Matthew Vincent Caruana

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Academic Positions

Lecturer (2019 – Present) at the Palaeo-Research Institute, University of Johannesburg, South Africa.

Post-Doctoral Fellow (2017 – 2019) at the DST-NRF Center of Excellence in Palaeosciences, the University of the Witwatersrand, South Africa.

Post-Doctoral Fellow (2016 – 2017) at the Center for Anthropological Research, University of Johannesburg, South Africa.

Academic Degrees

Doctor of Philosophy (2009 – 2015) in archaeology from the University of the Witwatersrand, Johannesburg, South Africa.

Master of Arts (2006 – 2007) in archaeology from the University of Manchester, England. Graduated with distinction.

Bachelor of Arts (2000 - 2004) in cultural anthropology from the University of California, Los Angeles, USA. GPA: 3.4.

Funding

2020

European Commission Erasmus Credit Mobility (KA107-078650) grant for exploring the use of elephant bone as a raw material at Castel di Guido (Italy) (70,000 ZAR). Grant collaborator with Prof Giovanni Boschian (University of Pisa, Italy) and Stephanie Baker (UJ).

Australian Research Counsel grant (DP200100194) for the Amanzi Springs Archaeological Research Project (408,000 AUD). Grant collaborator with Prof Andy I. R. Herries (La Trobe University, Australia).

2019

National Geographic Society grant (NGS-50153R-19) for the Amanzi Springs Archaeological Research Project (30,000 USD). Grant collaborator with Prof Andy I. R. Herries (La Trobe University, Australia).

Palaeontological Scientific Trust research grant for Swartkrans Cave (20,000 ZAR).

2017

DST-NRF Center of Excellence in Palaeosciences postdoctoral fellowship (3-year) hosted at the University of the Witwatersrand, South Africa (230,000 ZAR).

2011

Palaeontological Scientific Trust bursary (3-year) for PhD research in archaeology (53,000 ZAR).

2009

Palaeontological Scientific Trust bursary (3-year) for PhD research in palaeoanthropology (53,000 ZAR).

Publications

Peer-Reviewed Journals

2021

Caruana, M.V. 2021. Pilot study examining the effects of thinning processes on the cross-sectional morphologies of Early and Late Acheulian handaxes. *Archaeometry* 63, 481-499.

Kuman, K., Granger, D.E., Gibbon, R.E., Pickering, T.R., **Caruana, M.V.**, Bruxelles, L., Clarke, R., Heaton, J.L., Stratford, D.J., Brain, C.K. 2021. New absolute dates from Swartkrans Cave for the oldest occurrences of Oldowan artifacts and *Paranthropus* in southern Africa. *Journal of Human Evolution* 156, 103000.

2020

Caruana, M.V. 2020. South African handaxes reloaded. *Journal of Archaeological Science: Reports* 34A, 102649.

Caruana, M.V. 2020. Exploring the influence of predation risks on Oldowan toolmaking in South Africa: A behavioural ecological perspective on technological variability. *Journal of Field Archaeology* 45, 608-620.

Herries, A.I.R., Martin, J.M., Leece, A.B., Adams, J.W., Boschian, G., Joannes-Boyau, R., Edwards, T.R., Mallett, T., Massey, J., Murszewski, A., Neubauer, S., Pickering, R., Strait, D.S., Armstrong, B.J., Baker, S.E., **Caruana, M.V.**, Denham, T., Hellstrom, J., Moggi-Cecchi, J., Mokobane, S., Penzo-Kajewski, P., Rovinsky, D.S., Schwartz, G.T., Stammers, R.C., Wilson, C., Woodhead, J., Menter, C. 2020. Contemporaneity of *Australopithecus*, *Paranthropus*, and early *Homo erectus* in South Africa. *Science* 368, 28-47.

Caruana, M.V., van der Walt, J., Lombard, M. 2020. Evidence of Earlier Stone Age occurrences on the Barberspan landscape, North West Province, South Africa. *South African Archaeological Bulletin* 75, 49-57.

Lombard, M., Caruana, M.V., van der Walt, J., Högberg, A. 2020. The Keimoes 3 'desert kite' site, South Africa: An aerial LiDAR and micro-topographic exploration. *Antiquity* 94, 197-211.

Forssman, T.R., Lotter, M.G., **Caruana, M.V.**, Stratford, D.J. 2020. A Tswana stone-walled structure near Sterkfontein Caves in the Cradle of Humankind. *South African Archaeological Bulletin* 75: 37–145.

2019

Caruana, M.V., Tasker, D., Stratford, D.J. 2019. Identifying raw material transport and reduction strategies in lithic scatters from Elandsdrift Farm, Cradle of Humankind World Heritage Site, South Africa. *African Archaeological Review* 36, 271-289.

Caruana, M.V., Stratford, D.J. 2019. A historical perspective on the significance of archaeology in the Cradle of Humankind, South Africa. *The Goodwin Series* 12, 44-55.

Herries, A.I.R., Adams, J., Joannes-Boyau, R., Armstrong, B., Baker, S.E., Boschian, G., Blackwood, A., **Caruana, M.V.**, Murszewski, A., Penzo-Kajewski, P., Rovinsky, D. 2019. Integrating palaeocaves into palaeolandscapes: Age estimates for the Drimolen hominin-bearing palaeocave system and an analysis of cave levels and karstification history across the Gauteng Malmani Dolomites, South Africa. *Quaternary Science Reviews* 220, 310-334.

2018

Caruana, M.V., Mtshali, S.P. 2018. Assessing the durability of Oldowan stone tools in South Africa: Implications for quartz selectivity and use. *Lithic Technology* 43, 245–254.

Stratford, D.J., Caruana, M.V. 2018. The long-term conservation of the *Australopithecus* bearing Member 4 excavation walls at the Sterkfontein Caves, South Africa. *Studies in Conservation* 63, 201-214.

Stammers, R., Caruana, M.V., Herries, A.I.R. 2018. The first bone tools from Kromdraai and stone tools from Drimolen, and the place of bone tools in the South African Earlier Stone Age. *Quaternary International* 495, 87-101.

2017

Caruana, M.V. 2017. Lithic production strategies in the Oldowan assemblages from Sterkfontein Member 5 and Swartkrans Member 1, Gauteng Province, South Africa. *Journal of African Archaeology* 15, 1-19.

Stammers, R., Spry, C., Herries, A.I.R., **Caruana, M.V.** 2017. Holocene LSA archaeology from Equus Cave, Buxton-Norlim Limeworks, South Africa: An analysis of the bone tool assemblage. *The South African Archaeological Bulletin* 72, 103–115.

Stratford, D.J., Heaton, J.L., Pickering, T.R., **Caruana, M.V.**, Shadrach, K., 2016. First hominin fossils from Milner Hall, Sterkfontein, South Africa. *Journal of Human Evolution* 91, 167–173.

Kuhn, B.F., Herries, A.I.R., Price, G.J., Baker, S.E., Hopley, P., Menter, C., Caruana, M.V. 2016. Renewed investigations at Taung; 90 years after the discovery of *Australopithecus africanus*. *Palaeontologica africana* 51, 10-26.

2014

Caruana, M.V., Carvalho, S., Braun, D.R., Presnyakova, D., Haslam, M., Archer, W., Bobe, R., Harris, J.W.K., 2014. Quantifying traces of tool use: A novel morphometric analysis of damage patterns on percussive tools. *PloS One* 9, 1–18.

Edited Volume Chapters

2020

Caruana, M.V., Herries, A.I.R., 2020. An Acheulian balancing act: A multivariate examination of size and shape in handaxes from Amanzi Springs, Eastern Cape, South Africa. In: Cole, J., McNabb, J., Grove, M., Hosfield, R. (Eds.), *Landscapes of Human Evolution*. Archaeopress, Oxford, U.K., 91–115.

2013

Caruana, M.V., d'Errico, F., Backwell, L. 2013. Early hominin social learning strategies underlying the use and production of bone and stone tools. In: Sanz, C., Boesch, C., Call, J. (Eds.), *Tool Use in Animals: Cognition and Ecology*. Cambridge University Press, Cambridge, U.K., 242-285.

In Press, Accepted

Caruana, M.V., Herries, A.I.R. Modelling Production Mishaps in Late Acheulian Handaxes from the Area 1 Excavation at Amanzi Springs (Eastern Cape, South Africa) and Their Effects on Reduction and Morphology. *Journal of Archaeological Science: Reports*.

Caruana, M.V. Extrapolating later Acheulian handaxe reduction sequences in South Africa: A case study from the Cave of Hearths and Amanzi Springs. *Lithic Technology*.

Lombard, M., Lotter, M.G., van der Walt, J., **Caruana, M.V.** The Keimoes kite landscape: An aerial LiDAR exploration. *Archaeological and Anthropological Sciences*.

Submitted

Lotter, M., Caruana, M.V., Lombard, M. Large Cutting Tools from the later Acheulean site of Wonderboom in the Magaliesberg Biosphere, South Africa. *Lithic Technology*.

Lotter, M., Caruana, M.V. Exploring core reduction preferences at Penhill Farm, Lower Sundays River Valley, South Africa. *South African Archaeological Bulletin*.

In Preparation

Lombard, M., **Caruana, M.V.**, Lotter, M. Wonderboompoort, South Africa: A natural funnel trap for game during the Acheulean? *Journal of Human Evolution*.

Caruana, M.V., Wilson, C., Arnold, L., Boschian, G., Blackwood, A., Herries, A.I.R. The geochronology and archaeology of the Area 2 'Deep Sounding' sequence at Amanzi Springs (Eastern Cape, South Africa). *Quaternary Science Reviews*.

Herries, A.I.R., Arnold, L., Boschian, G., Blackwood, A., Wilson, C., Meredith-Williams, M., Demuro M., Mallett, T., Armstrong, B., Penzo-Kajewski, P., **Caruana, M.V.** First dates for a Marine Isotope Stage 11 coastal occurrence of an Acheulian workshop and associated wood at Amanzi Springs Area 1, South Africa. *Journal of Human Evolution*.

Professional Development

Permits for Palaeoanthropological and Archaeological Sites

Amanzi Springs (2018 – 2021): Principal Investigator in collaboration with Prof Andy I. R. Herries. Eastern Cape Province, South Africa.

Sterkfontein Caves (2019 – 2021): Permit collaborator with Prof Dominic J. Stratford. Gauteng Province, South Africa.

Swartkrans Cave (2016 – 2019): Permit collaborator with Profs Travis R. Pickering and Kathleen Kuman. Gauteng Province, South Africa.

Taung World Heritage Site (2015 – 2018): Permit collaborator with Dr Brian F. Kuhn. North West Province, South Africa.

Leopard Rock Shelter (2015 – 2018): Principal Investigator in collaboration with Dr Timothy R. Forssman. Gauteng Province, South Africa.

Fieldwork

Amanzi Springs (2016 – Present): Principal investigator in collaboration with Prof Andy I. R. Herries. Duties are to manage the excavation and analysis of Acheulean archaeological assemblages. Eastern Cape Province, South Africa.

Swartkrans Cave (2017 – 2019): Principal investigator in collaboration with Profs Travis R. Pickering and Kathleen Kuman. Duties were to manage excavations of Early Pleistocene palaeoanthropological deposits and analyze Earlier and Middle Stone Age archaeological assemblages. Gauteng Province, South Africa.

Drimolen Fossil Site (2014 – Present): Researcher in collaboration with Ms Stephanie E. Baker and Prof Andy I. R. Herries. Duties are to analyze Earlier Stone Age archaeological

assemblages. Former excavation manager of the Makondo deposits for the Drimolen field school.

Barberspan (2016 – 2018): Survey and data manager for Prof Marlize Lombard. Duties were to manage surveys and the excavation of a Middle Stone Age site, as well as analyze Earlier Stone Age archaeological assemblages. Northern Cape Province, South Africa.

Leopard Rock Shelter (2016 – 2018): Principal investigator in collaboration with Dr Timothy R. Forssman. Duties were to manage excavations of Later Stone Age archaeological assemblages. North West Province, South Africa.

Black Earth Cave (2014 – 2018): Principal investigator in collaboration with Prof Andy I. R. Herries. Duties were to manage excavations of Late Pleistocene palaeontological deposits. Taung World Heritage Site, North West Province, South Africa.

Equus Cave (2014 – 2018): Principal investigator in collaboration with Prof Andy I. R. Herries. Duties were to manage the excavation of Later Stone Age archaeological assemblages. Taung World Heritage Site, North West Province, South Africa.

Taung World Heritage site (2014 – 2018): Researcher in collaboration with Dr Brian F. Kuhn and Prof Andy I. R. Herries. Duties were to manage the excavation of Early Pleistocene palaeoanthropological deposits from the Dart and Hrdlička Pinnacles. North West Province, South Africa.

Koobi Fora Formation (2013 – 2015): Researcher in collaboration with Profs David R. Braun and John W. Harris. Duties were to analyze percussive tools from Early Pleistocene archaeological sites as a part of the 'Koobi Fora Pounding Tool Survey Project'. Lake Turkana, Kenya.

Canteen Kopje (2011): Excavator for Prof Kathleen Kuman and Dr Timothy R. Forssman. Duties were to excavate Later Stone Age archaeological assemblages. Northern Cape Province, South Africa.

Sibudu Cave (2009): Excavator for Prof Lyn Wadley. Duties were to excavate Middle Stone Age archaeological assemblages. KwaZulu Natal Province, South Africa.

Teaching

2021

Lecturer for the 1^{st} year archaeology course, "Introduction to human origins" (ATL1A11) at the University of Johannesburg, which covered the palaeoanthropological and archaeological records of Africa, Asia and Europe between 6 Mya – 2 kya.

Lecturer for the Honours anthropology module, "Principals of lithic analysis" (ATL8X09) at the University of Johannesburg, which covered method and theory in data analysis of stone tools. I developed this course for teaching Honours students at the Palaeo-Research Institute.

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2019

Co-Lecturer with Dr Dipuo Kgotleng for the 1^{st} year archaeology course, "Introduction to human origins & evolutionary theory" (ATL1A11) at the University of Johannesburg, which covered the evolution of life on Earth and the palaeoanthropological and archaeological records between 6 Mya - 2 kya.

2018

Co-Lecturer with Dr Justin Bradfield for the 3^{rd} year archaeology course, "Human origins" (ATL3A11) at the University of Johannesburg, which covered the evolution of modern humans and the archaeological record from 300 - 10 kya.

2017

Co-Lecturer with Prof Dominic Stratford for the 3rd year archaeology module, "Data management and statistics" (ARCL3002) at the University of the Witwatersrand, which covered the collection of data and statistical processing for 3rd year projects in geography and archaeology.

2016

Lecturer for the Honours anthropology module, "Palaeoanthropology" (ATL8X09) at the University of Johannesburg, which covered early hominin palaeobiology, ecology and behaviour in the South African fossil record.

Lecturer for the 3rd year undergraduate anthropology course, "Human origins" (ATL3A11) at the University of Johannesburg, which covered Earlier and Middle Stone Age archaeology in relation to the evolution of hominin culture and cognition.

2015

Lecturer for the Honours anthropology module, "Principals of lithic analysis" (ATL8X10) at the University of Johannesburg, which covered method and theory in the analysis of stone tools.

2011 - 2014

Head Teaching Assistant for Prof Kathy Kuman in 1st and 3rd year undergraduate archaeology courses (ARCL1000, 1001 & 3000) at the University of the Witwatersrand.

Lecturer for the Honours palaeontology course, "Introduction to archaeology" (PALP1011) at the University of the Witwatersrand, which covered the Earlier to Later Stone Age archaeological record in South Africa.

Field Schools

Co-Director (2017 – 2019) of the Swartkrans field school in collaboration with Prof Travis R. Pickering (University of Wisconsin, Madison).

Co-Director (2016 – 2018) of the Amanzi Springs field school in collaboration with Prof Andy I. R. Herries (La Trobe University, Melbourne, Australia).

Teaching Assistant (2014 – 2016) for the Drimolen field school in collaboration with Dr Colin Mentor (University of Johannesburg) and Prof Andy Herries (La Trobe University, Melbourne, Australia).

Teaching Assistant (2011 - 2014) for the 3^{rd} year undergraduate field course (ARCL3000) at Maropeng, hosted through the Archaeology Department at the University of the Witwatersrand.

Teaching Assistant (2010) for the Honours palaeontology module (PALP1010) at Cooper's Cave, hosted through the Bernard Price Institute at the University of the Witwatersrand.

Presentations

2021

Caruana, M.V. "Amanzi Springs: an MIS 11 Acheulian Record, South Africa." Southern African Archaeology Student Society, Student Development Conference: *From the Stone Age to the Virtual Age.* 24 June 2021.

2020

Caruana, M.V. "Amanzi Springs: Late Acheulian technology & site function during MIS 11." Palaeo-Research Institute Online Forum. 14 May 2020.

2018

Caruana, M.V. "Re-examining technological trends in the Oldowan industry of South Africa: Recent Experimental Insights and Future Directions for Research." The University of Johannesburg Palaeo-Research Symposium, Johannesburg, South Africa. 3 November 2018.

Caruana, M.V. "Characterizing bipolar knapping at Swartkrans Cave." 1st African Conference on Experimental Archaeology (ACE), Johannesburg, South Africa. 15 June 2018.

Caruana, M.V. "The Amanzi Springs archaeological project: Digital techniques in fieldwork and analysis." the University of Johannesburg Palaeo-Research Symposium, Johannesburg, South Africa. 15 November 2017.

Tuosto, K., Ascoli, S., Braun, D.R., Carvalho, S., Bobe, R., Wynn, J., Harris, J.W.K., **Caruana, M.V.**, Patterson, D. "Selectivity among Early Pleistocene hominins: New evidence from the Koobi Fora Formation." Poster presentation. Paleoanthropology Society Meeting, Vancouver, Canada. 05 April 2017.

2016

Caruana, M.V. "Controversies in defining humanity and intelligence in archaeology: Lessons from our early hominin ancestors." The Annual Symposium of the South African Archaeological Society, Northern branch, Johannesburg, South Africa. 24 November 2016.

2015

Caruana, M.V. "The Acheulean occupation at Amanzi Springs: 50 years after H. J. Deacon." Franco-South African Cooperation in Archaeology Symposium, Johannesburg, South Africa. 03 December 2015.

2014

Caruana, M.V. "A new method for identifying traces of percussive technology in the archaeological record: Bringing statistical quantification to percussive use-wear analysis." 14th Congress of the Pan African Archaeological Association, Johannesburg, South Africa. 26 June 2014.

2012

Caruana, M.V. "A preliminary analysis of percussive technology from South Africa: Some implications for the Zhoukoudian hammerstones." Sino-African Forum of Palaeoanthropology at the Institute for Vertebrate Palaeontology & Palaeoanthropology, Beijing, China. 29 June 2012.

2011

Kuhn, B.F., Hopley, P., Herries, A.I.R., Baker, S.E., **Caruana, M.V.**, Menter, C. "Taung...A River ran through it." Poster presentation. 71st Anniversary Annual Society of Vertebrate Palaeontology, Las Vegas, NV, USA. 19 July 2011.

2010

Caruana, M.V. "Social learning strategies underlying Plio-Pleistocene stone knapping and bone tool use." Palaeontological Society of Southern Africa, Howick, Kwazulu Natal, South Africa. 14 June 2010.

d'Errico, F., Backwell, L., **Caruana, M.V.** "Early hominin bone tools: Archaeological reflections of different eco-cultural niches?" Multidisciplinary Perspectives on the Cognition and Ecology of Tool Using Behaviors Conference at the Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany. 02 February 2009.

Research Skills

Management of archaeological excavations – Seven years of experience in managing excavations of archaeological and palaeontological sites in South Africa.

Archaeological surveying and management of spatial data – Seven years of experience with setting up and managing survey and spatial grids for archaeological excavations.

Total station operation – Seven years of experience with operating Nikon, Topcon and Leica total stations for archaeological excavations.

LiDAR and aerial imagery – Four years of experience with processing LiDAR and aerial imagery for high-resolution mapping and analysis of archaeological sites.

Geographical Information Systems software – Nine years of experience with analyzing survey data collected from archaeological excavations with ArcGIS and QGIS software.

3D scanning and analysis – Nine years of experience with operating NextEngine and Arctec 3D scanner and using 3D software for analysis including Geomagic, Avizo, Cloud Compare and Meshlab.

Photogrammetry – Five years of experience with processing photographs into 3D models using Agisoft Metashape software.

R Scripting – Two years of experience with scripting in R-statistics language for archaeological analyses.

Peer Reviewing

Science Reports - Nature
Journal of Human Evolution

Plos One

Transactions of the Royal Society, London: Biology

Journal of Archaeological Science

Journal of Archaeological Science: Reports Archaeological and Anthropological Sciences

Journal of Palaeolithic Archaeology

Azania

South African Archaeological Bulletin

International Collaborators

Prof Andy I.R. Herries (La Trobe University, Melbourne, Australia)

Prof Travis R. Pickering (University of Wisconsin-Madison, Wisconsin, USA)

Prof Lee Arnold (University of Adelaide, Adelaide, Australia)

Prof Giovanni Boschian (University of Pisa, Pisa, Italy)

Dr Matthew Meredith-Williams (La Trobe University, Melbourne, Australia)

Dr Renaud Joannes-Boyau (Southern Cross University, New South Wales, Australia)

Dr Laurent Bruxelles (INRAP | CNRS, Bordeaux, France)

Prof David R. Braun (George Washington University, Washington D. C., USA)

Prof John W. K. Harris (Rutgers University, New Jersey, USA)

Prof Jason Heaton (Birmingham-Southern College, Alabama, USA)

Prof David Strait (Washington University, Saint Louis, Missouri, USA)

Students

Current

Kelita Shadrach (PhD): Enrolled at the University of the Witwatersrand. Project title: "Acheulean technological behaviour: a comparative analysis of inland versus coastal sites, South Africa". Co-supervisor.

Coen Wilson (PhD): Enrolled at La Trobe University in Melbourne, Australia. Project title: "A Geometric Morphometric Exploration of Diachronic Change in Acheulian Large Cutting Tool Form from Amanzi Springs, Eastern Cape, South Africa: MIS 13 - 9". Co-Supervisor.

Graduated

Daniel Tasker (2020): Master of Science degree from the University of the Witwatersrand. Thesis title: "Raw Material Sourcing and Economy from the Acheulean Open-Air Site of Maropeng, Cradle of Humankind, South Africa". Co-supervisor.

Daniel Tasker (2018): Honours degree from the University of the Witwatersrand. Thesis title: "A Preliminary Assessment of the Open-Air Lithic Assemblage from Elandsdrift Farm, Cradle of Humankind, South Africa". Co-supervisor.

Neo Makwela (2016): Honours degree from the University of Johannesburg. Thesis title: "A Geometric Morphometric Analysis of Shape Variability in Acheulean Handaxes from South Africa: Testing Refinement in Rietputs 15 and Cave of Hearths Assemblages". Primary supervisor.

Samukelisiwe Mtshali (2015): Honours degree from the University of Johannesburg. Thesis title: "South African Oldowan Flake Utility: Experimental Butchery and the Analysis of Stone Tool Attrition in Quartz and Quartzite Materials from the Sterkfontein Valley". Primary supervisor.

Vishal Naik (2015): Honours degree from the University of Johannesburg. Thesis title: "A Biomechanical Assessment of Technological Skill in Oldowan Knapping Methods: Investigating the South African Assemblages". Primary supervisor.

Community Engagement and Outreach

Amanzi Town Outreach Project (2015 – Present): In 2015, a formal meeting between the Community Leader of Amanzi Town (Mrs. R. Komazi), the Headmaster of Amanzi Primary School (Mr. R. Msutwana) and myself identified an urgent need to regularize water access for Amanzi Town. I am now working with Mr. Cornay Keefer (Project Manager, School of Engineering, UJ) to provide water pumps to tap into existing boreholes near Amanzi Town to increase access to water. I have further supported the salary of an intern, Ms. Anelisa Komazi, to gain teaching experience at Amanzi Primary School, as well as donated to a relief fund for the Amanzi Town community during the levels 4 and 5 COVID-19 lockdown in South Africa.

Swartkrans Site Tours (2017 to Present): Since 2017, I have been leading free tours to Swartkrans Cave for both local and international school and university visitors as a means of disseminating scientific information about the site.

University of Johannesburg Honours Program Outreach (2016 - 2019): This involved presenting an open-day lecture for 2^{nd} and 3^{rd} year anthropology students at the University of Johannesburg to make them aware of opportunities for Honours research projects.

Science Communication

Baker, S.E., **Caruana, M.V.** "The oldest Homo erectus in the world: some upstanding work from Drimolen." Public Lecture for Rhodes University (online). 14 April 2020.

Palaeo Talks: Invited to speak at the 22nd Session of Palaeo Talks entitled "Revisiting Africa: Understanding Stone tool chronologies." 7 November 2020.

Baker, S.E., Leece, A.B., Martin, J., Caruana, M.V., Herries, A.I.R., Joannes-Boyau, R. 2020. Fossil find suggests *Homo erectus* emerged 200,000 years earlier than thought. *The Conversation*. 3 April 2020.

Palaeo-Research Institute (PRI) Social Media: I am an account manager for the Facebook and Twitter accounts for the PRI, and post content regularly on these platforms.

Bones & Stones: I am a co-founder and host of the 'Bones & Stones' YouTube channel with Drs. Timothy Forssman and Matt Lotter. The purpose of this video channel is to interview South African students and researchers in effort to promote local palaeo-scientific research. To date we have amassed over 45 video interviews.