The Cape Dorset Project:
Using Optical Disc Technology to Preserve and Access the Artistic Heritage of an Arctic Community

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Earlier this year, after three years of planning and negotiations, a collection of approximately 100,000 Inuit drawings and prints was transferred on loan from the West Baffin Eskimo Co-operative Ltd. in the eastern Canadian Arctic to the McMichael Canadian Art Collection in southern Canada. The arrival of this collection marked the beginning of a multi-year co-operative project between the two organizations designed to ensure the preservation of a unique collection of Inuit art of both national and international significance. An integral part of this project will be recording the entire collection using optical disc technology.

The Co-operative initially approached the McMichael in 1987, regarding support with the care and preservation of their archival collection of Inuit drawings, prints and sculptures. Established in 1959 in Cape Dorset, Northwest Territories, the West Baffin Eskimo Co-operative Ltd. manages the production and sale of locally made Inuit art. The creation of prints, sculptures and other artworks has become an important source of income for the community whose members are encouraged to make drawings at home which are then purchased by the Co-operative. Hundreds of drawings are acquired by the Co-operative each year, and from these 25 to 50 are selected to be translated into prints and included in the annual catalogued collections published at Cape Dorset.

Since the first official set of prints was released in 1959, over 2,000 print editions have been created at Cape Dorset. The archive developed by the Co-operative consists of approximately 100,000 drawings and prints which date from 1957 to the present. The collection contains a comprehensive record of the work of over 80 artists and an example of every print made in Cape Dorset since printmaking began there. Also included are numerous experimental works dating from 1957 and 1958 and approximately 100 sculptures. As such the collection is of considerable national and international importance.

Maintaining the archive as a cultural and historical record of the Cape Dorset Inuit has been a major concern of the Co-operative for several years. The works had been housed in Cape Dorset in a building which was not environmentally controlled and was considered to be a poor fire and security risk. In addition there were no facilities for display, conservation or documentation. The Co-operative approached the McMichael Canadian Art Collection, a major public art gallery in Kleinburg, Ontario, because it had the potential to safely house and properly document the collection as well as make it more readily accessible to a wider audience.

Following negotiations the two institutions signed an agreement in November 1990 and the collection was moved to a specially constructed vault at the McMichael in the spring of 1991. As part of the agreement the Co-operative directors requested that the McMichael house their collection for a minimum of 15 years for the purposes of protecting, documenting, preserving and making the collection available to national and international audiences.

Planning for a collections management strategy for the project was initiated several months before the collection's scheduled arrival at the gallery. The major objectives guiding this process were ensuring that the collection would be properly preserved and documented while maximizing access to the collection for interested parties and exposing it to new audiences. Since the majority of the collection are fragile works of art on paper stored in Solander boxes and because of the large number involved, a major requirement of the

strategy became a means of maintaining access to the collection while minimizing the opportunity for damage through handling.

A further factor complicating the documentation and preservation of the collection was the impermanence of certain drawing materials used by the artists. Many of the works are done in felt-tipped pens which have highly fugitive colours. Because of this ephemeral nature it was considered essential that the collections management strategy include a means of permanently documenting these images visually while it was still possible.

The role of optical information systems both as a tool for supporting research while minimizing handling of artworks and as a means of visual documentation had been established previously in the literature and at several institutions. Hence it was decided that the capabilities of these technologies would be investigated to see if such systems could be used to achieve the goals of the project.

Research was undertaken into several different technologies including both analogue and digital WORM (write once, read many) optical discs, eraseable optical discs, CD-I, and CD-ROM. The goal of this study was to determine and compare the versatility, quality, and cost-effectiveness of each system in relation to the intended applications. Each system was evaluated with respect to the following parameters: storage capability (the number of images to be recorded was considerable given the size of the collection and the need for full views as well as details); the ability to produce a hard copy image; the quality of that image; durability of the medium; ability to interface with a textual database; capacity for editing and expansion of records; image retrieval capability; potential for incorporation into interactive programmes for exhibition support; capacity for dissemination of information and visual images on a large scale; and cost.

Following an examination of various configurations of technology, it was determined that investigations would be pursued in the area of analogue WORM optical disc systems. Digital WORM optical disc systems were eliminated because of the large amount of money required to record a single image with the colour resolution required. Given the size of the collection to be documented, this would have necessitated the purchase of a jukebox system which was prohibitively expensive for this project. CD-I technology was eliminated for similar reasons while CD-ROM did not offer the flexibility required.

Research then focussed on a closer examination of products available from two manufacturers of analogue optical disc systems with distribution systems in Canada: Panasonic and Sony. After analyzing the two systems it was found that although there was little variation in price or quality, certain factors favoured the purchase of Sony equipment. Primary among these was that Sony offered a suitable and affordable image management software package that could be adapted to the project's needs. Prior research on other projects involving image databases and discussions with software consultants had indicated that it would be advantageous if basic image retreival software could be purchased since the time and cost involved in software development would be considerable. Sony could also guarantee compatibility between computer hardware and their optical disc storage equipment.

The purchase of the hardware was made possible by a grant from the Cultural Initiatives Program of the Government of Canada. In addition to the software availability the main advantages of this analogue system were as follows: high durability; quick random access to images; large storage capacity - each 12 inch disc has a maximum of 43,500 frames per side; computer interface capability; and a high quality colour image.

To record the works technicians will use Sony's DXC-327 3-CCD video camera mounted in a copy stand configuration. Images will be recorded from the camera onto laserdisc via Sony's LVR/LVS-5000 Laser VideoDisc Recording system. Once images are recorded onto the optical disc they will be played back via the LVA-3500 VideoDisc player which is connected to a PC-compatible computer. Utilizing Sony's Video Guide System software, staff and researchers will be able to connect the images with the textual database. Hard copies of the image will be made using the Sony Colour Video Printer.

The documentation process is still at the formative stage as current efforts are being directed toward developing the database structure. Discussions are also underway with the Canadian Heritage Information

Network in order to determine how the Cape Dorset collection might become part of this important national data network.

As the project progresses a work station at the gallery will enable researchers to access the images and accompanying data with minimal handling of the collection. Discs will eventually be made available to other cultural institutions. It is also anticipated that future exhibitions developed at the gallery will have interactive components utilizing in some form the image/database of the project. An internship programme is also being planned which will enable residents of the Cape Dorset community to develop collection management skills in preparation for the return of portions of the collection to the North should suitable facilities be constructed.

