

# Changing Lives Changing Spaces

## Environmental Education and Citizenship

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**T**he Environment<sup>1</sup>, by virtue of it being the context in which we live our daily lives (and experience advantage or disadvantage, bear externalities or enjoy amenity) is an essential dimension of citizenship. This environment can be used as a discourse through which people's rights and responsibilities are constituted as it is debated how resources and externalities should be distributed which, of course, engages the wider debate about rights and responsibilities both at an intra- and inter-generational level. Moreover, the exercise of these rights and responsibilities make their recursive mark on our environment. Participation in this debate, however, is partial, and raises the question of who is privileged and dominant in the debate. Twine (1994) for example, argues that the exclusion of many

This paper focuses on the responses required to create change in order to achieve a sustainable environment by considering the role of education, identified by both the United Nations and the European Union as critical to the sustainability project. There are many ways in which this can be delivered at the national and local level and experience in the United Kingdom and Hungary suggests that there is little coherence in its practice. Referring to research in these countries, I will argue that environmental education needs to be taught and learned within the broader context of citizenship issues if it is to enable people to make socially equitable decisions concerning the relationship between themselves and their environment.

people from active debate due to poverty and lack of resources, reinforces a world polarised by over-consumption on the one hand and poverty-driven resource exploitation on the other, where the burden of environmental degradation falls unevenly on the poor, children, ethnic minorities and women (see, for example, Mellor, 1992).

The paper first addresses the notion of citizenship within the context of environmental sustainability and then considers the capacity of environmental education to move society towards greater environmental sustainability. I will argue, based on work conducted in the UK and Hungary, that unless environmental education seriously engages with both our rights and responsibilities as world citizens, it is unlikely to do so. Further, I propose that the most effective environmental

education is active and applied so that students learn not only about a given environmental issue, but about the social context in which it is produced and its effects are felt.

### **The Meaning of Citizenship for Environmental Sustainability**

Traditionally, the concept of citizenship has been bound up with the creation of nation-states which emancipated 'subjects' through a code of universal rights, freedom of expression and political liberty. Geoff Andrews (1991) suggests that there is currently a rebirth of interest in citizenship which is taking place against the decline in importance of the nation state and that this will alter the international political landscape (p11). Indeed, the recasting of the European Community by the Maastricht Treaty (1992) entitles all nationals of member states to claim European citizenship which guarantees freedom to move within the Union and to enjoy economic and political rights anywhere therein. Nevertheless, it remains that the effective exercise of these rights is constrained by a citizen's means to claim and enjoy the rights and to accept responsibilities. Andrews cites Ruth Lister who believes that 'active citizens' are those "able to stand alone, independent before the market, their freedom guaranteed by economic rather than social rights" (p. 13). The exercise of rights and responsibilities also depends on information. In some cases a lack of information may prevent people from playing a full part in civic life, in others it may be that the information and knowledge that people have to offer is not recognised by

decision makers. Alan Irwin (1995 b) argues that for the concept of citizenship to work effectively in practice, 'local' and 'citizen's' knowledge must be respected. If it is neglected, it will "restrict the social learning between science, technology and public groups which (...) is essential to the process of sustainable development" (p. 7). He goes further to suggest that if citizens are unable to take control of their own lives, health and the environment then there will be no sustainability.

This debate concerning people's local knowledges and their right to participate in decision making which affects them is currently framed by United Nations (Agenda 21) and European Union (5th Environmental Framework) requirements to improve public participation in environmental decision making. However, it has echoes from similar debates in architecture and planning since the 1960s and 1970s in which community planners and architects called for the voices of the planned and built for to be incorporated in design and building construction. The notable developments out of this movement (such as, for example the Matrix practice in the UK) have, however, failed to significantly challenge these professions. Not least, as Bob Evans argues, because decisions concerning planning and architecture are heavily constrained by the market (1995, p. 142).

The local knowledges to which Irwin refers, of course, emerge from somewhere. We all develop our views through experience which includes education – formal and informal – and exposure to the media. Local knowledge will also be affected by our

ability to acquire meaningful information and whether this knowledge is acknowledged may well depend on how we express it. The well documented case of Lois Gibbs' protest against the contamination of Love Canal, USA in 1978 illustrates well how protest is marginalised unless it is formulated in a 'scientific' language (Merchant, 1992). However, the very process of rendering an argument 'scientific' removes it from the public domain. Ironically, the Public Understanding of Science movement in the UK is calling for more 'scientific' information to be decoded for lay consumption in an attempt to demystify science (BBC, 1996). This, of course, introduces a further intervention in how 'knowledge' is portrayed and is not at all the same as utilising 'citizen science'. Chemiewinkel Utrecht (1996), through their programme to develop a Science Shop in Brno, Czech Republic, believe that people in Central and East Europe are resistant to entering the decision making process and that their governments have not yet got used to providing citizens with the information they require following years of information control under a communist regime.

As 'agents' in the pursuit of 'sustainable development', we have roles other than citizens and it is instructive to consider how these roles are articulated in different contexts. In the European Union's 5th Environmental Action Programme (1992) each member of the public is ascribed four roles: individual, responsible citizen, direct polluter and consumer of goods and services. The summary section of the UK response to the UN Agenda 21 agreement Sustainable Development,

the UK Strategy (HMSO, 1994) confers two responsibilities on 'citizens' (para 101): to change their lifestyle and to use their power as a consumer and investor. As a right, citizens will be helped "by the programmes of central and local government and other organisations to publish information and invite discussion" (p. 17). To facilitate this, the UK Government has created a Citizens' Environment Initiative in which the Government will discuss proposals with "voluntary bodies, local authorities, the churches and others" (p. 18). The Hungarian deposition to the United Nations (Government of the Hungarian Republic, 1991), prior to the 1992 Conference, maintained that "under democracy (...) citizens enjoy the natural right to be politically well informed, to get involved in the realisation of tasks centrally envisaged as well as to have a say in the shaping of policy (...) there is a much bigger chance for social participation in environmental policy". Unsurprisingly there is little emphasis on people as consumers, in marked contrast with the British documentation. In the Hungarian response to Agenda 21, public participation and access to information are the most heavily stressed aspects of people's relationship to the sustainability programme.

Education is only very briefly referred to in both the Hungarian and UK responses to the United Nations Agenda 21 agreement. The next section will review institutional commitment to environmental education and will assess the capacity of environmental education to achieve sustainability. The concluding section will look at some innovative practice in the UK

and Hungary to see whether alternative ways of learning about environment issues have any potential to increase the chance of achieving sustainability.

### **Environmental Education**

Environmental education in the UK has had a chequered history in schools. Geography and Biology, which might be considered the best vehicles for delivering this, have never been compulsory at all levels and whilst environmental education is now a cross-curricular theme (distinct from the cross-curricular theme of citizenship), there is great disparity between schools in the way in which it is taught. In higher education, despite the best efforts of the Toyne Committee, which urged universities and colleges to include environmental education in all subjects, environmental issues are still addressed very specifically in selected disciplines (although increasingly courses in environmental management, environmental engineering and environmental accounting are bringing the environment into new areas). With the exception of a handful of Environmental Ethics courses, teaching is very instrumental in that it is designed to produce environmental professionals, rather than informed citizens reflective of the varied impacts of environmental (mis)use.

Nevertheless, the importance of environmental education has been stressed by transnational bodies. The United Nations, through Agenda 21 (1992) and the European Union, through its Fifth Environmental Action programme (CEC, 1992), have emphasised the need to educate young people about the environment,

placing their faith in younger generations to adopt more environmentally sensitive policies and behaviour. Moreover, both programmes refer to the importance of access to environmental information and to the democratic process in reaching decisions about environmental management. Based on these recommendations, environmental education needs to embrace not only knowledge about environmental systems, but strategies to access and interpret information, assessment of the social implications of environmental impact and use of resources and strategies for intervention in policy making to create change.

In the UK, schools are required to deliver a nationally agreed curriculum, under the terms of the 1988 Education Reform Act. Environmental education is primarily delivered through Science, Geography and Technology and pupils are asked to consider the concept of sustainable development and the conflicts of interest which this might involve. The delivery of environmental education is, however, highly problematic, as the nature of its delivery is constrained by government edict and teachers are ill-prepared to effectively teach it. For example, a critical analysis of 'sustainable development' must entail an equally critical look at the nature of our society; however state education systems are designed to perpetuate this society, not only through the subject matter delivered, but also through ways of learning through exams and competition, hierarchical organisational structures and preparation for the needs of (in the case of the UK and increasingly of

Hungary) an advanced industrial capital based society.

Schools in the UK are required to deliver environmental education in a 'balanced' way (HMSO, 1994, 32.18). According to the Government's report stating how it will achieve sustainability, "children should be aware of opportunities that science, technology and other subjects can bring for environmental improvement and not daunted by negative images" ... [they] should also be conscious of their responsibilities towards the environment and the contribution that they, as individuals, can make (HMSO, 1994, 32.13).

This approach, however, arguably constrains what Fien and Trainer value as 'free-thinking' (1993, p19). They suggest that it is a "fatal mistake to assume that environmental education in schools can make a major contribution to transition to sustainability" (p. 21) and that much more fundamental restructuring is required to achieve sustainability. Consequently, any focus on individual decisions (such as consumption or 'opting out') is insufficient. It is this stress on the individual and the consumer which pervades the UK documentation on sustainability and which, I argue, limits the capacity for change. Such change requires a full understanding of the (often conflicting) relations between self, community and society which 'citizenship' has to negotiate.

Clearly, the approach adopted by the UK Government is designed to ensure that environmental education takes place within the current economic paradigm. The structure of the National Curriculum reinforces this with subject segregation (in direct

contrast to the Tblisi call for environmental education to be inter-disciplinary and holistic, UNESCO, 1980) and increased emphasis on competition, career preparation, hierarchies and other structures which, arguably, contribute to environmental problems.

Inter-disciplinarity may be pursued by the cross curricular themes of environmental education, health education, citizenship, economic industrial understanding and careers education and guidance, but these are not mandatory, falling outside the statutory requirements of the 1988 Act. Their delivery, therefore, depends on both the skills and interests of teachers and on the priorities of individual schools as Saunders, Hewill and MacDonald have commented (1995). This leads to the second problem which is the capacity of teachers to deliver effective environmental education.

Research conducted by Cathie Burton in schools in West and South London (1995) suggests that teachers feel ill equipped to teach environmental education. Only 64% of teachers she interviewed admitted that they were able to incorporate aspects of the environment into their teaching. All the teachers interviewed felt that they were inadequately prepared to effectively achieve environmental education in the classroom, although one half had had some kind of training, albeit limited and patchy. The likely outcome of this is for environmental education to be taught as a series of facts and figures 'about' the environment with some use being made of environmental resources within the school (playgrounds or nature parks) as a vehicle for this learning.

This raises the importance of education outside the classroom to increase public understanding. Indeed, Fien and Trainer's reservations about the marginal value of environmental education in schools is underlined by Burton's findings that school children are more likely to derive their environmental education from TV news (83%) than from school (68%). The questionable value of media derived environmental information raises a serious issue with regard to the framework in which an understanding of the environment is acquired.

Environmental Education has a particular resonance at present for Hungary as its provision will be a condition for the European Union membership it seeks, along with other Central and Eastern European countries (CEECs). Since 1991, an Association Agreement has existed between the EU and CEECs which provides a long term framework within which relations between the two groups can develop. Consequently, the Hungarian government has prioritised the implementation of an environmental programme. This prioritisation, it must be said, is not evident from either the preparatory document which Hungary submitted to the United Nations Commission on Environment and Development (Government of the Hungarian Republic, 1991), nor in its response to UNCED which sets out how the government intends to achieve 'sustainable development' (Hungarian Commission on Sustainable Development, 1994, 1995). The Ministry of Environment and Regional Planning (1993) has, however, specified that environmental education program-

mes should be integrated at all levels and in all programme areas. It does, however, suggest (although translation might have altered the exact meaning) that students 'receive' a package of environmental information as "awareness and knowledge are built at the same time as attitudes and grasp of the subject material are imparted" (p. 16).

### **Learning about the environment in the community**

Courses in which the environment is a strong component have a strong tradition of studying 'real world' situations, through field work. The value of this is argued to be the development of skills and techniques which cannot adequately be learned in the classroom and seeing environmental features first hand. It has been convincingly argued (see Gibbs, 1992) that learning in a live context encourages a deeper understanding of concepts and issues being studied and further benefits are the development of teamwork, group cohesion and interpersonal skills. Whilst recognising these benefits, working in a field work situation perpetuates the division between students and the studied and reinforces the notion of the 'objective scientist', relegating the people and communities observed to subjects (Rose, 1993). This section cameos two programmes (CSV Education's Service Learning Programme in the UK and the Korlanc programme in Hungary) which seek to develop learning about the environment through partnerships between students at all levels and other groups in the community. The examples offer a powerful argument in favour of learning

about 'the environment' in a live and applied context. This enables students to learn about the social context in which environmental issues are produced and need to be addressed.

#### *The United Kingdom*

The Community Enterprise in Higher Education project (Buckingham-Hatfield, 1993, 1995) advocates the benefits of college and university students applying the academic knowledge they acquire to real needs in local communities – particularly needs which would not otherwise be addressed because of a lack of resources. Through this programme, students at any level, from foundation to post graduate, and in any subject area, work with not-for profit groups on projects which have a tangible outcome or benefit to that community. Whilst the benefit of transferable skills is not denied, the real strength of the project emerges through developing a relationship with partners in the community. Through the drawing up of an initial 'learning contract', however informal, mutual rights, responsibilities and expectations are articulated.

For example, in a second year university course on Environmental Issues run by the author, students learn about the impact and production of environmental issues through group research in the community. Self-selected groups of four to six students define an environmental issue in which they have an interest which they subsequently research first through secondary sources and subsequently through primary data collection. Their learning is assessed through an essay, a group presentation (to which their partners in the community are invited) and a technical report.

One group of students were interested in the impact of aircraft noise on school children and worked with three local schools in the vicinity of Heathrow Airport, London (where the university is also located). The students spent a number of sessions with pupils and teachers to observe concentration during aircraft overflying, constructing and playing quiz games and interviewing individual teachers and small groups of pupils to tease out the impacts noise may have on learning, behaviour and health.

The students not only learned about noise pollution (which could have been delivered in a lecture) but have been able to relate this to a wider social context. They have developed pedagogical techniques whilst the teachers they worked with gained help and stimulation in the classroom from students learning about the latest environmental developments. Moreover, the local education authority and a major environmental group have been given research on the effects of noise pollution which has helped them tackle the problem in the local area. An evaluation of the project has demonstrated that the students learned far more than they would have done from a conventionally taught programme.

Further justification for learning about environmental (and other) issues in such a context is a need to redistribute resources. In higher education, students are still at the top of an intellectual hierarchy and however financially constrained they are, they can draw on material and intellectual resources beyond the reach of those lower in the hierarchy. Thus, there is a

responsibility to share knowledge and make it accessible to people with more limited access to information. In a society where information is power, this is an important transfer of resources, whether it be Biology students testing a water course for pollutants which may be a local health hazard or Computer Studies students helping local people gain access to information through computer networks. Alan Irwin (1995 a) argues the case for an exchange of information between universities, who have information and expertise, and members of the public who have neither these, nor the means to pay for them. He cites the Science Shop programmes in The Netherlands and, more recently, Northern Ireland and Liverpool in the UK, to support the academic, transferable and civic skills developed. In the environmental arena, this transfer can be especially potent as battles are waged against industrial polluters, power stations and road builders. Indeed, the Amsterdam Science Shop has noted that the most popular requests for help are in the environment field (Irwin, 1995 a).

Universities themselves are bastions of relative privilege, sometimes in areas of great disadvantage and there is a responsibility, articulated by the Committee of Vice Chancellors and Principals (of British universities and colleges), if not always evidently practised by its members, to redress the imbalance. John Mohan (1993, 1995) writing about university-community links in the USA, notes that many universities commanding substantial budgets exceeding \$1 billion are located close to some of the poorest areas in the country, characterised by high

levels of drug abuse and violent crime. He has been impressed by attempts many of the universities were making to rethink their relationship with their immediate communities and, whilst Mohan suggests that the motivations for this rethink are mixed, one of the reasons he observed was to provide an education for citizenship and participation in political life. Mohan's own experience of higher education in the UK finds this motivation largely absent.

In primary and secondary education, CSV Education has collaborated with CSV Environment to work with schools in inner city, multicultural areas. (CSV, 1995) For example, developing the learning 'in' the environment approach, a primary school 'adopted' a derelict site close to the school and developed a partnership with local people and groups in the community to design and construct a landscape with and for local people suffering high levels of housing disadvantage and a lack of green space. Learning about the environment therefore went hand in hand with understanding disadvantage and its relationship with negative environmental externalities.

#### *The Hungarian Dimension*

Whilst the UK has a tradition of public participation, protest and democratic representation (however imperfect), countries emerging from the Eastern bloc have little culture of grass roots public involvement and protest. Although environmental groups were at the forefront of the transition from a centrally planned economy, they tended to be elite political movements rather than grass roots, spontaneous

activity. Democratic reformers in Hungary are keen to develop strong participatory processes at a local level to involve people and communities in decision making. At the same time, there is an emphasis, at Government level, on implementing environmental education, not least to facilitate Hungary's entry to the European Union as referred to above (Hungarian Ministry of the Environment and Regional Policy, 1993).

The University of Utrecht, The Netherlands has been instrumental in promoting resources transfers in CEECs through its Chemiewinkel (Science Shop) Utrecht programme (1996). They believe that this is a key way in which local communities may be equipped to deal with environmental problems.

Environmental problems facing Central European countries originate both from the subjugation of the environment to the needs of a centrally planned economy (such as pollution of the Danube or air pollution from unregulated heavy industry) and from the perceived need to pursue a Western, high consumption development model which will result in high car ownership and over consumption of non-essential and/or highly packaged goods. Decision making processes need to be opened up significantly if Hungarian people are to confidently articulate their needs. As yet there is a feeling amongst environmental groups, particularly, that people are wary of expressing opposition to developments such as nuclear power stations or hazardous waste disposal (Personal communications, 1995).

The Korlanc Project is based on the philosophy that co-operation is required between local communities and education, "paving the way towards the democratisation of local communities" through learning about environmental problems. Korlanc is supported by the Vermont Institute for Sustainable Communities which emphasises the critical nexus between vital, participatory communities and a sustainable environment (ISC Report, 1994), the US Peace Corps and the US Environmental Protection Agency. Under this programme, primary schools and kindergartens are encouraged to work with trainee teachers from local colleges on projects which develop local participation in environmental education. Other organisations such as museums and zoos are also involved in these partnerships.

The ISC also fund a programme run by the Independent Ecological Centre in Budapest to assist communities develop and realize environmental action plans (IEC, 1994). The IEC's aims include the strengthening of non-governmental institutions in promoting innovative strategies for protecting the environment in a democratic society and to improve environmental education. At present, these projects are very small and, whilst Western finance is available for pilot projects, there is little money to implement the successful pilots at a larger scale. There is also a feeling on the part of environmental groups that environmental issues are considered to be very secondary to – and separate from – economic issues by the government; for example, there has been considerable delay in getting an Environment Act onto the statute book. Whilst

Hungary has recently (1995) approved a national curriculum in which environmental education is a requirement, it is too early to establish how effectively and in what manner this requirement is being fulfilled. Hungarian environmentalists are, in this context, concerned that this apparent absence of commitment by the government compounded by a lack of tradition of public protest may result in Hungary being used as a 'dumping ground' for Europe's nuisance activities.

### **Can environmental education change lives and space – or can it only shape us?**

On a national basis, environmental education which incorporates the concept of citizenship is central to a redistribution of environmental information, goods and externalities. The environment can also act as a medium through which the concept of rights and responsibilities is articulated and enacted. This is not, however, confined to national boundaries. In a Europe in which nationals of a European Union member state are 'citizens of Europe' (Maastricht Treaty, 1992) these issues take on a transnational dimension.

My experience in the UK and Hungary and initial research into school education in both countries leads me to the conclusion that environmental education cannot be effectively delivered unless it is learned through the concepts of citizenship and social justice. Without this wider social context, environmental education will result in greater technical knowledge about the environment but with little understanding about the social

processes required to ensure that environmental goods and externalities are evenly distributed within the context of environmental sustainability.

It remains now to be seen whether there is a national, or even transnational, will to create the context in which this can be achieved. Such an achievement will inevitably challenge the prevailing social and economic climate at a time when the economic imperative is particularly dominant both at a national level and within a Europe in which the Maastricht Treaty and the Single Market have clearly prioritised economic over environmental and social issues (Lipietz, 1995).

### **Note**

1. For the purposes of this paper, I shall use the term 'environment' to signify that part of nature which is moderated by social actions, stressing the dialectic nature of the relationship in which society and nature continually influence each other.



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