

Environment for children

By Christopher Day

If we love our children, why do we accept environments for them shaped for adults' – not children's – needs? This mismatch applies to all ages and significantly contributes to teenage problems, but infants are particularly poorly served.

'Kidification' – bright colours and illustrated wallpaper – does nothing for children's developmental needs. Childhood is, essentially, the journey of *growing up*. Much like flower-development, this journey is one of *opening to the world*. Small children need protection from the wider world, whereas adults are only fully alive when engaged in it. Children develop from vulnerable infants needing protective, inward-focussed enclosure to teenagers, erect, physically mature and intellectually critical - looking outward to the world. Environmentally, their evolving needs are expressed in unfolding gestures, growing firmness and more upright-inducing space - architecture which parallels both this soul journey and their bodily growth.

One example is their evolving need for different qualities of light. At all ages, sunlight is essential both for health and to lift our spirits. Humans are photo-centric beings - drawn towards light. Light illumines - it makes things clear. It also aids mental clarity: students in well-daylit classrooms progress significantly faster.¹ We talk about "the clear light of thinking" and "I see" means "I understand". By contrast, in semi-darkness, seeing less clearly, we must fill in knowledge-gaps with imagination: less fact, more fantasy.

By helping us be alert, fully present, light has an *incarnating influence* – essential for teenagers. But small children live in a world *between* fantasy and fact. As this – like actual dreaming – lets them assimilate diverse experiences and build them into a coherent, manageable whole, waking them too quickly into 'reality' is unhealthily premature. Like Trolls, fantasy-worlds easily turn to stone in the full light of the sun. Children need spaces where the imagination can flourish; 'Imagination-retreats', like play-corners, need a magic mood, a twilight *quality*, not dark, but not brightly lit. Light energizes and is good for running-around play. It's hard even to *feel* like watching television in freshly glittering sunlight; it's too activity inducing. Half-light engenders a more passive-state: it is better suited to daydreaming, resting or sucking a security blanket – 'ruminating' with inwardly-focused attention. Archetypically, shade feels more secure: protective-enclosure shades, and this shade also makes us less visible, less exposed. Small children like to snuggle up in *darker*, protective, places.

For different ages of children - from dreamy babyhood to teenagers' intellectual, material-fact-based 'reality' - different levels of awokeness or dreaming, intellect or imagination, objectivity or fantasy, are appropriate.

It's similar with stimulation. Development depends on challenge. From peek-a-boo and hide-and-seek, children progress to needing real adventure. But to avoid disabling fear, they need to feel secure. To venture into the uncharted unknown, they need the reassurance of the known. The optimum balance progresses with age – babies principally need calm; teenagers, excitement - but both are always present to varying extents.

Young children need *security*, so play more confidently in close orbit around an adult. But growing up is about overcoming challenges. An early step to independence is making secret 'homes' - beneath blanket-draped tables, in under-stair cupboards, behind cross-corner sofas, or even just under chairs.² These fulfil many functions:

stage-sets for imagination-stories, 'sulk-bins' to withdraw into when upset,³ and 'womb burrows' for security. Development-wise, hidey-holes provide a manageable 'micro-sphere' - preparation for the complex 'social macro-sphere' children will soon encounter.⁴

One aspect of protectiveness is gesture: a protective hug enfolds. Rectangular rooms are insufficiently embracing for younger children. Spatially, protectiveness - like a womb, or nest - has a spherical, enclosing gesture. Cross-corner furniture or a centralising focus - as achieved by the way it is lit - can give a 'circular gesture' to a rectangular room. Awakeness-wise, spherical-quality spaces suit small children's dreaminess; harder, more axially organized and faceted ones, teenagers. (For example: rotating a sphere in our hands feels dreamy, but a cube's angles jolt awareness of its hardness.)⁵

Until they're seven, children are still 'coming to earth': forming their bodies, and developing separate individualities. Though no longer babies, echoes of the qualities they experienced in the womb - security, warmth, filtered light, quiet soothing rhythms and visually gentle surroundings - still nourish them.

As infants become more consciously aware of their surroundings there is a wondrous newness to everything they see, hear and feel. Avidly and without discrimination, they drink in every sensory experience. These penetrate their whole beings so thoroughly that they become, as Steiner described the small child, 'entirely sense-organ.'⁶ They so influence psychological, sensory and even physical development that a medical doctor, Jeff Green, has likened the senses to 'a form of nutrition to the developing brain.'⁷

Throughout human evolution, noticing change was essential for survival, making us 'stimulus-seeking organisms'. We therefore don't function well in unvarying environments.⁸ Changing sensory stimuli keep us awake. Without environmental variation, the brain looks for other ways to keep itself stimulated - like action or introspection - or goes to sleep; concentration deteriorates, attention fluctuates and lapses.⁹ Some, therefore, even regard Hyperactivity and Attention Deficit Disorder as *stimulus-seeking behaviours*.¹⁰

We experience the world around us through our senses. This is our *only* contact with it. Information usually depends on several senses. Besides seeing space, for instance, we also hear how it affects sound; hard or soft materials, therefore, influence qualitative impressions of spaciousness. Besides temperature, colour and material also affect how warm or cold we feel.¹¹

Each sense works on us in a different way. Some, like touch, we're doing all the time, so are rarely aware of.¹² Others, particularly sight, are much more conscious - we choose what to look at. Touch, movement, balance, taste and smell tell how things affect us;¹³ hearing, sight and warmth, more about the nature of those things. Its warmth instantly communicates whether a bowl is china, metal or plastic. Some senses are more about sequential comparison. After icy water, even cool air feels warm! Similarly, after being in a yellow-rich light, neutral grey looks bluish. Other senses are more about fixed state¹⁴ - whether in vases or outside chemical factories, roses smell the same.

Each sense has different boundaries, tells us a different aspect of the world and brings us into a different relationship to it. Mono-sensory 'knowledge' supports mono-track thinking. Dogs, led by smell, tangle leads round trees. Human mono-thinkers can be exceedingly clever, but never wise. Single-track thinking (correctly) views nuclear power as economic defence against instability in oil-producing states - but isn't broad

enough to recognize this same instability also brings nuclear terrorism! In contrast, multi-layer information rounds-out understanding, revealing the essence of things.

Relating senses to each other establishes *multi-modal* relationships with things, and shifts focus from *thing* to *relationship* - the basis of relationship-thinking. Multi-sensory awareness encourages multi-faceted, trans-category, feeling-related thinking, helping relate perception to conception, and feeling to meaning. As preparation for socially and ecologically responsible adulthood, sensory nourishment in childhood is indispensable, as responsibility isn't sustainable if merely *thought*. It must be *felt*.

Without broad-spectrum sensory perceptions, it's easy to form premature conceptions. This is but a short step from shallow, simplistic, rigid thinking - category-bound, opinionated and closed.

Adult *thinking*, however, is often only weakly linked to sensory impressions. Through past experience, imagination and assumptions, we make connections and form conceptions exceeding what we actually *perceive*. Watching (and hearing) films, for instance, we imagine whole realities without questioning the lack of other sensory information.

As adults, we 'know' things by *making sense* of what we perceive. Optical-illusion pictures allow us different interpretations. We can switch from one to the other, but never 'see' both simultaneously. We can't *conceive* until we have *perceived*, but it's so hard to separate one from the other, we rarely distinguish perception from interpretation.

Small children, however, have insufficient experience to relate perceptions to an inventory of concepts such as the names of things. Infants don't *think*. They *experience* - with their *whole* bodies and through *all* their senses. Unable to separate out different sensory currents into selective aesthetics, music means movement; seeing invites touching; tasting (hence smelling) instigates shaking and banging.¹⁵ Without the protective filter of interpretation, sense-impressions go deeply into their being.

In our visually-dominated culture, other senses are often undervalued. One much-neglected sense is touch. Yet mother's touch is our first nourishing sensory contact with the external world. In consequence, it links us to feeling – hence we use the same word for tactile experiences and for emotional feelings; touch. Hands give more 'feeling' than eyes, making tactile experience more important to our *inner* being.¹⁶

For children under three, or with special needs, touch is the most critical sense - making touch-friendly materials, furnishings and toys particularly important.¹⁷ Touch-friendly means more to them than brightly-coloured. In fact, they're invariably drawn away from visually stimulating things to ones worth *touching*.¹⁸ For children, touching is so essential to learning about the world that "can I see?" usually means "can I touch?" Touch also conveys how people are feeling. Unfortunately, touch-aversion is common in modern society. More pathologically, some children are 'tactile defensive' – frightened of being touched.¹⁹ If deprived of loving parental touch in infancy, and with few chances to touch natural, especially living, things, children develop a disturbed sense of touch. In adolescence, this manifests as low awareness of other people's boundaries - leading to violence and aggression.²⁰

We learn something of the essence of things from how they *feel*. Being closely related to warmth and humidity exchange, touch tells us how things are to live *with*. It readily communicates welcome or revulsion; comfort or discomfort; richness or sterility. A whole world of 'feeling' lies in texture – tactility intertwined with mood. Multiple materials may offer tactile stimulation, but can be confusing or overly 'busy'. More

important is that things children are in physical contact with, like floors and lower wall surfaces, invite touch. Wooden handles feel more 'hand-friendly' than aluminium or plastic; textured walls (rough-cast excepted!) than smooth; soft floors than hard. Once we begin to think 'touch', manifold possibilities for tactile place-identity emerge: Smooth and rough, hard and soft places; rigid and flexible surfaces; complex, directional and even-textured ones. Outdoor texturescape offers even broader tactile and mood possibilities. How do moss, dry leaves, sand, hard paving or bouncy plywood, feel (and sound and smell) to walk on? How do they make *us* feel?

Living materials record their growth (as directionality) and history (as irregularities). Wood-grain, for instance, is cut-through annual rings; knots are the 'roots' of branches. Industrial ones, being produced by uniform processes, are uniformly textured. Unlike clay, stone and wood, manufactured materials - like plastic, concrete, chipboard and MDF - feel dull to touch and lifeless to work. They may look inviting, but they never *feel* it. Concrete crawling-pipes are hard, abrasive and repellant to touch - depressingly grey and unexciting to play in. Mass-production, standardization and hygiene-obsession favour industrial materials with little tactile appeal. However clean-lined, hygienic, practical or robust, if unwelcoming to touch, we can't feel at home with them. Although common in institutional buildings, they're the opposite of what children need!

As children grow, their relationship to the outside world changes, so rooms and buildings need to similarly metamorphose. Like children themselves, these need to grow from low, small-scale, soft and fluidly-formed to taller, bone-structured and upward-gesturing; from protectively-enclosed to outward-looking and socially engaged; from nurturing to inspiring. Enfolding earth-mother softness protects infants. But to support the dignity in growing up, adolescents need higher ceilings and upright-proportioned spaces, firmer, clearer, and graceful. The reassuring substantiveness and visual softness of curvilinear cob walls, for instance, suit infants, whereas 'exposed timber posts', 'beams' and 'struts' visually explicit logic suit teenagers' intellectual curiosity.

Matching space quality to age isn't easy as children grow so quickly. Altering buildings is rarely practical but cross-corner and room-dividing furnishings or curtains can easily create nooks. In fact, providing for children's environmental needs is more a matter of providing *opportunities*.

Old buildings are full of redundant spaces for children to explore and offer creativity-stimulating settings for fantasy play. 'Well-designed' buildings aren't. Their rooms - and room-moods - are for specific functions. Furthermore, few modern homes have attics or cellars. Many aren't even houses. For children's needs, however, mood-evocative spaces for *non-predicted* uses - fantasy-shaped, not restrictively tailored to practical adult activities - can be created with thoughtful furnishings and objects. Domestic nest-nook opportunities include curtain-fronted cupboards, behind-furniture and under-stair spaces. Such places make ideal play-nests: child-scaled, (almost) adult inaccessible, dark and a bit magic, but in the middle of domestic life. A window-like opening in such a nest, however tiny, emphasizes territorial identity, making it into a miniature 'house'. Sleeping lofts in roof-spaces both make good nests and liberate such floor-space that even cramped box-rooms become spacious playrooms. Even in small houses with low roofs, space for these can usually be found. Children love such places.

This is but one aspect. However fixed and inappropriate are buildings, once we start to think about children's developmental and soul-nutrition needs, we can satisfy these in a variety of ways. Even in unpromising surroundings, we can create environments *for* children.

Would anything less be fair to them?

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¹ Studies in USA by Heschong Mahone Consulting Group, cited by Monodraught in *What's New in Building*, Sept 2004, London.

² Marcus, Claire Cooper (1995) *House as a mirror of self*, Conari Press, Berkeley, CA

³ Bayes, Kenneth (1967) *The therapeutic Effect of Environment on Emotionally disturbed and Mentally Subnormal Children*, The Gresham Press.

⁴ Hart R., Summer in the city, *International Play Journal*, 1, 3 September 1993, E & F N Spon, quoted in Dudek (2000) *ibid*.

⁵ Riske, Elke-Maria, *ibid*.

⁶ Aepli, Willi (1955) *The Care and Development of the Human Senses*, Steiner Schools Fellowship of Great Britain.

⁷ Green, Jeff (2006), *Sensing the World and Ourselves*, in *New View*, Autumn 2006, London.

⁸ Nute, Kevin (2006) *the Architecture of Here and Now: Natural Change in Built Spaces*, (proposal for: The Architectural Press).

⁹ Vernon, M.D. (1962) *The Psychology of Perception*.

¹⁰ Nute, Kevin (2006) *ibid*. My italics.

¹¹ The extent to which this is psychological or physiological is open to question.

Traditionally, red winter underwear was considered warmer, and some consider red simulates molecular excitation.

¹² We have more senses than the purely physical. As long ago as 1916, for instance, Steiner identified twelve. Rudolf Steiner (1916) *The Twelve Senses and the Seven Life-Processes in Man* in Davy and Bittleston (ed) *The Golden Blade* 1975, Rudolf Steiner Press.

¹³ And what Steiner called the sense of life: about health and physical wellbeing - whether we feel well or ill, hungry or sated. Mostly we're only aware of this sense when things *aren't* right. (see: Rudolf Steiner (1916) *The Twelve Senses and the Seven Life-Processes in Man* in Davy and Bittleston (ed) (1975) *ibid.*

¹⁴ Davy, John (1975): *On coming to our Senses* in in Davy and Bittleston (ed) (1975) *op. cit.*

¹⁵ Ceppi, Guilio and Zini, Michele (1998) *Children, Spaces, Relations; Metaproject for an environment for young children* , Reggio Children, Italy.

¹⁶Matti Bergstrom quoted in Lundahl Gunilla (ed) (1995) *Hus och Rum för Små Barn*, Arkus Stockholm

¹⁷ Montagu, A. (1971) *Touching: The Human Significance of the Skin*, Harper & Row, cited in Olds, Anita Rui (2001) *Child Care Design Guide* , McGraw Hill; and Kuhfuss, Werner (1979) *Evoloution genom Lek*, Järna Trykeri.

¹⁸ Green, Jeff (2006), Sensing the World and Ourselves, in *New View*, Autumn 2006, London.

¹⁹ Green, Jeff (2006), *ibid.*

²⁰ Gordon, Aonghus (2003): lecture at *On the Edge of Landscape* conference, Pishwanton Scotland.

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