

## Digitising Scotland From the North-East to the South-West

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Résumé de l'article

Cet article fait part d'une expérience éditoriale, de collecte et de compilation, pour la création d'un cédérom portant sur la culture traditionnelle de l'Écosse du Nord : *Northern Folk* (Aberdeen, The Elphinstone Institute, 1999), coédité par Valentina Bold et Tom McKean sous la supervision de James Porter. Autant qu'il souligne la nature de collaboration de ce projet (en termes de financement, de sources d'archives et d'entrevues menées pour l'occasion), il explore le contenu de *Northern Folk*, mettant l'accent sur les avantages et les pièges d'une publication multi-média. L'auteur évoque également son projet actuel, le volet suivant, explorant la culture traditionnelle de l'Écosse du Sud. En partageant son expérience, Valentina Bold peut formuler quelques recommandations pour la publication future de cédéroms à base de matériel ethnographique.

## DIGITISING SCOTLAND

From the North-East to the South-West

**Valentina Bold**

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I would like to start by quoting from an interview with Jock Duncan, the North-East Scottish singer, which features in the CD-ROM *Northern Folk*:

Geordie wis assistant chemist at New Deer, he wis trainin there. An he wrote sangs at amazin speed. He wid hae written a sang a nicht, bit far are they aa? There's nae mony left. He niver took life seriously, ye see?... Geordie likit the drink, ye see, an he took e train intae Aiberdeen ae Settirday nicht. The bobbies hidnae much tae dee at at time; they arrested him for drunk, for bein drunk an disorderly. Geordie wid niver have been disorderly. Somebody must hae lettan Gavin Greig ken, cause he gaed in, he gaed in, he took the train an peyed is fine an took im hame wi him. An e says, "Now George, hae ye ony o that songs, I want that sangs, I wint them for ma collection!"

There's a hint of desperation in the collecting here, which I can wholly identify with, having been involved in a large-scale collection project to generate a CD-ROM. Gavin Greig's work, of course, is still being published in Scotland; *Northern Folk*, at times, felt like it would take two lifetimes or more to complete.

I've called this paper "Digitising Scotland: From North East to South West" because I'm about to follow up the CD-ROM I'm discussing — which explores the traditional culture of North-East Scotland — with a similar project where I'm now based in Dumfries and Galloway. By explaining about our digitised tour of NE Scotland, I'm hoping that you'll be able to assess whether such a project is worthwhile. After I've told you a bit about the advantages and pitfalls of this first project, I'd be grateful for your reactions, so I can make the second one more user-friendly.

The idea for *Northern Folk* developed as part of a team project. The original idea came from James Porter, who holds the Chair of Ethnology at the University of Aberdeen, and who was then the Director of the Elphinstone Institute at the University of Aberdeen. The Elphinstone, now under the direction of Ian Russell, was founded in 1995 — as many of you know, David Buchan was to have been first Director — with the specific aims to promote, present and preserve the cultural traditions of Northern Scotland. Tom McKean and I, then Research Fellows at the Institute, developed the idea, conducted the fieldwork and archival research, did the filming and audio recording, helped to develop the programme, and edited the finished product.

We decided to make a CD-ROM because of the potential for imaginative presentation of North East folklore. We liked the idea of giving the experience of a guided tour, led by real people from our region. A CD-ROM seemed the best way to provide a lively introduction to the living traditions of our area, as well as the potential for backing this up with materials in video, audio and text format. It gave us the chance to introduce our users, in person, to some of the most exciting tradition-bearers from our area. We wanted to include young and old, famous and less famous, people like Carmen Higgins, the fiddler; Stanley Robertson, the storyteller; the Eastons, local farmers; and the Whytes, fishermen for many generations. We wanted to simulate for the user the experience of meeting someone, or at least of being a participant in an interview by proxy.

Furthermore, we wanted to introduce the users to a community, giving the sensation of meeting people in different contexts and showing that these individuals do not just bear traditions of one kind only. A person may reappear in different sections, coming to prominence in some parts, and quoted in others. We also wanted to allow the user to meet people from our area in the past, and people we weren't able to feature in the main audiovisual sections. The CD-ROM format allowed us to intersperse the main sections with quotations from additional speakers with diverse cultural backgrounds, from Scots whose families can be traced within the area for several hundred years, to relatively new in-comers. We interspersed the main speakers with quotations from interviews we'd conducted, as well as with printed sources like local histories, works of fiction and poetry which we felt imaginatively captured the experiences of living in the North East, and visual material which illustrated and complemented what was being said.

We decided on a CD-ROM format for technical reasons, too. At first we thought about using DVD, but when the project started out in late 1996, the technology wasn't far enough advanced and DVD players were not widely available. We rejected the idea of web-based materials because we wanted the CD-ROM to be a discrete, stand-alone product, although it does have a link to material on the Web. Extensive research, in the early stages, informed this choice. We spent a couple of months being computer nerds, visiting places such as the digitising unit at the Museum of Scotland. This was a dispiriting experience given its dedicated team of over twenty people, working on much less ambitious projects such as Lewis chessmen in 3-D graphics but little contextual information. However, viewing a variety of CDs, from the sort that come free with computers helped: *Wild Africa* was unexpectedly useful in providing ideas on interfaces.

We researched various options for production, starting off in-house. The medical Computer Assisted Learning unit had experience in multimedia productions, as did the Department of Biochemistry, but we soon realised that, in the competitive market for software, we wanted to work with a professional company. After visiting several companies, we decided on *Concept Productions*, based in Aberdeen. We felt it was important to work with a production company with both multimedia and cultural experience (*Concept* had recently completed a series of interactive screen displays for the refurbished Maritime Museum in Aberdeen). Most importantly, *Concept* was enthusiastic about the project, and its folkloric content. When we started, however, the company had never made a CD-ROM. Like many Aberdeen-based concerns, they specialised in videos for the oil industry. We struggled to bring academic and production values together: from our side, how to storyboard and tightly edit a project with almost three-dimensional qualities, anticipating a user coming in from different points; from their side, maintaining didactic integrity. *Concept's* experience on our project means they now specialise in this area for clients such as the Royal Botanical Gardens in Edinburgh. We worked with three people in particular at *Concept*: Mike Lloyd-Wiggins, director; Tim McGarry, head of design; and Graham Turnbull, the programmer.

The project, from the start, was team-based. Tom McKean, an American based in Scotland for ten years at the time we made the project, and myself were the ones working most closely on the project. We decided on the content — with input from Professor Porter at key

stages — and on who we wanted to feature, as well as conducting the focal interviews, drawing on those we'd conducted in our own research, and editing. However, we had to consider Aberdeen University's interests, epitomised by the Dean of Arts who was involved in the steering group for Elphinstone (and took some convincing) and AURIS, who administer research income for the University of Aberdeen.

Our funding, too, was from a variety of sources. Not all of it was in place when we began developing the project with *Concept*; luckily for us, they were patient. The University of Aberdeen provided support in kind, in terms of office space and salaries (the majority of our time as Research Fellows, from November 1996 to August 1999 was spent on this project, particularly in its latter stages). Fifty percent of our funding came through the Scottish Cultural Resources Access Network which was, in the late 1990s, providing income for multi-media projects, with resources based on special funding from the British Millenium Commission. The SCRAN funding was in two parts. One was for initiating and completing digital projects of Scottish significance, which SCRAN sells on to schools, colleges and libraries for cost price. The second was for providing SCRAN with quality, documented digital images, to be accessible via their website. Grampian Enterprise, now Scottish Enterprise: Grampian, gave us a grant of £20K. The Moray Trust, a local organisation, gave us £10K. The Scottish Arts Council provided £250 to record the programme soundtrack.

The team-based approach, most importantly, informed the CD-ROM's contents. Material was contributed from many sources: in particular, Elphinstone's collection of interview materials, which we were generating during the project (starting from scratch); people's photos and public bodies (Regional Archaeology Department, Aberdeen Art Gallery, Elgin Museums and Libraries among others).

We wanted to reflect the diversity and complexity of our region. The CD-ROM includes information about a wide range of traditional culture: fishing, farming, storytelling, song, music, belief, custom, domestic life, industry, and entertainment. The CD-ROM includes material from all parts of the area from Moray Firth in the North East, to Montrose in the South West. The contents of our programme in total include 300 full screen images, 25 minutes of video and 35 minutes of audio, including a specially-recorded soundtrack. There are 300 screens of texts (combining interview material, poetry, prose, extracts

from historical works) and an estimated 97000 words of text in total. The oldest contributor was 95 at the time of recording, the youngest was seven, and we included people from various backgrounds, from Scots of long standing, with families in the area for a traceable 400 years, to new Scots from places as diverse as Sicily, Nepal and the South East of England, and the visiting Black Douglas clan from California. There are women and men, and facets of experience from domestic life on the farm to traditional male occupations. New activities are reflected as well as old, from oil rig working to long lining. Our aim was to edit, but not overinterpret; naively, we wanted the project to represent people's own voices, with as few interventions from ourselves as possible. In fact, we discovered that the CD-ROM is one of the most heavily edited formats imaginable.

Navigating the CD-ROM is relatively straightforward. When you enter the programme initially, there is an introductory slide show, with a selection of images and a specially commissioned soundtrack by Carmen Higgins. The user is then faced with a language choice; we consciously wanted to use the three languages of Scotland as this was originally intended as part of a series, covering all of Scotland. In this volume, North East Scots is the default language, making a political point about its prominence in our region, with English and Gaelic as options. Having selected a language, the user can now make a choice between four sections: Work, Domestic, Community, Recreation. Within these, there are three choices: each opens with a few introductory screens of basic information, and then the user is encouraged to select "Fowk". This opens a slide show of images and discussion — an opportunity to "meet the folk" of the area. Each section presents the user with three clips of about a minute long, which are edited down, in each case, from between two to three hours of filmed interviews.

The user, then, can decide on her or his own guided tour, selecting a section, and following it through to a point where there are three short video clips, cutting interview material with photographs, still images and archive material. From here, the user can choose to enter the "Gallery", which features detailed interview extracts, information on these extracts and the photographic images, a glossary of Scots words where they occur, and an access point to a map which locates the people and places featured and is, in itself, an alternative form of navigation. We include "Further Resources" too: books, videos and audio resources, as well as places (museums, libraries, archives, galleries) where further

information can be found. There is a hot link, too, to articles, teaching notes and student resources, based at the University of Aberdeen's Elphinstone Institute site <http://www.abdn.ac.uk/elphinstone>.

The project had distinct advantages. For a start, it offers a virtual tour of the North East area, giving the experience of being guided by real people. Users can travel at their own speed, focus on their own interests, and return to different areas, by different routes. The disc promotes and celebrates a local community by bringing together a variety of people and institutions. There are twelve main contributors, but their statements are supported by materials from Aberdeen Art Gallery, the City Archives — the "Harlaw" section, for instance, uses Aberdeen's actual Council Minutes from 1411 — along with recollections and photos from local people, based on extensive field-recorded interviews with diverse individuals.

Working on such a project makes you, as an editor, think digital. Based on my own experience with the project, I was well equipped to develop a Broadside Ballad project for the University of Glasgow. Along with a colleague in the Department of Social and Economic History, I have digitised 200 broadsheets from the David Murray collection at Glasgow University Library, digitising photographic images of over 300 songs, linked to contextual material and digital sound recordings. Incidentally, Ted Cowan of Glasgow University and Lizanne Henderson are currently doing a ballad CD-ROM, linking texts with images from the area, and short sound recordings. Professor Cowan says that his is "better" than mine ("things move on") but that mine is classier.

The disadvantages are, perhaps, more immediately obvious, most clearly the expense. The whole project cost over £50000, with additional costs hidden to us at the outset: copyright clearance; digitisation of photos; hiring of professional standard equipment; use of materials (although Aberdeen Art Gallery allowed us free access to transparencies from their collection for a £250 flat fee). Now, of course, the costs of digitisation have come down and new digital video is high enough standard to use. A high degree of professionalisation was required: Tom and I had to learn to become a professional standard camera crew and we had training in production and post-production which was essential to the success of the project. The artificiality of filming was also a drawback: I vividly remember, for instance, filming in Isobel Easton's six by five foot kitchen, crammed up against the wall! As with any

filming project, you're bringing vast quantities of expensive (hired in our case) equipment into people's houses with the awkwardness of setting up, and the intrusiveness of it all. Some people, like Isobel Easton, respond well; others, children in particular, can find it daunting.

Thinking digital requires a huge learning curve. The project required a definitely non-linear frame of mind, and we were used to the consecutive chapter structure of conventional publication. The format, too, determines how you present materials: short, bite-sized sections are preferable, as they can be accessed via any part of the programme, making the project, as I suggested earlier, heavily edited rather than requiring the light hand we had hoped for. The demands of our partners were also time-consuming; SCRAN required detailed documentation of all the images we used.

The project, as a whole, was very demanding; it took three years from the initial idea to completion. Long days were the norm, as when equipment is hired, it needs to be used to the fullest! During the filming of the video sessions, a typical day might be: in at nine, off to locate and copy some photographs from a library (with our portable copy stand); an afternoon of filming in the field; back to the office to edit the film; go to bring in the pizza at 10; home around 11/12, and back in at nine again the next day to repeat the experience. Advances in digital cameras, though, mean that future projects would probably not face such hardships; good equipment is now much cheaper than it was when we undertook the making of the CD-ROM, and the editing process is more straightforward too.

The amount of work at the other end, though, would be much the same. We had the nightmarish task of proof-reading in three formats. This, in itself, was demanding. We were aware of the need to compete with high quality products on the market already. Our project had to look good on the shelf alongside something by Sony. We realised that we needed to use professional marketing, and chose *Highlander*, a local music distributor. This was not necessarily the best choice, but we were limited in the distributors available. In future, I would definitely seek partnership with an educational publisher.

A project like this, too, requires a good base within the community for success. Luckily our own collection work, for the beginning of an Elphinstone archive, meant we already had a network of people to draw on for suggestions and resources. Maintaining community support



is crucial for this context, as well as fulfilling community expectations. Recent correspondence in *The Scotsman* regarding one institution in Scotland shows how let down people can feel when material they've freely offered is not publicised. Our project, I feel, could offer a model for South West Scotland, and potentially also for use beyond Scotland.

Good seed funding is essential. A CD-ROM is an expensive project to undertake, with the given formula, "think of a number and double it!" Scottish Enterprise: Dumfries & Galloway have expressed an interest in my new project, based on seeing *Northern Folk*. We're hoping, too, for European funding (Objective Two in Europe funding is focused on educational and multimedia projects). Paradoxically, because of the recent foot and mouth outbreak, funding may be easier to secure than it is under normal circumstances. We've just had a 17.6 million cash injection, over three years, into our region. High quality digitisation resources are necessary. Glasgow University, where I work now, has a unit dedicated to digitisation in areas of heritage, linked to the Hunterian museum HATTI, and I'll be drawing on their help. Professional production standards help. I may end up going back to *Concept*; having developed this programme, they can do a follow-up for a fraction of the original cost. However, we do have good production companies in Dumfries & Galloway, and have just appointed a Professor in Filmmaking, for three years, based on my campus. High quality digital equipment is much cheaper now, too.

You need access to local resources: field recordings; museums; archives; galleries. Student recordings are also a good resource, which I didn't have the chance to generate in bulk in Aberdeen. Currently, I am building up a Folklore Studies programme in my new job at the University of Glasgow's new (founded in 1999) Crichton Campus. There are good archival resources, too, in Dumfries & Galloway, equal to the ones we used in North East Scotland. The idea of a series helps. My new project will have links to the first CD-ROM. As a teaching aid, I've found it immensely useful, although my students are now sick of North East Scotland, which is a good incentive to produce the next one faster, of course!

What I would do differently is to be more focused in the early stages. I'd start by filming, decide what intriguing issues emerge, and then interview around them. We went in, at first, as traditional folklore researchers, hoping our ideas would emerge from extensive collecting

in the area. With a project of this sort, this process wasted much valuable time. In future, I'd plan on a week or two of intensive filming with people I knew well, edit the clips, then conduct additional interviews around these clips, to complement the audiovisuals. I now look on the process as directing, rather than editing. Unfortunately, as a Lecturer in charge of a new Scottish Studies programme in a new campus, I don't have the research time I did at Elphinstone as a Research Fellow. One of the reviews we had commented that:

On the CD sleeve, McKean and Bold are described, too modestly, as editors — they have clearly been far more active than that word suggests, as energetic researchers, finding fascinating archive materials, and also as very active and imaginative field-workers, interviewing and filming the length and breadth of the North East. They deserve their editorial credit, however, because they have synthesised their diverse materials skillfully, and organised them so that they are both accessible and entertaining (Milton 2001).

It's a complimentary review, of course, but the tasks the reviewer outlines are absolutely right. You have to be prepared to research in the field, in archives, in libraries, in photoarchives, and in private collections. It all takes time! I'd definitely adopt a more pragmatic attitude to the topics covered, rather than the holistic one of *Northern Folk*. I want to use existing projects to generate resources for the new project. Scottish Enterprise: Dumfries & Galloway have recently co-funded a new Crichton Tourism Research Centre (CTRC) at my campus. The LEC have funded a Research Fellow, Dr Donald Macleod, who is working with Dr Mhairi Harvey, Lecturer in Environmental Studies and myself to explore cultural and environmental tourism in our area. Glasgow University has provided two research assistants, who took up their posts this summer. It makes sense for me, in the light of these developments, to focus the new project on links between the environment and cultural traditions, so this will give a different flavour to the project. The technological advancements have meant that I can now use much longer video clips, probably using a DVD format. I would definitely use digital video for filming; the quality is now acceptable compared to the professional-quality Betacam film we used in *Northern Folk*.

What I would do the same includes working with people I trust intellectually; Tom McKean and I became an almost instinctive team, and our team dynamics worked well. As a male/female, American/

Scottish combination, we found that people responded to each of us differently. As a small crew going into people's homes, we worked well together. This helped to maintain the excitement of the project. On one of our long days, I remember driving back with Tom from Elgin to Aberdeen. We had editing to do that evening, but decided to take a detour, partly to buy some farm cheese, and partly to look at graffiti in a bothy which Jill Adron, one of our contributors, had told me about. We hoped this would be a good image so I phoned Jill and she gave us detailed instructions on how to get to Tolquhill farm. We drove up a country road and found what we hoped was the right track, but Jill hadn't known that the road was blocked off. We started walking. A couple of hours later we found the fermtoun, which had been deserted for years, and started looking on the walls. It was like meeting the bothy billies of the 1920s and 30s; their writing was still there on the door and walls of the stalls where the beasts had been. There were names and evocative details: "Alexr Gibb and Wm Stewart was through with the hoe on 21 July, 1924 first in the Glen"; and a dirty verse about the farmer's daughter we couldn't quite make out. The light was almost gone, and we didn't have a flash but we took turns at standing really still to photograph the graffiti, and got a couple of good shots for the section on bothy songs.

In conclusion, I would like to say that I'm looking forward to undertaking another digital project because of the possibility to communicate the excitement and fun of field-recorded interviews. The format gives you the ability to give multimedia impressions of an area and, above all, I like the way you can interlink diverse images and experiences to give a holistic impression of traditional culture and people within a specific geographical area.

### **Commentary/Commentaire : Richard MacKinnon, Madeleine Pastinelli**

**Richard MacKinnon** : Thank you, Valentina. As someone who's done some work of this kind, I understand the amount of time and energy it takes and the quantity of materials that you deal with. It's an issue that folklorists and ethnologists will be dealing with, if they're not already, in terms of digitising materials and archives and making your material more accessible to the community. However, what is the community? Is it schoolchildren or the general community? That's really important.

Valentina talked about CD-ROM and the decision whether to go with CD-ROM or DVD. And, actually, the medium itself is an issue. It's a complicated question, but in a sense, the medium is always going to change. DVDs are out there; we're talking about wireless, and we're talking about broadband delivery of materials. But the content is going to remain the same. How do you shape that content and the multimedia nature of that content? I think there's all kinds of creative potential, as we've seen in this CD-ROM, for the use of folklore materials. One of the things that I find attractive about this technology is the potential for interactivity — that a student or another person can use the CD-ROM as a resource and then extract from that what he or she wants at the time he/she wants.

That leads me to a couple of questions. First of all, one of the problems that a lot of people deal with when they start with this technology is when they say, "Well, it's a good idea and let's try to do it". And I was in that boat, too. But, you have to have an end user for this. My question, Valentina, is your CD-ROM tied to a curriculum of study in any way for, the junior high school or senior high school level? Because, from my experience, unless you have your materials tied in there, they will not be used in the school system. If that's an aim, to have it used in the curriculum, you have to be inextricably connected there. Otherwise it won't get used.

A second issue, and I'm sure you've dealt with this, is a copyright issue. Many archivists also have to deal with this. How do you, particularly with oral materials, approach the work involved in tracking down permission to use it? Then, just a couple of technical questions. Is there a search engine in it that you can use? Can you copy and paste your materials, photos, text into a notebook of some sort, so a user could actually have interactive, hands-on use while he/she is doing it?

**Valentina Bold** : A couple of things struck me while you were making the questions, which I'll address. First, doing a project like this basically makes you think digital, and certainly, it has a big influence on your future work. At the moment, I'm involved in a project to digitise broadside ballads at Glasgow. And I think once you've done a project like this, it just becomes a logical way to present some sorts of material, multimedia materials. I should also say that the technology has come on quite a lot since we did this — finished it — in 1999. Ted Cowan at Glasgow is, at the moment, doing a project on ballads, a

digital collection of ballads on CD, and just before I left, he told me that his is a lot better than mine, but that mine is a lot classier. I thought that was a kind of double-edged one.

In terms of flogging the things, you're absolutely right. In a sense, because we were part-funded through this grant initiative, that answered our question. Scottish Cultural Resources Access Network (<http://www.scran.ac.uk/homepage/>), as well as providing funding through the Millennium Commission in Scotland, was also directly tied to educational users. We were selling copies of this to schools at cost price, so schools could buy it very cheaply and that ensured a certain amount of market.

The other thing that I'm sure people who've done this sort of project are familiar with is the absolute nightmare of how to distribute it. We went with a commercial distributor who, in retrospect, was perhaps not the most sensible person to go with. It was someone who had a lot of experience of music CDs but not of multi-media, and I think we'd definitely think twice about doing a project like this again without a commercial publisher behind it, in some form.

In terms of the copyright, yes, it was an absolute nightmare, because we've got so much textual material and so much visual material. Basically, what we found was that many people are very generous with their copyright. We paid all the contributors a fairly nominal sum because we felt that was important. In terms of the textual material and the print material, in particular, we were quite fortunate in being able to argue strongly that this was an educational project. All the profits were going back into the Elphinstone Institute, and generally, we found that people were quite willing to let us use their material to spectacular ends. I mean, for instance, Aberdeen Art Gallery gave us 300 images — actually I don't know how many they gave us, I just made that up — but anyway they basically said "You can use anything you like and give us 200 quid for a one-off payment". On the other hand, we had one or two people from whom we would have liked to have used images, who suggested ridiculous fees, and we just junked them because we didn't have a big enough budget to do that.

To get to your point about the search engines, no, it doesn't have a search engine, and this was because by the time we got to that stage of the project when it would have been possible to put it in, we were so much over budget that adding a search engine was going to cost too

much. Certainly, if I were doing a project like this again, that would be something I'd think about from quite an early stage. One thing we'd have loved to have done was something that I saw in one of the Canadian Museum of Civilization CDs, I think, which has a glossary with words that you can hear pronounced. That is, you can actually hear the unfamiliar word pronounced. I'd love to have done that in this project, but again, it was just a budget decision.

**Richard MacKinnon:** That's actually a very common occurrence. You start working, and the budget runs out. You had all kinds of things you wanted to add in there and you just can't do that. I've run into that one as well before.

**Madeleine Pastinelli :** J'aime beaucoup l'idée d'impliquer les gens de la région pour faire le travail de présentation. Le contenu est local et la mise en forme l'est également. L'histoire de la préparation de ce cédérom pose un bon nombre de questions qu'il est important d'envisager, surtout dans la mesure où les supports électroniques — le cédérom et les sites Web — sont de plus en plus utilisés pour la conservation, la mise en valeur et l'enseignement des cultures populaires. Pour préparer ce cédérom on a utilisé des sources très variées telles que du texte, des documents d'archives, des bouts de vidéo, des bandes sonores, etc. Il a fallu réorganiser ce contenu dans le but de le présenter sur un support numérique, et cette réorganisation-là n'est pas sans conséquences sur le contenu lui-même et sur la façon qu'on peut avoir de l'appréhender. L'usage de l'informatique a un effet très important et souvent invisible sur nos modes de pensée. C'est la même chose avec le cédérom et je pense qu'il est important d'en parler, puisqu'il faut bien avoir ces considérations à l'esprit quand on entreprend de réaliser un document électronique. Puisque « chaque fois que l'homme a changé de système d'écriture, il a aussi changé de système de vision du monde, de *Weltanschauung* » (Quéau 2000 : 24), produire un cédérom, c'est aussi contribuer à la mise en place d'une nouvelle façon d'envisager, de concevoir et de structurer la pensée du contenu dont il est question.

Avec le temps, on finit par assimiler parfaitement la logique du système informatique, si bien que celle-ci vient contaminer plus globalement notre façon de concevoir le monde et interférer là où on s'y attendait le moins. Qu'on pense par exemple à tout ce que l'avènement du traitement de texte a changé à la façon d'organiser l'exercice de rédaction, par rapport à ce qu'il était autrefois, du temps

de la machine à écrire, alors que, une fois le texte tapé, il n'était plus possible de revenir au milieu d'une phrase, d'un paragraphe ou d'une page pour ajouter ou supprimer des passages. La logique informatique, le mode d'organisation et de fonctionnement des différents médiums par le biais desquels on appréhende les contenus a un impact qu'on mesure encore mal sur notre façon de concevoir le monde. Bien entendu, je n'aurai sans doute jamais l'idée consciente de faire « copier coller » en encaissant mon chèque de paye ou de faire « revert » après avoir déclaré « chéri je te quitte ». Il m'apparaît néanmoins clair que, à des degrés variables et sur différents plans, la logique du système informatique, la structure même avec laquelle on est constamment en contact, interfère avec nos modes de pensée, et pas seulement lorsqu'on est en train de naviguer dans Internet, dans un cédérom ou de travailler avec l'ordinateur.

Le cédérom est construit selon le même mode d'intelligibilité que le Web, soit selon une logique hypertextuelle. La structure hypertextuelle d'un cédérom est radicalement différente de la linéarité qui est celle du livre imprimé ou du film. Le passage de l'un à l'autre transforme sensiblement la perception qu'on peut avoir d'un même contenu. L'hypertexte introduit en quelque sorte une troisième dimension, comme si on ajoutait un axe des « Z », ce qui fait apparaître une multiplicité de points de vue de la structure et de l'enchaînement des parties.

Avec l'avènement de l'hypertexte, plusieurs auteurs ont annoncé la fin de la linéarité et donc la fin du récit et de l'intelligibilité telle qu'on la connaissait auparavant. Depuis, on nuance de plus en plus ce discours alarmiste et on s'attache à essayer de voir et de comprendre comment le lecteur de l'hypertexte appréhende le contenu, l'assimile et comment il réintroduit dans son parcours de navigation une linéarité qu'on pensait disparue à tout jamais. Selon Alex Mucchielli (2001), l'hypertexte n'est, en fin de compte, qu'une autre façon de faire de la linéarité. En fait, il semble que l'expérience de la navigation dans un hypertexte donne lieu à une forme plus souple de linéarité, puisqu'il faut bien admettre que l'utilisateur d'un cédérom, comme l'internaute sur le Web, n'est pas aussi libre qu'on veut bien le laisser croire, puisqu'on l'incite toujours à suivre une certaine direction. Denis Gasté compare la navigation dans un cédérom à la circulation dans un magasin à grande surface. Le client qui déambule dans un grand magasin est en théorie et en apparence libre d'emprunter les allées comme bon lui semble, dans

le sens de son choix et de s'engager seulement dans certaines, comme il le désire. En pratique, la disposition de la marchandise et l'organisation des allées est le fruit d'une savante orchestration qui permet de guider la clientèle de façon à lui imposer un circuit. Partout, les pyramides de boîtes de petits pois et autres tables de démonstration contribuent à restreindre la liberté de circulation du consommateur et, en fin de compte, on observe que la très large majorité des clients suivent le même parcours, sans même s'en apercevoir.

Ainsi, la façon de circuler dans un cédérom pour appréhender le contenu n'est peut-être pas si différente de ce qu'elle pourrait être si le même contenu avait été présenté dans un film par exemple. Il y a cependant certaines particularités de l'organisation de l'hypertexte qui demeurent tout aussi prégnantes et auxquelles il faut accorder attention. À la différence de l'hypermarché où le client est toujours en mesure, d'un seul coup d'œil aux quatre murs qui délimitent l'espace dans lequel il se trouve, de se situer par rapport au tout, le cédérom ne permet pas de se situer ainsi. À moins d'avoir consulté le même cédérom des dizaines de fois auparavant, l'utilisateur ne connaît que le parcours qui l'a conduit là où il se trouve, et n'a aucune idée de la succession qui va suivre. En bref, il ne peut jamais se situer par rapport à la totalité du contenu, d'abord parce qu'il n'en a pas une vue d'ensemble, mais aussi parce que l'hypertexte est en fin de compte un non-espace, il est plus exactement « a-spatial », tout pouvant être relié de près ou de loin selon une logique qui échappe complètement aux lois de la physique.

Dans la perspective de celui qui navigue, le contenu du cédérom est séparé en petites unités de sens autonomes, qui sont certes reliées entre elles, mais qui ont d'abord une forme fragmentaire. Chaque page qui s'affiche à l'écran est une capsule relativement indépendante, du moins dans la perspective de celui qui navigue dans le cédérom et qui n'a jamais une vue d'ensemble de la totalité du contenu (à la différence du concepteur). La liberté de circulation dans la structure hypertextuelle repose sur cette fragmentation du contenu. Il faut que les capsules soient des unités de sens relativement autonomes pour qu'il soit possible de passer de l'une à l'autre dans n'importe quel ordre. Si le contenu est présenté de façon fragmentaire, il va de soi qu'il est également assimilé de la même façon. En fonction de ce qui l'intéressait ou de ce qu'il a tenté de trouver, l'utilisateur aura une certaine perception de la structure de l'ensemble, mais qui sera toujours différente de celle qu'un autre utilisateur adoptera. Du point de vue de celui qui navigue, le cédérom



est donc un peu comme un kaléidoscope, chacun y percevant une organisation différente.

La structure de l'hypertexte donne lieu à une forme particulière d'intelligibilité, dans laquelle les éléments de connaissance ne sont pas forcément liés entre eux et quand ils le sont, ils le sont librement, toujours sujets à réinterprétation et à réorganisation par celui qui les appréhende. On peut être plus ou moins à l'aise avec cette forme de contenus fragmentés. Pour certaines personnes à qui on a inculqué profondément la linéarité comme seul mode valable d'appréhension des contenus organisés, le contact avec l'hypertexte peut être profondément déroutant. En l'absence de cette structure en entonnoir, qui est celle par exemple de la dissertation où, dès le début, on voit le plan de l'ensemble, il peut être plus difficile d'assimiler un contenu, de retenir l'information, bref d'apprendre. On peut ainsi passer des heures à naviguer, avoir toujours l'impression de ne jamais vraiment trouver ce qu'on cherche ni d'être dans la page où on le voudrait et, en fin de compte, ne pas retenir grand chose de toutes les pages qu'on a lues.

Le cédérom tout comme le site Web est un instrument de communication qui peut être utilisé pour séduire un public qui aurait eu moins d'intérêt, par exemple, à consulter un ouvrage imprimé ou à se rendre dans un musée. Comme tout médium, celui-ci a plus de succès avec un certain public et ne permet pas de rejoindre adéquatement d'autres catégories de personnes. Il faut donc résister à la tentation technophile de remplacer tout ce qui était avant (l'exposition en salle, le film, le livre) par le cédérom qui, idéalement, devrait être conçu en complémentarité avec les autres médias.

**Valentina Bold** : I agree, basically, with everything you said. That was why we felt it was important to have this resource section with the CD, so that people wouldn't think "This is all there is to know about the North East". The other way we tried to address this is through a Web edition, which includes not just the selection of more discursive articles, but also a list of discussion points, and things for the user to think about while they're reading. Further, we suggest that the user print out and keep the discussion points by their side if they're a serious person that's approaching the culture or theory. But I think what you say is absolutely right. And perhaps some of us have charged into making these things without considering these issues too much in the early stages.

**Nancy Schmitz** : One of the things we shouldn't forget is that we impose linearity on many situations. We needn't get too carried away with this notion of fragmentation just because we — ourselves, as academics — are in the habit of imposing linearity on our work. For example, the sort of controlled discourse we have in this very meeting is not something that you usually get in everyday life. People are always saying: "you're jumping from one thing to the other; you're not keeping to the subject". These are the things we try to breed out of people when they are in a situation where linearity is important. But everyday life is fragmented, just as are certain forms of oral tradition. If you take Lévi-Strauss' original meta-reading of the Oedipus myth, you find he has correlated several different sources and imposed on them a linearity that he has discovered. I don't think fragmentation is all that foreign; at least it's more foreign to us who have been educated in a linear sense. But young people today, while being exposed to linearity in school, are also living in a more consciously non-linear way than we were used to.

**Valentina Bold**: I think that's a really interesting way to look at it. In a sense I do feel, in some ways, that fragmentation could be a bit of a strength, too. What we really hoped was that it would let people make up their own minds about the area. It may have ended up being quite edited, but I hope it's not hugely interpreted. That's why we kept these introductory screens before the audiovisual material to a minimum. We wanted people to engage with the material rather than following our lines of analysis. So, this, in turn, informed the way that we structured the support materials because we wanted to formulate them more as questions and as answers again, to allow the user to come to their own conclusion.

**Madeleine Pastinelli** : Juste pour revenir sur la question soulevée par Nancy... De fait, il me semble clair que l'absence de linéarité, l'idée d'un contenu fragmenté, n'est pas souvent quelque chose de négatif. Au contraire, puisque ça force chacun à recréer le sens lui-même... Il y a des situations de communication et d'apprentissage dans lesquels c'est un atout. C'est très intéressant puisque c'est très créatif, justement, et on peut voir le sens, de façon très originale finalement, là où d'autres ne l'auraient pas trouvé et faire soi-même ses liens. Il y a des situations d'apprentissage où cela peut être nécessaire. Tout dépend de l'utilisation qu'on veut en faire, et je pense aussi que, pour les jeunes, les adolescents en particulier, c'est un mode de penser qui est parfaitement efficace et dans lequel ils se retrouvent tout à fait à l'aise, sans difficulté.

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