

Carrie J. Brezine

Education

PhD. Candidate, Department of Anthropology (Archaeology), Harvard University
Degree expected Fall 2010
Dissertation: Dress, Technology and Identity in Colonial Peru
BA, Mathematics, Reed College, 1993
Thesis for the Bachelor of Arts: The Mathematical Structure of Weaving

Research Interests

Textiles	History of Technology
Khipu	Ethnomathematics
Dress	Quantitative Analysis

Publications

- nd. "Technological Hybridity in Colonial Peruvian Textiles". In Hybrid Material Culture: The Archaeology of Syncretism and Ethnogenesis, ed. by Jeb J. Card. Center for Archaeological Investigations, Southern Illinois University. Forthcoming.
- nd. (with Gary Urton) "Khipu Typologies." In Their Way of Writing: Scripts, Signs and Pictographies in Pre-Columbian America, ed. by Elizabeth Boone and Gary Urton. Dumbarton Oaks Foundation, Washington, D.C. (in press; 37 pp.).
- 2009 "Mathematics and Textiles", in The Oxford Handbook of the History of Mathematics, ed. Eleanor Robson and Jacqueline Stedall; pp. 468-492. Oxford University Press.
- 2007 (with Gary Urton) "Information Control in the Palace of Puruchuco: An Accounting Hierarchy in a Khipu Archive from Coastal Peru." In Variations in the Expression of Inka Power, ed. by R. Burger, C. Morris, and Matos Mar; pp. 357-384 Dumbarton Oaks, Washington, D.C.
- 2006 (with Frank Salomon et al.) "Los khipus de Rapaz en casa: Un complejo administrativo-ceremonial centroperuano". Revista Andina 43:59-92.
- 2005 (with Gary Urton) "Khipu Accounting in Ancient Peru". Science 309:1065-1067.

2004 "Symmetry on the Loom", in *Symmetry Comes of Age*, ed. Dorothy Washburn and Donald Crowe; pp. 65-80. University of Washington Press.

1997 "Beyond Fibonacci: Some Thoughts on Mathematical Sequences and Weaving Drafts". *Complex Weaver's Journal*.

Research Experience

PhD.Dissertation Research: Detailed analysis of indigenous Andean, European, and hybrid textiles excavated from the site of Magdalena de Cao Viejo, Peru. 2006-present

Peabody Museum of Archaeology and Ethnology, Harvard University
Coordinator/Member of Andean Textile Study Group. 2002-2005

Accha Alta, Peru

Ethnographic Fieldwork in the construction of intersecting warp hairbands (watana) and twill-patterned skirt borders (golones): Summer 2001

Work Experience -- Academia

February 2009 - present

Research Assistant, Department of Human Evolutionary Biology, Harvard University

Designed, created and maintain relational database for project titled "Macroparasite
Microparasite Interactions: Dynamics of Co-Infection and Implications for Disease
Control"

Perform queries against data

Wrote specifications for web-based data entry application

Database: MySQL

September 2002 - December 2008

Khipu Database Administrator, Department of Archaeology, Harvard University

Built, maintained, and improved custom-designed khipu database to meet needs of re-
searchers

Designed, built and maintained data-entry application to allow users efficiently to in-
sert data into database

Performed complex queries against data in response to researchers' inquiries

Analyzed detailed khipu data using a variety of mathematical and statistical techniques

Produced publication-read diagrams and text to communicate results

Built and maintained Khipu Database website: <http://khipukamayuq.fas.harvard.edu/>

Examined khipu and collected data from museum collection in the U.S., Peru, and
Europe

Development Languages: Objective C (Mac OSX), SQL

Database: Frontbase

Analysis Tools: Mathematica, NeighborNet, SplitsTree4

Summer 2005, September 2007 - February 2008

Textile Consultant, Proyecto de Khipu Patrimonial de Rapaz

Designed format and methods for describing the unique Rapaz Khipu

Recorded detailed information about the Rapaz khipu, including cord structure, fiber, color, measurements, condition, etc.

Assisted in cleaning and conservation of khipu

Diagrammed each cord and attachments to scale using Adobe Illustrator

Work Experience -- Business

August 2000-July 2002

Systems Analyst, Bidwell & Company, Portland, OR

Developed internal applications; included GUI design, data schema definition, analysis of business rules

Wrote automated and ad-hoc queries against trust accounting system database

Languages: Visual Basic, Transact-SQL

Databases: Sybase Adaptive Server Enterprise, SQL Server 6.5, SQL Server 2000, MS Access

July 1997 – July 2000

**Defined Contribution Systems Analyst/OMNIPLAN System Administrator
Standard Insurance Company, Portland, OR**

Wrote specifications for LAN-based software, including business rules, screen design, Use-Case scenarios

Wrote software test plans and coordinated User Acceptance Testing for new systems and system changes

Defined Contribution Associate Analyst

Standard Insurance Company, Portland, OR October 1996 – July 1997

Administered Retirement Plans and performed testing using the OMNIPLAN application.

January 1995 – October 1996

Experience Rating Refund Specialist, Standard Insurance Company, Portland, OR

Created and maintained applications to produce custom reports for important policy owners.

February 1994 – December 1994

Experience Rating Refund Processor, Standard Insurance Company, Portland, OR

Verified accuracy of experience reports and Schedule A tax forms. Calculated refunds for policyholders.

Conference Presentations

26th Annual Visiting Scholar Conference: Hybrid Material Culture: The Archaeology of Syncretism and Ethnogenesis

“Not What it Seams: Technological Hybridity in Colonial Peruvian Textiles”

Northeast Conference on Andean Archaeology and Ethnohistory, October 2005

“House of Cords: Investigating the Rapaz Khipu”.

Teaching Experience

Spring 2009: Harvard College, Cambridge, MA

Teaching Assistant, “Digging the Glyphs”

Fall 2008: Harvard Extension School, Cambridge, MA

Teaching Assistant: “The Inkas”

Textile Workshops and Outreach

Mathematical Association of America: Assistant Tour Guide for Peru Tour. Summer 2008.

Boston Weaver’s Guild: Tour of Peruvian Gauzes in the Peabody Museum. April 2005.

Boston Weaver’s Guild: “Glorious Gauzes”, Seminar. September 2004.

Peabody Museum, Harvard University: Workshop on Ancient Peruvian Textile Techniques.
May 2004.

Complex Weaver’s Seminars: “Patterning with Gauze”, “Weaving and Mathematics”. August 2002

Convergence (Bi-Annual Conference of the National Handweaver’s Guild of America):
“Gauze Overview”. August 2002.

Reed College, Master of Arts in Liberal Studies Program: “Woven Ornament: Loom-based Symmetries”. November 2000.

Portland Handweaver’s Guild, Portland OR: “Crossed-Warp Tubular Edging”. Workshop.
February 2000.

References

References available on request.