

CHURCHILL REPORT

sarah scott 08 fellow

DESIGN FOR CHILDRENS SERVICES

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EXECUTIVE SUMMARY & INTRODUCTION: DESIGN FOR CHILDRENS SERVICES

THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA

REPORT BY SARAH SCOTT, 2008 CHURCHILL FELLOW

TO STUDY THE DESIGN OF CHILDREN'S LONG DAY CARE, NURSERY, CRECHE, PRE SCHOOL & KINDERGARTEN FACILITIES IN EUROPE, JAPAN & USA.

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SIGNED..... DATED.....

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Two months, 10 countries & 45 children's centres. Each country and centre offered something different. In Japan the inventiveness and freedom of the design stood out, In Britain the comprehensive out reach programmes and the diversity of designs combined with these services provided enrichment where it is most needed. In Italy the wonderful teachings of Reggio Emilia with it's emphasis on space and open plan facilities really shone. In Switzerland, Liechtenstein and Alsace each centre was highly contextual and beautifully designed & detailed, a product of their tender by design competition process. In Germany the centres additionally allowed real freedom of movement between indoors and outdoors for the children.

In Stockholm, Sweden they are exploring new ways of structuring their education and the architectural product reflects this experimentation, they have taken the teachings of Reggio Emilia successfully in a whole new direction. In Helsinki the Government Architects have produced a range of consistently high quality combined schools, combining different age groups, from nursery to high school and different educational philosophies such as Montessori and Steiner and Government all on the one campus. In New York I came across eclectic individualistic centres, drawing on the philosophies of Europe with some interesting results.

There were several key design principles that all the most successful centres shared, I have outlined these in my conclusions; Design Principles. Additionally, each successful centre had the design process fully integrated with the initial brief, masterplanning and clients wishes. A continual dialogue existed between client and architect.

As well as this report I propose to have a book published to disseminate this knowledge. I have also written two articles for the national childcare magazine "Every Child" and am writing for other magazines as well as giving talks at the RAIA and the NSW Government Architects. I intend to utilise this study in my own future designs.

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ITINERARY (PROGRAMME)

Tues 31 March	Fly from Sydney to Tokyo, 10.20pm-6.20am Wed morning
Wed 1-2 April	TOKYO
Fri 3	train from Tokyo to Maibara-cho, Shiga
Fri – Sat 4	MAIBARA-CHO, SHIGA
Sun 5	train to Nagoya, then fly from Nagoya to London, 11am to 5.10pm then train to Islington
Mon 6-Wed 8	LONDON
Thurs 9	WINCHESTER (train)
Fri 10 – Sat 11	WYE VALLEY, WALES (car)
Sun 12–Wed 15	EDINBURGH, SCOTLAND (train from Cheltenham) train, lowland sleeper- Edinburgh 11.43pm to Euston 7am
Thurs 16- Sat 18	LONDON
Sun 19	fly to Italy, 8.30am London, 11.40am Bologna, 1hr train to Reggio Emilia
Mon 20-Fri 24	REGGIO EMILIA with Australian Study Tour (Joined with UK, NZ, USA)
Sat 25	FLORENCE
Sun 26	MILAN (Design Fair)
Mon 27	train Milan to Strasbourg, 11.20am to 17.05pm, change at Basil, 15.32
Tues 28	STRASBOURG & MARMOUTIER
Wed 29	tvgr train, Strasbourg to Zurich, 2.47 to 5.00pm
Thurs 30	VADUZ, LIECHTENSTEIN (daytrip from Zurich)
Fri 1 May	ZURICH
Sat 2	train, to Dietikon, to Dornach to Lausanne, to Martigny, to le Verbier
Sun 3	LE VERBIER
Mon 4	train, Le Chablais, 8.00am, Martigny, Visp, Bern, Zurich 11.30am to 1.10pm Ice train Stuttgart 4.06, Heilbronn 6pm
Tues 5	HEILBRONN, LUDWIGSBERG, GERMANY
Wed 6	train 7.56am Heilbronn, fly Stuttgart to Stockholm 11.55am to 5.20pm
Thurs 7 - Wed 13	STOCKHOLM, SWEDEN Overnight Ferry 5pm, (16hrs) Stockholm to Helsinki, 9.30am
Thurs 14 – Tues 19	HELSINKI, FINLAND
Wed 20	fly to London arrive 9am
Thurs 21– Sat 23	LONDON
Sun 24	fly to USA, 3.35pm, arrive 6.10pm
Mon 25-Thurs 28	NEW YORK & NEW CANAAN, fly to Sydney, 7.10pm, arrive 7.25am next morning
Fri 29	HOME

PEOPLE

Mr Suzuki, Seiko Fuminashi, Mari Yoshida, Akio Nakasa, Ken Sogawa, Toshiyuki Tsuda, Jonathan Leah, Kay Mcbrian, Sharon Donno, Catherine Skelcher, Kathy Dee, Claire Gold, Deborah Saunt, William Haggard, Simon Potter, Jennifer Singer, John Parr, Alison Clark, Alison Dines, Annie Sewell, Colin Jackson, Tom & Aysha Rugg, Dom Ford, Jean Oliver & Douglas Shaw, Marion Macleod, Lyn McNair, Anne Cairn, The people of Reggio Emilia, Olivier Nicollas & Dominique Coulon, Iris Kleboth & Jon Ritter, Claudia Marini, Lena Truusoot, Uli Droessler, Anna Hertmann, Barbara Pferish, Angelika Von Beek, Angela Franzen, Lars Lindstaf, Jordan Purdek, Solveig Sunnebo, Agneta Engren, Harriet Gutter, Peter Sirken, Erik Bruun, Lili Niemi, Reino Tapaninen, Pihla Meskanen, Tuuli Tiitola-Meskanen, Markku Suortamo, Anne Salli-Suomalainen, Eija Sahlstein-Ruhala, Ellen Honigstock, Linda Ensko, Maryann Thompson, Maureen Murphy & Carla.

I would like to thank all these people and more, there are many people whose name I never wrote down. They all made this Churchill trip so worthwhile, with their generosity and enthusiasm. They shared their knowledge and their creativity and were incredibly hospitable.

ARCHITECTS

I would also like to acknowledge the wonderful inspiring work of the following Architects and organisations :

Tezuka Architects Tokyo, Naf Architects Tokyo, Shuhei Endo Osaka, The City of Maibara Council, CABE London, Cottrell & Vermeulen London, Alsop Architects London, DSHA Architects London, Hampshire County Council Architecture & Design Services, Children in Scotland Organisation, Alan Murray Architects Edinburgh, Children Of Reggio Emilia Italy, Lapis Architects Italy, Tulio Zini Architects Italy, Dominique Coulon Architects Strasbourg, Jon Ritter Architects Vaduz, Ken Architects Zurich, Rudolf Steiner Dornach, Bernd Zimmermann Architects Stuttgart, Ludwigsberg Council Architects, Cedervall Architects Stockholm, Sweco ffns Architects Stockholm, Peter Sirken Architects, Södertälje, Wivi Lonn Helsinki, Pihla Meskanen Architects Helsinki, Finnish National Board of Education Architects, Ellen Honigstock Architects Brooklyn, NY, Maryann Thompson Architects Connecticut USA

TEACHERS

Whilst my focus is the architecture of the children's centre, I cannot but help to be impressed by the teachers. They apply depth and meaning to their topic and so much creativity. It is undoubtedly true that the most important factor of any centre is in fact it's people, it is they who engage with the children and bring out the best of the centres environment for the children.

With inspired staff, a building is always full of possibilities, however meagre the base object. But with limited staff, even a beautiful building can be ignored and not engaged with, all it's special values missed and even turned into negatives.

It is the staff who interpret and utilize the environment

DISCLAIMER

This report consists of my opinions based on my observations of the centres listed. There well may be reasons for the way things are, that are beyond my knowledge. I did not always speak with the architects or with the centre managers of all the centres.

KEY DESIGN PRINCIPLES (my Conclusions)

The discipline of architecture is all about how we manage space, acoustics, colour, light, scale and access to the natural environment, to create environments that are stimulating, protective, comfortable and beautiful. These qualities are all known to have an impact on how children and staff behave and interact, and thus on how children develop. And these are the same qualities that, combined, are described as the “Third teacher” by the forefathers of the early learning movement, Froebel, Steiner, Montessori and the schools of Reggio Emilia.

Below: Sleeping lofts at the Arki Preschool in Helsinki and the Giulia Maramotti Infant-toddler Centre in Reggio Emilia provide useful extra space and enrichment through variety. (GM Photo & building by Lapis Architetture Studio Associato)



ENOUGH SPACE to sleep, to eat, to work, to move. Not just multi purpose space but also activity defined areas: public, private, laboratory, library, art room, children's kitchen, etc. This is not just about storage. In Reggio Emilia I learn't of the "100 languages" that children are complex, so provide the resources for them to express themselves.

A DYNAMIC AND INTERESTING CEILING

PLANE: Children are constantly looking up, with their small stature and various modes of moving, other than walking, the features of the voids above take on a particular significance, The ceiling at the “Children’s School” in Connecticut, USA provides light and spatial interest whilst also considerably improving the acoustics.



KEY DESIGN ISSUES CONTINUED (my Conclusions)



TRANSPARENCY: THIS INCLUDES VIEWS OUT AND BEYOND, AND A VISUAL SENSE OF THE COLLECTIVE, NOT A FEELING OF ENCLOSURE BUT OF INCLUSIVENESS.

At the Cowgate Centre, in Edinburgh (right above), a simple corridor opens out to become a multipurpose transition space between the great outdoors and the interior. Ambient music, harmonious colours and a Froebelian emphasis on each child's autonomy and freedom of choice complemented the fluid architecture. At TomTits Experiment Preschool in Sweden (left above) the corridor is transformed into a learning street that merges and takes on the character of each room that it passes, becoming an extension of the art room, of the wet area or of the main dining room. In the Machida Cho Kindergarten, Tokyo, a translucent loft zone provides room for children's lockers and child scaled play space

FURNITURE COMPATIBLE WITH THE ARCHITECTURE: where the furniture has been thoughtfully considered to compliment the space or the space has been designed with the furniture in mind. Arkki Cente, Helsinki, Cots

CUBBIES: special small places designed for children only, providing a variety of scale

INTERACTIVE COMPONENTS to engage both children & adults, a space that can be modified. Climbing frame connections between playrooms, slippery slides to decks, moveable components At Fuji Kindergarten in Tokyo (above) slippery slides and rope ladders provide access from the roof play area to the central outside playspace The Kindergarten Friedrich-Ebert in Heilbronn has climbing frames linking the rubiks cube like playrooms whilst a floodlit rear corridor provides adult access.

CONTEXT Reflect positive local community qualities, Reflect/respond to positive local precinct character. A preschool/centre is an important focus for the community and they need to "own" it for it to be truly successful. A sense of place and belonging within a precinct helps the children with their own sense of identity. The Marmoutier Pre school in Alsace is built as a discreet extension of the 10th Century Abbey Garden walls, low, dark & copper clad, internally, it unfolds into a contrasting burst of colour and light.

TEXTURE, COLOUR & MATERIALS are used to highlight the contrast between old & new, inside and out, public & private.

JAPAN

Relating to the small scale and playfulness are not just for children's centres in Japan, these qualities pervade their whole culture so they excel at creating space for the young. They are adventurous, using interactive components to add creatively to the architecture, not inhibited by over restrictive codes. We can learn a lot from the Japanese about providing enrichment: through attention to detail and cultural relevance, providing a hierarchy of scale, inventive use of materials, texture and colour.

Socially, Early Childhood Centres are very much a part of the school system, not just for babysitting but viewed as part of the child's education, however it is still viewed as a transition phase between family and school, and family involvement is encouraged. Inevitable in such a large structured society (the uniform is everywhere, polite rituals dominate all exchanges) the idea of children having privacy or a voice is not high on the agenda. But Japanese culture cherishes children and provides them with a context that is nurturing.

The outdoor play areas are not conceived as gardens but rather as utilitarian areas, often quite stark and with minimal facilities. Japanese centres are by Australian standards quite densely populated with a much smaller playspace to child ratio so this would effect how the outdoor play area can be used.

Masterplanning is *required* at the Development Application stage in Tokyo

FUJI KINDERGARTEN, TOKYO

TEZUKA ARCHITECTS

FIRST IMPRESSIONS It is smaller than I expected, much less grand and much more contextually sympathetic.

CONTEXT It is an hour by train to get there, this is a commuter suburb. The train station is huge and reminds me of Chatswood, with lots of expensive shops. The area is quite comfortable with large, single, two storey dwellings and small front courtyard gardens behind privacy walls. A wide main artery road intersection is right at the centre's entry & bicycle lanes all round. The centre is surprisingly low and unprepossessing relative to its neighbours, its flat roof seems to run parallel to the road. And it is a while before we realize we have found it. But a small tunnel (3m wide, 2.5m high ceiling?) punched through the external wall gives a dramatic vista into the internal courtyard, focused on the two slippery slides from the roof. It works well looking back at the street too. Half the playrooms are on the street side and have full glazed wall views out. It is refreshing to see out, but feels very exposed.

SOCIALLY: Fuji Kindergarten is a privately run centre and appears quite wealthy. There is a parents café to sit and chat in. Japanese society is according to my interpreter, all middle class, and this centre draws on the local area and beyond, with some children commuting to the centre. Our taxi drivers' children go to the centre and are very happy! The centre provides a bus service with specified pickup points, it has a fleet of about 6.

IDEOLOGICALLY There is no mention of European models such as Reggio Emilia, Montessori, Froebel, Steiner is considered "old". There is an emphasis on maximising learning opportunities and providing lots of learning through play. It seems to have a very enriched programme with reading, writing, English lessons (from Americans), an adventure playground jungle gym hidden behind, with its own cubby, outdoor lesson space and a real Shetland pony! plus organized outings to nearby farms.

THE MACHINE OF CHILDHOOD: POLICY it seems everything happens in the one classroom, eating, sleeping, playing, learning, there is one assigned room for each class for each year. They must love the free play open space outside, it looks good for running around in and has a variety of different zones, but no place for the shy or quiet. A Japanese utilitarian aesthetic dominates, materials are simple & raw: exposed steel, grey concrete, but with lots of warm unpainted wood.

SPACE, SCALE AND NUMBERS 600 children, 16 classes, 35 per class max. The size of this centre is unusual, even in Japan, most are up to 150 some to 300. There is no size limit if there is the space. Space requirements are about a third of that required in Australia but must be flat.

BUILT FOR CHILDREN (ERGONOMICS) This centre is a real winner in this area. Everything has been thought of in first principles, from hand pumping water to net rope ladder access to the roof and slippery slides down, low windows, small furniture, lots of warm timber fitout.

ENCOUNTER OR ENCLOSURE? Central courtyard works in terms of connecting each class to the whole. Staff and principal also part of the loop, looking directly onto the play area. Sick kids in staff area, next to principal and can see play area too.

DESIGN PRINCIPLES The Oval shape facilitates movement and connection but it is subtle. Everything is subtle, the forms, materials and colours are all minimal and pared down to their essentials. The idea of bringing everything back to first principles pervades everything, from the uniform wooden furniture and plain white walls to the open air exposed steel & concrete stairs. Warm timber & the many playful components relieve what could have been potentially a very stark area. Apart from the whimsical roof elements the centre also has a great treed rear area with a fantastic long slide and a jungle gym.

MACHIDA CHO PRE SCHOOL, TOKYO

NAF ARCHITECTS

FIRST IMPRESSIONS: really quaint area with narrow streets and tiny gardens, The “Blue Mountains” of Tokyo. The site is harmonious within its context with lots of thoughtful and delicate details. Great hilly play area! Lots of nooks and crannies and areas of delight

CONTEXT: It takes another hour from the Fuji Centre to the Machida centre by train and another taxi. It is a more regional smaller station this time. We drive through narrow hilly streets with two storey dwellings cheek by jowl, each with a mass of small pots and statues out the front. I see lots of people walking their dogs! ‘Smart “cars are parked in lean to garages everywhere.

At the end of a steep winding road, two fairly ordinary 2 storey concrete buildings flank the entry, with a mass of annuals, pots and pretty little statues. A strange metal framed bridge & deck connects the two buildings over our head. Apparently it was there before and no one knows quite why. There is a view down to the surrounding expanse of Tokyo’s outlying suburbs. We are at the top of a hill.

The centre has been on this site for 50 years and the original buildings have mostly been retained but renovated. It is a steep site and each building occupies it’s own terrace, this serves to break up quite a large complex into a series of smaller parts and create a progression. The use of curved building forms, ramps and segments of enclosed walkways emphasis this quality.

SOCIALLY: Machida Shi is a satellite town of Tokyo, it is growing very fast and most people commute to Tokyo for work (1.5 hrs). The centre is built on the site of an old Buddhist temple and is still owned by the Buddhist organization. The architect classed it as a community run centre.

IDEALOGICALLY: The centre has a Buddhist philosophy at it’s core which the architect tapped into: respect for nature, living simply, meditative. He said they were aware of Reggio, Steiner and Montessori but that Buddhism was more relevant.

THE MACHINE OF CHILDHOOD: POLICY, As the Japanese code requires that outdoor playspace allowance be for flat areas only, most of this site does not comply, so there is much more utilized playspace than required. The centre is large by Australian standards and they still eat, sleep and play in the one room but there is a big hall for shared experiences and lots of interesting smaller alcoves available to the children plus the hilly site has prevented the scale from dominating

SPACE, SCALE AND NUMBERS 300 children, 35 per class max, but they have 20-30 in most classes Additionally, the nature of the site has broken the play area up into: 1) top playground with train and rocket, 2) flat deck area with colured glass fence, view beyond, 3) curved middle garden with statues, 4) hill with gym adventure play and sandpit and slide, 5) older area below. Not only is each area used separately but it is all rostered
As we walked around each teacher was customizing their space and taking ownership of it,

BUILT FOR CHILDREN (ERGONOMICS) Several rooms have a gallery at the rear, which at 1500mm high, is child height, this is where they have lockers. This not only changes the scale of the room but also provides a cubby like area, which kids love. There are little thoughtful areas for children all over the site, a table here (small) a plaything there, the whimsy is also very evident with lots of different windows at different heights throughout, all small scaled furniture.

DESIGN: architecture is slowly revealed and this is to it’s benefit. The design is in the detail. The constant use of whimsical materials such as coloured Perspex in the fence, clear polycarbonate tubing, lots and lots of traditional Japanese timber framing, the mix of old and new, all the little Buddhist touches: statues, hanging flowers, the way nature pervades, trees punch through the walkway roofs & buildings bend with the site & showcase natural features, all this enriches &

warms.

SUSTAINABILITY: The architect mentioned a current Japanese concept called “scrap and build” where everything in timber building will be renewed over a 50 year period but the removed part will still be used elsewhere, so it goes round. Well ventilated, open to nature, lots of use of timber but it is visual: all posts are steel inside, window frames aluminium with timber framing in front to draw the eye.

FIRST IMPRESSIONS: Quite a utilitarian, almost industrial context. It is smaller than I expected & less wacky. It is beautiful on the inside.

CONTEXT: Maibara is a regional town, small and semi rural. There are a few traditional looking structures scattered inbetween the contemporary fibro 2 storey blocks. There are lots of industrial looking buildings and utilitarian fields between vast stretches of housing. The view to the east is of low tree'd hills, To the west is Lake Biwa, large and flat and seemingly always with service wires and roads between us and the view. Hikone is very close, whilst most of it is similar to Maibara, it also has a historic castle town centre, which is very famous and quite beautiful. Much of the newly built areas are reclaimed land and now they are building a national highway through it. The preschool is in the middle of an educational precinct. There is a High School, Primary School, The preschool, an adult gym and a "food making factory" to feed the schools. The buildings make no attempt to relate to each other and each sit behind their own fence, like islands in a carpark desert. However there is teacher exchange activity between the schools. The geodesic roof looks protective from the rest of the institutions, as it turns it's back on them. Entry is through an unprepossessing gate in the fence with a walk across the tarmac, once under the geodesic wing it feels protective and safe.

SOCIALLY: This is a government run centre. It draws from an area about 2km x 2km. My guide tells me that most of the fathers would be office workers and most of the mothers would be housewives. There is a long day centre about a km away that caters for two working parents.

IDEALOGICALLY: They were aware of Reggio, Steiner and Montessori but as a government school they do not align with any particular philosophy other than the government guidelines. They believe that children learn through play and do not teach reading or writing, although they get them used to the concept. There is a very rich garden programme and a strong awareness of sustainability as an issue. They also have lots of outings to parks, and family days with Japanese cultural activities included naturally, rather than enforced. Things like a traditional burial for a pet chicken that died. Or Grandparents day, when traditional cake making was taught.

POLICY, SPACE, SCALE AND NUMBERS the children eat, sleep and play in the one room for the whole year. 80 children, this is the usual size in the Shiga province (quite different to Tokyo!) 4 classes, 20 in each, ages 3-5, arranged by age, 8.30am to 2pm. Most children go Mon -Fri

BUILT FOR CHILDREN (ERGONOMICS) : Beautiful small scaled expensive Danish furniture. The small boxes for bathrooms within the geodesic structure give good contrast of scale and I like the way the roof continues to the ground, to a child's eye level. Low windows, interesting play equipment: has a pool! And the children are allowed to climb trees.

A PLACE OF ENCOUNTER OR ENCLOSURE: Staff room set up has one long table that they all sit at, there was a sense of community among them. They baked me a cake! A central hall is required by code but the wide corridor space also fulfills a communal environment. Being in an educational precinct definitely has its advantages with older children doing work experience there, & teachers coming to visit regularly. The playground felt too exposed. But they might ask, from what?

DESIGN: The staff like the architectures imaginative promise of a "dream" as they put it. The quality of light and the intricate wooden geodesic structure inside is quite beautiful. The exposed timber framing is particularly effective in describing a whole new world above whilst still providing a protective environment below. The various functions of the centre are defined by their own smaller structures within the larger form and this creates a wonderful child friendly hierarchy of scale. Underfloor heating, natural materials: wood smell everywhere, stone panel over FHR.

BRITAIN

I Catch the tube to Piccadilly Circus, and am not prepared for the grandeur! Up Regent Street and Along Oxford, it's a wall of undulating stone and sculptural detail with incredible three dimensional relief carved into each facade. So much of London's history is embedded in our collective western consciousness: Waterloo, Trafalgar Square, Westminster and Fleet Street, Abbey Road and London Bridge. It is so crowded! So full of tourists, makes Tokyo seem subdued by comparison.

London (and Britain too) is really one huge Megatropolis made up of many smaller towns scattered higgledy-piggledy, with their own distinct character, and with their own parks and green space, it doesn't feel claustrophobically urban, just busy.

The Sure Start Programme, started in 1997 as a Government initiative, resulted in a number of new centres being built across the UK, these explored many of the issues our government is currently considering, such as combined child and community services. Most of the centres I visited won or were recommended for an architectural award. Each displayed a high degree of complexity and a unique response to site and context. The British love individuality, clutter and complexity, it is a product of their heritage and these qualities dominates their children's centres.

KINTORI WAY, SOUTHWARK, LONDON

COTTRELL & VERMEULEN

FIRST IMPRESSIONS: a lavishly equipped centre with a wonderfully varied outdoor play but with very cramped play areas internally.

CONTEXT: Kintore Way is located in the extravagantly named Elephant & Castle Borough of London. The street is dominated by large dismal Housing Commission blocks dating from the 1960's onwards and mean looking brick terracing dating from the 1940's or earlier. The cheeriest things are the red double decker buses. There is a University located somewhere beyond. The centre is in a low building along the main road with an iconic, funky, bright blue metal roof which actually works quite well in it's context, providing some colourful relief in a drab area and acting as a beacon for a facility that is intended as a community hub. There is an after school care centre across the road and an old pub next door.

SOCIALLY: This is a government run centre. It is culturally mixed with about 50-70% being African/Jamaican in origin and the rest Anglo Saxon. There is an emphasis on providing not just childcare but community care. The centre also caters for special needs plus runs family skills seminars and provides space for other backup support agencies such as health services and consultations.

IDEALOGICALLY: Reggio Emilia concepts are popular with the teaching staff, as is the Scandinavian influence of emphasizing outdoor play. These influences have been realized in at least two ways: 1) an art teacher visits several times a week to provide specially focused classes, 2) The children play outside rain, hail or shine and the doors are left open so the children can choose to go out at any time. (more or less). To facilitate this there is a huge supply of raincoats and gumboots hanging everywhere, crowding an already cramped space. The outdoor area is much more successful than the indoor area. The outdoor play is defined by a series of low picket fences that divide the play area up by ages and activities. But they had to modify the design when the children kept climbing the fences because they couldn't see over and felt caged. Perspex panels at regular intervals were introduced and this lightened the fenced in effect considerably.

IMPACT OF POLICY: Again the children eat, sleep and play in the one (tiny) room for the whole of the year. The internal code-defined spaces are much too small for this amount of activity and the acoustics are quite poor.

SPACE, SCALE AND NUMBERS: Licensed for 120 children, with 6 babies in one room, 9 in the other, 16 x 2-3s and the remainder divided into 2 classes for 3-5s. The older children's room is a double space. The English system is complicated, even under 5s are divided into before school hours, 9am-3pm school hours and after school hours. The assisted fee option is only for the school hours which means it is not effective for providing childcare whilst you work, plus in the poorer areas the full paying period is avoided, they use alternatives such as friends and family. So even though it is 120 children on paper it is usually only full capacity between 9am-3pm.

BUILT FOR CHILDREN (ERGONOMICS): Amazing Sensory room with flashing lights, textures and music. Designed for the special needs but also used for the babies and the rest on a weekly basis. Other child specific considerations are the standard small furniture, low pegs, low windows, lot of round lights hanging in one high ceiling area to draw the eye up.

A PLACE ENCOUNTER OR ENCLOSURE? I felt there were too many divisions, between inside and out, between ages, between parents and playrooms. But the outdoor play is well utilized and there are lots of staff (51?) 3 in the kitchen, a laundry person and housekeeper, 4-5 in admin, people who run the grounds plus the teachers and consultants.

DESIGN: the original wing was designed about 70 years ago by a groundbreaking woman architect in childcare, it was purpose built and is light and airy. The new wing has an iconic roof, but it is the external layout of mini streets that really defines the centre and provides it's character. As stated, the internal spaces are very cramped and this is exacerbated by an excess of furniture, toys and clutter. If they removed about 30% of the clutter, the quality of the space would be greatly improved.

SUSTAINABILITY: Underfloor heating was not intended to be used with the open door policy so it is inefficient. lighting by fluorescent lights.

FAWOOD CENTRE, HOUNSLOW, LONDON

ALSOP ARCHITECTS

FIRST IMPRESSIONS: an eye catching landmark centre in a depressingly grey area, It provides a safe haven play space and a focus for the local community. It is culturally relevant in the choice of materials, fitout and furniture

CONTEXT: Harlesden is a poor social housing area with loads of horrendous super blocks from the 60's, most of which are due to be pulled down. There are also lots of large new blocks, these at least have a palette of interesting and enriching materials.

The centre is an eye catching landmark with its lolly pop colours and was originally designed with a large park next door, this was never realised. The park is now about to be built and gradually the areas facilities are being upgraded.

SOCIALLY: Another government run centre. It is culturally mixed with about 50-70% being Somalian. Out of the 75 children there are 41 different languages spoken. According to my guide, the Somalians are not used to the cold and they are also not used to the concept of childcare centres or government run help agencies, so there is a lot of adult education occurring too.

IDEALOGICALLY: Because of the limited assisted fee (or free) period the centre does not operate at full capacity except between 9am-3pm. It has a "pop in and play" policy where parents are able to come with their children to use the facilities. This is very popular. The centre is a hub for the consolidation of all the various help agencies, health workers and community seminars as much as being a children's centre.

THE MACHINE OF CHILDHOOD, POLICY : Whilst being a safe haven to play in, the centre can be very cold when the wind sweeps through, The manager assured me that Somalians (being used to a much warmer climate) feel this more than most Britons and in order for the centre to be more utilised, this needs to be addressed.

SPACE, SCALE AND NUMBERS: licensed for 75 children, plus 10 autistic, special needs children.

BUILT FOR CHILDREN (ERGONOMICS): Whilst it is inspiring to look at, the centre suffers from not having enough challenging outdoor play activities or enough space, this will probably be addressed in the new park facility being built next door. The other issue is that because of the special needs and the open decks on the upper levels a security tag is needed to go from one level to another so the children cannot roam free or be autonomous.

A PLACE OF ENCOUNTER OR ENCLOSURE? For all its problems it is a place of encounter, due mainly to its open door policy. However the multi tiered connection between facilities has limited its accessibility.

DESIGN: very iconic building with a clear realization of a democratic use of space. It is basically a winter garden enclosed within a large steel mesh shed, the various facilities are arranged in smaller enclosures within the shed. This provides a range of possible experiences with some of the enclosures being high, accessed by stair or lift several stories up, others being low, such as the soft yurt tent structure which is used as a homebase, another homebase is a metal container, complete with round windows and steel mesh stairs. All are informally gathered within the large communal play space and the children are free to move "inside" and "outside" at will.

FIRST IMPRESSIONS: Beautiful park setting, open plan centre in the round Noisy and cheerful.

CONTEXT: Walthamstow is one of London's bustling melting pot suburbs: Polish, Pakistani, African, Chinese, Indian, Caribbean and English too! The Centre is found, behind a line of trees in the middle of Lloyd Park, a lovely garden park with a large pond, bicycle track, playpark, tennis courts and lots of flowers. It used to be the home and garden of William Morris, Father of the arts and crafts movement. The house has been turned into a museum full of his work and photo's.

SOCIALLY: A government run centre, it is a both a long day care, a pre school and a before and after primary school care centre plus primary school vacation care. It also rents/shares some of it's space with Community and Family support groups such as a midwife & baby nurse, yoga classes, mothers groups and adult classes.

IDEALOGICALLY: The children are encouraged to be autonomous and to have free choice. Rather than being divided up by age the area's are divided up by activity: Active Play, Role Playing, Messy Arts, Block Play, Bikes, Balls and Eating. The children are free to choose what they want to do and when. They can help themselves to breakfast within a time period, rather than being formally sat down. The bathrooms are also quite open by English standards, with big open windows to encourage self sufficiency.

THE MACHINE OF CHILDHOOD, POLICY; It is a rough n tumble centre, quite open with no barriers between playrooms and the perimeter ceilings are higher than the interior to help disperse noise and let more "sky" in. But this is subtle. The outdoor play is divided into zones by quite high (800mm) picket fences that make it look like a farmyard. Whilst the Perimeter fence is (probably unavoidably) a 2400mm high plus steel mesh affair. It does feel a little fenced in and noisy.

SPACE, SCALE AND NUMBERS: Licensed for 89 Long Day Care children, 20 of whom are under 2, plus 24 "sessionals" which refers to those who do the minimum 2.5hrs free pre school, plus 36 primary aged kids. So the mornings and afternoons are "very hectic." The space is open plan, except for the under twos. So all the other ages mix together.

BUILT FOR CHILDREN (ERGONOMICS)

The specific staff led requests were for: 1) A building in the round rather than orthogonal. 2) an open plan arrangement, 3) The kitchen to have a bar area open to the children and 4) A large low window to the front, the "waving window" A motif, designed by one of the children, is used as a pattern over the external cladding. they are currently applying for grants to redo the playground, which needs work (the builder went into liquidation so there was no money for the grounds.)

A PLACE OF ENCOUNTER OR ENCLOSURE? It was quite noisy when I was there, full of big kids and big kid activity. All the children seemed very independent, free to move around, inside and outside, freely and choose their own activity.

DESIGN The main architectural statements are firstly, the compressed cardboard cladding with the children's motif imprinted on it. This caused a lot of controversy with council and the insurers because of its material. Council also objected to the building being clad in "scribble" but they were overruled. And secondly the high open structured ceilings with the revealed timber beams. These certainly lend a lot of enrichment and warmth to the centre. The in the round open plan format is also a feature.

SUSTAINABILITY Use of raw timber chip panels and exposed timber beams gives the centre a warmth and natural feel and I expect it was probably economical as well, it is quite open so is naturally ventilated. The electric lights were on in most rooms, however it was lousy weather.

FIRST IMPRESSIONS: Stark commercial exterior in an industrial setting at the back of rows and rows of mean little terraces. The arrangement is very orthogonal, relieved by some nice details.

CONTEXT Dagenham east is one of the most deprived area's of London. All the buildings are cheap and mean, there is no landscaping, there is no town centre or even a large shopping mall, (not where i was, anyway) London Centre is about an hour or more away. It is a very desolate place. The centre is located at the back of the local primary school and is clad in shiny metal panels that make it look quite industrial, It is saved from being harsh by a line of beautiful mature blossom trees that lead to the front entrance.

SOCIALLY A government run centre, it is a both a long day care, a pre school and a before primary school care centre plus vacation care. But these are all catered for separately in different parts of the building. It also places a great emphasis on it's additional community services which include: co-located health services, anti-natal midwives, teenage pregnancy midwives, pre infant mental health therapists (attachment theory), Speech and language therapists, play language workshops, playing communication workshops for kids, parenting programmes, Jobs in training focus, Job Broker, Benefits advice and outreach for travellers.

They have to overcome many parents perceptions that they are linked to social services and want to take their children or their benefits away.

IDEALOGICALLY Enriching the children's lives through collaboration with the parents and exposing them all to more life skills. Not too prescriptive.

THE MACHINE OF CHILDHOOD, POLICY, This school is the result of a conservative brief, design wise, it is very formal, the focus on big fences, locking devices between rooms, commercial finishes, fluorescent lights, regimented divisions between orthogonal rooms is all too dominant and makes it hard for the community to "own" the centre or for the staff to be flexible.

SPACE, SCALE AND NUMBERS Licensed for 51 long day care and 52 preschool (in two shifts), they also can have up to 20 children in the "crèche" which refers to childcare during classes for all ages. These children are kept separate from the centre. In addition to the playrooms they have separate sleeping rooms.

A PLACE OF ENCOUNTER OR ENCLOSURE? They would like it to be encounter but there are many hurdles; it is hard to convince external services to join with them as they are afraid of loosing their independent standing. The formal orthogonal rooms, requested by the client, segregate rather than embrace.

DESIGN Bold modernism with shiny metal cladding and canary yellow, crisp white interiors. The strengths of the design are the fluid visual connections through the glass central courtyard and windows beyond. The range of low and high windows scattered throughout the centre that give a lot of variability in light and views. The use of colour and pattern: large and small animal motifs scattered around, is very cheerful and works well, funny mirrored doors are a bit disconcerting but I expect the kids like them. Little animal markers on windows are quite cute, look great on the fabulous verandah soffits. The arrangement around the central courtyard also works well for light and visual connection but is not really used for play.

SUSTAINABILITY The electric lights were on in most rooms, however it was lousy weather. There was a fabulous vegetable patch growing away.

JOHN PERRY CENTRE, DAGENHAM, LONDON

DSDHA ARCHITECTS

FIRST IMPRESSIONS: Almost missed it in the street but once past the mesh security gates and inside it exudes a lovely warmth and fluidity.

CONTEXT: In the same neighbourhood, with the same issues, as William Bellamy's. The centre sits in a field next to the primary school and is accessed from the street full of terraces behind. The access is on to the back of the centre and it does look like a generator building. Big mesh security gates let you into a grey concrete alcove, very secure but not very inviting. Grass covered earth rises up around the rear wall of the building, snugly connecting it with its site.

SPACE, SCALE AND NUMBERS

Licensed for 52 long day care and pre school inclusive. Just beginning to have an after school programme, which will use the family room only. A new demountable is proposed to cater for this as an extended programme.

BUILT FOR CHILDREN (ERGONOMICS)

A hierarchy of scale is created by the half height, zig zagging partitions within the full internal volume. These partitions provide a flexible layout of play centred nodes and cubbies. Warm materials and diffused light also help. There is a fantastic central open kitchen with child sized benches to one side which works really well as a focus and as an activity, Adults and kids chat around it and make bread or cakes there every day.

A PLACE OF ENCOUNTER OR ENCLOSURE?

Inexplicably the centre has very few windows that open onto the sky, the trees or the play area. When one considers that the children and the carer's spend the whole day in there, they play, eat and sleep in the one area, especially if it is bad weather, then mere glimpses outside are not enough.

DESIGN The interior is one large volume with timber batten ceiling with recessed lights. Within that the playrooms are subdivided by a series of cork partitions that house the bathrooms, sleep areas, storage and other "extras." These partitions are arranged in a crooked sort of snaking curve and work really well with the community playthings furniture to create a series of play focused nooks. The sleeping areas are like cubbies within. The cork material also adds real warmth. Whilst the polycarbonate cladding creates a lovely dispersed light.

The staff really love the flexible layout.

Outside the play area was quite disconnected from the building interior. However, overheating problems required them to have large shade clothes over the play area and these actually really help to link the building to its context and provide a softening element too.

There is a rear service corridor with offices, staff room and a sensory room

SUSTAINABILITY

Choice of materials, low energy lights,

ASHMOLE PRIMARY & PRESCHOOL, BRIXTON, LONDON, designed with Alison Clark

FIRST IMPRESSIONS The school is housed in a variety of separate older buildings across a rambling site in an inner city part of London. The skill has been in linking these buildings together and creating useable places between them.

CONTEXT Caught the tube to Oval and within a minutes walk down a humble terraced street with gorgeous overgrown English gardens I am at the school. There are several large blocks overlooking the site and quite visible from the school. These 3 housing estates are the main source of children for the school. The schools entry is through a series of locked remote controlled gates with speaker phones. Once through the first gate it is a pleasant walk past a raised vegetable garden and a naturalistic adventure playground (which is only open 3 afternoons a week for supervised play, pity) A boy's high school backs on to the rear and they had to put up a timber barrier to stop the projectiles.

SOCIALLY This is a mixed poor and middle class area, probably more poor than rich. The school has 40% classified deprived, 30% English as a second language and about 5% from the nice surrounding houses, middle class professionals. There is a small core group of drug and alcohol using parents, so the high security (such as a thick glass screen between the receptionist and the public) is still required. However, this school has a very good reputation and retains it's pupils throughout the primary years. Usually inner city schools loose a percentage of students to preparatory schools at age 8.

IDEOLOGICALLY At the masterplan stage they adopted the Swedish "Mosaic approach" which basically makes the child a democratic equal in deciding the nature of their education. The child is an expert at being a child and thus should be consulted about what will interest them, make them comfortable and make them happy. So the children were involved in a program of expressing their opinions about their school environment. Refer Alison Clark report.

The results were, children:

Like transparency, being able to see parents come and go, see what the other children are doing, know where they are within the school.

Dislikes: Not enough outdoor space, want more to explore.

Children are always looking up so the design of the ceiling is very important. Children like sparkly lights, so have more and more types.

Children wanted a stage, just a small one in the classroom, it is used a lot and is constantly being customized.

Being able to customize a space is very important.

Being able to connect with the outside from the inside is important

Another important feature is having a shared space to mix with the other children (pre school to reception) and with the parents.

Using a masterplan was cited as a key to getting the best results; it makes us think about how all the space is used, inside and outside and it makes us realized what we have already got, how we can better use it and what our priorities really are. The work done on the school was not statement architecture, it was about making relevant spaces and creating relationships between those spaces, much of the work involved rethinking the outdoor area, but it is all in a way that is very child friendly. The result is outstanding, the staff, the children and the parents are all very happy.

POLICY Everyone came on board and worked together. The council went out of their way to find the extra funds needed. It really was a community effort, providing a purpose built by/for the community school. The masterplan committee included: the council assets management, architects, school principals and governors, staff reps, and children reps in the form of Alison

SPACE, SCALE AND NUMBERS 240 students including 70 place pre school (part time) so really 35 plus 30 in reception with 1 teacher and 1 teachers aid.

BUILT FOR CHILDREN (ERGONOMICS) All of the children's wishes were granted:

- Lots of window seats and low level connection windows allow children to see parents come and go, see what the other children are doing and know where they are within the school.
- The useable playground is now larger
- The ceiling has a varied pattern of punched holes, which is different in each room and has variable ceiling height and loads of skylights.
- There is a variety of lighting types.
- Have a small stage in the classroom, it is used a lot and is constantly being customized.
- Lots of consideration given to the small seating alcoves & corners which children use,
- lots of colours.
- Lots of natural light and views out.
- Library is an open public space next to reception, great connectivity.
- Plus there is a shared common area for parents too, between the reception and the pre school.

LANTERNS CENTRE, WINCHESTER, COLIN JACKSON OF HAMPSHIRE COUNCIL

FIRST IMPRESSIONS: polite and contextually sympathetic, set low in a green field square with grand Victorian brick houses on 3 sides and green fields beyond. Spacious and very comfortable.

CONTEXT: Winchester is an attractive and cohesive historic town dominated by its medieval walls and famous Cathedral. The narrow streets are lined with brick and stone walled terraces and Tudor relics. Beyond the town centre it quickly becomes quite rural, with lush green fields separated by low hedges.

The children's centre can be reached by a 5 minute walk from the town station. It is found at the end of a gracious semi rural residential row and is tucked out of site, low in the field, behind the trees. The materials and style are in keeping with local Hampshire Farm houses and the pitch of 48 degrees is a direct mirror of the roof forms of the houses opposite. The external stone wall forms a protective arm around the pavilion buildings and playground within.

SOCIALLY: This is a government run centre, built by the council. The location was politically contentious as it required the council reclaiming a well established playing field in a well to do area for a 50% handicapped childcare facility. Hence the discreet low siting with the carpark to the rear and the sympathetic contextual style.

IDEALOGICALLY: The teaching draws on a range of different philosophies including Montessori and Reggio Emilia Principles.

POLICY, SPACE, SCALE AND NUMBERS: licensed for 55 children, 50% being autistic. English standards are typically 2.3m² inside and 9m² outside, handicapped requirements are much higher. This centre is based on a combination of both and ends up with practically double the norm, this is the centres best feature! It is really noticeable how there is enough space around each play area and for each activity to be catered for without the other activities being impinged on. The cruciform plan for each playroom helps as each corner is delineated as a play zone so there is no left over space. Whilst large, it is not a sea, I think this is because of the quite articulated gradation of zones and consequent breakup into smaller parts, the circulation is clearly defined and thus so are the activity zones.

BUILT FOR CHILDREN (ERGONOMICS): Not just low windows but window alcoves, playful surprises, lighting that has been considered in how it impacts on the children whilst they play or lie on the floor, acoustic materials, lots of gradation of scale from the very large vaults over the play area to the low ceilinged transition verandahs to the window alcoves and the legibility of plan. A child can move safely and autonomously thru this centre. Whimsical details such as a fully furnished mouse hole and an infinity box built into a window box add pleasure. Like all the English centres so far, this centre is lavishly provided for with touch screen computer boards, special therapy rooms, state of the art toys and children's furniture, there is more than one sensory ball room and a gorgeous outdoor play garden

A PLACE OF ENCOUNTER OR ENCLOSURE? This is a very safe place, enclosed, protected and in a very quiet area, The discreet enclosed parents room reflects this private rather than public approach.

DESIGN: The success of the centre lies in its beautiful natural materials, generous proportions and the relationship of the inside to the outside via several gradations from long vista, to verandah, to direct deck connection. The architect drew heavily on Reggio Emilia, from his readings of a Michele Zini book. His interpretation being that softness should be introduced in the materials (timber) and the lighting (indirect) and acoustics, using lined vaults with timber battens. And that the spaces should be designed around the children. The playrooms form the

architectural focus with their lanterns, plus art room spaces have been introduced between the playrooms. The windows all have low (300mm) deep sills, which can be used as alcove cubby space by the children. The simple cruciform plan with visual connections through, provides transparency, it was designed with autistic children in mind. Whilst the service and administrative zones are discreetly arranged at the rear of the play rooms with direct access through.

SUSTAINABILITY: Use of local materials sourced less than 10 miles away, all waste recycled according to councils charter, Rational architectural efficiency: walls form thermal mass, naturally ventilated and lit, good orientation, long life building.

FIRST IMPRESSIONS: Slickly finished and upmarket looking.

CONTEXT: There are 16 identical centres but each one is sited carefully with a unique setout of landscaping, access and outdoor play area. One centre has a large yard with a custom built timber play ship, another has no yard at all. The neutral modern style looks very expensive in each setting. Generally located next door to an existing preschool.

SOCIALLY: Portsmouth is a designated “deprived” area in the terminology of the county finance packages. These centres are more about outreach and adult support with crèche facilities.

IDEOLOGICALLY: A simplified reduction of the lanterns design principles, these centres cost about 600,000 pounds versus the 2 million of the much larger and grander Lanterns. They also had a faster completion plan. However this pre fabrication process will probably not be repeated because you need to build at least 10 to make it viable and although he has another 25 to do, most will be alterations and additions and the rest do not have identical briefs.

POLICY these centres are about providing the outreach facilities within the area of need rather than expecting those in need to seek help out. The maximum number of children is about 10, depending on the outdoor facilities provided.

BUILT FOR CHILDREN (ERGONOMICS): These centres are designed to draw the parents in. The managers love the multi purpose room and the cosy sitting room and kitchen feel of the foyer. there is a luxury of nice materials and fashionable contemporary detailing. From a child’s point of view, the best thing is the range of wall toys from Rosco , and the window alcoves.

A PLACE OF ENCOUNTER OR ENCLOSURE? the compactness allows them to be slotted in almost anywhere and be non threatening and the open reception, sitting room is definitely meant to encourage adult encounter whilst the children play safely in the back.

DESIGN: polite contemporary modernism, straight out of a new housing brochure or “Westfield’s”, this is intentional as they are designed to appeal to the same market with idealized aspirations.

MODIFIED BUS OUTREACH CENTRE COLIN JACKSON OF HAMPSHIRE COUNCIL

FIRST IMPRESSIONS: very stylish solution. Designed to reach the remote parts of Hampshire

SOCIALLY: Poor deprived areas where the parents need more help than the kids but are suspicious of government services and unlikely to utilize them. Send the education and resources to them in small non threatening sorties.

POLICY& NUMBERS: This is about saving the government money by finding the most expedient way to get educational services to the difficult to reach. It requires patient and dedicated staff to go where they are not welcome and try to build relationships. Small contained safe zone for a maximum of 5 children to play in one area whilst around 5 adults can have a meeting in the other

DESIGN: this is an exercise in dressing up an unwelcome concept in appealing packaging. The bus has been styled to look fresh, luxurious, contemporary and fun. For children it has the window alcoves and the novelty factor plus colourful, interesting nooks.

COWGATE CENTRE, EDINBURGH

ALAN MURRAY ARCHITECTS

FIRST IMPRESSIONS: delightful centre in a picturesque part of town. The careful colour coordination, lack of clutter and emphasis on all things natural is refreshing.

CONTEXT Edinburgh is a grand and picturesque town with a rich history. The centre is located in the old part of town just below the castle. This area, whilst touristy, is steeped in history, right back to the 14th century. The narrow cobblestoned streets twist and turn and step up the hill with the Castle on its rock dominating every vista. Many small paths called "Close's" wind and step up the hill with stone archway entries onto the streets. Shops cafes, pubs and businesses open onto these pathways, creating lots of interesting nooks and crannies. The centre is squeezed in behind a row of old terraces on High Street, the Royal Mile. It is accessed through the arched entryway of the Old Assembly Close, down some stone steps and past a curious orientally roofed pavilion, which I assume was built a couple of hundred years ago, It is reminiscent of the Brighton Pavilion. The centre is housed under a protective metal clad curved vault in two stories, with staff and service areas being upstairs, playrooms downstairs. Its outdoor play area is not visible from the close and steps down the remainder of the site with a large ramp, which is integrated, into the play area.

SOCIALLY A government run centre, built by the council to replace an existing centre that was collapsing. Edinburgh is a rich city, whilst only 7% of children nationally, attend private schools, 25% in Edinburgh do. Most of the children who attend the private schools start at the private schools nurseries or pre schools. This centre is used mostly by commuting families, where both parents work in the city. Most (90%?) of Long Day Care in Scotland is provided by private commercial operators and as such, works to the minimum requirement. Cowgate is a flagship centre and has been built to a very high standard, much higher than the requirements and much higher than most of it's counterparts.

IDEALOGICALLY The centre is a Renaissance of Froebel's Philosophy. It marries Froebel's belief in providing a beautiful natural environment and meaningful activities discovered through play (cooking, gardening, looking after animals, recycling and creative expression) with a more modern philosophy of green sustainability. Scented candles, ambient music, harmonious colours for the interiors. The child as an autonomous individual, able to take risks and responsibilities. This has been realized in the form of a separate pet for each room, a working kitchen at the heart of the 3-5's playroom where they make bread each morning. The use of real tools, compost & worm farm for the garden where they grow vegetables, recycling monitors with trips to the bins, a high scope outdoors play area with climbing frames.

SPACE, SCALE AND NUMBERS licensed for 51 children, in 4 classes, 10,10,16,15. Although the playrooms are of a standard size, the centre seems very spacious. This is probably due to several factors: there are separate sleeping rooms and a separate open link art room not included in the calculations. Plus the external corridor, which acts as a sunroom/enclosed verandah and transition to the outside, is wide enough to be used for a variety of activities. It is where they dine and where all the lockers, hats etc are kept and where some seedlings and pots reside (a typical domestic scene in the UK)

BUILT FOR CHILDREN (Ergonomics) The fluid arrangement of playrooms in relation to the outside and the service areas gives the children real freedom to be autonomous and feel connected. The feature partition wall between the play areas and the corridor are really thoughtful, with different sized and coloured openings at all different levels, it is child scaled and full of playful interest. The rooms are big enough to have climbing equipment inside and the high dramatic skylights at the rear make this work from a scale point of view.

A PLACE OF ENCOUNTER OR ENCLOSURE? This is a very safe place, enclosed, protected and full of ambient warmth. It is a good place to gently learn about oneself within a small community. But there is scope enough for the children to feel free and to take risks. It does seem to have the perfect balance.

DESIGN A modern framework with lots of enrichment & foils. The main architectural form is again, the roof and it's skylights but the real feature is actually the transition zone with it's screen wall and the way it is broken down into a series of smaller openings on one side and the floodlit, fully glazed opening to the playground on the other. This, and the generous layout, another refreshing thing is the lack of clutter. This is unusual in a children's centre but it really works. As Lynne said; "the children just don't see it after a bit and there is so much just in the changing of the seasons for them to look at if we make nature accessible to them, it is better to keep it as open as possible"

SUSTAINABILITY Rational architectural efficiency: walls form thermal mass, naturally ventilated and well lit, good orientation, long life building.

VICTORIA PARK CENTRE, EDINBURGH

THE CHILDREN OF SCOTLAND

FIRST IMPRESSIONS: Generous old building in dire need of refurbishing. It has the bones to be fabulous but needs a lot of work. Very lary colour scheme: no fashionable philosophies, just the fundamentals.

CONTEXT In a poorer part of Edinburgh, beyond the “New Town” it is still only half an hour by bus from central. The centre is housed in an old Mansion that dates from 1750. The grounds have been turned into a park and are not part of the centre.

One approaches the centre along a short tree lined drive, across a tarmac yard with scruffy weeds on all sides and magnificent trees on the fringe. The entry is a tacky timber framed glassed in foyer in what was once the grand portico. **HISTORICALLY** fascinating: the house was built for a sea faring family in 1750, sold in 1890 to the council as an orphanage. During the war years it was used as small pox quarantine and then as a crèche for the war effort, then in the 1950’s it became a nursery. In the last 10 years it has been a centre for children and families in need.

SOCIALLY A government run centre, It provides long daycare and Adult education and help. Anne Cairn explained; *“I’ve been doing this for a long time, in the old days we used to get the children only, wash them, cloth them, feed them, play with them then send them home and do it all over again the next day. Nothing ever changed. Now we focus on the parent first, develop a relationship with them and form a contract, the message being that you can have what you want but you have to give something too. Of course we ultimately have more power in the relationship than they do, but they do have some scope. It is much more successful”* The centre is set up with playrooms plus services and additional outreach rooms, interview rooms and most importantly a parent community room which seems very welcoming and quite the focus of the centre.

IDEALOGICALLY I am not sure that there is any stated ideology. Many of the children are special needs and require one on one care. It is quite hard to let the children be autonomous in this scenario, especially in this old house so Anne encourages the 3-5s to go to other pre schools for the 2.5hrs so they experience a more normal setup. The bright colours are to jazz up a crumbly old building but they need an overhaul. There is no indoor/outdoor relationship and there is no challenging outdoor play area.

POLICY It would be easy enough (with some money) to adjust this building to have glazed doors to an outdoor play area with active play equipment, a scent garden, veggie patch, sandpit, musical sculptures etc, instead of the tarmac patches there currently. To put window seats and safety glass in the large low silled windows and remove the bars. To paint the rooms in light airy colours and highlight the features, to put a variety of floor textures down and provide up lighting and dimmers and task lighting. To custom design the joinery so the children’s services fit in the rooms. Even to knock a few openings between rooms with partition doors for flexibility and add a transition sunroom at the rear. But instead this neediest of centres has none of the trappings of Cowgate or Lanterns.

SPACE, SCALE AND NUMBERS licensed for 39 children, in 3 classes, 15,15,6.

The rooms are actually quite spacious and adaptable. The ones on the North side need more light as they get very dark and cold in winter but the ones on the south are “great” The oval dance hall downstairs is used for indoor active play with big cushions.

DESIGN high ceilings & large low silled windows are an asset. main negatives are the many floor changes and this could be minimized. An inviting parents room & many quiet interview rooms, the reading nooks of the main play areas are also good. Could be a grand re use project! The age lends character and magic, the old trees are beautiful. Ultimate long life building.

REGGIO EMILIA STUDY TOUR, ITALY

Reggio Emilia run the biggest provider of childcare in Italy with 21 preschools and 13 toddler centres, they also run a publishing company, regular exhibitions, a clean recycled materials distribution centre plus international study groups. Every year they have 16-20 study groups with anything between 80 – 400 delegates each, from all over the world. There are Reggio branch organisations in about 20 countries, which help to spread their pedagogy. In Sweden, the national early childhood curriculum has been based on Reggio principles for the last 30 years. In Australia it has been popular for at least the last 10 years. The Reggio Emilia pedagogy is amongst the most influential of Early Childhood philosophy in the world today.

- Education is a right: to recognise someone's rights is to recognise their potential.
- The right; To be a protagonist in ones own experiences
- Education is a social activity.
- School is a place where everyone is sharing, discovering, inventing, participating, it is an exchange of idea's
- Children are the builders of a culture, expressing important values.
- It is important that children are able to explore their own idea's and their own images.
- Reggio aims to give visibility to the children and their expression.
- Who is teaching who?
- A child has a 100 languages.

Give the child space to give energy to their own idea's.

Children's personalities develop as they interact with the environment

We do not see objects as objects but as subjects, they interact.

These places are not fixed. They undergo change and evolution. quotes from head teacher.

ARCHITECTURALLY the environment is an important part of the whole Reggio Pedagogy. Whilst they acknowledge the influence of Froebel and Steiner (a child's environment should be beautiful and the child should be autonomous and open to lots of enriching experiences) they have developed the theme.

The resultant architecture is clearly defined by 3 concepts:

- ◆ A child should be free to think for themselves (and move freely around)
- ◆ The centre should operate as a cohesive community with open dialogue,
- ◆ The interpretation of play as a form of work, a science that needs a laboratory, an art that needs a workroom, a playroom that fulfils this criteria.

The attempt is to provide a range of experiences within the centre. Within one playroom is found: a single storey & double storey space with loft, a designated art area, music area, science area, eating & sleeping area, a winter garden or bay window, a stair & perhaps a ramp, with special play area underneath, a series of amphitheatre steps & recently, technology has been incorporated with a projection screen & computer area.

VALUES BASED EDUCATION: To listen gives meaning to the other person, children are particularly sensitive to this, *I cannot exist without your listening*

MAKING LISTENING VISIBLE: THE PROJECTS Observation: Documentation: Interpretation

The notion of harnessing the child's many different ways of expression has evolved into a programme of projects. Initiated by the children's interests, generally as a group, the idea is explored & expanded upon through many phases & much collaboration. A vast amount of work is produced & because it is an expansion of one "spark", developed by a team, the level of detail is impressive. The final work becomes an exhibition, thus affirming the children's visibility

LORIS MALAGUZZI INTERNATIONAL CENTRE HALL & PRESCHOOL

Tullio Zini Architect Studio and ZPZ PARTNERS, Modena

FIRST IMPRESSIONS Unused as yet (1 week) and very fresh and clean. The architecture is large volume barn style with exposed ceiling timbers, white walls and columns and lots of flamboyant funky furniture in lolly colours.

CONTEXT The existing framework is an old (19th?) warehouse for cheese, hence the barnhouse style, very grand and spacious with a fabulous Italianate exterior. The preschool is attached to the even larger moderne international centre currently being built at the rear and this preschool is to be their flagship centre. It incorporates lots of innovative and experimental ideas such as the playsoft furnishings, the huge upstairs loft area with no designated use, specified projector rooms attached to each playroom, in addition to the normal atelier, It has been designed collaboratively by the Reggio group, the architect (Tullio Zini) Interior and lighting consultants.

SOCIALLY The main innovation is that this is the first Reggio centre to include the two first years of Italian primary school, ages 6 and 7. This is a challenge as it will have to deal with a rigid national curriculum, for the first time.

IDEALOGICALLY Reggio Principles underpin every aspect of the architecture, from the communal central “piazza” to the string of specialist creative areas.

SPACE, SCALE AND NUMBERS licensed for 50 children, in 4 classes, plus the primary classes, which are separate. Huge common spaces, playrooms are not vast but have lots of add on rooms for specific activities and the huge loft room is also available for any naps.

BUILT FOR CHILDREN (ERGONOMICS) All architectural playfulness is restricted to the very dominant Alessi like furniture. It is airy, clean and functional.

A PLACE OF ENCOUNTER OR ENCLOSURE? Perhaps best described as a place of observation!

DESIGN The architectural statement is fundamentally post modern. A traditional building juxtaposed with lots of funky softplay furniture. In keeping with Reggio principles there is a central public space and fluid movement between the various spaces, with transparency between the various activity zones. There are playrooms with designated space for the various inventions and art that will occur. There is a loft area or second floor which is for sleeping and any other activity that is not defined.

SUSTAINABILITY It is a long life building however I think it was air conditioned. All the lights were on whilst we were there but there did seem to be a lot of natural light flooding in too, The playspace is inwards looking, focused on it's central piazza, rather than relating to the outdoor area.

FREIRE PRESCHOOL

TIZIANO TENEGGI ARCHITECTS

FIRST IMPRESSIONS delightful unassuming centre with lots of warmth and enrichment, gorgeous garden and reasonable relationship to it.

CONTEXT In an inner suburb of Reggio Emilia. It is approached through a big steel gate into the greener than green garden with picturesque trees and abundant vines.

IDEALOGICALLY A hive of industrious activity. The Atelierista was a particularly voluble and passionate fellow, John Franco. With an Arts degree, a background in theatre design, photography and pottery. He is also passionate about architecture and knowledgeable about history and philosophy. His role was previously limited to art but with the addition of an Atelier to each room (in the 80's) as well as the main atelier, his role has become more directive and interactive, involved in many more aspects.

PROGRAMME Children can arrive at 7.30am but are required by 9am. Outdoor play with teacher present until morning assembly, where jobs are allotted and ideas posited, show and tell occurs. Divide into their project groups, several projects on the go at once. Reconnect with a short assembly, children talk, ideas circulate, Lunch, Outdoor play.

BUILT FOR CHILDREN (ERGONOMICS) The fluid arrangement of playrooms in relation to the outside and the service areas gives the children real freedom to be autonomous and feel connected. The stepped façade in relation to the outside with low rear facing bay windows helps to create mini areas in a child's scale. Lovely warm colours and materials.

A PLACE OF ENCOUNTER OR ENCLOSURE protected and full of ambient warmth. It is primarily a public space but there are microcosms created within the whole. Each school has a parent council and this one sounds quite active, involved in the garden project.

DESIGN A simple almost nuts and berry's profile with a stepped skillion roof, each playroom expressed individually off the main spine, rather than one large block. Reminded me of public works primary schools in the late 80's, only in nicer materials. Warmth, scaling & functionalism.

SUSTAINABILITY Structured to catch natural light, all classrooms face west, apparently built using all recycled materials but this needs to be verified. Each playroom has loft, atelier and windows to the garden.

OUTDOOR SPACE.

Great tradition of gardens in Italy but after WW2 became secondary consideration. But here the garden was designed at the same time, inside and outside interact continually and daily. Consultation with children and adults lead to this. The outside became a research engine, colours, textures, smells, micro worlds, seduced by the outside world. There is a herb garden, a labyrinth, and lots of research projects start in the garden. An orchard reflects the farming roots of the area and they make marmalade.

Current project: the children are redesigning their local rather bland park: creating a big garden dome to watch the animals from, a squirrel circus, a butterfly house. Landscape architect students came to the school, giving the children a new perspective and empathy for landscape.

FIRST IMPRESSIONS Industrial scale atrium and cool colours in a lush green setting.

CONTEXT In another outer suburb of Reggio, it used to be farming land and the building is intended to be like a greenhouse with a winter garden off each playroom. Whilst the centre was established in 1975, the current building dates from 2001. Rodari was a famous Italian writer who worked on collaborative projects with children. His story of Cipollino is about "Little Onion", who fights the unjust treatment of his fellow vegetable townfolk by the fruit royalty (Prince Lemon and the overly proud Tomato) in the garden kingdom. The main themes are the "struggle of the underclass and the powerful, good versus evil" and the importance of friendship in the face of difficulties

IDEALOGICALLY The emphasis and main innovation here (for it's time) is the indoor/outdoor relationship created by the use of glazed pavilions, off each playroom, that protrude into the grounds as winter gardens.

THE MACHINE OF CHILDHOOD (POLICY) The teacher said: this is a very big grand space and this is a challenge to us but children are equal to the challenge.

BUILT FOR CHILDREN (ERGONOMICS) Low continuous mirror at child height in the corridor, child sized spaces restricted to the moveable furniture items.

A PLACE OF ENCOUNTER OR ENCLOSURE? access is through a Big security gate, through the very lush green garden to the large atrium entry.

VILLETTA PRESCHOOL

OLD VILLA & 1970'S ADDITIONS

FIRST IMPRESSIONS Vintage Villa and quality, worn 1970s buildings set in a stunning tree lined garden that extends forever. The old buildings lend a patina and interest otherwise absent. The garden is magnificent

CONTEXT Located a little further out in a very green part of Reggio Emilia. The old villa is classical Renaissance style. The newer buildings are low scaled, well proportioned, concrete modernism, softened by time, colour and a magnificent Wisteria vine.

SOCIALLY New residential block going up across the road.

IDEOLOGICALLY Fabulous array of artwork and activities. The real statement is in the complex water sculpture set up outside in about 8 parts across the play area. The place is full of fabulous inventions.

THE MACHINE OF CHILDHOOD (POLICY)

The adaptation of the old villa is very evocative and makes the centre feel individualistic. A children's project on the old villa conveys their impressions: They have drawn each room in the villa as a separate microcosm connected by a very grand curvy organic stair (each tread numbered to 50) and climaxing in a richly detailed loft room. In reality the top loft has a low ceiling and the roof structure is very expressive and accessible.

SPACE, SCALE AND NUMBERS licensed for 78 children

BUILT FOR CHILDREN (ERGONOMICS) There is a fluid arrangement of playrooms in relation to the central space, the rooms step backward and forward and face into the garden on all sides. The old railing is richly detailed. A bridge over the atrium links the lofts in a fun way. Legible breakdown of forms

A PLACE OF ENCOUNTER OR ENCLOSURE This is a very enriched environment with fabulous old and natural features that add depth to the experience.

DESIGN The architectural statement is one of adaptation and layering.

SUSTAINABILITY

a long life building.

FIRST IMPRESSIONS: Very new crisp modern centre in a field in an outer suburb of Reggio Emilia. Clad in Metal and vibrant red render, it sits low within the landscape. Inside there are “cut outs” in the white rendered volumes that not only let light in but also let you see round corners and beyond.

CONTEXT Located quite a way out in a newer area, new medium sized apartment blocks going up in the not too far away distance. (beyond the field) Having said that it is only half an hour out of Reggio by car. The garden is not yet finished but it will extend the architectural design.

SOCIALLY Max Mara fashion giant offered to invest in a centre as long as 30% of places are reserved for their employees. They paid for (and suggested?) an architectural competition to architects under 35 and within the province. Reggio staff were on the Judges panel. There were 26 responses. Lapis Architecture won and then Max Mara paid for the total construction costs to fitout. 1,700,000 Lira.

IDEALOGICALLY This is a Reggio centre and the architects were inspired by Reggio principles but they have brought their own interpretation to it. Key words used in the original presentation: Transparency, Seasons Changes, Mobility (adaptability?), Climate regulation.

THE MACHINE OF CHILDHOOD (POLICY) White walls are blank pages for a book. Hmmm. Italians are not allowed to have carpet in their centres for hygiene reasons. So there are lots of hard surfaces which make it noisy, ubiquitous architectural grey tile. (interestingly carpets are required in the UK)

SPACE, SCALE AND NUMBERS licensed for 51? Apparently there is no national regulation of areas within childcare in Italy. Reggio pushed for a regional regulation, which resulted in a total area, including all servicing, of 12m² per child inside and 30m² outside. But Reggio makes a point of always using more space than this. This centre is just on space requirements internally and way over externally. (just lucky with the large plot of land)

BUILT FOR CHILDREN (ERGONOMICS) Has the typical Reggio furnishings including the *softplay* cubbies. At the end of each glazed winter garden in each playroom, is an outdoors mobile structure. This is an open steel pergola box with a timber floor on wheels. It can be moved (only by two adults) along a paved path, close to the playroom or fup to 10 metres away. These enable the centre to explore the rooms relationship to the garden in different ways as the climate changes.

Playroom stairs are designed to be musical instruments. “Soft” metal makes a pinging sound, which changes if you run or walk or roll) Initially parents were very concerned about the stairs and the children hurting themselves. But the teachers had a special meeting with the parents about it and persevered. Within a month the parents could see that their children’s motor skills had improved because of the stairs and no one was hurt, so ok.

A PLACE OF ENCOUNTER OR ENCLOSURE? The large central hall is scaled down by the fenestration and the cutouts. The “transparency” really helps to give the spatial relationships fluidity whilst still allowing the play areas to have a smaller more intimate scale to them. Visual not physical connection is often possible.

DESIGN The architecture focus’s on light, bringing as much of the outside in and connecting the inside out as possible. The building fingers into the landscape with a central 2 storey skylight zone connecting the various volumes. Each double volume is metal clad, each single volume rendered and painted red. Thus the parts are legible from a distance. Fingering into landscape by built form is also legible.

The internal light was not what they thought it would be, so they introduced natural skylights in a linear arrangement to provide movement as the sun moves across the roof, “Magic wands” is the name of the skylight.

Reggio teacher states architectural goals are the same as Reggios: space speaks through its volumes, light, colour, smell, materials, sounds and microclimate. Never evolves into a single model as each context is different.

SUSTAINABILITY a long life building. Climatic impact has been considered: massive walls retain temperature. South west orientation, Only natural lighting in daytime. (no solar panels. Some of the led lights are solar powered but not all (a gift)
no air conditioning, underfloor heating and cooling.

ALSACE, FRANCE

Incredible richness, it's in the food, the opulent architecture, the history: from the Medieval to the Belle Epoque, Very wealthy area, a prosperous farming land, slow food,

I walk around the whole of central Strasbourg. It is bound by a circle of canals and includes the picturesque Petite France with its ice cream coloured, "quasi tudor" houses. They make a crooked frame along the edge of the canals with ducks and small arched sandstone bridges crossing between.

Strasbourg is a University town. There are 22 architecture schools in France and only two "special" ones: one is in Paris and the other in Strasbourg. M Coulon is a Professor at the University. He specialises in supervising masters in complexity and sustainability. His office is famous for its folding geometries and they have work in Paris and all over France, all of the offices current work is outside of Strasbourg. I am taken to the cityshared car used by their office, to go on to Marmoutier. We walk down a stair, under the grand central square of traffic free Strasbourg and into a large underground carpark, the car emerges onto a busy perimeter circle road.

Marmoutier is a small picturesque village built around an imposing 10th century stone Abbey set in the midst of rolling green farmland. There are about five shops, a museum attached to the abbey and the rest is a mix of old and new cottages, all in the local traditional style.

MARMOUTIER PRESCHOOL

DOMINIC COULON

FIRST IMPRESSIONS: Beautifully rich & contextual materials: slate roof & copper cladding and carefully complex geometries but quite simple in plan.

CONTEXT Located about half an hour out of Strasbourg in a small village dominated by a superb 10th century stone Abbey. The view in all directions is of well manicured farming land, often bordered by a row of tall plane trees with the mountains far off in the distance, and old traditional cottages nearby. It is very picturesque and very quiet.

The preschool is below the street line, down a gentle grass slope. So the first view you get off it as one walks along the street is of the dried twig fence and then it's folding roofline. The low profile and dark materials make it quite discreet. The central lantern lightwell is clearly visible and at eye level as you approach on foot.

SOCIALLY This is a wealthy area. Most of the working parents commute to either Strasbourg or St. Helene and utilize nannies or grandparents to cover the early pickup times. In France mothers get 1 year paid maternity leave and then half pay for the next 2 years, fathers get 2 weeks. Preschool from the ages 3-6 is free and has been for a long time. But in Marmoutier it does not fulfill the role of long day care. The hours are 8am-11.30am, then home for lunch, and then 1-3.30pm, then home again, plus Saturday mornings. There is no kitchen and no infant care.

IDEALOGICALLY I did not get to speak to the teachers, so am not sure, but, this is a government run, secular school and the classroom setup looked very formal. Not only were the playrooms set up as classrooms with 5 groups of 6 chairs around a table, a front teachers desk/bench and a blackboard but there was also a central library room and a room dedicated to computers. There was no art room. My assumption is that preschool is treated as an extension of primary school.

THE MACHINE OF CHILDHOOD (POLICY) According to the architects, in France there is no requirement, just guidelines with regard to space and ventilation. The client was the local branch of government. In France all government buildings are put to open competition. Each architect is paid for their submission and then a relevant jury chooses the one that will be continued with. There was no involvement of the children or staff in the early stages of design and much surprise that I should ask. The client asked for 5 classrooms, 1 library and 1 gymnasium. It was the architects suggestion that the gymnasium be opened to the centre to eliminate corridors and provide an open plan fluidity.

During the construction phase, the enlightened mayor of the time (who chose them) suggested the architects apply for a grant, which they did, to run a project with the children during construction. So for 5 consecutive Saturday mornings (3hrs each) the young project architect introduced the children to concepts of different materials behaviours, the movement of the sun and it's impact on a buildings climate and the many different styles of church there are in the world. He was surprised by how quickly the children grasped concepts and felt the project was useful in introducing the idea of modernity to the pretty conservative village.

SPACE, SCALE AND NUMBERS cost: 1.3million Euro. licensed for 51children. There are 28 children per class and about 65m² per classroom. (In Paris they are currently doing a school with 16m²!) There is one teacher per class and the director of the centre is the teacher for one class. There are 3 nurse/helpers in a central office in the school. There is a sleeping room but no dining or cooking facilities and no separate art space.

BUILT FOR CHILDREN (ERGONOMICS) There is a sensitivity to this design that has nothing to do with the schools or the states programme. The low profile, open plan fluidity, use of sensory rich materials and colour and the asymmetrical roof planes that ensure that no room is identical all

lend themselves to it's use as a children's centre. The furniture is small scale but there is not even a jungle gym or a swing in the outdoor area and many of the windows have things in front of them so outdoor connection is pretty low. Formal schooling, informal building

DESIGN The architectural statement is one of multi layered complexity. The colours and materials and lighting were worked out as their own compositions overlaid against the folding roof geometry that is also an entity in itself, overlaid on a simple courtyard plan. The result is a 3 dimensional richness whilst still having a very clear rational layout. Warm rich red colour and orange in the computer room. Geometry allows each room to be different

SUSTAINABILITY a long life building. Climatic impact has been considered: Massive walls retain temperature internally, whilst lighter outer skin loses summer heat and deflects winter cold. South west orientation, Underfloor heating and cooling from pipes drawn through the underground. No air conditioning but sensors in the roof lightwell turn on mechanical vented fans when the air up there is warmer. Roof Water is collected in an internal, visible, water basin but this is not legally allowed to be used for anything so it is just decorative. The beautiful natural materials are as much a result of conservation area requirements as consideration for children. The old monastery wall had to be retained and rebuilt as part of the project. The asymmetry is good for acoustics.

SWITZERLAND & LIECHTENSTEIN

The scenery is awesomely beautiful with steep snow capped mountains, the Swiss Alps, looming above, their rocky bases cascading down to sky blue lakes. Wild rivers rush through green tree lined banks and the air is fresh. The natural environment and the outdoor life are a big part of Swiss culture, it seems that everyone treks or cycles or ski's and sails, healthy living is prized.

It makes sense that Switzerland, being the home of Le Corbusier, is also the most super *Moderne* place I have been too. It is everywhere in Zurich, to the point that the fundamental fabric of the city and it's suburbs are made up of mega monumental *Moderne* statement buildings. These buildings date from over the last 80 odd years, and they are getting bigger and grander.

I visited several new residential projects, massive, very well built with modern, clean lines. Well serviced by bus's, trains, shops and parks. Built in sleek shiny materials with bold splashes of colour, everything about them is bold but it still makes me nervous, there are no human scaled components, no people sized pedestrian paths, no delicate details or retreats. I guess this makes it safe but I think it is awfully stark and there is no room for any customization. It could get really dull living here when the shiny new finishes fade. I hope the trees grow fast.

But travel for an hour and then the houses become individual, domestic scale, set in pocket handkerchief gardens with frequent vegetable patches. Travel for two hours and you will be surrounded by vineyards and people who speak French not German. There are more than 30 canton's in Switzerland and each one has a different character.

Napoleon and the Nazi's both came through Liechtenstein but somehow it still managed to retain its own sovereignty. I learn at the local museum that 600 years ago it would have been a cohesive and impressive town, with city walls and a central piazza but not much of that is left now. Vaduz, officially the capital of Liechtenstein, is a small wealthy outpost on the edge of Switzerland. It takes a train and a bus from Zurich, through beautiful Alpine scenery, to get there. About 2000 people live in Vaduz and yet it has it's own Art Museum and History Museum, A high School, Primary School and 3 kindergartens. From the predominantly 1960's village centre, on foot, one passes comfortable residences, small boutique vineyards, a few cows and always with the Magnificent Alps and Castle in the background. Cute cutout images of children in painted wood indicate to be careful of children in this area. There are a lot of expensive looking large bronze sculptures that really do add a spark of interest to the place and above all this, nestling in the green cliff tops, up in the sky, is the castle, the most interesting building here and totally inaccessible!

IM BIRCH SCHOOL & LEUTSCHENBACH SCHOOL, ZURICH

FIRST IMPRESSIONS: Brave new world of super moderne monoliths in super scale and slick finishes. Counter instinctive, I thought this had been done in the sixties and had failed?

CONTEXT Half an hour out of Zurich, part of a large complex, about 5km x 5km in area in the grand tradition of the international style, there is nothing to identify a house as a house or a school as a school, nothing to make the human being the protected focus, we are ants walking on the surface. I found one small kindergarten/crèche by the paper flowers stuck to the windows. It was in a neutral commercial ground floor space with conventional children's class furniture inside.

SOCIALLY Might be a community housing project, it is definitely for families. The play parks were full of children, mothers walked by with prams (looking a bit frazzled) and the sports facilities were full of teenagers. I can't imagine old people here, you need a bicycle or a car just to get from one end of a single building to its other end.

SPACE, SCALE AND NUMBERS

IM BIRCH

K through Lower Secondary School (Ages 5-16)

Architects: Peter Maerkli, Zurich and Gody Kuehnis, Truebbach

Hans Josephson Architectural Competition 2000

Construction Period: 2002-2004

Number of Students: 780, Number of Classrooms: 36 and 3 Kindergarten.

Support Spaces: Multipurpose Competition Gym, Auditorium, Cafeteria and Before and After School Program Space.

Gross Building Area: 184,642 Construction Cost including everything: \$60,420,000;

Energy Consumption: 3.59 KW/SF; Energy Source: Municipal Utility.

LEUTSCHENBACH SCHOOL,

K through Lower Secondary School (Ages 5-16).

Architect: Christian Kerez,

Bern Architectural Competition 2003

Construction Period: 2005-2007

Number of Students: 440 Number of Classrooms: 22

Support Spaces: Double Gym, Cafeteria, Before and After School Program Space. Gross

Building Area: 90,424 Construction Cost including everything \$40,145,454;

Energy Consumption: 3.39 KW/SF; Energy Source: Municipal Utility.

BUILT FOR CHILDREN (ERGONOMICS)

The super dramatic playgrounds and many sports facilities are fantastic. The central location of these is also great. The interiors look the same everywhere.

A PLACE OF ENCOUNTER OR ENCLOSURE?

I just can't get over the lack of any modulation or breakdown into elemental parts. The super scaling and lack of any area's of privacy would make me want to run for cover but perhaps this is the public domain at its best, there is nowhere to hide and it is more dominant than you.

FIRST IMPRESSIONS Refreshingly scruffy patch of playground in an educational precinct of imposing modernist structures. Generally the area feels child friendly with lots of little quirky things and play areas along the way: gnomes, water wheels, sculptures, cubby houses. Inside

CONTEXT I decide to walk to the school. It takes about half an hour and is quite a pleasant walk through residential streets. I like the individualized house entries. There are vineyards and cows. The houses all look very comfortable and well off. There are cute cutout children signs to warn me of the approaching school.

The kindergarten is just above the highway and is approached through the Primary School Carpark. Its grassy roof rising out of the ground to give a glimpse of the way in. The play equipment is the most dominant signpost of the school's presence. Surrounded on 3 sides by grassy meadows, in the next 20 years the architect expects that these sites will be built up and so the only open space will be the roof and playground of the kindergarten.

SOCIALLY This is a wealthy conservative area. Most of the mothers do not work. The kindergarten is for ages 4-6yrs only, the hours are 8-11.30am, then home for lunch, and then 1.30-3.00pm, then home again. There is no kitchen and no infant care in the area.

IDEALOGICALLY All the kindergartens and schools in L. are government run, secular schools. There is a national programme specifically for this age group and whilst the teacher was aware of and interested in Montessori concepts, the school is not aligned to any one philosophy but she is free to adapt her lessons to include its influence (as long as the basic programme is met.)

THE MACHINE OF CHILDHOOD (POLICY) There is no formal entry area or office space, just a small foyer with a child's table and chair and some coat hooks. There is no space requirement, just guidelines. The client was the local branch of government. There was no involvement of the children or staff in the early stages of design. The client asked for 3 classrooms and 1 gymnasium plus storage and wc's. Currently, there are only two classes being utilized.

SPACE, SCALE AND NUMBERS licensed for 51 children? There are 12-20 children per class and about 90m² per classroom. This would apparently be 3 times more in Switzerland. The gymnasium is actually smaller in area than a classroom, so they are using the spare classroom instead.

BUILT FOR CHILDREN (ERGONOMICS) The whole concept of being free to run over the roof and all around the building was inspired by the free movement of children. The central space is not a static piazza but rather the fluid movement of a generous two way ramp, which has been adapted by the teachers to provide extended play areas. The floors canary yellow finish and the curved roofs, which start in each eastern end with a very low ceiling, ensure that each of the playrooms are equally dynamic. There are no divisive walls between inside and out, only fixed plate glass windows onto the play area.

The teachers have installed coloured translucent curtains at each ramp landing and inside the playrooms to indicate separation of zones. It is a very effective and non intrusive way of doing it and actually has added a lot to the building in terms of warmth and ambience. Each room has a central bench with basin, handbasin, oven and basic cooking facilities. It is purposely hidden behind a 1100mm divider wall from the main play area but is part of the children's programme.

All government buildings are put to open competition. Each architect is paid for their submission and then a relevant jury chooses the one that will be continued with. The building as an entity is given approval and a huge (all hidden surprises covered) budget set before being put to competition.

A PLACE OF ENCOUNTER OR ENCLOSURE? The outdoor area is particularly inviting, viewed from all different angles and dominating the building rather than vice versa. Each courtyard is an interesting extension of the playground, as is the curved roof. The curved roof is controversial as a play area as some of the staff think it dangerous, especially in winter when it is covered in snow and looks inviting to roll down. The school often has outings to the surrounding nature reserves and also has weekly use of the primary schools gym for more formal sports. Each classroom is quite separate from the other so the place they come together is the outside and the gym.

DESIGN The architecture is one dramatic statement made in the guise of neutrality, letting the context of landscape dominate. It is, as the architect states, “neither traditional or modern which saves people applying their prejudices: free’s up the mind.” All centres around the movement and outdoor freedom.

SUSTAINABILITY Could not comply with Minergic (Basixs) because roof was counted as a façade but piggybacks on primary schools energy supply efficiently.

A long life building. Climatic impact has been considered: massive walls retain temperature internally. South west orientation, underfloor heating and cooling from pipes drawn through the underground.

STEINMÜRLI I AND II SCHOOL, DIETIKON

KEN ARCHITECTON

FIRST IMPRESSIONS Modernism on a miniature scale with funky materials. It is a shiny white and canary yellow series of boxes in an otherwise pretty dull area.

CONTEXT About 15 minutes out of Zurich by fast train. Dietikon is a satellite suburb to Zurich, with it's own town centre. It is not super dense but is a mixture of 6 storey walkups and individual dwellings. There is also a marketplace and a fair degree of clean industry in the area. The school is tucked in the middle of a group of blocks of units, well hidden by trees on 3 sides but highly visible to the main road on the other.

THE MACHINE OF CHILDHOOD (POLICY) For all it's funkiness, it is a series of classrooms with a central play area and a separate gym building. The bigger kids get a big play area and decent play equipment but it looks like the little kids get the old building with a small play area and not much in it. At least they have their own space.

DESIGN A most dynamic and interesting aspect of this centre is it's cladding. A super white plastic/concrete prefabricated system with regular tunnel holes punched through each panel. The big flying saucer light fittings are also a feature and are highly visible through the classrooms big square picture windows. The big windows also add interest as each classroom has placed different items up against the glass.

A PLACE OF ENCOUNTER OR ENCLOSURE? It's central location, hidden yet accessible, is brilliant, with lots of little garden paths leading from the houses to the school. These paths are well used with many people riding bicycles and walking on them. Again the basic arrangement of a central courtyard works well.

RUDOLF STEINER , DORNACH

One of the more resilient philosophies to emerge out of the melting pot of manifesto's and new ideas that evolved in the early 1900's is Rudolf Steiner's educational theory.

Rooted in Christianity, the main thrust of the theory is that people are threefold manifestations: having both intellect, soul and body. He strongly believed that any educational system will fail unless it addresses all three aspects and held the failure of his contemporary education system in addressing the spiritual and physical aspects in equal measure to the intellectual as the root cause of WW1.

He developed a complex series of "languages" and programmes to aid teachers in teaching spiritual and physical expression. These focused on art, music and movement to realize:

"...the important task of awakening people to their true worth as spiritual beings, setting forth ideas that would prevent societies from disintegrating and giving foundations for a new social fabric for the changed conditions of the time.

*R.S was convinced that much social unrest...amongst the working classes, was not due, as popularly supposed, to frustration in political and economic matters, but to cultural deprivation"*¹

Eurhythmy is a stylized series of moves that resonate with our breathing patterns when we speak or sing, thus achieving "soul gymnastics" "Rudolf Steiner, His Life" Pge62 (ref)

Anthroposophical is his theory of a threefold universe.

Goethe's colour theory inspired his colour theory:

Geometry as an expression of the intangible and abstract (spiritual)

Educational theory based on participation in a free spiritual life, ethical individualism. Holistic rather than reductionist.

THE GOETHEANUM

Anthropometrical: of the human form.

It sits like a great big skull on the top of the hill made from the "dead material" wrought from the unwilling insurers: concrete. The first Goetheanum was of living wood but was burn't down by an arsonist.

Steiner principles of geometry and colour as above

Principle of Metamorphosis: representative of the spiritual and living processes of nature. Evident in the rich carvings and colours throughout.

Symbolic artwork throughout: meaning.

Use of natural materials and expression of spirit in form

HEILBRONN & LUDWIGSBERG, GERMANY

Heilbronn is a small industrial & vineyard town on the outskirts of Stuttgart. It has its own town centre, old church and fort tower plus a full range of industrial structures. Built along a pretty river, lined with weeping willows.

Ludwigsberg is a rather grand small town, also on the outskirts of Stuttgart. It is home to the spectacular, Versailles like Ludwigsberg Palace. It has several grand squares and boulevards, lined with pastel coloured 18th century facades and many smaller pedestrian precinct streets dating from the same period. There are lots of modern quirky statues, like the golden fishing rabbit outside my hotel in Heilbronn, a large steel python on top of the traffic lights in Ludwigsberg and other disconnected surprises to be found; just behind the main street I spy a park with a wacky post modernist pavilion tower in its centre, I go to check it out and discover that it's an entry tower to an underground carpark.

Sustainable building practices, Community vegetable gardens, electric sharecars and bicycles are all a way of life here and these principles pervade the design of the children's centres too. Pre school education is provided free or heavily subsidized, depending on the county. Froebel's influence is quite clear, without being overtly acknowledged, in the style of teaching: every school I visit has an equal emphasis on the outdoor area as the indoor, with gorgeous naturally landscaped play areas. Each centre encouraged freedom of movement for the children and also encourages the children to be independent.

FIRST IMPRESSIONS Elegantly detailed timber box in a grassy green garden.

CONTEXT About a 15minute bus ride from Heilbronn Station. It is located in a leafy suburb with mostly free standing single dwellings but there are also low scale blocks and town houses. Most of the children were picked up by their Mum or Grandparent and one or two Dads, who then walked them home along the quiet picturesque streets. At the rear of the centre a dirt path allows access to a string of small cottage vegetable gardens. There is a low mesh fence for security.

SOCIALLY A Heilbronn County school in a peaceful middle class area.

IDEALOGICALLY, the education is provided free but lunch is paid for. When asked the teachers explained that they do not align themselves with any one philosophy but take a little from each school of thought (Froebel, Steiner, Montessori, Reggio) It was evident while I was there that the children are free to roam at will and go to which activity they choose. There were small groups of industrious children to be found having round table discussions, hiding in a stair cubby house, banging drums, hanging out in the corridor or one small group of noisy boys chose to follow me around with bins on their heads!

THE MACHINE OF CHILDHOOD (POLICY) An eat in kitchen was provided and they used to go shopping and do the cooking with the children. But then a blanket national hygiene rule prevented this from being continued. The kitchen was deemed not big enough for a proper cook, so now lunch is provided by an outside operator & delivered to site, paid for by the parents. What a pity!

SPACE, SCALE AND NUMBERS 75 children, aged 2.5-6yrs, 7 teachers. Hours are 7.30am till 3.30pm

BUILT FOR CHILDREN (ERGONOMICS) The use of timber throughout really does provide a lovely rich warmth to the centre. This is enhanced by the streaming, natural light that comes through the central linear lightwell. The whole arrangement of low picture windows, small cubic rooms (emphasized by the timber paneling on all 5 surfaces), bridges, little ladders and vertical tube spaces with every hidey hole utilized, reads just like a cubby house, scaled especially for children.

A PLACE OF ENCOUNTER OR ENCLOSURE? Unless all 7 teachers are on duty at once it would be near impossible to supervise each room individually as each room is distinct and separate, but this did not seem to be a problem. There was usually at least one teacher in the main common area; the circulation corridor, which floods light into the centre, a fluid and dynamic zone, full of interest and encounter and with enough transparency to overview the separate playrooms. The gym appeared to be used under supervision as a whole group.

DESIGN The architectural statement is one of elegant simplicity in appearance but with a post modernist twist of complexity in the Rubik's cube arrangement internally. A modular layout of cubic spaces, connected by one long light well circulation zone and several vertical ladder tubes, just for children. It worked well as a series of separate cubbies, each with a distinct character and separate use. The modular geometry helped to give definition to the various activity areas. And there are plenty of nooks to hide in. Design appears based on a children's piece of play equipment!

SUSTAINABILITY Natural materials, plenty of natural light and connection with the outdoors through the protected exterior decks that are adjacent to each playroom and within the overall cube. The outdoor play had several clear activity zones, active, retreat, make believe and sandpit play, all beautifully integrated within the grounds as part of the garden: e real kindergarten!

KINDERGARTEN NUSSACKERWEG, LUDWIGSBURG

BERND ZIMMERMANN

FIRST IMPRESSIONS: Another elegantly detailed timber box in a grassy green garden

CONTEXT About 15 minutes out of Ludwigsburg centre in a pretty leafy residential area.

SOCIALLY A Ludwigsburg County school in a peaceful middle class area.

IDEALOGICALLY Slightly different setup from the Heilbronn County; A fee of 99 Euro a month is charged for a single child attending 6 hours/day, 175 Euro/month for 7hrs/day. This fee reduces if there is more than one child per family.

Although this is also a Council centre, the teacher was more precise about her ideological stance. A little bit Montessori: “help me to help myself”. Plus they have Reggio influence in that they have set up a permanent art room as an atelier space. Each play area has a fixed use, structured along Montessori lines: there is a mathematics corner with number play available. A colour corner with all sorts of coloured objects to sort. A whole room devoted to block play and apparently it was the children who insisted on this. The circular room is designated a quiet retreat place for the smallest children. They have a visiting craft teacher who does one or two projects a year with the children and a parents reading programme.

THE MACHINE OF CHILDHOOD (POLICY) They have got around the lunch issue (mentioned in Kindergarten Freidrich Ebert report) by getting the children to bring bread and cheese and then making a salad each day with the children to go with the bread and cheese. On Mondays they make something warm.

SPACE, SCALE AND NUMBERS 42 children, 2-6yrs, 7.30am – 2.30am

BUILT FOR CHILDREN (ERGONOMICS) The central communal space opens up to an outdoor deck that extends into a very large play garden area. The outdoor play had several clear activity zones, active, retreat, make believe and sandpit play, all beautifully integrated within the grounds as part of the garden: another real kindergarten.

DESIGN The facilities are arranged around a central communal space with a circular room within this, but protruding out of the square volume externally: a circle in a box. The contrasting geometries allow plenty of interesting inbetween spaces: a curvy window seat onto a square deck, a cubby under the stair, a bridge across the communal central void. All united by the common use of materials, and flooded with natural light.

KINDERHAUS VIOLETTA, LUDWIGSBURG LUDWIGSBURG COUNTY ARCHITECTS

FIRST IMPRESSIONS: pale yellow pavilions at the top of the hill, in the round.

CONTEXT Quite a way out in Ludwigsburg's pretty residential outskirts, at the top of a hill with a stunning outlook. Visible from the street, it looks distinctly a kindergarten, rather than a house or a public building, each classroom expressed by its own low conical roof.

IDEALOGICALLY Reggio Emilia inspired. Head teacher has been here 30 years building it up as a Reggio Centre. The original building was built in 1973 but was considerably refurbished in 2005 by the County interior designer in consultation with the head teacher. They opened up the central space to provide an assembly area, designated one room as the permanent art room, utilised lots of skylights and white paint to lighten the interiors with their raked ceilings. The Reggio art programme and daily approach in evidence everywhere, inside and out.

They would allow the children more free access to the outside but they can't secure the site so require teacher supervision when outside, but it is not regimented, all the children need to do is ask,

THE MACHINE OF CHILDHOOD (POLICY) Seems a very loose curriculum is imposed, as in this centre there are no classes. The children choose what group they want to join each morning and it is activity based, nothing by age.

SPACE, SCALE AND NUMBERS 42 children, 3 f/t teachers, 2 p/t. Area is much bigger than that required which they think is 2.5m²/child/playroom. This is not a long day care.

BUILT FOR CHILDREN (ERGONOMICS) Conical roof form of each class allows low ceiling at perimeter and high in the centre, makes each classroom feel equally important. Lovely ambient lighting and hierarchy of scale.

DESIGN was probably "nuts n berries" when first built, apparently it was very dark. But now it is light, airy and fairly open plan with each classroom in the round but connected to each other by a central door and views in all directions. There is a well utilized undercover area between the conical rooms and the outdoor play. The simple aesthetic is dominated by the children's art and art materials that adorn the interior with lots of colour, glitter and eclectic detail.

STOCKHOLM, SWEDEN

Initially I thought the very orthogonal grid of wide streets combined with all the big boxy buildings made it pretty bland. But Stockholm is full of quirky and beautiful surprises: The Katerinahissan bridge, the sudden changes in level in streets, The quirky humourous sculptures, All the beautiful 19th century mansions that line the waterfronts, the incredible mix of restaurants, art shops, African and Indian shops, chocolates and toys, funky and traditional. The Swedes love things exotic! Combined with this, everywhere in the city there are children and families. It is a daily occurrence to see a preschool group out for an outing or a Dad and his daughter on skateboards, in the heart of the city.

Sweden was quite a poor country until the 1970's. Up until the 1940's whole families would live in a 2 bedroom apartment and commute 2 hours in to Stockholm. So after the war the government declared they would build 100,000 houses a year for 10 years, and they did, it was called *The Million*. And then they kept going. Sweden did not go to war and so they benefited from not having to rebuild their infrastructure like the rest of Europe and could build up their Industry. Eriksson/Sony led Sweden into it's rich future. Thus the bulk of the housing from the 40's until the 70's is made up of cheap, bland and unadorned housing blocks. There is still a pragmatic utilitarian approach to building today. In fact much of their creative energy goes, not so much into the actual building but into the way it is used (or not used!)

CEDERVALL ARKITEKTER, STOCKHOLM

An architectural firm in Stockholm that specialises in educational facilities. They are particularly concerned with the practical issues of providing for budget centres, from designing furniture that can be built on site from local materials in Ethiopia to modifying existing centres throughout Stockholm to current standards. Below are the main issues they are dealing with today:

Sweden has a national law that all children have a right to cheap childcare and a spot must be made available for them within 3 months of the initial request. So there is a great demand for childcare. However, like Australia, the population is aging and the demands for childcare are in a constant state of flux as the migrant populations with children move. They are constantly building new facilities only to find that they are not meeting demand or demand has changed.

There is no Swedish area's standard. There used to be but it was abolished. Good practice tells them that 10-12m²/child inside (inc all) and 45m²/child for the total site is the minimum. However as this is not required it is often undermined by budget issues and there has been some controversy in Sweden with recently built schools having inadequate outdoor area.

Provision of a free lunch to all the students was introduced in the poor 1940's. It will probably stay now as all the schools have the necessary facilities. Providing the kitchens and dining area is a big part of a school's budget.

School is not free but it is very cheap. About 800sek/month for normal hours for parents with a normal salary and about 1200 sek/month for school plus after school care. It goes down on a means test. About 90% parents use after school care.

A typical school, either free standing or built into the ground floor of an apartment block, is arranged in 3yr blocks, each block has a "homestead" with the possibility of eating in, the 3 classrooms open onto the homestead. Then each school has a main kitchen and assembly area and a dining room. Playground and speciality rooms such as craft or music or science labs are shared. Increasingly this pattern is being applied to preschools too.

Most schools have communal services attached: an area for nurses and consulting outreach and health services but apparently it is hard to get doctors to come to the party!

The current interest is in making the arrangement adaptable to all ages. So walls are moveable, specialist rooms are shared, the library is usually on the top floor and the only room that needs to be altered, if the ages change, is the nappy change room. Another big push is to get handicapped access to all rooms and Specialist consultants.

They are looking at a prefabricated standardized design too, it looks very minimal, truck size limits ceiling height.

MOBIL PEDAGOGIK, STOCKHOLM

FIRST IMPRESSIONS: ordinary bus's, it is the parks and teachers that will make it worthwhile.

CONTEXT I am attending a network meeting, held at the facilities of the National Park that is the usual base. It is about half an hour from the city centre by car.

The idea, started in Denmark (which has about 60 bus's) is that children are picked up from their home or nearby bus stops and then, with no more than half an hour spent in the bus, they have a 45km radius of places to visit and spend the day. They spend most of their time at the National Park but can also visit other places too.

The network also provides procedure manuals for safety, pedagogy, hygiene and food provision, triyearly conferences with staff training and development, an online newsletter and forums for parents & staff and a continual reassessment and amendment of the bus design.

SOCIALLY These bus's are perfect for the outer suburbs where there is not a lot of traffic congestion, there are a lot of children and the distances make car travel a normal part of life. The children's backgrounds range from low socio economic mixes to reasonably affluent. Some of the buses are all Swedish, some are all migrant (mainly Iraq). This provided an interesting opportunity when two such bus's arranged to meet regularly so the children could mingle and play.

IDEALOGICALLY much of the bus pedagogy is rooted in the thinking of "*Mulle I Ur Och Skur*" Schools. This thinking is that by placing the children in the natural environment, rather than in a manmade construct, they are provided with:

1. A constantly changing and detailed environment full of natural enrichment to stimulate their minds. There is such a wealth of new possibilities to explore, eg: a chance seen frog needs an immediate response, so the teachers and the students really do explore the topics together, finding the questions and the answers together, not just being led by the teacher.
2. A healthy environment where they can run, climb and be physical to their hearts content. Apparently the incident of accident is much less at an outdoor centre than at a indoor centre. Children eat and sleep better after a day outside, and they develop muscles.
3. Because they are not limited to a setup in a room prescribed by adults, they are not limited to stereotyped roles. So boys set up bead shops with stones for money and girls climb trees. They develop along their own interests, becoming individuals.

Rather than providing Reggio style development of a project with the analytical and craft skills that evolve out of producing that project, they do a lot of drama and music, art that does not require a permanent physical product.

THE MACHINE OF CHILDHOOD (POLICY) The bus has been altered to be safe and provide service but it is still a standard bus in it's design and ambience. They don't bring toys except for the basics: balls, skipping ropes, beach gear, skiing gear, no dolls or cars.

SPACE, SCALE AND NUMBERS Ten Bus's, eight owned by Councils, two are private. Two are in Norway. Each bus has room for 20 children and 3 adults plus 4 spare seats for parents, trainees or guests. The 3 adults are 2 teachers and a driver who is also a helper. It works best to arrange the buses by age 1-3, and 3-6, as their needs are different.

From a teachers point of view it is a 9-3 job with no break so you need to have a positive attitude. You also need to be very organized because of the tightness of storage. But children soon learn

the new rituals. The teachers I spoke with were keen for the new experience. So often they are stuck in one little space all day and it can get boring and claustrophobic, They were excited about being able to go wherever you want (the Magic Bus). They also felt the chance to get deeply into a project was still there as you can follow up the natural experience with a library or museum exploration of the same topic.

Bus cost 3hundred thousand Euro or @3million SEK

BUILT FOR CHILDREN (ERGONOMICS) Bus Design issues:

- Door push button (bright red) moved from child height to adult height because they kept pushing it! (it did look very tempting)
- Kitchen is never used. Firstly they tend to eat outside where there is space and secondly they put the pre cooked food in the basement storage of the bus then they don't have to lug it up the stairs.
- Bathroom is way too small, no room for the nappy change
- Kids craft tables can be lowered with a mat placed over to provide sleeping for a max of 5 children. They also do this if the weather is awful, to provide a play area.
- Could do with an arts materials storage area and it needs wires across the boot shelves to stop boots flying out as missiles if the bus stops suddenly.

SUSTAINABILITY Currently the buses are all diesel but they would like the next lot to be hybrid. And battery run heating for the food is on their wish list.

FIRST IMPRESSIONS Utilitarian exterior contains a rich Reggio Emilia interior.

CONTEXT This school is way out in Stockholm's outer districts (a whole half hour out!) It is an uninspiring area of many medium sized ugly blocks from the 70's, and highways. But there are lots of pleasant trees inbetween and it is possible to bike ride from the station to the school. The school is proud of it's multiculturalism.

IDEALOGICALLY From the 1960's through to the 1980's Children's facilities were built as little house like compartments. The standard arrangement was 4 identical units, each unit being 2 rooms and a shared kitchen. But the nature of children's centres has changed, Now they want to provide a multivalent approach with space for art, craft, science experiments and computers too. The teacher's role has changed as well, now they have to do much more research to help the children with their projects and they have to do much more documentation of the projects, of the children and generally more paperwork. Plus the teachers want to discuss their work and have more interaction, so do the children. They don't want the school to be just like a home, they want it to have a more public feeling, a place for encounter, where parents can come also.

"The House of Possibilities" This centre was designed after a years discussion and collaboration between teachers, parents, architects, council and staff unions to fulfill these new requirements.

- Each classroom has an art room and a laboratory plus lockers area
- There is a "homestead" as in primary schools, shared between 3 classes.
- There are no corridors but each room opens onto the next and onto the central courtyard. Fluidity and sense of freedom
- There is a rear zone of staff service rooms with offices, staff room and a photocopying, printing area.

Instead of outside consultants or ateliers the Swedish make the teachers into specialists, letting each teacher define and expand their particular strength. So, they have an Art teacher, Language and an outdoor teacher. They put as much emphasis on outdoor variety of activity as they do indoors. They choose not to have bicycles as cycling is so accessible in Sweden, so that other aspects can be developed.

WHAT IS THE ADVANTAGE OF A FIXED BUILDING AS CENTRE?

The building provides the facilities to do a greater variety of things such as construction, gardening, cooking, art, language. Life and home skills, it provides a community space, which the parents can participate in, It allows the classes to develop a project over several days so they can get deeper into it.

THE MACHINE OF CHILDHOOD (POLICY) They were lucky to get this school, it was a rare coming together of various levels of government to make it happen.

SPACE, SCALE AND NUMBERS 80 children, 5-6 groups, Building is about 1000m², outside is much bigger than that. 26million sek plus 2 million sek for furniture.

BUILT FOR CHILDREN (ERGONOMICS) Apparently every Swedish school gets a work of art made for it and paid for by the construction company that built it. Klisterburken had a local artist make them a special "arty" cubby house.

A PLACE OF ENCOUNTER OR ENCLOSURE? Definitely encounter. This is not a domestic centre, it has a public building feel. Also they go on lots of field trips to the surrounding forests and cultural facilities, at least once a week.

DESIGN Externally it is in the tradition of modern Swedish architecture: very utilitarian with little in

the way of adornment. The outdoor play has an asphalt finish, the play equipment and features float upon it like boats at sea. Internally the brief was for calm neutrality, which it has achieved, there are lots of low windows, built in level changes for special play and the indoor courtyard has a lovely rock garden. The main achievement is the transparency between play areas and shared spaces, achieved with the use of glazed screen partitions and the glazed central courtyard as the main link.

SUSTAINABILITY long life building, very good quality insulation and ventilation system.

FIRST IMPRESSIONS Cool! A science centre in an old industrial complex has spilt over into a permanent school.

CONTEXT This centre is in Sodertalje, a separate town near Stockholm. Sodertalje is an interesting mix of beautiful old timber buildings and dull boxy modern ones. The centre itself is housed in an old industrial complex with various different buildings all made from red brick, the earliest (falling apart now) dates from 1890 and the newest date from the 1950's. Industrial style timber bridges connect the various stages.

The science centre was started in 1987, it is funded by the Municipality but is privately operated. In 2004 the preschool was added. To enter the Preschool you have to first enter the science centre. Whilst it is in a separate building, connected by a bridge, it is still very much a part of the science centre in it's character and operations.

IDEALOGICALLY Peter Sirken is the in house designer and architect and he designed the preschool in consultation with the new Manager. The aim of the science centre is to make science and math's easy, fun and accessible. The name is based on a Famous French book of the same title from the 1880's. There are lots of science games and also lots of exposing of the science of everyday life, ie: making a cake as a scientific act.

The aim of the preschool is to extend the centres programme into a permanent school setup, so the focuses are:

- A) Freedom of choice: it is important for discovery, not to say no. There are no distinct classes or programme, rather activities evolve and develop with the children out of what is available. (and a lot is available)
- B) Open fluidity: there is one large "public" space with no doors and all ages are free to roam at will.
- C) Opportunity: Rather than the atelier being attached to the classroom, the classroom is one continuous atelier with all materials, toys and tools visible and accessible. The floor is kept clear and this alleviates any sense of clutter
- D) Trygghet (security) Trivsel (cosy, enjoy) Talang (talent, possibilities) Idea of a secure base within which all is possible: the kitchen is still at the centre, open and domestic, materials are warm and natural; wood, marmoleum, paint. It was the architects wish that the building materials should age well and look good when worn. It works and the centre has a lovely lived in feel. Lots of natural light, space.

THE MACHINE OF CHILDHOOD (POLICY) Because of it's unique location the centre was freed from the normal structures required by the municipality so they are free to explore new arrangements.

SPACE, SCALE AND NUMBERS 65 children, 4 homebase groups, Building is about 520m², outside is not much bigger than that. However the staff rooms, main kitchen and storage are in the Science centre plus they would probably visit the science centre once a week.

11million SEK inc furniture. Most of the money went on the new electrical system, insulation and ventilation and the fitout. The majority of the furniture is from Ikea and is so cheap that they can almost replace it each year, not very environmental but keeps it interesting.

BUILT FOR CHILDREN (ERGONOMICS) lots of low windows, built in level changes for special play. The bathroom is magnificent. A walk through corridor with a central lowered square as a bath area with specifically requested screw taps with clear hoses. Any opportunity to make

processes clearer has been relished, scissors are stuck to the scissor drawers, pens to the pen drawer. Everywhere there are inventive surprises: rock climbing hooks on the walls, sleeping nooks under the stairs, a disco ball in the wc, the wheel chair access wc is completely round and still complies. It has faceted mirrors all the way round the interior at wheelchair eye level. The door to the cleaning cupboard is made of brooms. The corridor is wide and weaves in and out with cubbies and surprises all along.

A PLACE OF ENCOUNTER OR ENCLOSURE? Definitely encounter. The centre has an open quality. Children all seemed very relaxed and unconcerned by a visitor. The manager said if there was one thing he would change it would be the code required homebases. They just don't need them, one would do as a retreat. The main public space is everything. It has to be said that this main space is full of hidey holes and is not all exposed.

DESIGN The mystery and whimsy of an old complex from a different time and a different usage is built upon with quirky details (old books line a skylight) and rich sensory materials. The corridor has been transformed into a learning street that merges and takes on the character of each room that it passes, becoming an extension of the art room, of the wet area and of the main dining room. There are views out and beyond and between, and always a sense of something more around the corner. There is definitely a visual sense of the collective.

MULLE “IN WIND AND RAIN” PRESCHOOL

FIRST IMPRESSIONS Lovely old timber summer house in the woods.

CONTEXT at the end of the metro line, the area is typical of Stockholm’s outskirts: lots of woods and water. The houses sparsely scattered single, simple dwellings.
The centre is up the hill and tucked away a bit from the main two way road.

SOCIALLY The area is almost totally Swedish and the children who attend the school are all Swedish too. Most ride their bikes with their parents to get there. The teacher was a bit embarrassed and regretful about the lack of a migrant population in the school. She believed that the outdoor philosophy is too alien to the migrant cultures for them to choose this kind of school.

IDEALOGICALLY It is very much a part of Swedish culture that to be outside in a natural state, in a natural environment is an ideal. The centres were started by the “Outdoor Life Organisation,” which has been around since at least the 1950’s when Gosta Frohm wrote his famous children’s stories and devoted the profits to this organization. His stories were and are very popular in Sweden, they are about likeable half child, half animal elf creatures (the main one named Mulle) who befriend the animals and look after the environment. The Mulle schools use these characters and stories as both their mascots and as a way of teaching their idea’s to the children.

The aims are two fold:

A) We were designed to be outside not in a classroom and children much prefer to be outside than in, So the main aim is to make learning fun and stimulating and get children out into the best environment for them, not to destroy their patterns, not to interrupt their natural learning cycles with unnecessary classroom rituals (like dressing and undressing in warm clothes)

B) to teach environmentalism: cycles of life, recycling, making things from scratch, enjoying nature, observing nature and being a caretaker. They even teach the parents! The parents absorb the principles, by osmosis from the children.

THE MACHINE OF CHILDHOOD (POLICY) Whilst they still structure the day (very loosely) the idea is definitely to abolish the machine. They see the main goal of the teacher as that of inspiring the children. From a code point of view, they are required to provide a homebase for each age group. These homebases are used to store all their observations, artworks and collections. They also do value them when the weather is miserable. The code is also restrictive in that the children are not allowed in the kitchen (but they are still allowed to cook outside!)

SPACE, SCALE AND NUMBERS It is privately operated but in Sweden this means that the council pays the private operation rather than running it itself, the fees are still the same for the parents. So far there are 15 primary schools and 200 centres for preschoolers (but this includes home based groups too) across Sweden. This particular centre was the first (Gosta Frohm used to sing with the children!)

And has 45 children divided into 3 groups by age (1-3, 3-4, 4-5)

The homebases etc are quite small and minimal but each group has an outdoor assembly ring and an outdoor sleeping cubby house plus they spend 90% of the time outside. 7.15am – 5pm.

BUILT FOR CHILDREN (ERGONOMICS) The building was a grand old Summer house and apparently has a friendly old lady ghost! She used to work at the palace and get broken china from there, they keep finding more. Whilst it is a bit of a rabbit warren the building has a gracious character and each room has a lovely feel to it. They have not altered it more than the minimum to make it serviceable such as installing pegs and drying heaters for clothes, plus they do not have masses of toys or clutter, just a few simple display cabinets and paintings. it is all very simple and this is refreshing.

The main area of building is outside. The daycare was started in 1985, the preschool in 1994. All the structures have been built in working bees by the teachers, parents and children, this was an important part of the process, involving them all in first hand principles and as the teacher stated, it takes a long time to set up a playground this way. Many of the structures are quite simple: rope mazes, log horses, tree stump rings, etc.

A PLACE OF ENCOUNTER OR ENCLOSURE? The children have small group outdoor assemblies each morning to establish the main activity of the day then they are free to go and do what they want. Activities may have been set up by the teachers but the children are also free to get equipment etc out themselves and do their own thing. The teachers job is to inspire. Sometimes they eat inside but often they eat outside. Sleeping cubby/tents are set up outside too, they use sleeping bags if it is cold. 3 out of 5 days they will make an expedition to the woods, it does not, the teacher explained, have to be far, a little woods is enough!

DESIGN Outdoor life, working with the parents, many forms of expression, to make school fun! Unstructured.

SUSTAINABILITY Clothing is very important, without the correct clothing, the child will just be unhappy. Studies in Sweden have concluded that sun protection is better at outdoor schools because they have set themselves up to address this issue The *Patrick Grahm Study* concluded that Children at outdoor centres were healthier than the norm: they ate better, slept better, had better motor co ordination and more muscles.

MULLE “IN WIND AND RAIN” PRIMARY SCHOOL

FIRST IMPRESSIONS Traditional Swedish housing materials, pavilion classrooms in the round set within grass green grounds, next to a carpark, no forest in sight.

CONTEXT A 15minute drive from the preschool but back in suburbia.

SOCIALLY Most of the students went to a Mulle preschool.

THE MACHINE OF CHILDHOOD (Policy) There are more curriculum requirements to comply with at this level. The day and the environment is much more structured and they spend more time inside. However there is still a more individualized approach to learning than in a traditional classroom setup and this may be threatened by the new curriculum coming in 2010.

SPACE, SCALE AND NUMBERS 3 classes, + 1 dining area and administration, ages 6-12, 78 children, 1999. Each class has 25-27 children with 2 age groups in each.

Each pavilion has a homebase with a round carpet and no chairs, this is for assembly. Off each centre space there are 4 smaller alcoves, each permanently designated for a specific activity: maths, art, written expression etc. The children are allowed to move around and are not required to sit still.

Each child has a small bag with pen, ruler, writing pad in it. They do not use books but choose individual tasks on laminated sheets and then go outside to fulfill these tasks either individually or as small teams. Many lessons are held outside. Distractions are dealt with by: let it pass, embrace it, get used to it. Not a sitdown lesson, use all the senses, use the whole body, takes teacher skill.

Teachers are required to stay 8am-5pm to see the whole child (rostered) They do use computers, but not much.

Annual camping trip for each class, each year. One day a week, outside outing from 11-4.

The children generally achieve sound to excellent results in the state tests, the weakest area is written work but maths, science, teamwork, environmentalism and good health are their strengths.

HELSINKI, FINLAND

Approached from the sea Helsinki shows off her 19th Century grace and grandeur portside, with regimental classicism in pastels, crowned by a stark white church, brilliant against the blue sky. The town centre is full of interesting architectural gems from the last 200 years. But this is quickly left behind as we enter an ode to industrialism! Chimneys and steel replace the stone, and in the outer suburbs the streets are like vast wastelands with no kerbs and the buildings like tankers parked in a line. I discover a door into the biggest, black tanker, a shopping mall. It is another world with colour, light, open terraces and flowerpots plus lots of shops. It is a pity the houses don't connect right on to the mall, then one would never have to enter the wind chilled streets. Artificial Ecology lives.

It is not hard to understand why Heavy Metal Music is so popular here, it goes with the environment. Everywhere I see people with purple hair, black Goth boots and (naturally) very white skin. At night, with the sun still shining, they come out. There are lots of free music concerts in the market places and I see lots of studenty types with 6packs of beer.

However bleak the streets may be, there are many beautiful and interesting design shops tucked away behind firmly closed doors and it is good to go in, just to get out of the cold.

Dominated by the Swedes and then the Russians, the Finns are a little protective of that which is actually Finnish. Moomintrolls, Marimekko and Italia, Alvar Aalto's house and old Porvoo, Smoked fish from Lapland, berries and black bread. Candle light and Elk moose, the beautiful Art Nouveau Kapelli. The Design Forum and all the latest in humourous quirky design.

Helsinki is a city of stark cold extremes and whimsical warmth, and an almost forgotten history in favour of modern industrialism.

GOVERNMENT ARCHITECTS BRANCH

Finland is halfway between Sweden and Russia. This is evident in the way they approach education. It is a combination of designed flexibility and super organized bureaucracy.

The school funding and guidelines are provided by the State Ministry of Education, which has a full research team producing hard scientific data from within the schools and then working out directives in response. They have published several books. But the responsibility for providing the schools lies with the municipalities (there are 400 municipalities in Finland).

It is important to note that the research branch is hierarchically above the procurement group and thus has the power to ensure implementation of the research. I don't think this is the case in Australia, where research can be easily sidelined, if it even happens.

PISA (OECD) is one international test that Finland has been performing very well in, particularly in Math's. The Government notes it's successful design processes as one of the causes, with the main cause being the requirement that Finnish teachers complete a 5 to 6 year degree. However detractors say that the tests are won on the basis of all abilities inclusion, not on real figures and point to the national 2 yearly "Wellbeing Tests" as a true indication of the School system. Compared with other countries equivalent Wellbeing tests, Finland is not performing well and many students are apparently not happy at school and don't like learning. According to detractors (and the newspapers), many teachers in Finland are also depressed and unhappy with the current system. This, combined with the recent shootings in Finnish schools has shocked the nation and there are calls for a change in approach.

It appears that preschool is not really included in the school curriculum although a kindergarten Teacher must have a university degree as a teacher. Long Day Care is provided by the Municipalities and there is no national guideline. But, like Sweden, childcare is a right and must be provided, so, many Helsinki centres are full to overcrowded whilst many country ones and outer areas are declining in numbers. About 40/50 schools close in the countryside a year! Finland also provides 1 years paid maternity leave and, as the government representatives I met with explained: did not expect the current demand for places for children under the age of 1. This is also causing some debate in the papers, as traditionally the Finns have believed that children should be at home playing until they go to kindergarten, which is a transition period of half days for 1 year until full schooling at age 7.

Specific points from discussion with Reno Tapaninen:

Innovation in Finnish School design: Consultation with all staff, not just head teacher.

Best way to choose an architect is by competition, limited or not. But the normal process is by economic tender.

There are guidelines but it is not fixed: the competitions are expected to produce some innovation in usage design, not just aesthetics.

There are area guidelines: a smaller school should have more area per child than a larger school. There is no maximum size, even a 1000 pupils is ok if the campus is built as a village. The average size is 300 (for primary) but high schools can be much bigger, like universities.

Whilst the guidelines are 20 children to a class maximum, in reality it can be much more because of the population inequalities.

A school needs to be as multi purpose as possible because the brief keeps changing. They have demountables (barracks) but there is more than one design.

FIRST IMPRESSIONS Out of history but still relevant

CONTEXT Not far from the centre of town, sort of like Broadway in Sydney, not a fashionable part but still built up and utilized. The centre is an elegant arts n crafts masonry pile on the corner of the main street with a small playground area in the front, a few children playing there.

SOCIALLY Currently used as a special needs school for those with language difficulties but they are moving to make way for a music school. Has always been used by children.

IDEOLOGICALLY The story is : Hanna Rothman and Elisabeth Alander studied with Froebel in Berlin then came back to Helsinki and established a kindergarten training centre in 1890. It was so popular that in 1907 they commissioned Wivi Lonn, a famous woman architect of the day, to design a school for them. It was for the poor people and was the first stone building in the area. This just shows how they inverted the thinking of the day by making children the most important people in the area. It was also the first place to be specially built for children in Helsinki. Eventually it was taken over by the government and became the first government school for kindergarten teacher training.

DESIGN Richly decorated stone exterior, in the latest Art's n Crafts style. Entry is through a small gate then into a grand foyer with a very gracious stair. It was especially designed to feel spacious and airy with high ceilings and large windows. There is a wonderful hierarchy of scale with a light fretwork colonnade between the more public and the retreat areas and other joinery elements contrasted against the voluminous space. Special features are the low, child height window seats and specially designed small furniture. This was cutting edge design with radical ideas for it's time and it is still relevant today.

ARKKI LONG DAYCARE CENTRE

PIHLA MESKANEN

FIRST IMPRESSIONS Prolific Reggio inspired creativity in an old warehouse

CONTEXT Out near the airport and the science museum. It is the last stop on the Metro line (again!) The centre is sandwiched between the highway and a pretty river lined with trees. The science museum is just over the bridge and beyond.

IDEALOGICALLY Reggio Emilia principles have been embraced whole heartedly. Tuuli, the manager, has been to Reggio about 10 times and also To USA Reggio Seminars. They use Montessori materials “because they are well made” but not the Pedagogy. Tuuli says *“Reggio is not either/or it is both/and, room to grow within it. It is part of a bigger more global way of thinking”*

This centre has a particularly constructive bent; Tuuli and 4 of her 6 children and two of her son's in law, are all architects. She first opened a childcare centre in 1981 when Pihla was still young enough to join in. They always had architectural studios and these developed into summer building camps. Now Pihla runs exclusively architectural schools for children and this daycare centre uses constructive design as it's main area of expression. It is not called Arkki for nothing.

The thinking is; that this is not just art classes, it is about ways of exploring, studying and then expressing that exploration of the world, another language for interpreting reality. A tangible image of the child's mind. Ways of seeing, of ordering, of structuring, of feeling: the most variable and inspiring of materials are provided.

Tuuli is currently doing a doctors thesis on what kind of environments will be needed for the new Pedagogy. Of particular interest, the current neuroscientific thinking that we were designed to operate outside and on the move. But her interest is not in outdoor schools, which are not always feasible, but in the words of the Milan based Reggio Architect Brancusi (?) *“The Ecology of the artificial”* that is; creating an interior that has the necessary qualities of the outside world.

SPACE, SCALE AND NUMBERS Privately owned. Can have up 100 children but they prefer to keep it more spacious, currently 35 children. 5m² is required but they give more. The outside play area is very small so they utilize the adjoining park and river.

BUILT FOR CHILDREN (ERGONOMICS) The interpretation of the loft with stairs and slide is very playfully achieved. Each room is fairly uncluttered, defined by it's architecture rather than it's furniture. There are several material specific work rooms such as a timber work room that has the feel of being a fully fledged timber workshop only scaled down to a child's size.

A PLACE OF ENCOUNTER OR ENCLOSURE? The entrance is through a “secret door” in a timber panel at the rear of the building. This is a very private world

DESIGN Set in an old brick 19th century silk factory. There were two big halls that they converted. The required standard of ventilation was a huge cost and is a big visual element of the design. The facilities are arranged according to Reggio Emilia principles, as a series of small installations, multi tiered and child scaled, within a large grand space. Not a piazza as that is Italian, but a crooked street in the centre, still inward looking, with more private homebases off that and then even more private nooks off them. Homerooms are designed to be intimate, they can be glimpsed but have closed doors. There is lots of warm timber and translucent partitions/railings to provide transparency between the spaces. Large warehouse windows and skylights let in a lovely ambient light.

SOINISEN KOULU PRIMARY SCHOOL

FIRST IMPRESSIONS: Quietly monumental with its clustered geometrical forms and brickwork, set in the middle of a large flat gravel playground.

CONTEXT A half hour bus ride out to Malmi. It is a mixed industrial, residential area with Helsinki's typical wide open streetscapes and large blocks beyond. The school is centred on a large gravelly site with some interesting looking play equipment to one side. When the children played ball, they played it close to the school building, not utilizing the vast open space.

SOCIALLY This is a poor migrant area with many unemployed and many social problems. The school is 40% migrant with 21 different cultures represented. There was a big migration influx to Finland in the 1970's and 80's, so migrant issues are relatively new to Finland and integration is a big issue. The school is also for special needs and students with social problems, which makes up about 25% of the school population.

IDEOLOGICALLY The school funding and guidelines are provided by the State Ministry of Education, which appears to be very proactive. This was intended as an innovative school and was put to architectural competition with 200 entries, the first school in 30 years for this to happen. This school is special because: 1. All abilities. 2. All cultures, 3. Designed in consultation with Pedagogists.

THE MACHINE OF CHILDHOOD (POLICY) the students were allowed to interior decorate their common area (a 4m square) and they used hot pink and red, which made a lot of sense to me, as the rest of the school is primarily white combined with neutrals. When I walked in there, several students got territorial and wagged their fingers at me! I felt there could have been a lot more in the way of cultural and student artwork and customization, an opportunity missed.

SPACE, SCALE AND NUMBERS 220 students. 4 special needs classes (32 total) 2 problem needs classes (20) There is after school care but because it is such an unemployed area there is not much call for it and only about 10-15 students use it, so it is housed in one room within the school. There are 10 classrooms, these can be opened up to each other creating pods of 2, which they now do use because of the dwindling population. They use a traditional Finnish system of having one teacher in one homebase for the same group of children for a full 3 years but here, they do it to the extreme and have them for a full 6 years. The homebases are now not big enough because of computers etc.

DESIGN The original design notion was of it being a "city for students" with the dining room being the "marketplace" and the corridors, its streets. The main innovations are threefold: a) the transparency and character given to the circulatory corridors, they are intended to be used for more than just movement but as the social zone of the school. B) 3 internal courtyards that not only let light into the school but also provide a safe outdoor area for the special needs students. (these are quite plain with no live plants or colour)
C) the multiple entries; there are 3 entries, confusing for visitors but useful for the main users and make it quite dynamic, with no "deadzones".

MONTESSORI PRESCHOOL IN RUUSUTORPPA SCHOOL, ESPOO

FIRST IMPRESSIONS: A collective of small schools combined on one campus, in one building, in an area of even larger residential blocks, wide vacant streets and internalised shopping malls.

CONTEXT In an outer district of Helsinki, called Espoo. It takes a half hour train ride to get there. Then I walk through the typically huge streets, dwarfed by the blocks on either side. I am not the only one, a mother with small children passes me, her child looks so tiny in this street! The weather in Helsinki can be very inhospitable for much of the year and thus it is not a culture of open promenades but rather of warm interiors behind closed doors.

The school is at the end of the street, with green woodland and a rather surreal empty golf course beyond. Relative to it's neighbours, it is low scale, sunken into the ground at the rear, the building fans out in fingers to create welcoming entry areas.

SOCIALLY This is a mixed low income to middle class area with some migrants and some Finns. The Montessori pre school/daycare (23students) is privately operated within the State facility. There are also: 3 state pre-schools (6-7yrs only, 16 in each) A state run Montessori primary school (6 x 12 in each class), and a normal state primary. Whilst the Montessori Preschool is completely separate, with a separate roster and thus no intermingling, the other schools do have some overlap. The primary schools share lunch and playtime as well as some shared classes: sport, languages and craft/woodwork. Basically those subjects that require extra facilities!

Supposedly the staff all share a staff area but the Montessori teachers dismissed it as being too far away, they make tea in their own rooms and do not mix at all with the others, which was evident as the other staff in the school, whom I asked directions from, did not know where the Montessori school was or who the staff were. The school does have festival and social days, which are combined.

IDEALOGICALLY Strictly Montessori: the children are free to choose what they want to do within the centre; the room is permanently setup with specified activities in separate areas and the children can move between them at will. If they don't know what to do the teacher can make suggestions. The setup and programme follows strict Montessori guidelines and utilises Montessori equipment and furniture (bought online from Montessori). There is a :

1. Maths Corner
2. Language (including listening to Music corner)
3. Sensory (primarily touch)
4. Practical life (shoes, kitchen)
5. Culture (+ geography and biology)
6. Art Corner

The specialty of the Montessori Primary is it's maths and language tuition which is entirely different in programme to the standard schools.

THE MACHINE OF CHILDHOOD (POLICY) Compared to the other noisy ordinary pre schools, the Montessori pre schools was much calmer and quieter. Plus the materials and furniture had all been carefully considered to be harmonious, natural as possible and pleasing to the eye. Visually, this was definitely an improvement on the institutional feel of the standard state fitout. The relative freedom of choice for the children must also be a relief, however their behaviour was much more controlled by the teachers. Whilst I was there (and they were not expecting me) the centre was meticulously tidy and the staff actually looked a little bored. There were 4 adults and about 16 children from ages 3-6 in two rooms with little connection to the outdoors. It felt a bit like going to strict Granma's for the weekend.

By comparison, the other pre school had only 2 staff for 16 6-7yr olds. The staff were younger and much more easy going. The children were much more boisterous, noisy and vocal, they

asked lots of questions about me and to me. (The Montessori children had just stared at me) and they generally seemed more engaged. The state preschool children are only there from 8.30am till 1pm and have many outings. Their fitout was like a standard kindergarten class without any concessions to their younger age or attempts to make it more nurturing; it is designed to be an introduction to school, not a daycare centre. Again they had 2 dedicated rooms and their own corridor, storage area. The connection to outside was just a filtered window view into the playground.

SPACE, SCALE AND NUMBERS For the Montessori only: ages 3-7, all ages in together. The hours are 7.30am -5pm fulltime. This includes breakfast, snack and lunch. Part time is 9am -3pm with just lunch included. The staff have lunch with the children and have no breaks. Each school has it's own suite of designated home rooms plus a corridor with storage/coats area and a door to the playground which is divided into age zones. All the separate schools share a common: Public Dining area with attached servery and kitchen, Library, Outdoor play and sports area's (divided into age zones), Gym, pool, Specialist needs class facilities such as laboratories, craft workshops, Outreach and external agencies (nurse, social worker etc)

A PLACE OF ENCOUNTER OR ENCLOSURE? When asked what are the advantages to combined facilities the M staff responded: No set up or cleaning up after lunch required. The use of the pool and gym, the children being familiar with a school environment. But the campus seems to operate as a series of separate compartments rather than as an integrated whole.

DESIGN Whilst the public spaces are full of light, warmth and interesting form with large ceiling spaces and lots of transparency (open bridge connections to the different schools) It gets a bit lost at the individual home base level. These appear to be very much the standard cells n bells approach. There is not enough small scale place making and inbetween connections, to each other or to the outside.

HOSEMAPUAISTO COMBINED DAYCARE, PRESCHOOL AND PRIMARY, ESPOO

FIRST IMPRESSIONS A pretty greener part of Espoo with lots of trees. The school is full of light and warmth.

CONTEXT After almost getting lost in woodland pathways in the nearby reserve, I find the curvy suburban street that leads to the school. It is just over the hill and immediately recognisable as a school with a large portal like frontage in timber and a big paved square with play equipment in front.

SOCIALLY This area is in growth mode with about 15 schools of varying types scattered all around. The school is a combination of a primary, a pre school and a daycare. With a total student population of about 250, the campus is small enough to operate as an integrated whole. The staff room is much more centrally located than in the R school so it is better utilised and there was more of a feeling of community. My guide said it is great for the teachers to be able to share knowledge of a child across the levels of school.

IDEOLOGICALLY State run and without any philosophical affiliations: operates under the national curriculum.

SPACE, SCALE AND NUMBERS there are about 60 staff in total, including all the p/t and minor roles. 3000m² in area, 100 primary school children in 4 classes (not all the way to yr 6), 50 pre school children in 3 classes, and 100 children enrolled in the daycare but not all at once.

BUILT FOR CHILDREN (ERGONOMICS) The school is built around a large central courtyard with outdoor tables, a garden and bridge corridors over. The rooms open both outwards to the grounds and inwards to the courtyard. There are lots of outdoor/indoor connections, lots of light, air and space. There are enough inbetween connections, to each other and to the outside.

The daycare rooms (under 3s) are disappointing: basically a school arrangement scaled down a bit for smaller children. There is no real consideration of how the children will operate in these rooms and whilst the ground floor corridor opens to the courtyard the rooms upstairs only have high windows to outside.

DESIGN the post and lintel open structure creates lovely shadows and that combined with the materials and light provide the school with a sunny warmth that all of the staff commented on. They like working here. The use of timber is very effective and is nicely detailed. The use of colour is also very effective with each door painted a different ice cream colour in contrast to the neutral background.

Built primarily from timber, this has not been done in Finland for about 40 years. Timber building is traditional in Finland but it was abandoned in the 60's for the new industrialized modernism of steel and concrete. Now that it is becoming popular again there is a shortage of people with the skills to produce timber structures. The after school teacher who took me round has a particular interest in woodwork and teaches woodwork to her children in the holidays.

SUSTAINABILITY This school was built with an environmental focus. The building is built from approved timbers, utilizes green building practices and even has solar panels, however they are not actually used as their supply is too small.

NEW YORK AND NEW CANAAN, USA

I walk through Central Park, see the wonderful Alice in Wonderland Sculpture, Belvedere Castle, model boats on the lake and masses and masses of very brazen squirrels. I view a mix of bric a brac from all over New York's history, early portraits of the Dutch founding fathers, Lincoln letters, Tiffany lamps, early sewing boxes and chairs and a scrap of metal cladding from the aeroplane that crashed into the twin towers. The Rockefeller Centre. Times Square, Swartz toyshop, Toy Tokyo via Greenwich Village, Little Italy, Nolita, Soho, China Town and the Lower East. The Met, The Frick, MOMA. But the shops are generally better than the real thing: full of perfect replicas. The Moma shop is full of fabulous unnecessary things: hotpants for boiled eggs and a red rubber vase.

In New York the subway belongs to a past age, it is so grim, dark and dirty and smells of urine as you enter the narrow steps down, that you feel like you have entered the twilight zone, positively spooky!

Grand Central Terminal is very grand with a cavernous, carved white marble hall and big shiny metal armchairs from the 30's, there is a wine bar too. But the trains are awful! Cigarette grey interiors, foul smell of stale coffee, dirty and without any relief, We travel underground for the first 10 minutes, sitting backwards in the dark, emerging at 125th Harlem. I see a bridge and lots of grimy congested streets. It is not till just before Rye that we start to see some pretty scenery. It gets greener and greener with European beech and scattered amongst the trees are 2 storey painted timber houses with classic front porches and shingles.

New Canaan is wealthy, cosy and comfortably retro. There are beautiful old timber mansions and 4 grand white timber churches set amongst the trees with manicured flower beds. On the main street I buy traditional lollipops at great expense for the boys and check out the best collection of 18th Century, French, coloured glass boxes I've ever seen, in an antique store.

The USA I saw was a place full of extremes, from the awful to the wonderful, and all highly eclectic. The children's facilities I saw reflected this. Following are 3 interesting centres that are very successful in their very different aims. But I also visited two other centres that were terribly disappointing, particularly as they had been recommended and the people who operated them were proud of them, whilst I thought they were below minimum standard. I have left those centres out of my report.

APPLESEEDS

FIRST IMPRESSIONS: Commercial internal playcentre.

CONTEXT In the heart of Manhattan. The centre is located on a bustling downtown street, central to everything. The centre has a rather lovely glass shop front and lime green writing, it is immediately apparent from the efficient reception area and the shop, immediately next to the entrance, that this is a commercial operation, but invitingly so.

SOCIALLY As this is not a pre school but a drop in centre which offers activities/classes for children and some for parents it is difficult to directly compare it to the other centres. Many of the parents work, most of the children are brought by nannies who treat it as a social centre, but there are still a percentage of Mums there too. The adults must be on site whilst the children are there but they can leave the children in a class and go get their hair done or have a coffee within the centre. Most of the parents I saw just sat in the corridor waiting for their kids class to finish and chatting to each other. On the weekends it is mostly dads.

The average user will come for a 45minute class and stay an hour either side, so 3hours all up. But many of the nannies with younger charges will come all day, going home at lunchtime for a nap and returning in the afternoon. Apparently these people come even when the weather is good! When the weather is bad, people use it a lot more.

IDEALOGICALLY The idea is to provide fun educational facilities for the children whilst also providing fun social activities for the parents. Originally a café was envisaged but it wasn't economically viable so now there is a shop and part time hairdresser plus coffee is available, snacks can be bought.

THE MACHINE OF CHILDHOOD (POLICY) there are no space regulations as it is not a pre school. The fire regulations were more stringent than any childcare requirements for areas and there is no requirement for an outdoor area (probably a health hazard in Manhattan)

SPACE, SCALE AND NUMBERS 20 x 10/12 children classes a day = 200 children plus a turnover of about 100 in the play area, plus parents/carers. The centre is open 9am to 6pm and is well utilised. Membership is like a gym, yearly or casual classes available.

BUILT FOR CHILDREN (ERGONOMICS) Ergonomically, children are well provided for, low windows, small furniture and several thoughtful details such as the low fishtank in reception and peakholes between playrooms and corridors, or the cute hairdressing car seat. Privacy from the street was a big design issue, resolved with sandblasted glass below a certain height, as was storage for strollers, resolved by a wall hanging system. But on the downside, the play area is not that challenging, it is primarily a flat softfall zone with a few cubbies and trikes, it has quite an artificial feel with primary colours and no natural materials.

A PLACE OF ENCOUNTER OR ENCLOSURE? It is an easy alternative to the park: indoors, safe, coffee shop and entertainment provided, prepaid. The cooking and woodwork classes sound great, however the environment is no where near stimulating enough to spend more than an hour at, and with repeated use even an hour would be too much in the play area.

DESIGN Clean community space in a grimy unfriendly city. They wanted it to be a democratic space, so whatever is provided for the adults is also provided for the children: window for window, wc for wc. The fitout is clean and fresh. However many of the communal spaces are not being utilised because they don't return a profit: the library at the end of the corridor is not used, the seating area has no seats, it is a pity that parents sit in a corridor that was not designed to be sat in for any length of time.

BUCKLE MY SHOE, MANHATTAN

FIRST IMPRESSIONS: Organic rambling Reggio Emilia centre setup in an old bank, very creative and individualized but also very noisy.

CONTEXT in the heart of Manhattan, in a forgotten part of town, above the finance district but not in it. The centre is located in an Old 1940's bank, the other occupants of the building appear to still be the standard commercial, white collar organisations. The centre has been in this building for 15 years and the internal fitout has evolved gradually over that time with much contribution from artistic parents.

SOCIALLY Middle class, working and non working parents. The school has been going for 28 years (not on this site) and is full of character. Several of the teachers and Art Atelierista are ex pupils.

IDEOLOGICALLY Reggio inspired. The school strongly identifies with artistic output as a means of expression and being. There is no piazza or rigid documentation, it appears to be a much more organic process than that. There are children's portfolios but not heaps of photos. The art is more about layering the environment than about output.

THE MACHINE OF CHILDHOOD (POLICY) The homebases are minimum size and there is no outdoor area. This is typical in New York. They make a point of going out everyday

SPACE, SCALE AND NUMBERS There are 100-120 children in 7 classes that range in age from babies through to 5yr olds. Each age group has its own homebase plus there is a fully equipped gym and a specialist messy art room, they also have a kitchen that the children can access, if it is desired. It is a private not for profit organisation with two centres.

BUILT FOR CHILDREN (ERGONOMICS) Each homebase is defined by low partitions and low child height gates and a large swath of transparent material that gives a flamboyant & cosy Arabian nights feel. It is possible to see the high ceiling as one large volume across the whole area. Each homebase also has individually hand built cubby spaces, nooks and hidey holes off the main space with spy holes into the other "rooms. The whole area is rich with artwork by both children and adults.

A PLACE OF ENCOUNTER OR ENCLOSURE? Definitely encounter, whilst I was there, in the middle of the day, there were many parents as well as the teachers just being there, sitting and chatting, some making stuff, some working with their children. I got the feeling they all liked being there, it certainly felt like a nurturing space that encouraged you to add to it.

DESIGN To live a life in art! Has a real hippy feel. So many nooks and crannies to explore. It is organic and natural and totally manmade. Every bit of furniture is chosen for what it individually contributed to the space (even all the stuff from Ikea)

FIRST IMPRESSIONS: Beautifully elegant, contemporary, rural roofs and timber verandahs, within a wooded glade.

CONTEXT New Canaan is an hour and a half out of NY but another world away. Retro, weatherboard classicism defines the town and residential buildings. Set in manicured floral gardens amongst a beautiful natural forest of birches and other European trees. The school is only accessible by car and I am picked up and driven to its grand circular driveway that leads to a very gracious and harmonious setup across a 5 acre site.

SOCIALLY New Canaan is the wealthiest residential area of America! Many of the houses along the way to the school are huge mansions. It has been that way for a long time and boasts some of the early work of many famous American architects, the minimalist, Philip Johnson in particular. The families of the school are mostly local although a small percentage come from as far as Stamford (half an hour away by car) Many of the mothers do not work.

IDEOLOGICALLY Montessori, inspired, they also acknowledge Piaget, Dewey, and Hiemgenacht. They have the traditional Montessori arrangements and put emphasis on the triangle between the environment, teacher and Child. But the programme is more flexible with more free time than in a traditional setup & the teachers are not all Montessori trained. Some of the principles they adhere to are:

- Work at the child's level (on the floor), there are very few chairs.
- Art for process not for product. Art can be taken home or stored away but for the most part it is not displayed. Rather look at nature.
- Keep it simple: black, white, grey, order, space, light. The storage is extraordinarily organised and out of sight, hidden behind white doors. Each area is minimally furnished with geometrically defined minimalist pieces and then any objects put on the table are carefully arranged. Everything is highly ordered. The Montessori tools are arranged like artwork.

THE MACHINE OF CHILDHOOD (POLICY) I have to admit to a few misgivings about all this reductionism! Children can cope, in fact they thrive with a little complexity in their lives, it adds enrichment and stimulation and helps them to grow. But as one teacher pointed out, the children come from wealthy families and all have a room full of their own stuff at home, the school provides an alternative environment to this.

SPACE, SCALE AND NUMBERS 110 children, the space/child ratio is huge and way over minimum area requirements. (Montessori has it's own space regulations, they are over these too). Divided into two groups, 3-5 age group and 6-8 age group, with smaller homegroups within that. The open plan area is loosely divided into homebases which are defined by the fragmented roof form.

In addition to the homebases they have a gym/dining area, an art house and two separate residences plus the old school building, which are used for parent facilities and staff areas. The outdoor play is not the whole 5 acres but is still vast, with two huge sandpits and a pebble area as it's features.

BUILT FOR CHILDREN (ERGONOMICS) A little boy came in for the first time, whilst I was there and he cooed with delight at the high skylights, interesting roof volumes and tall tree windows. We could tell because he was looking up and cooing! Later he also loved the recessed pits and soft square climbing boxes. Apparently the freestanding coat hook "cubbies" are very popular too. The staff area to one side features one way mirrored glass so that the children can be observed at all times without them knowing!

A PLACE OF ENCOUNTER OR ENCLOSURE? The light, modulated roof form (that would help with the acoustics) and big picture tree windows plus the external bridge and verandah connections make this centre have a real connection with the surrounding nature whilst still feeling cosy and protected. The fluid open plan is really conducive to interplay between the staff and groups and they emphasised that they work as a team with both specialists and rover teachers.

DESIGN elegant simplicity. The building is literally cut into by the natural environment and the lighting and views throughout to the trees beyond are wonderful. Designed to be an environmentally sustainable structure, it is naturally lit, ventilated and uses natural materials as much as possible. Water is collected to be reused in the garden and recycling was considered throughout the project.

RECOMMENDATIONS

The benefits of good design are measurable. Research from the UK and abroad has demonstrated the link between design quality and the delivery of high quality services. This link is particularly clear in the field of education.

CABE summary for clients 2007

Achieving good design in this field is reliant upon several factors:

Realising Client Goals

The people who use, build, maintain and run children's facilities need to involve and communicate with their architects early in the process. Using questionnaires, wish lists and a collaborative masterplan at feasibility stage is a good way to get results; it encourages thinking about how all the space is used, inside and outside and it makes everyone realise what is already there, how it can be better used and what the real priorities are. It also helps the architects awareness of the clients needs. Children can be involved in this process too.

Promoting the Relevance of Design

Architects need to promote the skills that they can offer to create successful educational environments. Setting up an Australian Commission for the Architectural and Built Educational Environment can influence and inspire the people making decisions about the built environment, so that they choose good design. The Commission would be involved with: promoting, advising, training, assessing, offering research and providing a database of specialists. It would have a direct relationship with the government bodies that tender to build such facilities.

Including Design in the Criteria for appointing consultants ie: Tender by Design Competition

What particularly impressed me in Europe was the consistent use of the design competition as part of the tendering process, both in the government and in the private sector. Rather than just relying on price to decide the winning designer, even for the smallest pre school, several architects were paid to provide sketchplans; these were judged by a panel that included the centre manager and someone from the community, as well as an architect and council representatives. The result of this process is a consistently high standard of architectural product and some very beautiful centres across quite different educational philosophies.

The competition process encourages the architects to put as much effort into a thoughtful and relevant design as into meeting the budget. It encourages innovation and creativity. This process also enables the client group to visualise the brief and thus to consider it more accurately and in more detail, and conversely, it allows for the design process to have an impact on the brief, further developing the scheme.

Continual Dialogue between architects and client

Each successful centre I have seen had the design process fully integrated in the centres development, from the initial brief through to at least a year into post occupancy. This allowed for problems to be ironed out, for afterthoughts or significant fitout to be successfully integrated and it enabled the architects to assess their own design success and learn from it.

Applying Research

Being aware of and able to apply the latest research is only possible if that research is made readily available to everyone and is encouraged by policy. In Government situations put research hierarchically above procurement if you want it to be acted on. For the private sector disseminate the latest in Research through a promotional organisation such as the ACABE mentioned above.

Codes

Not being overly restricted by the codes will enable greater flexibility and creativity in design. There are three changes I recommend in NSW (& Australia generally):

- 1) Increase the child/area ratio but loosen it's definition to allow flexibility of facility arrangement, so instead of being 3.25m² per child for useable play space only, allow 15m² per child inclusive of all support spaces and furnishings.
- 2) Reduce the number of authorities involved in the approvals process. Currently there are too many conflicting requirements to comply with and decisions come down to a "tick the box" mentality, which does not allow room for flexibility in design.
- 3) Run childcare as a non profit activity if you want consistent quality

This is the arrangement used in most of Europe to good effect,

Design

There are many key Design principles that the successful centres I visited incorporated. I have listed the fundamentals in my conclusions. My main recommendation is that these design principles be utilised in future projects.

Future Research

Another issue is the lack of a comparative study on Australian best practice centres. Not only would this be useful in terms of interpreting the overseas standards and their relevance but it would also be useful as a stand alone document providing the basis for any "evidence" based policy.

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As I traveled and met with people, they gave me pamphlets on their centres, books on their pedagogy and even children's services design manuals, all which I read with great interest. I have listed the books and reports that are available from those organisations or have been published.

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