

SARAH E. FREIDLINE

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EDUCATION

Ph.D. Anthropology The City University of New York Graduate Center, 2012

- New York Consortium in Evolutionary Primatology (NYCEP)
- International Max Planck Research School (IMPRS), Pre-doctoral Fellowship in Department of Human Evolution, Max Planck Institute, Leipzig, Germany

Dissertation Title: *Assessing the effects of allometry on Middle to Late Pleistocene human facial morphology using semilandmark geometric morphometrics*

Thesis Advisors: Eric Delson, Katerina Harvati, Jean-Jacques Hublin, Philipp Gunz

B.A. Anthropology New York University, 2002

ACADEMIC POSITIONS & FELLOWSHIPS

2020 – present University of Central Florida, Department of Anthropology, Assistant Professor

2012 – 2020 Postdoctoral Researcher, Department of Human Evolution, Max Planck Institute for Evolutionary Anthropology

2007 – 2011 Pre-doctoral Fellowship, Department of Human Evolution, Max Planck Institute for Evolutionary Anthropology

TEACHING EXPERIENCE

2013 – 2020 Lecturer at the International Max Planck Research School, The Leipzig School of Human Origins

- *Middle and Late Pleistocene Human Evolution*

2004 – 2006 Adjunct Lecturer at Lehman College, City University of New York

- *Introduction to Human Evolution*
- *Introduction to Human Variation*

2005 Teaching Assistant, Department of Cell Biology and Anatomical Sciences, Sophie Davis School of Biomedical Education, City University of New York

- *Medical Gross Anatomy and Embryology*

GRADUATE STUDENT MENTORSHIP

Judith Hasel – Advisor (Masters in Science)

2016 – 2018

Alexandra Schuh – Advisor (Ph.D. student)

2016 – present (expected defense 2021)

Inga Bergman – Co-Advisor (Ph.D. student)

2018 – present (expected defense 2021)

HONORS, AWARDS AND GRANTS

- 2009 Leakey Foundation General Research Grant
- 2009 National Science Foundation Doctoral Dissertation Improvement Grant
- 2007 Sigma Xi Grant in Aid of Research
- 2007 Graduate Research Grant, City University of New York Graduate School
- 2004 – 2006 Sue Rosenberg Zalk Travel and Research Grant, CUNY Graduate School

EDITORIAL EXPERIENCE

- 2016 – 2019 Associate Editor of the *Journal of Human Evolution*

RESEARCH PUBLICATIONS (* = co-first author)

- 2020 Schuh, A., Gunz, P., Villa, C., Kupczik, K., Hublin, J.J., **Freidline, S.E.** Intraspecific variability in human maxillary bone modeling patterns during ontogeny. *American Journal of Physical Anthropology* 137: 655-670.
- 2019 Schuh, A., Kupczik, K., Gunz, P., Hublin, J.J., **Freidline, S.E.** 2019. Ontogeny of the human maxilla: a study of intra-population variability combining surface bone histology and geometric morphometrics. *Journal of Anatomy* 235: 233-245.
- 2019 Chen, F., Welker, F., Shen, C.C., Bailey, S.E., Bergmann, I., Davis, S., Xia, H., Wang, H., Fischer, R., **Freidline, S.E.**, Yu, T.L., Skinner, M.M., Stelzer, S., Dong, G., Fu, Q., Dong, G., Wang, J., Zhang, D., Hublin, J.J. A late Middle Pleistocene Denisovan mandible from the Tibetan Plateau. *Nature* 569: 409-412.
- 2017 Hublin, J.J., Ben-Noer, A., Bailey, S.E., **Freidline, S.E.**, Neubauer, S., Skinner, M., Bergmann, I., Le Cabac, A., Benazzi, S., Harvati, K., Gunz, P. New fossils from Jebel Irhoud, Morocco, and the pan-African origin of *Homo sapiens*. *Nature* 546: 289-292.
- 2017 **Freidline, S.E.**, Martinez-Maza, C. Gunz, P., Hublin, J.J. Exploring modern human facial growth at the micro- and macroscopic level. In: Percival, C. & Richtsmeier, J. (eds.) *Building Bones: Bone Formation and Development in Anthropology*. Cambridge: Cambridge University Press, pp. 104-127.
- 2016 Martinez-Maza, C., **Freidline, S.E.***, Strauss, A., Nieto-Diaz, M. Bone growth dynamics of the facial skeleton and mandible in *Gorilla* and *Pan troglodytes*. *Evolutionary Biology* 43: 60-80.

- 2015 **Freidline, S.E.**, Gunz, P., Hublin, J.J. Ontogenetic and static allometry in the human face: contrasting Khoisan and Inuit. *American Journal of Physical Anthropology* 158: 116-131.
- 2015 **Freidline, S.E.**, Gunz, P., Hublin, J.J. Semilandmark geometric morphometric analysis of the Oberkassel faces. In: Giemsch, L. & Schmitz, R. (eds.) *The Late Glacial Burial from Oberkassel Revisited*. Darmstadt: Verlag Philipp von Zabern, pp. 181-195.
- 2013 **Freidline, S.E.**, Gunz, P., Harvati, K., Hublin, J.J. Evaluating developmental shape changes in *Homo antecessor* subadult facial morphology. *Journal of Human Evolution* 65: 404-423.
- 2012 **Freidline, S.E.**, Gunz, P., Harvati, K., Hublin, J.J. Middle Pleistocene human facial morphology in an evolutionary and developmental context. *Journal of Human Evolution* 63: 723-740.
- 2012 **Freidline, S.E.**, Gunz, P., Jankovic, I., Harvati, K., Hublin, J.J. A comprehensive morphometric analysis of the frontal and zygomatic bone of the Zuttiyeh fossil from Israel. *Journal of Human Evolution* 62: 225-241.
- 2010 Baab, K., **Freidline, S.E.**, Wang, S.L., Hanson, T. Relationship of cranial robusticity to cranial form, geography and climate in *Homo sapiens*. *American Journal of Physical Anthropology* 141: 97-115.

ABSTRACTS AND PRESENTATIONS

Freidline, S.E., Chen, F., Welker, F., Shen, C-C., Bailey, S.E., Bergmann, I., Davis, S., Xia, H., Wang, H., Fischer, R., Yu, T-L., Skinner, M.M., Stelzer, S., Dong, G., Fu, Q., Dong, G., Wang, J., Zhang, D., Hublin, J-J. The Xiahe mandible: Denisovan morphology revealed. 2019. *International Symposium on Paleoanthropology in Commemoration of the 90th Anniversary of the Discovery of the First Skullcap of Peking Man* – Beijing.

Freidline, S.E., Hublin, J.-J., Bergman, I., Westaway, K., Düringer, P., Joannes-Boyau, R., Ponche, J.L., Boetsch, Q., Sayavongkhamdy, T., Sichanthongtip, P., Duangthongchit, S., Sihanam, D., Bouaraphan, S., Patole-Edoumba, E., Coppens, Y., Willerslev, E., Zachwieja, A., Dunn, T., Bacon, A.M., Shackelford, L., Demeter, F. 2019. Reexamination of the cranial and mandibular *Homo sapiens* fossils including a new frontal bone from Tam Pa Ling (Laos). *European Society for Human Evolution* – Liege.

Schuh, A., Maureille, B., Toussaint, M., Abrams, G., Bonjean, D., Gunz, P., Hublin, J.-J., **Freidline, S.E.** 2019. Neanderthal maxillary ontogeny at the micro- and macroscopic scales: an integrative approach. *European Society for Human Evolution* – Liege.

Gunz, P., **Freidline, S.E.**, Hublin, J.J. *Homo heidelbergensis* is not your ancestor. 2019. *European Society for Human Evolution* – Liege.

Hublin, J.J., Chen, F., Welker, F., Shen, C.C., Bailey, S.E., Bergmann, I., Davis, S., Xia, H., Wang, H., Fischer, R., **Freidline, S.E.**, Yu, T.L., Skinner, M.M., Stelzer, S., Dong, G., Fu, Q., Dong, G., Wang, J., Zhang, D. Away from Denisova. 2019. *European Society for Human Evolution* – Liege.

- Freidline, S.E.,** Schuh, A., Martinez-Maza, C., Gunz, P., Hublin, J.J. 2018. Modern human facial and mandibular growth at the micro and macroscopic levels: marrying bone modeling and geometric morphometric techniques. *European Society for Human Evolution* – Faro.
- Bergmann, I., **Freidline, S.E.,** Gunz, P., Hublin, J.J. 2016. Variability and Evolution of mandible morphology in *Homo sapiens* and its ancestors in Europe, Africa and Western Asia. *European Society for Human Evolution* – Madrid.
- Freidline, S.E.,** Martinez-Maza, C., Hublin, J.J. 2014. An integrative approach to studying craniofacial development in Great apes and humans. Invited presentation – “Building Bones: Studies of Bone Growth in Anthropology.” American Association for Physical Anthropology – Calgary. *Am. J. Phys. Anthropol.* S58: 121.
- Gunz, P., Harvati, K., **Freidline, S.E.,** Hublin, J.J., Grine, F.E. 2014. Khoe-San retain a gracilized version of the ancestral modern human phenotype. *European Society for Human Evolution* – Florence.
- Cooke, S.B., Villaseñor, A., Boyd, K.L., Astorino, C.A., **Freidline, S.E.,** Hublin, J.J. 2014. Palate shape and diet in *Homo sapiens*. American Association of Physical Anthropology – Calgary. *Am. J. Phys. Anthropol.* S58: 96.
- Freidline, S.E.,** Gunz, P., Hublin, J.J. 2013. The impact of geographic variation and allometry on the postnatal development of modern human facial features. *European Society for Human Evolution* – Vienna.
- Freidline, S.E.,** Gunz, P., Harvati, K., Hublin, J.J. 2012. Middle Pleistocene human facial morphology. *American Association of Physical Anthropology* – Portland. *Am. J. Phys. Anthropol.* S54: 147.
- Freidline, S.E.,** Gunz, P., Harvati, K., Hublin, J.J. 2011. Middle Pleistocene human facial morphology in an evolutionary and developmental context. *European Society for Human Evolution Inaugural Meeting* – Leipzig.
- Freidline, S.E.,** Gunz, P., Harvati, K., Hublin, J.J. 2011. Allometry and evolution of the face in mid-Pleistocene *Homo*. *American Association of Physical Anthropology* - Minneapolis. *Am. J. Phys. Anthropol.* S52: 138.
- Freidline, S.E.,** Gunz, P., Harvati, K., Hublin, J.J. 2010. 3D semilandmark geometric morphometric quantification of modern human facial development. *American Association of Physical Anthropology* – Albuquerque. *Am. J. Phys. Anthropol.* S50: 107.
- Freidline, S.E.,** Gunz, P., Harvati, K., Jankovic, I., Delson, E., Hublin, J.J. 2009. 3D landmark and semilandmark geometric morphometric analysis of the Zuttiyeh fronto-zygomatic fragment. Invited Presentation at the Symposium on “The Transition from Archaic to Modern: Quantitative Approaches” – Leipzig.
- Freidline, S.E.,** Gunz, P., Harvati, K., Jankovic, I., Delson, E., Hublin, J.J. 2009. 3D Landmark and semilandmark geometric morphometric analysis of the Zuttiyeh fronto-zygomatic fragment. *American Association of Physical Anthropology* – Chicago. *Am. J. Phys. Anthropol.* S48:129-130.
- Freidline, S.E.,** Gunz, P., Harvati, K., Delson, E., Hublin, J.J. 2008. How three-dimensional surface data can be used to reconstruct fragmentary fossils. *American Association of Physical Anthropology* – Philadelphia. *Am. J. Phys. Anthropol.* S46: 99.

SOCIETY MEMBERSHIP

Member, European Society of Human Evolution

Member, American Association of Physical Anthropologists

Member, Paleoanthropology Society

JOURNAL AND EDITED VOLUME PEER REVIEW

Journal of Human Evolution

American Journal of Physical Anthropology

Journal of Anthropological Sciences

Argentinean Journal of Biological Anthropology

Springer: Anthropology and Archaeology Series

SYMPOSIA ORGANIZATION AND WORKSHOP

2011 Organized and co-chaired a podium symposium at American Association of Physical Anthropology annual meeting
Title: Muddles in the Middle: Current Perspectives on Middle Pleistocene Human Evolution

2005 Student Planning Committee, NYCEP "Monkeys Old and New" Symposium

FIELD WORK

2008 Gran Dolina, Sierra de Atapuerca, Spain, a Pleistocene hominin site

2005 Sima de Las Palomas, Murcia, Spain, Pleistocene hominin site

2005 Seneze, France, a Pliocene fossil mammal site

2003 Field school at Makapansgat, South Africa, a Plio-Pleistocene hominin site

2000 Field School in mortuary archaeology at Khuzir-Nuge XIV, Lake Baikal, Siberia