

3

ETHNOGRAPHIC TREASURIES IN THE COMPUTER

Electronic Access to a Total Museum Collection

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In 1987 the National Museum of Denmark started a documentation project with the goal of introducing information technology in all aspects of the museums work. In the following years, comprehensive artefact databases were established for internal scientific and administrative use by the museum staff. However, from the beginning it was planned that these same databases should to a certain extent, also be accessible to the public, for visitors as well as long distance users. The philosophy behind this plan was a desire to give access to those artefacts normally hidden in storage and also to the knowledge and information, which are to be found in the archives. As a supplement to the exhibits in showcases, which only show small parts of collections, electronic access to entire collections was wanted.

In 1992, the first system was launched for The Collection of Ethnography. At present the system deals exclusively with the Eskimo collection (about 9,000 artefacts), but in the coming years it will be extended to cover the complete ethnographic collection (about 80,000 artefacts). The basic material for the system is the above mentioned relational database, which contains about 120 fields of text information and an image of each artefact. The images were originally stored on a LaserVision videodisc, but in the visitor system, text and images are integrated on a computer hard disc.

Ethnographic treasures

The Collection of Ethnography of the National Museum has established two types of exhibition: a basic collection with few but typical and spectacular artefacts, and a study collection with lots of artefacts in the showcases. This study collection is titled "Ethnographic Treasures". It reminds you of open storage although only a part of the collection is actually on display. The crowded showcases express the variations, similarities and multiplicities among the artefacts. While the basic exhibition covers all cultures represented in the collection, only the Eskimo culture is currently represented in the Treasures, until now.

Three rooms contain about 3,000 artefacts. Each room is established with showcases along the three walls and in the middle of the floor. The fourth wall is an information wall with

drawings and short introductory texts related to the themes presented in that particular room. Apart from the information wall, the only written texts to be found are the headings of the showcases. All information about single artefacts can be called forth on a computer touch screen built into the information wall.

Thus the information system is firmly integrated into the exhibition concept. The themes are found as headings at top of the cases, and are recognised at the information wall as well as in the computer system.

The information system

The way into the system is not the themes however, but the artefacts themselves. If you talk about metaphors for the layout of information systems, the metaphor of this system is the exhibition itself. After having seen an artefact in a showcase, the visitor is supposed to go to the computer and find the information about that artefact. The main menu is thus a room plan, from which you choose the relevant showcase, pushing one of the buttons (Fig.1). From a photo of the entire case you choose the proper area and hereafter the desired artefact on a close up photo (Fig.2 The text says: "Push the part of the monitor which contains the artefact you would like to study"). Through this visual hierarchy you enter the core of the system, where single artefacts are presented in text and image. Some information is always shown about each artefact: name, material, dimensions and the museum registration number. Beyond this you can choose information about provenance, acquisition and function but only by actively pointing at one of three questions (Fig.3):

- Where did this artefact come from? (Hvor stammer denne genstand fra?)
- How did this artefact arrive at the museum? (Hvordan er denne genstand kommet til museet?)
- What was this artefact used for? (Hvad har denne genstand været brugt til?)

When one of those questions has been chosen, the answer appears on the screen along with two additional options:

- See other artefacts with the same ... (Se flere genstande fra ...)
- More information about ... (Få mere at vide om ...)

Depending on which question was chosen, the visitor can see other artefacts with either the same provenance, the same museum history or the same function as the chosen artefact. Likewise the "more information" option covers either the geographical area, the donor/expedition or the function e.g. "hunting". This option leads to a small textbased encyclopaedia, containing approximately 250 texts about the three themes. The texts are hypertexts with framed keywords, which are links to other texts. The text about hunting for example, provides the possibility of linking with sea birds, coats, fur, fishing, meat and winter clothes. Since it is possible to get quite far away from the first chosen artefact and its theme, there must also be a way to get back to other artefacts related to the text currently on the screen. It is possible to get back to an earlier chosen artefact at all times however, by pointing it out in the row of stamp images built up at the bottom of the screen. Within a short time another function will be added to provide the user with information about the placement of an artefact in order to secure the integration of the system and the exhibition, when the option "see other artefacts ..." has been chosen. This information may be a reference to a room and showcase in the same exhibit or in the basic exhibition. In two thirds of the cases however, the information will say that the artefact is in storage and thus not available to the visitor, except via this information system.

Fig. 1 Main menu showing room plan

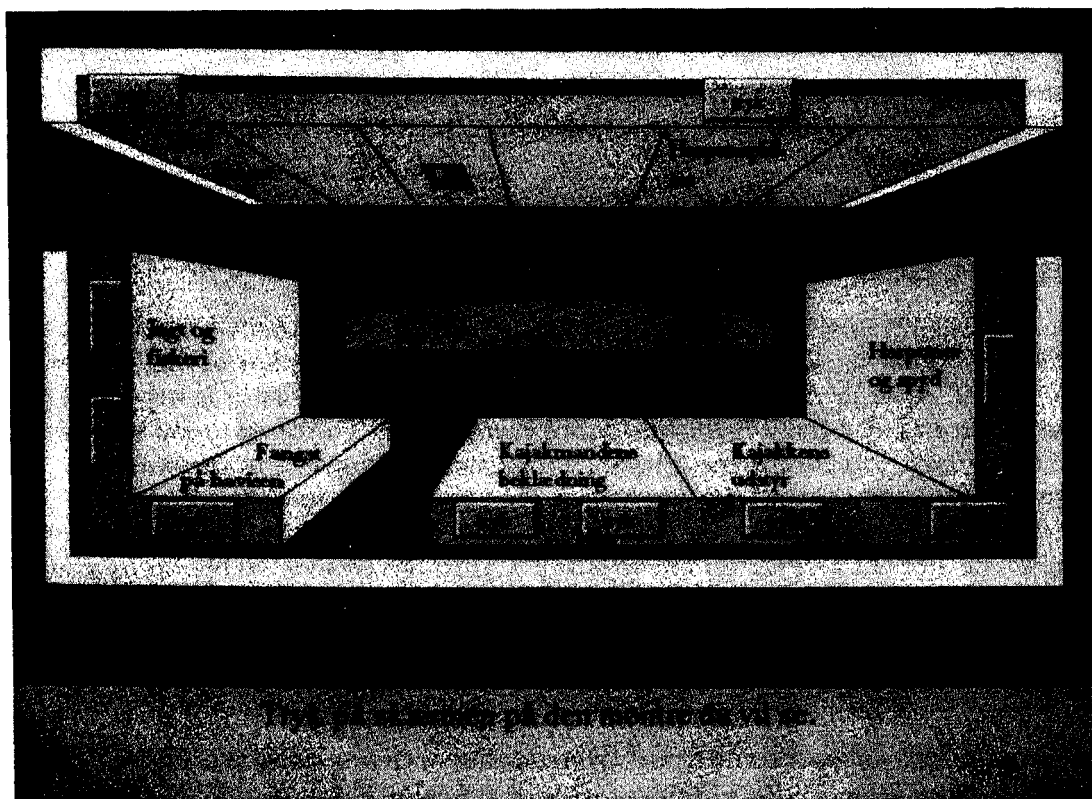


Fig. 2 Artefact selection screen

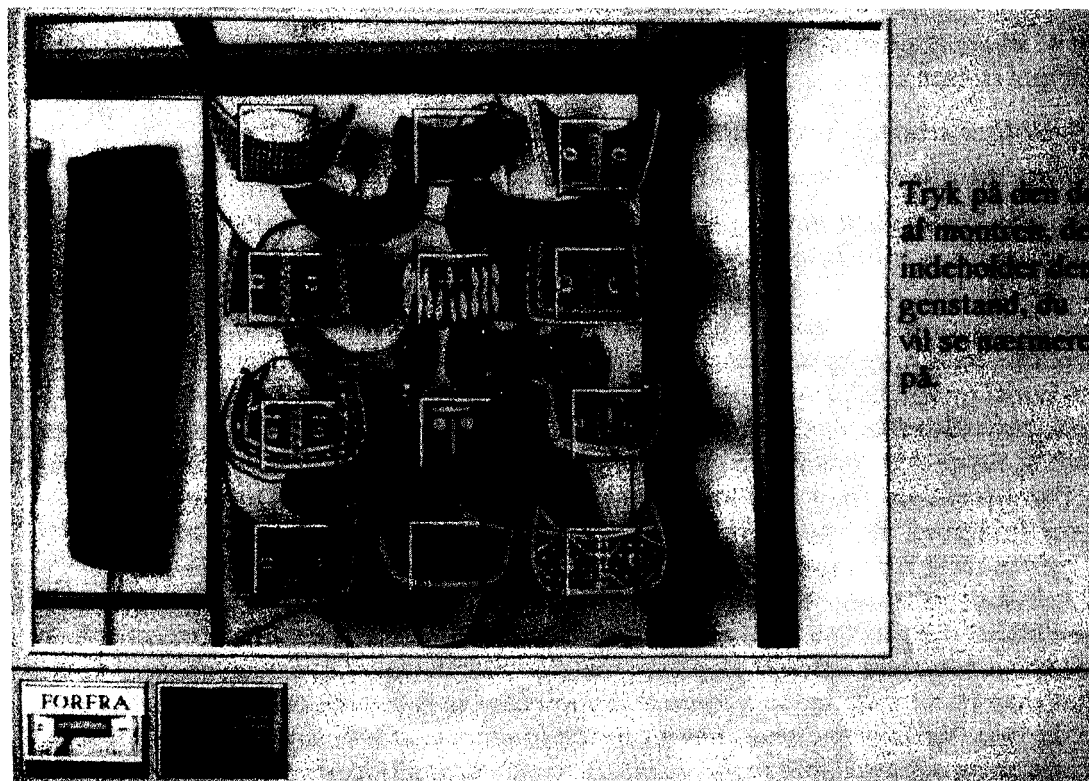
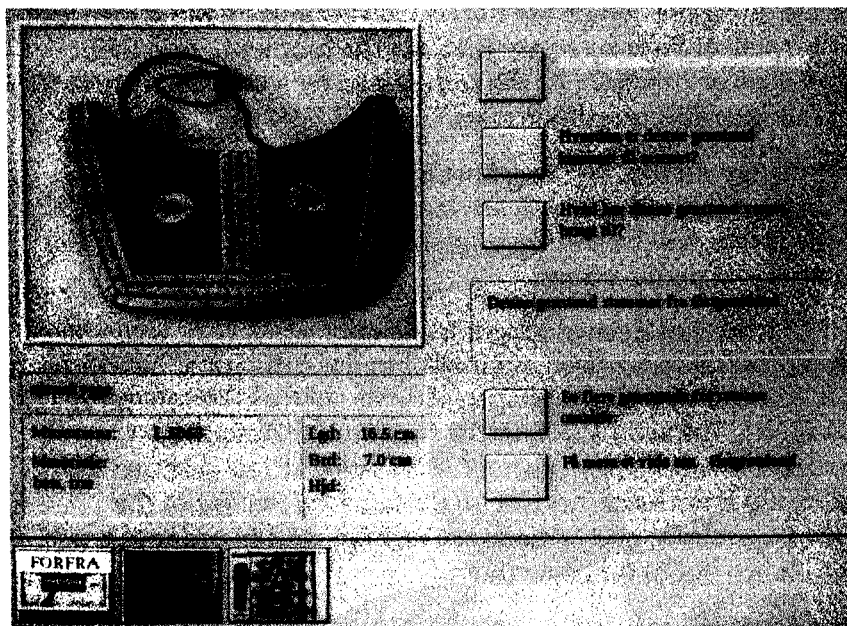


Fig. 3 Further enquiry screen



The system as such is endless. It gives the user the possibility to navigate the length and breadth of the database, following the users own decisions en route. Within the three categories of provenance, acquisition and function, there will always be other artefacts that share the classification, and thus there will always be some directions to follow; and no dead ends.

Considerations about the user interface

Since the target audience is the visitor, who usually enter the exhibition without any preparation, the user interface must be very simple and by no means more difficult to use than any printed catalogue. One way to reach this goal is to limit the use of many different types of screens. In this case we have three different kind of screens, which are used at different steps in the system. The visual hierarchy, ie, the way into the system, consists of real photos of the physical exhibit, apart from the floorplan drawing. Since photos reflect reality more than most other reproductions, it is our hope that the recognition, along with a short guiding text ("Point out the part of the case which contains the artefact, you want to look at") will be sufficient to lead the user into the core of the system.

The core contains 2 different screens:

- the artefact screen
- the text screen.

The artefact screen can be considered a template on which different information appears, depending on which question the user chooses while examining an artefact. It may seem a little monotonous that the same screen is on the monitor most of the time, but we are convinced that recognition is very helpful for inexperienced users to navigate through the

system. At the same time this construction limits the number of options presented simultaneously on the screen, which is very important for clarity. If there had been access to all options at the same time, six buttons would have been required instead of two.

Another important consideration is that the user should not lose his bearings while using the system. For this purpose the questions which are not chosen remain on the screen, but in a subdued colour. The visitor will always be aware that, for the moment, he is in the category of provenance, acquisition or function. At the same time, by a single glance at the screen, he will know which other possible questions exist.

The **text screen** has a very simple layout too, just the short hypertext and along the bottom, the row of small pictures of formerly chosen artefacts, which can be used as a trace function. An additional function will be shortly implemented, which will allow the user to see artefacts related to the text on the screen.

As a general principle the use of icons has been avoided. Icons may work very well when talking about generally accepted and standardised symbols, but are difficult to handle as soon as we are dealing with specific items related to special areas such as the museological description of artefacts. How should the acquisition or the function be described iconographically to be understood by every "lay" visitor? In this case it was decided that artificially constructed icons would have been more of an obstacle for the use of the system than a help. Therefore all questions and options are written, and in order to reach the foreign visitors there is no choice but to translate them.

Adaptation of the scientific database to visitors use

As previously mentioned the basic material for the system is a database, established for curatorial use. As in most curatorial databases it contains fields for classification, description, placement and any other information which was registered at the time of acquisition. The problem is that this information was never intended to be used "raw" for public interpretation, and there is not much sense in providing access to the database in an unadapted form. First of all, a lot of codes have to be translated into comprehensible expressions. If an artefact originates in, for example, Eastern Greenland, the database will not contain the name but a code, which might be from the OWC classification system and/or a local museum table. Of course translating such codes is a minor problem as long as we operate in spheres where unambiguous translations are possible. Provenance and acquisition are such spheres. When it comes to function however, classification systems are often ambiguous. At least they are hierarchical so you have to decide at which level the translation should be done. To make a classification regarding function involves an interpretation in itself, and when it is done over a long period of time by different curators, you cannot be sure to have a consistent database since the database is nothing more than an electronic copy of the old manual files. Thus adapting a curatorial database for interpretation purposes involves a lot of tidying up of the data, since any inconsistency is mercilessly exposed in an electronic information system.

When these things are done, we have a visitor friendly interface on top of parts of the curatorial database. Still something is missing, namely the information that really puts artefacts into a context. At our museum it was explicitly said in the programme, that public access should be given "not only to all artefacts, but also to the existing knowledge about the artefacts". The problem is however, that this knowledge does not exist in a formalised form, but primarily in the minds of the curators. Interpretative texts, which put artefacts into context, are normally only produced on special occasions, such as when exhibitions are established or when a curator compiles his or her knowledge in a book. Nobody has ever dreamt of writing interpretative text for every single artefact - with good

reason, because the interpretative aspect was never topical on such a scale. In The Ethnographic Treasuries the problem was solved by writing the small encyclopaedia of hypertexts, which is an easily read survey of the culture of current interest, in this case the Eskimo culture and the history of the collection. Every artefact was then dedicated to a text within each of the three categories: provenance, acquisition and function, based on the codes discussed above. Obviously 250 texts are not many to describe a whole culture, and the texts are consequently very general. In principle there is the possibility of refining the texts, to write more detailed texts on a less general level, but due to lack of resources it can be foreseen that this effort will often be quite limited.

It is a common assumption that new technology provides us with almost unlimited possibilities for new perspectives in museum interpretation. This is not false in itself, but it would be a mistake to believe that the technology and the programming of fancy user interfaces alone can create miracles. The crucial thing will always be the data. You can't create new exciting constellations and contexts unless the data is available.

The production of the information system in the Ethnographic Treasuries should be seen as a start toward adapting existing curatorial databases for visitor use. We have learned that the work with manipulating data should not be underestimated compared with the programming. And it should be clearly emphasised that the traditional way of registering artefacts is an obstacle in finding new ways of interpretation. Previously the three themes provenance, acquisition and function have been mentioned several times. The system is built up around these themes, because they are primary themes in modern museology, established over generations. Other themes, for example, a thorough description of the symbolism of artefacts are normally suppressed. Without producing new information in a formalised form, we will not be able to disrupt traditional interpretations, not even with the latest technological inventions at our disposal.

