

## CURRICULUM VITAE

**Martin Friess, Ph.D.**  
Maître de conférences  
Département Hommes, Natures, Sociétés  
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### APPOINTMENTS

- Since 2006** Maître de conférences (assistant professor)  
**Muséum national d'Histoire naturelle**  
Musée de l'Homme, Paris
- 2002-2006** Senior Research Associate, **Anthrotech Inc**,  
Yellow Springs OH
- 2001-2002** Adjunct assistant professor, Dept. of Anthropology  
**Queens College / Lehman College, City University of New York**  
Queens and Bronx, NY
- 2000-2002** Postdoctoral fellow, **American Museum of Natural History**  
New York, NY

### EDUCATION

- 1998** PhD Physical Anthropology  
**Université Bordeaux 1**  
Thesis defended as a "European PhD".  
**Thesis Title: Cranial size and shape in later Pleistocene Hominids. Contributions of Geometric Morphometrics to the modern human origins debate**
- 1994** Magister Artium  
**Johannes Gutenberg-Universität Mainz, Germany**  
**M.A. (Magister Artium) program in Physical Anthropology, Prehistory and Cultural Anthropology. Grade equivalent: A (with distinction)**

## **DISTINCTIONS**

- 2010** NIOSH Alice Hamilton award for Occupational Safety and Health. Awarded jointly to H. Hsiao, M. Friess, B. Bradtmiller and F.J. Rohlf
- 2005** International Arch T. Colwell Merit Award of the SAE for outstanding technical and professional merit. Awarded jointly to M. Friess and B. Corner
- 1999** Student Prize GfA (German Anthropological society)

## **MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS**

- 1990-1995** Gesellschaft für Anthropologie (GfA)
- 2000-** AAPA
- 2000-2002, 2010-2011** Paleoanthropology Society
- 2002-2006** Society of automotive engineers (sae.org)
- 2007-** Société d'Anthropologie de Paris

## **JOURNAL REFEREE**

- 2008-2010** J. Human Evol.
- 2007-** Bull. Mém. Soc. Anthropol. Paris

## **COURSES TAUGHT**

- 2001-2002** Introduction to human evolution  
Introduction to Physical anthropology
- 2002-2006** Anthropometry (1 week course)
- 2006-** Concepts and Methods in paleoanthropology  
Human adaptation  
Introduction to human evolution  
3D in paleontology and anthropology  
Statistics  
Scientific English

## INVITED TALKS AND SEMINARS

Oct. 24 2011. "Applying Geometric Morphometrics techniques to the study of hominin evolution". Workshop on geometric morphometrics, held at the University of Santiago de Chile. Organized by G. Manriquez.

Oct. 28 2011. "3D data acquisition in physical anthropology". Seminar at the Archaeological Museum of San Pedro de Atacama, Chile.

April 2006. "Advanced Anthropometry – Current approaches to human variation in 2D and 3D". Seminar in the Department of Anthropology, University of Tennessee at Knoxville.

March 2006. "Modern Human origins". Seminar in the Department of Anthropology, Wright State University, Dayton, OH.

April 25 2002. "Our place in nature - recent advances in the field of human evolution". Seminar in the Department of Anthropology, Wesleyan University, New Haven, CT.

Feb 1999. "African origin of modern humans? New approaches". Institute for Anthropology, University of Mainz (Germany).

Sept 02 2002. "Climate and craniofacial variation in humans: new data using 3D morphometrics". 13th Congress of the European Anthropological Association, Zagreb, Croatia.

April 13 2002. "Combining Procrustes Superimposition and Fourier descriptors: Analysis of midsagittal cranial outlines" (in collaboration with M. Baylac, MNHN Paris). Modern morphometrics in Physical Anthropology: symposium at the 71<sup>st</sup> annual meeting of the American Association of Physical Anthropologists.

Nov 30 2000. "Aspects of hominid cranial size and shape, and their variation during the Late Pleistocene". The New York Regional Primatology Colloquium, the New York Consortium in Evolutionary Primatology.

Sept 13 2000. "Application of Geometric Morphometrics in Paleoanthropology: the Debate on Modern Human Origins". Colloquium of the Biology Department, Queens College, City University of New York.

## PUBLICATIONS

- Friess, M. (2012, accepted): Scratching the surface? The use of surface scanners in physical anthropology. *J. anthropological Sciences*.
- Kustár, Á., Forró, L., Kalina, I., Fazekas, F., Honti, S., Makra, S. & **Friess**, M. (in press): FACE-R – 3D database of 400 living individuals' full head CT- and face scans for craniofacial reconstruction. *J. Forensic Sciences* 2012.
- Delson, E., Ford, E., **Friess**, M., Frost, S.R., Harcourt-Smith, W. (2011): Organizing, administering, and sustaining an open-access database, examples learned from PRIMO. *Amer. J. Phys. Anth. Suppl.* 52 (Abstracts): 123.
- Friess, M. & Galland, M. (2011): Once upon a time in the west: A 3D morphometric analysis of Kennewick and the peopling of the Americas (Abstract). *Bull Mem Soc. Anthropol. Paris*.
- Khonsari, R.H., **Friess**, M., Corre, P., Nysjö, J., Salagnac, J.M., Cabanis, E.A.M. & Charlier, P., 2011. Les déformations intentionnelles du crâne: approche pathographique. In: 3ème Colloque International de Pathographie, Bourges, avril 2009. Actes publiés sous la direction de Philippe Charlier. De Boccard, Paris. pp 163-174.
- Friess, M. 2010 Parietal expansion during later hominin evolution, and the validity of *H. heidelbergensis* – A quantitative approach. *Bull. Schweiz. Ges. Anthropol.* 16 (1-2): 55-62.
- Friess, M. (2010): Calvarial shape variation among Middle Pleistocene hominins - An application of surface scanning in paleoanthropology. *CR Palévol* 9: 435-443.
- Slizewski, A., **Friess**, M. & Semal, P. (2010): Surface scanning of anthropological specimens: nominal-actual comparison with low cost laser scanner and high end fringe light projection surface scanning systems. *Quartär* 57: 179-187.
- Khonsari, R.H., Charlier, P., Corre, P., Salagnac, J.M., Cabanis, E.A.M., Mercier, J.M. & **Friess** M. (in press): Les déformations intentionnelles du crâne : protocole pour une description pluridisciplinaire. *Biométrie humaine et Anthropologie*.
- Friess, M. & Khonsari R.H. (2010) Cranial bone thickness in artificially deformed skulls. *Amer. J. Phys. Anth. Suppl.* 50 (Abstracts): 108.
- Kustár, A., Kovari I., Kalina L. & **Friess**, M. (2010): A new approach to facial reconstruction based on 3D morphometrics. *Amer. J. Phys. Anth. Suppl.* 50 (Abstracts): 149.
- Kustár, A., Forró, L., Kalina, L., Fazekas, F., Honti, S., Makra, S. & **Friess**, M. (2010) : "FACE-R" 3D Database And Morphometrics For Facial Reconstruction. In: CAA2010: XXXVIII Annual Conference on computer applications and quantitative methods in archaeology.
- Hsiao, H., **Friess**, M., Bradtmiller, B., Rohlf, F.J. (2009): Development of sizing structure for fall arrest harness design. *Ergonomics*, 1366-5847.
- Friess, M. (2009): Climate and craniofacial shape variation among major human populations: a geometric morphometric approach. *Am. J. Phys. Anthropol. Suppl* 48 (Abstracts): 130.
- Simonis-Sueur, C., **Friess**, M., Détroit, F. (2009) : Skull shapes, maps, and microscribes. *Am. J. Phys. Anthropol. Suppl* 48 (Abstracts): 240.

- Hublin, J.J., Pääbo, S., Derevianko, A.P., Doronichev, V.B., Golovanova, L.V., **Friess, M.**, Foment, A., Hoffmann, A., Kachahce, N.E.J., Kullmer, O., Lordkipanidze, D., Moncel, M.H., Potts, R., Radovic, J., Rak, Y.Z., Richards, M., Mendez, J.R., Rosas, A., Schmauder, M., Schmitz, R.W., Semal, P., Smith, T., Tafuri, M.A., Tattersall, I., Tournepiche, J.F., Toussaint, M., Vassiliev, S., Vialet, A., White, T. & Ziegler, R. (2008): Suggested guidelines for invasive sampling of hominid remains. *J. Hum. Evol.* 55: 756-757.
- Simonis-Sueur, C., **Friess, M.**, Déroit, F. Froment, A. (2008): Analyse de la variabilité morphométrique du crâne. Collections et méthodologie. Actes de la 1833ème Réunion Scientifique de la Société d'Anthropologie de Paris, 23-25 Janvier 2008 (Abstracts).
- Friess, M. (2008): Geography, genes, and modern human skulls: Current approaches to craniofacial variation. *Bull. Mem. Soc. Anthropol. Paris*, n.s., t20 (Abstracts): 38-39.
- Simonis-Sueur, C., Déroit, F. **Friess, M.** (2007) Intégration morphologique, ontogénique et fonctionnelle, du crâne des *Homo sapiens*, par les Two-Block Partial Least Squares. Actes du 5e Symposium « Morphométrie et Évolution des Formes », Paris, 26-27 mars 2007 (Abstracts).
- Friess, M. (2006) The study of craniofacial growth patterns using 3D laser scanning and geometric morphometrics. In: Corner, BD; Li, P & Tocheri, M (eds): *Three-Dimensional Image Capture and Applications*. Proceedings SPIE , Vol 6056 DOI: 10.1117/12.654898.
- Friess, M. (2005) Multivariate accommodation models using traditional and 3D anthropometry. *SAE 2005 Transactions Journal of Passenger Cars: Electronic and Electrical Systems*: 859-862.
- Friess, M. (2005) Allométrie et dimorphisme sexuel chez *Homo sapiens*: analyse Procruste de la croissance craniofaciale (abstract). 27ième colloque du Groupement d'Anthropologues de Langue Française, Mai 2005, Toulouse. France.
- Baylac, M. & **Friess, M.** (2005) Combining Procrustes Superimposition and Fourier descriptors: Analysis of midsagittal cranial outlines. In DE Slice (ed.): *Modern Morphometrics in Physical Anthropology*. Kluwer: 145-165.
- Friess, M., Rohlf, F.J., Hsiao, H. (2004) Quantitative assessment of human body shape using Fourier analysis. In: Brian D. Corner, Peng Li, Roy P. Pargas (Eds.) (2004): *Three-Dimensional Image Capture and Applications VI* p. 117-124.
- Friess, M. Corner, B.D. (2004) From XS to XL: Statistical Modeling of Human Body Shape Change using 3D Surface Scans. *SAE 2004 Transactions, Journal of Aerospace*, Volume 1: 215-220.
- Friess, M., Bradtmiller, B. (2003) 3D Head Models for Protective Helmet Development. *Proceedings of the SAE 2003 Digital Human Modeling Symposium*, Montreal, Canada, June 16-19, 2003.
- Friess, M. (2003) 3D modeling of fall protection harnesses. *Proceedings of the International Ergonomics Association of XVth Triennial Congress and 7th Ergonomics Society of Korea/Japan Ergonomics Society Joint Conference*. Seoul, August 24-29 2003.
- Friess, M. (2003) An application of the relative warps analysis to problems in human paleontology - with notes on raw data accuracy. *Image analysis and stereology* 22: 63-72.
- Friess, M. & Baylac M. (2003) Exploring artificial cranial deformation using Elliptic Fourier Analysis of Procrustes aligned outlines. *Am. J. Phys. Anthropol.* 122 (1): 11-22.

- Delson, E., Reddy, D., Frost, S., Rohlf, F.J., **Friess, M.**, McNulty K., Baab, K., Capellini, T. and Hagell, S. E. (2003) 3D visualization of inferred intermediates on a phylogenetic tree--Applications in paleoanthropology (abstract). *Amer. J. Phys. Anthropol. Suppl.* 35 (abstracts) 36: 86-87.
- Reddy, D.P., Frost, S., **Friess, M.**, Marcus, L.F. & Delson, E. (2002). An interactive database for primate morphometric studies. *Am. J. Phys. Anthropol. Suppl.* 34 (abstracts): p 129.
- Friess, M. (2002) Revisiting human cold adaptation - craniofacial shape assessed by 3D laser scanning. *Am. J. Phys. Anthropol. Suppl.* 34 (abstracts): p 72.
- Delson, E., **Friess, M.**, Marcus L.F. & Reddy D.P. (2002) Assessment of quantitative characters in the distal humerus among hominids (great apes and hominins). *Am. J. Phys. Anthropol. Suppl.* 34 (abstracts): p 61.
- Friess, M., Marcus, L.F., Reddy, D.P. & Delson, E. (2002) The Use of 3D Laser Scanning Techniques for the Morphometric Analysis of human Facial Shape Variation. Three-Dimensional Imaging in Paleoanthropology and Prehistoric Archaeology. (Proceedings of the XIVth UISPP Congress, 2001), ed. B. Mafart and H. Delingette. British Archaeological Reports, S1049. Archaeopress: Oxford, UK
- Baylac, M. & **Friess, M.** (2002) Combining Procrustes Superimposition and Fourier descriptors: Analysis of midsagittal cranial outlines. *Am. J. Phys. Anthropol. Suppl.* 34 (abstracts): p 41.
- Castex, D. & **Friess, M.** (2001) Ein Pestsommer in der Provence. Demographische Anomalien im Zusammenhang mit Epidemien. In A Kemkes-Grottenthaler & W Henke (eds.) *Pein und Plagen. Aspekte einer Historischen Epidemiologie.* Edition Archaea, Frankfurt a. M.
- Friess, M. (2000b) Cranial Size and shape in Upper Pleistocene hominids – Contributions of geometric morphometrics to later human evolution. In M. Schultz (ed.): *Internationale Anthropologie.* VML-Verlag Leidorf GmbH, Bielefeld.
- (2000a) Application des "thin-plate splines" en Paléanthropologie: nouvelles données et leurs implications pour l'origine de l'Homme moderne. In Andrieux P., Hadjouis D., & Dambricourt Malassé A. (eds.): *L'identité humaine en question, nouvelles problématiques et nouvelles technologies en Paléontologie biologiques.* Actes du Colloque, Créteil, 26-28 Mai 1999.
  - (1999b) Some aspects of Cranial Size and Shape, and Their Variation among Later Pleistocene Hominids. *Anthropologie (Brno)* 37/3 : 231-238.
  - (1999a) Taille et conformations crâniennes chez les Hominidés de la fin du Pléistocène. Contributions de la morphométrie géométrique au débat sur l'origine de l'homme moderne. *BAR International Series* 799, Oxford: 241 p.
  - (1998) Cranial size and shape in Upper Pleistocene hominids – Contributions of geometric morphometrics to later human evolution. *Homo* 49 (supplement) : S34.
  - (1997c) Origine de l'Homme moderne : l'apport de la morphométrie géométrique. *Bull. Soc. Anthropol. Sud-Ouest* 32/3-4: pp 67–93.
  - (1997b) Analyses de formes crâniennes fondées sur la photogrammétrie. *Biom. Hum. et Anthropol.* 15(1-2) : 19-22.
  - (1997a): Innovative Ansätze zur Erfassung osteomorphometrischer Daten. *Bull. Soc. Suisse d'Anthrop* 1, 3: 37-54.