FORMAT		
1. Name of resource	**Sustainable Exhibit Design: Guidelines for designers of small scale interactive and travelling exhibits**	
2. Location	https://eprints.lincoln.ac.uk/id/eprint/689/	
3. Alternative location		
4. Author[s]	G. Matthews and K. Abeyasekera	
5. Publisher/producer/ host	University of Lincoln	
6. Year	2006	
7. Suggested citation	G. Matthews and K. Abeyasekera (2006). Sustainable Exhibit Design: Guidelines for designers of small scale interactive and travelling exhibits, available at https://eprints.lincoln.ac.uk/id/eprint/689/	
8. Languages in which available	English	
9. Geographic area resource relates to	United Kingdom but with global relevance	
10. Does the resource relate to a specific time frame?		
11. Type	Report	
	Toolkit/Framework/Roadmap	Yes
	Sign-post to other resource (database)	
	Case studies	
	Other	Yes (Interview Transcripts)
12. If this is part of an initiative, what is the initiative?	"This study has been produced as part of Lincolnshire County Council's 'FLOWS 2B Information and Symbols Project' and in the wider context, is focussing on raising public awareness of flooding and flood risk by exploring innovative methods of disseminating information on the subject of flood risk to the public. This project involves the production of interactive exhibits aimed at raising the awareness of flood risk in Lincolnshire and is a partnership between Lincolnshire County Council and the School of Architecture at the University of Lincoln. A study focussing on creating sustainable exhibitions has been undertaken via the University of Lincoln that will directly inform the FLOWS exhibits." (p.2)	
COLLECTIONS AND COLLECTIONS-BASED INSTITUTIONS		
13. Explicit links to collections	No	
14. Explicit links to museums/libraries/archives	Yes	
15. Types of institutions the resource covers	Museums	X
	Archives	X
	Libraries	X

	Other	X
16. Does the resource relate to specific disciplines?	**Arts, humanities and social sciences: philosophy, psychology, religion, social sciences, law, politics, language, arts and recreation, architecture, literature, history, geography and ethnology, anthropology, archaeology**	X
	Science, natural history, technology, medicine, engineering, manufacturing	X
17. If no explicit links to collections, justification for inclusion	Exhibitions are central to the work of collections-based institutions, and are a major means through which collections are shared with the public. This resource would be valuable to guide policies and actions working towards sustainable design.	
HOW IT CONTRIBUTES TO SUSTAINABLE DEVELOPMENT		
18. Collections-related activities the resource relates to (mark all that apply with X)		
Develop collections to protect and safeguard wider cultural and natural heritage more effectively, for example by targeting collecting to threatened forms of heritage in strategic ways		
Use collections to promote learning and educational opportunities that contribute to sustainable development more effectively, for example education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development and/or skills development relating to collections		
Use collections to promote cultural participation/social inclusion more effectively, for example by reducing barriers to participation, to ensure no-one is 'left behind'		
Use collections to promote sustainable tourism more effectively, for example by developing new products based on local cultural heritage, and/or considering the rights of stakeholder groups in relation to collections		
Use collections to support research that contributes to sustainable development (including all forms of personal and self-directed research at all levels that make use of stored collections) more effectively, for example by providing effective facilities, collections and information to meet researchers' needs		
Make decisions around collections that contribute to sustainable development more effectively		
i. employment (recruiting, staff training, staff safety)		

ii.	energy consumption, greenhouse gas emissions, reduction, monitoring and reporting	X
iii.	waste management and reduction of waste	X
iv.	transport (forms of transport, energy use)	X
v.	commercial activities including copyright and IP	X
vi.	governance and management	X
vii.	security, disaster preparedness and risk reduction	
Direct external leadership, partnerships and collaborations towards sustainable development more effectively, for example by developing impactful partnerships		
19. Does the resource relate clearly to any international conventions (mark all that apply)?		
Culture conventions:		
1952, 71 Protection of Copyright and Neighbouring Rights		
1954 Protection of Cultural Property in the Event of Armed Conflict		
1970 Fighting Against the Illicit Trafficking of Cultural Property		
1972 Protection of the World Cultural and Natural Heritage		
2001 Protection of the Underwater Cultural Heritage		
2003 Safeguarding of the Intangible Cultural Heritage		
2005 Protection and Promotion of the Diversity of Cultural Expressions		
Rio Conventions:		
Convention on Biological Diversity (CBD), Convention to Combat Desertification (UNCCD), Framework Convention on Climate Change (UNFCCC)		X
AIMS AND CONTENT		
20. What issues does the resource aim to address?	**"This study on Sustainable Exhibit Design will investigate best practice in sustainable exhibit design and produce a report setting out guidelines for designers of small interactive and travelling exhibits…** **While sustainability covers issues relating to social, ethical and economic considerations this report concentrates mainly on the direct and indirect environmental implications of designers' practices. The timing of the research effort coincided with a live project for students on the Museum and Exhibition Design degree course at University of Lincoln, UK. They were asked to design a small-scale interactive exhibit which aimed to raise public awareness of flood issues – a topic of immediate environmental significance. This study, therefore, was initiated to increase the student exhibition designers' knowledge of the relationship between the design decisions they make and their environmental consequences. The technical specification of exhibits can have a positive effect in minimising detrimental environmental impact. This is a relevant consideration**	

	regardless of the subject matter to be communicated by the exhibit. Generally, the research aimed to highlight issues that should be considered and offer guidance to designers so that they can ask the right questions and make informed decisions." (p.2; p.9)
21. Intended audience of resource	[researchers, designers, students, and museum professionals involved in exhibit design]
22. Process of development	"The author and editor thank the following: Claudia Freeman, Research Assistant; Peter Quantick and Clare Osman in the Research Office of University of Lincoln for help in preparing the research proposal and contract documentation; Toby Forbes-Turner, FLOWS Officer, and Jo Rae, Planning Officer, at Lincolnshire County Council for creating the opportunity for this research initiative; Anna Gagliano, Information Officer at the Building Centre; Peter Higgins, Creative Director of Land Design Studio, London, Carrie Wiltshire, Interpretation and Display Coordinator at the Centre for Alternative Technology, and Anna MacDougal, Project Architect with the Hawkins Brown architectural partnership for agreeing to be interviewed and providing invaluable insight and information; and Michael Blackburn for proof reading the final text. Many other individuals provided advice and guidance and assisted in locating information. We thank them all and hope they will forgive us for not mentioning everyone by name" (p.Acknow).
23. Organisation/structure/contents	**Acknowledgments** **Preface** **1.0 What is sustainable design?** 1.1 Overview 1.2 Political background 1.3 Consumer issues 1.4 Economic benefits 1.5 Environmental issues **2.0 Research methods** 2.1 Methodology 2.2 Sources 2.3 Identifying the scope for research 2.4 Precedents and examples 2.5 Classification systems 2.6 Interviews **3.0 Principles of sustainable design** 3.1 Minimising resource consumption 3.2 Reducing pollution **4.0 Sustainable Strategies** 4.1 Consumer desire 4.2 Cradle-to-grave analysis

	4.3 Dematerialisation 4.4 Energy use 4.5 Transport 4.6 Design for disassembly 4.7 Waste management 4.8 Specifying materials **5.0 Evaluating sustainability** 5.1 Methods 5.2 Environmental accreditations **6.0 Opportunities for change** 6.1 The role of the designer 6.2 Sustainability policies 6.3 Cross discipline collaboration 6.4 Education **7.0 Conclusion** **Appendix 1** **Useful organisations and sources** **Appendix 2** **Interview transcripts** **Bibliography & further reading**
FRAMEWORKS	
24. Framework structure	
25. Relevant policy considerations	Yes
26. Resources for implementation identified	Yes
27. Specific assessment points/indicators/milestones/action plan for monitoring	No
28. ASPECTS OF SUSTAINABILITY COVERED BY RESOURCE (mark all that apply)	
People (social sustainability)	
Planet (environmental sustainability)	X
Prosperity (economic sustainability)	
Peace	
Partnerships	
29. CROSS-CUTTING CONSIDERATIONS COVERED BY RESOURCE (mark all that apply)	
Gender perspectives	
North and South perspectives	
HOW THE RESOURCE CONTRIBUTES TO AGENDA 2030 AND THE SDGs	
HOW AGENDA 2030 AND THE SDGs FEATURE IN THE RESOURCE	

30. SDGs and Agenda 2030 specifically mentioned?	No
31. SDGs specifically mentioned?	No
32. SDG targets specifically mentioned?	No
33. SDG indicators specifically mentioned?	No
SDGs AND SDG TARGETS AND LINKAGES	
34. Comments on SDG linkages	Implementing the resource helps support a number of SDG targets, particularly as they correspond to the resource's 2 principles: minimising resource consumption and reducing pollution. Minimising resource consumption: The resource supports a number of targets in SDG 12 (responsible and sustainable production and consumption) including: 12.2 (sustainable use of natural resources), 12.4 (management of chemicals and wastes), 12.6 (adopting sustainable practices and reporting) and 12.7 (sustainable procurement). Also supported are 7.2 (uptake of renewable energy), 7.3 (increasing energy efficiency) and 9.4 (upgrading infrastructure to be sustainable). Reducing pollution: This resource supports targets that aim for reduction in pollution, including 6.3 (reduce use of toxic chemicals to improve water quality) and 14.1 (reducing marine pollution), 11.2 (encourage sustainable transport), 11.6 (reducing the adverse environmental impact of cities), and 12.5 (reducing waste generation). As well, incorporating sustainability into education and training supports SDGs 4.7 (Education for Sustainable Development) as well as 4.4 (skills for work).
35. SDGs and SDG targets the resource helps advance	
SDG 4. Ensure inclusive and equitable quality education and promote lifelong	Number of young people and adults in skills-development activities and programmes drawing on collections, for employment, decent jobs and entrepreneurship

learning opportunities for all 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	Increase in number of young people and adults in such programmes Number and proportion of staff who have received training in the last year, to better support their contribution to the SDGs. Programs and processes to ensure the availability of a skilled workforce. (GRI) Average hours of training per year per employee by gender, and by employee category. (GRI) Total estimated number of individuals receiving training from the company as a result of the initiative. (e.g. employees, suppliers, distributors) (Business Call to Action)
SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	Numbers of people in each type of programme drawing on collections from different demographic groups. Increases in numbers of people in each type of programme from different demographic groups. Proportion of people involved in such programmes in relation to overall audience size. Evidence that learners have acquired knowledge and skills to promote sustainable development.

SDG 6. Ensure availability and sustainable management of water and sanitation for all 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially	**SDG 6. Ensure availability and sustainable management of water and sanitation for all** 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	Proportion of energy that comes from renewable sources. Date to achieve net zero, and milestones towards that date.
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all 7.3 By 2030, double the global rate of improvement in energy efficiency	Reduction in energy use. Upgrade of old equipment to more efficient equipment. Uptake of renewable sources of energy.
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial	Number and proportion of collections facilities that: 1.make efficient use of resources, with an ongoing drive for efficiencies and reductions in energy use and waste of all forms. 2. use clean and environmentally sound technologies, including climate-friendly energy sources and materials, with an ongoing commitment to reduce greenhouse gas emissions and waste of all forms.

processes, with all countries taking action in accordance with their respective capabilities	3. adopt and/or prioritise collections-related processes and practices to reduce greenhouse gas emissions and waste of all forms.
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable 11.2 By 2030, provide access to safe, affordable, accessible, sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable positions, women, children, persons with disabilities and older persons.	Plans in place to ensure safe, affordable, accessible and sustainable transport systems for all, in terms of accessing collections-based institutions, Plans in place to use collections-based institutions to provide education and awareness of public transport systems and their development. Special attention to those in vulnerable situations, including women, children, disabled and older people, taken in plans regarding public transport.
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	Plans in place to reduce negative impacts on air quality, and volume and forms of waste. Plans in place to eliminate waste of all forms as soon as possible.
SDG 12 Ensure sustainable consumption and production patterns SDG 12.2 By 2030, achieve the sustainable management and efficient use of natural resources	Reduction of material footprint in terms of reductions in consumption of biomass, fossil fuels, metal ores and non-metal ores.

SDG 12 Ensure sustainable consumption and production patterns 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	Quantities, and reduction in quantities, of chemicals of all kinds, including chemicals used in maintenance of collections facilities, and chemicals used in care and preparation of collections, and all wastes throughout their life cycle, reducing release to air, water and soil. Plans in place to eliminate the use and release of hazardous chemicals into the natural environment as soon as possible.
SDG 12 Ensure sustainable consumption and production patterns 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Quantity and reductions in quantity of waste of all kinds, including avoidance/prevention of waste production, reuse, and recycling. Quantity of material recycled in comparison with quantity sent to landfill. Increases in recycling rate in comparison with landfill.
SDG 12 Ensure sustainable consumption and production patterns 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	Clear visions, strategies and plans in place for all aspects of sustainability – environmental, social and economic (people, planet, prosperity)- across all areas of activity. Visions, strategies and plans relating to sustainability to be publicly available and incorporated into planning documents. Commitments to be in line with local, regional, national and/or international targets and ambitions. Incorporation of sustainability into reporting for funders and other stakeholders, including the public. Reporting to include commitments and progress towards targets

SDG 12 Ensure sustainable consumption and production patterns 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	Incorporation of sustainability considerations into procurement, in terms of advertisement and invitation to tender, contracts, and selection criteria for suppliers.
SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	Number of collections-related programmes, for example research and education, that aim to reduce marine pollution. Quantity, and reduction, of waste of all sorts, with plans in place to eliminate waste of all sorts as soon as possible. Quantity, and reduction, of plastic waste, with plans in place to eliminate the production and release of plastic waste as soon as possible.

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	