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A Teacher's Guide

INCORPORATING EDUCATION FOR SUSTAINABLE DEVELOPMENT INTO WORLD HERITAGE EDUCATION

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**INCORPORATING EDUCATION FOR
SUSTAINABLE DEVELOPMENT
INTO WORLD HERITAGE EDUCATION**



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Preface

With the support of the Japanese Funds-in-Trust (JFIT), the Asia-Pacific Programme of Educational Innovation for Development (APEID), UNESCO Bangkok, has implemented several projects to assist Member States in re-orienting their education sector towards Education for Sustainable Development (ESD).

An effective approach to achieve this objective is to mainstream ESD in teacher education institutions, enhance the capacity of teachers, and develop appropriate pedagogy and curriculum content.

Recognizing that ESD shares many similar values, concepts and principles with other global initiatives, APEID has designed a project for teacher education and training to link ESD to World Heritage Education (WHE). The project has capitalized on the lessons learned from the mobile training team (MTT) modality and from the extensive network of the UNESCO Associated Schools Project Network (ASPnet).

One output from this project, as well as from a series of related workshops, is a set of modules and materials prepared by experts in their respective fields in ESD. These modules are published in this volume *A Teacher's Guide: Incorporating Education for Sustainable Development into World Heritage Education* as a practical reference for teachers: to explore the issues and problems related to world heritage and sustainable development; to help engage their students in critical thinking and problem-solving; and to formulate interesting and meaningful lessons and activities that will bring the world into the classrooms and bring classrooms to communities.

Using the World Heritage Education Resource Kit as a key reference, the modules successfully incorporate ESD concepts into World Heritage Education and vice versa. We hope that the teacher education institutions in the Asia-Pacific region will find these materials useful and valuable, and will adopt and adapt them to suit their respective situations.

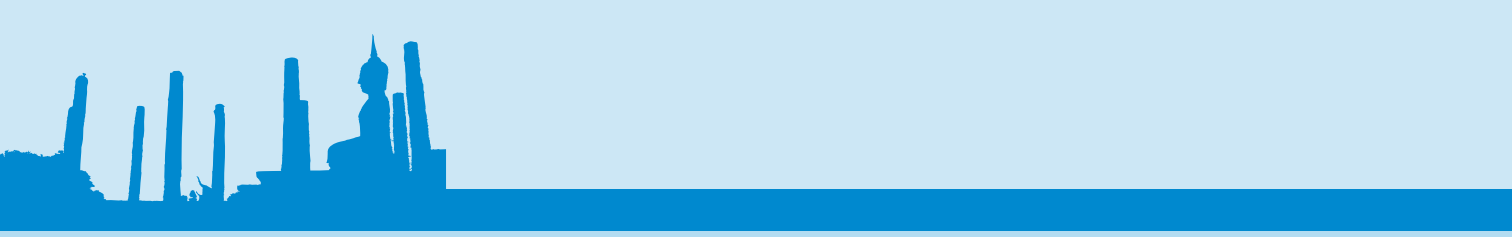


Gwang-Jo Kim
Director
UNESCO Bangkok



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Acronyms

APEID	Asia-Pacific Programme of Educational Innovation for Development
ASPnet	Associated Schools Project Network
BISSE	British Institute of Sathya Sai Education
DESD	Decade of Education for Sustainable Development
ESD	Education for Sustainable Development
JFIT	Japanese Funds-in-Trust
MTT	Mobile Training Team
SD	Sustainable Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHE	World Heritage Education

Introduction

Creating and maintaining a sustainable society is a major concern of the global community in a world confronted with unstable economic conditions, negative effects of climate change, depletion of natural resources, and conflicting cultural and social values. Many proponents believe that education can be an effective tool to raise awareness about the issues, inculcate appropriate and desirable values and understanding, and provide the necessary knowledge and skills to individuals and communities which allow them to participate in the creation and maintenance of a sustainable future.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) and the international community has taken on this challenge to foster – through education – the values, behaviours and lifestyles required for a sustainable future by declaring 2005-2014 as the UN Decade of Education for Sustainable Development. The concept of Education for Sustainable Development (ESD) encompasses a broad approach to infuse these values, behaviours and lifestyles in the young and old, in students and teachers, and in children and parents.

With the support of the Japanese Funds-in-Trust (JFIT), the Asia-Pacific Programme of Educational Innovation for Development (APEID) has implemented a Mobile Training Team (MTT) project to assist Member States in re-orienting their education sector towards ESD. The “Mobile Training Team Project in Teacher Education and Training on World Heritage Education for Sustainable Development through ASPnet, East Asia” has identified teachers as the target group of the project, with World Heritage Education (WHE) and ESD as the content matter, and the UNESCO Associated Schools Project Network (ASPnet) as the entry point for the project.

The project specifically focused on mainstreaming ESD into teacher education institutions and ASPnet schools by introducing teacher trainers and ASPnet school teachers to the curriculum innovation of the World Heritage Education project. As a result, the teacher trainers were expected to increase and internalize their understanding of sustainable development principles on the one hand, and gain pedagogical skills to help them transfer their knowledge to students, on the other. A more tangible output of the project was a teacher’s guide, *World Heritage in Young Hands*, for the World Heritage Education Resource Kit, which covered the integration of ESD in classroom teaching and learning, as well as in extra-curricular activities.

To achieve these objectives, a MTT Sub-Regional Training Workshop was organized by UNESCO Bangkok, UNESCO Beijing and the Korean National Commission for UNESCO on 30 October –2 November 2006 in Seoul, Republic of Korea, in conjunction with the 4th ASP Teachers Workshop on World Heritage Education for Education for Sustainable Development in the East Asia region. Participants from China, Japan, Republic of Korea and Mongolia agreed to translate *World Heritage in Young Hands* into their local language and to organize in-country workshops to extend the knowledge and lessons learned.

This publication, *A Teacher's Guide: Incorporating Education for Sustainable Development into World Heritage Education*, represents the collective efforts of workshop participants to produce a practical tool for teachers to modify available curricula and incorporate ESD concepts and principles into WHE. It has taken a long time for the guide to be available in print. Nonetheless, the content of the guide remains practical and relevant in incorporating Education for Sustainable Development into World Heritage Education.

CHAPTER

1

Incorporating Education for Sustainable Development into World Heritage Education: Perspective, Principles and Values

Chan Lean Heng

Associate Professor, School of Social Sciences, University Science of Malaysia, Penang, Malaysia

World Heritage Education is perhaps the first global initiative that focuses on both cultural and natural diversity and its conservation. Through a multi-disciplinary approach, the WHE project seeks to encourage and enable the present generation of young people – future leaders and decision-makers – to participate in heritage education and conservation activities locally and globally, and to mobilize them to respond to the continuing threats facing the survival of the world’s cultural and natural heritage. It is hoped that “through education, young people can find new ways to build commitment and strengthen action in favour of preserving our cultural and natural heritage, our tangible and intangible heritage, and our local and world heritage. Their efforts will benefit not only the present generation but also the generations of the future” (2002, p. 4).¹ The key concerns are conservation and protection of heritage, but clearly implied is the question of sustainability as expressed in the goal of benefit extending to future generations. Underpinning an effective WHE are also values of respect, care, responsibility, co-operation, solidarity and culture of peace, as delineated in the various modules of the resource kit.

Like WHE, Education for Sustainable Development (ESD) is another UNESCO-led initiative. ESD has a broad and long-term goal and vision of enabling people of all walks of life to develop the knowledge, skills and behaviour (attitudes and values) required for achieving sustainability of the earth and its people, for now and the future, among and between species. The very concept of ESD challenges the way people think about the world, the way they live in it and relate with each other. ESD is “fundamentally about values, with respect at the centre: respect for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit” (UNESCO, 2005, p. 5).²

1 2002. *World Heritage in Young Hands: An Educational Resource Kit for Teachers*. p. 4.

2 UNESCO. 2005. *United Nations Decade of Education for Sustainable Development 2005-2014*. Draft International Implementation Scheme.

Indeed there is much similarity and overlapping of areas of concern between WHE and ESD, especially in their objectives and learning outcomes as well as the focus on education as the main strategy of implementation. However, the purpose of this chapter is not to delve into the similarities (or differences) of WHE and ESD, nor does it deliberate on the scope and meaning of ESD or WHE. The objective is to examine how to take on board the concerns of ESD in WHE activities so that the conduct of WHE also reinforces and strengthens the goals of the UN Decade of Education for Sustainable Development (2005 to 2014).

I have identified two complimentary approaches to guide the incorporation of ESD in WHE. The first poses a series of questions for problem-solving reflections that enable the students to consciously take stock of their own ideas, values, assumptions and practices and the perspective of sustainability in the course of the WHE activities following these guidelines:

- Enable students to link issues of heritage and sustainability to their own lives/actions;
- Discuss heritage as a legacy inherited from the past, valued in the present and safeguarded for the future (sustainability);
- Create learning spaces/opportunities within WHE activities to explore/deepen understanding of sustainability, values and principles of ESD, focus on making them more explicit as a learning outcome since many of the values and principles are already part of WHE; and
- Facilitate students to uncover and reflect on their assumptions, values and beliefs/worldviews through WHE activities and discuss how sustainable these are.

The second approach uses experiential learning through hands-on participatory activities to deepen the understanding and applications of sustainability, the principles and values pertaining to ESD as part of WHE activities, or as separate or additional but complementing components to WHE through extra-curricular activities, community or weekend programmes. This will provide a good opportunity for ASPnet schools to organize joint out-of-school weekend programmes to activate and enhance the identity of the ASP network.

ESD – Key Characteristics and Principles

Education has been identified as a major strategy to help people understand that our individual behaviour and actions impact many other people in the world; and through teaching and learning we can all work towards a sustainable future. ESD therefore motivates, equips and involves individuals and groups in reflecting on how we currently live and work, in making informed decisions and creating ways to work towards a more sustainable world. It is different from education about sustainable development which is a more information-driven concept. ESD enables people develop the knowledge, values and skills to participate in decisions about the way we do things, individually and collectively, locally and globally, that will improve the quality of life now without damaging the planet for the future.³

3 National Curriculum for England: www.nc.uk.net/esd.

ESD requires reflection on what to teach and how to teach in order to clarify and extend the ability of students to think for themselves and to encourage students to reflect and debate issues to enable them to form their own responsible opinions and appropriate actions. It seeks to empower people to assume responsibility for creating a sustainable future. Hence appropriate pedagogical tools are pertinent. In fact, an education paradigm which aims at transformative learning and enhancement of empowerment is needed.

The aim is to help students discover their potentials and a responsible use of their capabilities, rather than solely concentrate on the acquisition of skills to be competitive in the job market. ESD encourages young people to take action on what they have learned, rather than simply absorbing information for regurgitation in examinations. Likewise, the approach in WHE will have to stimulate and guide learning and participation that is directed at developing a sustainable society. WHE activities will have to ensure students not only acquire the knowledge and understanding of the significance of the sites in the context of their sustainability, but also acquire the skills and values needed to do something about them and address the sustainability issues in tandem with the associated values in their own personal lives. Sustainable development is about personal, institutional and structural changes, and ESD is about learning for change and daring to create alternatives.

ESD involves approaches to teaching and learning that integrate goals for conservation, social justice, appropriate development and democracy into a vision and mission of personal and social change for sustainability. It seeks to develop the kinds of civic virtues and skills that can ensure citizens' responsible action for the common good. Effectively it means encompassing teaching and learning processes that emphasize moral virtues, ethical discernment, learning how to learn, reflection, creativity, civic mindedness, and the motivation and abilities to work with others to help build a sustainable future for human and non-human nature.⁴

The overall educational approach would be participatory, interactive, integrative, reflective and analytical, as well as value-driven and knowledge-based. Education must include training in development of skills like communication, decision-making, problem-solving, creativity, conflict resolution/transformation, envisioning the future, and change management. All these elements are similarly articulated in the educational approach of WHE. Infusing ESD in the WHE framework will mean that through WHE activities, students will be:

- Motivated to make changes in their lifestyle and consumption patterns;
- Encouraged to think of and try alternatives with a positive mindset of creating possibilities and alternatives;
- Enabled to develop exploratory, inquiry learning, finding their own information and analysis, and not just depend on facts given by teachers of the heritage sites;

4 Fein, J. 2001. *Education for Sustainability. Reorienting Australian Schools for a Sustainable Future*. Tela Series. Fitzroy, Victoria: Australian Conservation Foundation. www.acfon-line.org.au (accessed September 2006).

- Given opportunities to participate actively;
- Enabled to take part in decision-making;
- Encouraged to inculcate and practice principles leading to a fairer society in their interpersonal relationships, homes and in school;
- Encouraged to learn and feel socially responsible for others and what is happening around them; and
- Facilitated to understand the interconnections between issues and the various aspects of life (theirs and others).

Teachers can also use this list as indicators and guidelines for WHE educational processes.

To undertake the above, it is useful to distill some of the key concepts underlying ESD. Sometimes they are also referred to as the principles of sustainable development. Thus, in all ESD/WHE activities it will be important to bring out and emphasize these key concepts/principles as they relate and apply to the specificities of what is being addressed in that particular WHE activity. It is therefore essential that teachers fully understand these principles/concepts so as to know when and how to apply and integrate them into the WHE content.

Various groups and institutions have named these differently. I am using the UK Qualifications and Curriculum Authority Model, which also delineates what each of these principles mean in terms of teaching the respective grade (www.nc.uk.net/esd).

- **Interdependence:** understanding the connection and the links between all aspects of our lives and those of other people and places at a local and global level, and that decisions taken in one place will affect what happens elsewhere.
 - For lower grades:** understanding that what people do affects themselves, the places/ environment they are part of (e.g. in school, at home), other people, and plants and animals.
 - For higher grades:** being aware of the global context within which trade, industry and consumption patterns operate.
- **Uncertainty and precaution:** realizing that we are learning all the time and our actions may have unforeseen consequences; we should adopt a cautious approach to the welfare of the planet.
 - For lower grades:** being able to listen carefully to arguments and weigh the evidence carefully.
 - For higher grades:** understanding the value and use of the precautionary (and restraint) principle in personal, social, economic, scientific and technological decision-making in light of uncertainty.
- **Citizenship and stewardship (rights and responsibilities):** recognizing that we have rights and responsibilities to participate in decision-making and that everyone should have a say in what happens in the future.

For lower grades: being able to work with other members of the school community and feeling responsible for making it more sustainable.

For higher grades: understanding how values and beliefs influence behaviour and lifestyles, and how some behaviour and lifestyles are more sustainable than others.

- **Sustainable change (carrying capacity, solidarity):** understanding that there is a limit to the way in which the world, particularly the richer countries, can develop and that the consequences of unmanaged and unsustainable growth are increased poverty and hardship, and the degradation of the environment, to the disadvantage of us all.

For lower grades: understanding how their school and home may be managed more sustainably.

For higher grades: questioning decisions, practices and processes that affect sustainable development issues and investigating alternatives.

- **Quality of life (sustainable human development, peace, equity, justice):** recognizing that for any development to be sustainable, it must benefit people in an equitable way; it is about improving everybody's lives, especially poor and marginalized sectors.

For lower grades: understanding the basic difference between needs and wants.

For higher grades: understanding the difference between quality of life and standard of living.

- **Needs and rights of future generations:** learning how we can lead lives that consider the rights and needs of others, and that what we do now has implications for what life will be like in the future.

For lower grades: beginning to be able to distinguish between actions and products that are wasteful or more sustainable.

For higher grades: being able to assess the sustainability of their own lifestyle.

- **Diversity:** understanding the importance and value of diversity in our lives – culturally, socially, economically and biologically – and that all our lives are impoverished without it.

For lower grades: understanding what is meant by biodiversity in local and global contexts, and the importance of maintaining biodiversity at local and global levels.

For higher grades: appreciating the nature of the changes that have affected economic, cultural and biological diversity in their locality over past generations.

These principles should be applied in the conduct of WHE activities and discussed through concrete examples in relation to the students' practical experiences and everyday lives, and practical experiences are not taught as abstract concepts in themselves. Some of these elements are already implicit and are outlined in the respective modules in the resource kit.

In fact, the objectives of all modules in the educational resource kit have a section on attitudes, which explicitly address the component of values. All efforts to meet the resource kit's objectives will eventually lead to the integration of ESD perspectives, principles and values into WHE.

For further online references on teaching and learning pertaining to ESD, refer to:

- www.nc.uk.net/esd/teaching/index.htm
- www.unesco.org/education/tlsf/TLSF/theme_d/uncofrm_d.htm
- www.esd-wales.org.uk/english/Teacher_Education/teaching_learning/default.htm

Perspective of Sustainability (Sustainable Development and Heritage)

WHE can offer learning spaces for understanding sustainability and its various applications. The concerns of heritage can be extended from preservation to protection to embrace the goal of sustainability. This is in line with the idea that WHE is dynamic and contextual. When WHE first started, the focus was primarily on conservation: it has now extended to include protection. With the launch of the DESD, it is indeed appropriate to renew the synergies in WHE to embrace a sustainability perspective. An explicit infusion of the sustainability perspective and goal will enhance the direct relevance of WHE and activities to the concerns of students and teachers to bring WHE closer to home and to students' personal lives.

Sustainability can be discussed in the context of the site's sustainability or the use of the site as a means to generate discussion of sustainability pertaining to the fauna and people who inhabit or who have lived in and around the site, including those who are currently working inside the site. Discussion of sustainability can be and should be extended to the students' lives (in terms of personal lifestyle, daily practices and social relationships) as they examine various aspects of the site – not only the physical, but also the social and political dimensions embedded in the site.

See Appendices A and B for examples of how a site visit can be used to learn about sustainability. Some useful points to know about sustainability:

- To sustain is to hold up, bear to, to support, to provide for, to maintain, to sanction, to keep going, to keep up, to prolong, to support the life of ...⁵
- Meaning of sustainable – something that is viable and can be continued in the long term in ways that do not harm others but benefit them equally. The others can be living and non-living things, tangible and intangible items. This can apply to anything from decisions about the school compound to personal concerns and issues relating to the national economy and global environment.⁶
- Implies maintaining a balance both in present society and over time; and the transmission of a sustainable heritage from generation to generation – expresses an ethical position of justice and solidarity within and between generations.

5 Chambers Concise Dictionary.

6 UK Qualifications and Curriculum Authority: www.nc.uk.net/esd/prof_dev/activity_01.htm.

- For sustainability, appropriate values must be incorporated at all levels of society.
- Sustainability applies to all aspects of our lives – food, shelter, health care, clothing, transportation, celebrations, work.
- Relationship between needs, wants and limitations.
- Sustainability concerns not only what we do and the lives we create for ourselves but also the ways we view success and the ways we relate with others.
- Where people live to satisfy their needs in ecologically sound and socially just ways so as not to compromise the ability of other human beings from doing the same now and in the future.
- Global ethic of sustainability – commonly held belief and practice that helps people to cooperate with one another and nature, for the survival, continuation and improvement of well-being of all individuals, the biosphere and the cosmos.

To address sustainability, the meaning, relevance and ethic of sustainability must be thoroughly understood in the application to all areas of our lives at the various levels. Thus it is worth spending some time to include an experiential hands-on activity to enable students unpack the meaning of sustainability and see its direct relevance and application in WHE activities, as well as in their personal lives. See Appendices C and D for examples of hands-on practical activities. Some useful online resources references are:

- On definitions of sustainability: www.sustainabilityed.org/education/#6
- Sustainable livelihoods framework: www.livelihoods.org
- The Simple Living Network: www.sl.net.com contains information about publications and tools for those to learn about a more conscious, simple, healthy and earth-friendly lifestyle
- Contemplating sustainability in the classroom: www.orgsites.com/ky/cherishcultures/_p3.php3
- Towards a sustainable future: www.unesco.org/education/tlsf/TLSF/intro/mod_c.htm
- ESD resources: www.teachernet.gov.uk A documentary prepared for UNESCO, *Understanding Education for Sustainable Development*, provides a brief introduction to what is meant by Education for Sustainable Development (ESD) and how it is perceived around the world (www.unesco.org/archives/multimedia/index.php?s=flvplayer&id_page=33&id_film=432).

Values

Values are what we hold in high esteem and what we consider as desirable, ideal attributes. They are a fundamental part of how we define ourselves, our culture and our society. They are generally enshrined in our conception of the world and influence how we behave and relate to each other. Values are generally long-term standards or principles used to judge the worth of an idea or action. They provide the criteria by which we decide whether something is good or bad, right or wrong. Values are not innate. They can be inculcated, acquired and are transmitted. Hence, the role of education and teachers in inculcating and developing desirable values in students must not be underestimated.

Just as there is no single universal model of ESD, there can be no single universal model of ESD values. Most values, and actions based on them, are culture-specific and have to be respected. There are some, however, that are shared universally, though human behaviour anchored in them may differ across communities and cultures. In line with the thrust of ESD, these sets of values have to be culturally appropriate and locally contextualized.

However, to achieve sustainability, several common types of values need to be considered. At the centre of all these values is respect: respect for others, including those of present and future generations; respect for difference and diversity; respect for the environment; and respect for the resources of the planet we inhabit.⁷ The module on 'values education for environment' has listed eight core sets of values, namely respect for interdependence; respect for biodiversity; respect for living lightly; respect for interspecies equity; respect for basic human needs; respect for intergenerational equity; respect for human rights; and respect for democracy (see Appendix E for a description of each of these values). Likewise, the UK Qualifications and Curriculum Authority has mapped out four sets of values centred around the self, relationships, society and environment (see Appendix F for an elaboration).

To use WHE to inculcate values in students, the appropriate values implied or conveyed by or through that particular WHE activity have first to be explicitly discerned. Teachers can use this to put into practice the pedagogical tool of problem-posing and reflective learning by asking students to identify the values that a particular world heritage symbolizes or highlights before doing an experiential hands-on activity that enables students to understand the meaning of those values and their implications to their lives. See Appendix G for an example of a lesson plan from Sathya Sai's Teaching Workbook 2 on the 'Ceiling on Desires,' which discusses the theme of needs and wants.

It is important to note that values education activities require students to reflect on their beliefs and behaviour, and then share this reflection with others. Not all participants will feel comfortable with this. Therefore, it is necessary to allow participants to take part only in activities with which they are comfortable. Teachers must also make conscious efforts to create a safe

7 See Education for Sustainable Development webpage at www.unescobkk.org/index.php?id=161

and supportive learning atmosphere. Sathya Sai's teaching methodology on values education, which comprises five components, is provided in Appendix H as a reference.

More examples of classroom activities to 'teach' values are listed below.

- The [United Kingdom Qualifications and Curriculum Authority](http://www.nc.uk.net/esd/prof_dev/activity_05.htm) has developed a participatory activity to examine the values of effective ESD (www.nc.uk.net/esd/prof_dev/activity_05.htm). This is useful for teachers to acquire a clear understanding of an inclusive set of values pertaining to ESD.
- The [Department of Education, Science and Training, Australian Government](http://www.valueseducation.edu.au/values/default.asp?id=13951) has also developed activity kits for various grades, including professional learning resources for teacher development (www.valueseducation.edu.au/values/default.asp?id=13951).
- The [Living Values Education Programs](http://www.livingvalues.net) provide the opportunity for children and young adults to explore and develop universal values. The curriculum includes living values activities for peace, respect, love, cooperation, happiness, honesty, humility, responsibility, simplicity, tolerance, freedom and unity (www.livingvalues.net).
- The [Sathya Sai Education Organization](http://www.sathyasaiehv.org.uk) has developed a teaching methodology of five components (steps) of activities in values education for children (www.sathyasaiehv.org.uk). They have also listed a set of ideas for teachers to integrate values into schools, and not only as classroom subjects (www.sathyasaiehv.org.uk/ideasforteachers.htm).

Other useful online resources are:

- www.ens.gu.edu.au/ciree/LSE/mod6.htm (examines the place and function of values education in environmental education and provides teachers with strategies for examining their own and their students' environmental values. Values clarification and role play are the strategies illustrated in this module.)
- www.urbanext.uiuc.edu/SchoolsOn-line/charactered.html (University of Illinois Extension on Character Education – Teaching Kids to Care)
- www.ilovethat%20teachingidea.com/ideas.subj_character_ed.htm (ideas and activities on character education)
- <http://midgefrazel.net/character.html> (educational resources on character education web page by Midge Frazel)
- www.goodcharacter.com/Article_4.html (how to do character education)
- www.wilderdom.com/Character.html (character education via experiential education programmes)
- <http://atozteacherstuff.com/themes/charactereducation.shtml> (A to Z themes: Character Education)

- www.k12.hi.us/~mkunimit/page13.htm (guidelines and examples of character values on respect, responsibility, compassion, sharing, perseverance, friendship, co-operation, self-discipline and honesty)
- Major approaches in values education:
 - Inculcation: www.expage.com/inculcation
 - Moral development: www.epage.com/moraldevelopment
 - Values clarification: www.epage.com/clarification
 - Values analysis: www.epage.com/valuesanalysis
 - Action learning: www.epage.com/actionlearning
 - Transpersonal approach: www.epage.com/transpersonal
 - PNU ACES approach: www.epage.com/pnuaces

General Guidelines/Questions to Foster Inquiry, Understanding and Practice of Sustainability and Values via WHE

World heritage sites/education can be used as resources and learning spaces to:

- Facilitate discussion to explore the meaning of sustainability, especially in terms of relating sustainability to the practical lives of students by giving and asking for examples. Use mind-maps and key words and/or phrases to initiate the process: What does sustainability mean to you? What are the values behind sustainability?
- Encourage students to explore questions, issues and problems of sustainability, especially in contexts relevant to them – draw out questions and issues/problems pertaining to any aspect of sustainability – ecologically, socially, economically, politically. Examples of questions: What is not so sustainable around them – in school, at home, in the neighbourhood. How can they live life more sustainably?
- Examine what values are being implied, communicated or promoted by the site, occupants or builder of the site; or what values do the site resemble. A catalytic question will be: What is significant about this site? What does it stand for the people in the country?
- Question whether these values are important for living sustainably now. Why are these values important?
- Discuss how these values can be nurtured among students and in the school.
- Encourage students to talk about themselves and/or what they observe in school and the communities. Do they uphold and demonstrate these values?
- Suggest how sustainability can be practiced in this classroom and school, extending beyond the physical/environmental, ecological concerns to touch on the levels of relationships and behaviour.

- Reflect on how you would connect sustainability to the students' personal lives: What specific activities in the classroom and school can be used to address/highlight values and sustainability?
-

Appendix A: Sustainability in the Past, Present and Future⁸

Introduction

This is an illustration of how a heritage or local historical site visit in WHE can help students explore sustainability and the links between the environment, society and economy in the lives of people.

Duration

Two-day visits to the site, plus preparation time and follow-up work in the classroom. However, it can be modified according to time availability of the class and can even be organized as an extra-curricular or weekend outing.

Objectives

- Investigate the role of sustainability in the lives of people in the past, present and future.
- Learn about the values, social, religious, economic and environmental features of the community (site)/local area in the past.
- Investigate how the community (site)/local area and the lives of local people have changed over a long period of time.
- Consider the role of sustainability in the lives of people in the past, present and future.
- Understand some of the causes of change over time and similarities and differences between different periods of history.

Context/External Support

This activity has been developed over a number of years for Key Stage 2 pupils in the United Kingdom (UK). The school made use of a local historical site, and has developed these activities

8 Adapted from UK Department for Education and Skills (DfES): www.nc.uk.net/esd/teaching/case_studies/case_study_2f.htm (accessed July 2006). DfES no longer exists. On 28 June 2007 it was restructured into the Department for Children, Schools and Families and the Department for Innovation, Universities and Skills. This site can now be accessed at www.teachernet.gov.uk/casestudies/casestudy.cfm?id=556 (accessed June 2010).

over several years using feedback from pupils and help from English Heritage.⁹ Whenever possible, the activity should be coordinated with a heritage organization and/or other relevant organizations to promote the principle and practice of partnership and collaboration.

The Activity

Preferably, students are taken to a two-day visit to a local community/historical site at two different times. By using cross-curricular activities, pupils have opportunities to investigate environmental, economic and social changes in the local area over a longer period of time.

The first day involves fieldwork activities and comparing information from various sources, including old and current maps and photographs. The teachers encourage pupils to look at and think about changes over time in land use of the local site. This helps students to think about what the local area was like before.

On the second day, students carry out more detailed investigations into the life of the people who lived and worked at the site. The activities include the use of different historical sources as well as role-play so pupils can gain a better understanding of some aspects of past daily life (e.g. trying on clothing of different groups of residents, typical meals, activities, music, etc.). The students also learn more about the causes and effects of changes in the local environment, economy and society.

After the visit, the teacher encourages the students to think about the way of life they want for themselves by comparing the way of life of people in the past with people today. Students look into how people used the local area in the past and how they use it today, looking at the connections between the environment, society and the economy. This leads to discussion about how people responded to environmental challenges in the past and how they do so in the present, and how environmental challenges may change in the future. This means students can begin to consider the impact of their lifestyles on the lifestyles of people in the future, and also think about the knowledge and skills needed to deal with these challenges effectively.

What Makes this Activity Good ESD

- It addresses the concepts of diversity and the needs and rights of future generations.
- It is planned as part of a whole school approach to ESD, from local to global and from past to future.
- It involves active participation and experiences out of the classroom.
- It encourages students to consider their own lifestyles, values and attitudes when looking at possible and preferable futures.
- It makes connections and links with the local community.

⁹ See website: www.english-heritage.org.uk.

Learning Outcomes

- Increased awareness of some of the causes and effects of change in the local area in the past.
- Increased understanding about the interactions between society, economy and environment in the local area over a long period of time.
- A changed outlook about the lives of local people in the past, present and future.

Other Outcomes

The activities also

- provide a good basis for further work in many curriculum areas, including spiritual, moral, social and cultural development;
- develop students' imagination and creativity; and
- improve students' attitudes to sustainability in the long term.

How the Activity Could be Developed

The work could be extended by further investigation to find out how other societies in the past used the environment and had different solutions for sustainability. For example, depending on location, a school could use a similar approach to look at the environmental, social and economic effects connected with change in pre-World War II communities (e.g. the growth and decline of an industry both locally and globally, including changes in the imports and exports between the local area and other countries).

Appendix B: Infusing ESD through WHE Activity at a Community Site¹⁰

This activity attempts to raise children's awareness of ESD by using the local area around the school or a community heritage site.

Duration: A half-day out of school visit, and a series of follow-up activities.

Objectives

- Stimulate curiosity and interest about features of the local area/community.
- Investigate community life and 'nature' outside of the classroom.
- Begin to recognize differences and changes between the present and the past.

¹⁰ Adapted from UK Department for Education and Skills: www.nc.uk.net/esd/teaching/case_studies, (accessed July 2006). Also see Footnote 8.

- Discuss students' likes and dislikes about features in the local area.
- Think about ways of caring for the environment/community and for its sustainability.

Context/External Support

It will be desirable to develop the activity with a local sponsor (especially the organization/institution that manages the heritage site and/or an appropriate heritage organization) to design the activity in ways that will encourage the children to think about sustainable approaches for improving the quality of the local environment/community.

The Activity

The activity requires some preparation by the teacher, including finding out about the history of the site and the flora/fauna in and around it. Before visiting the site, encourage the children to make observations and talk about what they like and dislike about the local environment/community site and think about how it could be improved. Making simple maps, paintings and drawings will help the children develop appropriate vocabulary skills and introduce them to different ways of finding information (e.g. using photographs, talking to staff, parents, older people in the community, etc.).

After this preparatory work, the class will visit the site. During the visit, children participate in a number of different activities with help from teachers, parents and staff of the organization(s). The activities include making and recording their observations about different features at the site. The children should follow a 'sensory walk' in and around the site, looking at plants, animals, people and activities. The visit will include learning about different types of activities, exploring the differences between present and past livelihood activities and family/community life at the site.

An equally important part of the programme should include a series of follow-up activities and play opportunities to reinforce the students' understanding of sustainable development (visit the various websites provided for practical examples). These activities will build on the children's experiences outside the classroom and help reinforce the links with sustainability. As well as highlighting relevant environmental issues, the teacher should facilitate and encourage students to discuss social aspects of the site, including the use of the site for recreation and tourism, and the problems of vandalism and graffiti in the local area. The teacher can also use the visit as a stimulus for work on creative development to build on the students' sensory experiences, including writing poems, making relevant craft work and painting/creating pictures of the site.

What Makes this Activity Good ESD

- It addresses the concepts of sustainable change, citizenship and stewardship.
- It develops an interest in the local environment/community and how it could be improved.
- It looks at economic and social changes in the lives of people living in the local area.
- It promotes out-of-school learning and highlights the role of community/local organizations.

Learning Outcomes

- Increased knowledge about the local environment and different types of groups/livelihood and community life.
- Development of students' ability to record observations of living things in different ways (e.g. drawing, discussion, etc.).
- Development of students' vocabulary for describing, contrasting and asking questions about different features.
- Increase in students' awareness of the importance of caring for living things and their environment.
- Increase in students' awareness of how the local area can be improved in sustainable ways.

Other Outcomes

- Increased interest in, and continued use and understanding of, the site.
- Development of vocabulary, and talking and listening skills for describing and contrasting different features.
- Shared whole-class experience that allows the teacher to plan connections between different areas of learning.

How the Activity Could be Further Developed

Students can make observations and look at other community sites/environment and/or think about the inter-relationship of these sites with neighbouring communities and/or their impact on the environment/local community.

Appendix C: Understanding the Meaning of Sustainability (1)¹¹

This hands-on exercise puts participants in the middle of an easy-to-understand sustainability dilemma to experience the meaning of sustainability

Purpose

To understand the concepts of sustainability and sustainable development, and to understand how sustainability relates to our own lives and to heritage.

There are five parts to this exercise:

1. Hands-on activity;
2. Lessons/insights from activity;
3. Mind mapping on sustainability;
4. Discussion of application, linking sustainability and sustainable development to heritage;
5. Synthesis input.

Group size: 4 to 30 participants.

Time needed: 30 minutes.

Materials

- A large number of green knotted raffia strings.
- A large number of red knotted raffia strings (or any contrasting colour).
- A black plastic bag for each group.

Directions

1. Divide the whole group into smaller groups of similar numbers.
2. Place 16 green knotted raffia strings in a black plastic bag for each group.
3. Give each group member a large handful of red knotted raffia strings.
4. Choose the most culturally appropriate scenario from the following five scenarios. The scenario illustrates that by overusing a resource, that resource or another is damaged in some way. Share the scenario with the participants.
 - Green knotted raffia strings represent one lot of land farmed; red knotted raffia strings represent use of chemical fertilizer, herbicide, and pesticide.

¹¹ Adapted from R. McKeown. 2002. *Education for Sustainable Development Toolkit*, version 2.0, www.esdtoolkit.org/concept_intro/drain2.htm (accessed July 2006).

- Green knotted raffia strings represent catch from a fishing vessel; red knotted raffia strings represent fishing up very small fish, prawns and crab that can't be consumed.
 - Green knotted raffia strings represent car ownership; red knotted raffia strings represent exhaust pollution from the cars.
 - Green knotted raffia strings represent products made from a factory; red knotted raffia represent pollution to air and water by that factory.
5. Explain the rules of the game:
 - Participants draw one or more knotted string from the bag each turn.
 - Each group member must draw at least 1 green knotted raffia string from the bag per round to survive. It does not matter how many red knotted raffia strings are drawn.
 - If a participant does not draw a green knotted raffia string, she/he "dies" and has to drop out of the game.
 - Each group member may take as many knotted raffia strings as desired from the bag.
 - At the end of each round, the green knotted raffia strings in each community's bag are counted; exactly that many green knotted raffia strings are added to the bag.
 6. Rounds 1 and 2: First generation (the present). For each green knotted raffia string a participant takes, one red knotted raffia string is placed in the team's bag immediately.
 7. Rounds 3 and 4: Second generation (your children). For each green knotted raffia string a participant takes, three red knotted raffia strings are placed in the bag immediately.
 8. Rounds 5 and 6: Third generation (your grandchildren). For each green knotted raffia string a participant takes, three red knotted raffia strings must be placed in the bag immediately.
 9. Debriefing from each group:
 - What happened in your group?
 - At which round did the first person get knocked off?
 - What did the game highlight?
 - What are your insights from here?
 10. Alternatively, discuss how the game progressed.
 - Who had the advantage? Why?
 - Why did participants take as many knotted raffia strings as they did?
 - How did the actions of the first generation impact the third generation? Is this fair?
 - During what round was the "fatal move" made (the act that caused the demise of the system?) How did this affect the rest of the game play?

11. Give the groups the chance to play again, without the plastic bags, so that participants can monitor the communal resource and the pollution. The same rules apply.
12. Discuss how this game progressed.
 - Were groups able to sustain the resource so that the third generation had as little pollution/overuse as the first generation?
 - Did any communities opt to limit: use of chemicals, amount of grazing, catch size, air travel, pollutants created?
 - How much communication did it take to sustain the resource?
13. Conduct a mind map on sustainability.
14. Discuss the concept of sustainability, sustainable development and its relationship to heritage.
 - What is most unsustainable around you – at home, in school or the neighbourhood?
 - What can you do personally to live more sustainably?
15. Synthesize and provide input.

Observations on Playing the Game

In the first two rounds, participants will have no trouble surviving, and may even show greed by taking four or more green knotted raffia strings. It becomes obvious that the group member who reaches into the bag first has an advantage over the others.

In Rounds 3 and 4, participants will begin to take larger handfuls from the bag, especially at the end of Round 4. They will be concerned when someone gets a large number of green knotted raffia strings, as that means fewer green knotted raffia strings and many more red knotted raffia strings for the next participant.

In Rounds 5 and 6, the participants begin to “die off” (be put out of business, be forced to leave the farm, etc.). Participants take huge handfuls of raffia strings in fear that they might not survive. By now it becomes obvious that the common resource is so polluted/overused that everyone loses.

Appendix D: Understanding the Meaning of Sustainability (2)¹²

Purpose

To understand the meaning of sustainability and how it applies to our lives and to WHE.

There are five parts to this exercise:

1. Hands-on activity.
2. Lessons/insights from activity.
3. Mind mapping on sustainability.
4. Discussion on application, linking sustainability to heritage.
5. Synthesis input.

Group size: 4 to 30 students.

Time needed: 40 minutes.

Materials

- A large number of pebbles/sweets or anything that is easily available in big quantities and that can be held easily.
- Paper and pencils for keeping score.
- Flip charts and marker pens.

Instructions

1. Divide the class into groups of 4.
2. Place 16 pebbles/sweets in a communal pile for each group.
3. Explain the rules of the game:
 - The pebble/sweets pile represents a valuable renewable resource. The resource is replenished after each round of play.
 - Each member of the group may take freely from the resource pile each round.
 - Each member of the group must take at least one pebble in each round to survive.
4. One person in each group will have to record the number of pieces taken by each member in each round.

¹² Adapted (and simplified) from R. McKeown. 2002. *Education for Sustainable Development Toolkit*, version 2.0, www.esdtoolkit.org/concept_intro/drain1.htm (accessed July 2006).

5. After each round, count how many pebbles/sweets each community has remaining in the pile, and add an equivalent number of pebbles/sweets to the pile.
6. Play three or four rounds, pausing after each round to find out if any members did not survive.
7. Play one final round, then have members share what happened in their group:
 - Is there a group where everyone survived? How did it happen?
 - Which group has the most pebbles/sweets in the resource pile at the end of the game?
 - Which groups are confident they will always have enough pebbles/sweets for everyone as long as the pile is renewed? How did these groups arrive at that point? What strategies were used?
 - Was there a leader in these groups? If so, why did the group listen to that person?
 - Could these groups have reached “pebble/sweet sustainability” without communication?
8. Compare per capita pebble/sweet ownership around the room.
 - Who had amassed the most pebbles/sweets? How did he or she accomplish this?
 - Did this keep others from surviving?
 - Where do we see this type of ‘greed’ in the real world?
9. Start a discussion of the following:
 - What insights can you draw from this game?
 - What kind of values and/or behaviour is demonstrated by group members?
10. Mind mapping activity on ‘sustainability.’
11. Discussion of concept of sustainability, sustainable development and its relationship to heritage.
 - What is most unsustainable around you – at home, in school or the neighbourhood?
 - What can you do personally to live more sustainably?
12. Synthesis and input.

Appendix E: List of Values¹³

1. Respect for Interdependence

People are a part of natural systems and depend utterly on them. Thus, natural systems should be respected at all times. To respect natural systems means to approach nature with humility, care and compassion; to be frugal and efficient in resource use; to be guided by the best available knowledge, both traditional and scientific; and to help shape and support public policies that promote sustainability.

2. Respect for Biodiversity

Every life form warrants respect and preservation independently of its worth to people. People should preserve the complexity of ecosystems to ensure the survival of all species and the safeguarding of their habitats and, through this, contribute also to the material and spiritual quality of human life.

3. Living Lightly

Everyone should take responsibility for his/her impact on natural systems. We should not interfere unduly with ecological processes, diminish biodiversity, or over-exploit renewable resources and the ecosystems that support them. We should use natural resources and the environment carefully and sustainably, and restore degraded ecosystems.

4. Respect for Interspecies Equity

People should treat all creatures decently, and protect them from cruelty and avoidable suffering.

5. Respect for Basic Human Needs

The needs of all individuals and societies should be met, within the constraints imposed by the biosphere; and all should have an equal opportunity to improve their lot.

6. Respect for Intergenerational Equity

Each generation should leave to the future a world that is at least as diverse and productive as the one it inherited. To this end, non-renewable resources should be used sparingly, renewable resources should be used sustainably, and waste should be minimized. The benefits of development should not be consumed now while leaving the costs to the future.

¹³ Taken from A. Galang (undated). "Values Education for the Environment," Module 6, www.ens.gu.edu.au/ciree/LSE/MOD6.HTM (accessed May 2010).

7. Respect for Human Rights

All persons should have the fundamental freedom of conscience and religion, expression, peaceful assembly, and association.

8. Respect for Democracy

All persons and communities should be empowered to exercise responsibility for their own lives and for life on Earth. Thus, they must have full access to education, political enfranchisement and sustaining livelihoods; and they should be able to participate effectively in the decisions that most affect them.¹⁴

Appendix F: Values in ESD¹⁵

Preamble

- These values are not exhaustive. They do not, for example, include religious beliefs or principles or teachings, though these are often the source of commonly held values. The statement neither implies nor entails that these are the only values that should be taught in schools. There is no suggestion that schools should confine themselves to these values.
- Agreement on the values outlined below is compatible with disagreement on their source. Many believe that God is the ultimate source of value, and that we are accountable to God for our actions; others place the source of their values only in human nature, and that we are accountable only to our conscience. The statement of values is consistent with these and other views on the source of value.
- Agreement on these values is compatible with different interpretations and applications of them. It is for schools to decide, reflecting the range of views in the wider community, how these values should be interpreted and applied. For example, the principle “we support the institution of marriage” may legitimately be interpreted as giving rise to positive promotion of marriage as an ideal, of the responsibilities of parenthood, and of the duty of children to respect their parents.
- The ordering of the values does not imply any priority or necessary preference. The ordering reflects the belief of many that values in the context of the self must precede the development of the other values.

14 Adapted from IUCN, UNEP and WWFN. 1991. *Caring for the Earth*, IUCN, Gland; and Fien, J. 1993. *Education for the Environment: Critical Curriculum Theorising and Environmental Education*, Geelong: Deakin University Press, p. 64.

15 Adapted from UK Qualifications and Curriculum Authority: www.nc.uk.net/statement_values.html (accessed May 2006). Current website is http://curriculum.qcda.gov.uk/uploads/Statement-of-values_tcm8-12166.pdf (accessed May 2010).

- These values are so fundamental that they may appear unexceptional. Their demanding nature is demonstrated both by our collective failure consistently to live up to them, and the moral challenge which acting on them in practice entails.

The Self

We value ourselves as unique human beings capable of spiritual, moral, intellectual and physical growth and development.

On the basis of these values, we:

- develop an understanding of our own characters, strengths and weaknesses;
- understand our own needs and rights in relation to others;
- develop self-respect and self-discipline;
- clarify the meaning and purpose in our lives and decide, on the basis of this, how we believe that our lives should be lived sustainably;
- make responsible use of our talents, rights and opportunities;
- strive, throughout life, for knowledge, wisdom and understanding; and
- take responsibility, within our capabilities, for our own lives.

Relationships

We value others for themselves, not only for what they have or what they can do for us. We value relationships as fundamental to the development and fulfilment of ourselves and others, and to the good of the community.

On the basis of these values, we should:

- respect others;
- care for others and exercise goodwill in our dealings with them;
- show others they are valued;
- earn loyalty, trust and confidence;
- work co-operatively with others;
- respect the privacy and property of others; and
- resolve disputes peacefully.

Society

We value truth, freedom, justice, human rights, the rule of just law and collective effort for the common good. In particular, we value families as sources of love and support for all their members, and as the basis of a society in which people care for others.

On the basis of these values, we should:

- understand and carry out our responsibilities as citizens;
- refuse to support values or actions that may be harmful to individuals or communities;
- support individuals and families in raising children and caring for dependants;
- support grouping and collectives of people striving for the betterment of society be they families, social groups, civil society organizations, etc.;
- recognize that the love and commitment required for a secure and happy childhood can also be found in families of different kinds;
- help people to know about the law and legal processes;
- respect the rule of law and encourage others to do so;
- respect religious and cultural diversity;
- promote opportunities for all;
- support those who cannot, by themselves, sustain a dignified lifestyle;
- promote participation in the democratic process by all sectors of the community;
- contribute to, as well as benefit fairly from, economic and cultural resources; and
- make truth, integrity, honesty and goodwill priorities in public and private life.

Environment/Ecology¹⁶

We value the environment, both natural and shaped by humanity, as the basis of life and a source of wonder and inspiration.

On the basis of these values, we:

- accept our responsibility to maintain a sustainable environment/society for future generations;
- understand the place of human beings within nature;

16 Adapted from: National Curriculum. 1999. *National Forum for Values in Education and the Community, 1997*: www.nc.uk.net/esd/prof_dev/activity_05.htm (accessed June 2006). Current website is http://curriculum.qcda.gov.uk/uploads/Statemen.t-of-values_tcm8-12166.pdf (accessed May 2010).

- understand our responsibilities for other species;
- ensure that development can be just;
- preserve balance and diversity in nature wherever possible;
- preserve areas of beauty and interest for future generations; and
- repair, wherever possible, habitats damaged by human development and other means.

Appendix G: Lesson Plan on Needs and Wants¹⁷

Lesson 2.13: Ceiling on Desires

Objective:

To stimulate thinking about the difference between what we need and what we want and strengthen the ability to choose more carefully

Quotation/Theme for the Week

*Desires start with our tendency to compare
...put a ceiling on desires, or they'll go through the roof!*

Silent Sitting

Steps 1, 2, 4 (align with p. 28 of Teaching Workbook 1)

Step 5: As you listen to the music imagine...

You are walking in your favourite place. It is very beautiful.

The birds are singing and you feel happy and contented. Look at the blue sky.

How much space there is.

Imagine yourself expanding and becoming bigger, like the sky...

See how the sun shines brightly over the earth sending out rays of light and love...

Everything in nature around you is beautiful and free for you to enjoy.

You have everything you need when you know this.

Send out rays of love and peace to the world around you:

the people... the animals... the plants... the fish... the rocks.

Sending this love and peace to everyone and everything makes you feel happy.

Step 6 (see page 52 of Teaching Workbook 1)

17 Extracted from Sathya Sai Education in Human Values Trust UK (1995/96) Teaching Workbook 2 (Lesson 2), www.sathyaiaehv.org.uk/lessonplan2.htm (accessed June 2006). Sathya Sai Education in Human Values Trust UK was dissolved several years ago and its role is now performed by the British Institute of Sathya Sai Education (BISSE Ltd); www.bisse.org.uk. The cited lesson plan can now be accessed at www.bisse.org.uk/Workbook%20Lesson%20Plans/book2/2.13pdf

Story

The old woman who lived in a shoe

by Carole Alderman (adapted from a traditional story)

There was an old woman who lived in a shoe. She didn't have very much housework to do. She enjoyed making jam, with fresh fruit from the trees. She had milk from the cow and honey from bees. She was happy for a time until her cousin from the town visited her and showed her photographs of what seemed to the old woman a fine, large residence. When her cousin went home, the old woman began thinking and comparing her shoe to her cousin's home. "Of course, I wouldn't want a big place like that," she thought. "But I wouldn't mind something a little bit bigger than this."

The more she thought about it, the more she started becoming restless, until one day she began to look out for a bigger place to live. She wished she could have a box to live in, instead of the shoe. In time someone told her of some boxes nearby, one of which was empty, so she left her shoe and moved into the box.

The box was much bigger than the shoe, so there was more housework, and it was further to walk to the cow for her milk, but she still had plenty of time and reasoned that the exercise would do her good, so for a while she was happy with her new box. Until, one day, hearing she had more room, her cousin from the town came to visit bringing a friend along. The old woman enjoyed their company. She found them great fun with their bright clothes and laughter. The old woman liked her cousin's friend, although she was a little condescending. She was quite well off and had a big detached house. After a week or so, her cousin and friend went home. Again the old woman became restless and was dissatisfied with the box. "This is not much of a box for me to be living in," she thought. "I felt quite ashamed of it, when my cousin's friend showed me a picture of her lovely house. I don't want much, but I wish I could just have a nice cupboard to live in. Then I would be happy." And so she worried and wished and wished and worried until eventually she got a cupboard.

At first, she was happy with the cupboard. She cleaned and painted it and made new curtains. It really was rather nice, although it was a lot of work. She had no time to make jam now. But she was quite proud of the cupboard. She lived in the cupboard happily for a year or two and then she had a letter from her cousin saying she was moving into a big house near her friend. Suddenly her cupboard did not seem so big. "This cupboard really is not big enough," she thought to herself angrily. "I do not really like it in here. I would prefer something outside in the garden. A small shed perhaps. Yes! That would make me happy." Again she moved. This time into a lovely shed in a small garden with a pond, a beautiful lawn, flower beds, a herb garden and big, shady trees. "Oh, this is heaven!" she thought. "This is what I've always wanted. I'll train the red roses round the door. It's so pretty, I'll be happy for the rest of my life." And for a while she was. She trained the roses round the shed door and had to admit she was pleased with herself.

It was a lot of work keeping the shed clean and with the extra gardening, she no longer had time to get honey. But she didn't mind, as she was very pleased with the beautiful shed. She admired the garden with its pond, lovely lawn, flower beds, fragrant herbs and trees.

Then, one day, when she was taking tea on the lawn, her eyes began to look to the far end of the garden at the fine stone house and she became discontented with her shed. "I want a house. I'm tired of this gloomy shed. Why shouldn't I have a house like some others have?" She again became restless and brooding. Time went by and she got a house.

She was delighted with it and busied herself making it beautiful. She soon found that the leisurely life she had been used to, was over, as she now had to go out to work to earn extra money for the upkeep and maintenance of her new home. Now she came home tired in the evenings. There was a lot of housework and with the extra expense of a bigger house, she could not afford to pay anyone to help her. But at least she had a house like her cousin. Then one weekend, while she was out taking a walk, she saw in the distance a beautiful mansion. "I'd love to live in a mansion. Then my life would be complete. I'd want nothing more." Eventually she did live in a beautiful mansion. "This is the life," she cried with joy. "I'm so happy. I'll never want more again." But the day-to-day business of running a mansion, with so many callers coming and going, so many people staying there, meant she never had a moment's peace. "Out of all the places I've lived in, I'm most unhappy here. It's a beautiful place – to visit. But I don't feel at home. I can't afford the rent and I'm in debt. If only I'd been contented and stayed in the shoe, or even the box or cupboard. How foolish I have been. I've wasted my life worrying about what I hadn't got, instead of enjoying what I had. How I wish I was back in the shoe. I used to love picking fruit and making jam. I had free milk and honey. I shall work to pay off my debts and I shall go back to the shoe."

*There was an old woman who lived in a shoe.
She didn't have very much housework to do.
She enjoyed making jam, with fresh fruit from the trees,
She had milk from the cow and honey from bees.
Like us, the old woman who lived in a shoe
When plagued by desire, what could she do
But give them full rein, but the pleasure was short
And she never found the peace that she sought.
But then the old woman who lived in a shoe
Took up silent sitting and knew what to do!
Controlling her senses, and with inner view,
She found peace and contentment, Perhaps you can, too!*

Questions:

1. Why did the old woman want to move from the shoe?
2. What made her decide to move from the box into a cupboard?
3. What made her discontented with the cupboard?
4. Why didn't she stay in the shed?
5. At last she found a house to live in. Mention the reason why she left it for a mansion.
6. Did all the moving make her happy in the end? Why?
7. What did you feel when you heard this story?
8. Does it remind you of anything in your own life?
9. Is it important to be contented with what we have?
10. Should we live our life according to what other people do or have?
11. How do we know what we really need?
12. What does 'ceiling on desires' mean?
13. What does this story mean to you?

Group Singing

Cheerfully sing
(A traditional German round)

Cheerfully sing a song,
All through the day,
Though things seem dark as night,
Smiling can make them light,
Harmony turns us right,
Brightens the way.

Group Activity

Discussion Questions – Ceiling on Desires

A. Money: What are some ways you can help to save money? Discuss the following topics:

1. Clothes: Do you have enough clothes? How many clothes are in your wardrobe that you have only worn once or twice?
2. Fashion: Why do you prefer certain makes or labels? If you have a fashionable make, does it make you happy? If it does, for how long does it?
3. Television: Do you let the television advertisements control your thoughts, or are you in control of your own thoughts? Do you often want things you see advertised?

4. Games, toys, etc. Do you use/play with them all, or did you just want them because other people had them? What can you do with the ones you no longer use/play with?
5. Household products – what are some ways of using the following household products carefully? i) Electricity, heat, water – in your home/at school; ii) Household goods (like paper towels, toothpaste, paper, sello-tape, etc.); iii) Food – what are some ways they can be wasted?
6. Car – how can you save petrol? How is petrol wasted?

B. Wants or Needs?

1. What things do I have that are real needs?
2. What things, which are not needed, do I have because I want them?
3. Should I always have everything I want? Why?
4. What can I do without?

Appendix H: Teaching Methodology on Values¹⁸

Every lesson is based upon five teaching components which are:

1. Theme for the Week;
2. Silent Sitting;
3. Story-telling;
4. Group Singing;
5. Group Activity.

Although very simple, they have a profound influence when practiced following the integrated methodology.

Theme for the Week

This can be a quotation, short poem or universal prayer. For example, a prayer on the value of peace could be used, such as:

*“Peace, peace, peace.
Peace on Earth.
Peace, peace, peace
In all the universe.”*

18 Reproduced from “Methodology” of “Values and Methodology” in Section on “Learning Zone,” British Institute of Sathya Sai Education: www.bisse.org.uk

Or alternatively, a quotation, such as:

“Being kind brings peace of mind.”

In line with the multi-cultural and non-religious approach, these statements are not particular to any religion or belief system and hence promote unity and tolerance between different cultures.

The theme for the week runs through the whole lesson plan and is best used when also incorporated throughout the whole curriculum. For example, it can be used as a group activity, such as making a poster, or inspiring a class or school project.

Alternatively, children can be asked to invent quotations with similar meanings. While working on these, a subliminal improvement in their consciousness occurs. During the week, there would normally be a discussion on its meaning and application in day-to-day life, e.g. in the example above, how we could bring about peace within ourselves, our family, school, society, nation and the world.

Silent Sitting

In silent sitting, the teacher will go through a simple relaxation exercise with the children who follow the instructions given. Examples of these exercises include:

- Alternately tensing and relaxing muscles in different parts of the body
- Becoming self aware through listening to different sounds and speech
- Self-awareness through watching oneself breathe
- Taking part in a guided visualisation exercise, e.g. an autumn leaf falling down into a stream, and then being gently carried out to a vast calm sea.

Normally these exercises are done with the eyes closed for about five minutes. This could be done for five minutes in the morning assembly, or even at the beginning of each lesson. Further details are set out in the Workbook at website www.bisse.org.uk.

Silent Sitting exercises quiet children’s minds, thereby reducing any stress, leading to a resultant benefit for parents and teachers, as well as for the children, themselves. It has been proven that after practising silent sitting over a period of time, verbal, written, and artistic skills become much enhanced and the children generally are more creative.

A very destructive force in the classroom is the level of noise and movement which is substantially reduced when silent sitting is practiced, so it also helps with discipline problems. Once the practice is more established, every lesson could start and close with a minute of silence so that the children’s behaviour becomes more peaceful.

Time and effort taken to practice and establish this exercise is well repaid by the children’s heightened concentration and attention for lessons and in their behaviour generally.

Story-telling

Most people enjoy being told a story. It is a very old and effective method of teaching how to behave.

Stories often parallel life and suggest ways of dealing with situations. But the teacher should not simply read out the story. It is important for them to familiarize themselves with it and truly tell the story to make it come alive.

There are numerous stories set out in the Teaching Workbooks (see Teaching Workbooks – CORE resources under section on ‘Resources’ of BISSE’s website: www.bisse.org.uk) – using traditional stories, fables and those based on actual events, where the teacher is able to draw out human values. After understanding the methodology used, teachers will be able to write their own stories.

All the stories should have questions after them to ensure children absorb and understand the value that has been described.

In order to bring out the emotional intelligence in children and help them become aware of their feelings, it is always important to ask at the end of the story, “How did you feel when you heard that story?”

Do not ask “How did you feel about it?” This is asking “What did you think about it?” and is not to do with feelings, but about thinking. Children (and teachers) need to know the difference.

The four most useful questions to ask at the end of any values-based story are:

- “What name could we give this story?”
- “What did you feel when you heard it?”
- “Does it remind you of anything in your own life?”
- “What does this story mean to you?”

Teachers can obviously add to this list as children answer.

It is useful to end a story-telling session on an optimistic note, showing what can be done to cope with a difficult situation, and how to learn from experiences in the past, to throw light on how things can be done better in the future.

Group Singing

The human being has a rhythm of its own. When a person feels good, the heart beats gently with a steady rhythm. When someone is angry or disturbed, the heartbeat becomes erratic.

Group singing using songs that are uplifting and calming can decrease feelings of agitation and restlessness. It also makes one feel joyful, happy and at one with those around.

Anything learned through song is remembered and is easier to recall, so group singing is a powerful tool for enhancing the value being taught in the lesson. CDs and tapes can be used to assist and guide teachers and parents (if being used at home) with song-based lessons.

5. Group Activity

This covers a whole range of activities, such as:

- community service projects;
- drama;
- games;
- art;
- crafts.

Plenty of examples are given in the workbooks, and teachers and parents can make up their own after looking at the examples given.

Great attention has been given to making all the activities in the workbooks interesting and fun, as teachers often face heavy competition from television, videos and computer games in capturing the attention of children.

CHAPTER

2

World Heritage in Young Hands: The UNESCO World Heritage Education Resource Kit – Its Usage and Adaptation within the Context of Education for Sustainable Development

Beatrice Kaldun

Programme Specialist for Culture, UNESCO Beijing, China

This chapter examines the main tool of the UNESCO World Heritage Education Project, the World Heritage Education Resource Kit, entitled *World Heritage in Young Hands – To Know, Cherish and Act*, within the larger framework of Education for Sustainable Development.

The Kit has become a valuable teaching tool for sensitizing young people to the importance of preserving their local, national and world heritage; for providing them with the necessary skills to do so; and for instilling a lifelong commitment to this worthy endeavour.

Education is the key to personal fulfilment, development, conservation, peace and well-being. Through education, young people can find new ways to build commitment and strengthen action in favour of preserving our cultural and natural heritage, our tangible and intangible heritage, and our local and world heritage. Their efforts will benefit not only the present generation, but also the generations in the future.

World Heritage is not a static concept. Each year, new sites are inscribed on the World Heritage List. World Heritage Education is also a dynamic process, which embodies the four pillars of learning for the 21st century – learning to know, learning to do, learning to be and learning to live together. It is also closely related to the promotion of quality education, as outlined by the Education for All Framework for Action of 2000.

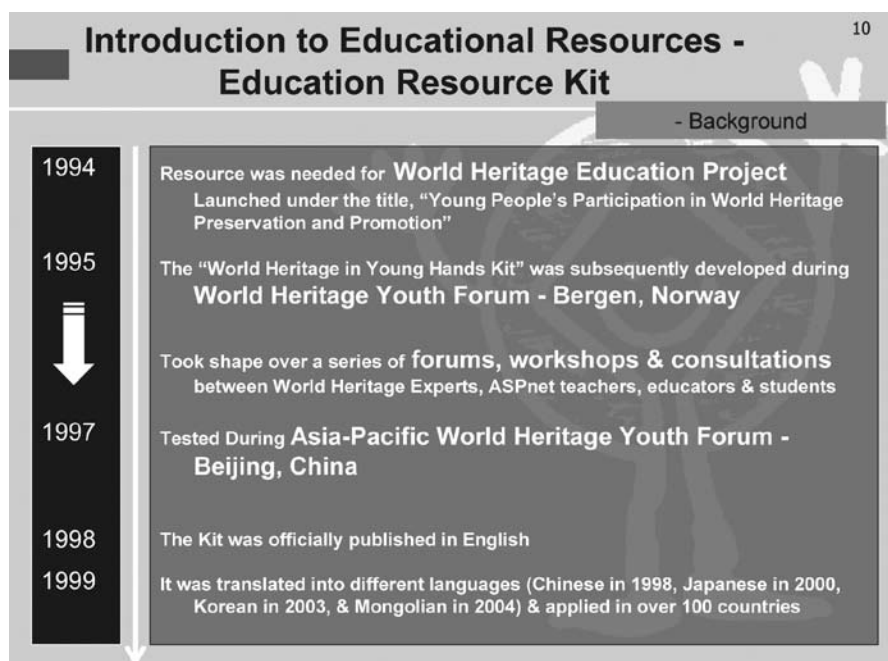
WHE advocates the reaffirmation of identity, mutual respect, dialogue, unity in diversity, solidarity and a positive interaction among world cultures. The Kit is a tool for teachers to achieve these goals – in short, to mobilize today's youth by making "to know, to cherish and to act" a reality that brings people of the world closer together.

Although the Kit was not developed with concrete principles of sustainable development (SD) and ESD in mind, it is clear that the basis for the Kit – to teach and raise awareness among young people about the importance of heritage and the preservation of heritage – implies educating about sustainable development.

Thus, the aim of this supplementary Teacher’s Guide is to bring ESD into the forefront and infuse ESD into WHE in recognition of ESD’s increasing importance in learning processes. This chapter elaborates SD in the WHE Kit and infuses SD/ESD into Kit activities to foster through education the values, behaviours and lifestyles required for a sustainable future.

History and Development of the World Heritage Education Kit and its Contents

The World Heritage Education Project was launched in 1994 by the UNESCO World Heritage Centre through the Associated Schools Project Network (ASPnet).



It was from suggestions made at the First World Heritage Youth Forum in Bergen, Norway, in 1995 that the first steps were taken towards developing the WHE Kit. Further discussions led to agreement that UNESCO should produce and globally distribute an educational resource kit which, inspired by project activities, could be used by teachers both inside and out of the classroom to facilitate education in the field of World Heritage. Over the following three years, the Kit gradually took shape through a series of forums, workshops and consultations between World Heritage experts, ASPnet teachers, educators and, of course, students.



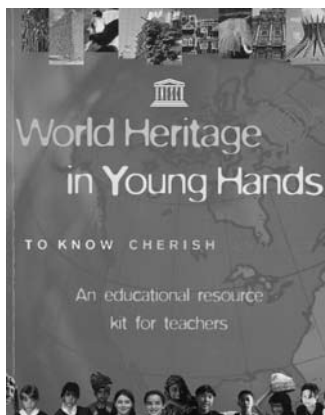
Patrimonito, “small heritage guardian” in Spanish, represents a young heritage helper. The character was designed at the first World Heritage Youth Forum in Bergen, Norway, in 1995 by students who wanted to create someone with whom they could identify.

The First Asia-Pacific World Heritage Youth Forum held in September 1997 in Beijing, China, was a key stage in finalizing the Kit, with students and teachers from 20 Asia and Pacific countries analyzing, testing and evaluating the Kit draft. Their feedback and assessments provided a strong basis for the Kit as we know it today, and highlighted the region as a driving force behind WHE project development.

The Kit was officially published in 1998, and has since been applied in over 100 countries and translated into an ever-growing number of languages, including Chinese (1998), Japanese (2000), Korean (2003) and Mongolian (2004).

After the Kit’s successful testing in ASPnet schools, and following an independent evaluation done by English Heritage, the Kit was re-edited into a less costly and more user-friendly version. Hence, a second edition was published in 2002 in English and French, and is now available through the UNESCO World Heritage Centre’s website: www.unesco.org/whc.

The Kit is designed to be a flexible, adaptable instrument – a toolbox – that is open to interpretation and modifications in order to best serve the specific needs of a country or region in its implementation. It is intended to be just as relevant and useful to those teaching in a situation with little or no materials, or at schools with access to the latest technology. Furthermore, it is designed for use – not just by a single discipline as might be expected – but throughout the school curriculum by teachers in all educational fields from geography to science, mathematics to art, and suitable for students from 12 to 18 years of age.

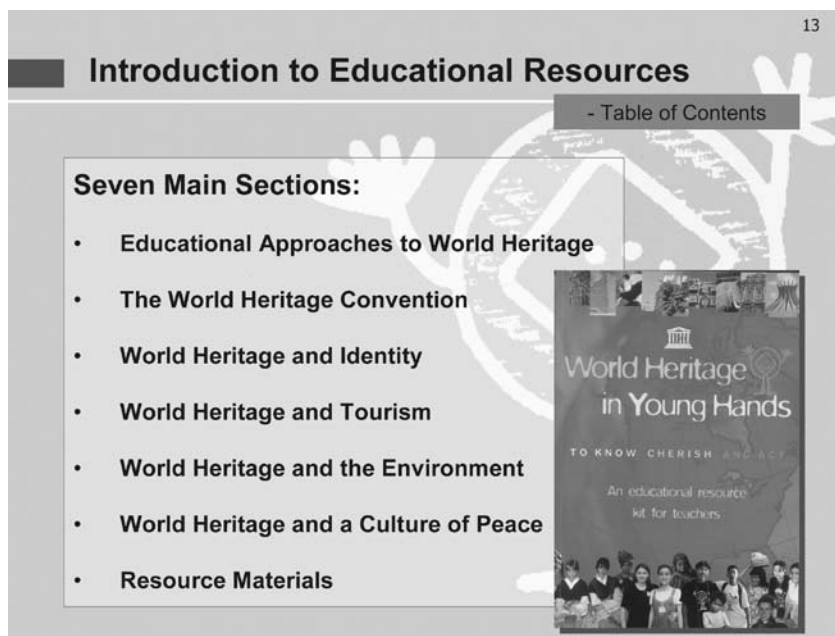


The Kit is colour-coded with signposts, identifiable in the margins of the text, to assist with cross-referencing between sections.

There are seven main sections in the Kit, starting with a section on ‘Educational Approaches to World Heritage’ and ending with a section on ‘Resource Materials.’ A glossary and a reference to materials available free of charge (e.g. World Heritage map, brief descriptions of World Heritage sites, etc.) or on sale are also included.

The main body of the Kit is organized in five thematic themes: ‘The World Heritage Convention,’ ‘World Heritage and Identity,’

'World Heritage and Tourism,' 'World Heritage and the Environment,' and 'World Heritage and a Culture of Peace.'



Preceding the seven sections is a preliminary 'How to Use' introduction which offers useful guidelines to teachers on ways to make the most of the resource. It encourages teachers to adapt, modify and further develop the activities in accordance with their local context and their students' needs.

Proposed student activities in the Kit concentrate on six types:

1. Discussion;
2. Research;
3. Exercises;
4. Visual Sessions;
5. World Heritage Site Excursions;
6. Role Play.

These six types of suggested student activities are further explained in the section on 'Educational Approaches to World Heritage' and are further discussed below. They are an essential element of the Kit.

Educational Approaches to Integrating ESD into WHE

As previously mentioned, the World Heritage Education Kit is a useful tool in emphasizing two learning objectives for young people:

1. Learn and understand the importance of heritage and its preservation for the long term (learn, cherish, act);
2. Understand and address global issues, both at local and global levels, that are essential for sustainable development.

The Kit is designed to achieve three basic objectives: to encourage young people to become involved in heritage conservation on a local as well as on a global level; to promote awareness among young people of the importance of our common World Heritage and of the UNESCO 1972 World Heritage Convention; and to develop effective educational approaches and materials by creating a new synergy among educators and heritage conservation experts in order to introduce WHE into the schools (particularly into the curricula of secondary schools) in all parts of the world. In this endeavour, ESD is only implied. However, this Teacher's Guide has as its objective to integrate ESD into WHE. The Kit, as one of the main tools for the education on World Heritage, is therefore the main instrument for this endeavour.

Thus, it is useful to have a closer look at what ESD means. Key areas of sustainable development are: society, environment, economy and culture. With the international community giving increasing recognition to the importance of sustainable learning, UNESCO formally launched the Decade of Education on Sustainable Development (DESD) in 2005. The global vision for the DESD is perceived as: the vision of education for sustainable development is a world where everyone has the opportunity to benefit from quality education and learn the values, behaviours and lifestyles required for a sustainable future and for positive societal transformation.

ESD prepares people of all walks of life to plan for, cope with and find solutions for issues that threaten the sustainability of our planet. ESD is closely related to promoting values that include: (i) respect for the dignity and human rights of all people, (ii) respect for the human rights of future generations and a commitment to inter-generational responsibility, (iii) respect and care for the greater community of life in all its diversity, and (iv) respect for cultural diversity.

ESD applies the following features in order to foster through education the values, behaviours and lifestyles required for a sustainable future:

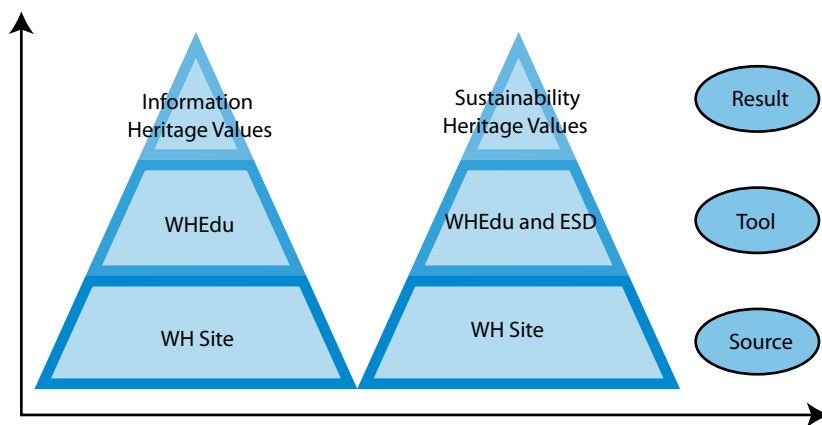
- **Interdisciplinary and holistic:** learning for sustainable development embedded in the whole curriculum, not as a separate subject;
- **Values-driven:** important that the shared values and principles underpinning sustainable development are made explicit;
- **Critical thinking and problem-solving:** leading to confidence in addressing dilemmas and challenges of sustainable development;

- **Multi-method:** word, art, drama, debate, experience as different pedagogies which model the processes, shall replace teaching that is geared at simply passing on knowledge;
- **Participatory decision-making:** learners participate in decisions on how they should learn;
- **Locally relevant:** addressing local as well as global issues and using the language(s) which students most commonly use.

The challenge for students and teachers is that the process of learning/teaching must model the values of sustainable development, itself.

Those teachers who have already worked with the World Heritage Education Kit will note that the Kit provides excellent features for teaching not only about World Heritage, but for teaching about SD and values education through World Heritage. Therefore, the teachers' role will increasingly be to find the values and meanings for sustainability in their teaching processes, with the WHE Kit as a very valuable resource tool.

The following simple graphic shows the basic differences in teaching about World Heritage and through World Heritage with or without ESD:



In this context, it is also important to realize the different approaches in using World Heritage in the teaching process. The classical approach under the World Heritage Education Project and the Kit as its resource tool is World Heritage as an *end* – the teacher is encouraged to apply the Kit and its activities to stimulate young people in better appreciating World Heritage and our cultural and natural heritage. There is, however, another aspect to this, and that is World Heritage as a *means* – World Heritage is used as a tool to teach not only about World Heritage, the importance to know and appreciate it, but has its focus on our identity, environment, and peace. In this equation, ESD is an important mechanism to improve educational approaches and teaching methods by infusing concepts of sustainability and values as concrete teaching results.

In this context, it is important to examine the “educational approaches” to World Heritage as outlined in the World Heritage Education Kit as to their inclusion or non-inclusion of SD. The educational approaches feature six types of student activities – discussion, research, exercises, visual sessions, World Heritage site excursions, and role play.

- **Discussion:** enables young people to reflect; useful in familiarizing students with the issues.
- **Research:** learning about with basic research methods such as searching for and analyzing information, drawing conclusions and formulating suggestions – sources can be libraries or the Internet.
- **Exercises:** experiential learning; learning by doing through hands-on practical activities that involve students’ creativity, imagination, problem-solving skills, and artistic or aesthetic talents
- **Visual sessions:** photographs and photographic material, new education technology such as CD-Rom and Internet.
- **World Heritage site excursions:** travel and exploration to develop special interests and concerns; the World Heritage site excursions are further introduced with helpful advice on site excursions, including what needs to be done (by the teacher) in preparation for the site visit, during the site visit and after the site visit. In addition to site visits, this section also introduces visits to museums and craft workshops.
- **Role Play:** five main learning objectives: to build awareness; to make difficult or abstract topics more easily understood; to acquire new research skills; to forge attitudes and a long-term commitment; to develop students’ creative potential. Role play is further addressed through role play in the classroom, reviving history through drama at World Heritage sites, and in practicing peaceful resolution of conflict.

With an increasing demand for information technology, the education approaches of the Kit integrated issues of global networking and the Internet (e-mail, World Wide Web) and some useful links on World Heritage on the web. This is a useful and important tool for teachers as well as students, provided they have access to this technology (ref. Educational Materials and Links on page 54).

As mentioned above, several of the educational approaches in the Kit imply ESD, but are not explicit in the use of SD. The following table identifies these linkages:

WHE Kit	ESD features	Kit activity/tourism
Role play, research, exercises	Critical thinking and problem-solving	
Role play, discussion	Multi-method (word, art, drama, debate)	24; 26; 28
Exercises	Participatory decision-making	25
World Heritage site excursions	Locally relevant	27

Highlight on the Kit Section on World Heritage and Tourism

This section introduces the theme World Heritage and Tourism, which is one of the popular themes in the World Heritage Education Kit.

All of us are sometimes tourists ourselves, but what do we really know about tourism when faced with teaching about it in school as well as using tourism as an example and tool for increasing children's understanding of the interplay of World Heritage and tourism as well as for tourism to be a means to learn about sustainability, identity and values?

The chapter in the Kit provides some basic and useful background information on the theme tourism together with six student activities. However, for any teacher in a standard discipline, it can still be a challenge. Therefore the Kit chapter is being re-introduced and analyzed on the basis of WHE and ESD. Selected activities will be examined as to their application of ESD and suggestions will be provided for teachers on improving the activities with infusion of ESD principles. Teachers will be provided with useful ideas, approaches and materials.

In order to work on the theme of tourism in the World Heritage context, the following basic facts provide some essential information on World Heritage before entering into the topic of tourism.

Basic Facts on the World Heritage Convention

This short section provides basic information on World Heritage and the World Heritage Convention. Further information and links can be found under Educational Materials and Links.

The World Heritage Convention, adopted by UNESCO in 1972, is an important legal instrument that has become the cornerstone of the heritage conservation movement worldwide. One hundred thirty-eight countries (State Parties) have signed the "Convention Concerning the Protection of the World Cultural and Natural Heritage," known as the World Heritage Convention, making it the most successful international cultural and natural heritage conservation instrument in the world. The Convention is profoundly original in that it links together in a single document the concept of nature conservation and the preservation of cultural sites.

Responding to increasing threats to heritage caused by poverty, neglect, or ill-considered economic growth and development, the World Heritage Convention encourages countries to identify, protect, preserve and present cultural and natural heritage for future generations in a spirit of international cooperation. Inscription on the World Heritage List is only a first step towards safeguarding these sites for future generations. Management and preservation efforts are an on-going process that involves local communities, site managers and national authorities.

A site is inscribed on the World Heritage List when it complies with the following: (i) is of outstanding universal value, (ii) fulfills at least one out of six criteria for cultural sites and at least one criteria out of four for natural sites, (iii) demonstrates the authenticity and integrity of the site and (iv) demonstrates that the site is properly protected (by legislation) and managed.

Authenticity: To be authentic, a property or site must not have been too extensively restored or embellished over the centuries. For the most part, it should be as it was during its construction or, in the case of a natural site, during its formation.

As of July 2009, there are 890 World Heritage sites in 148 States Parties inscribed on the World Heritage List. In East Asia, there are 64 World Heritage sites: 48 cultural, 12 natural and 4 mix.

The Concept of World Heritage:

- Promotes conservation of heritage that is of outstanding universal value;
- Encompasses both cultural and natural heritage;
- Features heritage which is immovable (it cannot be easily moved, such as buildings, monuments or biological formations and habitats of plant or animal species);
- Emphasizes the irreplaceable nature of heritage;
- Stresses that conservation of World Heritage is dependent on collective international action.

World Heritage and Tourism

World Heritage sites attract tourists, but increased tourism always carries the risk of harming the very attributes that led to the sites inscription on the World Heritage List. This is the paradox of cultural tourism, which is centred upon its capacity to generate so many benefits and yet, at the same time, create pressures and problems.

The Kit's section on the theme of tourism highlights tourism as a major factor within the context of preserving both cultural and natural World Heritage sites. Clearly, tourism has a major impact – positive as well as negative – on these sites. The Kit aims to raise students' awareness of tourism's power and impact with regard to World Heritage sites by introducing a series of different issues and concerns related to tourism development.

Objectives

The section starts with a list of objectives related to knowledge, attitudes, and skills that help teachers to focus on their teaching achievements. The objectives aim to:

- raise students' knowledge and awareness of the issues of world tourism and its impact on World Heritage sites;

- address students' attitudes in understanding and respecting the need to introduce new forms of tourism conducive to heritage appreciation and conservation;
- help students develop the necessary skills to enable them to better analyze the threats of tourism and the ways to overcome them.

These objectives provide implicit references to ESD principles. Teachers can easily add the SD objectives when applying the activities, infusing understanding of sustainability and values.

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World Heritage Education Kit : Tourism

Teaching Materials and Student Activities

World Heritage and tourism

- Tourism : worldwide phenomenon and big business
- World Heritage, tourism and ecologically sustainable development
- Tourism management at World Heritage sites

World Heritage and tourism	Page
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Each thematic section concludes with a page “Across the Curriculum,” which is intended to provide teachers with specific ideas and basic assistance as to how the section contents can be applied in their lessons, i.e. art, geography and history, language and literature, mathematics and social sciences.

This is useful, but will sometimes require further provision of information or attached materials for the teachers to prepare their class (see section on Educational Resources and Links in this chapter). At the same time, this page helps teachers to tease out ESD values.

Themes

The Kit approaches World Heritage and Tourism with a focus on three themes:

- **Tourism as a worldwide phenomenon and big business** and, therefore, a commodity that poses threats to World Heritage sites (damage to sites through wear and tear; misbehaviour of

tourists; construction of facilities; etc.) as well as brings advantages (economic development of local community – jobs; boost for arts and crafts and many other so-called cultural industries, etc.).

- **World Heritage, tourism and ecologically sustainable development** introduce to students the fact that the resources (cultural and natural sites) need to be managed and coordinated well for the sites to “survive the impact of tourists” in the long term. Tourism management therefore provides glimpses into what is all involved in maintaining and protecting sites and keeping the balance so that visitors can come and enjoy the site, as well as how sites present themselves to the visitors not only providing visual enjoyment but information and education and therefore give an enjoyable/memorable visit to the tourists.
- **Tourism management at World Heritage sites** looks at larger issues of tourism impact such as infrastructure projects that could negatively affect a site.

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World Heritage Education Kit : Tourism

Teaching Materials and Student Activities

Across the curriculum

- Art
- Geography/History
- The Internet
- Language/Literature
- Mathematics
- Social Sciences

Across the curriculum: World Heritage and tourism

Art
Design a tourism campaign – including posters – to attract visitors to a site. Design, and if possible produce, site tourist information leaflets. Draw, paint or visit a site, develop images sketched on site lists, for example abstract art, designs for clothing. Design a poster concerning the need to conserve local/national/regional World Heritage sites, research past images of the site, the reasons for its existence and whether the tourist situation has changed.

Geography/History
Discuss whether and why (or why not) the site has been a tourist destination for a long time. Discuss whether the history of the site makes it relevant to local, national, regional or world tourism. Highlight how to identify explain the history of the site to tourists. Study various sites by visitors and discuss solutions, such as alternative routes.

The Internet
Search the Internet using the key words 'World Heritage' and 'tourism' for more information about World Heritage and tourism in specific countries or regions.

Language/Literature
Write information leaflets for tourists: general public, for disabled visitors, disabled visitors, young people, etc. Write advertising slogans for a site. Write and record audio/visual tours of a site. Discuss or role play the value of heritage sites and possible threats from tourism. Translate site information into other languages. Develop a range of advertising leaflets concerning local, regional or national World Heritage sites. Research references to any site mentioned in a novel or story and discuss how extracts of literary texts could be included in brochures and documentation for tourists.

Mathematics
Use graphs, pie charts or statistics to discuss tourist trends and their likely implications for World Heritage sites, calculate and record the results of questionnaires or survey work.

Social sciences
Carry out a survey of visitors to sites by giving out questionnaires. Interview managers of sites to learn about positive and less positive effects of tourism on the conservation of heritage sites.

These themes touch upon elemental ESD principles. For the teacher it will be helpful to be aware of very specific ESD principles in the context of tourism, such as: (i) to appreciate benefits and problems arising from various forms of tourism, especially in those in the form of social equity and the environment; (ii) to develop critical awareness of the ways in which tourism can enhance the welfare of people and protect our cultural and natural heritage; and (iii) to promote personal commitment to forms of tourism that maximize rather than detract from social human development and environmental equality.

The Kit provides a series of useful student activities that aim to raise the awareness, understanding and commitment of students. Let us look at a selection of these activities under the topic of tourism:

Four out of six student activities in the tourism section have been chosen to infuse ESD values or in some case tease out the ESD values. These are suggestions which the teachers can adapt to their own requirements.

Reminder: The activities in the Kit are for students who are 12-18 years old.

Student Activity 24 under the theme “Tourism as a Worldwide Phenomenon” is designed for students to better understand the advantages and potential threats from tourism to heritage sites.

The activity is designed as a discussion classroom activity, with a duration of one class period, for language and social studies classes.

Activity: Divide the class into two groups; Group 1 shall make a list of advantages of tourism for the local site or World Heritage Site. Group 2 shall make a list of threats caused by tourism to World Heritage sites.

One student from each group shall then present the lists and the class shall discuss how tourism threats could be reduced.

ESD infusion and additional strengthening of the activity: The teacher’s knowledge, skills and imagination are required to deepen the activity to achieve enhanced results:

- Basic facts and information need to be provided about World Heritage and tourism.
- Students should list not only threats or advantages for the site, but also for the people/ community living in/around the site. This should include any impact or changes to the site.
- The activity can be made into a project by asking students to adapt these lists into questionnaires and interview local people/stakeholders, as well as tourists; then students can analyze the results and write an essay (or any other means that the teacher finds suitable) on how threats can be mitigated or advantages strengthened and what they, as students, can do or contribute.
- After a school vacation, teachers can ask their students who travelled during the vacation to any cultural or natural sites to share the experience and reflect on whether they realized any changes in their own attitude or perception between the “lesson at school” and the trip.
- It is important to infuse action-oriented activities that encourage students to get involved.

Teachers' Aid

Tourism – advantages and potential threats within the larger framework of ESD:

Tourism has many obvious advantages: it can provide jobs, bring foreign currency, raise living standards, lead to improvement of infrastructure such as roads and communication, as well as medical care. Travellers can admire the sites and learn more about both the site and the country harbouring it: the environment, culture, values and ways of life. This can promote international understanding and solidarity.

Tourism can also have negative effects and damage a site through carbon monoxide fumes from cars and buses, increased water use and sewage, disturbances to wildlife, overcrowding, or uneven distribution of benefits.

All tourism and recreational activities lead to environmental and social changes. It is important and useful to identify the differences between tourism-related positive/negative impacts and those caused through general development.

Student activity 25 under the theme “The World Heritage and Tourism Game” is designed for students to have fun while understanding vital issues of in site management and tourism.

The activity is designed as an exercise classroom activity, requiring three class periods, for classes in social studies and geography.

Activity: Divide class into small teams of 2-4 students.

In the first class period, provide each team with information on one World Heritage site (data, photographs, location, characteristics). Each team will represent their site during the activity. With teachers' assistance, each team should prepare a 'tourism management plan' for their site.

In the second class period, students can start the game. Each team throws the dice and moves to the place indicated. Once both teams have moved, some time is given (10-30 minutes) to prepare what is indicated in the squares. If a team fails to successfully complete a task, it cannot move forward. When a team is in a square with a POSTER indicated, it should use the time to prepare a poster promoting the site. The first team to reach FINISH, having completed the tasks and the posters is the winner.

During the third class period, students can discuss the results and present their posters.

World Heritage Education Kit : Tourism

Teaching Materials and Student Activities

Student activity sheet

start Your site is included on the World Heritage List. Prepare a tourism management plan to the other teams. 1	POSTER 2	POSTER 3	The site is hit by a natural disaster. Explain what happened (using your account the characteristics of your site and any damage). move back to START 4	POSTER 5	There is a lot of litter on your site. Write down 5 ways to solve this problem. go back 4 squares 6
POSTER 7	POSTER 8	POSTER 9	The information centre at your site is criticised for its lack of facilities. Write a letter to visitors asking for donations to renovate the centre. Go back 5 squares 10	POSTER 11	A record number of tourists visit your site. The money raised enables you to start a major recreation programme. What will you prioritise and why? Explain this through a drawing, without words. move forward 5 squares 12
Part of the site collapses through poor maintenance. Make a list of the problems (at least 5) and the solutions to be applied. return to START 13	An appeal for funds for conservation is successful. Write down this appeal, including 7 reasons why you should receive the funds. move forward 5 squares 14	A new tourist hotel has been built. The manager understands the importance of conservation of World Heritage. Make an advert for the hotel, to be published in a magazine. move on 4 squares 15	The ICORNOS five-year review is critical of your conservation record. go back 5 squares 16	POSTER 17	Your site was featured on national television. move forward 5 squares 18
POSTER 19	The many tourists have visited your site, causing major erosion. Write down 5 advantages and 5 disadvantages of tourism at your site. go back 11 squares 20	POSTER 21	Your hotel has to close because of a leaking roof. go back 6 squares 22	POSTER 23	finish You have a well-conserved site with a good management plan. Write a report on your management plan, problems encountered, and solutions applied. 24

ESD infusion and additional strengthening of the activity; teachers' knowledge, skills and imagination are required to deepen the activity to achieve enhanced results:

- Choosing a site for each team should be less dictated by the teacher, but more a choice of the students (students should be involved in some way).
- The students themselves should identify information on the site (own holiday trip; internet; guidebooks; school library, etc.).
- Not much explanation is provided as to the game – the teacher has a range of possibilities: students might wish to develop their own game and questions; it could be an outcome of the activity – to improve the game so that it better meets the needs of the students.
- The questions could be developed in such a way that they are more suitable to the local context and thus more familiar to students or they could provide a useful mix of local and international ideas and concepts. All questions can be improved to stimulate ESD concepts of sustainability and values.
- The posters in the current activity focus only on promoting the site; this would be an excellent possibility to infuse other ideas in creating posters. Teachers can also include their course topics (arts, history, mathematics, etc.) into the poster element within a concept of tourism, i.e. mathematics. Students can design a poster that reflects visitor numbers and how many visitors or fewer visitors affect a site.

Teachers will be interested to learn that another World Heritage game was developed by teachers in 2001 at a Southeast Asian World Heritage Education training workshop held in the Philippines. The workshop produced the Heart Activities, including The World Heritage Board Game, in order to introduce Southeast Asian World Heritage sites to students so that they gain awareness of the values of the heritage and different cultures. The focus of that board game is on World Heritage without tourism.

Teachers Aid

To play the board game as proposed, teachers will require more information on a Management Plan. Even experts, site managers and government authorities have different opinions of what a Management Plan for a heritage site or more importantly a World Heritage site should include. So it is important for teachers to use good examples of Management Plans or management systems or point students to such Management Plans (the section on Educational Materials and Links in this chapter provides some guidance).

The Operational Guidelines to the World Heritage Convention provide basic ideas of a Management Plan for a World Heritage site (paragraphs 108-112). In essence, effective management requires: thorough shared understanding of the site by all stakeholders; a cycle of planning, implementation, monitoring, evaluation and feedback; involvement of partners and stakeholders; allocation of necessary resources; capacity building and accountable, transparent management system.

Some sites develop a separate tourism management plan in addition to the Management Plan (see section on Educational Materials and Links for more information): UNESCO Manual Series 1: Managing Tourism at World Heritage Sites – a Practical Manual for World Heritage Site Managers. As a teacher you can check in your own local environment about such processes – or make it into a preparatory group work for your students. Alternatively you can contact a World Heritage site close to you – you will find that can be helpful and they are interested to work with teachers and/or students.

Remember that the board game hopes to teach students that tourism is important but tourism needs to be properly managed, and integrated in the overall safeguarding of the World Heritage site, otherwise the resource – the site – will suffer in the long term.

Student activity 26 under the theme “World Heritage, Tourism and Ecologically Sustainable Tourism” is designed for students to learn how to be a respectful tourist.

The activity is designed as role play, as classroom activity or extracurricular activity, requiring several class periods, for language classes and classes in social studies.

Activity: Invite students to write and perform a play about an ill-behaved tourist, someone who disrespects the sites, spreads litter, sometimes damages them with graffiti or otherwise, makes fun of local traditions and customs and who is mainly interested in personal comfort, and a respectful tourist who is keen to learn more about local traditions and culture.

Once the play has been written and performed, discuss how such a disrespectful tourist could be changed.

Invite students to select a local, national or World Heritage site and make a list of suggestions for a campaign which would give tourists a new way of visiting a site. Discuss and share with local tourist board or heritage society.

ESD Infusion and additional strengthening of the activity: Teachers’ knowledge, skills and imagination are required to deepen the activity to achieve enhanced results:

- Ill-behaved/respectful behaviour of tourists can be used to teach about learning about ‘the other’, intercultural dialogue, understanding and peace – role play and other ways can be used to teach this.
- Ask students to develop a poster or list of do’s and don’ts/behaviour guidelines at World Heritage sites; often these lists exist – ask students to check out any such behaviour guidelines that might exist at heritage sites and places in your locality; ask the students to check and improve them.
- This can be an interesting activity for language classes – as the existing behaviour guidelines often have grammatical and other errors.
- Teachers should spend more time on why a tourist is disrespectful or does appear disrespectful – different cultures and perceptions – importance of understanding ‘the others’; concrete translation into tourism planning, visitor do’s and don’ts, etc.
- In addition to the tourists, what can tourism service providers as well as the local community stakeholders contribute to (environmental) sustainability.

Teachers Aid

There are some general behaviour guidelines for tourists: While planning their trip, tourists should prepare themselves by learning in advance about the destination, by patronizing tourism service providers such as airlines or travel agents or hotels that demonstrate a commitment to environmental practices; avoid peak-seasons such as “golden weeks.”

Once at the destination, tourists should respect local cultures and traditions. In order to do so, tourists must have an understanding of the basic features of the local culture; support local economies by buying local goods and services; contribute to local conservation efforts; conserve and preserve the natural environment; not disfigure cultural sites and monuments; use energy and water and dispose of waste efficiently; be careful with fire; avoid unnecessary noise; only use designated roads and paths.

Many of these guidelines for tourists are also important to be adhered to by the local community stakeholders.

Student activity 28 under the theme “Tourism Management at World Heritage Sites” is designed for students to better understand the diversity of interests and views involved in relation to development, tourism and World Heritage.

The activity is designed as role play, as classroom activity, and as extracurricular activity, requiring several class periods and out-of-school time. It is suitable for geography, mathematics, science and language classes.

Activity: Divide the class into five groups and distribute a copy of the student activity sheet to each group (building a highway through a World Heritage natural site in New Zealand: five stakeholders, including the director of the forest and bird protection society, the general manager of the Westland Country Council, the forest service ranger, the Transport Minister and the Daily Times newspaper editor; and make pro or cons statements). Ask the students to match the statement with the appropriate stakeholder. Then give each stakeholder and each group a number (1–5). Ask each group to further develop the statement for which they are responsible.

After preparation time, each group designates one member to take part in a public debate in the classroom and defend the views of their stakeholder. Each group shall select one member as part of a jury which will decide after the debate if the road shall be built or not. Discuss the decision made.

ESD infusion and additional strengthening of the activity: Teachers’ knowledge, skills and imagination are required to deepen the activity to achieve enhanced results:

- Students should identify a problem in their community/locality that they think is relevant to this theme and discuss (teacher can guide this if necessary).
- The teacher can guide students in developing the activity into a project – gather visitor

data and interview people in the town/locality – people from “both” sides and analyze their comments; write a play and perform it in different ways or write new tourism policies or develop tourism management objectives.

- Encourage students to discuss in depth one or more problems in their community/locality. Infuse the concept of “shared responsibility” into the students’ minds.

Teacher Aid

A major challenge for World Heritage conservation is to allow people to visit sites without causing adverse effects. Sites that remain beautiful and well preserved because of their inaccessibility are now increasingly becoming targets for tour operators and tourists, as well as for government authorities. Consequently, in addition to site management, World Heritage conservation requires proper tourism management. Goals and objectives give direction to site managers and set an agenda for defining the experiences that will be offered to visitors, as well as for determining the limits of tourism development. This requires attention to: policy goals; issues of authenticity and integrity; stakeholder concerns; identifying common interests with stakeholders; visitor preferences and demand.

The activities and topics addressed are only a fraction of what can be discussed, transmitted and learned about tourism and World Heritage while keeping ESD principles in the forefront by addressing key areas of the society, environment, economy and culture.

Other areas that can be beneficial to the students and increase their understanding of heritage, tourism and sustainability are: (i) benefits and challenges of public participation, (ii) carrying capacity and related planning issues, and (iii) promotion of heritage sites.

- (i). Any sustainable tourism programme must work in concert with stakeholders or interested parties, including government agencies, conservation and non-governmental organizations, developers and local communities. Their participation in the planning and management process is of paramount importance.
- (ii). Understanding carrying capacity is essential for the planning, management and safeguarding of a site. The concept of limiting change to heritage sites while still allowing for development within surrounding communities is crucial in designing sustainable tourism management programmes.
- (iii). Promotion of a site can play an important role in meeting the educational and financial goals for a site. If a site can accommodate greater numbers of visitors and has a mechanism for retaining tourism earnings, it can be promoted to draw in additional visitors and generate increased revenue for sustaining operations, solving management problems and meeting goals.

With the assistance of educational resources and materials, teachers can further develop interesting student activities within common objectives.

Multimedia Resources

The importance of multimedia World Heritage Education material has recently begun to receive increased recognition and, thus, has undergone tremendous development in order to realize its powerful educative potential.

During an international World Heritage Education conference held in Egypt in 2002, participants from 20 countries agreed on the importance of developing innovative multimedia educational material on World Heritage. During the workshop on 'Shared Legacy, Common Responsibility' held in Treviso, Italy in 2002, guidelines were proposed for the production of a CD-ROM as a new multimedia World Heritage Education resource material. Since then, countries have actively been preparing material on selected sites in their countries.

UNESCO has received a good number of contributions from different countries. The materials they prepared include CD-ROMs, DVDs, videos, photos, cartoons and teacher's guide prototypes. These materials are very diverse and of unequal quality both in terms of content, presentation and support.

In addition, a new cartoon series entitled "Patrimonito's World Heritage Adventures" was developed on the basis of storyboards prepared by young people to transmit the message of World Heritage protection and preservation to their peers. The cartoon series was launched during the celebration of the thirtieth anniversary of the World Heritage Convention in November 2002, and a winner was selected. The winner, a 14-year-old Cuban student, had his storyboard brought to life with the help of a professional animation company, and Havana, Cuba became the first episode of the Patrimonito World Heritage Adventures cartoon series.

Seven other episodes of the Patrimonito series have since been developed, including the Wooden Churches of Urnes, Norway, the Sub-Antarctic Islands, New Zealand, the Rock-Hewn Churches of Lalibela, Ethiopia, Historic Monuments of Novgorod and Surroundings, Russian Federation, The Virunga Mountains, Democratic Republic of Congo, Climate Change and the Great Barrier Reef, Australia, and Old Town of Avila, Spain. Significantly, this series will allow WHE to reach the general public in a broad, entertaining, and influential way.

Introduction to Educational Resources

- Multimedia Activities

Patrimonito's World Heritage Adventures



**Patrimonito
in Norway**



**Patrimonito
in New Zealand**

Educational Materials and Links

The following list provides links to materials about World Heritage and tourism that can help teachers in the preparation of classroom activities:

World Heritage

- The World Heritage Education Kit: www.unesco.org/whc
- The Operational Guidelines to the World Heritage Convention: www.unesco.org/whc
- The World Heritage List: www.unesco.org/whc/heritage.htm
- The World Heritage List in Danger: www.unesco.org/whc/danglist.htm
- State Parties to the Convention: www.unesco.org/whc/wldrat.htm
- World Heritage Information Network (WHIN): www.unesco.org/whc/whin/enindex.htm
- World Heritage Newsletter: www.unesco.org/whc/news/index-en.htm and www.unesco.org/whc/news/whnews.htm
- The World Heritage programme: <http://whc.unesco.org/en/wheducation>
- Patrimonito: <http://whc.unesco.org/en/patrimonito>

- Heart Activity Sheets (boardgame) in: World Heritage in Young Southeast Asian Hands, Second Sub-regional Workshop on the Introduction of the Arts for Teaching on the Historic Environment, UNESCO Bangkok, 2004.
- Memory and Marvels: www.unescobkk.org/culture
- Mobilizing Young People for World Heritage – World Heritage 2002: Shared Legacy, Common Responsibility; World Heritage Paper 8, (with CD-Rom): http://whc.unesco.org/documents/publi_whc_papers_08_en.pdf

Education

- Associated Schools Project Network (ASPnet): www.unesco.org/education/asp
- Education for Sustainable Development (ESD): www.unesco.org/education

Tourism

- Sustainable Tourism in Teaching and Learning for a Sustainable Future – A Multimedia Teacher Education Programme, UNESCO 2005.
- Tourism, Culture and Sustainable Development, UNESCO 2006.
- UNESCO Manual Series 1: Managing Tourism at World Heritage Sites – A Manual for Site Managers.
- Travel and tour agencies in your country.
- Your country's government body for tourism – i.e. China Tourism Administration, etc.
- PATA – Pacific Asia Travel Association: a network of the tourism industry with website and useful up-to-date information on Asia and travel/tourist statistics: www.pata.org
- UNWTO – World Tourism Organization www.world-tourism.org
- In addition, guidebooks, travel and tourism magazines, and newspapers provide useful information on current issues and concerns in tourism related matters.



CHAPTER 3 Localizing WHE With ESD: Pedagogy, Practices and Challenges

Isoo Tabuchi

Professor, Nara University of Education, Japan

UNESCO promotes World Heritage Education, as well as Education for Sustainable Development. WHE and ESD have their own aims, themes, and learning methods. However, when they are integrated, we can expect to observe a greater effect on education, itself.

There have been many reports on ESD, but WHE has just started in East Asia. Although pilot testing is being undertaken on UNESCO's WHE Resource Kit, *World Heritage in Young Hands*, it still requires further promotion. Similarly, integration of ESD and WHE needs more attention, particularly in relation to translating theory into practice.

In this chapter, the difference between ESD and traditional education, and the similarity between ESD and WHE are clarified. WHE is then sub-categorized, and its relation to ESD is discussed. Two educational practices at the Nara University of Education, Japan, will clarify these points. One is for international understanding through cultural exchanges, and the other is for peace education through World Heritage fieldwork. Finally, a trial teaching plan addresses "World Heritage in Danger."

Pedagogy – A Complementary Relationship

A key word in discussing the difference between ESD and traditional education is 'equity.' Sustainable development can be understood as 'sustainable society' or 'sustainable future.' For example, we should not pollute the air and water, nor damage the ecosystem for the next generation. ESD offers the knowledge to realize this idea, and is different from traditional education practices in the following points:

1. National versus global goals

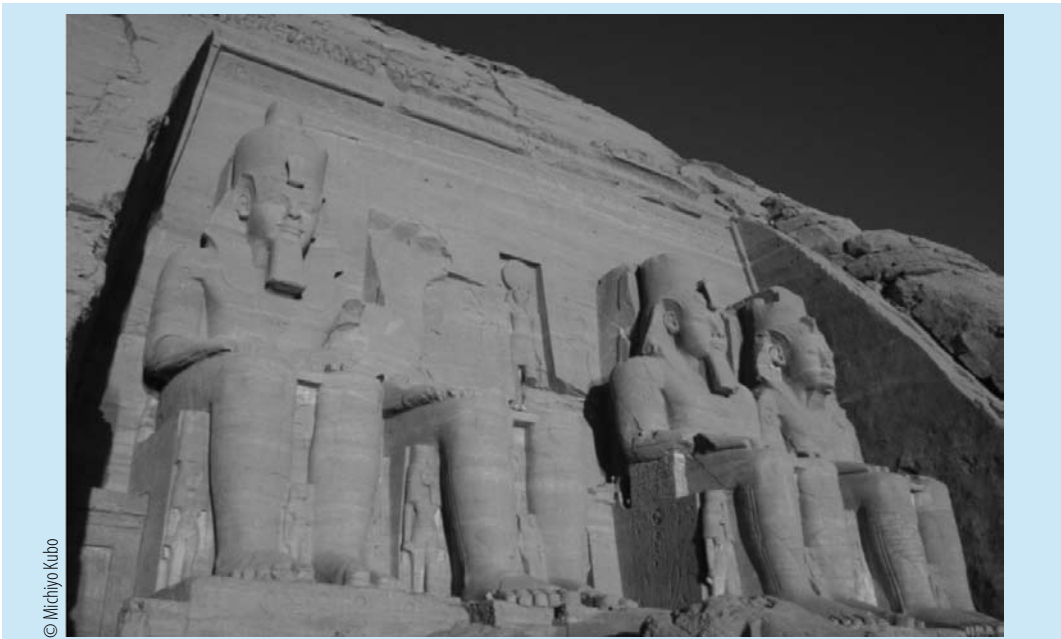
Traditionally, education is the nation's responsibility, and it is operated for the nation's development. On the other hand, the aim of ESD is sustainable worldwide development from a global viewpoint.

2. Present versus future-oriented

Traditional education is targeted at people in the present; however for the next generation, this is not good enough. ESD aims to educate people to be responsible for the future. Its themes are global issues for sustainability for future generations, i.e. environment, population problems, civil wars, peace, and human rights. ESD emphasizes the concept of equity, especially regarding the environment, so that we preserve our natural resources and ecosystem for the future.

3. Similarities between WHE and ESD

Both WHE and ESD share the same concept that World Heritage is not only a specific nation's treasure, but all people's treasure. We sustain them as precious treasures for the future. The Convention Concerning the Protection of World Cultural and Natural Heritage was concluded in 1972, with the protection of the Nubian monuments in Abu Simbel acting as a symbol of the Convention. The ancient shrine was supposed to be submerged under a dam construction plan of the Egyptian government. UNESCO raised funds from the global community and saved the shrine by relocating it to higher ground. This action demonstrates that the Nubian monuments were not only considered an Egyptian treasure, but also an irreplaceable global treasure.

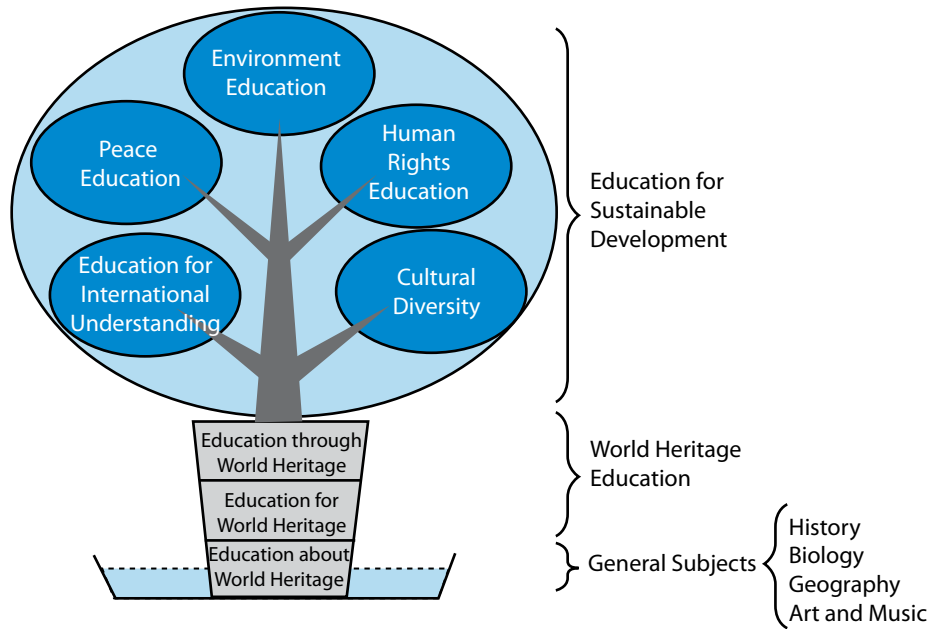


The Abu Simbel Shrine

The WHE goal is to educate students to understand the value of World Heritage and to be responsible in protecting and handing it down to future generations. WHE and ESD have similar integrated procedures: obtain knowledge, recognize the value, and improve attitudes.

The relationship between WHE and ESD is understood more clearly by sub-categorizing WHE as follows:

1. Education *about* World Heritage
2. Education *for* World Heritage
3. Education *through* World Heritage



Education *about* World Heritage

One aspect of WHE is to provide students with knowledge and have them recognize the value of World Heritage. Students learn how the “Convention Concerning the Protection of World Cultural and Natural Heritage” was concluded, what criteria the Heritage sites meet, what Heritage sites are located in their community and around the world, and the value of them.

Another aspect is about problems related to World Heritage. Many World Heritage sites are under threat of being damaged as a result of the large number of visitors to them after becoming officially listed. Commercialism has changed quiet, natural and simple villages into busy ‘theme parks’ with souvenir shops and stalls around them.

A third aspect is the understanding of the people who live in the sites. Since Sirakami-Sanchi, which has precious beech forests in Japan, was listed as a Natural Heritage site, people living on traditional hunting grounds around the area have difficulty keeping their traditional life due to many regulations. The minority people’s voices are often ignored. It could be said that

UNESCO has contributed to the disruption of nature and people's life. Through WHE, we should encourage students to see things from both the positive and negative perspectives. This method can also improve the students' skills in critical thinking.

Education for World Heritage

WHE is designed to educate students about responsibly handing down World Heritage sites to future generations. Students will learn the 'irreplaceable' value of World Heritage and realize the importance of protecting it. This education is related to moral and ethics education, as students learn how to respect and value historical monuments and the natural environment.

Education through World Heritage

WHE is closely related to international peace and human rights education as students learn the importance of international understanding and international cooperation, as well as the meaning of peace and human rights. Many endangered World Heritage sites are located in areas of warfare and conflict. Precious cultural properties have been destroyed in intolerant societies that do not accept cultural diversity. A typical case is the Great Buddhas of Bamiyan in Afghanistan. Unique creatures found in natural parks are also included in the World Heritage in Danger list.

Through this education, students can learn the meaning of peace, cultural tolerance and social equity as independent issues. Sustainable societies preserve the environment and respect peace, human rights and social equity. WHE is closely related to ESD, and these two should be practiced together.

Putting Concepts into Practice

World Heritage in Young Hands shows many teaching methods, but most of them are generalized. Some originality is needed when teaching in your own country. Nara Prefecture, Japan, has three World Heritage sites: Buddhist Monuments in the Horyu-ji area, Historic Monuments of Ancient Nara, and Sacred Pilgrimage Routs in the Kii Mountain Range. Using these sites as teaching materials can help raise students' pride towards their hometown and their identity. On the other hand, it might encourage ethnocentrism. It is vital to refer to other sites outside your own locale to expand students' perspectives from the point of similarity and individuality.

WHE in the Local Community

A merit of WHE in the local community is that students can take ownership and change the image of this education. A demerit is that extra effort is needed to encourage students to learn

because the World Heritage site in their community is “too close” for them to understand what they should learn. Instruction should be generalized and comparisons should be made to sites in other locations.

Following is an introduction to a lecture on “Curriculum and Instruction of Social Studies” at the Nara University of Education. This could be applied at the secondary-school level.

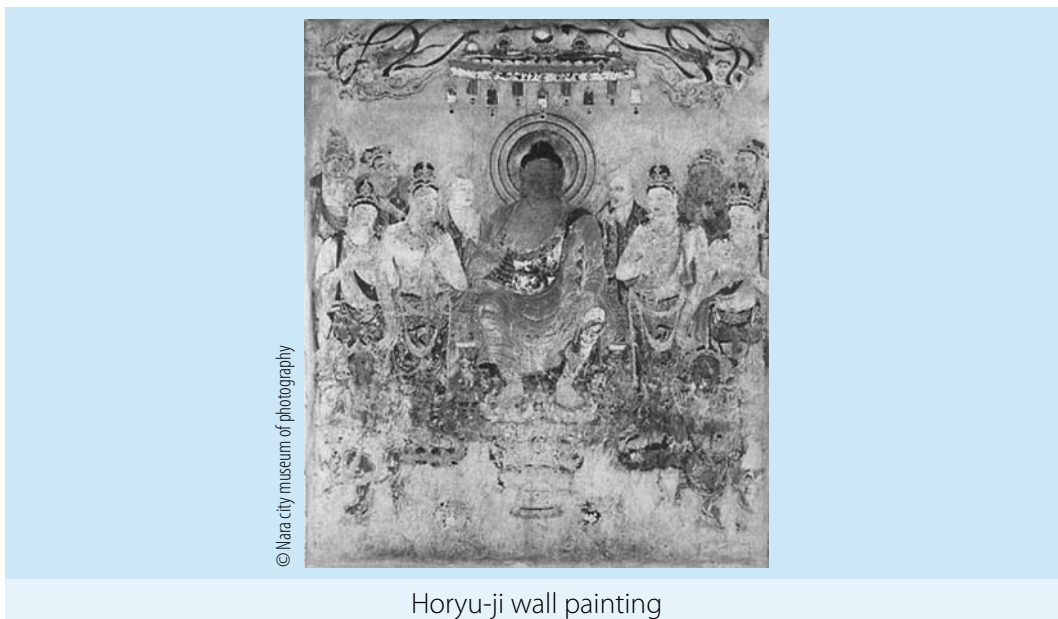
Objectives

- To have students understand that the World Heritage sites in Nara are derived from cultural exchanges with China and Republic of Korea and through the Silk Road, thereby understanding their international significance.
- To have students learn, through watching videos and undertaking fieldwork, that all cultures are influenced by other cultures and that cultural fusion occurs according to unique patterns of integration.

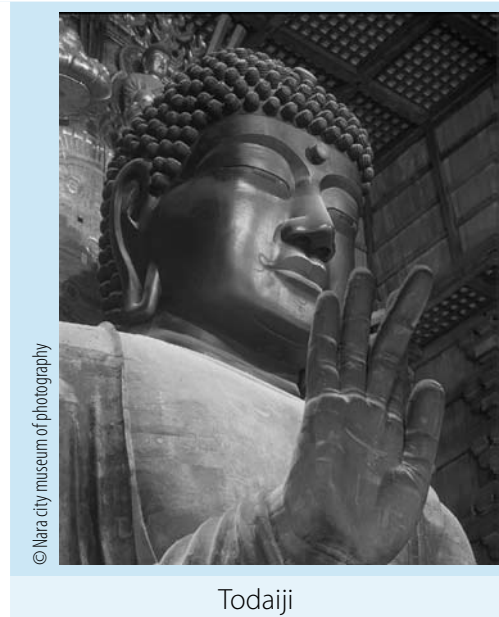
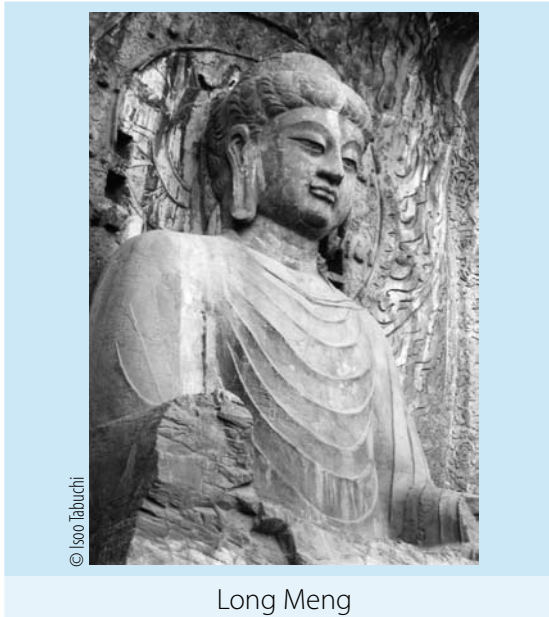
Procedures

- Recognize the meaning of cultural exchange in ancient times.

A World Heritage site, the Horyu-ji Temple, Japan, is known as the oldest wooden building in the world and is famous for its wall paintings. One of the paintings closely resembles another wall painting in the Mogao Caves, Dong Huwan, China. The Mogao Caves is also listed as a World Heritage site. Comparison of the images indicated that cultural exchanges between the two countries occurred between the end of the 7th century and the beginning of the 8th century.



Another World Heritage site – the Todaiji Temple, known as the biggest wooden building in the world – is famous for its Great Buddha. Its original model was the Great Buddha of Long Meng Grottoes, a World Heritage site in China. By comparing the two images, it can be seen that constructing huge Buddha statues was common in China and other countries in Central Asia, and that it influenced the construction of the Great Buddha in Nara.



There is a storehouse called Shyoso-in at the Todaiji Temple site, where goods used by ancient emperors are kept, and where shiny cut glass made in ancient times can still be found. In 1950, weathered cut glass was excavated in Iran (Islamic Republic of), and it was proven that the cut glass kept in Shyoso-in came from Iran (Islamic Republic of). By comparing the two items, students can see that cultural exchanges occurred through the Silk Road.



- Recognize the fact of cultural fusion and cultural change

Yakushiji Temple, a World Heritage site, is dedicated to the three Healing Buddha statues, which are Japanese national treasures. The four patterns inscribed into the main stand are from four different cultures: Greek grapevine arabesque, Iranian lotus petal pattern, Indian persons' images, and four mythological animal patterns that can also be seen in other East Asian countries such as China and Republic of Korea. This clearly shows that cultural exchange and cultural fusion occurred in ancient times.



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Yakushiji Temple



© Nara city museum of photography

Healing Buddha statues



© Nara city museum of photography

Main stand



© Nara city museum of photography

Mythological animal patterns

Through these teaching materials, students can start to critically analyze this statement: "There exists a pure Japanese culture." They can learn that no culture can exist alone, and that Japanese culture has been formed through the influence of other cultures.

While learning about one's own heritage can lead to narrow-minded nationalism and misconceptions of a country's superiority, comparing World Heritage sites in different places can give students a broader view. Students learn the fundamental importance of cultural diversity. These lessons can, thus, help to reduce ethnocentrism.

Visiting World Heritage Sites in Other Places

During World War II, America did not conduct air raids on Nara. This is why the shrines and temples and subsequently included in the World Heritage list. On the other hand, the city of Hiroshima was bombed and completely destroyed. Many primary schools in Nara prefecture make school trips to Hiroshima for peace education. Students visit the Peace Memorial Park, A-Bomb Dome, and Peace Memorial Museum. The exhibition in the museum has a great impact on students, and has an educational effect. Additionally, when students learn of the victims' wishes for peace, the educational effect is far greater.

Objectives

- To understand the consequences of the atomic bombs through visits to the Peace Memorial Park, A-bomb Dome and the Peace Memorial Museum in Hiroshima.
- To share the wish for peace by listening to the recorded interviews of the atomic bomb survivors.

Fieldwork

Interviews conducted with the atomic bomb survivors play a vital role in this fieldwork. Since they are aging and the number is reducing, we have to record and maintain their experiences as soon as possible.



A-bomb Dome



Peace Fountain

There are many memorials located around the Memorial Park, one of which is the huge fountain in front of the museum. It is called the Peace Fountain, and water has never stopped running even during the dry season. The following is an account from one of the atomic bomb victims:

On the 6th of August 1945, I was living in Hatsukaichi, a suburb of Hiroshima City. We heard news of what was happening in Hiroshima, and I went there as a member of the rescue corps.

It was "hell beyond any imagination." The bandages and Mercurochrome we took were all gone in minutes. All the victims came to us asking for water, but we were ordered not to give them water because it would mess up those people's inner balance. We just encouraged them, saying, "Sorry. Wait for a moment." Soon the victims died one after another in the scorching summer sun.

"Why didn't we give them water? Anyway, they had to die." "If I had given them some water then, they could have died peacefully." We kept regretting. We all regret about that. All our regrets led to the campaign to make the fountain. The water running there is an offering to those who couldn't drink any water and died.

We can see the fountain and other monuments at any time, but we usually do not have the chance to hear people's intentions and aspirations for those monuments. The interviews with the victims in the students' fieldwork change their idea about peace. They understand the same things can be said about other places, and returning back from Hiroshima, they are eager to expand their new learning.

This experience will show its effect when the students become teachers. They can talk to their own students about the experience in Hiroshima and the victims' wishes from their own heart.

Challenge

If we only focus on the atomic bomb experiences in Hiroshima, it could be a one-sided educational experience that might raise the sense of being victimized. We need both views to teach history. Students also need to learn to see from a personal, as well as from a national, viewpoint. We need to challenge new educational practices to realize humankind's eternal wish peace.

Teaching about Challenges for World Heritage

An effective way for students to learn the value of World Heritage is to use the "World Heritage in Danger" theme as content for teaching material.

We can learn about many global issues, such as north-south problems and poverty in developing countries, through the World Heritage in Danger list. There are 34 sites on the World Heritage in

Danger list, which is 4 percent of all sites, with 19 cultural properties and 15 natural properties. Of these, 16 are in Africa, 12 in Asia, 4 in South America, 1 in North America and 1 in Europe.

There are five causes of danger: warfare; natural disasters; urbanization and tourism; large-scale construction near sites; and poaching. The following are some examples:

Many World Heritage sites in danger are in warfare areas. One example is the Great Buddhas of Bamiyan Valley in Afghanistan, which were destroyed by the Taliban government. Similarly, the excavation of Assur, the first capital of ancient Assyria, has been suspended in Iraq as a result of on-going conflicts.

More optimistically, some World Heritage sites have been removed from the “in danger” list after peace was resumed, as witnessed by Angkor Wat in Cambodia. The Old City of Dubrovnik in Croatia has also been unlisted. The city was damaged during the civil war in Yugoslavia, but when peace returned, people started to restore the streets by piling up broken bricks one by one. These cases teach us the importance of peace.

An example of damage from natural disaster is Bam in Iran (Islamic Republic of). A town that had prospered from the Silk Road, it was completely destroyed during the 2003 earthquake. About 30,000 out of 100,000 people were killed. People were still living in temporary container housing in 2006. The Citadel of Bam (*Arg-e Bam*), constructed with sun-dried bricks, became a pile of broken pieces. Restoration has started, but it will take decades to return the Citadel to its original state.

The Walled City of Baku in Azerbaijan was also hit by an earthquake. Restoration is very expensive and requires special expertise that the country does not have. Economic and technological aid from around the world is required, and is a reminder that World Heritage is not only a national treasure, but belongs to all of humanity.

The Kathmandu Valley of Nepal illustrates the third type of danger to World Heritage sites from urbanization and tourism. Uncontrolled urban development has led to the proliferation of modern construction that obscures beautiful historical monuments. A similar case can be seen in the historic town of Zabid, Yemen. Tall, concrete buildings have replaced historic structures. Unless the Government and the people try to preserve these heritage buildings, they will disappear one after another.

Such threats to World Heritage sites are also evident in developed countries. One example is the environment around the A-Bomb Dome in Hiroshima. It is not yet listed as “in danger,” but on-going construction of tall apartment blocks will eventually surround the Dome. The problem is a result of the municipal government permitting the construction, and of citizen passivity in allowing the development to take place.

By contrast, another case of problems associated with large-scale construction involved Yellowstone National Park in the United States. Rich with wildlife, the park was selected as a

World Heritage site in 1978 after fulfilling all four criteria for a Natural Property. However, a proposed development of a mine near the park led to the park being listed as a World Heritage in Danger site in 1995. People in the area took action to stop the development plan, and eventually the park was removed from the list.

In 2004, the Cologne Cathedral in Germany was the first World Heritage site listed as “in Danger” from a developed country. This had resulted from an urban renewal development plan to construct skyscrapers on the other side of the Rhine River, which would damage the landscape of the Cathedral. Fortunately the skyscraper construction plan was scaled down, and the Cologne Cathedral was removed from the list in 2006.

The dilemma of whether to preserve the view or to develop a city exists all over the world, and “preserve or develop” is a universal controversy. This controversy can be used to develop students’ multi-sided perspectives of society.

The fifth source of threat to World Heritage sites – poaching – is closely linked to livelihoods. Some people resort to illegal hunting when they face economic hardships. Listing national parks as World Heritage sites is no insurance for equity: In many cases, only some people earn money through tourism, while many others remain poor. Poaching threatens five national parks in the Congo and other national parks in Africa, which has led to certain animal species endangerment. Warfare and conflict are other causes of poaching. To purchase arms for the long civil war in Chad, Central Africa, many elephants were killed and their tusks harvested for ivory. Thus, consumers of ivory have been indirectly responsible for the poaching and activities of international trading syndicates. For example, Japan and China top the list of ivory-importing countries. Ethical behaviour is now being questioned globally as never before, and this issue can provide good teaching material for social and global literacy.

A World Heritage in Danger Teaching Plan

In WHE, ‘perspective’ (which means how to see and think about society) is more important than ‘content’ (which means fragmented knowledge). The key to effective teaching is understanding how to structure information. Lessons should help students to understand how facts are related and how these relationships are structured. The recognition and structured knowledge gained in these lessons should be conceptual recognition and universal knowledge which can solve many other cases. It can be considered as a master key which can unlock not only a specific room, but all rooms.

Equipment

- A large blank world map;
- Stickers of three colours: red, green and gold;
- Marker pens of five colours;
- A list of World Heritage in Danger, and a list of World Heritage out of the Danger list.

Procedure

1. From groups of 4-6 people.
2. Provide a blank world map for each group.
3. Put red stickers on the cultural properties listed as World Heritage in Danger.
4. Put green stickers on the natural properties listed as World Heritage in Danger.
5. Discuss what students can learn from the distribution and the causes.

Expected answers:

- Most of them are located in developing countries;
 - Many are in the southern hemisphere, while very few are in the northern hemisphere;
 - Many places are in war and conflict zones;
 - Once two cases were located in an advanced country (Cologne was removed from the list in 2006; Dresden Elbe Valley was taken off the list in 2009).
6. Discuss the reasons why they are on the list.

Expected answers:

- Cultural properties in danger have something to do with wars and conflicts;
 - Most of the natural properties are national parks where precious animals are protected.
7. Using the colour pens, categorize the reasons discussed.
 8. Put golden stickers on the World Heritage sites on the “out of danger” list, and write the reasons for it. Expanded answers:
 - Angkor Wat in Cambodia: peace recovery, international economic aid, technological aid for restorations and preservation;
 - Yellowstone National Park in the US: stop of the construction, efforts to regain ecosystem.
 9. Discuss similar environmental destruction and scenic damage in the local community.
 10. Discuss the merits and demerits of being listed as a World Heritage site.

The procedure for this lesson is: (1) learning about different World Heritage sites through stickers, (2) brainstorming about the places where many stickers are put, (3) discussing what is found and structuring the relationships. New information regarding the properties that are now out of the “in danger” site gives students a new viewpoint to solve the problem. A “right answer” should not be expected through this lesson. The process of the discussion, where students give their ideas and listen to others, is important. This discussion will enable the students to understand the value of World Heritage and encourage them to participate in preserving it.

Conclusion

Nara is rich in temples and shrines listed as World Heritage. They are all built in areas surrounded by beautiful greenery. Historical buildings and the natural environment produce beauty when located together.



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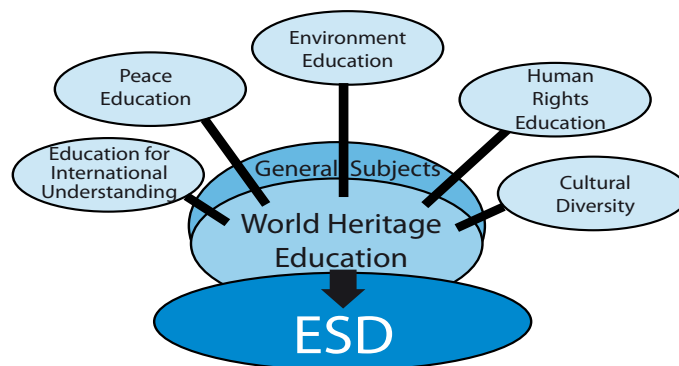
Panoramic view of Nara

Although Nara was not damaged during World War II, precautions had been taken to move the precious Buddha statues into temples in mountain areas in case of an air raid. Thus, if the historical buildings had been destroyed during the War, all the Buddha statues would have survived, but probably would now be displayed under glass cases in museums. They would have been enjoyed as artistic works, but not within the original context of their creation, which we thankfully know is profoundly more beautiful and educational. The

religious atmosphere of the Buddha images, for example, can be felt only in quiet temples surrounded by nature.

Many World Heritage sites, such as the archaeological ruins at Moenjodaro, Pakistan, show the decline of civilization due to natural destruction. Worsening of the natural environment is a warning to World Heritage and civilization. World Heritage is often compared to the canaries used to detect poisonous gases in the mines which, through being sacrificed, saved lives. World Heritage is also compared to a litmus paper in measuring environmental destruction.

This chapter has focused on WHE in the local community, but WHE is also applicable in communities with no World Heritage sites. Precious cultural properties and beautiful natural environments can be found in any community. By studying those, students can expand their identity, participate in improving their own community, and widen their view of global issues.



We can practise ESD through WHE



CHAPTER

4

Teaching WHE and ESD through the Arts

Victorino Manalo

Director, Metropolitan Museum of Manila, Philippines

Education for Sustainable Development has been defined as a “vision for education which seeks to empower people to assure responsibility for creating a sustainable future.”¹⁹ As its core characteristic, ESD is expected to enhance such capacities as, among others, envisioning, critical thinking and reflection, as well as systemic thinking. The activities in this chapter focus on this last capacity because it is seen as an important integrating mechanism for the so-called three pillars of ESD: environment, economy and society, with the underlying aspect of culture. As such, the module presented within this chapter presumes that to empower people to build a sustainable future, they must be able to understand that the foundations of such a future encompass complex systems with environmental, economic and socio-cultural dimensions.

It has been said that simply teaching about sustainable development is like presenting only the theoretical dimensions of an issue. The issue remains abstract and distant. For ESD to be effective and transformative, it should give students the skills, perspectives, values and knowledge to live sustainably in their communities.²⁰ Such an education should not be indoctrinating, but should lead to contemplation and exploration so that students are free to adopt what they consider relevant to their unique situations.

ESD underscores several priority areas: human rights advocacy, gender equality, ecological awareness, sustainable lifestyles, and cultural diversity. For practical purposes, this chapter focuses on the last three.

Recently, it has been shown that World Heritage Education, in general, and educational visits to World Heritage sites, in particular, have much to contribute to ESD. This is, in part, because WHE and ESD have similar concerns – both are grounded in the overlapping areas of environment, economy, society and culture. Most importantly, World Heritage sites can help substantiate ESD

19 UNESCO website: http://portal.unesco.org/education/en/ev.php-URL_ID=30364&URL_DO=DO_TOPIC&URL_SECTION=201.html

20 McKeown, R. 2002. *Education for Sustainable Development Toolkit*. Center for Geography and Environmental Education. Knoxville, US: University of Tennessee, p. 28.

because they embody or enshrine many of its core values. For example, sites were placed on the World Heritage list because they utilize environmentally intelligent technologies, because they illustrate the uniqueness and interaction of cultures, and/or because they are reminders of the importance of peace and the destruction of war. Clearly, these characteristics are flashpoints for ESD, as well.

In addition, the management plans for World Heritage sites, which are required for inclusion on the World Heritage list, are in themselves excellent models of sustainable development. This is especially evident in the way plans address and recognize the inter-relation of issues like environmental protection, conservation of tangible and intangible cultural resources, tourism deployment, and visitor education.

Moreover, World Heritage sites are places of extraordinary beauty. They are places that inspire people and make one appreciate the many dimensions of being human. What better allies can there be for WHE and ESD? What better settings for the promotion of envisioning, for reflection, and for understanding that we are part of a greater whole?

Using “Super Channels” to Educate

To help ensure rewarding participation, contemplation and future action, the module presented in this chapter adopts the Arts-in-Education approach, which engages the power of the arts to help students learn about a variety of educational subject matter. This approach takes advantage of the arts as “the super-channels of communication.” Through the arts, students go beyond the conventional routes that involve logic and verbal ability. Other channels for communication such as the kinesthetic, musical, and interpersonal are brought into play, resulting in a more holistic (and therefore more effective) understanding.

It should be clarified that the Arts-in-Education approach is not geared primarily to helping students learn about the arts, though such learning will invariably arise. The main concern is that art activities facilitate learning about the subject matter at hand – in this case, WHE and ESD.

Students should be encouraged to do more than merely experience art as spectators. They must actually experiment and create. Instead of simply copying what is before them, they should express themselves with colours, shapes, textures, sounds and smells. The ability of the arts to effectively convey the messages of a variety of disciplines is not surprising. In many ways, sciences like biology, mathematics and economics evoke some of the same things as the arts. It is simply the language and the methodology that are different. For example, one can say that the Periodic Table in Chemistry attempts to organize the elements in much the same way as an architect sets up a building. Order and balance are involved in both cases. When a chemist explains that the Periodic Table illustrates how the base elements “aspire for the configuration of the noble gases,” such a statement almost sounds like the basis for a story. When certain

mathematical formulae are plotted on a graph, the resulting images may be as pleasing as any painting or weaving. To hear a biologist report that different species of coral have timed their reproductive cycles to coincide with each other so that their young have a better statistical chance of survival is as inspiring a goad for international cooperation as can be made by any poet or film-maker.

The Module

Objective: This module aims to provide teachers with exercises for using the arts and the Arts-in-Education for WHE and ESD as applied to visits to World Heritage sites.

Suggested activities for teachers are meant to be done in-situ. They address audiences with an average age of 12 years. This age level was chosen simply as a means of broadening the module's applicability because it is presumed that activities geared towards 12-year-olds will appeal to older audiences and slightly younger ones. ESD is described as an attitude that can be adopted at any age, by young people and adults, hence the need for modules to be designed with wide applicability in mind. With the help of the module, teachers should be able to convey the following matrix of meanings and ideas.

Module Matrix: This matrix illustrates some of the interwoven topics and concerns related to WHE and ESD.

General ESD Theme or Core Characteristic	Promotion of Systems Thinking	Promotion of Systems Thinking	Promotion of Systems Thinking
Specific ESD themes	Environmental awareness	Sustainable lifestyles	Cultural diversity
ESD pillars	Environment	Economy	Society
World Heritage Theme	World Heritage and the environment	World Heritage and the environment/tourism	Identity/Culture of Peace
Activity	Site mapping/modeling	Cycles of song	Symbols on a Shirt
Knowledge	Ecological Systems	Sustainable Technologies	Cross-cultural meanings of symbols
Values	Respect for the integrity and the interconnectedness of systems	Espousal of sustainable lifestyles	Celebration of the uniqueness and interaction of cultures
Skills	Recognition and modelling of systems	Understanding of sustainable technologies	Understanding and application of design motifs

Local Heritage Sites and World Heritage Sites

An important point to bear in mind regarding WHE is that it seeks to make people aware of the value of all kinds of heritage resources. It is not limited to UNESCO World Heritage sites. Communities will certainly have many places that celebrate their heritage, places which embody the core values people have inherited and/or wish to pass on to future generations. Such sites may not be on the World Heritage list, but this should not diminish their importance as heritage sites.

To begin with, different people will have different ways to define what they consider to be their heritage. People may even disagree with and contest what others have claimed.

Sometimes it may be a question of points of view. Some things may make up someone's personal heritage and are only valued by individuals or by families. In other cases, entire communities may agree regarding what constitutes heritage. In still other cases, larger and larger groups are involved: what makes up heritage is not just recognized on the local level, but also on the national level. Finally, the recognition of value may transcend national boundaries, with consensus being reached on a global level. These concentric levels of heritage – personal, community, national, global – do not represent discrete categories with strictly defined boundaries. A World Heritage site may have very personal resonances with someone whose beloved grandfather had once worked on the property.

World Heritage sites are often selected precisely because they exemplify values that even individuals who live far away can appreciate. One may encounter in obscure settlements certain features, certain designs also found in famous World Heritage properties. The edifices of Kyoto, for example, must have really captured the Japanese imagination. Various *sho-Kyoto*, or little Kyotos, were built all over the country beginning in the 16th century. In the case of the Forbidden City, we can see that its bow-shaped canal located in the outer courtyard has its counterparts in UNESCO World Heritage villages hundreds of miles to the south, in the Chinese province of Anhui. This is clearly a case of "as above, so below." One could take this point further by arguing that perhaps even the configuration of Chinese courtyard houses was a microcosm of the emperors' palatial expanses. Great temples may have elaborately carved statues of the entrance guardian spirits, while a roadside shrine may only have humble prints. Yet the fact remains that these guardian spirits will be represented in much the same way – with the same colours, the same fierce expressions and the same attributes.

All these may suggest that one of the most important characteristics of World Heritage sites is that even the grandest among them may embody ideas and values that even the humblest home may hold dear.

The register of UNESCO World Heritage sites is not limited to just the palaces, monuments and fortresses of rich and powerful rulers. Included, as well, are villages of modest dwellings. World Heritage criteria indicate that heritage sites and heritage values may be found in all manner of

places and in all kinds of forms. Natural sites are included to stress that natural resources are truly the treasures of humanity. Likewise, the category of cultural landscapes was included to emphasize the inter-action of humans and nature. All these criteria should serve as reminders to all people, from all walks of life, that heritage values are all around us with or without the World Heritage list.

The Site Visit as a Tool for WHE with ESD Perspectives

This module is designed around a visit to a UNESCO World Heritage property. It is therefore important to review the requirements for such a visit. The module may also be used for local heritage sites. Many communities may not have access to a UNESCO World Heritage site, but they will still have local heritage sites.

Arts activities are supposed to be part of the site visit, as this module utilizes the Arts-in-Education approach. However, the guidelines provided below can apply even to site visits without arts activities.

A. Before the Visit

1. Read about and research the place you are visiting. Access the UNESCO World Heritage (<http://whc.unesco.org>). One important document which can be downloaded is the report of the Evaluating Team. This explains why a property was included in the World Heritage list and provides a summary of the management plans.
2. Understand why the property was nominated. Check which of the six standard World Heritage criteria were used for the nomination. This will give you insight into UNESCO's views regarding the importance and significance of the place. Do you agree with these views?
3. You may ask students to do their own research. You may also ask them what they already know about the site and what their expectations are for the visit. You may also conduct

World Heritage Cultural Criteria

- Represent a masterpiece of human creative genius.
- Exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.
- Bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.
- Be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.
- Be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.
- Be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

some kind of survey that could be used as baseline data against which to check evaluations after the visit.

4. Guidebooks and brochures are usually available. Some may be dedicated to the site, but there will also be sections on the site in more generalized guides with wider coverage.
5. Develop your own narrative about the site. Develop a story that you are comfortable in telling. You may include personal anecdotes and jokes as long as these do not detract from the focus on the place. What are you going to stress? What features are you going to point out? How will you relate the story of the place to your audience? Is there something going on in current events that is related to the place? Was it the setting for a film or a novel? Can you compare the World Heritage property to other sites with which your audience may be more familiar?
6. Most available materials about a place will stress a standard narrative. Try to develop alternative narratives. The stories of many sites are usually told in ways that revolve around the lives of wealthy, powerful men. Can you think of a way to tell the story of a place from the women's viewpoint? Of children? Of the very poor? Of the elderly?
7. You may also want to check if there are local heritage groups that run programmes or produce materials related to the World Heritage property. Sometimes these groups are made up of people who are passionate about the site you are visiting and will be able to tell you a lot. At the very least, it can be quite an experience to meet people who really love a place. Do not hesitate to ask them why this is so. They will share with you insights and information that no guidebook can ever convey. Such groups may be willing to help you with the tour by lecturing or even role-playing.
8. It is a good idea to visit the site before the field trip to familiarize yourself and your associates with the place.
9. Share tasks. It is better if the person guiding the tour is not also the one concerned with logistics, time-keeping or marshalling members of the group. Some tasks could be shared with students.
10. Talk to the management staff. Ask about education materials and programmes. Ask for maps and guide notes. Discuss schedules and regulations. Advise the staff about your visiting dates and the number of participants. Discuss your activities so they can inform you about what to see. They may even tell you about upcoming events that should be integrated into your tour or even avoided. Discuss with the staff special needs you may have such as a place to store equipment temporarily or to congregate for discussion groups. The staff may even decide to allow you into areas that are not ordinarily open to the public, but which provide additional perspectives on the site.
11. Review the management plans for the World Heritage property. These often integrate or exemplify sustainable development perspectives. Consider how you will explain these plans to students in ways which they can relate to and which help clarify the concerns of ESD.

12. You may also interview local people about their thoughts about a World Heritage location in their midst. Such interviews must of course be conducted with respect and courtesy.
13. Work out movements and schedules in the specific setting of the site. Will there be a tour or will students wander around on their own perhaps with appropriate guidelines and instructions? If needed, determine circuits for walking tours; identify places to stop for rest or to point out a salient feature. Plan one's lectures and other interventions so that these coincide with the layout of the site. If at certain junctures of one's tour you intend to stop for a long discussion, try to select comfortable, conducive places.
14. Identify important facilities such as restrooms. If you are taking buses, determine where these can pass (many heritage sites are in places with narrow streets) and park.
15. If you will be eating at the site, check what the rules are about this. On the other hand, you may want to arrange meals that are typical of the site or related to the historical period associated with the site. Remember that tastes and food are very much part of the experiences of a place. At the very least, you may want to be sure that meal breaks are set in pleasant surroundings.
16. Prepare materials and equipment. Determine how they will be brought into the site, secured and, if necessary, distributed among the students who may be scattered around the area. If one wants to provide extensive inputs, it may be a good idea to do a pre-visit lecture. This way, one can use audio-visual materials, which may not be available or convenient to use at the site. On the other hand, having audio-visual aids during the tour may also be effective.
17. Know your audience. Know their ages and interests. Is there someone in your audience who needs special assistance? Is there someone who, because of their personal circumstances or ethnic background, may be sensitive to some of the narratives associated with the site?
18. Have a contingency plan for emergencies.

B. During the Visit

1. Clearly explain the objectives of the visit.
2. Clarify the schedule and the time of departure. Agree on what to do or where to go if someone is separated from the group. Give out materials as needed. Set up a buddy system as needed.
3. Discuss rules and regulations. In general, one should not take back anything from the site, even if these be old bricks that look like they are just lying around. You should explain clearly, so that students understand the reason behind this rule, that removing a pebble, shell or flower may be an innocent act when done by one person; however, if millions of visitors were to do the same thing, the results could be disastrous. In the same vein, touching surfaces or sculptures may not seem destructive. In fact, ideally, textures should form part of one's experiences of the site. But again, the minute drops of acid left by the sweat on our fingers as well as the abrading effect of our skin, when multiplied by the millions, will eventually erode whatever feature or object was worth touching in the first place.

4. Explain emergency contingencies, if necessary.
5. Give an overview of the place. If the students are to wander around on their own, you may want to point out important features not to be missed. Give out maps, if available. Visitors are usually advised to keep to the marked pathways. This minimizes stress on the environment and also helps assure visitors' safety.
6. Carry out all activities in a manner that is respectful of the total environment, of residents, and of other visitors.
7. Have fun. Most heritage sites are quite enjoyable, especially because they contain features that may be humorous or ironic.
8. Always be open to the poetry of your surroundings. After all, as already mentioned, World Heritage sites are places of great beauty and meaning. Some of the experiences they bestow go beyond the history and heritage that they represent. Do not hesitate to point out the way light falls on a pathway, the view from a tower, the colour of a flower, or the sound of distant waves.
9. Watch out for spontaneous opportunities for learning or insights. A travelling musician may set up an impromptu performance; an itinerant vendor may be carrying unusual wares that are related to the site.
10. Make reference to the management plans of the site. Inspire students to think about issues such as ecological integrity, garbage management, and tourism management. How should one balance the need to provide access to the public versus the need to protect the environment and cultural resources?

C. After the Visit

1. Discuss the visit with students. The processing of the activities done in-situ could be part of these discussions. Get the students' reactions to what they experienced. Ask if their expectations were met.
2. Review the products of the visit, the printed materials gathered, even the souvenirs brought back. (Note: souvenirs refer to items purchased from stalls around the site. It is generally not acceptable to bring back any items picked up from the site like stones, bricks or shells.)
3. Review the student's insights and knowledge, especially with regard the specific topics on hand, in this case, WHE and ESD.
4. Discuss how to improve on the visit.
5. Given the concerns of WHE and ESD, check if any thoughts occurred to the students weeks after the visit. Did they see any areas for application in their lives?

Visiting a World Heritage Site: Changdeokgung Palace in Seoul, Republic of Korea

A. About the Palace

Its name means the Palace of Illustrious Virtue. Its name is sometimes spelled as Changdeokgung because of the arbitrariness of rendering Korean words in Roman script.

It is described by UNESCO as a “remarkable complex of architecture and garden that has evolved over several centuries. The felicitous setting of the complex within and in response to the natural landscape is one of its most outstanding qualities. It represents the highest artistic and architectural achievements of Republic of Korea and, hence, of the Asian region.” UNESCO also notes that “... the Palace Compound is an outstanding example of Far Eastern palace architecture and garden design, exceptional for the way in which the buildings are integrated into and harmonized with the natural setting, adapting to the topography and retaining indigenous tree cover.”²¹

Changdeokgung Palace’s main buildings were completed around 1405, however they burned down during the Japanese invasion in 1592. The complex was rebuilt in 1607 and, since the family’s main Kyongbokkung Palace had also burned down, would serve as the official residence until the late 19th century.

The compound forms an irregular rectangle covering an area of about 57 hectares in the northern part of Seoul. It lies at the foot of Mount Ungbongsan. Due to the hilly terrain, its buildings are not arranged in a linear manner, unlike those of Kyongbokkung.

Among its main buildings are the Injongjon, or throne hall; the Sonjongjon, where the king conducted everyday official affairs; the Taejojon, or queen’s quarters; and the Yon-gyongdang Manor, which is considered a masterpiece of Korean architecture. Constructed in 1828, this last building was where the king would periodically reside to live the life of a commoner. Another significant feature of the complex is the Piwon, or Secret Garden. This was created around 1459 and refurbished after the Japanese invasion in the late 16th century. In this garden are found several pavilions and Puyongi Pond, which is a rectangular body of water with a round island in the centre.

It is reported that the grounds hold a hundred species of indigenous trees (including white oak, walnut, zelkova, plum, chestnut, maple and pine) and fifteen imported species (including ginkgo and Chinese junipers).

A poignant feature is the contemporary kitchen that had to be installed for the royal family during the Japanese occupation of Republic of Korea in the early 20th century. Ordinarily, there would be many kitchens to serve the king’s needs, but these would be located in a far corner

21 UNESCO. <http://whc.unesco.org/en/list/816>

of the compound. Food would have to be brought in by an army of servers. Since the royal family's resources were diminished and their movements confined to a limited area by the Japanese, new kitchen facilities had to be arranged.

Changdeokgung Palace is an oasis of calm in contemporary Seoul. It is not open to the general public. Special arrangements must be made to visit.

The visitor is afforded with vistas of gracious buildings set in vast tracts of trees. The bright green of leaves contrasts with the hushed patina of the pavilions' walls.

B. WHE Values

Changdeokgung was nominated on the basis of criteria 2, 3 and 4.

With regard to Criterion 2, the Palace is considered a remarkable illustration of the confluence of those cultural currents which produced it. For centuries, the Korean Peninsula lay at the crossroads of exchanges (both of goods and ideas) between China, Japan and Republic of Korea, itself. Confucian notions of social order, merged with Buddhist ideals (such as respect for nature) and flourished in the local environment. This interweaving of influences is seen in the Palace's general architectural styles and layout, as well as in its structural details and techniques. Even the use of materials, colours and decorative motifs shows a common regional aesthetic, which is reflected in many of North Asia's World Heritage properties.

The report of the evaluating committee contrasts Changdeokgung's organic layout with the linear arrangements of the World Heritage listed Forbidden City and the demolished palace at Nara, whose precinct is likewise on the list. Nevertheless, the progression of buildings and their functions are actually very similar.

To further strengthen this idea of shared architectural perspectives, it may be pointed out that it is the main palace, Kyongbukkong, which approximates the formal linearity of the Beijing imperial complex. Interestingly, both compounds have canals located at the outer entrance courtyards.

The fact that only sliding screens are used in the Palace to temporarily define many spaces is also notable. This technique illustrates a regionally-shared architectural solution that is also commonly featured in Japanese architecture. The feature could be rooted in a preference for the permeability and inter-connection of space, which is further projected in the use of translucent paper to line these screens.

Likewise, one will find that the ideas which suffuse Changdeokgung's garden resonate with its counterparts in the World Heritage Summer Palace in the outskirts of Beijing, as well as in the World Heritage temples and villas of Kyoto. Such ideas also percolated beyond the nobility to the merchants of Chinese cities like Suzhou. Here may still be found elaborate World Heritage gardens that are celebrations of nature, as well as emblems of appropriate Confucian scholarly pursuits.

The colour schemes of the Palace suggest pan-regional palettes. Vermilions are strikingly similar to those found on the Nara imperial complex pillar remains, which are themselves supposedly based on models from Tang China. Even in Mongolia, in the World Heritage cultural landscape of the Orkhon Valley, the palace of Chinggis Khan's son in the capital at Kharkhorun reportedly had a similar roof of red and green tiles.

One may discern the pervasive presence of Chinese characters in official plaques and tablets found in different parts of Changdeokgung – just another reminder of China's important role in the region's cultures. Another example is the stone markers (indicating where officials and army officers should stand before the throne), which employ Chinese numerals. Representing still another interplay of cultures, some buildings such as Hulijeongdang Hall exhibit Western influences.

With regard to Criterion 3, it may be said that Changdeokgung has many features which testify to local developments and initiatives. The materials and forms used in most of the buildings speak of uniquely Korean approaches to design challenges. In the same vein, the villas of Naksonjae Manor and of Yonghwadang Manor have been hailed as Korean architectural marvels. The latter was purposely constructed to provide the king with a venue to experience a life similar to that of his more modest subjects.

World Heritage expert Professor Sun-Kyung Lee discusses other features of the Palace that show a profound understanding of the laws of nature. The excellent acoustics of the throne hall; the way the columns support the heavy roof without nails using a system of brackets called Kongpo; how the length of the eaves were calculated with such precision that they are short enough to let light in, but long enough to protect interiors from snow or rain; the terracing of mountainsides to prevent erosion – all these are testaments to the wisdom and great skill of Changdeokgung's builders.

With regard to Criterion 4, the property embodies many of the historical events of the region. As already explained, the design and decoration of the Palace's halls are testaments to the creativity nurtured by the cross-fertilization of cultures. Sadly, these same structures have also witnessed the many clashes between conquerors and conquered, which represent the painful dimension of cultural encounters. In fact, Changdeokgung's fortunate survival and astounding degree of authenticity are made more remarkable when contrasted with the tragic fate of its grander sister complex, Kyongbukgong.

The larger palace's destruction is a fate that is shared by other similar complexes in the region. Beijing's older Summer Palace, Yuan Ming Yuan, was pillaged and razed by French and British soldiers – a sad reminder that such violence to heritage sites cannot be blamed on just one nation. Yet, wonderfully, the region is also host to another property that is very much related to Changdeokgung, and which illustrates a more hopeful facet of humanity. It is a known fact that Kyoto was spared the horror of being a possible target for the atom bomb, in part, to

save its heritage resources. Early on, it was already recognized that the city's beautiful temples, gardens and palaces were valued not only by the Japanese, but by all of humanity. Reflecting on this, one may be emboldened enough to assert that, ultimately, it is the awareness and enhancement of a transcultural capacity for beauty that well may be WHE's most meaningful contribution to building a culture of peace.

C. WHE with ESD Perspectives

In connection with these discussions, it can be concluded that ESD perspectives are already embedded in topics such as cultural diversity, cultural interaction, and culture of peace. Other topics of relevance to Changdeokgung within the framework of WHE for ESD would include:

Feng Shui, Systems Thinking and the Environment

Palaces like Changdeokgung were built in compliance with the tenets of *feng shui*. This is a philosophy of placement which ensures that, for example, the sites of structures, the layout of compounds, and even the spots chosen for planting trees or gardens are auspiciously oriented with regard to their surroundings.

Among feng shui's central beliefs is the idea that everything is animated by an energy, or *chi*. This chi comes out of the never-ending interactive cycles of the basic forces of *yin* and *yang*. The whole universe is about the interplay and balancing of these forces. Certain phenomena, certain natural features, certain objects are associated with yin, and others with yang. It is the manipulation of these associated elements that assures good feng shui, which assures the proper flow of energy so that one is in harmony with the world.

With regard to buildings, it is especially important to use an auspicious combination of material, colour and design. Structures must be in concert with the location of trees, earth and water (as manifested in or represented by groves, streams, and mountains, which are also thought to embody forces in themselves).

Feng shui actually incorporates many practical considerations, as are demonstrated in the Palace's architectural features. The orientation of windows helped regulate dust-bearing winds or intense sunlight. It was as sensible to have one's back protected by a mountain as it was convenient to have a forest or a river nearby for easy access to firewood and water.

Feng shui was part of the received wisdom of the region. Cities like Nara or Kyoto in Japan and Seoul, itself, were founded in sites invested with good feng shui. Mention has already been made that the layouts of the Forbidden City in China and Kyongbukkung in Republic of Korea both integrate auspicious features like streams located near the entrance. To this may be added other components like mountains at the rear. In fact, this configuration involving stream and mountain as dictated by feng shui is shared by innumerable palaces, towns, villages and domestic compounds in North Asia. It can be suggested that feng shui probably represents a

confluence of cultural perspectives, and not just one tradition. It represents pan-regional ideas resonating with local philosophies. The notion of sacred streams and mountains is ingrained in many cultures of the world. Even in Mongolia, one will see that the structures of the World Heritage Orkhon Valley have in their midst two sacred mountains, Hangai Ovoo and Undor Sant, which are said to be associated with indigenous shamanistic practices.

At its heart, feng shui evokes a sense of interconnectedness. It serves, at the very least, to remind humans that they are part of a larger whole, that they are members of a vast community – not just of other human beings, but also of geographical features, rivers, forests, plants, animals, wind, water and fire. It is also clear that what we do affects others. All these perspectives are essential components in nurturing systems-oriented thinking, and in developing a pro-active, creative systems-consciousness. These are the core concerns of ESD, especially with regard to its environmental pillar.

Awareness of Cycles, Sustainable Lifestyles, and the Economy

Systems-oriented thinking will immediately discern the importance of cycles in our environments. Understanding the interconnectedness of phenomena will make one appreciate that many life processes involve a circle of continuous events. Examples of these cycles include the passing of the seasons, evaporation-condensation, photosynthesis, the Krebs cycle, and the various intermeshing food chains.

Prof. Sun-Kyung Lee has suggested that there are many aspects of Changdeokgung that would be of interest to science students. She points out that the Palace compound contains several microenvironments. This is exemplified by the dense groves where one distinctly feels the temperature drop by a few degrees. This coolness, as well as the sense of freshness, actually indicates that the hydrology cycle and the photosynthesis cycle are in progress. The trees are not only providing a shield from the heat of the sun. They are also releasing water vapour and oxygen into the air. Later on, this water vapour will condense and fall as precipitation to be absorbed again by the roots of trees. Meanwhile, the oxygen will be inhaled by animals that will, in turn, exhale the carbon dioxide needed by plants. The cycles are complete, they are alive and they are flourishing.

Still other cycles can be discerned. Ants and flies will be eaten by lizards or frogs, which will be eaten by birds, which can be eaten by a large carnivore, which could be hunted by humans, who will eventually die and leave their bodies to be consumed again by ants and flies. Meanwhile, seeds are growing quietly in the rich earth. One of these seeds becomes a tree, which produces flowers, which become fruit, which fall to the ground to produce more seeds or to decompose and become part of the soil. Finally, one can observe that even the progress of the sun across the heavens is part of a celestial dance that is repeated every day as recorded by sundials that were set up centuries ago in Changdeokgung's courtyards.

Surrounded by such harmony, one will not be able to escape the awareness that many human activities and habits strike discordant notes. Many human technologies are harmful to the environment because they mindlessly disrupt the cycles and patterns of our co-inhabitants' lives. Sadly, we often do not realize that, in the end, such a disruption will hamper the flow of our lives, as well.

The fossil fuels which power our engines change the world's climate; detergents pollute the rivers, while dams block the path of fish who are trying to go back to the breeding ground of their ancestors to continue the voyages of their species. Most plastics are not bio-degradable and do not return to the nurturing context of the soil. Even air-conditioning uses up so much of the world's fuel reserves to cool a small area.

In contrast, Changdeokgung incorporates many features that are very much synchronized with the turning wheels of nature. Its buildings are intimately intertwined with the gardens, forest and streams that surround them. The presence of vegetation and bodies of water help to regulate temperatures. Palace residents were also provided with a more tangible connection to nature. In fact, among the highlights of the compound are many ancient trees, such as the so-called "Chinese scholar trees" that are celebrated for their shapes and size. These trees have been declared natural monuments themselves.

The Palace quarters are not defined by thick walls. Spaces are delineated by sliding doors and panels that allow for the free circulation of air. This feature, coupled with the luxuriant forest cover, results in mild room temperatures, which then eliminate the need for energy-guzzling interventions like air-conditioning. Interestingly, not only can whole walls be made to slide aside, they can actually be strung up near the ceiling so that they are completely out of the way.

In a way, having sliding walls is more cost-effective. Structures are multi-purpose and can expand or retract according to need. In this way, it is not necessary to spend precious resources to build additional dedicated buildings with limited uses.

Likewise, the design of the courtyards contributes to the efficiency of air flow. Some courtyards heat up because they receive more sunshine than other parts of the compound. This creates a temperature gradient which, when walls are slid open, promptly whips up a refreshing breeze.

In colder months, important activities are carried out in rooms with heated floors. Living and office structures are built on top of platforms that are heated from within. In contrast, radiators and other such contemporary devices heat the air, resulting in a lot of waste because it is difficult to confine the heat generated in just one space.

The sliding walls of the Palace are actually covered by a locally-produced paper. As such, the walls "breathe" better in summer and light filters in. This, in turn, lessens the need for artificial illumination.

One can also observe that, aside from paper, all materials used in Changdeokgung are biodegradable. They grew out of the earth to which they can easily return.

All these environmentally-friendly features are very useful for the ESD practitioner. They provide tangible examples to demonstrate that it is possible to employ technologies and materials that do not leave such a heavy mark on the world. This consciousness – that we must take responsibility for the impact that our day-to-day choices have on our environment – is the foundation of a sensible and sustainable lifestyle. The promotion of lifestyles that steward resources for the future is very much in keeping with the concerns of ESD, especially with regard to another of its pillars: the economy.

Symbols, Cultural Diversity and Society

Many surfaces in Changdeokgung are embellished with symbols that embody cultural values and beliefs. Many of these symbols are emblems of royalty like the dragon. The screen behind the throne bears the images of the sun for the king and the moon for the queen. There is, as well, a five-peaked mountain, five being an auspicious number with many resonances in mythology and magic. Five also refers to the five cardinal directions each represented by a colour and a mystical guardian: the red phoenix of the south, the white tiger of the west, the black tortoise of the north, the blue dragon of the east. The center makes a fifth direction with the yellow dragon as its corresponding guardian.

Other important symbols usually found in Korean palaces are deer, cranes, pine trees, bamboo, and a certain kind of mushroom called pulloch'o. These are associated with longevity.

Symbols are not limited to designs and images. Even trees can be symbolic. It is said that mulberry trees were planted as emblems of the esteem with which the sericulture industry was regarded. The women of the Royal family were expected to perform a ceremony called chinjamnye to honour the goddess of silk. There was even a special altar designated for this.

It should be noted that symbols may not be understood in the same way across cultures. Dragons and bats may be auspicious among the people of North Asia, but they carry darker overtones in European traditions. Another example is the swastika, which given its propeller-like shape connotes the ceaseless cycles of the interplay between yin and yang. Yet, because of the way it was used during World War II, swastikas will be seen in a different light by many audiences.

D. Other Issues/Interpretations

The preceding discussion on symbols should underscore the fact that people may have different interpretations of a phenomenon. A story, a play, even a building can be interpreted in a variety of ways. Different, and even competing, narratives can and should be communicated for World Heritage sites.

Sometimes, one particular narrative becomes the dominant narrative that is taught about a place. How this narrative is selected is often a function of power. Those who have the power get to choose the story that will be told. As such, many of the stories that are perpetuated in guidebooks and in venue education materials usually favour the most powerful sector of society: the wealthy people. A review of historical accounts on heritage sites will reveal recitations of dates involving when and how structures were ordered to be built by certain kings, only to be destroyed by armies led by other kings. One could push this idea further by noting that what is considered heritage, itself, may very much be determined by only a small, but influential, group.

Yet, there are still so many other groups that may want to tell a different story, or who may wish to stress other aspects of the standard story. What about the people who laboured to build the structures? What about the artists who embellished the walls and carved the statues? What about the cooks who prepared the meals? What about the women who lived out their lives on these sites?

It is important that definitions of heritage take into account the concerns of as wide a range of stakeholders as possible. Care must be taken to give voice to the voiceless.

The narratives about Beijing's Forbidden City usually involve the palace's construction and occupation by the Ming and, subsequently, the Ching emperors – all men. Women usually come into the picture only as consorts or servants with one famous exception. This was the Empress Cixi, who ruled China with an iron hand during the last days of the Ching Dynasty. Cixi is usually described as a cruel and conniving despot who schemed endlessly to gain and keep her power. She is also described as frivolous, having squandered the empire's resources in pursuit of her pleasures. Yet, one may wonder: Are these totally accurate portraits of Cixi? Is it possible that Cixi's portrayal was goaded by the fact that she was a woman who threatened the men around her; she was a woman who dared to not play by the rules in a world dominated by men? Remember also that at that time, many rich nations were trying to force China to grant them concessions, such as a corrupt tyrant would help justify the encroachments on Chinese territory and use of the country's ports. Is it possible that painting a picture of China's ruler as an irrational woman and a corrupt tyrant would help justify the encroachments on Chinese territory?

Without necessarily defending Cixi or disproving the negative things said about her, the point must still be made that women are often derided and even overlooked by historical accounts. A good example of this is Cleopatra. Like Cixi, Cleopatra is classically portrayed as just a hapless potentate. Some historians, however, have recently revised their views of this great Egyptian queen. It has now been suggested that Cleopatra was a highly learned leader who had a fierce love for her country.

The idea of developing alternative narratives for World Heritage sites to encompass the perspectives of a wide range of stakeholders – including women – is an important core characteristic of WHE for ESD; particularly since ESD strives to be inclusive and reach out to the marginalized. More importantly, many studies reiterate that educating and empowering women are among the most cost-effective measures to attain sustainable development. Clearly, for women to be empowered, they must see that they are part of World Heritage site history.

One possible inspiration for all this may actually be found in a site with some relevance to Changdeokgung Palace: the World Heritage properties in Kyoto. During the so-called Heian Period (from about the 8th-11th century), the temples and palaces of Kyoto – some of which are on the World Heritage list – were witness to a cultural flowering in which significant roles were played by women. In fact, it was at this time and in such settings that a Japanese woman, Lady Murasaki Shikibu, would write what many consider to be the first novel in the history of the world, *The Tale of Genji*.

Developing different and even contradicting narratives about a site is actually an exercise that fosters an ESD core characteristic: critical thinking. Such thinking implies the refusal to accept social agendas, which are often just thinly disguised forms of bias and prejudice. Such thinking recognizes that stereotypical narratives, such as one which holds that the poor deserve to be poor, actually trap people in misery. Stereotypes, biases and prejudice must be cleared out for envisioning – another ESD core characteristic – to bloom.

Suggested Activities

The following activities are geared for a site visit to a specific UNESCO World Heritage property, Changdeokgung Palace in Seoul, Republic of Korea. They may, however, be adopted for use in a wide range of other sites. The first activity is best suited to a built environment, while the last two activities can be used for built environments, cultural landscapes or natural properties.

It should be noted that as an overarching objective, all three activities are designed to develop systems-thinking, which helps students understand that we are all part of intertwining spheres where inputs in one area will affect other areas. Though the activities can be carried out separately, they are designed to be done together as complements.

A. Site Mapping or Modelling

1. Objectives

- a. To enhance awareness of the layout of sites and how these reflect the perspectives and values of the sites' creators.
- b. To introduce basic principles of feng shui as an example of philosophies that stress that relation of humans to the world around them.
- c. To stress the idea of interconnectedness.

2. Materials

- a. Modelling clay.
- b. Boards to support models.
- c. Coloured paper, cut-outs from magazines.
- d. Toothpicks.
- e. Found objects (note: these should come from outside the World Heritage sites).

3. Instructions

- a. Read the module section on feng shui. Research on other materials regarding feng shui. Discuss these with your students.
- b. Point out how the site being visited conforms (or does not conform) to the principles of feng shui.
- c. Ask students to make models using the materials of the layout and general features of their ideal home, school, activity centre, park or even vacation place. Students may work alone or in groups. Challenge students to work on models of large complex compounds with various structures of different functions. They may even create a whole city.
- d. Note that their models should incorporate their values; it should illustrate what is important to them. They may also want to try to incorporate feng shui principles.
- e. You may wish to stress that students should keep in mind the elements of the arts (line, colour, shapes) so that their model will more effectively convey their values.
- f. After the models are completed, ask each one to explain their models and the reasons behind their layouts and designs.
- g. As a final step, place the models beside each other and discuss how the models relate to each other.

4. Guidelines for Processing

- a. On one level, this exercise allows students to apply the principles of feng shui to their models.
- b. On the other hand, it is not necessary to be fully familiar with feng shui to undertake this activity productively. Students can simply create models based on their own perspectives.
- c. Point out that built environments, dwelling compounds and complexes, from the mightiest to the most modest, reflect the creators' ideas and beliefs. These emerge not just in the embellishments, but in the design of structures and in the general building layout and siting.
- d. Discuss feng shui concerns in the lay-out of sites. Did any students include mountains as well as streams and ponds in their models? What are the advantages or disadvantages of having such geographical features in the complexes that they design.

- e. Discuss how the students have expressed their ideas. Note elements like location, colour, size and shapes.
- f. For example: Structures set in the middle of precincts are usually the most important. They are the most protected, the most private. Likewise, the most important buildings – like the throne hall of Changdeokgung – are usually the biggest. Size is a good indicator of prestige. There are of course exceptions. In some Indian temples, for example, the most sacred spaces are housed in the smallest, buildings with the biggest structures of the compound being the outer gates. Why do you think this is so?
- g. Another example would be Puyongji Pond, which is located in Piwon (or the Secret Garden) precinct. This is a square pond with a round island in the centre. The square pond represents Earth, while the circular island represents Heaven. Taken together, the two shapes suggest the interplay between the earth and the heavens.
- h. Compare a bird's eye view of the Forbidden City in Beijing or of Kyongbukgong with maps of Changdeokgung. Point out that the palace layouts form pleasing patterns. Point out that Changdeokgung is not oriented on a formal linear grid, unlike the other two palaces. Discuss the effect of this layout on people. Discuss why the palaces were built this way. Evidently Changdeokgung's layout follows the rolling terrain. What do the different configurations tell us about the concerns of the builders? Explain to your students that, though Kyongbukgong is larger, one Korean king actually preferred Changdeokgung. Ask your students what they think were the king's reasons for this.
- i. What must be stressed in this exercise is that we can shape our environments based on the way we look at and think of things, and based on what we care about. In turn, our environments also shape us.
- j. After the students have explained their individual models, place the models beside each other. Decide which models would go where if they were part of a larger totality. Discuss whether any of the structures or designs in the individual will have an impact on the others. For example, is one structure too tall so that it blocks the others' view?
- k. Overall, this exercise can help students see the value of interconnectedness and how we are all elements of a bigger picture, of a bigger whole. Every part of this whole contributes something to the larger system, and every part affects the other parts. Point out to them that though they have been working carefully on their models, their designs may go awry if they do not consider what their neighbours are doing.

B. Cycles of Song

1. Objectives

- a. To familiarize students with the idea of cycles in nature and in daily life.
- b. To help develop a sense of commitment to adopting sustainable lifestyles.

2. Materials

- a. Pens and paper to list down answers;
- b. Cellular phones;
- c. Blackboard, whiteboard or large sheet to write down the lyrics of songs.

3. Instructions

- a. Read the module sections on cycles. Discuss this with the students and give some examples encountered in Changdeokgung Palace.
- b. Explain the importance of understanding the cycles of nature. Discuss how humans sometimes employ technologies that disrupt the cycles and the balance of nature.
- c. Explain that on the other hand, there are sustainable technologies which are compatible with nature.
- d. Ask the students to go around and identify as many examples of sustainable technologies as possible. Examples from Changdeokgung Palace would include:
 - eaves which protect from rain, but allow in sunshine;
 - presence of trees and banks of greenery;
 - sliding walls which allow for maximum air circulation;
 - courtyards designed to create temperature gradients to encourage breezes;
 - cooling ponds and streams;
 - paper on the walls to allow in more light;
 - use of natural and renewable materials for building;
 - natural acoustics;
 - terracing of mountainsides;
 - bracket systems to support beams without nails;
 - sundials to tell time using the movements of the sun.
- e. Make a game out of the identification of sustainable technologies. Ask the students to form groups. Each group will identify a recorder. Ask the students to scatter and to identify examples of sustainable technologies they encounter around the site. Students should send their answers to their group's designated recorder by SMS. The group that is able to come up with as many correct answers within the designated time wins.
- f. Once all the groups have finished, review the answers and discuss these with the class. Why are these considered sustainable?
- g. End by asking the students to come up with words for a round song on the theme of sustainable technologies. Challenge the students to come up with creative words using popular tunes.

h. Sing the songs together.

4. Guidelines for Processing

- a. Explain that cycles are always going on in nature: within our bodies, within plants, in the soil, in the air.
- b. The concept of cycles is related to the idea of yin and yang. Yin is constantly in the process of becoming yang and, in fact, contains a bit of yang. Likewise, yang is constantly transforming into yin. It may be a good idea to show a yin-yang sign and to explain its meanings.
- c. Our disruption of cycles may lead to disastrous results, which invariably affect us. Our unregulated use of fossil fuels is causing climate changes. The cycle of evaporation and precipitation is then hampered, leading to droughts in some places and inundations in others.
- d. Understanding cycles makes one more aware of the need for sustainable technologies that do not interrupt cycles.
- e. You may wish to explain why the following features of Changdeokgung represent examples of sustainable technologies:
 - eaves which protect from rain, but allow in sunshine: *protect interiors from rain without creating a need for artificial light, which uses up energy resources.*
 - presence of trees and of banks of greenery: *provides shade and oxygen; naturally cools surroundings without expensive air-conditioning that eats up energy resources and uses polluting chemicals.*
 - sliding walls that allow for maximum air circulation: *naturally cool surroundings without expensive air-conditioning that eats up energy resources and uses polluting chemicals.*
 - courtyards designed to create temperature gradients to encourage breezes: *naturally cool surroundings without expensive air-conditioning that eats up energy resources and uses polluting chemicals.*
 - cooling ponds and streams: *naturally cool surroundings without expensive air-conditioning that eats up energy resources and uses polluting chemicals.*
 - paper on the walls to allow in more light: *provides privacy without creating a need for artificial light, which uses up energy resources.*
 - use of natural and renewable materials for building: *most materials can be recycled*
 - natural acoustics: *sound is amplified for large audiences without using expensive equipment.*
 - terracing of mountainsides: *erosion is prevented, the mountain is preserved for future generations.*

- bracket systems to support beams without nails: *the use of corrosive nails is omitted.*
 - sundials to tell time: *equipment which uses non-renewable energy resources is eliminated.*
- f. Ask students to give other examples of sustainable technologies.
 - g. Explain that the choice to use sustainable technologies is ours to make. Such use will determine whether our lifestyles will be sustainable.
 - h. Other ideas for sustainable lifestyles include a commitment to recycling, to using only recycled materials, to using chemicals and materials that are polluting and non-bio-degradable. One possible slogan is: *We must strive to live simply so that others may simply live.*
 - i. Using a round song reminds us that in a world of cycles, whatever we do comes back to us, and however far we venture, we always come home.
 - j. Applying systems-thinking, we see that when we disrupt cycles, we are invariably affected. We cannot isolate ourselves from our surroundings and from the systems of which we are a part.

C. Symbols on a Shirt

1. Objectives

- a. To help students explore and express their identities through symbols;
- b. To develop awareness of the form and meaning of certain symbols in our surroundings;
- c. To understand that symbols may be carried across cultures;
- d. To understand that some symbols may not be viewed in the same way by different cultures;
- e. To heighten awareness of the importance of cultural diversity;
- f. To explore the connections between cultural diversity and a culture of peace.

2. Materials

- a. Digital cameras;
- b. Printers;
- c. Colouring materials like crayons or markers;
- d. Paper;
- e. Fabric paints;
- f. White t-shirts.

3. Instructions

- a. Read the module section on symbols in Changdeokgung. Discuss this with your students.
- b. Ask students to identify important symbols in the precinct of the Palace and explain their meanings. Examples could include the symbols of longevity, the emblems of the king and queen, and images of the guardian beasts.
- c. Ask students to go around the compound and pick a symbol or a series of symbols that represent them. Ask them to draw the symbols or to photograph and print them out. Remind them that symbols need not be designs. Objects can be symbols, trees can be symbols, ponds can be symbols.
- d. In interpreting their symbols, students may wish to take into consideration the artistic elements.
- e. You may wish to ask students to combine symbols into a composite symbol, very much like a Chinese character. Show them the Chinese character for garden. Show how it was formed from its component parts. Students may wish to try their hand at creating composite symbols.
- f. After all the symbols have been discussed, ask the students to paint their symbols on shirts. Remind them that they can use every part of the shirt. They need not confine themselves to just the central front area. They can use the back, they can create borders on the sleeves or the collar area. They can create a continuous motif that runs along the front.

4. Guidelines for Processing

- a. Explain that symbols are a kind visual shortcut involving the throwing together of an idea or phenomenon and an image which will represent it.
- b. Symbols are useful because a group of people have made an agreement regarding their meanings.
- c. We use symbols everyday: the red and green of traffic lights, the icons for male and female on restroom doors, the cross and the crescent.
- d. Some symbols have many meanings. Flowers are generally used to express good will. But specific flowers have specific meanings. Some flowers evoke purity, others longevity and so on.
- e. Some symbols are understood differently by different people, by different cultures. A flower may symbolize happiness for some, but death for others.
- f. Some symbols are personal; others are understood by the members of different nations.
- g. The richness and variety of our symbols are emblems of our cultural diversity.
- h. Some symbols have travelled across cultures. The swastika, for example, will be seen in India, all the way to Republic of Korea. It will be seen in Europe, too, but there it will be

understood differently.

- i. We may not understand the symbols of other people, but we can still respect them. This respect is at the core of World Heritage Education.
- j. The variety of our symbols should also indicate that we are not alone. The symbols we use may have come from another time and another place. Understanding this will again help promote a sense of interconnectedness, a sense of being a member of a complex system.
- k. Using the symbols derived from the environment of a World Heritage site should illustrate that World Heritage sites are rich sources of images and motifs that can be applied to many things. They can be the basis for design in the fields of fashion, furniture, architecture, etc.

Conclusions

- This module has developed three activities that address the so-called “three pillars of ESD”: environment, economics and society, with the underlying aspect of culture. Ideally, a group of students should undertake all three activities because they deal with different, equally important dimensions.
- This module posits that for WHE integration with ESD to succeed, practitioners must somehow address all three pillars. For this reason, a module matrix was presented to illustrate the interwoven network of values, ideas and perspectives that must be considered in any program for WHE and ESD.
- Systems-thinking is an effective overarching approach to understanding that can help integrate the concerns exemplified by the three pillars.
- For WHE with ESD to succeed, practitioners should proceed with humour. Their programmes should be enjoyable.
- Programmes aimed at young people should deal with their concern for future livelihoods, for future careers. The last activity tries to evoke possible connections between World Heritage sites and creative industries, such as fashion.
- The arts are important allies and tools for any education programme. The arts are especially effective vehicles for WHE with ESD. Unlike a blouse or a bowl of rice, which can only be utilized by a limited number of people, art can be enjoyed and experienced by countless people. In fact, artworks are remarkable for the fact that their value increases the more they are shared. What better way to share with young people a message about the importance of stewarding our resources effectively so that they can be passed on to grateful generations in the future.

Janet Pillai

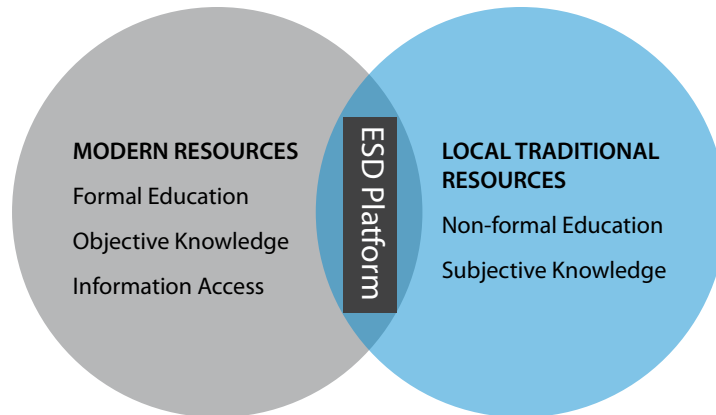
*Associate Professor, Arts-ED, School of Arts, Universiti Sains
Malaysia, Penang, Malaysia*

Infusing the Concept of Sustainable Development into Education

To move towards more sustainable development, it is imperative that innovation and change which involve new technology, materials, knowledge or skills, support and build on the natural and cultural resources and assets already in existence in a locality. However, in many localities, innovation and change are rarely part of an internal evolutionary process. They are often imported or imposed upon a traditional context via colonization or enthusiastic development policies using standard blueprints which are alien to the local cultural and natural landscape. Interdependent micro-systems that have developed over the years through interactions between the local community and their particular environment are intercepted by insensitive development. Traditional knowledge is often ignored or becomes irrelevant and is ultimately forgotten.

Local self-reliant economies, local innovations and local products are also threatened by a global market economy that encourages production, consumption and development on a large scale. Global technologies and systems benefit from promoting monoculture by exerting control over development, and influencing cultural patterns, production, knowledge, values and consumption habits.

Education can play an important role in protecting the diversity as well as the dynamics of traditional resources. This can be achieved by increasing young peoples' appreciation of traditional resources and by facilitating them to evaluate threats and to apply new ideas/concepts to strengthen/enhance these resources.



In the formal education system, we study the world from an objective viewpoint. Education provides tools, processes, theories and concepts for reflection. Students rarely have the opportunity to link the information from their textbooks to their subjective lives, such as their personal experiences, their collective community lifestyle or their local environment. The understanding and application of this knowledge is best tested in a ‘real life’ situation, rather than in the context of a written examination.

This chapter discusses how teachers can help students transform the passive world of textbooks into an active relationship with humans in the environment. As humans function at a ‘local’ level, it makes sense to adopt a ‘local site’ in the community as the starting place to apply education. In the recommended module, students will document and study a traditional resource in their locality, analyze the value of that resource to the community as well as the existing threats to the resource.

The module opens up opportunities for young people to reflect on their own community, history, culture and environment which will in turn inform their understanding of the universalized concepts studied in geography, history, science, and so on.

Terminology and Definitions

What constitutes local heritage resources?

Local heritage can include natural landscapes, archaeological or historical sites, and artefacts, built structures or monuments, documents, people, practices, language, and innovations that have cultural, historical, symbolic, aesthetic or scientific significance. These resources, which are particular to the community and locality, are a result of a symbiotic relationship between the community and environment over a long period.

What is heritage significance?

Traditional resources may contain or embody historically significant ecological, aesthetic, economic, social, spiritual or scientific value. These historically significant values were developed (and often refined) from cultural interaction between humans and their environment.

These values may be evident in tangible entities such as nature, buildings or artefacts, as well as in intangible factors such as traditional knowledge, skills, systems, beliefs or memories. Traditional knowledge or skills, for example, are embedded in the selective or collective memories of the community and are manifest in the living culture, which is passed down through generations.

What is the connection between local heritage and sustainable development?

Local heritage is a rich historical resource of the community's aesthetics, philosophy, adaptability, creativity and distinctiveness, and serves as evidence of a community's ecological and material culture. While certain local heritage resources are discarded as irrelevant to the modern world and viewed as an obstacle to development, other types of historically significant resources are exploited for their contribution to development.

Development is inevitable and part of our evolutionary process, but needs to be handled with responsibility. Development that merely bleeds or depletes existing resources should be avoided. Sustainable development is responsible development that can help in the recovery or revitalization of endangered, depleting or damaged local resources. Sustainable development is that which is able to revitalise, maintain, improve or enhance local resources and make them available for the benefit of future generations.

What is heritage mapping?

Heritage mapping involves identifying and documenting traditional resources that are historically significant to the locality (e.g., nature, artefacts, buildings, knowledge, skills, documents, people, etc.) and attempting to trace patterns of occurrence, connectivity or interdependence. Systematic mapping of a local site helps students record and appreciate the interconnectivity between their inherited 'natural' and 'cultural' resources.

By connecting the various data collected in a local area and studying how people, activities and built/natural environments are connected through time, space, and interaction, students develop an impression of the community as a complex network.

Some types of maps that can be created by the students are:

- Mind maps;
- Geographical maps;
- Flow charts;

- Photographic essays;
- Network maps.

Module: Education on Sustainability through Mapping Local Heritage

In this module, education on sustainability can be integrated as a practical component in an already existing formal curriculum (i.e. as project or folio), or as a co-curricular after school activity over several weekends. The module is applicable to students above age 12 (see Appendix A).

1. What will this module involve?

- Research by teachers on the local environment and identifies a traditional resource.
- Assessment of the threats to the sustainability of the resource.
- Introduction of the locality where the resource is found, with an overview of the history, local culture, geography, sociology and economics of the site to participants.
- Training workshop: participants are taught research and documentation skills in photography, interview methods, mapping techniques, etc.
- Field trip: research at the chosen site to investigate the heritage resource and assess threats to the sustainability of the resource.
- Data collection and analysis.
- Problem analysis from the historical, geographical, social and economic perspectives.
- Creative output that can communicate reflections on the heritage value of the resource and challenges to its sustainability.

2. How to identify and select traditional heritage resources

Identify the age group of students that you will be working with, as this will affect the area of focus and the depth of the study. It is important also to know the communities and localities that the students come from in order to help you find a site which is relevant to them.

This is an investigative exercise that will require you to approach the subject that you teach (geography, language, science, history, music, etc.) from more than one perspective. You are encouraged to review the content, topics or concepts you teach from the historical, cultural, aesthetic, economic, scientific or social perspectives.

Take a relaxed walk/drive around the village, town or district. Focusing on your subject area, try to identify if there is 'evidence' of what you teach in the local environment. Ideas or concepts that you disseminate through your teaching may be found in the natural environment, built

environment, in agricultural or business practice, in celebrations, food, language or in local forms of documentation. Try to determine which of these resources have some 'heritage value' such as traditional skills, knowledge, inventiveness, creativity or aesthetics particular to the culture and locality.

Select one main resource/asset in the community that you think has historical significance and value and can be related in some way to the subject you teach. This can be a traditional economic activity (manufacturing, fishing or agriculture), a cultural activity (festival, ritual, craft, songs), or something more tangible (a building, person or natural landscape). Focus on this one resource to develop your lesson plan.

3. Introducing students to the community and locality

Students are now ready to be given a briefing of the site which includes its geographical location, history, community, culture, etc. This briefing is better done with the aid of a simple video movie or PowerPoint presentation. A more exciting way for students to discover a site is to participate in a treasure hunt for traditional resources (objects, buildings, artefacts, persons, skills) in the actual locality. Students indirectly explore the area while in search of the information and also get over the barrier of interacting with the community.

Students are given a general guided tour of the locality which incorporates the history of the community, the landscape, and the social, cultural and economic patterns. This tour can be led by members of the community or by the teacher with the students contributing information on their own community or space whenever possible.

4. What sort of skills will the students need before beginning an investigation?

A part of this module is dedicated to developing artistic and technical skills needed for data collection and documentation. It is best to arrange a simple one-day workshop for participants to become acquainted with investigative techniques and documentation tools. Investigation may incorporate some of investigative techniques that students are already familiar with such as observation, interview and secondary research, documentation techniques such as sketches, photographs and narratives and analytical techniques such as graphs, charts, mind maps, etc.

The workshop should also focus on using modern technologies such as digital photography and digital photo editing to investigate and document traditional knowledge. The use of modern tools not commonly used in schools, such as mobile phones, cameras, computers, iPods, etc. to investigate indigenous culture facilitates a sense of continuity between development and tradition. Using these tools in a serious documentation exercise provides new value towards these communication tools (see Appendix B).

5. How to approach the community?

Students will use a case study approach to investigate a traditional resource in the locality. Over a period ranging from 12-16 hours students will identify and investigate one traditional resource that sustains their community, examine the significance (heritage value) of the resource to the community, and investigate its potential for survival.

It is important that local heritage is studied, documented and re-assessed with the participation of the local community. Here the teacher needs to identify partners in the community that can act as resource persons (see Appendix C). Intergenerational dialogue between young and old custodians of traditional resources helps in raising understanding, appreciation and pride in the resource. This dialogue is then reflected upon in an objective scientific manner, and this is where formal education plays an important role.

It is advisable to begin by inventorizing or recording all aspects of the traditional resource. This can be done through sketches, photography, maps or notes. While this is a common activity undertaken in school projects, it could be expanded to help the student understand how user communities benefit in many ways from a resource through a chain of interconnected and interdependent relationships. It would be useful for students to draw a mind-map to assess the significance and impact of this traditional resource on the community.

6. Data collection and documentation

The skills picked up by the students in the training workshop become useful here. Students with different skills may want to come together to form a smart team so that each team has interviewing, note taking, documentation and analysis skills. The network of resources identified by the teacher and students also become very useful when attempting to locate potential primary and secondary sources of information such as members of the community, local organizations, experts, reports, publications, newspaper clippings, photograph archives, etc. A guiding framework such as the one below can be useful.

Data Collection	Source	Supporting Documentation	Interpretation of Data
Factual/Statistical data	Reports Publications Archives Interviews	Photographs Video Illustrations	Charts, graphs, maps
Selective/Collective memories	Oral Stories Interviews	Photographs Video Sketches	Oral testimony Keywords/phrases

7. Challenges Facing Traditional Resources

The next step is to look at challenges to the sustainability of this traditional resource. Is this resource being threatened in any way? If so, what are the observed threats? Once students have mapped the resource and its current status, it is possible to zoom in and focus on critical problems or threats that you might want the students to investigate in greater depth. A key question would be: what is the significance (heritage value) of this resource to the community and what sort of threat is it under?

Investigation of threats or challenges can be done in a scientific manner using quantitative approaches (for older students), using an anthropological approach via photography and oral stories (for younger students), or a combination of both approaches. For this exercise, students working in teams, may draw upon specialized information or knowledge learnt from a school subject, such as investigating reasons for the decline of a traditional resource such as a natural resource (pollution?), a skill (i.e. replaced by technology?) or a population (i.e. migration?).

Heritage value	Describe assets/significance of the resource	Threats to the resource (if any)
Historical		
Ecological		
Cultural		
Aesthetic		
Economic		
Social		
Scientific		

Analysis of the data should be able to give students a more accurate idea of the problem. At this point, teachers should guide students to take a wider perspective beyond their specialized subject. They should map the cause and effect of the threat in relation to the history, economy, culture or policy to show how these extraneous factors have impacted on the resource, and in turn on the community. For younger children, this problem analysis can be done in the form of a photographic essay. Older students may want to use diagrams, flowcharts, photographs or testimonies to support their argument. The argument can be debated in the classroom.

What is the evidence to indicate that resources are critically threatened? What are the drivers that have threatened/pushed the traditional resource to such a critical point? What were the losses and perceived gains from abandoning or damage to the traditional resource? Who gained and who lost? What are the actual costs (tangible and intangible) that the community has had to incur?

Critical Situation of Traditional Resource	Cause?	What is lost?	Perceived Gains	Effects on Community

Problem analysis helps the students to reflect academically in an integrated and holistic manner about their community's relationship to development and the environment (see Appendix D).

This module does not go into brainstorming innovations or ways of dealing with critical problems facing heritage resources. However, teachers are encouraged to work this component into their project.

Conclusion

It is very important that students are given an opportunity to map and interpret what they observed from an integrated perspective (i.e. examining the issue, site or person in relation to the history, environment, economy, etc.). This reflection of the interconnectedness and interdependence of a micro-environment will prepare them to take on globalization more critically and co-evolve with the environment in which they live.

Place-based knowledge refers to learning from local, contextual traditional resources and practices. Students in this project learn how their own community managed or did not manage to co-evolve with the landscape over time. They learn the positive and negative aspects of the cultural practice. Access to these resources and practices helps children evaluate what works or does not work, what should be adapted from tradition and what should not.

The exercise cultivates a deep engagement with the community and locality beyond the textbook. Such an encounter can strengthen the children's emotional bond with their environment, community and history, and provides an essential lesson in continuity.

Appendix A: Infusion of Sustainable Development and Local Heritage Concepts into Curricula

Subject and participants

- Subject: Geography;
- Participant Group: Students from Year 9 (Age 15).

Time involved

- Duration: May-October.

Location

- The fishing village of Kuala Jalan Baru, Penang, Malaysia.

Heritage resource selected

- The river and coastal environment as an economic asset.

Critical problem or threat investigated

- Tension between growing fishing industry and pressure on natural environment.

Case study

- Threats to the Traditional Economic Activity of Fishing in Kuala Jalan Baru Village, Balik Pulau, Penang.

How the concepts were infused into the curriculum

- Infusion of WHE/ESD into Geography Folio Project.

Previous Folio (Practical) Project	New Folio Project (focusing on ESD and local heritage)
1. Simple data collection Data was collected to provide statistics for population, livelihood charts	<ul style="list-style-type: none"> • Comparative data – to measure change of occupation/ livelihood over 2 generations • Non-tangible data – on fishing methods and traditional knowledge connected to fishing
2. Landforms studied in isolation	<ul style="list-style-type: none"> • Correlating natural landform to fishing as a traditional industry
3. Presentation of facts and figures Relief maps and population statistics presented as geographical census	Data are connected to social analysis <ul style="list-style-type: none"> • Relief map serves as inventory of traditional resources and as environment impact assessment • Livelihood changes reflect on challenges faced by the fishing community
4. Sustainability was a general topic in the syllabus	<ul style="list-style-type: none"> • Sustainability brought closer to home for the students by studying real threats facing resources within their own community
5. Minimal engagement with community, only statistical and general problems inquiry	<ul style="list-style-type: none"> • Deep engagement with community through interviews, oral stories on problems faced by small fishermen, personal feelings and experience, impact on their future

Sequence/Schedule of Project (4 days)

1. Acquaintance with the location and community (half day);
2. Training workshop in mapping tools (1 day);
3. Preparing questionnaires and data collection/analysis methods (half day);
4. Field trip to the chosen site (1 day);
5. Evaluation and interpretation of data (half day);
6. Preparation of the folio (own time);
7. Evaluation of the project (half day).

Appendix B: Training Workshop on Research Tools

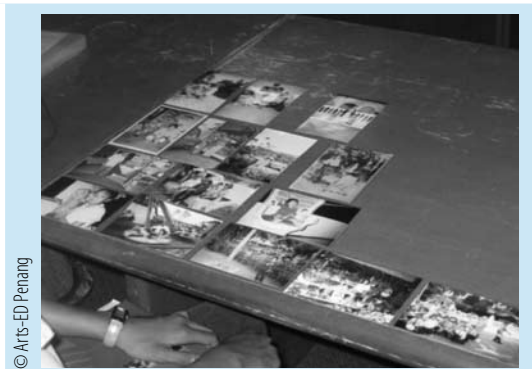
Tools and skill-building

- Digital photography for recording visual information such as environment, buildings, artefacts, processes, etc.
- Photo editing for purposes of editing and generating computer prints.
- Mind maps for brainstorming and analysis of integrated systems.
- Interview techniques for recording oral histories, opinions, descriptions, etc.



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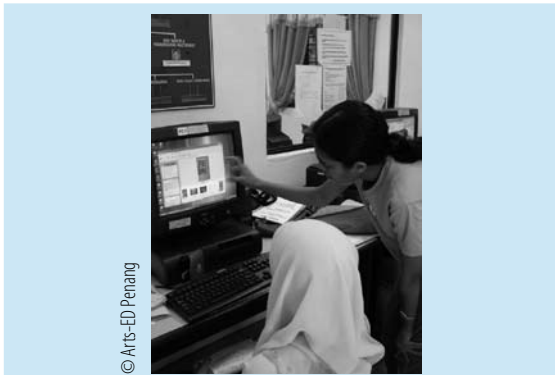
Camera workshop



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Photography techniques and selection process

Students are motivated to learn digital photography and photo editing on computer if they are given a task related to them, such as their name card. In this initial task, children can be asked to create their name card for the project using images that they have taken with the digital camera. Through this exercise they can be taught basic photography skills such as framing, angle, distance, level, focus, light source and composition. Using computer editing programmes, they then insert their name into their selected image and print it out.



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Photo editing workshop



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Name tag

Besides multimedia skills, the children are also introduced to mind mapping, a tool which is very useful for brainstorming interconnectivity. Starting with their locality, they can brainstorm topics such as: 'How would you describe your locality to outsiders? What would you consider the assets of your locality? How are the assets in your locality connected?'



Interview practice



Mind mapping workshop

Interviews are very important for inter-generational communication. The form of interview used should be related to the kind of information sought after by the student, i.e. descriptive, narrative or factual. Information can be sourced through structured interviews or merely through oral stories. Students are taught the difference between open-ended and closed questions, and also how to review answers and spontaneously ask sub-questions in relation to the main questions. They are also taught how to countercheck the reliability of answers by rewording the question or checking with other available sources.

After brainstorming what data or information they need, they have a practice session using role play. The role of interviewee is played by the teacher who can manipulate the role play by subjecting the student interviewers to language problems, non-corporative interviewee, etc.

During the training workshop, the students should be able to assess their talents/abilities. This helps in the setting up of working groups later where each group member plays a complementary role, one as an interviewer another as documenter. The distribution of roles should be designed to promote sharing and collaboration. The grouping also provides an opportunity for children to apply and excel in their area of their personal intelligence/capacity.

Appendix C: Networking with the Local Community

The teacher is expected to make a concerted effort to set up an informal network of people and organizations that can provide information, space, equipment and materials. This can be done by surveying the locality before hand, visiting organizations to source for materials and resources and having informal chats with the community to inform them and to invite their feedback, cooperation and participation in the project.



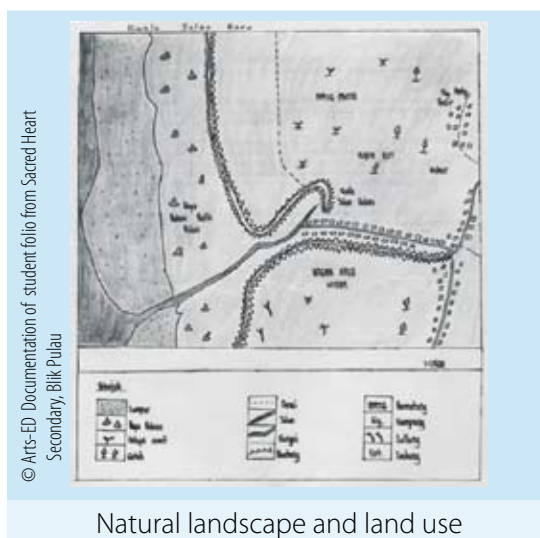
Appendix D: Sample Mapping Exercise in the Locality

Once they have been introduced to the site, students can begin to make a detailed visual inventory of the main traditional resource by using illustration, sketches and photographs to capture the site/person/event visually. Depending on the age group of the students, this can be followed by notes, descriptions or numerical statistics on the current status of the resource.

What are the main natural/cultural traditional resources associated with this locality and its user community?

River, Mangrove swamps, fish, fishermen, fishing methods.

Once resources have been located, the information can be translated into a relief map and accompanying notes on how the physical locality complements land use. Within the topic of land use students can identify traditional methods utilized by the community in the fishing industry.



What tools can be used to conduct the study?

1. Walkabouts and site visits;
2. Observations;
3. Photography/sketches;
4. Interviews;
5. Existing statistics/reports;
6. Illustrations and sketch map.

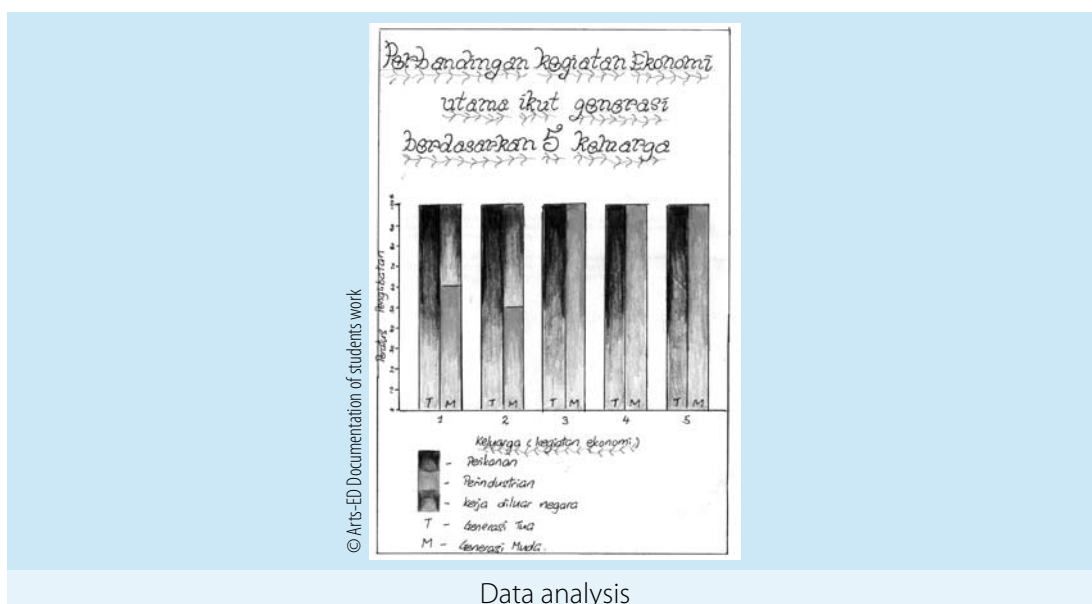


Interview with fishermen



Kuala Jalan Baru fishing village

Data collection	Source	Supporting documentation	Analysis
Objective: Factual/statistical data	Survey Reports Publications Archives	Charts, graphs, maps showing occupational changes over two generations Photographs	Photo essays Problem analysis of threats to livelihood and migration patterns
Subjective: Selective/collective memories	Oral stories Interviews Observation	Keywords/phrases Transcripts of oral testimonies Illustration, sketches	Relief maps of landforms and land use Problem analysis of threats to fishing industry and environment



Data analysis

Appendix E: Problem Analysis by Students

From the data, students were able to give concrete information on threats faced by small fishermen and the environment. The biggest threat was from trawlers who encroached on their waters, resulting in depleted catch, water and air pollution. Fishermen seemed to be aware of official channels of complaint and poor enforcement by authorities.

The second threat was in deteriorating air and water pollution. Haze from the Sumatran fires greatly affected visibility and health, while water was contaminated from chemicals used in prawn cultivation ponds that killed fish fry.

Fishermen were also vocal about the advantages of certain technologies such as motors which enhanced their safety and creative innovations in netting material which increased efficiency for small fishermen.

Students were able to discern from statistics on the sample group that all of the second generation was no longer involved in fishing, had received basic education and preferred office or factory jobs easily available in the nearby free trade zone. They perceived fishing as hard and dangerous work. First generation fishermen did not encourage their children to fish because of the relatively lower and unpredictable income as compared to office jobs.

Students mention that the interaction with the fishermen and their stories left a strong impression on the students and widened their horizons. They also learnt how a small scale enterprise contributed to the early economy and how it is faced by very serious threats from outside forces which they seem unable to control. Students wonder about the future of this fishing village.



United Nations
Educational, Scientific and
Cultural Organization

UNESCO Bangkok

Asia and Pacific Regional Bureau for Education

Mom Luang Pin Malakul Centenary Building

920 Sukhumvit Road, Prakanong, Klongtoey

Bangkok 10110, Thailand

E-mail: apeid.bgk@unesco.org

Website: www.unescobkk.org/education/apeid

Tel: +66-2-3910577 Fax: +66-2-3910866

