

Reviews

Natural world

Home: Natural world

Imagine you are standing at Creswell Crags in the Ice Age...what would you have seen?

A cold and dry rocky environment with very few plants and animals

A lush and herd

Snow and man

More Ice Age art is displayed during detailed study

New research this year at Creswell Crags has revealed that the world's most elaborately carved cave ceiling dating to around 13,000 years old according to the research team who have been studying the art. The specialist team, comprising Dr Sergio Ripoll, Dr Paul Pettitt, Dr Paul Bahn, and Dr Francisco

Virtually the Ice Age

Books & links

Books and links

Number of organisations in the area publish a range of books in the area. Click to see the list.

Literographies

Creswell Heritage Trust publish a more detailed bibliography to study the archaeology of Creswell Crags and Ice age sites

- Research Bibliography and References
- Teachers Bibliography

Information about where Creswell Crags and Creswell Crags

may wish to see the collections which have been excavated in the Area. A small number of these objects can be seen in the Ice Age section of this web site. Click to see the collection Resource.

Stone Age people

Home: Stone Age people

Test your survival skills

Could you have survived the Ice Age?

Culture and creativity

with no electricity
no money or anywhere to spend it
no roads or cars to drive
no house to live in

Tools and raw materials

...still think you can survive?

click the links or explore the image below



Discover the past

Home: Discover the past

Archaeologists have been exploring the Creswell caves and

Exploring objects

Camp 1

BACK



© 2000 The British Museum

Length 8.2 cm

Large image

Handaxe

Middle Palaeolithic tool from Robin Hood Cave, 60,000 - 40,000 years old. Made of clay-ironstone

Handaxe of clay-ironstone made sometime between 60,000 and 40,000 years ago and found in Robin Hood Cave during the 1876 excavation. Handaxes like these were most probably used as tools for butchering animal carcasses.

The clay-ironstone for this handaxe, or cordiform (heart-shaped) biface, may have been collected locally to Creswell Crags either from soils in the exposed coalfield to the west or from glacial till derived from the Coal Measures. Nodules of clay-ironstone, which have been picked up as close to Creswell Crags as Elmton, can occur in the form of flattened spheres temptingly shaped for the manufacture of handaxes. Like flint, clay-ironstone is sufficiently fine grained and can be knapped producing conchoidal fractures. However, the material is softer than flint and the effectiveness of tools made from it may have been limited and requiring frequent resharpening. The handaxe is thought to be Middle Palaeolithic and was possibly part of a tool kit used by Neanderthals.

Virtually the Ice Age

Kathy Fox and Heidi Hollis graduates of the MA in Archaeology for Screen Media, Bristol University, United Kingdom

- The article presents the winner of the British Archaeological Awards in the category 'The best ICT presentation', 'Virtually the Ice Age' a web site introducing Creswell Crags run by the Creswell Crags Heritage Trust.

Every two years the British archaeological community recognises the best of their work in thirteen categories with the British Archaeological Awards. First awarded in 1976, they are given for a diverse cross-section of archaeological

work, such as books, media coverage, field projects, and presentation of archaeology to the public; in the year 2000 a new category was added for the best Information and Communication Technology (ICT) presentation on an archaeological subject,

in order to “reflect the growing importance of interactive new media.”⁽¹⁾

On the eve of the announcement of the 2004 winners, we take a look at the 2002 winner for the best ICT presentation, *Virtually the Ice Age* submitted by the Creswell Crags Heritage Trust.⁽²⁾ Located near England’s Peak District, Creswell Crags is a gorge and cave system made of limestone in which significant archaeological finds shed light on human and animal life during the last Ice Age between 50,000 and 10,000 years ago. Run by the Creswell Heritage Trust, the site features cave tours, a museum and education centre and a programme of activities tied to themes developed on the site. The *Virtually the Ice Age* website is the trust’s first and only foray into online multi-media content about the site.

Business or special interest groups sponsor several of the BA Awards, and the ICT award is no exception. (Business and archaeology may be uncomfortable bedfellows, but in Britain, developer funding makes possible many an excavation, and many a career that would not otherwise be.) Channel Four, one of five main television channels, sponsors the ICT award. The committee reviewing the 2002 ICT submissions had a strong collection of entries from which to choose:

“We considered submissions from a diverse range of sources, including local archaeological trusts and authorities, broadcasters, higher education establishments, and professional bodies. We received both web based and “stand alone” entries, ranging from those designed to be used within the context of a specific

course, through to those aimed at disseminating archaeology to the general public at the broadest level.”⁽³⁾

So what was it that allowed Creswell Heritage Trust’s *Virtually the Ice Age*, to rise to the top of the list and take the award? First, let us consider some important aspects of website design and how this site makes use of them.

A key step in designing web sites for the public is to visualize the site as a physical space - a building, for example. How will visitors enter your building? How will they know where to go? How will they move from room to room? Floor to floor? Will they go out the same door they came in by? How will they return to the lobby without getting lost? As the site architect, a designer must make the ‘building’ navigable for strangers.

A common pitfall of web design is that creators become too familiar with their subject matter. Afforded with so much ‘space’ they overload the casual visitor with too much information making it difficult to locate desired information. The visitor feels ‘virtually’ lost.

The creators of *Virtually the Ice Age* have avoided this pitfall on all fronts by consistently linking their site to the real world. Online descriptions and drawings of the Ice Age parallel artefacts and maps of the physical site, locating the visitor within the real Creswell Crags landscape, while visual clues and clear navigation tools constantly let the visitor know where they are in the virtual Creswell Crags landscape.

Often in a physical museum the architecture and display design may

⁽¹⁾ British Universities Film and Video Council, Guide and Rules for Channel Four Awards [www.buafc.ac.uk/news/images/C4guide&rules.pdf <<http://www.buafc.ac.uk/news/images/C4guide&rules.pdf>>]

⁽²⁾ Creswell Crags Heritage Trust [<<http://www.creswell-crags.org.uk/index.html>>]

⁽³⁾ British Archaeological Awards 2002 [<<http://www.britarch.ac.uk/awards/baa2002.html>>]

lead the visitor along a single narrative path. The six sections of Virtually the Ice Age allow the visitors to start their tour from any point they choose - like having six entrances to a museum. When finished or tired with one section they can immediately jump to another entrance to visit a different side of the Creswell Crags story. This architecture allows for a clear division of what can be a mass of confusing information, as well as allowing for different interests and the application of different learning techniques for a varied audience.

Just providing multiple paths is not enough, however, as the visitor needs an easy way to reference their position on each pathway. As the visitor delves further into any one section, their position is indicated on every page in a clickable text headline, revealing the descending architecture of the site. Thus **Home: Discovering the past: Leslie Armstrong and early 20th century techniques** lets visitors know where they are in relation to their Home starting point and enables them to return to previous pages without forever hitting the Back button.

Without these design considerations, visitors could easily become lost and leave the site (no matter how strong the intellectual content.) With these firmly in place, how then does the content sit within the navigation system to set this site apart from the others? The judgement criteria for the Channel 4 awards are

- 1) how well the entry achieves its stated objectives, and
- 2) how effectively the chosen medium has been utilised.

While we don't know the creators' explicit objectives for the site, the goals

are likely very similar to those of the Creswell Crags Museum, which 'tells the story of human and animal survival in the harsh climate of the last Ice Age more than 10,000 years ago.'⁽⁴⁾ For the creators of Virtually the Ice Age, the result is a layered exploration of the Creswell Crags site that assists learning about the archaeological features, discoveries, and interpretation of the site, whilst keeping the 'heroes' of the story (the humans and animals) at the forefront.

The six sections of Virtually the Ice Age are indicated by symbol and colour-coded buttons (or navigational tools) on the home page. For example, the changing Creswell Crags landscape is outlined in **The natural world** section, accessed by a green button and leaf symbol, while artefacts can be researched via the yellow **Exploring objects** button displaying the tag symbol. Each section carries its own banner colour and symbol, and buttons for all sections appear with the banner image on every page of the site, so the visitor never feels that they have missed out on a section.

Each section explores a different aspect of the Creswell Crags history, employing similar imagery, navigation and textual tone to create overall cohesion. Thus **Discovering the past** introduces us to the archaeologists who have excavated the site, their discoveries and interpretations. Photographs of their notes and work add to the body of material evidence - they have become artefacts themselves, to be seen again in the **Exploring objects** section.

Like the museum, the information on offer in each section must be accessible to a large cross-section of the public, appropriate for visitors of different ages

⁽⁴⁾ Creswell Crags Heritage Trust [http://www.creswell-crags.org.uk/CHT/Things_to_do/Museum.htm]

and backgrounds, and accommodate different learning styles. The site accomplishes this time and time again in two ways: strong narrative control over the interpretation, and good organisation of visual assets to allow multiple pathways through the material.

First, in terms of narrative, the site never overloads the viewer with too much. Standard museum interpretive panels might explain a few aspects of a reconstruction image, but are limited to a specific word-count to keep the visitor's interest. Likewise, the interpretations on this site are kept brief, but many more 'panels' are possible because the viewer always chooses what they will view. The site makes good use of the extra capability enabled by the digital media format.

Additionally, the tone and language work to make the site very accessible. The language is not patronising, but still simple enough to reach a wide audience, and nowhere is information superfluous - no words are wasted. Though carefully controlled, the site uses past and present tenses to spark the visitor's imagination. For example, strong script brings to life the working methods and discoveries of the 19th and 20th century archaeologists through first person narrative. Leslie Armstrong reports his discoveries in 1936: "*We broke through this hard layer and while I was digging the fine and dry cave-earth, Garfitt sieved the deposits with a one quarter inch sieve.*"⁽⁵⁾ Elsewhere, vivid sensory descriptions make the living and working environments and material culture of ice age peoples more 'real' for the visitor: "*The skin of animals including*

birds were an essential material for making bags and rucksacks as well as clothes, shoes, sleeping bags, and tents."⁽⁶⁾

This narrative control extends to the visual content of the site. Some content is reused with varied interpretations. For example, painted images of landscapes and Ice Age life are reused in multiple ways throughout different sections of the site, creating a familiar 'landscape' across the site. A static image of a stone age cave scene in the **Stone age life** section becomes a clickable image map in the **Activities** section, allowing for dual use of resources for the website creator and a recognized environment for the visitor. This cross-referencing of images and information is used sparingly in the site, most often in linking pages back to the 111 artefacts in the **Exploring objects** archive. The benefit of this technique is an intertextuality between sections without the endless "web" effect of some sites in which it is difficult to follow any narrative thread to its end. While providing multiple angles, the overall story is accessible no matter what pathway the visitor takes.

Clearly the design aspects are integral to how the story is told, but technologically Virtually the Ice Age is simple. In an age where 'virtual' has come to mean bandwidth heavy 3D graphics and Flash animations, the creators have opted for 'light' form quizzes and image-mapped drawings. At its most interactive, the **Virtual tour** section of the site employs 360-degree QuickTime photographs in conjunction with an aerial view map of the Creswell Crags site and accompany-

⁽⁵⁾ Creswell Crags Heritage Trust; Virtually the Ice Age [http://www.creswell-crags.org.uk/virtuallytheiceage/Discover%20the%20past/20thCentury_exploration/Digging_at_pin_hole.htm] >

⁽⁶⁾ Creswell Crags Heritage Trust; Virtually the Ice Age [http://www.creswell-crags.org.uk/virtuallytheiceage/Stone%20Age%20People/Tool_kit/leather.htm] >

ing written descriptions to guide the visitor on a virtual tour of the site. The 'tour guide' tone of the text and the numerous photos allow visitors to 'turn all the way around' to locate themselves in the real landscape. Together with other photos, the environment provides a virtual exploration without the digital fakery of 3D worlds so familiar to computer users today. It's a simple and bandwidth saving solution and like so much of the site is easy to update with future additions or changes. This simplicity also makes the site accessible to audiences with slower connections, older computers and limited software.

Perhaps the greatest application of web technology for archaeology professionals is in making archives accessible to the public. In a museum the casual visitor cannot visit the extensive basement archives that lie beneath the public display floor, but they can in the virtual museum. The designer's problem lies in organizing large numbers of varied artefacts into a navigable database for an untrained visitor. Virtually the Ice

Age has overcome this problem with the **Exploring objects** section by offering visitors myriad methods to search the archive. The visitor can simply type in a word to research, narrow their search by themes such as people, tools, sites, animals, etc. or search by general topic headings such as hunting, cave exploration, and crafts. These topic headings allow a more story-led experience that ties artefacts into some of the paintings seen throughout the site.

The success of Virtually the Ice Age is based on how well it marries content with its chosen medium. Format and content are inseparable. Together with the curators, designers Past Forward Ltd ⁽⁷⁾ have fully realised the old adage 'Less is more.' By limiting the assets, content, and navigation options they have created a highly commendable visitor experience and resource for learning about the archaeology of the Ice Age and the Creswell Crags site.

This year's awards were announced in October: <<http://www.britarch.ac.uk/awards/baa2004.html>>

Summary

Période glaciaire virtuelle

L'article présente le vainqueur de British archaeology Awards dans la catégorie des présentations ICT «Virtually the Ice Age», page web de Creswell Crags réalisée par Creswell Crags Heritage trust.

Creswell Crags est un complexe troglodytique en calcaire situé près de Peak District, Angleterre. Il s'agit d'un site archéologique important qui a dégagé les preuves de la présence de l'homme et des animaux dans la période glaciaire finale il y a 50000 - 10000 ans. On peut y visiter les grottes, le musée, le centre d'informations, les visiteurs peuvent participer à différentes activités dont les thèmes découlent du site même.

La page web «Virtually the Ice Age» présente les fouilles, les objets archéologiques, les découvertes et propose l'interprétation archéologique du site tout en mettant en premier lieu les acteurs principaux de l'histoire, c'est-à-dire les humains et les animaux. La page comporte 6 sections distinguées par les couleurs et symboles. Les différentes sections sont consacrées à divers aspects de l'histoire de Creswell Crags. Pour pouvoir obtenir une impression uniforme, on a utilisé les mêmes mises en page, navigations et style du texte.

Limitant les ressources, le contenu et les méthodes de navigation, les auteurs ont mis ce site web en disposition à tous les utilisateurs, même à ceux qui disposent de connections lentes et d'ordinateurs pas très modernes à software restreint.

⁽⁷⁾ Past Forward Ltd [<http://www.pastforward.co.uk/>]

Eiszeit virtuell

Der Artikel stellt den Gewinner des Britischen Archäologiepreises in der Kategorie "Die beste computer-gestützte Präsentation" vor, und zwar die Internetseite "Eiszeit virtuell", die den Fundort Creswell Crags vorstellt und von der Kulturstiftung Creswell Crags betrieben wird.

Bei Creswell Crags, das in der Nähe vom Peak District in England liegt, handelt es sich um ein aus Kalkstein bestehendes System aus Schluchten und Höhlen, in welchem bedeutende archäologische Funde entdeckt werden konnten, die Einblicke in die Lebensverhältnisse von Mensch und Tier während der letzten Eiszeit, d. h. zwischen 50.000 und 10.000 Jahren vor heute ermöglichen. An dem Fundplatz werden durch die Kulturstiftung Höhlentouren, ein Museum, ein Pädagogikzentrum sowie ein Aktivitätsprogramm zu fundortspezifischen Themen angeboten.

Die Präsentation "Eiszeit virtuell" ermöglicht eine mehrschichtige Erforschung des Fundplatzes von Creswell Crags; sie führt auf gut verständliche Weise in die archäologischen Strukturen, in die Entdeckungen und in die Deutung des Fundplatzes ein und behält dabei stets vorrangig die "Hauptakteure" der Geschichte (die Menschen und die Tiere) im Blick. Die Präsentation ist in sechs Abschnitte unterteilt, die jeweils durch Symbole und farbig gekennzeichnete Bedienungsleisten charakterisiert sind. Jeder Abschnitt erkundet einen unterschiedlichen Aspekt der Geschichte von Creswell Crags, wobei gleichartige Bildersprache, Navigationselemente und Textuntergliederungen zur Anwendung kommen, um einen einheitlichen Eindruck zu erzeugen.

Durch die bewusste Beschränkung bei den Kapazitäten, beim Inhalt und bei den Steuerungselementen gelang es den Gestaltern die Internetseite auch für Nutzer zugänglich zu halten, die über einen langsameren Internetzugang, über ältere Computer und/oder über begrenzte Softwaremöglichkeiten verfügen.