

# **An Indian who doesn't know how to grow the maize**

**S. Boess** Advanced Research Institute, Staffordshire University, UK

**D. Durling** Advanced Research Institute, Staffordshire University, UK

**C. Lebbon** Royal College of Art, UK

**C. Maggs** University College Worcester and University of Birmingham, UK

## **Abstract**

In user-centred design, a common ground that emerges is an orientation towards research into the needs and wishes of consumers. Hermeneutic phenomenology can be adopted by a designer to investigate her/his own activity and use of knowledge in designing. A reflection of this kind is presented here. It is based on design and research activities in the domain of product design, in which the realization of user-centred design was sought by means of preliminary user research, application of its results in design work, and evaluation of the outcomes through renewed user research. The outcome of the reflection is the formulation of a generative metaphor for further design and research. This generative metaphor is derived using analytic and exegetical approaches from hermeneutic phenomenology. Thinking of the designer as “an Indian who doesn't know how to grow the maize”, it is proposed, addresses questions of an integrative view on the design task; the proximity between designers and consumers; and the use of projection to distinguish between users' present situation and a potential future one. In exemplarily presenting this metaphor, the paper hopes to contribute to an already growing resource of knowledge in the discipline of design, and user-centred design in particular, on the possibilities, responsibilities and implications of designers' professional activity.

# **An Indian who doesn't know how to grow the maize**

## **Introduction**

In design, and user-centred design in particular, efforts have been made to develop research methods to support designers in their activity. This paper introduces a perspective to user-centred design research methodology that has not so far been applied to it: hermeneutic phenomenology. 'User-centred design' is not a universally endorsed term. Pheasant (1996: 13) explicitly adopted it, Dunne (1999: 30) critiques it, others use a variety of similar terms to describe their stances, e.g. inclusive design or participatory design. While these may differ in historical roots and meaning, what emerges as a common ground is an orientation towards research into the needs and wishes of consumers (f. ex. Aldersey-Williams et al. 1999).

Based on reflections on design agency in the past decades, a conceptualisation of designing as a communicative and intersubjective activity has arisen. There has been a call for metaphors that designers could use to guide their activity (Coyne and Snodgrass 1991: 130, 1993: 111-113, Schön 1992: 137-163). Schön suggested that framing and re-framing (of a problem/ phenomenon) was accomplished through 'generative metaphor':

"We need [...] to become aware of the generative metaphors which shape our perceptions of phenomena. [...]. However, this is not as easy as it sounds, for generative metaphors are ordinarily tacit. [...] We may be helped [...] by the presence of several different and conflicting stories about the situation [...] mak[ing] it dramatically apparent that we are dealing not with "reality" but with various ways of making sense of a reality. [...]"

In order to bring generative metaphors to reflective and critical awareness, we must construct them, through a kind of [...] analytic literary criticism, from the givens of the problem-setting stories we tell...." (1992: 148-149)

In a reflection that is reported in this paper, Van Manen's (1990) methodology is used in order to develop a metaphor for actions of a designer, based on knowledge about users from research, that might be seen as meaningfully related to projected outcomes for users. In the following, three sets of research activities will be sketched and then discussed reflectively.

## **Research**

### **A study**

The goal of an initial study on bathing for older people, was to find out about users' wishes and needs prior to design work. Participants were residents of sheltered housing. The Wellbathing study was entirely qualitative and comprised focus group interviews, individual interviews, photographic recordings, and visual communication (Figure 1). Its methods were based on guidance from design research, as well as other fields (f. ex. Zeisel 1981, McCracken 1988; Krueger 1994). A 'visual tool' was developed and used, similar to tools that have recently been used elsewhere (Jordan and MacDonald 1998). With it, research participants collaged their "ideal bathroom". The study methods and activities have been described in Lebbon and Boess (1998) and Boess (2002). Preliminary results will be discussed below.



Figure 1: a focus group session

### **Case studies**

Later, design and teaching activities were accompanied by action research which, it has been said, is usefully reported in the form of case studies (f. ex. Robson, 1993: 438-99; Schoen and Argyris 1991)

### **Case study assisted bathroom**

The research outcomes of the Wellbathing Study were applied in the planning work of an ‘assisted bathroom’. This type of room exists in most older people’s residences. Its main purpose is for care-givers to assist people in bathing who cannot do so in their own flats.

*Sample results from the Wellbathing study.* The participants of the Wellbathing study had various experiences and evaluations to offer about the assisted bathrooms known to them. For example, the opportunity to bathe at all was generally valued. But the time was often too short (“ten minutes or so”), and in two of the three residences where it was present, the bathroom was rather far away from most residents’ flats, so that it was perceived that too much public space had to be traversed to get to it. In the one case where it *was* close, the bathroom was being enjoyably used by a couple independently of care-givers. The windowless and soberly outfitted bathroom in one of the housing complexes was dubbed “the dungeon” by residents (Figure 2).



Figure 2: Example of a soberly outfitted assisted bathroom.

*Design.* In response to the needs and wishes that had been identified, objectives were set that the design should:

- answer cultural needs (“I’m not into putting on the style, not at my age, but I would like a nice peach bathroom and peach curtains [...] and [...] a few flowers in the window...”)
- realise usability: adaptability in use and low demands on the user; unobtrusive safety. (“Grab bars [are for] them, the disabled”.) (“Getting in and out, it’s difficult, you know”)
- provide for an overall relaxing atmosphere (“I love a good soak. Get the Radox going ...”),

The first author (Boess) mainly carried out the design intervention. Its scope was limited to tiling, furniture, decoration, and placing of the sanitary objects in the room, and had to be coordinated with the general interior design concept for the building. Examples of design considerations:

A local manufacturer’s traditional tiles were named in the group discussions as synonymous with quality and style. Such tiles were then specified, alongside up-to-date equipment, informed by statements like “We like a bit of both, the old and the new.”

The assisted bathroom had already been positioned far away from individual flats, within a sports- and sauna area that was recessed off the most public area of the complex. To compensate, it was decided to make the washbasin area spacious and inviting to use, in contrast to the customary mini-

washbasin across from a toilet (f. ex. Goldsmith 1976). This should allow users to get dressed and groomed at ease before re-entering the public area (Figure 3).

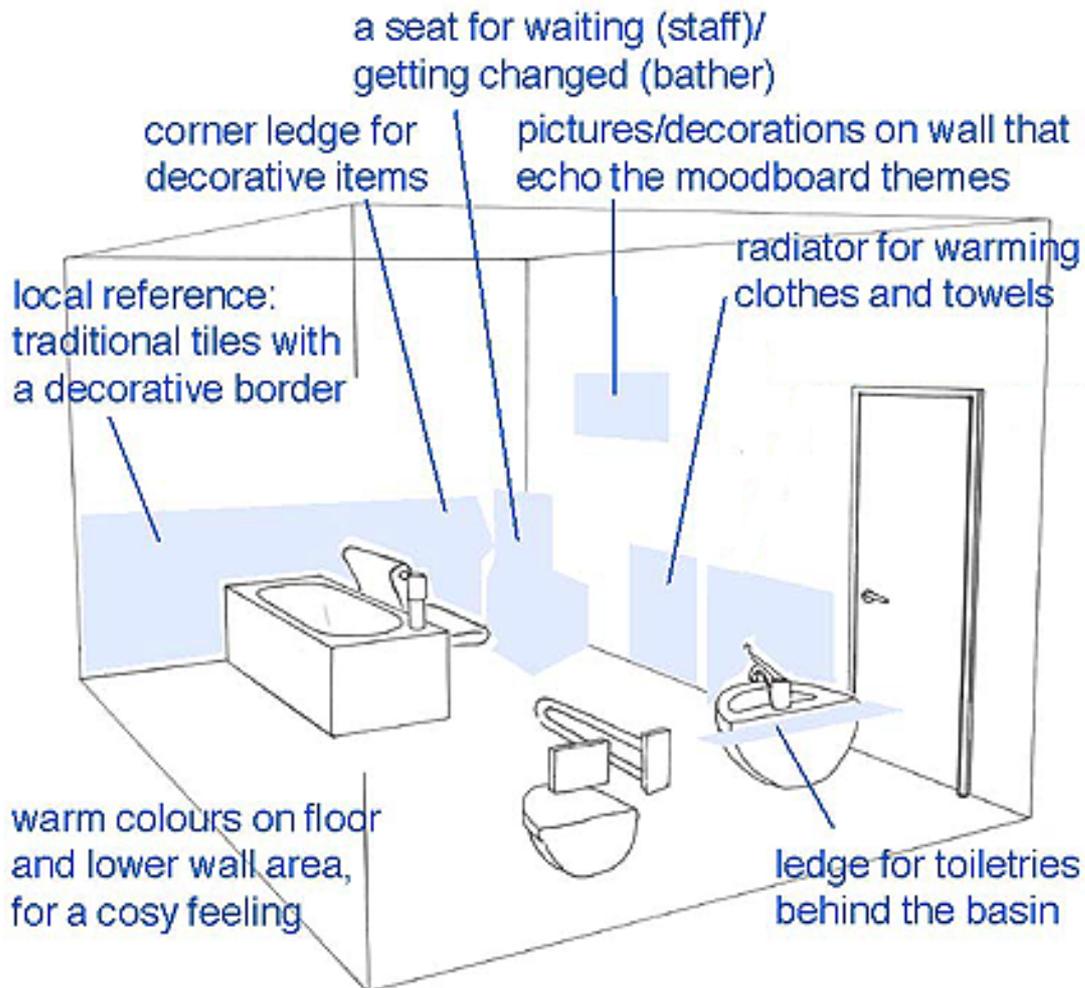


Figure 3: schematic of design considerations.

The design was evaluated by Boess, visiting again after it had been in use for a year. Traces of use were noted; and short interviews with five residents, two care-givers and a longer interview with the manager of the scheme were conducted. Some outcomes of the evaluation will be discussed below.

### Case study learning module

A 'human factors' learning module was planned and run at Staffordshire University. Its aims were to convey skills and appreciation of research to students, as well as to look at research methods such as the ones used during the Wellbathing study, from another perspective. A description and evaluation of the module has been reported in Boess and Lebbon (1998). During the six-week module, a group of design students and older people worked together, examining usability of and preferences for the bathroom. The students discussed their design proposals in small groups with U3A members. 3D full-size props were built by the students and appeared to be a valuable additional communication tool (Figures 4 and 5). Some problems and opportunities that were seen to arise from the module will be discussed further below.

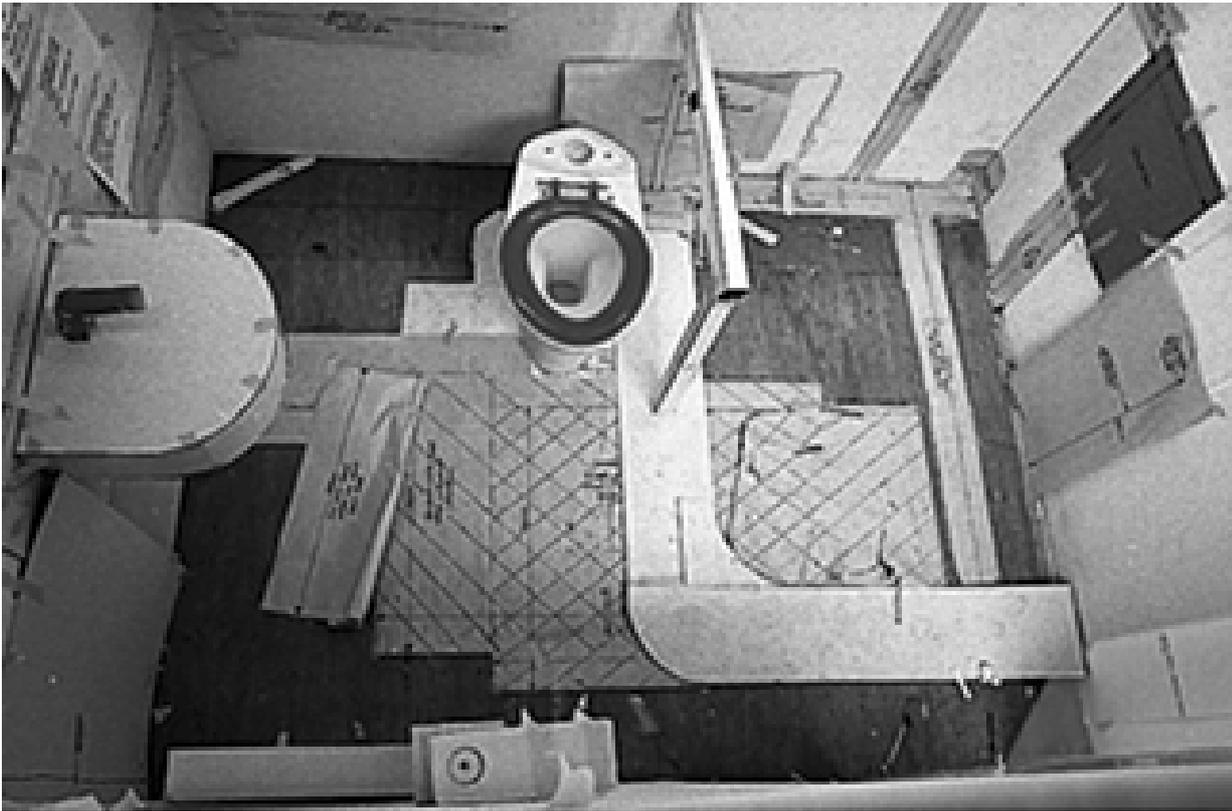


Figure 4: full size model situation



Figure 5: a student and users discuss proposals

### **Analysis**

There is relatively little material in the domain of design on the theoretical ground of *interpreting* research with users, though there are many reports of studies (f. ex. Scrivener et al. 2000). For example, neither the MethodsLab (Aldersey-Williams et al. 1999) nor Poulson et al. (1996) even mention data analysis, and Zeisel's (1981) advice was rather technical and positivist in orientation.

While “natural to use research methods” have now been proposed for design (Aldersey-Williams et al. 1999: 3), uncertainties when it comes to interpretation, it appears, have hardly been problematized.

Methodological guidance for analysis of the Wellbathing study and the case studies, was initially sought in a standard work for nursing science. A Grounded Theory perspective was adopted (Polit and Hungler 1997: 377-398, Glaser and Strauss 1967). An assumption had been that knowledge of the phenomenon under study could result in indications of what should usefully be *done* about it. The recognition that this is not straightforward led to the evaluation that Grounded Theory has limitations in this respect. Van Manen’s methodology, which has been mentioned, was then adopted for the purpose of reflection. It will be reported in the following.

## **Discussion**

This discussion reports on a reflection on how successful the use of knowledge generated from the various research activities, has been in realising user-centred design. It follows Van Manen’s (1990) methodological advice on structuring reflective writing. The reflection will employ two approaches: what Van Manen calls an *analytical* approach, “examining systematically the various themes that [...] narrative[s] reveal, “in an ever-widening search for ground” (1990: 170), and through what Van Manen calls an *exegetical* approach, by taking recourse to previous literary and philosophical material, “in terms of a discussion of those texts and the structural themes that their authors have already identified and discussed”, and “treat[ing] the[ir] works [...] as incomplete conversational scripts” (1990: 171). As an outcome, a generative metaphor is developed (see introduction) that could usefully inform user-centred designing: a metaphor for what a designer thinks she/he is doing while designing, and how she/he thinks about others involved in the process. Finally, a re-interpretation of the initial Wellbathing study results is briefly sketched, in order to project how the generative metaphor changes the authors’ perspective on possible design tasks. It does not constitute a ‘truer set of results’, but a deepening of knowledge for design. Van Manen:

“Phenomenology does not problem solve. [...] Phenomenological questions [...] ask for the meaning and significance of certain phenomena. [...] in some sense meaning questions can never be closed down, they will always remain the subject matter of the conversational relations of lived life, and they will need to be appropriated, in a personal way, by anyone who hopes to benefit from such insight.” (1990: 23)

## **Themes that emerged from deploying the research results in design (analytic approach)**

From the activities that have been mentioned, stories about situations have become available to the authors (see Schoen’s comment in the introduction). The stories are presented as ‘themes’. Van Manen notes:

“phenomenological themes may be understood as the *structures of experience* [italic in orig.]”, [...] “ultimately the concept of theme is rather irrelevant and may be considered simply as a means to get at the notion we are addressing. Theme gives control and order to our research writing.” (1990: 79)

To analytically recover themes, we might, briefly said, ask questions like, is this plausible? Is it possible? How is this experience lived? (Van Manen 1990: 91).

**Theme: Integrating design issues towards user-centredness.**  
**“We like a bit of both, the old and the new”**

The design of the assisted bathroom, overall, was liked or at least praised by users. It was apparently not being perceived as overly radical or innovative: nobody said “I don’t like it”, or “I can’t live with this”. (see f. ex. Schrage 2000: 128). Shortcomings that became apparent were:

*Specification problems.* Grab bars had been selected because they were the standard choice for functional requirements for a room of this kind. Users of the room found that this combination of items which carried different associations for them (disability versus “nice” bathing), detracted from the quality of the experience of using the room. The problem was not a matter of disparity in the design as such: combinations of the old and the new had been expressed as desirable in the Wellbathing study.

*Problems of coordination.* Design decisions made, influenced decisions others subsequently made. For example, the management were so reluctant to damage the expensive tiles that a shower head was subsequently mounted higher than would be conveniently usable in the bathtub.

*Diverse use patterns.* The research had focused primarily on one group of users of the room: the senior residents who would bathe in it. The staff’s needs had also been researched through interviewing and interactive use of a scale model (Figure 6), but apparently not sufficiently so. For example, there was not enough provision for the storage of cleaning equipment. It ended up being left out in the open. This detracted from the aesthetic quality of the room for the bathers as well as for the staff.



Figure 6: a scale model used interactively during planning sessions

A further observation was that some aspects of the design which were liked by the users, had not been closely based on the research at all. The colour scheme, for example, did not try to answer participants’ *diverse* expressed preferences which ranged from blue to pale pink to black and white.

Instead, a warm tone was used that would make skin look healthy. The students too encountered the problem of handling diversity. One student made it his design theme, proposing a set of washbasins in the shape of a cascade, to include diverse needs for height.

So there was, apparently, a problem of integrating a number of issues in designing. Some attempts to answer needs even ended up counterproductive. How could a designer prioritise so that the main goal of user-centredness would benefit? How could a designer account for those aspects of a design which weren't based on expressed needs at all, but on a necessity to make a decision though faced with diversity? The problems which have been described, all seem to relate to a quality of design activity which has been termed 'integration' (Dorst 1998: 22). Dorst pointed to the importance of integration, an activity of making decisions which "link the elements of the problem or solution, adequate in all *relevant contexts*" (ibid.: 35). A generative metaphor to be developed will need to promote this. **How can a designer put her/himself in a position/ positions in which he/she can notice and integrate different relevant perspectives on one kind of use situation?**

***Theme: Getting close enough long enough to learn about daily life preferences***  
***"The room is lovely, but the bench isn't very useful ..."***

Having elicited potential users' needs and wishes (more than is often done for the purposes of designing), the first author worked out design solutions. The later evaluation showed that while some needs and wishes had been correctly recognised (users reaffirmed them), the actual design was not always successful. Two examples:

*Opportunities to personalise the room* had been given by providing ledges on the sides. Users kept forgetting personal things on the ledges, and an extra table near the door was eventually brought in. That turned out to be the place where personal things were usefully habitually deposited.

A *bench* had been custom-designed so that users could sit on it to undress. A custom-designed grab bar that had been planned to go next to it, had been dropped. That meant it was not easy to get up from the bench. An extra chair of a kind that had been popular with participants of the initial research (it was represented in an image as part of the visual tool), was brought in later. The relatively cheap rattan chair had integrated arm rests which were found to be conveniently usable as supports.

In the evaluation, then, it became apparent that the design interpretation of users' needs had sometimes been too literal, and other times not literal enough. It was hampered by insufficient knowledge of users' daily life preferences.

During the learning module, Boess noticed that the students found it difficult to ask the older participants questions relating to activities as private as using the toilet. During Wellbathing study, Boess had experienced a similar inhibition, also on the part of the research participants: for example, while a couple was being interviewed, the woman chided her husband for his half-joking descriptions of his daily rituals: "*She* [meaning the interviewer] *doesn't want to know that*", de-selecting aspects of their life as inappropriate to the interview.

The elicitation methods had failed to reveal aspects which turned out relevant to the eventual design. But if research got even 'closer' to users, what would become of the problem of respectful distance which seemed to come naturally to those involved? A theme that has occupied design thinking (f. ex. Margolin 1995, Morrow 2001), is designers' distance from consumers, thinking their own experiencing is representative enough of others' experiencing. Perhaps as an unfortunate side effect of a respect for each other's sphere, designs can end up inadaptable to situations deviating from those of imagined normal users. A metaphor to be developed would have to suggest

how and why closer involvement between designers and users might be successful. **How can a designer come close enough to users to find out what he/she needs to know, while maintaining a degree of proximity they and she/he feel comfortable with?**

*Theme: Distinguishing between an existing situation and a potential one.*

*“I didn’t like having to design for older people ...”*

The students confirmed that they *had* found the module of great learning value. But they said they didn’t *like* designing for older users. They said they preferred to design for themselves or people like them. The designs they made in a follow-up module (not reported here), now free to choose the prospective user, were mostly aimed at young mobile singles, celebrating values related to hipness, technology or financial wealth. A similar phenomenon also applied to Boess’s design activities. Boess had set out with a partly *ethically* oriented motivation: of realizing user-centred design. Possibly being preoccupied with problems of disability and dependence she sought to address, she also ended up not making designs that would also be *attractive* to her.

While some participants of the Wellbathing study had said “Everything’s fine, I’m happy [with my disabled shower]”, some had also said things like “this *isn’t* home”, “I’m ashamed of my bathroom”, “So we’re stuck again”. Some of the very arrangements which, one must presume, had been made to support participants, were apparently perceived by them as oppressive or limiting. What remarkably emerged from the Wellbathing study as well as the learning module, was that the older participants too *agreed* that they *didn’t* want “design for old”. How could a designer distinguish between ‘being the problem’ and ‘being subjected to a problem’? How or how much do the things that surround users, determine their lives? (See also f. ex. Pantzar (1997) for a discussion from a macro-economic perspective).

Nayak’s motto is: “Design for the young and you exclude the old. Design for the old and you include the young” (f. ex. in Coleman 1997: 29). But perhaps the problem that the students had been set, and that the first author had set for herself, to design something “for the old”, hampered the inclusion of the students’ and the designer’s own interests in their design work. Design research reporting sometimes appears to treat this question in a “the consumer was happy and everything was fine” kind of way (see f. ex. the case of Ray Driscoll in Smith et al. 2000. Design is done to facilitate a consumer’s tacit intentions. Success is that the consumer liked it).

Schön (in Bennett 1996) reflected on characteristics of a designer-user relationship which would result in products that serve the user well. He suggested a professional practice oriented on outcomes that *satisfied* the designer and the client alike. What taste could they come to share? What could the designer project *into* the situation he/she has experienced? **How can a designer distinguish the potential in people’s lived experience from circumstances constraining them now?**

### **Towards a generative metaphor (exegetical approach)**

Each of the three themes into which the reflective stories have been grouped, integration, proximity and projection, represents an aspect of the *relation* of a designer to a design situation which generates knowledge in user-centred designing (the phenomenon studied), and has been shown to have also been recognised in design-related literature as relevant in design practice. In order to now develop a relevant generative metaphor that could inform a design activity, an exegetical reading of two descriptions of *relations* is presented next.

*The first description of a relation: Van Manen.* Hermeneutic phenomenology, as Van Manen describes it, has one important *sine qua non*: that the inquirer be *in* the relation that is described. Having adopted the methodology as a *research* methodology, the question arose whether Van

Manen's examples of such a relation, given throughout his work, might also be a way to look at a designer within the *design* process.

*The second description of a relation: Deleuze.* In order to focus on spatial and perceptual aspects that present themselves to a designer, another theorist's material is also taken up: Deleuze's (2000) small volume of essays discussing writing and art. Deleuze is not a phenomenological writer but a poststructuralist one. Deleuze draws a lot, sometimes implicitly, on texts by Nietzsche, and on Heidegger's (later) thoughts about context- and perception-orientation. These writers also figure prominently in Van Manen's (1990) work and have each had an impact on phenomenology (see also Spiegelberg 1994), leading the authors to cautiously assume that they can draw on Deleuze's work for the purposes at hand.

Van Manen discusses the pedagogue in relation to the children in her/his care; Deleuze, the writer in relation to the world she/he writes about. Van Manen's and Deleuze's discussions have been exegetically read for the way they depict the actors in a situation and their relatedness with others, for the attention they give to perceptible elements of a situation, and for the actions they see an author (designer) as undertaking. They were not compared against each other, but read for how they can respectively deepen the reflection and shape a metaphor.

The exegetical reading can only be presented here in a summary which already constitutes the generative metaphor which has been derived from it. The metaphor that has been developed, is that of "an Indian who doesn't know how to grow the maize". Deleuze (2000: 12) has proposed it for the writer, based on a novel by Le Clezio. Admittedly the following might not seem quite straightforward in this necessarily brief presentation. The metaphor specifies for the design process that:

*In order to put her/himself in a position in which she/he can integrate different perspectives on a use situation, a designer "becomes" (Deleuze 2000: 13) "Indian" (Deleuze 2000: 12), i.e. part of a 'people', though remaining aware of her/his difference (Deleuze 2000: 158). A writer (designer) lives with and among those in a "lifeworld" (Van Manen 1990: 46), or "the others that exist" (Deleuze 2000: 183) in a position of "minority" (Deleuze 2000: 15). She/he doesn't know how to grow maize, a sustained and sustaining activity (Deleuze 2000: 12). 'Growing the maize' is interpreted for design to be an activity during which users 'discover' and change products from manufactured 'hypotheses' into elements in a 'lifeworld' or 'world of the existing'. In order to notice the characteristics of this situation, and how people live in it, metaphoric questions a designer can ask are: *in what way are they and I "minor" ones that are "becoming" "a people of" Indians? What is "growing the maize" like?**

*In order to seek and establish sufficient proximity for what a designer needs to know about users' world, a designer seeks out the tone of those that 'fit' with her/ him and sympathically shares with them their discovering of world. The designer needs to be *close* enough in order to be able to share a "seeing" and "hearing" with them (Deleuze 2000: 119). The experiential criterion of success is a feeling of sympathy [note 1] that this partial outsider shares or comes to share with those in the lifeworld (Deleuze 2000: 158 and 183, and similarly, Van Manen 1990: 46). This sympathy might enable users and designers to share more aspects of daily life. Both must also be able to 'retreat', of course. A designer can ask: *what 'visions' of theirs do I see arise, and what 'tones' of theirs do I hear, that make us stronger?**

*In order to distinguish between the potential in people's lived experience, and the situation they're in, a designer projects images over that world of the Indians (Deleuze 2000: 169). A designer has an inner world or 'cartography' (Deleuze 2000: 85) that she/he brings to bear on the lifeworld studied,*

which enables her/him to call up displaced linkages with it, to creatively inject ideas into it and produce 'true visions' (Deleuze 2000: 157). The process can also involve a 'minorisation' of the language of the Indians, to reveal its displacements of meaning (Deleuze 2000: 15/146). Good design then would be to successfully, poetically, transform what it is like to be "an older person bathing etc...." and to open up new ways of living it. A designer can ask: *what images do I wish to inject that produce a potential transformation of their (and partially, my) world?*

Outcomes arising from the designer's activities must be referred back to that lifeworld as the ground of validity (Van Manen 1990: 46). That is why a design process should usefully be iterative for this context. Participants who are not involved in the decisions that determine situations, must have another chance to respond.

### **Sketch of re-interpreted data**

The data from the Wellbathing study have been re-examined for knowledge that might arise from them.

On integration, the authors' initial organizing perspective of user's needs and wishes, the user-centred view, now comes to revolve around users' idea of home. The home is something that

- they re-establish, re-habitualize
- embodies relatedness
- can become a 'not quite home', especially with the absence of relatedness.

Participants variously live ('grow the maize') by making technology fit with habits, by sharing privacy, by maintaining independence and their own way of life, by adapting ad-hoc to health events or by staying in accustomed roles.

On proximity, how a designer sympathizes with participants' experience is not precisely identifiable, it is in an indiscernible 'neighbouring zone' (Deleuze 2000: 90). The researchers sympathized particularly, in the encounter with them, with the 'tone' that is audible of their resilience, and with the 'visions' that open up when they assert their preferences. The authors also came to feel a sympathetic sadness when visions are blocked, and the tone is numbed that could echo into the future.

On projection, the author that was here concerned with design work (Boess) can now inject images into the world she has encountered. They involve 'fictionalized' versions of the participants and their world, building on and extending the participants' 'fabling' relationship with their environment, 'colouring' them in and 'composing' them into points of departure for design (Deleuze 2000: 156-60). The author has 'composed' points of departure briefly summarized as:

- *Wellness extra.* Uses users' wishes for wellness functionality as a first guiding motive for design, rather than users' (dis)abilities. Proposals might involve spa functions (e. g. massage jets, steam bath), potential wellness functionality of plants, or use of colour and sound.
- - *Soft tools.* Looks at the 'handlability' of smaller items in the bathroom. Functions are seen in terms of tools that can easily be manipulated and moved around, that are pleasing to the hand and that have an easy-access place where they 'live'. Items might be grouped as 'toolboxes'.
- *Nature.* Refers to the bathroom's position in relation to the house and exterior space. A connection with the time of day, with the weather, and the season of the year could be established.

- *Fold-up*. Physical objects as well as forms of organization are geared towards adaptability to use at a particular time, in a particular place, by a particular person, yet do not present an obstacle, e. g. through physical volume and weight, in the carrying out of other tasks.
- *Walk-in*. Makes available an ‘open space’ that can be furnished with appropriate functionality. Possibly also seating functionality set into a wall with water drain in the floor, to provide for walk-in semi-bathing.

In the course of the reflection, the authors have come to acknowledge the authorship of participants in the interaction stories with their own environment. Overall the elements of the generative metaphor give the results a directedness towards users and their possibilities, moving on from the situation they are in.

## Conclusion

In employing the generative metaphor of ‘an Indian who does not know how to grow the maize’ to the process of knowledge generation about users during the design process, a designer becomes a ‘user who doesn’t know how to use’. A designer brings her/himself into an experiential situation and is perceptively directed the sharing of an experience with another.

It is hoped that it has been shown in rough outline how the metaphor applies to tasks of designing bathing environments for older people. It is a matter for further work to see what else it can do.

What has been described suggests a slightly different conceptualization to e.g. Rouse’s (1991: 34) position that designers should talk to users because designers are not (presently) users. Designers here become part-users, but not all-users. Conversely, the reflection has suggested that users might also be part-designers (compare also f. ex. Demirbilek 1999).

User-centred design might become something like ‘shared experience design’ or ‘joint exploration design’, terms that are closer to Scrivener’s et al. (2000) “Collaborative Design”, but also reflect a joint directedness towards environmental experience.

It seems that it would be fruitful to develop more methods that will make designers in general more willing and enthusiastic about getting engaged with users’ ‘lifeworld’, and vice versa. Such methods might evolve through collaborations.

## Notes

[1] In e.g. French and German linguistic usage, “sympathique” or “sympathisch” translates into English as “sympathetic, engaging, likeable, nice, amiable” (f. ex. Langenscheidt 1977), or, as “simpatico” in U.S. English, as “agreeable [...], being on the same wavelength; congenial”, rather than the common English meaning of “pitying” (Merriam Webster 2000). That’s why in this text we use ‘sympathic’ and ‘sympathical’ rather than ‘sympathetic’, to distinguish between the meanings.

## Acknowledgements

Thanks to the DAAD (Deutscher Akademischer Austauschdienst), Germany, and to the Advanced Research Institute, Staffordshire University, UK for each funding part of the first author’s PhD study period.

## References

- Aldersey-Williams, Hugh, John Bound and Roger Coleman. 1999. *The Methods Lab, User Research for Design*. The Helen Hamlyn Research Centre, Royal College of Art: London
- Bennett, John. 1996. "Reflective Conversation with Materials", an interview with Donald Schön by John Bennett [Online] From: *Bringing Design to Software* by Terry Winograd. Addison-Wesley. Available from URL: <<http://hci.stanford.edu/bds/9-schon.html>>. [Accessed 2002 February 21st].
- Boess, Stella, and Cherie Lebbon. 1998. "Participant research in design education." In *Proceedings of IDATER*, 24-26 August 1998, Loughborough University, Loughborough
- Boess, Stella. 2002. "Participative Image-based Research as a Basis for New Product Development." In *Pleasure with Products: Beyond Usability*, edited by W.S. Green and P.W. Jordan. London: Taylor and Francis.
- Coleman, Roger, ed. 1997. *Working Together: A New Approach to Design*. London: Royal College of Art
- Coyne, R. and Adrian Snodgrass. 1991. "Is designing mysterious? Challenging the dual knowledge thesis." *Design Studies*, 12, (3): 124- 131.
- Coyne, R. and Adrian Snodgrass. 1992. "Models, Metaphors and the Hermeneutics of Designing". *Design Issues*, IX (1): 56- 74.
- Coyne, R. and Adrian Snodgrass. 1993. "Rescuing CAD from rationalism". *Design Studies*, 14 (2): 100-123.
- Deleuze, Gilles. 2000. *Kritik und Klinik*. Translated by Joseph Vogel. Reihe Aesthetica. Frankfurt a. M.: Suhrkamp. In German, translations into English by the first author. Original Critique et Clinique, 1993. Paris: Les Editions de Minuit.
- Demirbilek, Oya. 1999. *Involving the Elderly in the Design Process: A Participatory Design Model for Usability, Safety and Attractiveness*. [Online] PhD Thesis, Institute of Economics and Social Sciences, Bilkent University, Turkey. Available from URL <<http://www.fbe.unsw.edu.au/staff/Oya.Demirbilek/>>. [Accessed 2002 March 14th].
- Dunne, Anthony. 1999. *Hertzian Tales: Electronic Products, Aesthetic Experience and Critical Design*. London: Royal College of Art.
- Glaser, Barney G. and Anselm L. Strauss. 1967. *The discovery of grounded theory: strategies for qualitative research*. Chicago: Aldine Pub. Co
- Goldsmith, Selwyn. 1976. *Designing for the disabled*, 3rd ed. London: RIBA
- Jordan, Patrick and Alistair Macdonald. 1998. "Human Factors and Design: Bridging the Communication Gap." In *Contemporary Ergonomics*: 551-55. London: Taylor & Francis.
- Krueger, R. A..1994. *Focus groups: a practical guide for applied research*. Sage.
- Langenscheidt., ed. 1977. *Großes Schulwörterbuch Deutsch-Englisch*. Berlin und München: Langenscheidt.

- Lebbon, Cherie and Stella Boess. 1998. "Wellbathing, a study for design." In *Improving the Quality of Life for the European Citizen*, edited by Placencia Porrero, I. And Ballabio, E.. Proceedings of TIDE (Technology for Inclusive Design and Equality), held 23-25 June 1998, Helsinki, Finland. Amsterdam: IOS Press.
- Margolin, Victor. 1995. "The Product Milieu and Social Action". In *Discovering Design, Explorations in Design Studies*, edited by Richard Buchanan and Victor Margolin. 121-145. Chicago and London: The University of Chicago Press.
- McCracken, Grant. 1988. *The Long Interview. Qualitative Research Methods Series no. 13.* Newbury Park, CA: Sage.
- Merriam-Webster, publisher 2000. *Merriam-Webster's Collegiate Dictionary*, Tenth Edition 2000, [Online]. Available from URL <[www.m-w.com](http://www.m-w.com)>. [Accessed 2002 April 30th].
- Morrow, Ruth. 2001. "Overcoming the obstacles to inclusive design." Presentation given at the *INCLUDE Conference* held 18-20 April 2001 at the Royal College of Art, London, UK. Organized by the Helen Hamlyn Research Centre. Also available from URL: <<http://www.hhrc.rca.ac.uk/events/include/index.html>>. [Accessed 2002 March 14th].
- Pantzar, Mika. 1997. "Dynamic Views on the Social Histories of Artifacts". *Design Issues*, 13 (3): 52-65.
- Pheasant, Stephen. 1996. *Bodyspace: Anthropometry, Ergonomics and the Design of Work*. 2nd ed. London: Taylor & Francis.
- Polit, D. and B. Hungler. 1997. *Essentials of nursing research*. 4th ed. , Philadelphia, Lippincott
- Poulson, D., M. Ashby and S. Richardson. 1996. *Userfit: A practical handbook on user-centered design for Assistive Technology*. Brussels-Luxembourg: TIDE, ECSC-EC-EAEC.
- Rouse, William B.. 1991. *Design for success: a human-centered approach to designing successful products and systems*. New York: Wiley.
- Schön, Donald A. and Chris Argyris. 1991. "Participatory Action Research and Action Science Compared: A Commentary." In *Participatory Action Research*, edited by William Foote Whyte. 85-96. Newbury Park CA: Sage
- Schön, Donald A.. 1992. "Generative Metaphor: A Perspective on Problem- Setting in Social Policy." In *Metaphor and Thought*, edited by Andrew Ortony. 2nd ed., 1st in 1979. 137-163. Cambridge: Cambridge University Press.
- Scrivener, Stephen; Linden Ball and Andrée Woodcock. eds. 2000. *Collaborative Design*. Book of Proceedings from the Co-Designing conference held Sept 11-13, 2000 in Coventry, UK. Coventry: Coventry University. London: Springer
- Smith, D., J. Hall, R. Jenkins and H. Justice-Mills. 2000. "Collaborative Design in Multimedia 'Know-how' Archiving: A Case Study in Aviation Industry Training." In *Co-Designing: Book of Adjunct Proceedings* from the conference held Sept 11-13, 2000 in Coventry, UK. Edited by Stephen Scrivener, Linden Ball, and Andrée Woodcock. 61-66. Coventry: Coventry University.

Spiegelberg, Herbert. 1994. *The Phenomenological Movement: A Historical Introduction*. 3rd ed. Dordrecht: Kluwer

Van Manen, Max. 1990. *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. Ontario, Canada: The Althouse Press.

Zeisel, John. 1981. *Inquiry by Design: Tools for Environment-Behaviour-Research*. Cambridge, UK: Cambridge University Press

