

The Qumran Visualization Project: Prospects for Digital Humanities in Theological Libraries

by Benjamin P. Murphy

ABSTRACT: Digital Humanities are a hot topic in disciplines as varied as literature, history, and cultural studies, but at present theology and religious studies departments seem to be lagging behind. This essay will offer a critical review of one Digital Humanities project that is relevant to theological libraries and Biblical Studies: the Qumran Visualization Project. The essay discusses why theological libraries should begin considering the Digital Humanities, and it offers some strategies for how libraries can support, promote or otherwise engage with this type of project.

INTRODUCTION

Whereas many interdisciplinary fields evolve slowly, emerging only over time, the field of Digital Humanities (DH) has an identifiable beginning, and, somewhat surprisingly, it was in the realm of theology. In 1949, Father Roberto Busa had the unusual foresight to imagine how computers might assist him in his task of compiling all the Latin words used by Thomas Aquinas and his contemporaries.¹ So it is slightly ironic that as disciplines such as literature, history, and cultural studies race ahead in their embrace of the Digital Humanities, theology and religious studies departments lag behind. Charles Ess has noted in the *Companion to Digital Humanities* that “beyond the use of the Web and the Internet by believers and discussants – there appear to be comparatively fewer religiously oriented computing projects.”²

Defining DH is a somewhat fraught process, and there is perhaps no single definition that would satisfy all stakeholders.³ Yet Fr. Busa’s insight reflects the key question of what has become known as DH: how can computing technology be used to structure the data of the traditional humanities – words, texts, images, art, music, artifacts, etc. – into new forms that we can analyze, and through which we can explore new research questions? These computing tools enable things like textual analysis performed through text mining of digitized collections, spatial visualization of numeric data, and digitization of analog formats. Typical DH projects thus include digital critical editions of texts, multimedia digital repositories, mapping and visualization projects, and three-dimensional virtual modeling.⁴ DH is also collaborative, as it facilitates the sharing of data, offers new ways to build and display collections of humanities information, and ideally, allows users to conduct their own research with the end result.

¹ Susan Hockey, “The History of Humanities Computing,” in *A Companion to Digital Humanities*, Susan Schreibman, Ray Siemens and John Unsworth, eds. (Oxford: Blackwell, 2004). <http://www.digitalhumanities.org/companion/>

² Charles Ess, “‘Revolution? What Revolution?’ Successes and Limits of Computing Technologies in Philosophy and Religion,” in *A Companion to Digital Humanities*, Susan Schreibman, Ray Siemens and John Unsworth, eds. (Oxford: Blackwell, 2004.) <http://www.digitalhumanities.org/companion/>

³ For a sense of various attempts to define DH, see John Unsworth, “What is Humanities Computing and What is Not,” <http://people.lis.illinois.edu/~unsworth/mith.00.html>; Matthew G. Kirschenbaum, “What is Digital Humanities and What is it Doing in English Departments,” in *ADE Bulletin* 150 (2010), 55-61; and Patrick Svensson, “The Landscape of Digital Humanities,” in *Digital Humanities Quarterly* 4:1 (2010).

⁴ See Appendix for a list of DH projects related to theology and religious studies.

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DH may appear unsettling to those scholars who have made a living using traditional humanities methodologies: close readings of texts, exegesis, and careful historical contextualization. Some might argue that humanities information is unique, and therefore should be above the reach of computing tools, which are perceived as doing no more than quantifying humanities information. John Unsworth has summarized this objection, noting that “Statistics are about measuring the measurable, whereas the humanities are about effing the ineffable.”⁵ I do not intend to argue that DH tools replace or supersede traditional humanities methodologies, but instead that they *augment* them by opening up new potential avenues for research. A commonly cited example is that while humanities scholars of previous eras faced the problem of scarcity of resources, large and growing corpora of digitized texts pose the problem of abundance, and scholars need tools and methodologies to grapple with this problem.⁶ But in addition, DH augments methods of the traditional humanities because it forces us to ask new questions. For instance, how does a visualization of the movements of an author through time and space affect our reading of his or her texts?⁷ Does visually representing the words or phrases used in a set of texts change our close reading of those texts? Do new ways of structuring humanities data affect how we understand cultural change, social networks, or patterns of intellectual influence? There are no universal answers to these questions, but it is clear that DH forces us to interpret traditional data in new ways.

As institutions that support teaching and research in the humanities, theological libraries must, at minimum, begin to participate in DH by familiarizing themselves with these issues. While is perhaps not the role of theological libraries to create large-scale DH projects, the move towards DH raises issues that are relevant to them: how to collect, preserve, and make available digital resources; how to apprehend the move towards open access publications and new forms for scholarly publishing and peer review; and how new digital formats will be evaluated and judged by libraries, as well as by promotion and tenure committees. As a way of investigating these various possibilities, this essay will examine one recent DH project: the Qumran Visualization Project.⁸

THE QUMRAN VISUALIZATION PROJECT: WHY?

The Qumran Visualization Project, begun in 2005 at UCLA, is an attempt to visualize the archaeological remains at Khirbet Qumran. The authors aimed to create an interactive three-dimensional model of the site that can be viewed and navigated in real time. This project is a good case study for the present inquiry because, above all, it is a visually striking and easy-to-navigate project that is relevant as a pedagogical tool to any theological library that supports the study of Ancient Israel. Second, it attempts to serve both as a virtual model and an arena for testing hypotheses. The model itself does not support or critique any interpretation of the site (though the authors do hold to a particular view), but it uses DH tools to create a set of data that is subject to interpretation. Finally, while the scope of this project may be daunting to smaller libraries, or to those of us (myself included) who have no experience in the study of archaeology or virtual modeling, it highlights issues and lessons that can be applied and considered on a smaller scale.

⁵ John Unsworth. “Forms of Attention: Digital Humanities Beyond Representation.” <http://people.lis.illinois.edu/~unsworth/FOA?>

⁶ See, for example, Daniel Cohen’s comments in “Interchange: The Promise of Digital History.” *Journal Of American History* 95:2 (September 2008): 452-491.

⁷ Kenneth M. Price has raised this question about Walt Whitman in his project *Civil War Washington*, “Civil War Washington, the Walt Whitman Archive, and Some Present Editorial Challenges and Future Possibilities,” <http://www.whitmanarchive.org/about/articles/P5/anc.00550.html>

⁸ <http://www.virtualqumran.com>

THE QUMRAN VISUALIZATION PROJECT: A CRITICAL REVIEW

A complete history of the various interpretations of the site at Qumran would be beyond the scope of this essay.⁹ To summarize briefly, prior to the discovery of the Dead Sea Scrolls in 1947 and following years, most explorers and excavators interpreted the site at Qumran to be the remains of a fort or military outpost. After the discovery of the scrolls, the site was reinterpreted as a sectarian settlement created by a group of Jews, often identified as the Essenes, who were concerned with ritual purity. Though it has some variations, this interpretation can be considered the dominant one for the site. While a number of other theories and variations are extant, suffice it to say there is much disagreement, and the debates have often been less than cordial.¹⁰

In this contested atmosphere, the Qumran Visualization Project aims to treat the archaeology of Qumran on its own, without recourse to the textual content of the scrolls. The principal authors of the Qumran Visualization Project felt that most interpretations of the archaeology of Qumran use the presence of the Dead Sea Scrolls to influence their archaeological interpretation. And, according to Robert Cargill, one of the main authors who also completed a dissertation based on the project, most previous reconstructions “are not designed primarily to be analyses of archaeological data, but are rather designed to convince the viewer of a particular interpretation of the site that may be based on predetermined conclusions.”¹¹ Their solution is to provide a model that considers only the archaeology of the site, and that will also allow for competing hypotheses to be tested:

Given Qumran’s lack of an official reconstruction, and given the vast assortment of competing reinterpretations and suggestions regarding Qumran’s establishment and expansion, a comprehensive reconstruction of the archaeological data is warranted...The ideal solution would involve a single reconstruction of Qumran that best addresses all of the extant archaeological data while allowing an archaeologist to incorporate, compare and test existing and competing archaeological reconstructions.¹²

The Qumran Visualization Project attains this ambitious set of goals by modeling real space as closely as possible using the virtual modeling software Presagis Creator.¹³ This software plots archaeological measurements in a database, which displays those data both numerically and in three dimensions as geometry.¹⁴ The database has features called date- and data-switches, which allow for alternate data to be incorporated and tested, both archaeologically and diachronically, in order to allow for changes in the structure over time. In its capacity to

⁹ For a recent summary, see Robert Cargill, “The State of the Archaeological Debate at Qumran,” in *Currents in Biblical Research* 10, no. 1 (October, 2011): 101-118.

¹⁰ In a forum in *Near Eastern Archaeology* in which Cargill debated Jodi Magness about the project, Cargill felt obliged to add this addendum to his response to Cargill: “To conclude, I reiterate my call for openness and public debate concerning differing academic interpretations of Qumran archaeology. I find it refreshing that two scholars with differing interpretations can debate their differences openly and professionally, within the setting of a refereed journal. New ideas and technologies should be encouraged and discussed within these professional arenas, and not bantered about in the faceless, cowardly arena of the anonymous internet by aliases and sock puppets loyal to those who lack the professional integrity to engage in civil debate in their own name.” “A Response to Magness,” in *Near Eastern Archaeology* 72, no. 1 (2009), 44. Also, for a brief summary of alternate interpretations of Qumran, see Robert R. Cargill, *Qumran through (Real) Time: A Virtual Reconstruction of Qumran and the Dead Sea Scrolls* (Piscataway, NJ: Gorgias Press, 2009), 38-49.

¹¹ Cargill, *Qumran through (Real) Time*, 52.

¹² *Ibid.*, 53.

¹³ *Ibid.*, 80-81.

¹⁴ *Ibid.*, 58.

provide both vivid illustrations of archaeology, and a forum for competing hypotheses to be tested, the project has considerable value pedagogically, and also as a research platform. In addition, the virtual model has a democratizing potential, reducing barriers to participation in a usually arcane and highly specialized discipline.

It should be noted, of course, that the creators of the project do not simply offer up this tool for application by other scholars. Having created the model and tested various data, they offer their own interpretation of the site.¹⁵ However, in the context of libraries and librarianship, the primary criterion for evaluation will not be this interpretation, but a measure of how well it lives up to its goal of being both a pedagogical tool and a forum in which to conduct research.

As to the former, it certainly is an excellent pedagogical tool. The images on the website are vivid, and the brief videos that are included give an excellent sense of the scale of the site. In addition to helping non-archaeologists who cannot easily visualize a structure from a map or floor plan,¹⁶ the site is an excellent resource for demonstrating to students that real people lived, worked, ate, and worshipped at this site. The website includes visualizations of rooms such as the scriptorium,¹⁷ the water system,¹⁸ and various *miqva'ot* or ritual baths,¹⁹ and of mundane elements such as a flour mill.²⁰

Pedagogically, there is also the significant question of how this model affects the interpretation of the texts of the Dead Sea Scrolls. While the authors of the project did not use the scrolls to influence their archaeological model, can the model still have any effect on interpretation of the scrolls? Recently, Philip R. Davies has argued that “little or nothing in the archaeology of the site or the content of the texts sheds light on the other, far less provides a basis for explaining to other.”²¹ Davies, however, writes from the perspective of a historian. Certainly, in theology the interpretation of archaeological remains can have significant ramifications on theological perspectives, especially as they relate to biblical historiography.²² Where the biblical text is concerned, these can provoke highly charged and polarizing questions. The study of Qumran, then, offers a less confrontational platform in which the study of text and archaeology can be approached. Daniel Falk has considered the relationship of text and archaeology

¹⁵ Cargill's and other interpretations are given in visual form as a timeline here: http://www.nelc.ucla.edu/qumran/photos/Qumran_chronology_chart.jpg. Their argument, both on the website and more fully articulated in Cargill's book, rejects the notion the site must either have been a fortress or a sectarian Jewish settlement. Rather, analysis of the architecture through time suggests that the site was a Hasmonean fortress built on the foundation of a previous Iron Age settlement, then abandoned for a time, and reoccupied by a group of sectarian Jews who were highly concerned with ritual purity. It was this second group of occupants who were responsible for the creation and storage of the Dead Sea Scrolls in the caves near Qumran. This retelling of the evidence is rather convincing, though it has not gone uncontested. See, for example, Jodi Magness, “The Qumran Digital Model: A Response,” in *Near Eastern Archaeology* 72, no. 1 (03/01, 2009): 42-44.

¹⁶ <http://www.nelc.ucla.edu/qumran/about.html>

¹⁷ http://www.nelc.ucla.edu/qumran/photos/Scriptorium_2_1000.jpg

¹⁸ <http://www.nelc.ucla.edu/qumran/photos/108.jpg>

¹⁹ <http://www.nelc.ucla.edu/qumran/photos/115.jpg>

²⁰ <http://www.nelc.ucla.edu/qumran/photos/106.jpg>

²¹ Davies, “Between Text and Archaeology,” in *Dead Sea Discoveries* 18:3 (2011), 316-338: 320.

²² For an excellent assessment of the challenges of integrating Near Eastern archaeology into a Christian theological school see Scott R.A. Starbuck, “Why Declare the Things Forbidden? Classroom Integration of Ancient Near Eastern Archaeology with Biblical Studies in Theological Context,” in *Between Text and Artifact: Integrating Archaeology in Biblical Studies Teaching*, Milton C. Moreland, ed. (Brill: Leiden and Boston, 2004), 99-113.

as it relates to Qumran and concluded that one of the gravest dangers is the conflation of archaeological data and hypothetical synthesis or interpretation.²³ In this analysis, the methodology of the Qumran Visualization Project is to be valued, as it resists asserting that its model proves one or another hypotheses, and rather lends itself to testing a number of hypotheses. It is an innovative presentation of data in a new digital format that can be interpreted by its viewers. In this way, the model is also a pedagogical tool that can be used to foster critical thinking and evaluation.

For these reasons, it is unfortunate that the real time model of the site – the portion that would allow users to navigate the site in three dimensions, and test the model using date- and data-switches – is not currently available to the public.²⁴ Without this crucial feature of the project, it is difficult to render a final assessment. While it is an excellent visual tool for thinking about Qumran, at present it lacks the component that would allow it to be a fully interactive site in which research and the testing of hypotheses could occur.

DIGITAL HUMANITIES: WHY THEOLOGICAL LIBRARIES SHOULD CARE

In spite of this shortcoming, the Virtual Qumran website and methodology behind it raise a number of relevant questions regarding the role of the theological library in DH. For example, especially while it remains in a state of semi-completion, it raises the question of how such projects are going to be supported, maintained, finalized, and archived. Librarians are familiar with these issues, and we would do well to begin to consider how our skills can translate into supporting and preserving DH projects.

Virtual Qumran also raises a number of questions about the future of scholarly publishing in general. In the conclusion of his book based on the project, Robert Cargill notes that:

the present research calls on scholars, publishers, dissertation committees, and departments of archaeology, architecture, and related programs to make themselves more accommodating to newer digital forms for publication. As the word processor has replaced the typewriter, so too will digital and three-dimensional formats soon replace analog and two-dimensional formats for publishing archaeological materials.²⁵

While theological libraries are not involved in archaeological research, clearly this argument applies to disciplines across the humanities. The forums in which knowledge creation and scholarly communication occur are shifting from the entrenched, often plodding speed of traditional publishing models to the agility and immediacy of the digital realm. If theological libraries are going to support their students, future scholars in religion and theology, they must do their part in preparing them for this new age of scholarly communication. DH is embedded deeply in a shift towards the increased creation of critical digital or online editions. Whether we as librarians are enthused with this shift, it is gaining momentum, and digital critical editions will be a part of our future. We will be better prepared to collect, preserve, and provide access to them if we are actively engaged with them in the present.²⁶

²³ Daniel Falk, "Text and Artifact: The Dead Sea Scrolls and Qumran," in *Between Text and Artifact: Integrating Archaeology in Biblical Studies Teaching*, Milton C. Moreland, ed. (Brill: Leiden and Boston, 2004), 165-79: 178.

²⁴ The space on the website where this feature should be available reads currently "The Qumran Visualization Project will make available a virtual, realtime tour of the Virtual Qumran model. The model is undergoing technical modifications to make online and downloadable navigation on Mac and PC available to all." <http://www.nelc.ucla.edu/qumran/realtime.html>

²⁵ Cargill, *Qumran through (Real) Time*, 217-218.

²⁶ Kenneth M. Price, "Electronic Scholarly Editions," in *A Companion to Digital Literary Studies*, Susan Schreibman and Ray Siemens, eds. (Oxford: Blackwell, 2008). <http://www.digitalhumanities.org/companionDLS/>

HOW LIBRARIES CAN ENGAGE WITH DIGITAL HUMANITIES

Different libraries with various constituencies and resources will engage with DH in different ways. The suggestions that follow can be tweaked or adjusted, but my hope is that they may help initiate a conversation among theological libraries and religious studies librarians.

First, if we invest in learning all we can about new tools as they become available, we can strengthen our roles as liaisons to faculty and graduate students by helping to apply such resources to their research interests. If faculty are reluctant to adopt or perhaps entirely unaware of new tools and methodologies, we can make ourselves available as mediators of these tools, helping to dispel the illusions and misconceptions about DH.²⁷ As is the case with Virtual Qumran, DH tools help us create new objects for interpretation and for the testing of hypotheses.

Second, libraries can influence larger debates in academia about the value of new forms of scholarship by weighing in with their professional expertise on what models are worthy of investment. By affirming the value of DH projects, libraries provide a judgment of quality that the wider world of academia must consider.

Third, and related to the above, if we are to lend this judgment of authority, librarians may need to develop new terminology and standards for reviewing and describing this type of project. Not everything available in digital format constitutes a DH project. So how do we determine what projects will best contribute to knowledge creation and scholarship? Demonstrating a need for this type of critical discourse, Fred Gibbs has recently argued in the inaugural issue of the open access *Journal of Digital Humanities* that “the rhetoric and aesthetics of digital humanities work is not particularly well established. In other words, the critical sphere had not yet materialized.”²⁸ As stakeholders in the future of DH work, we should be able and willing to participate in the creation of this critical discourse.

Finally, investing in appropriate software will help bring new users to our libraries, and also help new forms of scholarship to develop. This is perhaps the point of interaction that will differ most across libraries. Virtual Qumran, for example, was supported by several large, well-funded campus groups at UCLA, and most theological libraries do not have this type of institutional heft. But even small libraries can acquire software. If we don't have resources for commercial software, we can dedicate staff to learn how to use open source tools that are available and teach them to our students.²⁹ If we truly believe that it is important to prepare our students for these new worlds of digital research, then we must make some commitment to engage with DH.

CONCLUSION: IMAGINING THE FUTURE

The Qumran Visualization Project is but one example of the types of research methodologies and scholarship that the world of Digital Humanities offers. It is a good example to consider in the context of theological libraries because it is topically relevant to the study of ancient Israel; it raises questions about the relationship between text and archaeology that can be used in biblical studies classrooms; it demonstrates the power of DH tools to create new structures of data for interpretation, and through which new research can take place; and it raises questions about the future of scholarly publishing. In sum, it is a large-scale project from which we can draw inspiration and apply its insights to our own contexts.

²⁷ For instance, some falsely assume that DH tools aim to provide “unmediated access” or some final interpretation of content, be it text, image, or archaeological data.

²⁸ Fred Gibbs, “Critical Discourse in the Humanities,” in *Journal of Digital Humanities* 1, no. 1 (Winter, 2011). <http://journalofdigitalhumanities.org>

²⁹ There are a number of tools available on the DiRT (Digital Research Tools) wiki: <https://digitalresearchtools.pbworks.com/>

This essay has attempted to highlight the advantages of DH, and suggested some possible modes of engagement for theological libraries. It would be presumptive to list concrete steps for libraries to take moving forward in their efforts to engage with DH, with one possible exception. Simply, we must engage. Taking a “wait and see” approach, or ignoring the issues altogether, does our users a disservice. While the DH landscape may seem tumultuous and uncertain, even foreign, libraries must do their best to move forward. For some libraries, this may entail a large-scale digitization project intended to open up special and unique collections to text mining and research. For others, it may mean partnering with academic departments to provide support for digital projects. For others, it may mean simply beginning to experiment with digital tools so we can help introduce them to our users. But libraries of all sizes must begin to participate in the ongoing process of developing a critical discourse around DH, and through that process declare what tools and projects we, as supporters of research and scholarship in theology and religious studies, consider valuable. To take this step, all that is required is imagination, a commodity that theological librarians have in abundance. So imagine applying DH tools to your own collections at your libraries, and applying them to relevant collections or historical figures in your own faith traditions. What would the results look like? What research questions would you like to pose to the results? If we are to help define and promote DH work in theology and religious studies, we need to develop answers to these questions. It is my modest hope that this essay will help to inspire these conversations.

APPENDIX: DIGITAL HUMANITIES PROJECTS IN THEOLOGY AND RELIGIOUS STUDIES

Given the interdisciplinary nature of the study of religion, almost any project could be considered relevant in some measure to theology and religious studies. The list below consists of projects that deal directly with religion or theology or treat areas that are closely associated with them, e.g., the study of the Ancient Mediterranean. It is not meant to be comprehensive, only a sampling of, or introduction to, what is “out there.”

Digital Editions of Texts

The Piers Plowman Electronic Archive

<http://www3.iath.virginia.edu/seenet/piers/>

The Samantabhadra Project

<http://www.thlib.org/encyclopedias/literary/canons/ngb/>

Lives of the Saints: The Medieval French Hagiography Project

<http://www.frenchsaintslives.org/>

The Latin Works of John Wyclif

<http://www9.georgetown.edu/faculty/szittyap/wyclif/index.html>

Pico's 900 Theses

<http://library.brown.edu/cds/projects>

The Anglo-Saxon Penitentials: An Electronic Edition

<http://www.anglo-saxon.net/penance/>

Digital Mishnah

<http://www.digitalmishnah.org/>

Digital Collections and Multi-format Resources

ThALES – Thesaurus Antiquorum Lectionariorum Ecclesiae Synagogaeque

<http://dstoekl.webs.com/thaleslectionarydatabase.htm>

Uncle Tom's Cabin and American Culture: A Multimedia Archive

<http://utc.iath.virginia.edu/>

The Salem Witch Trials: Documentary Archive and Transcription Project

<http://www.salemwitchtrials.org/home.html>

The Goodspeed Manuscript Collection

<http://goodspeed.lib.uchicago.edu/>

St. Gall Monastery Plan

<http://www.stgallplan.org/>

The Network for New Media, Religion and Digital Culture Studies

<http://digitalreligion.tamu.edu/>

Fourteenth Century Oxford Theology Online

<http://theology.unl.edu/>

The Mountain Meadows Disaster in Public Discourse

<http://mountainmeadows.unl.edu/index.html>

Inscriptions of Israel Palestine

<http://www.stg.brown.edu/projects/Inscriptions/>

The Minassian Collection of Quranic Manuscripts

<http://library.brown.edu/quran/>

Sanskrit Digital Library

<http://www.sanskritlibrary.org/>

Mapping and Visualization Projects

ORBIS: The Stanford Geospatial Network Model of the Ancient Roman World

<http://orbis.stanford.edu/>

Mapping the Dalai Lamas

<http://www.dalailamas.org/>

Silk Road: The Path of Transmission of Avalokitesvara

<http://silkroad.iath.virginia.edu/>

French and Spanish Missions in American

<http://www.ecai.org/na-missions/cdl/cdl-namissionintro.htm>

Archaeology and Virtual Modeling

Rome Reborn

<http://www.romereborn.virginia.edu/>

MonArch: Saint-Jean-Des-Vignes: Archaeology, Architecture and History of an Augustinian Monastery

<http://monarch.brown.edu/index.html>

Petra Project

http://www.brown.edu/Departments/Joukowsky_Institute/Petra/

