

**CURRICULUM VITA**  
**Kelly J. Knudson, Ph.D.**  
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**ADDRESS** Center for Bioarchaeological Research  
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**EDUCATION**

2004 Ph.D. University of Wisconsin at Madison (Anthropology)  
**Dissertation:** *Tiwanaku Residential Mobility in the South Central Andes: Identifying Archaeological Human Migration through Strontium Isotope Analysis*  
**Dissertation Committee:** Drs. James H. Burton, T. Douglas Price (chair), Frank Salomon, Sissel Schroeder, Jason Yaeger, and Karl Zimmerer

2000 Committee on Institutional Cooperation (CIC) Traveling Scholar, Anthropology Department, University of Chicago

2000 M.S. University of Wisconsin at Madison (Anthropology)

1997 B.A. Beloit College, Beloit, WI (Chemistry, magna cum laude)

**ACADEMIC POSITIONS HELD**

**Arizona State University**

2005-present Assistant Professor, School of Human Evolution and Social Change (formerly the Department of Anthropology)

**University of Wisconsin at Fond du Lac**

2004-2005 Lecturer (Anthropology 314: Indians of North America. Anthropology 102: Archaeology and the Prehistoric World, Anthropology 105: Introduction to Physical Anthropology)

**Ripon College**

2003 Lecturer (Anthropology 334: Andean Archaeology)

**University of Wisconsin at Madison**

2004-2005 Honorary Fellow, Department of Anthropology

2002-2003 Lecturer (Anthropology 107: Evolution of the Human Species, Anthropology 106: Human Biology Laboratory)

2001-2002 Teaching Assistant (Anthropology 102: Introduction to Archaeology, Anthropology 100: Introduction to Anthropology)

2001-2002 Reader/Grader (Anthropology 332: Archaeology of South America, Anthropology 354: Archaeology of Wisconsin, Anthropology 112: Principles of Archaeology)

1999 Teaching Assistant (Chemistry 104: General Chemistry)

**SCHOLARSHIPS AND AWARDS**

2004 The Robert J. Miller Prize in Anthropology at the University of Wisconsin at Madison

2003-2004 University of Wisconsin at Madison Dissertator Fellowship

2003 The Outstanding Student Honor Society member

1999 Phi Beta Kappa Scholarship

1997 Phi Beta Kappa member

1997 John H. Nair Award for Excellence in Chemistry

1996 American Chemical Society Junior Analytical Chemistry Award

1993-1997 Beloit College Presidential Scholarship

## RESEARCH AND TRAVEL GRANTS

- In preparation National Science Foundation Office of Polar Programs Proposal Title: *Archaeological Activity Area Analysis in Western Alaska through Soil Chemistry and Ethnoarchaeology* (\$150,000 requested by Kelly J. Knudson and Lisa Frink)
- In preparation National Geographic Society Committee for Research and Exploration Grant: *An Archaeological Investigation in Remote Native Western Alaska: Identifying Activity Areas on Nelson Island through Ethnoarchaeology and Archaeological Chemistry* (\$20,000 requested by Lisa Frink and Kelly J. Knudson)
- 2002 National Science Foundation Doctoral Dissertation Improvement Grant: *Tiwanaku Residential Mobility and Archaeological Chemistry: Strontium and Lead Isotope Analyses in the South Central Andes* (\$12,000 awarded to T. Douglas Price and Kelly J. Knudson)
- 2001 University of Wisconsin at Madison Anthropology Department Research and Travel Grant (\$300)
- 2001 University of Wisconsin at Madison Graduate School Council Vilas Travel Grant (\$600)
- 2001 The Geological Society of America Research Grant (\$2,400)
- 2000 American Chemical Society Women Chemists Committee Travel Grant (\$315)
- 2000 University of Wisconsin at Madison Anthropology Department Research and Travel Grant (\$200)
- 2000 Nave Fund Latin American and Iberian Studies Field Research Grant (\$1,270)

## PUBLICATIONS

- In preparation Kelly J. Knudson, "Tiwanaku Influence in the South Central Andes: Strontium Isotope Analysis and Middle Horizon Migration" Manuscript to be submitted to *Latin American Antiquity*.
- In preparation Maria Cecelia Lozada Cerna, Rex Haydon, Paula D. Tomczak, Kelly J. Knudson, Stanley H. Ambrose and Jane E. Buikstra, "Social Marginalization among the Chiribaya: The *Curandero* of Yaral" Manuscript to be submitted to *Latin American Antiquity*.
- In review Tiffany A. Tung and Kelly J. Knudson, "Local Ancestors or Foreign Enemies?: The Origin of Trophy Heads from the Wari Site of Conchopata" Manuscript submitted to *Current Anthropology*.
- In press Kelly J. Knudson, T. Douglas Price, Jane Buikstra, and Deborah E. Blom. "Strontium Isotope Analysis and Migration in the South Central Andes: Tiwanaku Colonization of the Moquegua Valley." Manuscript accepted for publication in the *Proceedings of the 33rd International Symposium on Archaeometry, 2002. (Geoarchaeological and Bioarchaeological Studies 3, Vrije Universiteit, Amsterdam)*
- 2005 Kelly J. Knudson, Tiffany A. Tung, Kenneth C. Nystrom, T. Douglas Price and Paul D. Fullagar, "The Origin of the Juch'uympampa Cave Mummies: Strontium Isotope Analysis of Archaeological Human Remains from Bolivia." *Journal of Archaeological Science* 32 (6): 903-913.
- 2004 Kelly J. Knudson, T. Douglas Price, Jane E. Buikstra, and Deborah E. Blom. "The Use of Strontium Isotope Analysis to Investigate Tiwanaku Migration and Mortuary Ritual in Bolivia and Peru." *Archaeometry* 46 (1): 5-18.
- 2004 David C. Meiggs and Kelly J. Knudson. "Resolution and Refinement: Recent Advances in Archaeological Chemistry: Introductory Comments." *Archaeometry* 46 (1): 1-4.
- 2004 Kelly J. Knudson, Lisa Frink, Brian Hoffman and T. Douglas Price. "Chemical Characterization of Arctic Soils: Activity Area Analysis in Contemporary Yup'ik Fish Camps Using ICP-AES." *Journal of Archaeological Science* 31 (4): 443-456.

## VOLUMES EDITED

- 2004 Kelly J. Knudson and David C. Meiggs, Co-Editors, with Advisory Editor Michael Richards, "Resolution and Refinement: Recent Advances in Archaeological Chemistry" published as a special section of five peer-reviewed papers in *Archaeometry*, volume 46.

## CONFERENCE SYMPOSIA ORGANIZED

- 2001 “Resolution and Refinement: Leading Edge Research in Archaeological Chemistry”, sponsored by the Society for Archaeological Science and co-organized with David C. Meiggs, at the 66<sup>th</sup> Annual Society for American Archaeology Meetings, New Orleans, LA, April 18-22.

## CONFERENCE PAPERS PRESENTED

- 2006 “Transitions and Archaeological Chemistry: An Illustration from the South Central Andes” by Kelly J. Knudson. Invited paper to be presented in “Transitions: Beyond Origins in Archaeological Research. Papers in Honor of T. Douglas Price” organized by Tina Thurston and Lisa Frink at the 71<sup>st</sup> Annual Society for American Archaeology Meetings, San Juan, Puerto Rico, April 26-April 30.
- 2005 “Migration and Bone Chemistry: Case Studies from the South Central Andes” by Kelly J. Knudson. Invited paper to be presented in the symposium “Migration and Anthropology: New Perspectives for a New Millennium”, organized by Graciela S. Cabana and Jeffrey J. Clark at the 104<sup>th</sup> Annual American Anthropological Association Meetings, Washington, D.C. November 30-December 4.
- 2005 “Identifying Archaeological Residential Mobility in the Andes: The Utility of Multiple Chemical Techniques” by Kelly J. Knudson and T. Douglas Price. Paper presented at the UK Archaeological Science Conference, Bradford, United Kingdom, April 13-16.
- 2005 “Residential Mobility and Archaeological Chemistry in the South Central Andes: Trace Element and Strontium Isotope Data from Tiwanaku and Chiribaya Sites” by Kelly J. Knudson. Paper presented at the 33<sup>rd</sup> Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory, Columbia, MO, February 26-27.
- 2004 “The Bioarchaeology of Identity: Case Studies from the South Central Andes” by Kelly J. Knudson, Deborah E. Blom and Jane E. Buikstra. Invited paper in the symposium “Tensions, Theory and Directions in Bioarchaeology”, organized by Kenneth C. Nystrom at the 103<sup>rd</sup> Annual American Anthropological Association Meetings, Atlanta, GA, December 16-19.
- 2004 “Fish Heads, Fish Heads: Activity Area Analysis in Contemporary Yup’ik Fish Camps in Western Alaska through Chemical Characterization of Soils” by Kelly J. Knudson, Lisa Frink, Brian Hoffman and T. Douglas Price. Presented at the 1<sup>st</sup> Annual Archaeological Sciences of the Americas Symposium, Tucson, AZ, September 23-26.
- 2004 “Migration in the Middle Horizon: Bone Chemistry and the Nature of the Tiwanaku Polity in the South Central Andes” by Kelly J. Knudson, T. Douglas Price, Jane E. Buikstra and Deborah E. Blom. Invited paper in “Uncovering Social Organization in the Andes: Recent Developments in Bioarchaeology” organized by Deborah E. Blom and Julie Farnum at the 69<sup>th</sup> Annual Society for American Archaeology Meetings, Montreal, Canada, March 31-April 4.
- 2003 “Tiwanaku Residential Mobility, Migration and Ritual Behavior as Determined by Archaeological Chemistry” by Kelly J. Knudson, T. Douglas Price, Jane Buikstra and Deborah Blom. Presented at the 31<sup>st</sup> Annual Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory, Chicago, IL, February 22-23.
- 2002 “Strontium Isotope Analysis and Migration in the South Central Andes: Tiwanaku Colonization of the Moquegua Valley” by Kelly J. Knudson, T. Douglas Price, Jane Buikstra and Deborah Blom. Presented at the 33<sup>rd</sup> International Symposium on Archaeometry, Amsterdam, The Netherlands, April 22-26.
- 2001 “Tiwanaku Residential Mobility as Determined by Strontium and Lead Isotope Analyses” by Kelly Knudson, T. Douglas Price, Jane Buikstra and Deborah Blom. Presented in “Resolution and Refinement: Leading Edge Research in Archaeological Chemistry” organized by Kelly J. Knudson and David C. Meiggs at the 66<sup>th</sup> Annual Society for American Archaeology Meetings, New Orleans, LA, April 18-22.

### **ANTHROPOLOGICAL LABORATORY RESEARCH**

- 2004 Laboratory Research for Discovery Channel, strontium isotope analysis of archaeological bone and teeth samples at the Laboratory for Archaeological Chemistry at the University of Wisconsin at Madison for the television series “Mummy Autopsy”
- 2003 Dissertation Laboratory Research, strontium isotope analysis of archaeological bone and teeth samples using TIMS (thermal ionization mass spectrometry) at the Isotope Geochemistry Laboratory at the University of North Carolina at Chapel Hill
- 2003 Laboratory Research, trace element analysis of ethnoarchaeological soil samples from seasonal subsistence camps using ICP-AES (inductively coupled plasma-atomic emission spectrometry) at the Laboratory for Archaeological Chemistry at the University of Wisconsin at Madison
- 2002 Dissertation Laboratory Research, trace element analysis of archaeological bone and teeth using ICP-AES and ICP-MS (inductively coupled plasma-atomic emission spectrometry and -mass spectrometry) at the Laboratory for Archaeological Chemistry at the University of Wisconsin at Madison

### **ARCHAEOLOGICAL FIELD RESEARCH**

- 2003 Dissertation Field Research, analyzed bioarchaeological collections at Museo Contisuyo, Moquegua, Peru
- 2001 Dissertation Field Research, collected modern fauna and archaeological human teeth and bone samples from San Pedro de Atacama, Chile, and Tiwanaku, Bolivia
- 2001 Field Supervisor, Proyecto Arqueológico Pumapunku-Akapana excavations directed by Drs. Alexei Vranich and Jason Yaeger, Tiwanaku, Bolivia
- 2001 Field Supervisor, Proyecto Bioarqueológico de Beringa excavations directed by Dr. Tiffany Tung, Majes Valley, Peru
- 2000 Dissertation Field Research, collected modern fauna samples from southern Peru, devised sampling strategies of Tiwanaku and Wari collections in Ilo and Ayacucho, Peru
- 1999 Dissertation Field Research, collected modern fauna samples from southern Peru
- 1999 Field Volunteer, CIARQ (Centro de Investigaciones Arqueológicas de Arequipa) survey directed by Lic. Augusto Cardona and Dr. Karen Wise, Arequipa, Peru
- 1999 Field Volunteer, Proyecto Cotahuasi excavations, Cotahuasi Canyon, Peru
- 1995 Field School Participant, Beloit College Field School directed by Drs. Mario Rivera and Daniel Shea, Ramaditis, Atacama Desert, Chile

### **INVITED LECTURES**

- 2004 “Empires and Ideology: The Andean Middle Horizon,” Anthropology 102: Archaeology and the Prehistoric World, University of Wisconsin at Washington County (November 10)
- 2002 “Water and Ritual in the Andes: Archaeological, Ethnohistoric and Ethnographic Examples,” Beloit College First Year Initiatives Program (November 7)
- 2002 “Anthropological Approaches to Migration: An Andean Case Study,” to Anthropology 210: Technique and Theory in Archaeology, Beloit College (November 7)
- 2002 “How Archaeologists Know What They Know,” East High School (September 13)
- 2002 “Introduction to Archaeometry” and “Biomaterials and Bone Chemistry,” Anthropology 112: Principles of Archaeology, University of Wisconsin at Madison (July 2 and 3)
- 2001 “Investigating Wari Residential Mobility in the South Central Andes: Excavations at Beringa, Majes Valley, Peru,” University of Wisconsin at Madison AnthroCircle Presentation Series (November 20)
- 2001 “Water and Ritual in the Andes: Archaeological, Ethnohistoric and Ethnographic Examples,” Beloit College First Year Initiatives Program (October 11)
- 2001 “Treks, Trade and Trace Elements: Recent Advances in Archaeological Chemistry,” Beloit College Chemistry Club (October 11)
- 2001 “How Archaeologists Know What They Know,” LaFollette High School (March 16)
- 2000 “How Do They *Know* That?: An Introduction to Survey, Excavation and Laboratory Analysis,” Madison LaFollette High School (January 5)

**INVITED LECTURES (continued)**

- 1999 "How Do They *Know* That?: An Introduction to Survey, Excavation and Laboratory Analysis," Madison LaFollette High School (May 17)
- 1999 "Archaeology in Arequipa: Survey, Excavation and *Cuy* Collecting in Southern Peru," University of Wisconsin at Madison AnthroCircle Presentation Series (December 1)

**PROFESSIONAL ACTIVITIES****Departmental Service, University of Wisconsin at Madison**

- 2001-2002 AnthroCircle Presentation Committee Chair
- 2000-2001 Department of Anthropology Sexual Harassment Committee, Student Representative
- 1997-1998 Archaeology Brown Bag Lecture Series, Co-Organizer

**Professional Service**

- 2004 Reviewer for *Current Anthropology*
- 2004 Reviewer for the *Journal of Archaeological Science*
- 2004 Consultant for Discovery Channel television series, "Mummy Autopsy", Atlantic Productions

**Professional Associations**

- 2002-present American Anthropological Association, Biological Anthropology and Archaeology Divisions, Society for Anthropological Sciences Interest Group
- 2002-present Dental Anthropology Association
- 2001-present Geological Society of America
- 2000-2004 Sigma Delta Epsilon Graduate Women in Science University of Wisconsin at Madison
- 1999-present Society for Archaeological Sciences
- 1999-present Society for American Archaeology