DON QUIXOTE ILLUSTRATED:
AN INTERNATIONAL DIGITAL HUMANITIES PROJECT

Eduardo Urbina*, Fernando González Moreno^, Richard Furuta#, Jie Deng#, Steven E. Smith°, Víctor Agosto*, Miguel Muñiz* and Stephanie Elquist°

*Department of Hispanic Studies, #Center for the Study of Digital Libraries, °Cushing Memorial Library and Archives
Texas A&M University
College Station, Texas/United States
^Cátedra Cervantes, University of Castilla-La Mancha,
Ciudad Real/Spain

Abstract

Visual representations like theatrical performances, films, and popular iconography have been recognized as significant contributions to the iconization of Cervantes' *Don Quixote*. Nevertheless, the thousands of illustrations that have accompanied the text are still a little known artistic tradition and a much neglected critical and didactic resource. The *Cervantes Project* (CP) initiated in 2001 the creation of a fully accessible, searchable and documented digital archive to include all the illustrations that form the textual iconography of the *Quixote* to establish their contribution to the reception and interpretation of the text. Such archive, now a reality, constitutes a digital repository that makes accessible for the first time a rare visual resource to scholars, students and users in general interested in Cervantes' work from multiple perspectives: textual, artistic, critical, bibliographical, and historical (http://dqi.tamu.edu).

Keywords

Quixote, Cervantes, Illustrations, Digital Archives, Digital Humanities

1. BACKGROUND

The *Cervantes Project* is an ongoing long-term project and research initiative dedicated to the development of a comprehensive digital archive based on the works of Miguel de Cervantes (1547-1616), the cornerstone of Hispanic letters and one of the world's most influential authors. In partnership with the Center for the Study of Digital Libraries and the Cushing Memorial Library and Archives, a division of the Texas A&M University Libraries, our goal is to create an online repository of textual, documentary, bibliographic, and visual electronic resources to serve the needs of students and scholars interested in Cervantes' life, times and work, and focused in particular on the study of *Don Quixote de la Mancha* (http://cervantes.tamu.edu).

In 1605 Miguel de Cervantes (1547-1616) published in Madrid the first part of *Don Quixote de la Mancha*, the first modern novel and perhaps the most influential work of fiction ever written. And yet, in spite of its universal fame and canonical status, most people know it through some artistic representation, and indeed, it is often remarked that the *Quixote* is a much talked-about but seldom read text. Its protagonist, the ingenious knight, is widely recognized as a modern myth and a symbol of man's individualism through repeated reincarnations in art, film, music, and literature, but the thousands of illustrations depicting his adventures were until very recently a much neglected artistic treasure [1, 2, 3]. Although some selective illustrations are occasionally included in critical and bibliographical studies, the complete iconographic record has remained inaccessible and unknown for almost 400 hundred years.

Hundreds of artists have illustrated the *Quixote* following their own understanding and views of the text, or at times pushed by the needs and desires of an editor or institution, but all trying to capture and replicate in the few instances afforded by their images the genius of Cervantes, in their particular time and place, and for their intended public. Thus, the illustrated history of the *Quixote* shows that the visual readings and interpretations of the narrative are representative in technique, approach, and perspective of the means and views characteristic of each age and century, from the early baroque woodcuts of the 1600s to the colorful surrealistic drawings of the 20th century. Indeed, as John Harthan has observed, "A history of modern book illustration could almost be written in terms of this perennially popular classic alone" (153) [4]. The illustrators are able to create images capable of representing complex narrative meanings, settings, and characterization as visual readings. Their designs and engravings make tangible and accessible the fictive reality described by the author in his text; they are both a useful critical guide and an effective graphic reference to see what we are told, to confirm the reality of the words. At their best, they not only depict imaginary actions but graphically illuminate and elucidate the text for the reader as visual annotations.

The interpretative tradition represented by the textual iconography owes its existence, ironically, to a gradual tendency in the textual history of the *Quixote* to complement and amplify the text with multiple paratextual elements such as portraits, biographies, maps, documents, and, of course, illustrations, in an apparent effort to make the *Quixote* a more accessible and better understood and appreciated classic. These additions by well-intentioned editors and publishers had the collateral effect of diminishing the attention dedicated to the accurate presentation of the text, even to the point of textual precision becoming a secondary matter. On the other hand, this approach resulted in the fortunate creation of an extensive artistic and interpretative tradition, an extensive history of visual readings that conditioned and preempted at times a serious textual reading, while producing a false sense of knowledge and familiarity about the character, his life and adventures. In fact, the illustrations allow us to see, and thus to know, not only the never-read but also the never-seen fictional world imagined by Don Quixote in the text.

2. COLLABORATIVE WORK

The main rare book collection supporting our project is the *Cervantes Project Eduardo Urbina Collection* at the Cushing Memorial Library and Archives of Texas A&M University. In recent years, the Cervantes Project and the Cushing Memorial Library have acquired a large number of significant illustrated editions for the purpose of creating a comprehensive collection of illustrated editions of the *Quixote*. At present, the collection includes over 800 editions, published since 1617 and comprises close to 2,000 volumes, with a concentration in 18th and 19th century English, French, and Spanish illustrated editions. More than 22,000 images have been digitized and annotated and are currently available online, supported by finding aids and flexible search tools [5].

The Cushing Memorial Library of Texas A&M University provides management of the physical collection, cataloging expertise, and acquisition oversight as well as key archival support and digitization services for the project. Such robust infrastructure and institutional support ensure the comprehensiveness and future value of the digital archive derived from our collection, already one of the preeminent rare book Cervantes collections in the world. Furthermore, on the technical side, the ongoing collaboration with the Center for the Study of Digital Libraries and our leading role and participation in the Digital Humanities Program initiative at Texas A&M further guaranties the sustainability of the archive and reliable access to its content. Finally, the collaboration established with the Universidad de Castilla-La Mancha and the Cátedra Cervantes in 2003 has provided not only additional resources to support graduate student research but stability and key critical expertise in art history and book illustration.

3. CURRENT RESEARCH

4.1 Related work

Early interest in the illustrations had been minimal and sporadic [6, 7, 8]. In 1879 a volume was published containing 101 illustrations from 60 editions to complement the first facsimile edition [9]. In 1895 H. S. Ashbee published a catalogue of his own collection of plates and illustrated editions in which he attempts the first comprehensive description of the textual iconography of the *Quixote;* an indispensable reference even today, and the obligatory point of departure for any research on the subject [10]. And in 1947, on the occasion of the 400th anniversary of Cervantes' birth, Juan Givanel and 'Galziel' published the *Historia gráfica de Cervantes y el* Quijote, a very ambitious and valuable contribution in which 77 illustrations are reproduced and analyzed in some detail [11]. Serious scholarly interest in the illustrations of the *Quixote* did not surface until late in the 20th century with the appearance of three critical monographs published between 1987 and 1999 [12, 13, 14]. Most recently, Patrick Lenaghan directed in 2003an exhibit at the Museo del Prado in Madrid entitled *Images of* Don Quixote*,* and collaborated in the publication of a richly documented catalogue [15], while José Manuel Lucía Mejías has contributed since 2005 several key studies and catalogues [16, 17, 18]. Finally, the *Centro de Estudios Cervantinos* in Alcalá de Henares announced in 2005, the development of an image database of illustrations prepared under the direction of José Manuel Lucía Megías, in cooperation with several other institutions [19].

4.2 Development of Archive

Our research on the illustrations of the *Quixote* and the development of the archive since 2001 encompass several fields: Cervantes studies, book illustration, art history and digital libraries [20, 21, 22, 23]. Specifically for the textual iconography, an XML schema is created representing the complex and highly significant interrelationships of episodes and adventures traceable throughout the entire text of the *Quixote* as identified and tagged in our narrative taxonomy. Initially two texts of the *Quixote*, one in Spanish and one in English, will be fully encoded in TEI XML (Text Encoding Initiative) in the second phase of the textual iconography project. And in the years to come we will investigate scanning and encoding additional key critical/textual editions of the *Quixote* in XML using the same TEI DTD. Since, this mark-up includes elements created by project staff as modifications of the TEI DTD to represent the various episodes, adventures, themes and motifs present in the narrative, these additionally encoded texts will provide an even richer searching opportunity for Cervantes scholars.

A searchable MySQL database containing metadata for the digital images of illustrations in editions of the *Quixote* in our collection in 19 different fields forms the main part of the textual iconography component of the *Cervantes Project*. This metadata includes technical information produced when the images are created, some of which remains in the archive of master copies with the TIFF as embedded data, to be replicated in the database. Extensive descriptive, structural, and additional administrative metadata for the digitized images of the illustrations, based on the Dublin Core Metadata Element Set is also entered into workforms by project staff. The metadata entered into the image database includes also and most importantly for Cervantes scholars, terms referring to the appropriate adventures and episodes relevant to the illustrations.

4.3 Digitization

During the first two years of the project images were produced by Texas A&M University Digital Library (TAMUDL). Approximately 5300 images were captured using a Nikon D100 digital camera with Tungsten incandescent lighting and saved as 300ppi Tiff files. The book selection list was supplied to Cushing Library. In 2006, this process was reviewed and it was determined that the resolution limitation of the Nikon, the lack of a specialized book cradle for fragile books, and the drawback of incandescent lighting required an upgrade in equipment. An i2s Digibook Suprascan 10000 RGB rare book scanner was purchased by the Texas A&M University Libraries and is housed at the Cushing Memorial Library. Since mid-2006, approximately 22,000 images for the Cervantes Project have been generated from this scanner.

This scanner addresses document preservation with a mechanical system that moves the scanner head and the lighting simultaneously. This arm passes freely above the material in the cradle, with no direct

contact at all. The inherent high-frequency fluorescent lighting provides flicker free operation and does not generate any heat which can dry or fade materials, or damage the CCD scanning cameras due to their sensitivity to heat.   Calibration is determined by measuring the width of the opened book and the machine is set to the desired capture dimensions. On average, one scan arm pass takes approximately 35 seconds. The bi-directional mode, which allows for scanning whether the arm is in the right or left position, minimizes the time between each scan. The preview image display during the digitization phase and the image recording are independent of scanning operation, also contributes to a higher productivity rate.

The resolution setting is 600 ppi, and each image is saved in uncompressed TIFF format. The acquisition gamma is typically set at 0.5. However, when scanning extremely dark material, such as book covers, the gamma may be lowered to 0.4 in order to lighten the image enough to enhance detail.
Preview scans are made and checked for the desired degree of sharpness, and then the image is saved. Scanning proceeds, each preview being inspected for focus deterioration. Resetting the scanner focus occurs approximately when 1/3 inch of pages have been turned. The file size for each image varies depending upon the size of the book, from approximately 8 MB to 195 MB per image. The technical metadata that is automatically embedded in each image by the scanner include the scanner make and model, as well as the digitization date, resolution, and pixel dimensions.

Each image is opened and inspected using PhotoShop CS2. While the image is open editing and manipulation are performed to provide best viewing of the digitized illustration. Most images require some rotation. Rotations are performed only once to preserve image clarity, if additional rotations are needed, the image is restored to its original state and the degree of rotation is changed. Images are then cropped just inside the edge of the page. If the illustration or text is skewed or distorted, the transform tool is used to stretch the image to the desired position. No adjustments of levels or color are performed. The edited version is not reduced in resolution, size, or format. The edited version is then saved separately from the master copy.

Derivative image files representing the illustrations, for display and access purposes, are created by project staff in the JPEG file format using Adobe Photoshop 6.0 software and other custom applications based on open-source software. Some administrative metadata is produced automatically when the file is opened by project staff in Adobe Photoshop 6.0. Note that while JPEG files are convenient for encoding steps and for Web viewing because of their smaller file size and reduced resolution more closely matching screen resolutions, the original TIFF images are also being maintained in stable archival storage. It is likely that we will want to generate new display images in the future from the archival TIFFs as display and network speeds improve. The unique identifiers will allow these new images to be associated seamlessly with the earlier encoded metadata.

4.4 Preservation and Access

The Texas A&M University Library currently houses the *Quixote* image collection on a NetApp 3020 filer. This storage device utilizes the write anywhere file layout (WAFL) file system which provides a high redundancy RAID configuration and snapshot (read only copies) capabilities. These features allow the TAMU Library to provide point-in-time recovery of items in the collection for up to two weeks. The TAMU Library uses their new Quantum i2000 tape library to store a third copy (dark archive) of the collection on tape. The tapes are stored off-site to allow for disaster recovery.

The master images are saved to an archive, which is housed on a live server and currently contains over 3 TB of data. After images from each edition are manipulated in PhotoShop, these cropped versions are also uploaded to the archive. Within the archive, each edition has a folder containing the both master and manipulated copies of the image. Folder names are an abbreviated version of the file name: year, city, and publisher.

Two multilayered search engines, one for editions and one for illustrations, provide flexible and interactive access to all the contents of the archive, in isolation or combining fields, making possible the search of very discrete items as well as of general sets of items, i.e., editions of the *Quixote* in English published in

Philadelphia between 1800 and 1815 in four 12mo volumes; French continuations and imitations of the *Quixote* published in Paris between 1920 and 1930; or Spanish children's editions published in the 18th century.

The Search engine for illustrations permits the localization and visualization of individual illustrations by any given artists, illustrations from any particular year or time period, of any type or with any technique, black or white or in color. The tool also allows group visualization of illustrations combining the above described elements with any of the categories or divisions present in the narrative taxonomy of episodes and adventures. In addition, three finding aids are part of the current browsing functionality of the archive:

1. Browse index of the Cervantes Project collection
2. Browse illustrations by chapter, episodes and adventures
3. Browse image archive by content

The Cervantes Project collection tool provides classification and description of its contents in 15 different fields, one of which is the Index. Clicking on the Index link (the default is by Year) reorders the items in the collection according to 5 main categories and 14 subcategories.

4. CONCLUSION

Given the access limitations and inadequacies of previous resources in print, our digital archive of *Quixote* illustrations represents a revolutionary leap forward in the preservation and access of rare book collections, while the development and application of new advances in information technology significantly increase the scholarly value and educational use of the archive. The CP's textual iconography archive gives users not only access to more illustrations in a more flexible format, but also places users in control, able to select, connect, display and analyze the visual data at their command for their own individual needs and purposes.

The wide interdisciplinary interest in the *Quixote* throughout the centuries, its canonical and seminal status in the creation of the novel as a genre, its traditional inclusion in world literature courses, and its iconic status in Hispanic culture, are all factors that ensure a broad interest in the visual materials made available by our project and a large, constant, and diverse audience: scholars in literary and book history interested in evaluating the reception and development of the text--written and visual--, students of the novel and of illustrations researching the role and function of iconography in narrative, and curious readers interested in seeing and appreciating a no-longer-rare visual tradition.

What Sancho predicted in all his wisdom has come to past: "I'll wager, said Sancho, that before long there won't be a tavern, an inn, a hostelry, or a barbershop where the history of our deeds isn't painted" (II.71, 923). Within the tradition of the illustrated book, the textual iconography the *Quixote* has fulfilled Sancho's burlesque prophecy making visible and real what was never seen in the text.

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