Themata 5 E-learning Archaeology, the Heritage Handbook

Programme
Lifelong Learning Programme 2010-2012, Leonardo da Vinci

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Design
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Print
Koopmans' drukkerij, Hoorn

ISBN 978 90 78863 76 2

E-learning Archaeology

the Heritage Handbook

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THEMATA 5
UNIVERSITY OF AMSTERDAM • 2012

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→ **LU** Introduction to sustainable development in archaeological heritage sector *by Marjolijn Kok & Heleen van Londen*

SCO Introduction

For some time now, people are realizing that our natural resources can be depleted. Especially from the ecological field emphasis has been placed on dealing with these resources in a more durable manner. The concept of sustainability is introduced to indicate a new way of managing this: and over the last few years the concept of sustainability is translated to the cultural field.

Due to the pressures of globalisation and general ecomics it is feared that cultural diversity is under threat. If we want to keep a degree of cultural diversity we actively have to engage with the management of the landscape in a sustainable manner.

In this module we will go deeper into the concept of sustainability and the way in which it applies to cultural resources. And although this is a fairly new developement in cultural heritage management it is the intention that ways of dealing with sustainability and its affects in the archaeological practice are brought to the fore. There will be a constant balancing between conservation and development. The unit of management is shifting from the archaeological site to the landscape, although specicif sites are sometimes determining for a landscape experience (For example, Stonehenge). It will not only focus on past practice but also go into the way forward into the future, in the hope that sustainability will be incorporated in to the general practice of archaeological heritage management.

SCO Content of module

In this module we will first go into the general idea of sustainability and the specificities associated with cultural sustainability. Archaeological heritage management in the future will not be able to avoid questions concerning sustainability as it is embedded in European and United Nations legislation and conventions (see module 2). With sustainability the landscape and its developments take a central position in archaeological heritage management. Some ways in which to deal with this development will be put forward. The position of the archaeologists as a participant within the processes of environmental development will differ as different approaches are reviewed. First we will go into methods where archaeologists mainly have a role as providers of information and all descisions are made within the democratic framework of policy-makers and executors.

Next, we will turn to a method where the archaeologists are more actively involved in the actual planning process and development of the landscape.

This is followed by an analysis of the type of research and management where archaeologist actively try to influence policy. All these approaches have to be evaluated along lines of how people perceive the democratic process and what roles participant groups can play (see also module 2). These are both ethical and practical questions.

The last part of this module will go into some perspectives that have been developed for future sustainable archaeological heritage management.

SCO Sustainable development in AHM: concepts of sustainable development

Sustainable development is a concept that has its origin outside the domain of cultural heritage. In 1987 the World Commision on Environment and Development defined sustainable development as:

> ***Animation***
> (There is) a process of change in which the exploitation of resources – and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.

Over the last few years sustainable development has also become part of the Heritage debate. This coincides with a change from a more protective based AHM to a more developmental based AHM (positivistic versus interpretative perspective of module 2). As AHM turns from site preservation to landscape management sustainable development becomes an important concept. Especially because archaeologists with their long-term perspective are aware of the constant changing character of landscape and should therefore acknowledge the ongoing change in the present and future landscape.

According to English Heritage (2008, 314):

> ***Animation***
At the heart of the sustainability approach is the idea that we should conserve or improve the quality of life for both present and future generations. ... Put at its simplest, sustainability is about ensuring that the activities that we have to carry out to meet our range of needs can be continued indefinitely.

English Heritage view sustainability as a value to consider when making judgements about developments in the present-day landscape, where AHM is seen as a process and not as a final state of conservation. Furthermore, sustainability of the landscape involves different paticipant and not just experts' views on what should be considered important. All users of the landscape should be able to feel that their involvement with the landscape can be continued over time.

This means that AHM should be transdisciplinary in the sense that it cooperates with all the parties involved such as planner, developers, public and landscape researchers. Bloemers therefore sees sustainaibility of the archaeo-historical values as a process concerning the way in which people deal with knowledge, use, experience and policies in relation to the landscape.

> ***Animation***
Although sutainable development is seen as the way forward in AHM the concept should be used in a thoughtfull manner as it was not developed for cultural resources. It can even be questioned if culture in itself is sustainable as it cannot be regenerated. Sustainability in biology and chemistry is associated with the idea of reversibility, an idea that is absent in cultural studies.

A clear theoretical framework about how societies develop through time is necessary to be able to decide which actions are sustainble and what actions are not.

Sustainable development in AHM is necessary if we want to preserve certain characteristics of a landscape and at the same time we do not want to turn our environment into a fossilized landscape.

SCO Method of sustainable development

From the European Landscape Convention (see module 4) it becomes clear that there is no wish for a universal solution to the problems or practices of sustainable development of the cultural landscape. Local conditions ask for local solutions. However, there seems to be consensus that an integrated approach is the best method for dealing with sustainable developments. Two approaches are highlighted in this respect the cultural biography of landscape and landscape characterisation (see module 8).

> ***Animation***
The cultural biography of landscape apporach creates a narrative which tries to encompass all the relevant developments in the landscape through time that have shaped the current landscape. This approach usually includes the non-material aspects of the landscape. The aim is that the narrative of the biography remains readable within the landscape and that planners and developers will not only respect this narrative, but also draw inspiration from it for their new plans.
The landscape characterisation approach creates an inventory of all relevant (cultural) resources within a landscape without placing a value on them. It is thought that if planners and developers have all the relevant information about the landscape they will make informed decisions about how to develop and use the present-day landscape.
The main differences between the two apporaches is the moment and reason of selection and the participants who make the selection.
Within the biographical approach selection is based on the idea that every period should be represented in order to fully understand the landscape. But ussualy a certain aspect of the landscape is chosen to form a continuous narrative. Experts select the elements that are seen as essential for the biography of the landscape and therefore also make a preselection of what is to be sustained.
Within the landscape characterisation approach experts gather all information of relevant (cultural) resources. The decision on what to sustain or what to leave out is taken by policy-makers.

English Heritage has given some steps that can function as a framework for the process of sutainable development of the historic environment. These steps are:

> ***Animation***
1 improve understanding and appreciation of the historic environment and its values, for instance by well judged exploitation and presentation of the resources as well as its protection; Characterisation is proving to be one of the most useful tools available; (see also module 8)
2 identify the present and likely future forces for change affecting the resource;
3 make informed judgements, for example by the use of environmental indicators, about the level of change or activity that it can accomodate without unacceptable damage or risk to viability;

4 use this information to set objectives for managing and planning the historic environment, notably the identification of acceptable thresholds or limits for change;
5 match these priorities (by means of strategic assessment of the consequences of action) to the most appropriate implementation mechanism;
6 define and implement a sustainableility strategy including overall plans, policies, and the assessment of specific proposals for change;
7 monitor the character and condition of the the historic environment to determine the effectiveness of policy mechanisms, also monitoring any new trends or forces for change and feeding back to adjust strategies and policy mechanisms as necessary, English Heritage (2008, 318).

SCO Example of the use of historic landscape characterisation in the process of sustainable development.

To find an example of historic landscape characterisations and its use in sustainable development is not easy. Most articles focus on the construction of the historic landscape characterisation and examples of use focus on preservation of specific landscape elements. This is understandable as it is a relatively new tool in the management of landscape development and the effects on planning and sustainability cannot be fully grasped. The historic landscape characterisation of Lancashire (UK) can, however, give an idea of the advantages of the use of this method in sustainable development of landscapes. Local authorities want to develop the landscape in a sustainable manner and need therefore specific information.

The Sites and Monuments Record (SMR) that was normally used had two major disadvantages: first, although the list is extensive for Lancashire it is not complete as it reflects previous archaeological interest; second, it is a site-based list with point locations which tell little about the surrounding landscape. SMR is a good tool to protect individual sites but is of lesser use when the broader landscape is evaluated. Lancashire council wanted a new landscape strategy and for this landscape characterisation is a better tool. The Lancashire project covered both urban and rural areas. Different types of information were gathered, especially of visible features. The historic and environmental attributes were grouped within distinct and recognisable Historic Landscape Characterisation Types. 22 types were distinguished and mapped in a GIS-programme of the County Council. It should be noted that every type has mainly a specific attribute, but that the mixing of elements is evident, for example an ancient woodland type can have within its boundary a modern building.

The historic landscape characterisation map has already different appilications in Lancashire:

1 Input into the Lancashire Landscape Strategy and Development Plan Policy
2 Strategic and local landuse planning
3 Woodland planting proposals
4 Input into agri-environment schemes and targets (Countryside Stewardship)
5 Development control
6 Predictive modelling for archaeological sites in areas where none are recorded in the SMR
7 Advice on the removal or replacement of hedgerows and other field boundaries
8 Monitoring landscape change
9 Targeting future archaeological work
10 Input into other non-statutory strategies (Darlington 2002, 101)

Interesting in the Lancashire example is that it not only focusses on preservation of existing values, but also guides future developments. For example the extensive planting of new trees in East Lancashire will be take place in relation to former woodlands. Furthermore, the map can be used to assess changes that will take place in the future. This will be an important aspect of sustainable development. Without an inventory of landscape types it will be impossible to determine the effect of changes in the long run.

> SCO Exercise

→ LU Perceptions: landscape, planning & interpretative framework *by Marjolijn Kok & Heleen van Londen*

SCO Concept of protecting while developing

In module two an interpretative approach to archaological heritage management was put forward. The concept of protecting while developing is in this approach important and this goes further than the historic landscape characterisation. The concept focusses on the idea that the best way to deal with the archaeological record in a sustainable way is to preserve the archaeological remains in situ. This can only be achieved if archaeology is part of the planning process. And in order for this integration of archaeology in policies and the planning processs to be succesful the cultural elements have to be used in such a way that they improve the quality of the present and future environment. In this view besides past-oriented archaeological research, future-oriented archaeologicl research should take place.

> ***Animation***
> The aim of future-oriented research should be 'to make archaeological values a factor for the development of the quality of present and future human life, perception and environment'.
> Past–oriented research can provide archaeological models on which the presence of archaeological sites can be predicted. Furthermore they can provide narratives about the past. Future-oriented research can safeguard the archaeological record through sustainable development, which allows for future past-oriented research.
> Past- and future-oriented archaeological research should not be seen as oppositional but as complementary.

sco Method of protecting while developing

For future-oriented archaeologist the role they play in relation to the sustainability of the archaeological record is no longer situated within their own discipline. The boundaries of academia have to be transgressed in order to participate in the process that keeps the archaeological record sustainable. Bloemers assumes that paradigmatic shifts will take place within the archaeological discipline as different questions are being asked and other problems need to be solved. The region should be the scale at which resaerch takes place as this is a meaningful level in both archaeology and planning.

Both in the past and the present this is the scale at which most people interact on a daily base. By studying transformations and continuities in the past of a region it is thought that mor informed descisions about transformation and continuties in the present-day landscape can be made. Environmental planning becomes the central discourse where different participants interact to develop the landscape in a sustainable manner. This means that archaeologists must leave their pride of place and take a step sideways. Archaeologist no longer dominate the discourse on the preservation of archaeological remains. Interaction between the different participants in the planning process must lead to a sustainable development of the entire landscape of which the archaeological record is a part, like any other part such as nature, housing estates, roads and commerical buildings.

sco Example of protecting while developing: Leidsche Rijn

On the west side of Utrecht, one of the major cities in the Netherlands, a large housing project, 'Leidsche Rijn' is being build. This is one of the first projects in which all the elements of protecting while developing come to the fore. The project started at the right time as the 'Belvedere' policy) dealing with the sustainable dvelopment of cultural values within the planning process was developed at that time and was considered an example project.

The area was known to contain diverse archaeoloical remains. From the Bronze Age onward the raised ridges along the Rhine have been inhabited. In the Roman Period the Rhine formed the northern boundary of the empire (Limes) with remnants of roads, watch towers and forts. During the development and excavation of the area even some Roman boats were found. And from the Middle Ages onward a typical drainage system was used which formed long elongated fields with sometimes castle-like farms.

In the early stages of the planning proces a cultural historic impact report was produced that enabled to make informed descisions. It was decided that the higher ridges would not be build as in (pre)historic times, but here a park would be created, with a minimum of building activities. In this way the known archaeology guided the structure of the new development and at the same time the archaeological remains could be preserved. A substantial heightening of the land would accentuate the ridges, but at a later stage they were lowered somewhat to avoid compaction of the archaeological remains through pressure of the sand body. The elongated fields will in some parts of the 'Leidsche Rijn' remain visible in the streets and waterways. And were possible historic buidings are integrated into the project.

There were, however also conflicts as designers did not want to refer to directly to the archaeology and the local archaeologist wanted more outspoken visible references. The latter is often viewed by designers as kitsch. Whether the people living there will recognize the cultural historic values without explicit explanation remains to be seen. Largely advertised open days at the excavation of the ships and news coverage have at least made the people aware of the cultural values present in the landscape.

> sco Exercise

→ LU Strategic landscape research *by Marjolijn Kok & Heleen van Londen*

sco Concepts of strategic research

Research can be divided into three types, fundamental, applied and strategic.

> ***Animation***
> Archaeology used to be fundamental research which only solved archaeological questions, such as what were the effects on the social group due to the domestication of animals?

With the arrival of Archaeological Heritage Management and the Convention of Valetta part of archaeological research has become applied as it deals with questions concerning the management of archaeological remains. For example, in this line of research predictive modelling takes a prominent place. With the embedding of the archaeo-historical landscape wthin the planning process with an additional aim of sustainability strategic research is developing.
Strategic research wants to influence policies and planning through research. Trans and interdisplinarity have their specific opportunities (complex problem solving) and problems (communication) but these all fall within the domain of academic practice. With transdisplinary or strategic research debates and decisions take place outside the domain of academic practice, but academics want to push their own solutions into the democratic process.

Archaeologists have to position themselves in relation to authorities or other participants such as developers. Hoppe (2002) distinguishes three types of relation between authorities and science.

> ***Animation***
  > In a technocratic relationship science dictates what the politicians should do.
  > In a decisionistic relationship politicians decide when and what they do with scientific information.
  > In a pragmatic relationship there is a dialogue between politics and science in which both are critical about the goals and means.

Hoppe clearly prefers the third type of relationship between science and politics. The actual relationship will depend largely on how participants see themselves and the circumstances in which they operate. Although every country has its rules and regulations concerning the way policies are formed, there are few instances in which the academics will press their case by other means than communication such as court orders. Questions of ethics, what science is, and the integrity of people come into play.

sco Methods of strategic research

Inter- and transdisciplinary strategic research asks for different approaches and methods. Different disciplines have different theoretical frameworks and methods. In interdisciplinary research these differences have to be bridged. Tress, Tress, and Fry (2005) have defined 10 steps for succes in integrative research projects.

> ***Animation***
  1 Organize integration
  2 Identify common research questions and project goals
  3 Identify project participants and their roles
  4 Agree on integrative concepts and face the challenge of epistomology
  5 Give opportunity for frequent contact in an atmosphere of mutual trust and respect
  6 Plan for extra time
  7 Strive for good project leadership and management
  8 Assure support of wider research environment
  9 Plan for projects outcomes, including publications
  10 Assess individual effort and project outcomes.

The interdisciplinary character of landscape research has brought ecological concepts into the cultural studies into landscape. Within the framework of sustainability especially concepts such as biodiversity have been changed into cultural diversity. Sustainability in this way becomes linked to the aim of stopping the uniformication of landscapes. Furthermore, in a diversity approach criteria's like beauty do not have a determining role. But as the above steps indicate the success depends on the management and engagement of people.

sco Example of strategic research into landscape

The Landscape vision of the 'Drentsche Aa' is a good example of an integrative approach. The Drentsche Aa consists of the river Aa and the surrounding landscape in the northern part of the Netherlands (Province Drente). It is one of the main touristic areas of the Netherlands with many cycle paths. The area is a fairly intact cover-sand landscape where economic, ecological and cultural values were already highly dependent on each other, therefore it was logic to have an integrated apporach when developing a vision/policy document for future management. Indeed, it was decided from the start that sustainability through development would be the way forward.

The landscape was divided into three main types: stream valleys, agricultural fields, and large (communal) fields and woods. For each landscape type the main characteristics were given and the way to enhance these characteristics without fossilizing the landscape. Beside these landscape types ten themes were explored. These themes are: archaeology, village boundaries, new belvedere (landscape viewpoints), recreational network, roads that are safe and stylish, retreating design, estates, nature management, agriculture and water management.

But maybe the most important element of the vision is that they listed 74 possible projects. Of these projects they marked

several that were seen as crucial and urgent in the category of research, developing of the vision and putting the vision into practice. Also the main participants in the projects were given. These range from researchers, to private organisations and governmental bodies. The only main participant missing is the local population.

The advantage of this vision is that it does not stop at an assessment or theories and methods, but actually puts forwards concrete suggestions for a variety of projects that are all related to the development and actualisation of the vision.

> SCO Exercise

SCO Introduction to strategies for the future

In this module several approaches have been put forward in regard to sustainable developement of archaeological heritage. The diversity of approaches is not a weakness, but an asset, just like the diversity of landscapes, cultural values and people within Europe. It would be foolish to assume that one approach should fit all the different projects in different countries and different landscapes. Local political systems, participants, and circumstances are a major influence on which approach should be used to ensure the sustainable development of cultural landscapes. Even though the local is the level at which most projects take place it is important that international networks are formed between researchers, planners and policy makers. Within these networks experiences and research results can be exchanged and official commitment can be encouraged.

SCO COST A27 a strategy for the future

COST A27 (European cooperation in science and technology) is a project funded by the European Science Foundation with the objective to 'identify and evaluate pre-industrial elements in the European landscape threatened by the abandonment of traditional agricultural and mining activities'. Their aim is to encourage an attitude and mentality that will stimulate sustainable development in diverse fields associated with cultural heritage and which leads to its incorporation into landscape policies. They propose three startegies which could help by enabling this aim.

> ***Animation***

1 *Diversity*. The first line of action is to acknowledge, respect and exploit the potential of the diversity of the European landscapes as expressed by their environmental challenges, cultural traditions and human behaviour in past, present and future. It is this multilayered diversity that characterizes much of the European land.

2 *Pro-active participation in planning*. We need to participate in environmental and socio-economical processes of planning and development in a pro-active way, so we can reconcile legitimately the seemingly antagonism between preservation and creation of past, present and future landscapes.

3 *Effectiveness*. We need to create an inter-and trans-disciplinary community of practice as a platform where experts, officials and public exchange knowledge and experiences for an innovative management of the many European landscapes. (Bartels et al. 2008, 12)

In order for this to work both researchers, policy makers and public need to interact in a transdisciplinary manner with a problem solving focus. If all participants feel part of the solution to a specific spatial problem cooperation will be seen as a positive element. This will lead to a greater chance of succes when trying to develop a landscape in a sustainable manner.

> SCO Exercise

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