

Continuous Access To Cultural Heritage (CATCH)

Pre-proposal **26 June 2008**

1a Project Title

Cultural Heritage As Narrative Tales

1b Project Acronym

CHANT

1c Principal Investigator

Prof. Dr. Lynda Hardman, Centrum Wiskunde en Informatica¹ (CWI)

2 Classification

Historical dimensions and modern interpretations

3 Composition of the Research Team

Prof. Dr. Maarten E.R.G.N. Jansen, Leiden University

Dr. Laura van Broekhoven, Rijksmuseum voor Volkenkunde² (RMV), Leiden & Leiden University

Dr. Jacco van Ossenbruggen, CWI & Vrije Universiteit, Amsterdam

¹ CWI is the Dutch national research institute for mathematics and computer science. <http://www.cwi.nl>

² RMV is the Dutch national museum of ethnology. <http://www.rmv.nl>

4 Description of the Proposed Research

Our goal is to provide exploratory prototypes of information environments where users can explore stories expressed in intangible media, while preserving the context in which the stories can be interpreted. In addition, physical artefacts that play a role in these stories can be contextualised via references from multiple stories.

The research fits in the *historical dimensions and modern interpretations* theme through investigating how access to original (digital) tangible and intangible materials can be given, while allowing users to build an understanding of a bigger picture, and being aware of this while listening or watching.

We will investigate interfaces for three different types of users, namely:

- Ethnographical researchers who wish to compare the way in which stories and rituals emigrated from Spain in mediaeval times, and merged and transformed alongside the pre-colonial stories.
- Mixtecan students who wish to learn more about their contemporary culture and its roots in both South American and European cultures.
- More generally interested users, connected neither by discipline nor cultural context with the specific topics of Mixtecan culture, who are interested in exploring the rich cultural stories of today and yesterday.

The digital materials to be used in the project are centred on the Mixtecan³ culture in South Mexico, using data and metadata from the Rijksmuseum voor Volkenkunde, Leiden. These have been collected from a wide variety of sources, and reflect many aspects of the Mixtecan culture. To give a feel for their breadth and depth we describe the tangible and intangible materials about today's markets and the more traditional stories from both European and Mixtecan cultures.

Market Stories

The Mixtecan markets provide a mini-environment that reflects many aspects of the Mixtecan culture. A large amount of materials in various media have been collected in order to document and analyse the life stories of those involved. The life stories are of the markets, based on archaeological and historical material; of the stall holders, based on semi-structured interviews; and of the market wares themselves, based on structural analyses and observations in the field. For example:

- personal stories of shrimp-sellers who buy their shrimps through first obtaining loans with enormously high interest rates;
- videos showing agricultural tools being made by father and son;
- images of CD sellers who explain how they smuggle their CDs on the market;
- videos of individual stall holders;
- audio recordings of stall holders' life stories;
- digital maps (AutoCAD) of the market stalls, where the origin and type of the products types are also documented.

³ <http://en.wikipedia.org/wiki/Mixtec>

Historial stories

The festivals of the Mixtec village San Agustín Tlacotepec play an important role in the culture. The heart of one festival is the theatrical performance of the Dance of the Twelve Knights of Charlemagne (Los Doce Pares de Francia). The text is of European medieval origin and deals with the confrontation between Christian and Islamic warriors in northern Spain. In early colonial Mexico, this topic was introduced to replace the pre-colonial royal dramas, such as the tragedy of Lord 8 Deer 'Jaguar Claw' and Lady 6 Monkey 'Power of the Plumed Serpent', based on events in the 11th century A.D., but considered "heathen" by the evangelizing Dominican monks in the 16th century.

The anthropological research questions concern the intercultural dynamics of life, using such materials as an example. How was this originally European topic integrated and adapted as a performance to celebrate indigenous community identity? The method involves three kinds of comparisons.

1. By comparing the Mixtec and European versions of the Dance of the Twelve Knights of Charlemagne, it can be established how the storyline has been developed in this specific Mesoamerican context, which aspects were stressed, which parts were skipped or rephrased, etc.
2. By comparing the composition to the dramatic and epic quality of the pre-colonial Mixtec literature, as preserved in the pictorial manuscripts, now in European museum collections (Jansen & Pérez Jiménez 2005, 2007a). This aspect will involve the wider distribution of knowledge about ancient Mixtec pictorial manuscripts and related visual art in the Mixtec region itself (where these materials are generally unknown).
3. By comparing the focal points and (implicit) values of the Mixtec community dance to concerns of everyday life (e.g., economic hardship, ambitions and problems on the village level, local artistic creativity, recent social and cultural changes.)

This should become a focal point for developing an intercontinental network in which scholars interested in the Mixtec region can communicate about Mixtec cultural heritage and language, among themselves, with students, but first and foremost also with Mixtecs.

The Mixtec region is now passing through an economic boom with high schools and internet cafes providing access to the WWW. The government of the State of Oaxaca is also founding centres of advanced education, such as the high level Universidad Tecnológica de la Mixteca in Huajuapán and Chalcatongo (close to San Agustín Tlacotepec), and promoting the region for cultural tourism. This, together with the scholarly need to incorporate the Mixtec themselves in the research on Mixtec cultural heritage and language, provides the general context for this project.

Available media

Four major pre-colonial Mixtec pictorial manuscripts⁴ have been edited in facsimile editions and studied and commented upon by Jansen and Pérez Jiménez. Their interpretation is based on the combination of iconographical analysis, the study of historical documents and ethnographic research in contemporary Mixtec communities, using the Mixtec language. These painted screenfold books use a sophisticated pictographic (and figurative) system to tell the stories of the royal dynasties that ruled the Mixtec kingdoms between ca. 900 A.D. and the 16th century. The work of Jansen and Pérez Jiménez has focused on the reading of their contents (images) in the Mixtec language and in terms of the Mixtec culture, to provide new interpretations and to make the ancient history accessible for modern Mixtecs. These books are digitally available, as are the commentary texts (in English and Spanish).

A large collection of digital photographs of the Mixtec region (ethnography as well as archaeology) and documentary film is available. This material includes market scenes, interviews in the Mixtec language, production process of material culture, rituals and feasts, plus a documentary movie on Sicilian puppet play, which may be used to compare with the feast of San Agustín Tlacotepec.

Exploring and linking stories and artefacts

Given this cultural richness and diversity of materials, the goal of the project is to investigate how the different users should be supported in exploring connections amongst the stories expressed in the different media. For example, minor characters in one story, such as the role of the shrimps in the buying and selling dramas, may become the main characters in the story of shrimp production.

Using these materials in museum-based presentations is extremely problematic since de-contextualisation takes place, however many precautions are taken. In order to reduce the problems of presenting material out of context, the project will investigate interfaces that allow users to explore, while retaining an understanding for where the material comes from and how it relates to other material. When presenting stories or artefacts, a context needs to be sketched that does not come across as “stuffy” or “academic” but pays attention to contemporary values and meanings. Exploring visualization techniques gives the potential for observation, analysis and even enrichment of data through browsing periods, locations, activities and the relations between them.

Similar work has been carried out in a Finnish context (Junnila et al., 2006), where the motivation was to describe stories in such a way as to make them more easily accessible through improved search and links from related resources. These descriptions take the situations and actions that took place in the real world into account. Their collections also include stories which reference other resources in the

⁴ Codex Bodley in Bodleian Library, Oxford,
Codex Nuttall in British Museum,
Codex Selden in Bodleian Library, Oxford
Codex Vindobonensis in “Osterreichische Nationalbibliothek, Vienna.

collections. Their story description is an extremely useful starting point for this work, although the role of the stories is less of a subject of study in itself.

In this proposal, the stories expressed in the materials are situated in a historical context. The artefacts, along with their corresponding digital images, are themselves contextualised by the stories in which they are mentioned. These provide potential “pivot points” for exploring the collections of stories. Characters in the stories and locations of the stories also provide similar pivot points.

4a Scientific aspects

The key goal of the research is to investigate appropriate support for presenting stories contained within the collection in a historical context, and also to present related artefacts in the context of the stories. Questions include:

- To what degree of detail should the stories, embedded within the materials, be modelled to allow scholarly comparison?
- To what extent is the set of stories fixed by the materials available, or can new stories be created, depending on a user’s interests?
- To what extent can the role of the artefacts in the collection be contextualised, given the stories in which they appear?
- How can the context of the individual pieces of material be preserved while still allowing them to become part of other stories?
- Can the existing collection be used to encourage users to add their own stories and experiences to the collections?

A large amount of effort will go towards capturing detailed requirements of the different types of users, translate these into prototypes of potential support which can then be used to provide feedback into refining the user (thus project) requirements. For the ethnographical researchers, this will involve modelling story descriptions to allow maximum ease of comparison.

Mixtecan students will be encouraged to become involved with the stories and related materials and artefacts, and asked about the connections they would like to see, or add themselves.

At a later stage in the project, the more generally interested users will have access to partially connected materials and can then be asked for their specific requirements.

4b Multidisciplinary cooperation

Jansen, University of Leiden, and van Broekhoven, RMV⁵ Leiden, have worked together previously. Their experience in the topic will guide the requirements of the project. The CWI⁶ team, Amsterdam, is a member of the MultimediaN E-Culture project, which developed a data framework and methods for converting databases to use Semantic Web languages (Ossenbruggen et al., 2007). These provide potential technologies to be used for describing and linking the stories, the materials and the artefacts. In addition, previous work has been carried out by the CWI team on the creation of structured (argumentation) sequences from video material (Bocconi, 2006).

⁵ Dutch national museum of ethnology.

⁶ CWI is the Dutch national research institute for mathematics and computer science.

Film-maker Itandehui Jansen (University of Leiden, Faculty of Arts) will be available to contribute story and narrative expertise to the project on a consultancy basis. The Leiden research team also has strong contacts with documentary film makers both in the Netherlands and in Mexico.

The CATCH positions will be distributed as follows:

4 year PhD student at the University of Leiden (while the candidate will be selected in open competition, a highly suitable candidate is already available)

3 year postdoc, CWI

4 year scientific programmer, CWI

The AIO while based in Leiden will visit CWI regularly and will also travel to Mexico. The CWI postdoc will keep close contact with the Leiden team.

4c Relevance

The project will provide reusable models and open source software to provide access to a wide range of narrative cultural data. While the project's concrete deliverables will be centred on Mixtecan narratives, artefacts and their rich interrelations, the underlying models and techniques developed will be applicable to many other forms of immaterial heritage that represent narrative, such as theatre, oral storytelling, dance and music. The models and tools developed to support modelling and tracking of multiple interpretations of digital media assets and physical artefacts in a narrative context is reusable in a wide variety of research fields within the humanities.

The focus on the Mixtecan dataset will also serve to open up digital repositories (currently closed or accessible only to a limited number of European researchers) to a wider audience, in particular to descendant communities who are particularly interested in the topic. In parallel, the exploration of the use of stories to (re)contextualise both media fragments and museum artefacts can be re-used in other disciplines.

5 Literature

(Junnila et al., 2006) M. Junnila, E. Hyvönen, and M. Salminen. Describing and linking cultural semantic content by using situations and actions. In *Semantic Web at Work- Proceedings of the 12th Finnish Artificial Intelligence Conference STeP 2006, Volume 1.*, Nov 2006

(Bocconi 2006) Stefano Bocconi. Vox Populi: generating video documentaries from semantically annotated media repositories, PhD thesis.
<http://www.di.unito.it/~sbocconi/CWI/Work/Thesis/thesis.pdf>

(Ossenbruggen et al., 2007) Jacco van Ossenbruggen, Alia Amin, Lynda Hardman, Michiel Hildebrand, Mark van Assem, Borys Omelayenko, Guus Schreiber, Anna Tordai, Victor de Boer, Bob Wielinga, Jan Wielemaker, Marco de Niet, Jos Taekema, Marie-France van Orsouw, and Annemiek Teesing. [Searching and Annotating Virtual Heritage Collections with Semantic-Web Techniques](#). In: *Museums and the Web 2007*, April 11-14, 2007

Mixtec specific literature

Blunno, Merry

1994 Los doce pares de Francia. Historia para teatro campesino en tres noches. Gobierno del Estado Morelos, México.

Geurds, Alexander

2007 *Grounding the Past: the praxis of participatory archaeology in the Mixteca Alta, Oaxaca, Mexico*. CNWS Research School of Asian, African and Amerindian Studies, Leiden.

Jansen, Maarten & G. Aurora Pérez Jiménez

2005 *Codex Bodley. A Painted Chronicle from the Mixtec Highlands, Mexico*. Series: Treasures from the Bodleian Library, vol. 1. Bodleian Library, Oxford.

Jansen, Maarten & G. Aurora Pérez Jiménez

2007a *Encounter with the Plumed Serpent. Drama and Power in the Heart of Mesoamerica*. Series: Mesoamerican Worlds. University of Colorado Press, Boulder.

Jansen, Maarten & G. Aurora Pérez Jiménez

2007b *Historia, literatura e ideología de Ñuu Dzauí. El Códice Añute y su contexto histórico-cultural*. Colección Voces del Fondo / Serie Ethnohistoria, Instituto Estatal de Educación Pública, Oaxaca.

Jansen, Maarten E.R.G.N. & Laura N.K. van Broekhoven (eds.)

2008 *Mixtec Writing and Society / Escritura de Ñuu Dzauí*. Verhandelingen, Afdeling Letterkunde, Nieuwe Reeks deel 191. Royal Netherlands Academy of Arts and Sciences, Amsterdam.

Monaghan, John

1995 *The Covenants with Earth and Rain. Exchange, sacrifice, and revelation in Mixtec sociality*. University of Oklahoma Press, Norman.

Spoes, Ronald

2007 *Ñuu Ñudzahui. La Mixteca de Oaxaca. La evolución de la cultura mixteca desde los primeros pueblos preclásicos hasta la Independencia*. Instituto Estatal de Educación Pública de Oaxaca, Oaxaca.

Van Broekhoven, Laura N.K. (ed.)

2006 *The Social and Linguistic Heritage of Native Peoples in the Americas: The Struggle to Maintain Cultural Particularity*. Lampeter: The Edwin Mellen Press.