

# C. Seth Parker

University of Kentucky  
Department of Computer Science  
Davis Marksbury Building  
Lexington, KY 40506

Phone: (859) 218-2044  
Email: [c.seth.parker@uky.edu](mailto:c.seth.parker@uky.edu)  
Homepage: <https://www.cs.uky.edu/dri>  
GitHub: [csparker247](https://github.com/csparker247)

## Education

B.A. Media and Communications, Asbury University, May 2010.

Ph.D. Computer Science, University of Kentucky, Expected May 2022.

## Employment

2013–present Research Project Manager, Digital Restoration Initiative, University of Kentucky, Lexington, KY.

2011–2018 Video Production Coordinator, Center for Visualization and Virtual Environments, University of Kentucky, Lexington, KY.

## Projects and Software

**Parker, C. Seth.** *OpenABF. A single-header C++ library of angle-based flattening algorithms.* Comp. software. Jan. 2021. DOI: [10.5281/zenodo.4483858](https://doi.org/10.5281/zenodo.4483858).

**Parker, C. Seth,** Kristina Gessel, and Stephen Parsons. *Volume Cartographer. A cross-platform C++ library and toolkit for the recovery and restoration of damaged cultural artifacts.* Comp. software. Mar. 2021. DOI: [10.5281/zenodo.4604881](https://doi.org/10.5281/zenodo.4604881).

**Parker, C. Seth.** *Structured Metadata Engine and Graph Objects Library.* Comp. software. Oct. 2020. DOI: [10.5281/zenodo.4134987](https://doi.org/10.5281/zenodo.4134987).

## Publications

### *Journal Articles*

Bertelsman, Ali, Kristina Gessel, Hannah Hatch, Kyra Seevers, **C. Seth Parker**, James H. Brusuelas, Christy Y. Chapman, Stephen Parsons, and W. Brent Seales. “The Digital Compilation and Restoration of Herculaneum Fragment P.Herc.118”. In: *Manuscript Studies: A Journal of the Schoenberg Institute for Manuscript Studies* (2021), accepted for publication.

**Parker, Clifford Seth,** Stephen Parsons, Jack Bandy, Christy Chapman, Frederik Coppens, and William Brent Seales. “From invisibility to readability: Recovering the ink of Herculaneum”. In: *PLOS ONE* 14.5 (May 2019), pp. 1–17. DOI: [10.1371/journal.pone.0215775](https://doi.org/10.1371/journal.pone.0215775).

Parsons, Stephen, **C. Seth Parker**, and W. Brent Seales. “The St. Chad Gospels: Diachronic Manuscript Registration and Visualization”. In: *Manuscript Studies: A Journal of the Schoenberg Institute for Manuscript Studies* 2.2 (2017), pp. 483–498.

Seales, William Brent, **Clifford Seth Parker**, Michael Segal, Emanuel Tov, Pnina Shor, and Yosef Porath. "From damage to discovery via virtual unwrapping: Reading the scroll from En-Gedi". In: *Science Advances* 2.9 (2016). DOI: 10.1126/sciadv.1601247.

Segal, Michael, Emanuel Tov, William Brent Seales, **Clifford Seth Parker**, Pnina Shor, and Yosef Porath. "An Early Leviticus Scroll from En-Gedi: Preliminary Publication". In: *Textus* 26 (2016).

### *Conference Proceedings*

Chapman, Christy, **Seth Parker**, Stephen Parsons, and W. Brent Seales. "Using METS to Express Digital Provenance for Complex Digital Objects". In: *Metadata and Semantic Research*. Ed. by Emmanouel Garoufallou and María-Antonia Ovalle-Perandones. Cham: Springer International Publishing, Mar. 2021, pp. 143–154. ISBN: 978-3-030-71903-6. DOI: 10.1007/978-3-030-71903-6\_15.

Gessel, Kristina, Stephen Parsons, **Clifford Parker**, and William Seales. "Towards Automating Volumetric Segmentation for Virtual Unwrapping". In: *Proceedings of the 25th International Conference on Cultural Heritage and New Technologies 2020*. Nov. 2020.

Parsons, Stephen, Kristina Gessel, **Clifford Parker**, and William Seales. "Deep Learning for More Expressive Virtual Unwrapping". In: *Proceedings of the 25th International Conference on Cultural Heritage and New Technologies 2020*. Nov. 2020.

Ganio, Monica, Stephen Parsons, **Seth Parker**, Marie Svoboda, Brent Seales, and Catherine Schmidt Patterson. "Unbending light: new computational methods for the correction of 3D effects in scanning XRF". In: *Optics for Arts, Architecture, and Archaeology VII*. Conference Proceedings of SPIE Volume 11058. 2019. DOI: 10.1117/12.2525038.

**Parker, Clifford Seth**, William Brent Seales, and Pnina Shor. "Quantitative Distortion Analysis of Flattening Applied to the Scroll from En-Gedi". In: *Art & Archaeology, 2nd International Conference*. 2016.

### *Books and Anthologies*

Seales, W. Brent, **C. Seth Parker**, and Christy Chapman. "4.1.1.7 Virtual Unwrapping: A Computational Approach for Reading Damaged Manuscripts". In: *Textual History of the Bible*. Ed. by Armin Lange. Vol. 4. 2017. Chap. 1.1.7. DOI: 10.1163/2452-4107\_thb\_COM\_225869.

### *Lectures and Presentations*

**Parker, C. Seth**. "Metadata-enabled computational graphs". Presented at the University of Kentucky Dept. of Computer Science Keeping Current Seminar. Oct. 7, 2020.

### *Honors and Awards*

Outstanding Student Paper Award, "From invisibility to readability: Recovering the ink of Herculaneum", University of Kentucky, Department of Computer Science, April 2021