SAMAR M. SYEDA

Kalbfleisch Postdoctoral Research Fellow

Richard Gilder Graduate School and the Division of Anthropology, American Museum of Natural History

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	A CADEMIC APPOINTMENTS	
2024 – present	Kalbfleisch Postdoctoral Research Fellow and Gerstner Scholar, Richard Gilder Graduate School, Department of Anthropology, American Museum of Natural History, USA	
2024 – present	Associate Researcher , Department of Human Origins, Max Planck Institute for Evolutionary Anthropology, Germany	
	EDUCATION	
Ph.D Anthropolo University of Kent	ogy nt, U.K.	Nov. 2023
<u>Thesis:</u> Reconstruc extant hominid ph Advisors: Dr	uction of manual behaviours in fossil hominins: functional inferences from co halanges. Dr. Tracy L. Kivell; Dr. Matthew M. Skinner	ortical bone structure of
MSc in Biological . University of Kent	l Anthropology ht, U.K.	Sept. 2020
<u>Thesis:</u> A closer loc locomotor repertoi Advisor: Dr.	ook at the proximal and intermediate phalanges of great apes and modern h pire of Australopithecus sediba. r. Tracy L. Kivell	iumans: Implications for the
BSc in Human Evo Stony Brook Unive <u>Thesis:</u> Modelling Advisors: Dr	volutionary Biology; BA in Anthropology versity, NY, USA g <i>the evolutionary integration of primate limbs.</i> Dr. Jeroen B. Smaers; Dr. Christopher J. Percival; Dr. Alan H. Turner.	May 2019
	R ESEARCH INTERESTS	
Palaeoanthropology bone structure; Locc	y; Fossil hominin behavioural reconstruction; Primate post-cranial functio comotor biomechanics	onal morphology; Internal
	PUBLICATIONS	
2025		

Syeda, S. M., Dunmore, C. J., Skinner, M. M., Berger, L. R., Churchill, S. E., Zipfel, B., & Kivell, T. L. (2024). Cortical bone distribution of hand phalanges reveals different dexterous and climbing behaviours in *Australopithecus sediba* and *Homo naledi*.(In review; Science Advances).

Syeda, S. M., Skinner, M. M., Kivell, T. L., & Tocheri, M. W. (**In prep.**). The *Homo floresiensis* thumb: predicting pollical metacarpal morphology via pollical proximal phalanx.

2024

Kivell, T. L., Bardo, A., Bird, E. E., Dunmore, C. J., Gidna, A., **Syeda, S. M.,** Steer, N. G., Tocheri, M. W., Tsegai, Z. J., Gloumakov, Y., Dollar A. M., & Skinner, M. M. (**In prep.**). Climbing was important at the root of genus *Homo*.

Syeda, S. M., Tsegai, Z. J., Cazenave, M., Skinner, M. M., & Kivell, T. L. (2024). Cortical bone architecture of hominid intermediate phalanges reveals functional signals of locomotion and manipulation. *American Journal of Biological Anthropology*, *184*, *e24902*.

2023

Syeda, S. M., Tsegai, Z. J., Cazenave, M., Skinner, M. M., & Kivell, T. L. (2023). Cortical bone distribution of the proximal phalanges in great apes: implications for reconstructing manual behaviours. *Journal of Anatomy*, 243(5), 707-728.

2021

Everett, M. C., Elliott, M. C., Gaynor, D., Hill, A. C., **Syeda, S. M.,** Casana, J., Zipfel, B., DeSilva, J. M. and Dominy, N. J. (2021). Mechanical loading of primate fingers on vertical rock surfaces. *South African Journal of Science*, *117*(11-12), 1-6.

CONFERENCE PRESENTATIONS

2024

Syeda, S. M., Skinner, M. M., Gidna, A., Zipfel, B., Churchill S. E., Berger, L. R., & Kivell, T. L. (2024). Phalangeal cortical bone morphology suggests diversity in hominin hand use. *The gth biennial Eastern Africa Association for Palaeoanthropology and Palaeontology conference*. Podium

2023

Kivell, T. L., Tsegai, Z. J., Bird, E. E., Dunmore, C. J., **Syeda, S. M.,** & Skinner, M. M. (2023). Life among the trees? Sir Arthur Keith's 'plantigrade stage' in the *Homo habilis* hand (OH 7) and foot (OH 8) remains. *American Journal of Biological Anthropology*, 180(S75), p. 92. Podium.

Syeda, S. M., Tsegai, Z. J., Cazenave, M., Skinner, M. M., & Kivell, T. L. (2023). Cortical bone structure of the proximal phalanges varies in relation to hand use and posture in hominoids. *American Journal of Biological Anthropology*, *180*(S75), p. 173. Poster.

Syeda, S. M., Alamsyah, N., Dunmore, C. J., Tsegai, Z. J., Cazenave, M., Tocheri, M. W., Skinner, M. M., & Kivell, T. L. (2023). Hand use in fossil hominins: reconstruction of manual behaviours via phalangeal cortical bone morphology. *PaleoAnthropology, 2*, p. 396. Podium.

2022

Syeda, S. M., Tsegai, Z. J., Cazenave, M., Dunmore, C. J., Skinner, M. M., & Kivell, T. L. (2022). Reconstructing hand use in *Australopithecus sediba* and *Homo naledi*: mapping variation in cortical thickness across the proximal and intermediate phalanges. *PaleoAnthropology, 2*, p. 588. Poster.

2021

Kivell, T. L., Bardo, A., **Syeda, S. M.,** Steer, N. G., Dunmore, C. J., Tocheri, M. W., Gloumakov, Y., Dollar, A. M., Gidna, A., & Skinner, M. M. (2021). Revisiting the functional morphology of the Homo habilis OH 7 hand. *PaleoAnthropology*, 1, p. 200. Poster.

Syeda, S. M., Tsegai, Z. J., Dunmore, C. J., Cazenave, M., Skinner, M. M., & Kivell, T. L. (2021). Inferring hand use in *Australopithecus sediba*: Analysis of the external and internal morphology of hominin proximal and intermediate phalanges. *PaleoAnthropology*, *1*, p. 258. Poster.

SOFTWARE SKILLS AND TRAINING

Avizo, Geomagic, Image J, Medtool, MeshLab, Micro-CT data, Paraview, R for statistical analysis

TEACHING AND OUTREACH ACTIVITIES

Teaching experience

University College London | London, U.K.

- ANTH0008/0010: Introduction to Biological Anthropology
- ANTH0008/0010: Introduction to Biological Anthropology

Jan. 2024 – Mar. 2024 Jan. 2023 – May 2023

University of Kent | Canterbury, U.K.

• ANTB5410: Palaeoanthropology

- ANTB5410: Palaeoanthropology
- SE302: Foundations of Biological Anthropology

Stony Brook University | Stony Brook, NY

- ANP404: Human Osteology
- ANP120: Introduction to Biological Anthropology
- ANT270: Great Archaeological Discoveries
- EBH230: Computer based Biostatistics •

Outreach activities

- Invited talk at the University of Liverpool Evolutionary Anthropology Webinar Series (February 2025). •
- Invited talk on 'Biomechanics of the Human Body: The limits of movement an exploration of how human anatomy should and shouldn't move' presented to young medical students (July 2023).
- Organised, alongside Dr. Mackie O'Hara, the BioAnth seminar series at the School of Anthropology and Conservation of University of Kent (Jan. 2023 – April 2023)
- Invited talk at the PaleoTalks seminar hosted by University of Kent's Undergraduate Anthropology Society (Dec. • 2022).
- Introduction of Palaeoanthropology talk to elementary school students (year 3) from Kent College, Canterbury, U.K (Nov. 2021 and Nov. 2022).

ADDITIONAL RESEARCH EXPERIENCE

Independent research

Evolution of primate limb proportions

 Using quantitative genetic theory and predictions, I am testing for limb integration across multiple primate grades through the application of phylogenetic comparative methods.

Stony Brook University | Stony Brook, NY

Independent Research, Turkana Basin Institute Measured mesiodistal and buccolingual length of molars belonging to faunal remains from Central Napudet, a

- Miocene site in Northern Kenya, to determine whether these remains belong to the Plio-pliestocene or the Miocene. Independent Research, Percival Lab: Dept. of Anthropology
 - Jan. 2018 May. 2018 • Studied variation in craniofacial phenotypes in inbred strains of adult mice through measurement of bone density and volume. Amira was used for data visualization and R for statistical analysis. Feb. 2017 - Dec. 2017
- Intern, Lu Endocrinology Lab: Dept. of Physiology (Health Sciences Center)
 - Examined the role of energetics in male reproductive strategies of Geladas through non-invasive hormone sampling and radioimmunoassay to ultimately understand the reproductive ecology and physiological processes that underlay mechanisms of reproductive competition in Geladas.
- **Research Assistant**, Henn Lab for Population Genetics: Dept. of Ecology and Evolution Sept.2016 - Dec.2016 • Extracted DNA from saliva samples of the Himba population to assess paternity.
- Intern, Lu Lab of Digital Photogmettery: Dept. of Anthropology Aug. 2016 - Dec. 2017 • Compiled morphometric measurements to calculate body structure and limb length of wild geladas.
- Research Assistant, Archaeology of Technology Lab: Dept. of Anthropology
 - Feb. 2016 May 2016 Assemble stone tools used in experiment aimed to assess the level of impact that velocity has on the stone through examination and analysis of the damage incurred by the tools.

Research symposiums

Undergraduate Research and Creative Arts (URECA), Stony Brook University

- Modelling the evolutionary integration of primate limbs
- Variation in bone density and volume between Adult B6 and 129 inbred strain mice

Field experience

Turkana Basin Institute Summer Field School | Kenya

• Participated in archaeological excavation and survey at Nakwaperit, a middle Holocene site.

Sept. 2021 – Dec. 2021 Jan. 2021 – April 2021

Dec. 2018 – May 2019 Aug. 2018 – Dec. 2018 Jan. 2018 – May 2018 Aug. 2017 – Dec. 2017

Oct. 2020 – ongoing

Jul. 2018 - Aug. 2018

Jul. 2018 – Aug. 2018

April 2019

April 2018

- Worked with bioarchaeological remains and refit skeletal elements in order to understand the past population of this region.
- Participated in paleoanthropological excavation and survey and Lomekwi 3, a Pliocene site.

Creu de Conill | Spain

June 2024

since 2020

- Participated in paleontologically excavation and survey at an early Miocene site.
 - Mainly excavated fossil horse and bovid remains

GRANTS AND AWARDS

٠	RGGS Kalbfleisch Postdoctoral Research Fellowship (\$69,085 per year for 2 years)	May 2024	
٠	ESHE Student Travel Grant (€200)	Sept. 2023	
٠	Department of Anthropology: Outstanding Student of the Class of 2019	May 2019	
٠	Benjamin A. Gilman International Scholarship (\$5000)	May 2018	
٠	IIE Generation Study Abroad Travel Grant (\$2500)	April 2018	
•	Jane C. Waldbaum Archaeological Field School Scholarship (\$1500)	April 2018	
PROFESSIONAL MEMBERSHIP			
٠	American Association of Biological Anthropology	since 2022	
٠	European Society for the Study of Human Evolution	since 2021	

• American Anthropological Association