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The Ethical Dilemma of Lifestyle Change: Designing for sustainable schools and sustainable citizenship

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Résumé de l'article

Le présent article porte sur la manière dont la participation et la durabilité sont traitées par des architectes dans le cadre du programme « Construire des écoles pour l'avenir » au Royaume-Uni. Les intentions du programme sont ambitieuses, mais les moyens pour atteindre de telles ambitions demeurent peu étudiés. Mettre simplement l'accent sur des technologies d'apprentissage novatrices, ou instruire les jeunes au sujet des éléments de durabilité des bâtiments, ne leur donnera pas nécessairement les compétences dont ils auront besoin pour faire face aux défis environnementaux et sociaux d'un monde en changement ; or, favoriser de telles compétences est l'un des enjeux du programme. La participation des jeunes au design des écoles suppose une prise de pouvoir, l'appropriation des lieux et la promotion de la cohésion sociale ; pourtant, la littérature officielle en matière de design s'oriente plutôt vers diverses formes de standardisation. Les risques d'une participation manipulée ou de conflits avec les objectifs du programme sont évidents. Cet article explore deux problèmes : comment favoriser l'émergence auprès des jeunes d'une éthique envers les générations futures, et le rôle du co-design dans ce processus. Sur la base de la pensée de Hannah Arendt, Emmanuel Levinas, Maurice Merleau-Ponty et Luce Irigaray, l'article suggère qu'une réflexion avec les élèves sur les dilemmes éthiques du programme permettrait d'atteindre les objectifs du programme, de construire des écoles durables et d'encourager une citoyenneté viable.

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THE ETHICAL DILEMMA OF LIFESTYLE CHANGE: DESIGNING FOR SUSTAINABLE SCHOOLS AND SUSTAINABLE CITIZENSHIP

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ABSTRACT

This paper explores how participation and sustainability are being addressed by architects within the Building Schools for the Future (BSF) programme in the UK. The intentions promoted by the programme are certainly ambitious, but the ways to fulfil these aims are ill-explored. Simply focusing on providing innovative learning technologies, or indeed teaching young people about physical sustainability features in buildings, will not necessarily teach them the skills they will need to respond to the environmental and social challenges of a rapidly changing world. However, anticipating those skills is one of the most problematic issues of the programme. The involvement of young people in the design of schools is used to suggest empowerment, place-making and to promote social cohesion but this is set against government design literature which advocates for exemplars, standard layouts and best practice, all leading to forms of standardisation. The potentials for tokenistic student involvement and conflict with policy aims are evident. This paper explores two issues: how to foster in young people an ethic towards future generations, and the role of co-design practices in this process. Michael Oakeshott calls teaching the conversation of mankind. In this paper, I look at the philosophy of Hannah Arendt, Emmanuel Levinas, Maurice Merleau-Ponty and Luce Irigaray to argue that investigating the ethical dilemmas of the programme through critical dialogue with students offers an approach to meeting government objectives, building sustainable schools, and fostering sustainable citizenship.

RÉSUMÉ

Le présent article porte sur la manière dont la participation et la durabilité sont traitées par des architectes dans le cadre du programme « Construire des écoles pour l'avenir » au Royaume-Uni. Les intentions du programme sont ambitieuses, mais les moyens pour atteindre de telles ambitions demeurent peu étudiés. Mettre simplement l'accent sur des technologies d'apprentissage novatrices, ou instruire les jeunes au sujet des éléments de durabilité des bâtiments, ne leur donnera pas nécessairement les compétences dont ils auront besoin pour faire face aux défis environnementaux et sociaux d'un monde en changement ; or, favoriser de telles compétences est l'un des enjeux du programme. La participation des jeunes au design des écoles suppose une prise de pouvoir, l'appropriation des lieux et la promotion de la cohésion sociale ; pourtant, la littérature officielle en matière de design s'oriente plutôt vers diverses formes de standardisation. Les risques d'une participation manipulée ou de conflits avec les objectifs du programme sont évidents. Cet article explore deux problèmes : comment favoriser l'émergence auprès des jeunes d'une éthique envers les générations futures, et le rôle du co-design dans ce processus. Sur la base de la pensée de Hannah Arendt, Emmanuel Levinas, Maurice Merleau-Ponty et Luce Irigaray, l'article suggère qu'une réflexion avec les élèves sur les dilemmes éthiques du programme permettrait d'atteindre les objectifs du programme, de construire des écoles durables et d'encourager une citoyenneté viable.

INTRODUCTION

How do you explore a non-exploitative, non-appropriative relationship to the world with young people? How do you convince young people to behave responsibly towards a broader and future other, whose world we cannot know and where their action has no immediate or apparent effect? What role does the consultation of young people in designing their school environments have in encouraging sustainable behaviour and building sustainable citizenship when, at the same time as advocating for participation, governments are also suggesting the use of standard layouts, kit-of-parts design tools and exemplars? Policy literature talks about fostering care – for oneself, the environment and others – across cultures, distances and time. The Department for Families, Children and Schools (DFCS, formally the Department for Education and Skills) states: 'Schools that involve pupils in the design of playing areas experience reduced incidents of bad behaviour, including bullying and vandalism. Pupils begin to feel, "This is my school and I want to look after it"'.[1] But how do young people experience this? Even if we make radically different ethical choices, we need a material and social context – an architecture in the broadest sense – that will support such behaviour.

SUSTAINABLE SCHOOLS AND THE UK POLICY CONTEXT

The Sustainable Development Commission (SDC) in the government inquiry on sustainable schools suggests that the design of school buildings and grounds should support sustainable behaviours amongst pupils, parents and the local community. It argues that the Building Schools for the Future (BSF) programme represents an opportunity to make a radical impact on children's understanding and experience of sustainable development.[2] From the beginning, improving educational performance has been vital to the BSF programme; equally, sustainability and the regenerative potential for disadvantaged communities has had a high priority. Tony Blair, at the start of the programme, stated:

> Sustainable development will not just be a subject in the classroom: it will be in its bricks and mortar and the way the school uses and even generates its own power. Our students won't just be told about sustainable development, they will see and work within it: a living, learning place in which to explore what a sustainable lifestyle means.[3]

The more recent *Children's Plan: Building Brighter Futures*, published in December 2007, even states an ambition for all new school buildings to be zero carbon by 2016, and yet also argues:

> We know that with the technologies currently available, the zero carbon ambition cannot be achieved on many school sites. It is a challenge for all those involved in the design and construction of new buildings to develop new technologies to deliver increasingly low carbon buildings.[4]

The very fact that a 'taskforce' is deemed necessary to find out how to achieve zero carbon schools demonstrates that the relationship between education and sustainable development has not really been worked out. The SDC is, however, critical of the Government's existing strategies for assessing sustainability (Building Research Establishment Environmental Assessment Method for schools - BREEAM schools- , developed by the Building Research Establishment), and argues that the bigger picture has not been recognised and that a review is needed.[5] It states: 'If BREEAM is the limit of the aspiration, BSF and other capital programmes will fail to support schools sufficiently in meeting these goals'.[6] Sustainable development, according to the SDC, needs to be the overarching principle of BSF, not one of many agendas, and the Government's policy on how to effect behavioural change is not sufficient to meet its aspirations: A 'step change' in thinking is required.[7] Even the DCFS's

Sustainable Schools strategy with its eight doorways has met with criticism: William Scott, adding weight to the call for more holistic approaches to education and sustainable development, argues that more thought is needed towards educating for social and ecological justice and the relationship between the two. He writes that if schools are to take the challenges of sustainable development seriously, they will have to address working in profoundly different ways.[8]

DELIVERING THE BUILDING SCHOOLS FOR THE FUTURE PROGRAMME

Within the BSF programme, a potential conflict is developing between those keen to deliver on the practicalities of the Government's targets to build the sheer number of new schools required and those concerned that the programme fulfils its potential for future learning. The crucial question is, what do we want education to be in the 21st century? [9] Would it be such a bad thing if the programme of delivery slowed a little in order to explore these issues? Would it be such a bad thing to connect to the community a little more, to discuss more widely the state of affairs in education and what it means to be in an ethical relationship with the environment? The opportunity to really think about what it means for our future to be intimately bound to others, at a global level, will be lost in such approaches if they are adopted uncritically in the UK.

Nevertheless, architects are promoting more standardisation in order to make it easier to achieve the ambitious targets of the BSF programme.[10] However, standardisation for the purposes of speed ignores the complex architectural issues of how to design for the unique social and cultural environment of schools.[11] Habitual reliance on educational specifications, design guidelines, prototypes and exemplars in school design leaves little room for innovation or for community visions, as Prakash Nair, the schools' architect, writes:

> Educational specifications create a school before it is created — design guidelines are too prescriptive (so that architects are often relegated to the role of assembling pieces instead of doing real design). Exemplars look good on paper or may have worked in certain specific circumstances, but have little to do with the needs of particular communities; and most prototypes are about cookie-cutter schools that don't even pretend to be community specific. We firmly believe that schools need to grow from a shared vision.[12]

Each potential BSF-funded school redevelopment will have its own set of problems to address, in addition to BSF objectives.[13] The DCFS acknowledges this and has stated that each school will require a unique context-based solution to both the learning environment and to sustainable development. However, a culture of dependence on government initiatives in the teaching profession, together with excessive assessment to measure performance has, nevertheless, meant that even head teachers are somewhat anxiously reinforcing the problem by calling for more guidelines for themselves from government.[14] Dominic Cullinan writes of the BSF programme: 'Good design needs a good client and an architect willing to fail, or at least to experiment to within an inch of their lives'[15]. And yet, education researchers are asking for empirical evidence of the relationship between architecture and improved learning.[16] Evidence-based approaches to new school building policy only support values and beliefs compatible with dominant cultural paradigms defining how people and society function which, within current conditions, are driving consumerism. They do not address the call for new ways of thinking about education and sustainability.

AVOIDING HARM TO BROADER AND FUTURE OTHERS

The emphasis being given to behavioural change, whether in tackling anti-social behaviour or climate change is, in part, representative of government policy that has been moving towards a greater sense of partnership between state and citizen since the late 1990s. Programmes such as *Together We Can*, from the Department of Communities and Local Government (the Department responsible for community regeneration), which empower people to solve their own

individual and community problems, are even credited with improving well-being. The new White Paper, *Unlocking the Talent of Our Communities*, emphasises the Government's continuing commitment, yet a tension between personal and state responsibility lies at the heart of such initiatives. Acknowledging just how many factors, individual and environmental, conscious and unconscious, are involved in the decisions we make – and how little rationality can be involved – demonstrates how complex the aim is. Furthermore, the government's more simple models can overlook a whole range of cultural practices, social interactions, habits, impulses and human feelings that contribute to or limit behaviours. There are many difficult issues, including power dynamics of groups and problems of inclusion to address if such processes are to be taken seriously, but currently the complexities are being ignored.

Promoting the use of behavioural economics to address lifestyle change, Prendergrast *et al.* argue that the government needs to rely less heavily on the idea of the citizen as a rational economic actor. People, when faced with choice, they write, do not make purely economic or 'rational' decisions. They respond out of habit, do what their family, friends or peers do and are often aware that their actions are not in their own or others' best interests. People tend to put undue weight on some factors relative to others and, as Prendergrast *et al* argue: '…people heavily discount rewards that are available some time in the future, reaching instead for more immediate gratification'[17]. Thus, when faced with complex situations people tend to do nothing, and even when planning to do the right thing, they still manage to resist changing their behaviour. In short, despite government initiatives, patterns of consumption are not changing.

The 'Intervention Diamond', or the 4Es model, of behavioural change is one example of a model developed by the Government for use in the energy field.[18] It is cited in the context of sustainability and behavioural change, but it also underplays the importance of social and cultural environmental factors in influencing decisions and thereby empowering or limiting the empowerment of individuals.[19] The model posits four types of action necessary to catalyse change in behaviour. It suggests policy needs to: *enable*; *encourage*; *engage* and *exemplify*. Communities, it proposes, are *enabled* by initiatives and information; they can be *encouraged* by tax systems, reward schemes, penalties or enforcement. They can be *engaged* by community action, co-production, peer pressure, or media campaigns. They can be *enabled* by support, education or capacity building. Furthermore, they can *exemplify,* by leading the way in terms of behaviour. Miranda Lewis however, suggests three more, otherwise little considered categories, in a 7Es model. These are: *environment*, *evaluation* and *equity*. *Environment,* in addition to infrastructure or architecture, refers to developing social norms that do not undermine attempts to promote particular behaviours. *Equity* refers to the relative impact of policy on different social groups and classes (taxes, for example, will tend to affect the poor most heavily and an assessment of relative impact has to be included in policy makers' decisions). *Evaluation*, refers to the need to assess the impact of interventions and to determine success or failure of initiatives, albeit that how we measure this success or failure is a question in itself.[20]

People need infrastructure in place to be able to maintain changes in their decisions – whether physical or social norms. It is helpful, Lewis argues, if communities are partners in designating behavioural goals, but structures will also need to be set in place to prevent regression into old ways. Lewis also adds the importance of *equity* and *evaluation* to the model: new taxes, for example, need to be evaluated in terms of how they impact on differing social classes and groups.[21] However, Lewis also cites the work of Amartya Sen, as challenging these models of human behaviour and lifestyle change. Moreover, Simon Dietz, an economist and contributor to the Stern report, similarly suggests that Sen's work has a relevance to climate-change policy in that it has potential to provide an ethical framework for climate change policy evaluation.[22] He argues that markets can not provide all the answers for social justice, and this ethical dimension of climate change cannot be ignored. Dietz writes:

> It is not enough to simply presume that existing markets can provide a technocratic solution to ethical questions of intergenerational justice. Indeed, by its very nature climate change demands that a number of ethical perspectives be considered, of which standard welfare economics is just one. Other relevant and important approaches highlight rights, freedoms and the prevention of harm, as well as approaches based on virtues, as well as social contracts.[23]

Hence Sen's work, he argues, has substantial potential as an ethical framework for climate change policy evaluation.[24]

Rather than focusing on the agency of human beings in augmenting production possibilities, Sen argues that a capabilities approach would attempt to measure the freedom people have to lead the lives they value. The central tenet of Sen's approach is that one must look at each person not as a means to sustainable development but as its end. It would explore the substantive freedoms of people to behave in certain ways and to achieve the outcomes they value.[25] Sen writes:

> There is, in fact, a crucial valuational difference between the human-capital focus and the concentration on human capabilities - a difference that relates to some extent to the distinction between means and ends. The acknowledgment of the role of human qualities in promoting and sustaining growth – momentous as it is – tells us nothing about why economic growth is sought in the first place. If, instead, the focus is, ultimately, on the expansion of human freedom to live the kind of lives that people have reason to value, then the role of economic growth in expanding these opportunities has to be integrated into that more foundational understanding of the process of development as the expansion of human capability to lead more worthwhile and more free lives.[26]

EDUCATION AND SUSTAINABILITY

Thus, policy decisions are being based on an anachronistic understanding of how behaviour is influenced and what makes people change: on old-fashioned modes of thinking about how we understand human relations. Theories of behavioural change have to give more consideration to the models of human agency that they adopt. Michael Oakeshott argues against sociological and psychological reductions of education, against the tendency to measure ourselves in quantitative terms and in favour of creating the space for imaginative discovery of what is to be learned and what we understand ourselves to be. The discussion of this experience, he proposes, is a vital part of education and not to be neglected: as well as learning to be exploiters of the earth's resources and learning to satisfy desires, he argues, man has always sought self understanding through conversation.[27]

For Oakeshott a political crisis, such as the crisis of sustainable development, arises from within a tradition of behaviour, not outside of it. The education that belongs to it is not merely the coming to understand that behaviour, but learning how to participate in its conversation.[28] The early development worker and theorist, Paulo Freire, has also argued that education is essential to allow oppressed groups to participate more directly in the forces that affect their lives and ultimately change those forces. Influenced by Critical Theorists and the phenomenological tradition, (including a range of thinkers, such as Jean-Paul Sartre, Simone de Beauvoir, Erich Fromm, George Lucas, Louis Althusser and Herbert Marcuse) Freire writes that man's 'ontological vocation' (reason for being in the world) is to act upon and transform the world, and in so doing to move towards ever newer possibilities of a fuller and richer life, both individually and collectively.[29] He writes: 'People *are* because they are in a situation. And they *will be more*, the more they not only critically reflect upon their existence but critically act upon it'.[30] Those oppressed, he states, suffer due to a conflict between an internalised oppressor and the freedom of being wholly themselves.[31] And every individual, however poorly educated, is capable of dealing critically with their personal

and social realities (given the right tools) through dialogical encounter. For Freire, this mode of relationship is the foundation of social change and overcomes old paternalistic teacher–student type relationships. Nevertheless, Freire and the methods he developed have been criticised as over rationalistic and for under-theorising the nature of power relations in such processes. Moreover, the dialogical encounter, Freire argues, cannot take place between antagonists. Elizabeth Ellsworth in her paper 'Why doesn't this feel empowering?' writes that critical pedagogy (a theory and method that takes inspiration from the development work of Freire) can reinforce the very power structures that it attempts to overcome.

Such debates, she argues, cannot be free of concealment of interest nor assertion of interests which participants – in particular teachers – hold as non-negotiable. Moreover, she argues that it is inappropriate to subject contributions from marginalised groups to rationalist debates about their validity. She writes: 'Rational argument has operated in ways that set up as its opposite an irrational Other, which has been understood historically as the province of women and other exotic Others'[32].Thus, while empowerment is a key concept in Critical Pedagogy (and indeed in participation practices in architecture), for Ellsworth it treats the symptoms but leaves the disease unnamed and untouched.[33] Dialogue, she argues, is impossible because, at this moment in history, and in the culture at large, power relations between raced, classed and gendered students and teachers are unjust.

However, Freire's work gives emphasis to the situatedness of human experience. His approach suggests the possibility of a co-evolving relationship between education and society and his work reiterates that people and their communities cannot be treated as objects to be analysed, and on the basis of that analysis, cannot be presented with prescriptions for behaviour. Unsituated, unrelated, over-rationalistic and disembodied models of human experience and behaviour, in particular accounts of science that attempt to filter out individual experience, create ethical dilemmas. Nevertheless, participation processes that are aware of post-structural critiques of power, aware of the danger of reproducing the very inequalities they seek to challenge, could initiate conversations about the relation between the global and the local. [34]

A number of challenges are involved in meeting government ambitions for designing schools that encourage sustainable behaviour, only one of which is the nature of and role of community engagement, including student involvement, in the design and building process. Ensuring that all participants are included; their voice is heard; their contributions are listened to; their work has an impact on those designated with making decisions on their behalf, and that the event has an empowering effect on the community, are important dimensions of participation methods and processes. The ethical dilemma of encouraging sustainable behaviour requires a critical exploration with young people concerning their experience of being in the world and how to connect together actions now, with many and diverse events that are likely to affect future generations.

The phenomenological tradition of thought that influenced Freire is one approach that explores this experience. It has recently been adopted by environmentalists. For example, Maurice Merleau-Ponty, argues that as 'flesh' we are connected to the 'flesh of the world'. As flesh we participate in the world and as flesh there is no objective viewpoint over and above the world from which we can analyse or encourage others behaviour. As flesh, distant others cannot be mere abstractions. In a discussion of this relatedness, he writes:

> This circle which I do not form, which forms me, this coiling over of the visible upon the visible, can traverse, animate, other bodies as well as my own. And if I was [*sic*] able to understand how this wave arises within me, how the visible which is yonder is simultaneously my landscape, I can understand *a fortiori* that elsewhere it also closes over upon itself and that there are other landscapes besides my own.[35]

Taking up Merleau-Ponty's philosophy within environmental studies, Cataldi and Hamrick write that it is this ontology of flesh that has heightened awareness of what Merleau-Ponty has to say concerning our place in Nature. Moreover, they argue that his understanding of

flesh might enable a better understanding of global inequalities and environmental injustice.[36] Influenced by the work of Emmanual Levinas, Paul Standish similarly takes up this philosophical tradition in education, and proposes two kinds of thinking that are possible: thinking towards totality – corresponding to closed economies, mechanistic approaches, education as simply acquiring skills and information (which many young people see as unchangeable); or the 'banking' approach to education described by Freire – and thinking towards infinity, to what is beyond oneself – corresponding to the gift economy. In the former, knowledge of others is reduced to an object and a possession, to something to be used. The other is thereby reduced to the same, someone or something that can be known, the other is not allowed to co-exist as irreducibly other. However, he writes of the latter: '…in order not to do violence I must acknowledge this unknowability, a negativity at the heart of things. This is the ethical relation *par excellence*'.[37]

It is easy to see why some of the thinkers of the phenomenological tradition have been taken up by ecologists and those interested in the ethics of sustainable development. But neither Levinas nor Maurice Merleau-Ponty, nor the tradition itself, is immune from either criticism or comment on what remains outside their thought (as Ellsworth's work suggests). Some critics of this philosophical tradition have also associated aspects of phenomenology in the context of environmental studies with a sort of eco-fascism and an innate violence (see Zimmerman, 1993), of silencing difference and of being unable to produce an ethical relationship with the other.[38]

PARTICIPATION AND CO-DESIGN

So how do children experience their place in the world? How do they care about their environment and others? And what conflicts, often age related, are set up to challenge this experience? What are the barriers? And what are the differences of experience? How is this being understood by educators and architects?

The Government is promoting participation in decision making at a number of levels – including behavioural change, anticipating positive benefits for individuals and communities through a greater sense of empowerment, aims that are fraught with complex human issues as already suggested. There is a real danger that participatory architectural initiatives with young people make only tokenistic gestures towards empowerment and community regeneration. Children, in particular, have limited understanding of the potential, both in terms of curriculum and architecture, for new school buildings. They can be easily guided by architects and by the methods adopted in consultation events. Furthermore, authority, peer pressure and social norms can be significant influences, often ignored in practice. Architects' consultations with children are generally carried out with the higher performing children, and it would be unusual for architects to discuss design with special educational needs children, or indeed, with those excluded from mainstream schools. Censorship takes place amongst and between children in workshop settings as well as by facilitators, however well meaning. And yet, some architects are innovative and architectural co-design practices with children have gone beyond basic design exercises, to children designing and building their own schools. Participation and co-design practices can be seen to range from uncritical forms of consultation to those that seek to explore power relations. For example, Peter Blundell-Jones describes the work of the architect Peter Hübner, who involved children in the building of their own spaces (although their participation in the actual building processes was limited by their responsibility and physical ability).[39] Blundell-Jones describes how, in a competition entry to design a multicultural ecological school, Hübner presented his entry for the school design as a series of sketches of what the school might become, accompanied by a narrative text of what the school might be (there were no fixed plans). Blundell-Jones writes: '…the dominant impressions given by the text are first, architecture as a continuing process engaging the user; and second, narrative – preferably oral narrative – as a means of engaging the listening, the user, the co-builder, everyone in the process. Hübner's buildings always have biographies'.[40] Blundell-Jones also argues that all were involved in planning, modelling and construction. Hübner taught about how to

design and how to think about the space they inhabited and the room they needed. They were taught to compare between different living and working spaces of home and school. Moreover, they were involved in model making and learning how to provide light, ventilation and to avoid overheating through practical exercises.

This Ozcül school that Blundell-Jones describes was built in a deprived neighbourhood in an industrial German suburb where social problems were severe. Classrooms in the school were conceived as 'second homes'; children stayed for six years led by the same teacher-parents. Participation of children in the design and construction of their space was described as contributing to fostering the stable social environment in the classroom. Blundell-Jones writes of the positive vision of the architect: 'More than just an educational instrument, the school/village was conceived as a catalyst for the locality, giving people help as well as hope and inspiration'.[41]

Nevertheless, in such a radical departure from conventional architectural practices of the time there is no awareness stated by Blundell-Jones of power relations between the architect and children, or even any attention paid to the relation of these to the social, economic and political problems of the neighbourhood. Furthermore, there is no real criticism of the extent to which children could design and build this example, that is to say the limitations on their empowerment.

Bruce Jilk, a schools architect and educator, makes a request for children's involvement to overcome such issues; arguing that children cannot fully participate in the co-design of their schools unless power structures are addressed at the outset and they understand their views and opinions to be of equal value to those of the teachers. He suggests creating a 'Declaration of Learners' Rights and Responsibilities' as part of co-design processes with children. They include: the right for young people to evaluate their own learning according to their own sensibilities; the right to request and the responsibility to include the evaluations of mentors; to co-create decisions; to openly consider and respect the ideas of others; to enter a learning organisation which offers spiritual, intellectual, emotional, and physical support, and that operates in an open and inclusive manner; and the right to equal access to resources, information and funding.[42]

In a similar project to renovate a nineteenth-century school in a deprived area of Berlin, Susanne Hofmann describes the intention of a group of architectural students and their tutors to create a socially engaged, sensuous architecture which was experimental in content and method and which aimed to be a social catalyst for the community. With the help of a strong architectural concept, the group conceived the architectural refurbishment as helping to overcome linguistic and cultural barriers, integrating the school into the community and reviving the neighbourhood as a whole. In workshop projects, children brought to the architecture students and their tutor imaginary landscapes. Hofmann writes: '…in their thoughts they led us through an airy, golden, icy, soft, cushioned, fluffy, feathery, cuddly, tight, bright, dreary, wispy, stretchy, prickly world'.[43] Hofmann writes that the children: '…longed for an architecture which glows, resonates, alters and 'lives' somehow'.[44] And after some months, a story emerged that gave meaning to their design. Through consultations with the pupils the design idea developed:

> By the end of the summer semester, the students had developed the concept and architecture for the transformation of the school, which followed the fictional world of the 'silver dragon':
> *A silver dragon approaches the school in search of a sleeping place. He wanders through the hallways of the first, the second and finally the third floors. Everywhere the dragon has been, the hallways have changed. At the beginning you see a flicker and a glimmer, as if the twinkling scales of the dragon's skin have rubbed off, but more and more the school turns into an enchanted dragon den.*[45]

Even without significant analysis of participation methodologies or any training, the architecture students were, according to Hofmann, able to engage and work collaboratively with the school children, and

more importantly, take as valid their ideas to create an imaginative design that was sensuous – as was their desire – and was meaningful, with its own fiction embodied in the design. The 'silver dragon world', Hofmann argues, sparked the children's imagination and the enthusiasm generated for the project proved that architecture can act as a social catalyst. She writes: 'The pupils and their desires were taken seriously, and their decisions were respected. The school became their school, a place they could identify with. It became their place of identification and support in a socially difficult district.'[46]

For Hofmann it was the design concept and its story co-created with the pupils that improved the school. While she discusses the involvement of the wider community in the execution of the renovation – the involvement of a prisoner's wood and metal craft workshops to make furniture, women prisoners to sew veils, men from a mental health institution to make cupboards, handicapped women to sew the dragons tail, young painters, young metal apprentices, a musical instrument maker, and parents and teachers to hang pictures – it is the collaborative design concept that she interprets as having the transformative effect. So, was the architecture students' engagement with the children really free of conscious or unconscious interests? Were all the children's stories given equal weight? How many of the children's stories were not included? If empowerment is one of the aims of such practices, and it is empowerment that catalyses social transformation, was this project really that empowering for the students and community?

Doina Petrescu's community architecture project in Paris describes a practice which is critically embedded in this power dynamic and which she relates to the philosophy of Gilles Deleuze. Describing her collaboration with *atelier d'architecture autogérée* [studio of self-managed architecture], an association founded to regenerate the La Chapelle area to the North of Paris, Petrescu argues that the ecologically motivated revolutionary/protest activity of collective appropriation to utilise underused urban spaces through everyday activities – gardening cooking, chatting, reading and debating – is a search for a new freedom within the city for a new way of living.[47] She writes: 'The strategy valorises a flexible and reversible use of space and aims to preserve urban biodiversity by providing for a wide range of lifestyles and living practises to co-exist'.[48] Describing this participation as driven by desire expressing those 'lines of flight' (an expression from Deleuze), she writes:

> …participatory design is a 'collective bricolage' in which individuals (clients, users, designers) are able to interrogate the heterogeneity of a situation, to acknowledge their own position and then go beyond it, to open it up to new meanings, new possibilities, to 'collage their own collage onto other collages', in order to discover a common project. As in bricolage, in participation projects, the process is somehow more important than the result, the assemblage more important than the object, the deterritorialisation more important than the construction of territories.[49]

There has been considerable concern about the possibilities for marginalisation that occur within participatory processes which strive for consensus and thereby collective action. There is the potential for such processes, rather than to empower, to reproduce varieties of repressive and alienated relations that they attempt to overcome. Equally, within government programmes participation practices have been disassociated from the radical political theories that shape their aims. They have been associated with citizenship, thereby reducing the notion of 'empowerment' to the ability to act effectively with a community, without challenging the very social or political conditions disempowering peoples in the first place.

OUR SHARED FUTURE

One of the realisations of climate change is how intimately our future is bound to those of others, but this idea is not easy for young people to grasp. It is a pedagogical problem with a philosophical complexity. Bullen and Whitehead, in their paper *Negotiating the Networks of Space, Time and Substance: A Geographical Perspective*

on the Sustainable Citizen, write: '... the notion of sustainable citizenship requires both the stretching of the spatio-temporal matrix (to distant places and past/future generations) and the material focus of being (to non-humans and various socio-ecological hybrids) conventionally attributed to the modern citizen'.[50] Their paper, they state, is influenced by Hannah Arendt's philosophy, where active citizenship is key to being fully human. Arendt has, however, been criticised by feminists for identifying women with a world of reproduction which they must transcend to enter the realm of the public and exercise their freedom. Prokhovnik, for example, writes: 'It is *not* that women need to be liberated from the *private* realm, in order to take part in the public realm as equal citizens, but that women – and men – already undertake responsibilities of citizenship in both the public and the private realms'.[51] For Bullen and Whitehead, gender is thus seen as a separate issue to encouraging sustainable citizenship, something to be overcome. It is seen as a problem of equality, which is not an unusual position within an educational environment.

Within the phenomenological tradition to which Arendt belongs, ethics is inextricably linked to our relationship with the environment and others.[52] Arendt writes that as adults, in our relation to children, we have a responsibility both for their care and protection against potential harm, as well as the responsibility to protect the world from being overrun by the new. She writes:

> Education is the point at which we decide whether we love the world enough to assume responsibility for it and by the same token save it from that ruin which, except for renewal, except for the coming of the new and young, would be inevitable. And education too, is where we decide whether we love our children enough not to expel them from our world and leave them to their own devices, nor strike from their hands their chance of undertaking something new, something unforeseen by us, but to prepare them in advance for the task of renewing a common world.[53]

Environmental theorists have developed approaches that engage with the work of Arendt, Heidegger, Merleau-Ponty and Levinas; nevertheless, for French philosopher Luce Irigaray, whose work has a critical relationship with the phenomenological tradition, these philosophers demonstrate unethical and inauthentic relationships with nature and others. Luce Irigaray's philosophy engages with the concept of the other: woman, which she sees as resisting the phenomenological tradition to suggest learning, to listen and respond in a different way, to a more real and natural difference (re)discovered between the sexes. For Luce Irigaray the difference between woman and man is the most universal difference and the most ill thought out within the philosophical tradition. Furthermore, this neglected difference between the sexes is the source of tension between peoples and the source of our exploitative relation to the earth's resources. In an interview about architecture, she responds that new architectures must be about cultivating new identities:

> Generally to build is understood as building something with material(s) to which it is given form(s). These views on building are rather masculine. From the beginning of our Western culture, man has tried to differ from nature by mastering this, which provides raw material, with his technique and technology. Building, then, implies to cut oneself off from nature, including human nature, especially represented as mother but even as woman. Building is seldom understood as building oneself with respect for the nature that we are. This way of building, nevertheless, is in some way asked of woman, notably in engendering and loving. To engender and to assure motherhood require a culture of oneself as nature, and it is also true in order to awake and sustain sexual desire. This way of building herself as nature is not sufficient because it is in the greatest part imposed on the woman by another. To reach building herself, woman has to preserve and cultivate her nature also in an autonomous and decided manner. She has to discover how to pass from her mate-

> rial or bodily nature to a cultural or spiritual nature appropriate to her. That is to say that she has to discover how to live, to love, to speak, to think in accordance with her nature.[54]

She argues that women and men have to rediscover their relation to nature: the ethical dilemma faced in relation to our environment is how to protect, care and cultivate nature and others in their differences, which includes sexual, or rather sexuate, difference. For Luce Irigaray, this means a different sort of relation with the other sex. It suggests a different way of being in the world, a different sort of love of the natural world, a different sort of biophilia and a different sort of expression in architectural design: a different sort of biomimesis, both at the level of function and of aesthetics. It suggests the foundation of a different sort of society.

She describes as being-two, both an ethical relation to the other and an authentic subjectivity which is described as a task to which we are called as human beings. In the essay 'Animal Compassion', Luce Irigaray writes:

> To know in this way, the most intimate proximity and to work it out from a distance, in difference, in autonomous space and time but allowing a becoming of the encounter, seems the task to which we are called as human beings. For this unity of ourselves and at that crossroads where the other awaits us we are little prepared. It means learning to meet the other and to welcome them in their difference, to be reborn thus in a fidelity to ourselves and to this other. Towards this accomplishment we must force ourselves along the way with the aid of friendship of animals, of angels, and of gods who agree to accompany us in a course towards the accomplishment of our humanity.[55]

Moreover, in her most recent book *Sharing the World*, Luce Irigaray writes that: '…nearness to the other, or better with the other, appears in the possibility of elaborating a common world with him, or her, a world which will not destroy the world proper to each one. This common world is always in becoming.'[56]

Fostering in young people an ethic towards future generations requires a pedagogy that will prepare students for the complexity of the C21st, one that protects and cares for the world we have been born into. It requires a 'pedagogy of authentic care' – to cite Ronald Barnett – one that can give students a sense of themselves in and across time, and – to cite Luce Irigaray – one that can cultivate difference, including *sexuate* difference. Barnett, influenced by Martin Heidegger, argues that in this pedagogy the student's being comes first, before knowledge.[57] However, taking Luce Irigaray's thought into this context, it is the cultivation of the universal difference between sexuately different subjects that is the beginning of a transformative pedagogical approach.

One of the aims of co-design practices is discovering and developing a voice, but voice needs space for expression and an interlocutor, it requires an architecture not only of the physical, but of social norms that recognize its difference and will nurture this difference. Developing a voice requires courage and energy, as Barnett states, and it needs to be heard and appreciated to grow. But any approach to justice in sustainable development also demands that voices develop with the other in co-created common worlds with him or her. This is where the philosophy of Luce Irigaray has significant value for critical pedagogies and sustainable development.

CONCLUSION

For sustainable development to be realised, we need a wholly different understanding of ourselves in relation to the animal, natural and human worlds – a wholly different understanding of ethics. Scientific models of human behaviour create ethical dilemmas. Participation practices in the design of schools are being presented as both research tools and drivers for change, but the ethical and theoretical motives or backgrounds underpinning such methods or their appropriateness, whilst partly challenged, are not being fully explored.

The link between participation and sustainable behaviour through concepts such as ownership and belonging is complex: particularly so when considering the differing age groups, backgrounds and developmental stages of children. Similarly, questions of place and catalysing community, often also cited, are concepts that need careful analysis in the context of research with young people. The participation of children in shaping their environments cannot be simply about educating young people, and certainly not only concerned with teaching young people the design processes of the architect as a means of raising environmental awareness. We need to find ways to engage, to teach and to build with children the quality of relation needed to respond to the social and environmental challenges of climate change, and to a future world crisis the form of which we cannot predict.

If sustainable development is to be encouraged honestly and effectively, young people will have to enter into a discussion of community, relation, social cohesion and all the political and philosophical complexities this entails – which is certainly a challenge for the teaching profession. Young people still have to reconcile the importance of such ideas with consumerist norms. We need some very different ways of both teaching and designing in the 21st century if we are to address the social and environmental problems that climate change will bring: we may need to change the structures, institutions and processes that govern how we live our lives, and the inequalities we experience in our society. We need to expand our concern, enter into dialogues, at the same time as cultivating a sense of a universal responsibility.

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