

# El Oro: Animating Humanities Research

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Figure 1: Animating El Oro, 2017.

## ABSTRACT

Traditional historical research media, such as text, can allow for a great deal of exposition and elaboration. This works well to fully articulate complex ideas and arguments to fellow scholars. However, it is not conducive to engaging unfamiliar non-scholars. This limits both the potential reach of the research and growth of audience. In contrast, animation often requires ideas, emotions, and performance be broken down into their simplest term(s) in order to be presented efficiently to an audience.

Animating El Oro is a collaborative research project between historians and animators. It explores animation as a means of communicating narrative and historical argument. The result offers lessons on how historians can broaden audiences and communicate nuances without prose. These lessons are of importance to historical researchers and educators.

During WWII the United States came to the aid of El Oro, Ecuador in an attempt to stem the spread of fascism. This project is an animated depiction of a research argument surrounding this effort, presented from the Latin American perspective.

## CCS CONCEPTS

• **Human centered computing** → **Visualization**;

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## KEYWORDS

History, argument, animation

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## 1 INTRODUCTION

Traditional archival research reveals that despite best intentions and considerable resources, American efforts in El Oro often failed because of a lack of cultural understanding. Moments of cross-cultural partnership generated positive change, while American attempts to impose technologies, norms, and social patterns failed. These key concepts were the focus of the historical research efforts.

The animation team was responsible for condensing the research information into an engaging narrative, clearly explaining the selected historical concepts. The main character of the story is the village of El Oro itself. Individual characters represent the interests and issues of larger stakeholder groups. There is no voice over or narration to maximize audience reach, and to test the ability of animation alone to communicate key information. The production design maintained historical accuracy by referencing an extensive photographic archive.

## 2 ANIMATION

The final animation is a visual representation of four main topics outlined within the historical argument. These include medical availability, economic impact of exportation, water systems, and agriculture. Each of these visual narratives were developed independently and then woven together to emphasize the village as the main "character" of the animation. A simplistic aesthetic was

chosen in an effort to retain focus on narrative over visual fidelity, and to allow for rapid production. The final animation production was completed in six weeks.

## 2.1 Evaluation

The animation's effectiveness has been initially measure by a group comparison study. An experimental group was shown the animation, and a control group was provided a text document covering the same events and concepts. Both groups completed a questionnaire after reading or viewing the material. Each group was composed of university students with no knowledge of the subject matter. Those shown the animation scored higher on the questionnaire by an average of sixteen percent, better able to identify the key concept take-aways intended. Following the questionnaire both group types engaged in self-directed discussion sessions. The experiment group's ran longer than those from the control group, ranging between nineteen to twenty-six minutes. The control group discussions ranged between ten to seventeen minutes. Each session began with a prompt asking to describe the key points of what they saw or read.

The experiment group results indicated a higher likeliness to continue investigating the topic than the control group. The primary reason given was the use of animation. The students cited characterization and putting a "face" to the ideas, highlighting the impact of seeing the events and concepts play out. During the discussion sessions students referred to the characters and their actions as a means of discussing the larger questions and ideas being presented. While they did not show an understanding of the exact terminology of the concepts, they showed basic understanding of the concepts themselves.

## 2.2 Historian Response

The completed animation was presented to traditional historians during panel discussions at invited conferences. They initially reacted negatively, believing the animation to be non-scholarly, and simply "cute" entertainment. That view shifted significantly upon explaining the goal of the project was not for animation itself to be the research, but to act as a teaser to inspire wider, more digitally savvy, audiences to seek out traditional research publications.

Our team historians also provided the completed animation to faculty colleagues at other universities who introduced it into the classroom. These professors joined us to discuss the benefits of using animation to visualize historical concepts and events at the 2016 Latin American Studies Association: International Congress.

## 2.3 Workflow Adoption

There was another completely unexpected development from this project: historians recognized story and performance practices utilized by animators are directly applicable to their own research methods. They have begun to use these techniques to arrive at succinct and pointed historical arguments more quickly and efficiently. This has become a key finding discussed at length during national and international conference presentations.

## 3 CONCLUSIONS AND FUTURE WORK

The completed project has shown the promise of animation as a viable extension of traditional humanities research. Initial research has shown viewers are more likely than non-viewers to seek out additional information. We are currently planning for continued testing of the project to learn more about its effectiveness, limitations, and any potential long term gains for research. Since the completion of the initial project we have received interest from other areas of study, including brain health, and speech and hearing.

We have publisher interest to include a larger scale version of this project, with additional components, in an educational ebook publication.

New graduate courses are being developed to expose students to the use of animation for research argument purposes. We are also investigating how to further incorporate the use of animation story practices in humanities teaching and research.