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ABSTRACT

Spatial designers, who engage children in their design process, most often frame children in this context as experts in their own lives. Findings from a study based at the University of Sheffield, point to new understandings of this participatory role, in which children move towards the role of designer. Drawing on interviews including visual methods with 16 spatial designers and guided by phenemonography, the paper seeks to represent the designers' perspectives on the under-explored area of child–designer interactions. Findings suggest that the designers understand these interactions to comprise a reciprocal and co-created space – a sphere of behaviours, actions and ways of being which together becomes an enabler of change. It is proposed that what Bhabha (The Location of Culture, 1994) refers to as a 'Third Space' in which the 'dominant culture might be temporarily subverted and its structural systems of power and control renegotiated' can be re-imagined in this co-design context. The paper weaves together theoretical discourse and empirical illustrations of perceived creativity, play and transgression, which – at their intersection – support a potential transformation of understandings of children as co-designers and of the design process itself.

1. Introduction

The value of engaging children[1] in built environment planning and design has been extensively discussed and evidenced in research literature since the public participation movement gained prominence in the 1960s and 1970s (Adams and Ingham 1998, 16). Lynch's 'Growing Up in Cities' (1977), for example, pioneered cross-cultural research into children's experiences and understandings of their environments, and was understood specifically as 'a project to extend participatory processes to the young, with a focus on urban communities'. (Chawla 1997, 247) This work, and the body of research and practice that it subsequently inspired, has played to children's strengths, acknowledging their valuable insights into the places that they use, and in some cases also valuing their capacity to re-invent their environments and imaginatively appropriate space (see also, CABE Space and CABE Education 2004; Hart 1992).

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Based on the initial premises of child and youth participation discourses, numerous planning initiatives and design projects thereafter framed children's involvement as a learning and development opportunity (Frank 2006; Knowles-Yánez 2005) or alternatively framed children as clients and consumers offering insights into the process of designing fit-for-purpose services (Malone and Tranter 2003). Such processes have been criticised for being largely consultative in scope, focusing upon service improvement rather than change process (Valentine 2004, 108), limiting designer–child exchanges to a traditional pattern of roles and power relationships. Additionally, the impact of interactions with children upon the designers themselves has remained under-explored and mainly anecdotally evidenced (Clark 2007), reflecting the dominance of the idea that children are the primary beneficiaries of participation, occupying the 'becoming' state of 'learner' and 'future adult', as opposed to active, competent and creative social *beings* (Uprichard 2008). Whilst some exploration has been tentatively made into the *dynamics and processes* of participation (Buur and Larsen 2010), deeper enquiry is needed into the dynamics and processes of *spatial* design participation; in particular those rarely reported processes which have also included children. This paper begins to address this gap, taking a phenemographic approach which specifically focuses on spatial designers' perceptions of their own experiences.

2. Research context, methodology and methods

The paper draws on the findings of a series of interviews with spatial design practitioners (architects and landscape architects) who have had experience of working with children in spatial design. These interviews marked the beginnings of a three-year research project (January 2013–January 2016) funded by the Leverhulme Trust. The research is grounded in a theoretical perspective of the design process as a 'situated social process' (McDonnell 2012, 62), where reciprocal learning (Day, Sutton, and Jenkins 2011, 50; Percy-Smith 2006) and transformation can occur (Freire 1998; 30–32; Mezirow 1985).

Qualitative, semi-structured interviews took place with 16 spatial designers (8 female, 8 male; 16 EU-based, 15 of which were from the UK) over the period April 2013–June 2013. Our focus was upon the *perspectives of designers only* in this first phase of a much wider project in which focused ethnographies were also carried out across four live design case studies involving children. In those case studies, children were also interviewed and analysis of children's perceptions are discussed elsewhere (Birch et al. Forthcoming). Perspectives of other stakeholders in the design process (such as commissioning or funding bodies, schools), though interesting, were not the remit of this project. Our attention to designers' perceptions is based on principles of phenomenography as a research approach (Marton 1981). Using this as a guide, we understood our interviews not to be directly about spatial designers' interactions with children in the design process; rather the designers' *personal experiences* of that phenomenon. Whilst Marton's phenomenography is considered as 'pure', the 'developmental phenomenography' of Bowden and colleagues (Bowden and Green 2005; Bowden and Walsh 2000) acknowledges, as we do, that findings have implications for learning and practice (Green 2005, 35). We also draw on the tenets of 'new phenomenography' (Linder and Marshall 2003, 272), which moves from the purer descriptive mode of research into one which allows for designers' perspectives to be placed alongside researchers' interpretations of the different ways designers' experience have evolved and of relevant cultural theory. The central roles of this paper are therefore to discuss *designers' perspectives* and

Table 1. Spatial design projects described by interviewees: type of space, ages of children involved and stages of design process children involved in.

Spaces designed	Age of children involved (years)	Design stage(s) children involved in
Primary school: toilets interventions in playground	5–11	Brief, Concept Design Development,
Nursery within a primary school	3–5	Concept
Secondary school	11–16	
Primary school	5–11	Brief, Concept
Secondary school outdoor classroom/shelter	13–16	Brief, Concept, Design Development, Build
Housing and community bakery	15–16	Brief, Concept, Design Development,
Secondary school: multi-functional outdoor space design technology classroom	12–13	Brief, Concept
Installations for public space and for further educa-tion college	16–18	Concept
Secondary school design technology block	12–16	Brief, Concept, Design Development
Primary school: science complex, pavilion and outdoor areas	5–11	Concept
Hands-on museum exhibit (a story trail)	1–8	Concept, Build
Secondary school refurbishment as part of a merge of 2 schools.	11–12	Concept, Design Development
Youth community centre: masterplan classroom	14–18	Brief, Concept
Primary school installations and interventions indoors and outdoors	7–9	Concept, Build
Primary school interventions	4–11	Brief, Concept
Secondary school: library playground pavilion	12–16	Concept, Brief, Design Development
Special educational needs school library	4–11	Concept

present possible theory around such perspectives; in this light, the paper does not aim to interpret guidance for effective process and products.

The emphasis of our interviews was on the process, and not on the product. The question guide was split into four main sections. Before discussing work with children, we began by exploring the designers' own *creative* process. We asked designers to talk through this as well as represent it through drawing. Next, participants were invited to answer questions around the theme of *design* process, visually depicting this with either a new visual layer or a fresh drawing. The rest of the interview interrogated the designers' experiences and perceptions of working with children in spatial design, using both spoken and visual methods, building up a third visual and narrative layer. This stage included asking what it was like to involve children in their design process, what their motivations were and asking them to describe their most successful project example of working with children. This specific project (see Table 1) was then used as the basis for more specific reflection on their interactions with children, the relationship of these interactions to the design and creative process and ultimately their perceptions of success in this context. We concluded with more general questions summarising what designers perceived children to bring to the design experience and how engagement with children and young people had affected the designer's personal design process and/or practice in wider terms (if at all). Each interview lasted between 60 and 150 min. 15 interviews were conducted face to face at the designer's work place or other

space chosen by them and one interview was conducted via Skype. The designers' relevant experiences with children were situated in different kinds of spatial design projects. Table 1 lists only those projects specifically chosen by the designers in the interviews as their most successful (i.e. we did not seek to document a comprehensive list of all relevant experience).

The data from the initial 16 interviews were coded (with the help of NVivo software) and the emergent themes or conceptions reached are summarised below under headings of creativity, play and transgression which together become a critical analytical viewing tool akin to a prism. This analytical lens emerged from a wide reading of literature discussing design, childhood, learning, creativity and play and from the interviews with designers themselves.

3. Creativity

3.1. Identity and novelty

The field of creativity is explored by a wide range of disciplines. The resulting work and theory has been helpfully categorised according to emphasis: traditionally the four P's of creativity, process, product, person and place, and additionally a fifth – potential (Kozbelt, Beghetto, and Runco 2010, 24, 25). The emphasis of this study has been on creativity as 'process' and also the concept of 'little c', or everyday creativity (as opposed to 'big C' creativity), which relies on context-specific understandings of originality and social meaningfulness (Kozbelt, Beghetto, and Runco 2010; Richards 2010). However, in responding to questions about creative process, designers also made reference to other 'P's' – particularly person and place – these various aspects inevitably being interrelated. It is important to note that this study aligns with a recognised extensive body of research which frames creativity as a collaborative process (see Paulus and Nijstad 2003; Sawyer 2007, 2010).

Recent associations of creativity with the knowledge and market economy (Clifton 2008; Florida 2002), reflect a fundamentally utilitarian approach to young people's 'creative development'. This, however, often conflicts with the creative process itself and its more subtle nuances, which revolve around people's relations, identities and cultures. Willis's *Common Culture* (1990), for example, explores creativity as a process of identity formation, which is integral to young people's everyday cultures. This idea resonates with discussions around designer identity. Dent and Whitehead (2002), for example, advocate that designer identity may be linked with possibility thinking; a phrase also employed by educationalist, Craft (2013), to describe creativity. Referring to the design process, Dent and Whitehead (2002, 10) suggest that a designer opens up to 'occupy multiple subject positions and shift, manoeuvre and negotiate within and across [discursive frames]'. In our study, a few interviewed designers spoke of the central role of creativity in both their personal and work lives, regardless of children's involvement, conceiving for example that: 'imagination is at the heart of everything that designers do'. One person viewed creativity to be an innate human quality, that has enabled humans to evolve and several understandings of creativity focused on the physical making and building of something during design. For most designers we spoke to, creative process was understood, to a great extent, in association with *change* of some sort and the introduction of something new such as: being influenced by an idea that previously was not there – being inspired by things or by people – or a new direction for a design which arises by accident.

3.2. Shared possibilities

Although several designers were openly unsure of how children, when involved in design, might specifically affect their own creativity, there was wide acknowledgment of creativity – especially in design – as a social process, as relational and as collaborative (Montuori and Purser 1997; Perkel 2007). Some designers' reflections gave insight into how they understood this collaborative process, as they revealed an embrace of change, 'shifts' and 'manoeuvres' which were specifically associated with children's involvement. Those shifts sometimes came about through designers wishing to catalyse children's imaginations, willingly making, as one designer suggested: 'creative detours to trigger [children's] imagination outside their everyday life'. On the other hand, designers commonly felt that their own creativity was sparked by children's perceived openness to possibility; the 'what if' element that children were noted to bring into the design process. This sometimes took the form of surprising ideas which were very much valued:

> They came with some completely whacky ideas […] it's almost that thing where you go completely whacky and you come back a few steps rather than starting here and not feeling like you can go much further. It's almost like it gave a little bit of a license.

Being given licence to do things differently, was related to a perception of children as being more comfortable accessing their own creativity, as compared with adults:

> Well they're not shy, I mean you couldn't do this workshop with adults or with only very, very few. Like so many adults don't have much access to their creativity and childishness […] It's, it's great and you do sometimes get adults who really like to get in there and get their hands mucky but they are a minority and if we do sort of mixed workshops we do sometimes find that the adults tend to watch and just let their kids get on with it, with the exception, the exception of a few.

Design development activities, such as model-making, commonly perceived as childish by adults, were reported to be more enjoyed and appreciated by children because, according to an architect interviewed, children 'don't harbour those kind of grown-up kind of pre-conceptions about it'. Children's creativity, proposed the designers, is uncompromising and challenging, and this resonated with the designers' early interests in spatial design, perhaps thus reminding them of their own 'calling' and returning them to a state associated with earlier childhood, as one designer inferred:

> I think all creative processes in some ways are a childlike kind of process that allow you to engage in something in a more kind of immediate way, so in some ways I think everybody involved in design has to be in touch somehow with some of those kind of faculties.

4. Play

4.1. A habitat for creative collaboration

Cross-disciplinary research has shown positive relationships between play and various skills and qualities of creative processes, from flexibility, divergent thinking and insight to combinatory imagination (Russ and Fiorelli 2010). One of the most common definitions of play focuses on the idea that there is no external goal guiding the play behaviour. This 'functional' approach frames play as having no clear immediate benefits, no extrinsic motivation and being done for its own sake (See Smith 2009, 4). Such a conceptualisation removes the possibility of employing play and playfulness as a strategy in design, which by

its very nature is goal-orientated. Alternative approaches to framing play have, however, been proposed. Particularly relevant to this paper is the 'criteria-based' approach, which is essentially based on the simple idea that people can recognise play when they see it. Taking as its starting point the characteristics of behaviours judged by observers to be play, this approach allows for a spectrum of playfulness, from non-, or less playful, to playful behaviour and, importantly, research has shown that play understood within this framework can coexist with perceived external constraint (Smith and Vollstedt, cited in Smith 2009, 7).

Dominant paradigms locate play in childhood, with children understood as expert players. Play is variously understood as a means for children to explore and construct meaning and identity, to develop skills and to learn. For Colin Ward, in his classic study of the 'Child in the City': 'Play is often, at the same time, training in motor skills and sensory awareness, exercise and excitement and warfare with the adult world, as well as providing a disturbing parody of this world' (Ward 1978, 97). Yet Carruthers (2003, 511) proposes that adult creativity and children's play are mirror processes; the former being understood as practice of the latter. The 'imaginary scenarios' and 'novel suppositions', which are key to adult creativity, are also part of a child's capacity to imagine the non-existent within pretend play (Carruthers 2003, 511); these potentially then become a shared communication platform for adults and children in creative interaction.

In our study, designers' interview responses revealed a sense of how a communication platform, a bridging, playful space was felt to be co-created between adult designers and children. Drawing on Sawyer (2007), Bayram accordingly frames play as a habitat for creative collaboration (2010, 23). From interviews, it was clear that sometimes, children would bring the playful element; at other times it was the adult designers. On the one hand, children's playfulness often gave licence for designers to do things differently. As one participant expressed: 'you felt like you were really creative, everyone thought it was going to be one thing and it ended up over here'. Children's playfulness thus opened up a series of exciting possibilities, that would 'allow a window into their world' whilst also creating a means for shared understanding, as the designers' words express below. The children she worked with had suggested that:

> … the ceiling looks like cheese. That is actually what we thought, you know, this ceiling detail is like Swiss cheese and the idea was that it was responding to their perspective […]so for me that kind of meant actually it worked, we actually saw what they saw.

On the other hand, playfulness was frequently also described as the intermediary in child–designer encounters. Adults would tap into the powers of playfulness as an ice-breaker, unlocking the adult–child relationship and, importantly, opening up the design process to the children. This architect gives a humorous example of a consultation process where he discussed with children a website called 'Architecture for Dogs':

> We're slightly anarchistic about it, it makes me laugh and it's quirky, it's like making Frank Gehry architecture for dogs […] so the children burst out laughing and within seconds you've got the whole room laughing but, actually, there's a serious edge to it, then you go 'well do you think these designs are any good?' […] so we end up having a conversation.

The potentially playful quality of design is therefore perceived as a common space for designers to engage in critical dialogue with children as part of the creative process.

4.2. The unpredictable other

Zimmermann and Morgan (2011) describe play as a dialogical space where players engage in creative communicative action. Play, they argue, enables the construction of dialogue and thus enhances communication because players are required to respond to something unexpected, which is not under their control. These communicative instances often depend on the intersection of flow and unreflective behaviour (2011, 51–52), whereby players participate in a continuous action/re-action process that involves genuine disclosure and acknowledgement of perspectives. Key to their understanding of play is a presence of the 'Other', that is to say not another person, necessarily, but rather the space between players which is often an unknown – a question or provocation perhaps (2011, 31). Citing previous writings [Hughson and Inglis (2002); Romdenh-Romluc (2007); Vannatta (2008)]; Zimmerman and Morgan draw attention to the unreflective, unconscious or what might be called 'I just did it' kinds of behaviour which occur in play. There is a sense of the importance of the moment and of spontaneity playing a key role. In other contexts, this might be understood as a kind of improvisation as part of an emergent group process (Sawyer 2007, 2010). For example, this designer describes building with a child:

> No, we sort of made it up as we went along. [laughs] We did, yeah, originally we had the wood. Okay, what shall we do? What can we make with it? So we start to make a box and we start to add something to it and we did it sort of together. [sketching] What's missing, which bit is missing? Like if you've done this, how we do the wheels? How are we going to do the wheels? Yeah, so it was very much thinking, as we made it.

Improvisation, whilst only occasionally (albeit positively) discussed in the context of design literature (Gerber 2007), is most often discussed in terms of art, drama and music. It demands an immersion in emotions and inter-subjectivity, for it allows space for engagement with the Other and the unpredictable (Sawyer 2010, 372). A number of designers in our study reflected that children are noted for their unpredictability, and positively so, for it was found to be stimulating in the design process:

> It's exciting, I mean when you normally go and see adults you sort of know what to say, you know, what the expectations are … But when you do it with the children, it's always unpredictable, I think that's another positive thing.

> I think the fascinating thing about when I've worked with young people is that, they're so unpredictable, in terms of what they are going to come up with and I think, you know, when you work with communities and adults in communities, to a degree, you can't help but kind of second guess what they're going to say and you normally can anticipate some of the things that they're talking about. I think the wonderful thing about children is that there's unpredictability and that sometimes they come up with things that you would never have thought of and they're not afraid to say the wrong thing and I think that's fascinating.

Perhaps it is the 'safety' or comfort of an environment of play that actually increases risk-taking behaviour and thus decreases premature closure of ideas generation; rather than obstacles, errors are seen as triggers of exploration (Mainemelis and Ronson 2006). In our study, designers consistently report how designing with children would enable them to feel more at ease, more themselves, for 'there is nothing really to lose', as one architect explained. When working with children, another practitioner confirms, 'there's a bit more acceptance when you make mistakes'. Such an atmosphere of permitted failure is, according to Gerber, what designers really need in order to flourish creatively (Gerber 2007, 1071).

5. Transgression

5.1. Playing with the rules

Known for its subversive qualities, play has been discussed as means for breaking down social boundaries and for constructing new ways of being (Hope 2005, 363). Mainemelis and Ronson's study (2006) makes a strong case for viewing play as a transgressive act. They describe it as a threshold experience, i.e. 'the transitional space between inner and outer reality' (2006, 87). Children were many times seen as design partners, or sometimes clients or collaborators who consented to or perhaps even facilitated imperfections; they were also perceived to be refreshingly unafraid to say the wrong thing. Frequently, children were described as questioning, critical, uninhibited, 'not prejudiced [nor] partisan to things', as an architect put it, which the designers perceived as an exceptional quality, giving children the freedom to embrace the unexpected with an open mindset. Children's abilities to think and act outside (be free from) social norms of adulthood were discussed almost without exception across the interviews. This is not to say that children are universally uninhibited beings, acting as if there were no rules; rather the architects perceived an openness in children's communication and this was refreshing to them. Unlike an adult style of adherence to the 'status quo', children were implied to respond more to the moment, with more spontaneity, paying less heed to rules concerning what is polite or expected of them as this designer expressed:

> If you go in there with a closed mind then there's no point in being there, you have to go in prepared for the curve ball to be thrown at you […] in every consultation that we've done there's an idea that you missed, because you're becoming a bit adult and straight-laced about it.

Some architects found that tapping into their own memories of being a child and their own senses of humour was helpful for them in creating an open environment of collaboration and in enabling children to engage freely:

> …approach the whole thing with a sense of humour, it breaks down barriers. If you take it too seriously then the kids will get put off.

Children were continually reported as free from many constraints imposed by the adult world. Phrases such as 'direct', 'open', 'honest' and 'challenging preconceptions' constantly re-appeared as designers talked about children. Children were lauded for being outspoken and not afraid to say what they truly thought. This said, many designers felt that children lose some of this openness as they get older (than age 10 or so) when they can become more inhibited. Younger children in particular (though not exclusively) were the ones seen as capable of thinking and acting outside the conventions and social norms of adulthood, which are often seen as antithetical to creativity. That these qualities were recognisable to the designers interviewed, perhaps indicates something of the environment of openness that designers were themselves able to create in engagement sessions. The unusual and irregular nature of the contact between children and designers perhaps creates an atmosphere where openness is permitted; more so than in the institutional relationships to which children become accustomed. The designers may take a role distancing themselves from the structures and power relationships of schools, for example, and often are, to the children they collaborate with, something of an outsider and novelty. Armed with what Koralek and Mitchell (2005, 129) call 'ingredient x', outsiders can offer children a certain freedom to approach things differently; to subvert the institutional norms.

Designers also discussed children's capacity to understand the implications of the design process. Unlike adults, who were viewed as tending to think with specific agenda in mind and 'self-edit more', 'children can handle virtually everything [...], in a way they're less inhibited by the drudgery of daily life experience', an architect argued. Yet children were not thought to be locked into an 'imaginary' world; they easily broke down barriers between real and unreal. Children were often understood to exhibit a greater capacity than adults to handle abstract ideas and transform them into applicable, tangible outcomes:

> It's surprising, actually, they can also bring a very practical understanding of what's important within the environment to them, which can be overlooked by adults [...], they don't see any reason why [crazy] stuff shouldn't be part of design, whereas adults, we 'have 'taste'.

It was thus fascinating for designers to see that children's ways of designing – in which they would 'not take things too seriously' – enabled them to shift easily between one idea and another, managing their own expectations and responding positively to emerging challenges. Children were described by designers as freer from the red tape of adults' social and political worlds, not only in their approach to practical challenges in live design projects, but also in their means of communication with designers during the process. Here, a practitioner recounts a tale of children's involvement in school design:

> ... they wanted a wind turbine because it's a windy spot and they wanted to be green and when everybody said, 'oh well it's in a residential neighbourhood; the neighbours might not like it, one of the kids went: ' well after school we'll go knock on their door'; there was no like, 'oh we've got to through planning and we've got to do twenty-one days public consultation in the town hall', they were just going 'well I'll ask Mrs. and Mr. so and so who live opposite if they would mind'.

The children did indeed acquire a wind turbine for their school site.

5.2. Unravelling roles

Freedom from red tape was not seen as an automatic given when working with children. Those architects working in school settings, often reported barriers, which could prevent everyone from thinking broadly and imaginatively. Whilst many designers felt that an enabler of positive transgression was their use of structured design engagement activities and clear objectives, this element of careful organisation, planning and perhaps control was perceived as quite different from the usual school hegemony. Doing design engagement in school settings presented problems sometimes in dealing with adult stakeholders' occasional tight and inflexible concepts of 'good' design and of design process, especially one that doesn't make too much mess. As one architect phrased it: 'You have to listen out for the teacher saying, "oh, no, you can't do that, so don't do that"'. In response to this, designers themselves were keen to flout the 'rules of school' to some extent because they found that children's inherent interest in transferring their ideas between the real and unreal can be the most exciting part in the design process and, to some extent, because of their own styles of working. A school-based architect's response to children's liberated notions of school design here illustrates: 'you can do whatever you want, and if it's a school as a football pitch, that's fine, we'll take something from it at some point'.

Additionally, transgression of societal (school-based) norms around learning and participation was found to be part of the designer-role, for some. Whilst children may be

uninhibited in many ways, designers sometimes felt they had a role to help children, especially older children, voice their ideas:

> As a kid in school you're not invited to ask questions, or if you've got an idea that might be a bit left-field then you generally shut up, because, otherwise, you're the odd ball, whereas I think where we're successful sometimes [is when you] feel you're enabling them to be a bit freer.

This might be understood in light of the notion of collaborative play as put forward by Holland et al. (1998) who see such collaboration between children and adults enabling them to make use of the cultural resources available, creating responses by enacting their agency and, thereby building their identities. Overall, practitioners welcomed opportunities for children to take on roles of a 'client', 'consultant' or 'expert user'. Children often took on the role of a 'critic' in articulating and asserting and their own needs and expectations. Designers, in turn, responded positively to this challenge to traditional expert/lay roles and embraced children's agency. Designers also saw children taking a hands-on responsibility, 'fabricating, bolting together, gluing together bits of wood' or 'plastering and bricklaying', which they thought was important in helping children realise that their inputs informed a project 'for real … drawing collages and model [making]', a designer commented, 'I think some of them thought it was still just art class. No, this is real …'

Elsewhere children played roles, for example, in the brief development and in detailed design as 'interior architects', through to post-occupancy as 'evaluators'. As one designer explained, '[…] we were constantly doing things with them and bringing back results and moving [the project] on, so there was a definite sense that they were contributing'. This 'give and take' process was seen as fundamentally collaborative and immensely fulfilling, as an architect reflects: '[...] that has been the most rewarding to me, [seeing] a group of students work right the way through a design process. I very much felt they were kind of co-designers in the process […]' Practitioners reported seeing children gaining a sense of confidence and pride in both their capacities and their surroundings, which they helped to shape through their own input. Above all, as the designer below explains, having a choice to participate in the design process, perhaps unlike other enforced social and educational contexts, enabled children to experience a sense of power and agency:

> […] they had a sort of a positive feeling that they could help make change, they had some power, some agency in the design process; they could see they'd made a difference. I think they could see that, so I think some of them genuinely felt they're contributing, because they could back out of it, opt out.

6. Transformation

6.1. Losing control, gaining collaboration

Previous paragraphs gave examples of how designers and children alike have been introduced to sometimes unfamiliar, and often inspirational, creative trajectories within the design process. The transgressive quality of creative and playful designer–child interactions should not be confused, however, with their transformational potential: if the first is about breaking down boundaries, the second is about re-interpreting meanings and building new understandings. O'Sullivan's (2003, 327) understanding of transformation as a 'deep structural shift in basic premises or thoughts, feelings and actions' serves well here.

Where transgression invites experimentation and improvisation, transformation is a learning and change process that requires critical reflection. In learning theory, Mezirow (1985, 24) posits that this process of re-evaluating one's given beliefs and knowledge derives from a feeling of 'disorientation' or discomfort. For the designers in our study, children's participation in design has not been a process without concerns and discomfort (for the designers themselves). Dilemmas and challenges were talked about around a number of themes such as: children's potentially unruly nature; practicalities and politics associated with involving young people and adults within their institutions. One designer felt that she had insufficient teachers' input to complement that from the children; it felt like an incomplete collaboration process:

> we kind of came up with some ideas and brought in a palette and, you know, come into the room and one of the staff members was like 'I don't like yellow' so automatically we were in big trouble […] but I felt like if they had been involved in this process then all these decisions can be made much easier because they feel like they're part of it […] so it was just a kind of missing piece.

Sometimes there was a general fear of the 'unknown' that working with children brings. It was clearly, for many we interviewed, a challenging and exhausting process

> when they get a little haywire is to distract, divert them, but you're having to do that, you've got twenty to thirty kids in a room and, you know, it takes a lot of effort to keep the workshop on track and find a task to distract the disruption with, and that's, that just makes it hard and you don't know what you're going to face when you go in.

> I love hearing about [the use of the building], what it's enabling people to do, and sometimes they're unexpected [outcomes] for the people who are using it, that's great but is the architecture what you thought? Yes, of course it is, [laughs] I've stayed up all weekends and late nights to make sure it is!

Just two designers talked about concerns of their own authorship and pride: one spoke about their hunch that what they had designed was not actually being used; another was concerned that whilst their 'legacy' of participatory design in one school had successfully changed children's levels of participation there, still there was little thought to design principles. Only one person was truly worried about letting children, in particular, down and not realising their ideas directly:

> I think sometimes through […] either the speed of the way that the process is going or the project programme, there's not really kind of time or money to directly implement something that children might suggest and I think children do like quite direct results from things as I was sort of explaining before, and so I think for a child it […] might be a bit of a, feel like a bit of a letdown.

Children's feelings, when aspects of their design collaborations are excluded, are of very real importance and significance for the participation process. Here, we explore whether such 'discomforts' which the designers experience may be the conditions supportive of a radical transformation of architectural design thinking and practice. Tensions and negotiations around freedom, loss of control and mastery, chaos and order *do* arise from struggle or pain in partnerships between children, adult planners, designers, architects and artists, as is noted previously in work by Blanchet-Cohen and Rainbow (2006, 126) and South London Gallery (2011). Dorst would say that the very nature of design process is (for good designers at least) defined by discomfort manifest in a great deal of uncertainty, 'tensions', 'restlessness', even when designers are not working in collaboration (Dorst 2006, 111).

Design is inherently a world of risk-taking and uncertainty. For Till (2005), a designer's loss of certainty involves loss of control and loss of clarity about his or her own expertise. Petrescu (2005) similarly argues that if an architect is to transform her self-knowledge then she accepts control loss; in particular, loss of mastery over the design process. Petrescu's (2012) more recent conceptualisation of architecture as a 'relationscape' echoes the understanding that the creative design process is fundamentally relational. She explains that the 'idea of relationality is subsequent to the participative nature of our practice: we understand spatial production as a collective forming process which empowers architects and users alike' (2012, 136). According to Till and Schneider (2009), architecture involves the intersection of designer, user, client and practitioner agency in collective responsibility or 'acting otherwise', as Petrescu (2012, 136) names it.

6.2. A new way of seeing

Practitioners' reflections on their collaboration with children showed not only a strong sense of design as a relational process; they also demonstrate a desire to transform the architectural professional culture and design outcomes in such a way as to make them more relevant to lay people and perhaps less pompous, for example:

> I do believe fundamentally that good design improves people's lives and whether that's something as obvious as somebody in a wheelchair being able to get into a building or just a beautiful pink spot painting juxtaposed on a nice green wall in my kid's room.

> […] I think it's about de-snootifying design.

Children's reflections on their school environments led other designers to stress that architecture 'is not a luxury' and neither can it be imposed on the user, but rather it concerns all people and should, therefore, 'move away from being procurement driven' to serve their needs and desires. As another architect critically reflected, 'you have to be prepared to change your idea about award winning architecture'.

On a more personal level, almost all architects acknowledged gaining from their exchanges with children in spatial design contexts. They experienced new ways of understanding space and engaging with the creative/design process. For example: 'it's a new perspective, it seems to be fundamental when you're creating a space for them; you free yourself from all the kind of red tape and guidance and all that'. Working with children was understood by designers to enrich their own thinking, as they see 'things that as an adult you just wouldn't notice […] it definitely widens your vision of what's around by looking at children, they can see things that we can't'.

This 'new way of seeing things' that designers learned from children involves a feeling of adventure, and a renewed outlook regarding design participation more broadly. In their accounts, designers acknowledged that their experiences of working with children enabled them to develop new ways of communicating more actively and openly with adult client groups. For example, a practitioner recalls,

> […] the time spent on site and observing people on site has become more important to me I think, since working with children […] when I'm working with adults on a project, if I'm not working with children, [I'm] trying to encourage them to speak openly.

In this light, the engagement techniques that architects use when working with children might become a communication means between designers and other stakeholders:

> I know a certain project we're doing in our other office where they did some of the activities that we'd done with the children with a whole kind of community group, you know, taking them round the site and doing a similar thing to the balloon game […]

Arguments for learning about and from designers' interactions with children are of course incomplete without also understanding children's perspectives on the design process: these will be explored elsewhere (Birch et al. Forthcoming).

7. Summary: a space for transformation

To conclude, we draw on Edmiston's (2010) suggestion that when children play on their own they do not need to leave their imagined worlds; however, when children and adults collaborate in play scenarios 'they create spaces in which significant ethical contemplation can take place' (Edmiston 2010, 203). Previously in this paper, the three themes of creativity, play and transgression were noted to emerge from both literature and our interview data; these themes, we suggested, came together to form a 'prism' for viewing what happens in designer–child interactions. What is seen to occur through such interaction is a co-created space or atmosphere of potential – often for transformation. That space, in design process, proves not to be easily definable or singular across all designers' experiences, but more complex and spectrum-like. We might understand that space between the designer and children as a space into which creativity moves or in which it is generated: as a 'Third Mind'. Such a concept was immortalised in Burroughs and Gysin's (1978) beat generation work and book of the same name, which was named as such because their collaborative cutup technique was felt to lead to text as if a third mind – a third person – was present. The designer–child interaction, perhaps characterised by a sense of the 'Other', can also be understood as a playful space, one of possibility and improvisation. A re-imagination of Bhabha's (1994, 2) notion of 'Third Space' as a space of transgression, where re-negotiated roles and identities of 'professional' designers and of 'lay' children may be formed in design collaborations; this third space may be one where rules are disregarded by one or other or both parties. It is a space which both designers and children can potentially access, contribute to and – crucially – one in which they can understand and learn from each other.

Note

1. 'Children' is used in this paper to mean anyone under the age of 18 years and is used interchangeably with the term 'young people'. This reflects the research data presented.

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References

Adams, A., and S. Ingham. 1998. *Changing Places: Children's Participation in Environmental Planning*. London: The Children's Society.

Bayram, M. 2010. "Design is Fun: Promoting Play in Design Process." Masters diss., University of Cincinnati. Accessed May 11, 2015. https://etd.ohiolink.edu/rws_etd/document/get/ucin1280779027/inline.

Bhabha, H. K. 1994. *The Location of Culture*. London: Routledge.

Birch, J., R. Parnell, M. Patsarika, and M. Šorn. Forthcoming. *Spatial Design With Children*. London: Routledge.

Blanchet-Cohen, N., and R. Rainbow. 2006. "Partnership between Children and Adults? The Experience of the International Children's Conference on the Environment". *Childhood* 13 (1): 113–126. doi:10.1177/0907568206059976.

Bowden, J. A., and E. Walsh, eds. 2000. *Phenomenography*. Melbourne: RMIT University Press.

Bowden, J. A., and P. Green. 2005. *Doing Developmental Phenomenography*. Melbourne: RMIT University Press.

Buur, J., and Larsen, H. 2010. "The Quality of Conversations in Participatory Innovation." *CoDesign* 6 (3): 121–138.

Burroughs, W., and B. Gysin. 1978. *The Third Mind*. New York: Viking Press.

CABE Space, and CABE Education. 2004. Involving Young People in the Design and Care of Urban Spaces. What Would You Do with This Space? Accessed May 11, 2015. http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/files/what-would-you-do-with-this-space.pdf.

Carruthers, P. 2003. "On Fodor's Problem." *Mind and Language* 18 (5): 502–523. doi:10.1111/1468-0017.00240.

Chawla, L. 1997. "Growing Up in Cities: A Report on Research Under Way." *Environment and Urbanization* 9 (2): 247–252.

Clark, A. 2007. *Early Childhood Spaces: Involving Young Children and Practitioners in the Design Process*. Working Paper 45. The Hague: Bernard van Leer Foundation.

Clifton, N. 2008. "The 'Creative Class' in the UK: An Initial Analysis." *Geografiska Annaler, Series B: Human Geography* 90 (1): 63–82. doi:10.1111/j.1468-0467.2008.00276.x.

Craft, A. R. 2013. "Childhood, Possibility Thinking and Wise, Humanising Educational Futures." *International Journal of Educational Research* 61: 126–134.

Day, L., L. Sutton, and S. Jenkins. 2011. *Children's and Young People's Participation in Planning and Regeneration*. Birmingham, AL: ECORYS, Centre for Research in Social Policy.

Dent, M., and S. Whitehead, eds. 2002. *Managing Professional Identities: Knowledge, Performativity and the 'New' Professional*. London: Routledge.

Dorst, K. 2006. *Understanding Design: 175 Reflections on Being a Designer*. Amsterdam: BIS.

Edmiston, B. 2010. "Playing with Children, Answering with Our Lives: A Bakhtinian Approach to Coauthoring Ethical Identities in Early Childhood." *British Journal of Educational Studies* 58 (2): 197–211. doi:10.1080/00071000903522484.

Florida, R. 2002. *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. New York: Basic Books.

Frank, I. K. 2006. "The Potential of Youth Participation in Planning." *Journal of Planning Literature* 20 (4): 351–357. doi:10.1177/0885412205286016.

Freire, P. 1998. *Pedagogy of Freedom: Ethics, Democracy and Civic Courage*. Lanham, MD: Rowman and Littlefield.

Gerber, E. 2007. "Improvisation Principles and Techniques for Design." In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1069–1072. New York: ACM.

Green, P. 2005. "A Rigorous Journey into Phenomenography: From a Naturalistic Inquirer Viewpoint". In *Doing Developmental Phenomenography*, edited by J. A. Bowden and P. Green, 32–47. Melbourne: RMIT University Press.

Hart, R. 1992. *Children's Participation: From Tokenism to Citizenship*. Florence: UNICEF.

Holland, D., W. Lachiocotte, D. Skinner, and C. Cain. 1998. *Identity and Agency in Cultural Worlds*. Cambridge, MA: Harvard University Press.

Hope, A. 2005. "Panopticism, Play and the Resistance of Surveillance: Case Studies of the Observation of Student Internet Use in UK Schools." *British Journal of Sociology of Education* 26 (3): 359–373.

Hughson, J., and D. Inglis. 2002. "Inside the Beautiful Game: Towards a Merleau-Pontian Phenomenology of Soccer Play." *Journal of the Philosophy Of Sport* 29 (1): 1–15.

Knowles-Yánez, K. 2005. "Children's Participation in Planning Processes." *Journal of Planning Literature* 20 (1): 3–14. doi:10.1177/0885412205277032.

Koralek, B., and Mitchell, M. 2005. "The Schools We'd like: Young People's Participation in Architecture". In *Children's Spaces*, edited by M. Dudek, 114–153. Oxford: Architectural Press.

Kozbelt, A., R. A. Beghetto, and M. A. Runco. 2010. "Theories of Creativity." In *The Cambridge Handbook of Creativity*, edited by J. C. Kaufman and R. J. Sternberg, 20–47. New York: Cambridge University Press.

Linder, C., and D. Marshall. 2003. "Reflection and Phenomenography: Towards Theoretical and Educational Development Possibilities." *Learning and Instruction* 13 (3): 271–284.

Lynch, K., ed. 1977. *Growing Up in Cities*. Cambridge, MA: MIT Press.

Mainemelis, C., and S. Ronson. 2006. "Ideas Are Born in Fields of Play: Towards a Theory of Play and Creativity in Organizational Settings." *Research in Organizational Behavior* 27: 81–131. doi:10.1016/S0191-3085(06)27003-5.

Malone, K., and T. Tranter. 2003. "Children's Environmental Learning and the Use, Design and Management of School Grounds." *Children, Youth and Environments* 13 (2): 87–137.

Marton, F. 1981. "Phenomenography – Describing Conceptions of the World around Us." *Instructional Science* 10 (2): 177–200.

McDonnell, J. 2012. "Accommodating Disagreement: A Study of Effective Design Collaboration." *Design Studies* 33 (1): 44–63.

Mezirow, J. 1985. "A Critical Theory of Self-directed Learning." *New Directions for Adult and Continuing Education*. 25: 17–30.

Montuori, A., and R. Purser. 1997. "*Le Dimensioni Sociali Della Creativita*." [Social Creativity: The Challenge of Complexity.] *Pluriverso* 1 (2): 78–88.

O'Sullivan, E. 2003. "Bringing a Perspective of Transformative Learning to Globalized Consumption." *International Journal of Consumer Studies* 27 (4): 326–330.

Paulus, P. B., and B. A. Nijstad, eds. 2003. *Group Creativity: Innovation Through Collaboration*. Oxford: Oxford University Press.

Percy-Smith, B. 2006. "From Consultation to Social Learning in Community Participation with Young People." *Children, Youth and Environments* 16 (2): 154–179.

Perkel, Dan. 2007 "Everyday Creativity: Appropriation Before, During and After Dissemination." *Paper Presented At: Supporting Creative Acts Beyond Dissemination. Creativity & Cognition*, Washington DC, USA, June 13.

Petrescu, D. 2005. "Losing Control, Keeping Desire". In *Architecture and Participation*, edited by P. Blundell Jones, D. Petrescu, and J. Till, 43–64. London: Routledge.

Petrescu, D. 2012. "Relationscapes: Mapping Agencies of Relational Practice in Architecture." *City, Culture, Society* 3 (2): 135–140.

Richards, R. 2010. "Everyday Creativity: Process and Way of Life – Four Key Issues." In *The Cambridge Handbook of Creativity*, edited by J. C. Kaufman and R. J. Sternberg, 189–215. New York: Cambridge University Press.

Romdenh-Romluc, K. 2007. "Merleau Ponty and the Power to Reckon with the Possible." In *Reading Merleau Ponty: On Phenomenology of Perception*, edited by T. Baldwin, 44–58. Abingdon: Routledge.

Russ, S. W., and J. A. Fiorelli. 2010. "Developmental Approaches to Creativity". In *The Cambridge Handbook of Creativity*, edited by J. C. Kaufman and R. J. Sternberg, 233–249. New York: Cambridge University Press.

Sawyer, K. 2007. *Group Genius. The Creative Power of Collaboration*. New York: Basic Books.

Sawyer, K. 2010. "Individual and Group Creativity." In *The Cambridge Handbook of Creativity*, edited by J. C. Kaufman and R. J. Sternberg, 366–380. New York: Cambridge University Press.

Smith, P. K. 2009. *Children and Play: Understanding Children's Worlds*. Oxford: Wiley-Blackwell.

South London Gallery, ed. 2011. *The Cat Came as a Tomato*. London: South London Gallery.

Till, J. 2005. "The Negotiation of Hope." In *Architecture and Participation*, edited by P. Blundell Jones, D. Petrescu, and J. Till, 19–42. Oxford: Spon Press.

Till, J., and T. Schneider. 2009. "Beyond Discourse: Notes on Spatial Agency." *Footprint: Delft School of Design Journal* 4: 97–111.

Uprichard, E. 2008. "Children as 'Being and Becomings': Children, Childhood and Temporality." *Children & Society* 22 (4): 303–313.

Valentine, G. 2004. *Public Space and the Culture of Childhood*. Aldershot: Ashgate.

Vannatta, S. A. 2008. "Phenomenology of Sport: Playing and Passive Synthesis." *Journal of the Philosophy of Sport* 35 (1): 63–72.

Ward, C. 1978. *The Child in the City*. New York: Pantheon.

Willis, P. 1990. *Common Culture: Symbolic Work at Play in the Everyday Cultures of the Young*. Boulder, CO: Westview Press.

Zimmermann, A. C., and J. Morgan. 2011. "The Possibilities and Consequences of Understanding Play as Dialogue." *Sport, Ethics and Philosophy* 5 (1): 46–62. doi:10.1080/17511321.2010.511250.