.

Inspiration

The Al Ghadir Mosque in Teheran and Berlage's Gemeentemuseum in The Hague. The principle that architects absorb an influence from foreign and historical examples on their travels is as old as the road to Rome.

Facade study for a 'black' primary school in Schilderswijk, The Hague, which is attended by children from countless different cultures. The original Dutch inhabitants have moved out to the new Vinex suburbs.

School playground layout merits greater attention. There is no reason why it has to be a boring rectangle paved with concrete tiles where children can do no more than hang around in the break. The playground forms an imperceptible transition between the street and the school, from the public to the semi-public domain. It is a place that people from the neighbourhood could also use.

The playground could turn into an adventurous green zone, with a school garden, orchard or play meadow combined with a neighbourhood square, a sports plaza and a fine slab of asphalt. Instead of treating play and movement as an incidental extra, we could take it as the starting point of the design. It is a real necessity for the backseat generation, the children who are always ferried back and forth by car or (in Holland, at least) in the box of a carrier bike. But it costs money. The standard budgets for school construction that municipalities receive from central government are too low. The playground is often at the bottom of the priority list and does not have a separate schedule of requirements. Low budget ends up as no budget.

The sports palace
Combine the school with a sports centre which the pupils can use free of charge – a facility where the public can swim and train on apparatus. It should have space for football and basketball. Sports and games break up the long school day. The 'sports palace' is an answer to the lack of exercise, fresh air and daylight.

Alice in Wonderland
De Vijver schools complex, The Hague 1998–2001
Space for the upper years of the secondary school, situated on the first floor, can be accessed not only from inside but also via a huge grandstand with an elevated playground deck. The whole building is climbable by way of the grandstand and sports tower. The result is a kind of amusement park with different levels and different play zones; the whole building turns into a play apparatus. Play elements at ground level similarly lack a literal, univocal purpose but instead invite free association and adventurous activity. The function changes with the game: investigation, discovery, surprise.

Fences for openness
The De Vijver primary school had a fence added to the playground after completion. Do we have to dispense with fences in order to create an atmosphere of openness? Not necessarily. A fence can, on the contrary, help promote openness. It is an advantage if the gates stay open until about 10 pm. Supervision is of course essential. It could be delegated

to a local children's playground association, for example, or to parents and neighbours. The neighbourhood receives a key to the gate. This arrangement has worked perfectly in one of our projects in Amsterdam (Nieuwmarktbuurt).

Imaginative objects instead of chickens on springs

It is not hard to imagine all kinds of playground equipment that would cost little but which could stimulate a child's imagination – something that can be used in a variety of ways compared to the one-dimensional spring animals (chickens are especially popular in the Netherlands). A boulder, for example, can be a climbing experience for small children, a jump-off platform for slightly bigger kids, a place for older children to flaunt their athletic skills and a temporary seat for adults. Graphic elements on the ground, such as traffic signs, a zebra crossing or the ground plan of a house, cost next to nothing and elicit all kinds of imaginative play.

The community schoolyard

A community playground, analogous to the community school, could be created – perhaps in cooperation with a local playgrounds association and municipal departments that would take responsibility for maintenance. Why not make the playground into a small city park, for example with a barbecue area? It could be a place where parents and teachers could take a break, preferably with a covered area since class assistants take children outdoors even in unreliable weather. There should be varied options for the children: an eleven-year old has different play needs to a toddler of four. Don't let them get in one another's way. Older children need places of their own, sometimes out of sight of parental supervision. Plant an old skip somewhere so they can light a fire in there if they wish.

A jungle with thrilling places
De Matrix community school, Hardenberg 2004-2006

De Matrix is a freestanding building fringed by low walls which also demarcate areas of rough greenery. Any of these green areas could be turned into a school garden, an orchard or a play meadow. The use of different kinds of paving and other ground surfacing produces a patchwork of distinct places for children of all ages.

The building is climbable; the stairs to the sports plaza serve as a playground apparatus. The lower wall at ground floor level is detailed in the form of long, sheltered benches where people can sit outdoors even in wet weather.

Sheltered outdoors

Architects can take measures to encourage children to spend more time outdoors. The functional components of De Matrix are clustered in a way that produces a sheltered outdoor area. This transitional zone is dedicated to the youngest children. It can be covered by a canvas awning. The cantilevered plastic elements creates a veranda-like transitional zone between inside and outside. Toddlers often cannot play outdoors because the playgroup leader prefers to stay inside. Providing a sheltered intermediate zone makes the outside atmosphere more attractive.

Dual land use

Theo de Bock community school, Amsterdam-Zuid 2002-2003

Stairways lead to the elevated plazas on the roof. The first plaza, a playground adjoined by the entrances to the schools, looks out over the surroundings. The second plaza is a basketball court on the roof of the sports hall, and gives a view across the wide canal, Westlandgracht. The sports hall is elevated like a suspended boulder, leaving the footpath along the canal bank free beneath it.

Weidevenne community school, Purmerend 2000 (design)

The community school in Purmerend is an amalgam of two primary schools, a toddlers' playgroup, a playground building, a sports complex, post-school childcare and various branches of social and cultural youth organizations. The school is arranged around the sports complex. The two primary schools have individual entrances but are linked internally. Part of the brief was for an extended playground. The grounds around the building continue by way of a double grandstand onto the roof of the school building.

Tips

Every school has a report which states how the school maintenance is organized. It also concerns maintenance of the school grounds and depreciation of the play equipment. Maintenance of the playground, the paving, the fences and greenery are the responsibility of the municipality. The municipality could assign some of the maintenance budget to a new school playground design.

Compile some rules of use together with neighbours and parents, for example concerning the opening times of the gate. Involve young people in the furnishing fo the playground, because that cultivates a sense of responsibility and yields a playground that children enjoy. Create separate areas for younger and older children. Prevent them from getting in one another's way. A football pitch consumes space, but a panna court is compact and allows children to perfect their footwork skills.

Holleblok urban renewal scheme, Huizen 2001 (design)
The adjacent park continues into the development and over the roof of the school. The roof is planted with greenery which stands up to playing children. The differences in height provide many opportunities for creative play.

The active school
New educational concepts have been popping up like mushrooms in recent years, in some cases to disappear again almost as quickly. In Holland they have carried names such as Het Studiehuis, UniC, Slash 21, De Nieuwste School and Iederwijs. They are all attempts to find forms of education that are better adapted to the experiential world of today's schoolchildren. How can you keep pupils curious and motivated? How can education contribute to greater self-motivation and self-fulfilment? The individualization of teaching, education made to measure, 'learning to learn' and self-regulation are different answers to these questions. The quantity of knowledge available has increased so much that the emphasis must now be on developing the skills to gather knowledge rather than on acquiring facts. Teachers have become coaches. The new models give pupils ample time to study on their own. The classic school model in which pupils sit passively listening to the teacher is no longer appropriate. It is increasingly being replaced by a school full of activity where classrooms are supplemented by flexible learning and play locations. A wireless network is inherent to this concept: surfing the Net on a bench under a tree.

Responding to these developments entails a suitable budget. But that is where the shoe pinches. Budgets for school construction are invariably tight. There is no money for extra space, let alone for extra facilities. An inspiring building is vital if we are to draw the best out of our children. Miserliness is misguided – this is an investment in the future.

Generic/specific
Design is in principle no match for the dynamics of education. A generic structure provides room for change. If a school building is to have a long life, it must not only be able to accommodate changing uses but something must remain unchanged. The permanent aspect is the framework, the shell. That implies spaciousness, oversize, and it is the domain of architecture. The space within the framework is generalized and undefined; it can be filled in according to the wishes of the time. The shell is generic in its use but it must also be explicit and specific in order to give the school a unique identity. A tension exists between specific and generic. An equilibrium is needed between open/flexible and delimited space, as it is between small-scale and large-scale. The building can derive a symbolic character from cultural or social layering. For example, making a sports tower a central component of
the school gives it a recognizable identity as a building for young people.

Similarly, it could have a prominent stairwell as a space where meeting others is the name of the game.

Space *à la carte*

Mobile units and movable walls can be used in the interior. Instead of a succession of classrooms and corridors, this produces many kinds of space – large and small, niches and corners. The school thus offers space *à la carte* for individual study and group activities. Oversizing, for example the provision of a zone between classrooms, also allows for the storage of pupils' work and muzical instruments and a private workspace for the teacher, so that the classroom is usable for multiple purposes.

The technology used for mobile archiving systems can be used to shift a weight of 3 thousand kilos with hand pressure only. Even a child can change the configuration of the space.

For teachers, the school is like a second home. It is odd that teachers never have their own offices. The needs of teachers should after all take priority over the needs of the children, because they cannot take good care of their pupils if working conditions are unsatisfactory.

'Several small schools inside a big one'

Cluster formation is important in large schools which may have as many as 2,500 pupils. Clusters of no more than 500 pupils make the school organizationally transparent. It helps uphold security in the school.

Integration of supporting structure and architecture

Het Spectrum primary school, The Hague 2001–2005

The two-part general ground plan makes it simpler to reassign the school building in the future to housing, light industry, offices and similar functions. The engineering structure of the building consists of a steel skeleton, as used in industry halls, which allows a flexible interior layout. This allows a response to new educational models or to changes in use. The steel skeleton is made fire-resistant by cladding with plasterboard. The budget did not extend to a richly detailed skeleton which could otherwise have been left visible.

Rich shell

A principle supporting structure of columns leaves space for the dynamics of educational change and enables changes of function. The support is of a high architectural quality. The shell is long-lasting and massive, with specific elements such as a splendid staircase. Fashionable components of a contemporary character can determine the image but may be replaced when they become outdated. As long as the supporting structure is well designed, changes in practice, new

forms of use and new functions will be easy to achieve over and over again.

Groot Handelsgebouw, Rotterdam: one of the finest examples of architecture that is both specific and generic.

When pupils in a class work on the same project, a joint instruction session may be necessary beforehand. Classrooms can be combined into 'lecture rooms' for this purpose.

Column structure

De Matrix community school, Hardenberg 2004-2006
The clusters around the central hall have a structural support of concrete columns, which provides freedom and flexibility. Within each cluster, the participating users can configure the space however they wish.

From school to open-plan office?
Flexibility is a necessity in school buildings because educational innovation never stops, like it or not. A similar tendency prevails in the office market, where the 'flexible workplace' arrangement has arrived, allowing the best possible utilization of floor space. IT developments make it possible for people to work anywhere. Schools too will soon have wireless LAN connections so that fixed working locations will no longer be necessary: every child will have his or her own laptop. A school building of this kind combines the hall and the corridor as spatial types: a central communal space and individual learning sites in the corridors. The drawback of working in the corridor is that it can be noisy; there is hustle and bustle in the corridors when the classes change every hour, and the children in the corridor can conversely disturb the classrooms. To make it possible for them to work in groups or in isolation, the work spaces on the corridor must be acoustically as well as visually well-designed. The separating walls between the doors could be made of glass, to allow visual contact with the pupils who are supposed to be working quietly in the corridor.

Overflow teaching blocks, Purmerend 2001 (design)
The overflow blocks are two small, temporary school buildings each containing ten classrooms. The two buildings accommodate peak loads in the adjacent community school. They are designed so that they can later be used as office buildings and therefore have a column structure.

Modern sheds

The architecture contains references to the old sheds that were prevalent in the surrounding landscape. The sharply contrasting colours show that it is a building meant for the young. The container-like form boosts the no-nonsense image that goes with these buildings' temporary purpose.

Flexible building for child daycare

A building for daycare must be flexible for two reasons. Firstly, it must comply with new educational ideas and, secondly, childcare is in many districts only a temporary need. It therefore makes sense to ensure that the building will later be usable for commercial or residential purposes.

Requirements

The design and organization of schools and child daycare centres is by no means always related to the development and comfort of the individual childe. It often seems as though child daycare is primarily a logistic issue. Scheduled requirements refer to group spaces, baby-changing facilities and sanitary facilities. Rarely is a space named after an activity, which is indicative of how we think about the upbringing of children. The word 'daycare' is depressing enough in itself.

Agora
Theo de Bock community school, Amsterdam 2002-2003

The Theo de Bock community school has a multifunctional hall at ground floor level. It contains various social functions in mobile units. Giving the hall a wall which can be fully opened makes it suitable for events at a neighbourhood level. The plan embroiders on the agora model of Van Klingeren's multifunctional centres, which have gained new currency. The teaching spaces are in this case situated on the quiet upper floors. What matters is finding a balance between flexible space and delimited space, and between large scale and intimacy.

Resident participation

Residents from the vicinity were keen to take part in discussions about the future of the green strip of Theophile de Bockstraat. Evening consultation meetings were organized, and these resulted in an enrichment and refining of the functional requirements and spatial form of the community school.

The redevelopment of school buildings is a kind of project we frequently encounter. It is possible to put a worn-out building on a drip and to inject functional components that were not there before. Hopefully these components will we well designed, like fine items of furniture that can be placed in or on the building.

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         my personal points of special interest
         Marlies Rohmer

I find school design to be one of the most inspiring tasks, while also being one of the most complex. To achieve a high standard of school building, there are many impediments to be overcome. But the key to interpreting specific pedagogical objectives as architecture is first of all a communicative design process. A precondition for this is personal, fully involved clientship. The client role is, however, more and more often delegated to client representatives such as project managers or builders, who attach more importance to strict financial constraints than to social motives. And the municipalities, who in most cases are the formal principals, incline, with rare exceptions, to take a backseat role. This is in contrast to practice in the 1980s, for example. Fortunately there are still clients – headmasters, school boards of governors (municipal or private) and the occasional project management agency – who feel responsible, who are concerned about social problems and who leap to fill the gap left. These are clients for whom any architect is glad to work and who bring out the best in one. With someone like that, the architect is in a fortunate position: you work out the schedule of requirements in consultation, as a kind of research-driven design process to find the igniting spark for the project and the location.

Schools can never be considered as isolated objects. They form part of a larger whole – part of a district, a community, a municipal strategy. If education, housing, health care and local problems are tackled simultaneously, the result is a wider base of public support, making it possible seek long-term, integral solutions. In my view, the first duty of the architect is to offer something more than an answer to the question as posed, to make more than just a building. This is particularly so in the case of school design. The architect's function is hence not only that of a designer but also of a manager, a motivator and a researcher. These are roles that are no longer filled (as Gijs van Oenen points out) by a public figure or political delegate who represents the general interest.

As an architect in this situation, I try to reformulate the brief for myself and to be creative in putting forward concrete solutions for social, communal and cultural issues (as in our ideas for community VMBO schools). These issues are admittedly not often formulated explicitly in the brief for a school design, but they do constitute an inseparable part of the task. It calls for a strategic approach to designing which will facilitate the development of a new architecture of schools. Every new task calls for a different approach, but similarities with earlier projects always emerge during the design process.

My personal points for consideration in school architecture are as follows.

The schedule of requirements: first vision, then design

How do you go about formulating the conditions a school building will have to meet in the next fifty years? An architect can help to compile the schedule of requirements, for example by posing provocative questions. The integral set of requirements is not a static given but evolves along with the design process.

The single client no longer exists; the client has become a multiple. A community school houses a range of cultural and social welfare organizations, for example post-school childcare, a physiotherapy practice, healthcare functions, a library or a music school. The architect has to deal with all the parties involved as part of the same project. The schedule of requirements should not be just a summary of so many square metres of floor space needed for each component function, but it should also express the vision of the organization – and for a community school, of all the component organizations. The result must be more than the sum of its parts. It's like cookery. The ingredients may not be individually palatable but in combination they form a tasty dish. The separate flavours may no longer even be distinguishable, but together they add an extra dimension.

Start abstract

A much adopted method of helping the client to compile a schedule of requirements is a comparison with existing buildings. This is not an approach I favour. An architect who shows the client attractive pictures of other schools early on runs the risk that the client becoming infatuated with them. All interest in developing a unique vision vanishes. A of-the-peg solution suddenly appears to be available, and it is only necessary to reproduce it.

But the contrary is true. The client must formulate what he or she wants. I prefer to read a schedule of requirements that not only lists rooms and floor areas, but also describes the philosophy of the school. It is better to start by thinking about the design in abstract terms. Is the school authoritarian or democratic, loosely or tightly structured, controlling or permissive? Do the teachers have a territory of their own or not? Is there to be cooperation between pupil groups? Does the school stimulate individual study, and if so from what age and in what form? How important are sports and exercise? Does the school have a cultural function? How do you foster a bond between the school and parents? What is the parents' participative role?

The community school: apart together
The community school is a network of education, health care and social welfare for the whole neighbourhood, with a special focus on children (age 0 to 12) and their parents, teenagers (age 12 to 16) and the older people (55 and upwards), whose purpose is the improvement of children's developmental opportunities and enhancing social cohesion. The participating organizations in a community school must retain their independence and separate identities. That is the starting point for designing their shared accommodation. The post-school childcare unit, for example, occupies a separate section of the community school building and has its own entrance – as do the other component organizations.

The community school provides a place for three main functions: meeting and creativity; learning, rest and care; and sports and movement. Meeting and creativity are the essence of the school. The school takes a central place in the community and is a forum for encounter and interchange. The physical 'heart' of the school – consisting of a central hall, the communal space and a multifunctional part – is a public zone which can be closed off from the individual rooms and ancillary functional spaces. The participants also share a centrally located kitchen.

It is a huge task to obtain a consensus among all the parties to a community school, with regard to their individual spaces and the spaces they have to share. We have had good experiences in this area with consultancies, who act as intermediaries between the parties and join them in vigorously addressing the problems.

Clustering and security
Clustering is important in large schools. Clusters of about 500 pupils make a school easier to manage, more intimate and safer. People recognize one another, and the school janitor has a central position of face-to-face contact.

Every school building needs a clear main structure. A view of the classrooms from the corridor or hall and vice versa promotes security and a general awareness of what is going on among staff as well as pupils. But requirements meant to assure the safety of pupils and teachers can sometimes start dominating the architecture of the school and its grounds. The result is isolation instead of integration. Exciting places in the form of a labyrinthine substructure are just as important a part of the building, and this superimposed layer unites the building into a fluid whole.

Parents and the school
In order to promote the involvement of parents in the school and in the education of their children, the school must have a dedicated space for parents. The school is often the only place where parents from

different ethnic backgrounds can meet and communicate. The active participation of parents continues to matter in a secondary technical school.

Teaching staff

Teachers need to have an area of their own where they can work undisturbed by their pupils. À la carte space can provide for this as well as a staff canteen. Why do company buildings have staff canteens but not schools?

Flexibility, oversizing and à la carte space

The pace at which education is continually changing creates a need for flexibly planned school buildings which can expand or shrink as necessary. This is not automatically advantageous to the design of a school. A new architectural task is unarguably implicit in the relation between flexibility and quality: there must be space for individual learning, for group activities and for teaching staff. Optimal flexibility and architectural quality depend on a long-lasting, richly detailed and spatially strong fabric, based on a column structure or on wide spans and enclosing freely disposable space which is ideally more generously dimensioned than the official minimum. This space is attuned to the changing needs of changing times. This à la carte space has a specific neutrality and can accommodate different ranges of functions over the years and so withstand the test of time. A school should have something of the quality of old harbour warehouses, which have proved adaptable to all kinds of contemporary use.

Dual use

A schedule of requirements is never completely sacrosanct. The challenge is always to create opportunities for additional functions by giving spaces a dual use potential. A number of classrooms, for example, could be combined to form an assembly hall or theatre; the bicycle shed could double as a grandstand; and classrooms could be combined into lecture halls.

Acoustics, building physics and daylight

Flexible buildings need special attention to their acoustic properties, to prevent interference between different forms of use. The gym must literally be kept isolated from the classrooms. Games rooms are designed to be separated from the communal space by sound-dampening sliding partitions.

The HVAC systems also need special consideration because of the building's different uses, including evening use. In the present approach to school building, air filtration, heating and air conditioning are all organized mechanically and centrally. The school is thus not equipped

to modify the interior conditions of individual spaces, let alone allowing a teacher adjust the atmosphere of a particular classroom.

Ample daylight is important to the comfort, biorhythm and health of children and teachers alike. Increasing the surface area of the building envelope and providing large areas of glazing results in the admission of more daylight to the school interior. To achieve a high energy performance, however, the standards dictate a building which is as compact and windowless as possible. So what is good for the environment and humanity in general is paradoxically disadvantageous for the users of the building.

Exercise and sport – the community school playground

The school grounds have their own schedule of requirements, which may include an additional play garden, neighbourhood park or the like. Projects like these sometimes also involve functions for which the municipality takes no responsibility, such as housing and commercial premises.

Movement is vital for children's development. The school playground can elicit more physical activity if its layout has something adventurous, with a greater variety of places, including some covered ones for parents and teachers. A school playground that remains accessible after school hours acquires a neighbourhood function. That makes it necessary to agree clear terms for financing, maintenance and management. It requires some flexibility, because the costs may be debited to a particular budget whereas the advantages appear elsewhere.

Urban planning

A school cannot stand aloof. It is surrounded by a neighbourhood, and the municipality must integrate the school into its sociocultural, urban planning and spatial strategies. A community school or a conventional school for primary education plays a role in relation to its surroundings as a public building for the young. Its helps set the tone of the district. The school also meshes with a network of pedestrian and bicycle routes. A strip of greenery as a "kiss and ride" area or a separate goods delivery area helps streamline the traffic.

Community schools can form splendid social bulwarks, but they also derive functions from the existing networks in the neighbourhood. The risk is that this will be at the cost of a lively street scene in some areas. The corner baker's shop has already vanished and various communal functions are being absorbed into larger-scale organizations such as community schools and medical plazas. These trends are not necessarily beneficial to the networks of the neighbourhood. Children no longer need to cycle to the public library because it is now part of the school. What functions can and should be clustered is something that needs careful consideration.

School architecture: looking ahead

School construction is a progressive sector and this has implications for architecture. New schools are built while excellent old schools are demolished. If suitably adapted to current standards and wishes, the old school buildings could still have potential and could continue to provide excellent service. The budgets are unarguably too low, but an inspiring client who is open to research and innovation makes the financial constraints tolerable. (By the way, there is fortunately no sign of any trend towards "retro" architecture in school buildings. Nobody asks for a new school in the 1930s style.)

Development and management

As an architect, I prefer to design and construct buildings for their immediate users. They are the ones who are most closely involved. As an architecture practice, we are happy to take the responsibility and to act as supervisors over the other specialists to ensure the coordination of activities. (It is no more than logical that a maintenance and management plan is part of the architect's brief, since the future functioning of the school building depends on it.) It is becoming increasingly common for construction companies to take over the elaboration of the design and of course supervision during construction of a school. In those circumstances, the architect is the only partner who fights for the quality of the school building right up until it is delivered as a turnkey project. Who else still takes the development of good school buildings seriously?