# THE DOMESDAY PROJECT

## INFORMATION PACK

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# Introduction

In November 1984, Bill Cotton, Managing Director of BBC Television, announced the start of the BBC Domesday Project - the creation of a new Domesday Book on interactive videodisc.

1986 will be the 900th anniversary of the completion of the original Domesday Book. The idea for a contemporary version came from Peter Armstrong, an Executive Producer in BBC TV Network Features and Editor of the Domesday Project, who said, "rather than approach the subject from a historical point of view, discussing how Britain has evolved over the last 900 years, the intention of the Domesday videodisc project is to provide a comprehensive image of Britain in the 1980's - a contemporary snapshot".

The Domesday Project is thought to be the largest and most ambitious videodisc project ever to be undertaken anywhere in the world. Much of the data on the discs has been collected in the course of 1985 by over 15,000 volunteer schools and other organisations, such as the Scouts, the Guides, the Women's Institutes, along with Local History and environmental groups. Together they have produced a peoples database of information on local communities - prepared by the communities themselves. Further information on the discs will be collated from national sources. In total the two Domesday Discs will offer to the user of the system approximately a million screen page displays incorporating about 60,000 photographs (including the results of a national Photographic Competition), over 25,000 maps of various scales, information from most of the major national surveys and data collected by government and other research organisations.

This massive assembly of information - maps, pictures, facts and text - will be accessed by means of a microcomputer linked to a special type of laser videodisc player on which the Domesday Disc will be played. A microcomputer from the highly successful BBC range will be ideal for the Domesday system and a new interactive videodisc player will be produced in co-operation with Philips Electronics Ltd, which can handle digital computer data alongside television pictures.

The Domesday Project is a corporate BBC venture of unprecedented scale. It involves not only BBC TV Network Features but BBC Enterprises Ltd. who will be marketing the discs; Educational Broadcasting who are helping to manage the schools project and providing broadcast support on schools TV and radio; BBC Data, the Corporation's network of in-house information resources, the Open University Production Centre; BBC Graphics, Computer Services; Broadcasting Research and BBC Engineering & Research Division, who are advising on the technical aspects of a project at the leading edge of both information and education technology.

Key support is being provided by the Local Education Authorities and a wide range of external organisations are also participating, with practical support being provided by the Institute of Terrestrial Ecology and a number of leading Universities including those of Essex, of Newcastle Upon Tyne and Birkbeck College, London

University. The Ordnance Surveys of Great Britain and Northern Ireland are also very much involved.

Funding is jointly by Philips Electronics and the Department of Trade and Industry, who are contributing to the Domesday Project as part of their overall commitment to developing information technology, and interactive video in particular, together with BBC Enterprises Ltd., who are re-employing revenue from the sale of BBC Micros and associated materials. Acorn Computers, the BBC's established partners in the Computer Literacy Project, will also be providing all the interfacing required to link the microcomputer to the new player. Logica Communications and Electronic Systems Ltd have been contracted to produce the software to retrieve, manipulate and display all the Domesday data as well as helping the BBC during the pre-mastering and data collection stages of the project.

All aspects of the project are being guided by advisory committees representing the country's leading experts, including an Editorial Board advising on the selection of data compiled for the discs, technical groups and an educational committee advising on the schools' activities.

The Domesday Project has been the first opportunity for the 15,000 plus schools and community groups throughout Britain to use microcomputers collectively in an important national project. Schools were sent a floppy disc or cassette for their micros containing all the software they needed to compile data on a map-area for which they were responsible, along with a detailed Survey Guide and a Teachers' Handbook. In addition to completing a statistical survey, schools and other groups recorded up to 20 screen pages of free-form text describing what the local community itself feels is a relevant and interesting about their own area.

It is anticipated that a major market for the Domesday Discs and the new Videodisc Player will be in the educational and institutional sector where they will be of tremendous value for general reference and as a resource for curricular use in a wide range of subjects. They will also be marketed generally.

The Domesday Project will help to establish interactive videodiscs as essential educational and information-handling tools in Britain and may well be the first in a continuing series of BBC interactive videodiscs.

## The Domesday Discs

In its planned final form the Domesday Disc package will consist of two laser videodiscs.

The first Domesday Discs will contain the bulk of the information collected by schools and community groups and as such has been named the people's database. It will reflect what local people feel is important and relevant about their own area and contain their text and tens of thousands of photographs. A major feature of this disc will be access to over 25,000 maps. Most of these are Ordnance Survey maps at a variety of scales. There will be augmented United Kingdom and regional maps, at the top level and floor plans of special local features (some of them selected and produced by local groups) at the bottom level. The disc provides a remarkable facility for 'map walking' and zooming in on areas of interest to the user.

The second Domesday disc will include contributions from major national data sources giving a social, cultural, economic and environmental picture of the United Kingdom in the late twentieth century. In addition to the abundance of national statistical information which will be displayed in a variety of forms there will be the land cover and amenity count data produced by the school and community group survey. There will also be approximately 40,000 photographs. These will be acquired from museums, archives, picture agencies including the BBC's own Hulton Picture Library, and also from the general public via the national photographic competition.

The Domesday Discs will also carry all the indexes and microcomputer software to enable users to retrieve, combine, compare and present the Domesday material in a variety of vivid displays on the monitor screen. In addition, there will be comprehensive help and instructions on the use of the discs at every stage.

# The Community Disc

Throughout 1985 it is estimated that one million people from over 15,000 schools and community groups such as the Women's Institutes, the Scouts, the Guides, and also Natural History and Environmental groups helped the BBC Domesday Project to create a people's database of local information which will be a major part of the final Domesday Discs.

How was this information collected?

Based on Ordnance Survey 1:50,000 maps, the country was divided into basic 4km x 3km blocks. About 23,000 of these blocks cover the whole of the United Kingdom. Each group taking part was assigned a particular area for which to be responsible, and supplied with a kit containing all they needed to compile a contemporary record of many aspects of their local environment.

The information compiled by each school or community group consists of a simple survey of land cover in each kilometre square of their area. It also includes counts of a range of community amenities, from post offices to football grounds, from cattle markets to power stations, for each kilometre square. There are four 35mm slide photographs to represent each area, and finally up to twenty pages of free description reflecting what local people think is important or relevant about their locality. All the information, other than the photographs, has been assembled on microcomputers.

For schools especially, this is an opportunity to use microcomputers in a national educational project. Support to coincide with the data collection is being provided by BBC Schools TV and Radio.

The primary benefit of the Domesday Project for schools will be the valuable educational experience of collecting the data. The long term use in education of the finished disc is an important further benefit.

How will the Community Domesday Disc be used?

Imagine it is the Autumn of 1986. In front of you is a BBC Micro with a colour monitor all connected to an interactive videodisc player loaded with a Domesday Disc. You begin with an Ordnance Survey map of the whole of the United Kingdom. You call up boundaries of counties, administrative areas and flip from maps to pages of information to pictures. Now you can move your cursor to any part of the country and you can zoom in to a larger scale map about 40km x 30km. A whole new set of facts, figures and pictures becomes available to you, all relating just to the local area of interest. Another zoom in takes you down to the 4km x 3km areas

surveyed by local people. Churches and farms become distinguishable at this level and the text and photographs researched by the communities themselves can now be accessed and studied. Of course, if you want to know about a particular site or topic just type it in and you will be taken directly to the relevant map or to a list of pages on which to find out what has been entered by Domesday Disc researchers on the subject that interests you.

For the first time, a comprehensive survey of the United Kingdom will be generally available in one place in the form of an easy to use interactive videodisc.

# The National Disc

The second Domesday Disc will contain as much national data as possible drawn from existing resources and adapted to a form suitable for the medium of Interactive Video.

Members of the Domesday team are identifying and selecting this data with the guidance of an Editorial Board of professional researchers including, among others, representatives of the Institute of Terrestrial Ecology, the Centre for Urban and Regional Studies at the University of Newcastle-Upon-Tyne, Birkbeck College of London University and the University of Essex which is also the home of the National Data Archive.

The National Data Archive contains most of the major national surveys in computer-readable form and is charged with the responsibility of making data available to researchers.

It is intended that the National Disc will contain information on natural resources, transport, population statistics, demographic data, social activities, arts and crafts, education, entertainment, health, flora, fauna and many others.

Statistical information will appear in a variety of graphical configurations (bar charts, graphs, etc.). Information may also be broken down by a variety of areas and displayed as overlays to maps of an appropriate region.

Where no digital data is readily available there will be essays on a wide range of topics concerning contemporary life in the United Kingdom. Many of these essays will naturally link into photosets.

The National disc will contain tens of thousands of photographs. These will be carefully researched in specialist archives and picture libraries and will provide a visual record of life in the United Kingdom in the 1980's. Architecture, fashion, family life, the work place and wildlife are just some of the areas that these pictures will represent. The results of Domesday's national photographic competition will also feature on the National Disc.

Another exciting facility on the National Disc, will be the opportunity to take a "simulated walk" through a variety of social and environmental habitats. Using thousands of still photographs it will be possible to look at points of interest along the way including close ups. With the aid of the computer the user can choose to look in whatever direction is of interest.

The National Discs will bring together a massive amount of information in data and picture form. The interactive nature of the disc means that the user will be able to extract information from this huge resource in a way that suits his own particular requirements. As well as having access to all the pictures and text, he will be able to use national statistics, compare region with region and compile dramatic data-displays overlaying computer graphics on maps and other backgrounds.

# The Technical Challenge

The past three years have seen a radical leap forward in the use of microcomputers in schools, in offices and in the home. Already we are seeing systems developing from rudimentary configurations with the addition of floppy disc drives, second processors and better monitors, with schools and other educational establishments in the forefront of these advances. The Domesday Discs will provide an exciting new kind of resource for the micro user, fuelling the further extended use of computers in educaton, libraries, public offices and elsewhere, for years to come.

When the Domesday Project was announced last November it was acknowledged that, whilst the BBC-range micro is an ideal computer system with which to access the Domesday material, no standard operating system existed to control this new generation of interactive video. It was also the case that no off the shelf information-handling software could have coped with the massive scale of Domesday, and no video disc player was available to handle the proposed system of images and data on the same disc. A great deal of progress has been made in meeting these technical challenges.

Acorn Computers, manufacturers of the BBC Micro, and the BBC's established partners in the Computer Literacy Project have been working to produce a new operating system and protocols for handling interactive video. Logica Communications and Electronic Systems Ltd are developing a sophisticated package of programs required to retrieve, combine, compare and present Domesday material in vivid and exciting screen displays.

Specifications for a new type of videodisc player have been agreed with Philips Electronics Ltd. The new player will incorporate the ability to store data using compact disc technology in the audio channel. In addition, it will be able to overlay graphics using sophisticated video circuitry.

The BBC, together with Acorn Computers and Philips Electronics, are also anticipating the arrival of 32 bit processors and are designing the new Domesday system to be compatible with them.

The system will be available in late 1986. It is expected that the Domesday Player will become a new accepted standard for educational, institutional and even commercial use.

# The Domesday Project in 1985

When the BBC announced its intention to produce a new electronic "Domesday Book" of the United Kingdom in the twentieth century, it was openly acknowledged that this presented many challenges. Fears were expressed at the Launch as to whether the BBC and its partners could overcome the technical challenges, and also capture the public imagination to the extent that enough local people would volunteer to ensure coverage of the country. The Project has met, in fact, with overwhelming support from all quarters, from professional researchers to educationalists, from information specialists to electronics experts. The response from schools has well exceeded expectations and the enthusiasm with which the Project has been seized by community organisations has delighted even the most committed members of the project team.

In December 1984, the BBC invited every school in the country to take part in the Domesday Survey. Our target was 10,000 but an incredible response has meant that a revised target of 14,000 schools was surpassed. All 125 Local Education Authorities nominated co-ordinator to look after schools taking part. Their principal task was to allocate each volunteer school to one of the 4km x 3km blocks which form the basic Domesday subdivision of the country. Every Local Education Authority co-ordinator was supplied with a map of their area and a specially prepared overlay showing the Domesday blocks in order to carry out this allocation. In some cases, it involved a group of schools co-operating to cover one block. The Local Education Authority co-ordinators have played a vital role in organising the local survey and in making sure that schools reap the educational benefits that this Project offers.

As well as schools, many community organisations and local groups were approached and we have received a tremendous amount of support from organisations such as the Women's Institutes, the Scouts, and the Guides. An estimated one million people were involved in providing information for their area in 1985.

Since November 1984 the BBC has recruited a team of over 40 people to work full time on the Domesday Project. A great deal has already been achieved. The education team has organised the national survey and now the sackloads of entries which have been received are being processed; the pictures team has researched and selected thousands of photographs including all the entries to the Domesday National Photographic competition; subject specialists have been coordinating huge quantites of environmental and social data; complex indexes have been devised; 25,000 maps have been photographed and all the retrieval software necessary to access the disc is well underway.

The contribution from the general public and the progress made by the Domesday team in 1985 will enable the discs and player to be available at the end of 1986 as promised.

# The Future of BBC Interactive Video

The unprecedented scope of the Domesday Project and its particular excitement give it the appearance of a "one-off" event. However, whilst it is unlikely quickly to be matched in scale, Domesday may well turn out to be simply the forerunner of a continuing series of interactive video titles from the BBC.

In the background to BBC Enterprises' work on the Domesday Project is a survey of other programme-related material suitable to adaptation in interactive form. It is likely that Natural History, language-learning and Science will be fruitful areas, among many others, and the BBC has particular strengths in all of these. When the Domesday Discs are made available in late 1986 it is planned to have an initial catalogue ready outlining the second wave of BBC videodisc titles.

# Conclusion

To conclude, many areas of application for the Domesday System have already been identified.

For example, regional conferences with teachers and Local Authorities have confirmed the educational value of the Domesday Discs and they are working with the project team on compiling much of the data.

Many people from the UK's highly active community of information professionals are also excited by the possibilities of the Domesday Project. Reference facilities in libraries, museums, research establishments, local government offices, etc., will be greatly enhanced by the incorporation of a Domesday system.

Domesday will attract considerable interest in commercial sectors, too. Marketing, planning, and research will all benefit greatly from both the national and local data on the Domesday Discs.

Since its launch in November 1984, the Domesday Project has been described as:

".............one of the most ambitious cultural and technical projects of all time."

A & B Computing

"............planning nothing less than a revolution - the encapsulation of several million pages of information describing the U.K., its environment, people, society and organisations in the late 20th century."

David Rhind, The Geographical Magazine

"............the most innovatory proposal for the use of micro computers and videodiscs in schools. That this should be directed towards the Humanities rather than Sciences is a masterstroke of a kind that is quintessentially European, and reinforces the idea that it is in Europe that the full flowering of Information Technology will take place."

David Clark, Videodisc Newsletter

Whilst we already see more than enough possibilities for usage of the Domesday system, in the hands of imaginative users the Domesday Discs will suggest applications beyond any of our current guesses!