

# @rtec: Art and Technology in the Cultural Industries

Ana L. Lima, Rui Castro, Henrique Silva, Prof.-Ing. Paulo Dias,  
Prof. Dr.-Ing. Adérito Marcos

## Introduction

Regions furthest from the national decision-making centres and consequently from the hub of economic and cultural activity believe that they suffer from continuing disadvantages. This situation has created a feeling of being abandoned that has led to a growing mobilization against further isolation on the part of the populations the Northern region of Portugal and of Galicia.

The @rtec project – Art and Technology in the Cultural Industries – is co-financed by InterReg IIIA and its partners are the Bienal de Vila Nova de Cerveira (Biennial of Vila Nova de Cerveira), the Centro Cultural de Deputación de Ourense (Cultural Centre of the Municipal Council of Ourense), the Universities of Minho and Vigo, the Câmara Municipal de Vila Nova de Cerveira (Municipal Council of Vila Nova de Cerveira), and the Centro de Computação Gráfica (Centre of Computer Graphics). The aim of the project is to strengthen and accomplish their objective of cultural cooperation and development, both technological and formative, in order to reduce the disparity between the border regions and the big urban centres.

## The Project

This project can be defined by three words: Education, production and dissemination. It is an ambitious project that requires the participation of specialists in various areas of the arts and technology, but also the co-operation of people who hold the power of territorial administration, both local and business-related, in order to allow the setting up of methodologies for attaining the following objectives: The development and re-population of Alto Minho and Galicia, e.g. the creation of an environmentally-friendly industrial base that allows for a balanced and high quality development of tourism.

## Cultural Events

In this area, some events of the 12th Biennial of Cerveira in 2004 took place in the Centro Cultural de Ourense (Cultural Centre of Ourense) and in the Faculdade de Belas Artes de Pontevedra (Faculty of Fine Arts of Pontevedra) with representatives of Portuguese artists and discussion forums on the subject of »O Artista e a globalização – o seu papel como actor social« (The artist and globalization – his role as a social participant).

In the other direction, a number of Galician artists physically participated as guests in the Biennial in Cerveira, as much in the exhibition areas with music and dance shows, as in art workshops that have been a constant in all the biennials and which will be dedicated in the 12th Biennial of Cerveira exclusively to the exchange of experiences and discussions between Galician and Northern Portuguese artists.

In this respect, in 2004 an exhibition of contemporary Galician artists will take place in the Fórum Cultural de Cerveira (Cultural Forum of Cerveira) followed by other cultural activities e.g. street theatre, a series of conferences, and a painting and sculpture workshop.

## German Abstract

Der entstehende Globalisierungsprozess von Kommunikationsnetzwerken im Kontext der Informations- und Wissensgesellschaft stellt neue Herausforderungen für die Entwicklung von multikulturellen und multilingualen Gemeinschaften der Grenzregionen von Nord-Portugal und Galicien, vor allem in der Förderung von Innovationen und der Kooperation im kulturellen Bereich, dar. In diesem Kontext werden die Prozesse der Identitätsbestätigung und besonders in der Aufwertung kultureller Aktivitäten der Grenzregionen präsentiert. Die Zielsetzung des @rtec Projekts ist das Zusammenfügen der Verbindungsglieder zu einem Gesamtbild von voranschreitenden Initiativen im Bereich der Kunst und der sozio-ökonomischen Entwicklung durch Förderung der kulturellen Industrien in den Grenzregionen.



Figure1: @rtec project website  
(<http://artec-dev.ccg.pt>)



Figure 2: Brochure of Bienal de Vila Nova de Cerveira



Figure 3: Example of virtual room in the virtual museum



Figure 4: An example of a PDA as mobile guide

### Virtual Museum

The exhibitions of Contemporary Art provide a valuable and large number of works that have a high value for the citizens from both sides of the border, who cannot benefit from the potentials generated by digital means for access to this cultural information.

These general events, however, are subject to a lack of means for digitally capturing sensitive art objects, as well as the lack of a platform (a digital repository) that supports the storage and subsequent publication of these artistic works on the Internet. The main objectives of the Virtual Museum, therefore, are:

- The development of a web platform adequate for the requirements of the Biennial and the Centro Cultural de Ourense. This task includes the development of a portal (as a unique access point to the digitized collections of the partners), a back office (to insert the data in a fast and easy way), repositories (for storage and searching of cultural information), and virtual exhibition rooms (to hold a permanent exhibition of the art objects in the repositories),
- the training of museum technicians in the fields of digitisation and treatment of digital images.

### Mobile Guide for visitor assistance

Currently, mobile technologies are undergoing a massive dissemination process, as they are available anywhere and in almost every situation. The purpose of this project is to explore these new capabilities in order to create a mobile guide to assist visitors to the Biennial of Vila Nova de Cerveira, Portugal. The main goal is to create innovative ways of visiting the museum, thus enabling the visitor to discover a world full of culture and so that the type and quantity of information should be of the personal choice of the visitor.

### Virtual workshops

The virtual workshops are an implementation of innovative forms of work using technologies developed in recent I&D projects in the context of Computer Graphics. These workshops take the following forms in the context of the present project:

- A virtual workshop as an environment for teaching and training,
- a virtual environment as a material demonstrator and virtual prototyping system.

In the context of this project the scenarios are presented as an experimental and simulation tool for the manual tasks that most times take up a lot of time and are highly costly.

The Virtual Reality System offers the following advantages:

- Cost reduction in the areas of training and experimentation,
- the possibility of repeating sequences in a short period of time,
- an independence of actions, i.e. the carrying out of an action does not imply that the previous ones also have to be carried out, and
- almost no need for informatics knowledge.

### Professional Training

This project also aims at creating a set of basic initiatives that sustain the development of the border territories of Galicia and the North of Portugal. The final objective is to create new opportunities for their citizens with the purpose of improving the peripheral economies of cross-border regions. In this respect, Professional Training will play an important role for the accomplishment of this objective.

### Project co-ordinator

Prof. Henrique Silva  
 Bienal Internacional de Arte de Vila Nova de Cerveira.  
 Email: info@bienaldecerveira.org

### Points of contact

Prof. Dr.-Ing. Adérito Marcos  
 Dipl.-Ing. Ana L. Lima  
 Rui Castro  
 Centro Computação Gráfica  
 Guimarães, Portugal  
 Email: aderito.marcos@ccg.pt  
 ana.lima@ccg.pt  
 rui.castro@ccg.pt

Prof.-Ing. Paulo Dias  
 University of Minho  
 Guimarães, Portugal  
 Email: paulodias@nonio.uminho.pt