## InterPARES 2: The Danube Exodus Case Study

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## Abstract

This paper will discuss preservation issues highlighted by The Danube Exodus, a work by Hungarian artist Péter Forgács (founder of the Private Film & Photo Archives Foundation in Budapest) that is the subject of an InterPARES 2 case study. The Danube Exodus is built on archival/historical analog pieces, including found footage, photographs, early eighteenth-century maps of the Danube River and drawings of the region from the special collections of the Research Library at the Getty Research Institute. This material was used to develop a multimedia interactive piece that has had at least two manifestations—as a gallery installation and as a Web site. The piece was the result of collaboration between Forgács, the Labyrinth Project at the University of Southern California's Annenberg Center for Communication and the Getty Research Institute, and study of it brings up issues, such as the management of hybrid collections and the authenticity and granularity of dispersed works with multiple manifestations.

"The Danube Exodus: The Rippling Currents of the River" is a case study undertaken within the artistic focus of the InterPARES 2 (IP2) international research project on the preservation of electronic records within interactive, dynamic and experiential systems. IP2 builds upon the work of InterPARES 1 (IP1), which examined the preservation of the authenticity of inactive administrative records selected for permanent safeguarding. The activities of IP2 are organized by sector (artistic, scientific, and government) and function (record creation and maintenance; the determination of authenticity, accuracy and reliability; and methods of appraisal and preservation). There are also cross-sector and cross-function groups examining issues of terminology, policy, and description. There is yet another group that concentrates on modeling--that is on developing abstract representations of the entities, activities and/or concepts inherent in an effective archival system. The work of this latter group involves both testing the models developed in IP1 and developing a new model or models based on the findings of IP2.

The relatively narrow focus of IP1 allowed researchers to rest reasonably securely on traditional notions of what a record is: "A document made or received in the course of a practical activity as an instrument or a by-product of such activity, and set aside for action or reference," according to the IP terminology database. The Model Requirement for the management of electronic records (MoReq) standard states that a key characteristic of a record is that it cannot be changed. This is obviously a characteristic that must be reexamined when analyzing dynamic systems, and this is one of the reasons that IP2 researchers often use the term "digital entity" instead of "record." The extent to which digital entities can be neatly sorted into product and by-product is another question grounded in dynamic and interactive systems in which everything is

digital, or is in some sense made of the same stuff. The mission of the artistic focus of IP2 is to provide as broad an analysis as possible of these and similar issues, most centrally the preservation of authentic digital entities, as they emerge within artistic activities. We set out to examine a wide range of artistic practices, including music, dance, performance art, film, graphic art, and photography. "The Danube Exodus" was suggested as the subject of a case study because it provided an example of a multimedia installation, but in fact it also provides an example of several other genres.

"The Danube Exodus" began life as 8mm home movies shot in the 1930s and 1940s by Captain Nándor Andrásovits of the riverboat the *Queen Elizabeth*. Andrásovits, a Hungarian, captured scenes from his own wanderings across Eastern Europe, and particularly evocative images of two voyages: in 1939 Jews fleeing Nazi persecution chartered two ships, including the *Queen Elizabeth*, to take them along the Danube from Bratislava to the Black Sea, where they chartered another ship to transport them to Palestine. In 1940, ethnic Germans abandoned their homes of many generations to journey in the opposite direction, from Rumania to German-occupied Poland, after the Soviet re-annexation of Bessarabia.

The footage depicting these events was discovered and restored by Hungarian artist Péter Forgács, founder of the Private Film and Photo Archive in Budapest. Forgács received funding from the Netherlands allowing him to re-purpose the footage to create a poignant one-hour documentary portrait (production format digital beta) of the two journeys and of Andrásovits himself, released as "Dunai Exodus" (Danube Exodus) in 1998. The documentary featured a minimalist musical score by Forgács' longtime collaborator, Tibor Szemzö.

In 2000 Forgács came to Los Angeles to participate in the scholar program of the Getty Research Institute. While there he embarked on a collaboration with the Labyrinth Project of the Annenberg Center for Communication and the Getty's exhibition design team to create a multimedia installation piece inspired by the Danube Exodus documentary. This resulted in the installation "The Danube Exodus: The Rippling Currents of the River," which opened in 2002, and presented three intersecting tales: the two migratory voyages and Captain Nándor Andrásovits' own life during this period. (Each year of the residency program at the Getty Research Institute has a theme. "The Danube Exodus installation" was conceived during the 2000–2001 theme "Reproductions and Originals," and launched during the 2002–2003 theme, "Biography.")

As realized at the Getty, "The Danube Exodus" installation was able to provide some historical counterpoint to the 20<sup>th</sup>-century stories by drawing on the special collections of the Research Library at the Getty Research Institute: before entering the installation space visitors passed through an exhibition gallery showing 18th-century maps and drawings of the Danube region compiled in an encyclopedia by Count Luigi Ferdinando Marsili. Within the installation itself, the digital component of which was created by the Labyrinth Project, one side was dedicated to the story of the Jewish escape, while the other was dedicated to the parallel yet inverse journey of the Germans. These two sides came together in the central space, where visitors where able to use touch screens to orchestrate and re-orchestrate the interweaving of the stories on five large screens. Thus visitors found themselves actively involved in comparing what Forgács called the "incomparable duet of the German-Jewish exodus." The installation also included Szemzö's score, ambient sound of rivers, harbors, ship's engines; prayers, songs, and voiceovers; and regional music.

Most of the pieces created by the Labyrinth Project are published and distributed as CDs or DVDs, but the cost of obtaining footage clearances for the North American market proved prohibitive, and therefore they did not publish "The Danube Exodus." However, the installation has gone on to be re-installed in other locations, without the 18<sup>th</sup>-century material from the special collections of the Research Library at the Getty Research Institute. The project has yet another incarnation as a Web site developed by C3, the Center for Culture and Communication, in Budapest (to be found at http://www.danube-exodus.hu/en/). C3 and the Labyrinth Project had extensive conversations on the extant interactive design, in order to ensure that the two versions of the project would have some coherence, though it is at the time of writing unclear whether they actually shared any files. Finally, a CD featuring Szemzö's score, some ambient sound, and just over two minutes of footage from each narrative strand of the project is available from the UK-based Leo Records.

At the time of writing, the IP2 project is approximately half way through its anticipated life. Activities up to this point have for the most part been organized by sector, and have largely involved data gathering. The artistic focus faces particular challenges here, as we are dealing with the least bureaucratically inclined of the three sectors under examination, and the one least likely to be subject to professional best practice, institutional policies, and the like. Artistic activity by its very nature tends to be idiosyncratic or even eccentric, and we had to devise a strategy that would allow us to gather data from many different artists working in many different mediums that could be standardized, compared, and analyzed in some systematic way. We decided on a common data- gathering method: interviews with artists using a questionnaire based on a number of questions shared by all case studies, and a common reporting framework where each case study researcher extracted from those interviews answers to those questions posed by IP2. This reporting framework has since been adopted by both the scientific and government foci of the project.

This sounds straightforward enough, but in fact the process of developing a questionnaire was tortuous: the questions had to be translated from archival jargon into language that non-archivists would be likely to understand and might find to be compelling, and had to include input from researchers in many different fields, each of course with its own jargon. Even then, each questionnaire had to be tweaked to accommodate the particular interview subject. The case study of "The Danube Exodus" is ongoing, and at the time of writing only two in-depth interviews had been completed, one with Marsha Kinder, Labyrinth Project director and founder and professor of cinema at the University of Southern California (USC), and another with Rosemary Comella, interface designer and software developer at the Labyrinth Project and project manager on the Danube Exodus.

While these interviews were extremely useful, and each subject was extremely generous with her time and insights, they also made apparent some inherent if unavoidable flaws in such a data-gathering methodology. However willing the subject is to help the interviewer, at any one-time meeting between people who do not know each other or each other's work extremely well there is bound to be some misunderstanding and some failure to grasp nuance. Even with follow-up via email or telephone, it is clear that where it is possible some longer-term methodology, such as ethnographic style participant observation, is preferable. (Some case studies have in fact been able to employ such a methodology.) Fortunately, the case study reporting framework does require researchers to provide context to the case study. Specifically it notes five forms of context, as described by IP1: provenancial, the mandate and structure of the creating body; juridical-administrative, the legal and organizational system in which the creating body functions; procedural, the business procedure in the course of which digital entities are created; documentary, the fonds to which digital entities belong; and technological, the characteristics of the digital environment in which the record is created and maintained. While some of these assume a legal and bureaucratic structure that might not be appropriate for all case studies within the artistic focus, the reporting framework requires that each should be addressed at least to the extent that their inapplicability is documented.

The Labyrinth Project was founded in 1997 as a research project of the University of Southern California Annenberg Center for Communication. Its initial focus was on creating a dialogue between the languages of cinema and the interactive potential and database structures of new media. It brought together new media theorists and practitioners and film theorists, most notably in the groundbreaking 1999 international conference "Interactive Frictions," which offered both academic panels and multimedia exhibitions. The Labyrinth Project moved from a research project to an art collective as Kinder and her staff discovered that there was very little work of the kind they were theorizing going on, and they decided to become more actively involved in its production.

The Labyrinth Project is primarily concerned with building "database narratives" or "interactive documentaries" – terms that appear to be interchangeable, though further research may disprove that. (Kinder has written extensively on both terms.) These are pieces made up of a network of interwoven stories that exploit the dual processes of selection and combination involved in all storytelling. The networks are without a prescribed linear structure; rather, they are made up of narrative elements (such as characters, images, sounds, events, and settings) held in a series of databases that may be combined in a variety of ways to generate different narrative outcomes.

Kinder has broken these narratives down into two categories. The first are a form of personal memoir, centered on the contradictions thrown up by extraordinary lives. Examples of this type of database narrative include "Mysteries and Desire: Searching the Worlds of John Rechy," a collaboration with the eponymous writer, and "The Dawn at My Back: Memoir of a Black Texas Upbringing," a collaboration with Carroll Parrott Blue. The second are archeological explorations of a particular place through layers of

time. The "Danube Exodus" falls into this latter category, and presents competing narratives that the visitor is required to choose between.

Both Kinder and Comella emphasized that each collaborative project was unique, with different processes and a different interface emerging from each. For example, "The Danube Exodus" involved extremely long arguments with Forgács on interface design, while other artists were content to let the Labyrinth Project do as the staff there thought best. Kinder described the collaborative method of the Labyrinth Project as occurring at four levels: between the Project staff; the students they employ; the independent artists they invite to work with them; and at the institutional level between the Labyrinth Project and the Annenberg Center and a wide variety of other institutions, including the Getty Research Institute, the Automobile Club, and the Skirball Center.

Despite the diversity of their products, there is a fair amount of consistency in the technological environment of the Labyrinth Project. They are a Macintosh-based production center, although all pieces are intended to be cross-platform and acquire much of their equipment through donations. They use Macromedia Director software to create interactive pieces for DVD and kiosk, Macromedia Flash software to create interactive pieces for the Web, Final Cut Pro for video editing, and DVD Studio Pro for DVD authoring. There were also some unspecified Xtras (add-on components for Macromedia extendible architecture software) used, but generally the Labyrinth Project emphasizes using readily available off-the-shelf software (rather that say, using non-proprietary or open-source systems). The emphasis of the project is almost entirely on the production and development of projects, with very little thought given to the long-term or very long-term storage of the final products.

To the extent that the Labyrinth Project considers archiving at all, it does so primarily in terms of being able to publish and distribute works in the short to medium term, or in the case of the Danube Exodus, where a DVD was not published, in terms of being able to re-create the installation. The project sees part of its mission as pushing the envelope in terms of the demographic that encounters database narratives, and expanding the language to incorporate them. Kinder remarked that while Labyrinth Project pieces often do very well in festivals, they are difficult to describe, and that catalogers often have particular problems with the artist/author/creator category, as the pieces do not have a single author. They have discovered that if their pieces are packaged with a book they are easier to distribute, as bookshops will accept them as a known quantity.

Labyrinth Project staff follow an in-house file-naming protocol, and all work files are kept, along with the final rendered versions, backed up onto hard drives, and burnt onto DVDs. Video files are also transferred to DV tape. There is no further redundancy or geographic separation of redundant copies. Files are organized in such a way as to mimic, where possible, the structure of their final project. To date this has been an adequate system – where hard drives have failed, it has been possible to recover the data from the DVD copies. The Annenberg Center provides the Labyrinth Project with technical administration, and each computer and drive is password protected, with wider access granted to the more senior staff. There is no logging of access to the hard drive archives. Beyond this, the management of the various digital entities generated by each project is largely *ad hoc*, and dependent on a number of factors, including which staff member was manager of the particular project. As manager of the Danube Exodus project, Comella made every effort to preserve all relevant supporting documents (Word files, emails, databases, etc.). These are stored on her personal hard drive, and other projects may or may not have similar documentation preserved. There is no systematic brief on which files should be saved, especially for those projects where the managerial responsibility is unclear. There is an expectation that every project will provide documentation of how physical installations are to be set up. This documentation will not necessarily be stored with the archived work files.

The Labyrinth Project has gone through an apparently painful process of upgrading projects to run on the latest Macintosh operating system, OSX, and to utilize the newest version of Director. This process has often caused problems in the functioning of the files that took considerable effort to remedy. Again, there seems to be little concern that such migration is in some way altering the digital entities. However, projects are not necessarily migrated to reflect system or software upgrades: The Danube Exodus continues to run in a Windows environment, and has therefore not been upgraded. Where a piece is migrated, the previous version of the piece may or may not be thrown out, depending on available storage space.

There is no routine or standardized capture of metadata, either descriptive or technical, for the pieces. There is also very little concern with preserving the authenticity and reliability of records in the archival sense. As with many other artistic endeavors, digital entities are presumed to be authentic if the creators attest that they are, and reliable if they function. Because the Labyrinth Project deals with biographical and historical material, there is obviously potential for discussing the accuracy, reliability of their pieces as they relate to historical "truth" or its construction, and this issue is in fact explored within the pieces themselves: database documentary may blatantly combine documentary and fiction and try to address the problems this raises. While the pieces may aim to be intellectually provocative, they also aim to be "honest" in the sense that they would not, for instance, represent fiction as documentary.

Comella made the point that the Labyrinth Project is funded by a grant from the Rockefeller Foundation, and its own continued existence is by no means ensured. This potentially precarious funding context gives another explanation as to why scant consideration is given to whether the pieces will function in twenty, fifty or a hundred years. (Ironically enough, Kinder mentioned that the Labyrinth Project has worked very closely with various archives within and outside USC, and that archives love its work, which provides an opportunity to revivify archival material.)

Given the iterative development of the many different manifestations and formats of "The Danube Exodus," and the collaboration of so many different creative voices, it is difficult to locate it as a definitive "work." Investigations so far suggest that for each collaborator, the work is that version within which each artist had the greatest role. For Forgács the work is the documentary, for the Labyrinth Project it is the installation (at

least in the case of the Danube Exodus, as there is no published DVD), for C3 it is the Web site. However, both Forgács and Kinder point out that the work really lies in its reception. In the original Getty press release for the installation Forgács noted, "Art is not what can be physically seen in the installation ... rather, art is that certain intangible thing that each visitor will see. Art is happening in the visitor's mind." Kinder has written of interactivity as performance (or performance interactivity), the idea that as visitors move through an installation they bring their own expectations, associations, and memories to bear in integrating what may be a disjunctive experience, and in deciding where, how and for what period they will utilize the interactive options. Performance interactivity emphasizes the "writerly" potential of cinema spectatorship, where the "collisions of dialectic montage" can ignite the viewers' emotions and intellect.

It will be possible to achieve a fuller understanding of "The Danube Exodus" once interviews have been completed with all the major collaborators and any follow-up questions answered. It will be particularly interesting to see how, or if, Forgács incorporates the knowledge inevitably derived from the conservation of film to the preservation of video and digital entities, and to what extent, if any, the various collaborators feel any proprietary concern for those manifestations primarily created by others.

To move from the specific to the more general, the IP2 artistic focus has tentatively reached some preliminary findings. Undoubtedly the least controversial of these is that artists tend to be very different from corporate entities in their management of digital entities as they are, no doubt, in much else. In a corporate environment there are likely to be significant financial interests to protect, and fiduciary responsibilities to fulfill. These provide an incentive to develop a robust record-keeping system, and mean that it is more likely that traditional paper record-keeping practices are in place and will persist with the advent of new technologies, although such traditional practices are inadequate for documenting interactive or dynamic systems. Corporate entities are far less likely in most cases to be early adopters of cutting-edge technology, and less likely to create digital entities collaboratively.

While artists are often concerned with receiving the proper credit for their work, they are generally not particularly concerned with putting mechanisms in place to prevent plagiarism and copyright violations. (Again, this may vary according to the financial stakes involved: witness the concern of many musicians with sampling and file swapping, for instance.) To the extent that artists are concerned with preservation, it is often with preserving the means of production, and therefore allowing themselves to continually adapt a work. They may be interested in the preservation of a specific performance or instantiation of a piece; on the other hand, they may think that performances should be ephemeral.

IP2 joins the broader field of digital preservation in acknowledging the central role that metadata seems destined to play. Some artists, particularly conceptual artists, may be more concerned with preserving the "intent" of their work than in preserving specific digital entities or environments, and there seems to be a gathering consensus that it is

necessary to extend metadata to be able to document such intent. However, the work of other artists working in the digital domain is still very specifically linked to certain files, technologies and machinery, and in those instances simply capturing intent will be insufficient to allow the preservation and recreation of those works. In such cases technical metadata, and perhaps other strategies such as system modeling, would seem to be essential. Metadata may also function to trace works that have otherwise completely disappeared.

Along with the importance of metadata, another statement that has become axiomatic in the field is that preservation must begin with creation. The problem with this is that preservation is not a traditional role of the artist, and it may take a paradigm shift to make artists accept this new set of tasks. In fact, there is still a lingering notion among some artists, as there is among the general public, that once something is digitized it becomes permanent, or at least that some technological magic bullet (such as emulation) will fix any problems. We can expect time to take care of that misconception, but we can also expect to lose important works.

An observation regularly made in any discussion of preservation is that some things should be allowed to be ephemeral. Whether digital art should be included among the many examples of ephemeral art in both the non-Western (such as sand painting among the Navajo or henna body decoration in India) and the Western canon (edible art, environmental art, happenings, graffiti) is debatable. However, it is not the task of the IP2 project to deny that some art works are essentially ephemeral or to dictate that they should be preserved, but to provide artists, curators, and any other interested parties with the knowledge and tools to preserve art that involves digital technology, or some trace of that art, if they so choose, and the awareness that such art is more vulnerable than they might realize.