## Charles M. Musiba, PhD.

Department of Anthropology, University of Colorado Denver NC Building, Suite 4002, Denver, CO 80204 Email : Charles.Musiba@ucdenver.edu

## Education

- 1999 Ph.D. in Anthropology (physical anthropology), The University of Chicago
- 1995 M.A. in Anthropology (physical anthropology), The University of Chicago
- 1991 M.A. in Human Ecology, Free University of Brussels (VUB), Belgium
- 1985 B.A. (Equiv.,) in biological anthropology, J.W. Goethe Universität Frankfurt, Germany

## **Professional Experience**

2011 - Present

Associate Professor of Anthropology, Director of Graduate Program; Department of Anthropology, University of Colorado Denver, Colorado.

2014-Present

Honorary Visiting Associate Professor, Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg, South Africa.

2011 - Present

Adjunct Associate Professor; Department of Anatomy, St. Francis University College of Health and Allied Sciences, Ifakara, Tanzania.

2005 - 2011

Assistant Professor of Anthropology; Department of Anthropology, University of Colorado Denver, Colorado.

2007 - 2013

Research Associate, Department of Anthropology; Denver Museum of Nature and Science, Denver Colorado.

2002 - 2005

Assistant Professor of Anthropology; Department of Sociology and Anthropology, North Dakota State University, Fargo, North Dakota.

2000 - 2002

Assistant Professor of Anthropology; Department of Anthropology, Southern Connecticut State University, New Haven, Connecticut.

## **Refereed Publications**

2016

Dembo, M., Radovčic, D., Garvin, H.M., Laird, M.F., Schroeder, L., Scott, J.E., Brophy, J., Delezene, L.K., Ackermann, R.R., **Musiba, C.M.**, De Ruiter, D.J., Mooers, A.O., and Collard, M. The evolutionary relationships and age of *Homo naledi*: an assessment using dated Bayesian phylogenetic methods. *Journal of Human Evolution. Journal of Human Evolution*, Vol. 97: 17-26 http://dx.doi.org/10.1016/j.jhevol.2016.04.008.

2016

Wei, P., Wallace, I.J., Jashashvili, T., **Musiba, C.M**., and Liu, Wu. Structural analysis of the femoral diaphysis of an early modern human from Tianyun Cave, China. Quaternary International (2015). <u>Http://dx.doi.org/10.1016/j.quaint.2015.10.099</u>.

2015

Paul HGM Dirks, P.H.G.M., Berger, L.R., Roberts, E.M., Kramers, J.D., Hawks, J., Randolph-Quinney, P.S., Elliott, M., **Musiba, C.M.**, Churchill, S.E., de Ruiter, D.J., Schmid, P., Backwell, L.R., Belyanin, G.A., Boshoff, P., Hunter, K.L., Feuerriegel, E.M., Gurtov, A., Harrison, J.G., Hunter, R., Kruger, A., Morris, H., Makhubela, T.V., Peixotto, B. and Tucker, S. Geological and taphonomic context for the new hominin species *Homo naledi* from the Dinaledi Chamber, South Africa. eLife 2015;4: e09561. <u>http://dx.doi.org/10.7554/eLife.09561</u>.

Berger, L.R., Hawk, J., de Ruiter, D.J., Churchill1, S.E., Schmid, P, Delezene, L.K., Kivell1, T.L., Garvin, H.M., Williams, S.A., DeSilva, J.M., Skinner, M.M., **Musiba, C.M.**, Cameron, N., Holliday, T.W., Harcourt-Smith1, W., Ackermann, R.R., Bastir1, M., Bogin, B., Bolter, D., Brophy, J., Cofran, Z.D., Congdon, K.A., Deane, A.S., Dembo, M., Drapeau, M., Elliott, M.C., Feuerriegel, E.M., Garcia-Martinez, D., Green, D.J., Gurtov, A., Irish, J.D., Kruger, A., Laird, M.F., Marchi1, D., Meyer, M.R., Nalla, S., Negash, E.W., Orr, C.M., Radovcic, D., Schroeder, L., Scott1, J.E., Throckmorton, Z., Tocheri, M.W., VanSickle, C., Walker, C.S., Wei, P., and Zipfel, B. *Homo naledi*, a new species of the genus *Homo* from the Dinaledi Chamber, South Africa. eLife 2015;4: e09560. http://dx.doi.org/10.7554/eLife.09560.

2014

**Musiba, C**. Comments on M. Dominguez-Rodrigo (2014). Is the "Savanna Hypothesis" a dead Concept for Explaining the Emergence of the Earliest Hominins? *Current Anthropology*, vol. 55(1): 59-81.

2014

**Musiba, C.** The administration of Cultural World Heritage Sites and Their Contribution to the Economic Empowerment of Local Communities in Africa. In S. Makuvaza (Ed.); *The Management of Cultural World Heritage Sites and Development in Africa*. SpringerBriefs in Archaeology / SpringerBriefs in Archaeological Heritage Management, 103p.

2014

Dominguez-Rodrigo, M., Diez-Martín, F., Mabulla, A., Baquedano, E., Bunn, H., and **Musiba, C**. The evolution of hominin behavior during the Oldowan-Acheulian transition: Recent evidence from Olduvai Gorge and Peninj (Tanzania). *Quaternary International* (2014), http://dx.doi.org/10.1016/j.quaint. 2014.01.017.

## 2013

Dominguez-Rodrigo, M., Pickering, T.R., Baquedano, E., Mabulla, A., Mark, D.F., **Musiba, C.**, Bunn, H.T., Uribelarrea, D., Smith, V., Diez-Martin, F., Pérez-González, A., Sánchez, P., Santoja, M., Barboni, D., Gidna, G., Ashley, G., Yravedra, J., Heaton, J.L., and Arriaza, M.C. First Partial Skeleton of a 1.34-Million-Year-Old Paranthropus boisei from Bed II, Olduvai Gorge, Tanzania. *PLOS ONE*, Volume 8 (12) e80347: 1-10.

2013

Pickering, T.R., Domínguez-Rodrigo, M., Heaton, J.L., Yravedra, J., Barba, R., Bunn, H.T., **Musiba, C.**, Baquedano, E., Diez-Martin, F., Mabulla, A., and Brain, C.K. 2013. Taphonomy of ungulate ribs and the consumption of meat and bone by 1.2-million-year-old hominins at Olduvai Gorge, Tanzania. *Journal of Archaeological Science*, vol. 40(2):1295-1309.

2013

Gidna, A.O., Kisui, B., Mabulla, A., **Musiba, C.**, and Dominguez-Rodrigo, M. An ecological neotaphonomic study of carcass consumption by lions in Tarangire National Park (Tanzania) and its relevance for human evolutionary biology. *Quaternary International* (2013), http://dx.doi.org/10.1016/j.quaint.2013.08.059.

2012

**Musiba. C.** 2012. Negotiating Conservation and Sustainable Use of Tanzania's Paleoanthropological Heritage: The Laetoli Hominin Footprints Site in Ngorongoro, Northern Tanzania. In Alicia Castillo (Eds.): *Proceedings of the First International Conference on Best Practices in World Heritage: Archaeology*, pages 413-435. Editora, Complutense, Spain.

2012

**Musiba, C.**, Mabulla, A., Mutakyahwa, M., Masao, F., Runyoro, V., Kim, J.Y., Dominguez-Rodrigo, M., Mbwana, N., Ndunguru, F., Odunga, S., Washa, J., Paresso, J., and Stepanek. V. 2012. Tanzania and the Outstanding Universal Value of its paleoanthropology: approaches at Laetoli and lessons learned. In Nuria Sanz (Eds.): *Human Origin Sites and the World Heritage Convention in Africa. World Heritage Papers Series*, Vol. 33: 115-125.

2012

Baquedano, E., Dominguez-Rodrigo, M., and **Musiba**, C. An experimental study of large mammal bone modification by crocodiles and its bearing on the interpretation of crocodile predation at FLK Zinj and FLK NN3. *Journal of Archaeological Science*, vol. 39: 1728-1737.

2012

Dominguez-Rodrigo, M., Bunn, H.T., Pickering, T.R., Mabulla, A.Z.P., **Musiba, C.M.**, Baquedano, E., Ashley, G.M., Diez-Martin, F., Uribelarrea, D., Barba, R., Yravedra, J., Barboni, D., Arriaza, C., and Gidna, A. Autochthony and orientation patterns in Olduvai Bed I: a reexamination of the status of post-depositional biasing of archaeological assemblages from FLK North (FLKN). *Journal of Archaeological Science*, vol. 39(7): 2116-2127.

2012

Dominguez-Rodrigo, M., Pickering, T.R., Diez-Martin, F., Mabulla, A., **Musiba, C**., Trancho, G., Baquedano, E., Bunn, H.T., Barboni, DE., Santoja, M., Uribelarrea, D., Ashley, G., del Sol Martinez-Avilla, M., Barba, B., Gidna, A., Yravedra, J., and Arriaza, C. Earliest Hyperostosis on 1.5-Million-Year-Old Hominin from Olduvai Gorge, Tanzania. *PLoS ONE* 7(10): e46414 doi: 10.1371/journal.pone.0046414.

2012

Dominguez-Rodrigo, M., Gidna, A.O., Yravedra, J., and **Musiba, C.** A comparative Neo-Taphonomic Study of Felids, Hyaenids, and Canids: An analogical Framework Based on Long Bone Modification Patterns. *Journal of Taphonomy*, volume 10(3-4): 151-170.

# 2011

Meldrum, D.J., Lockley, M.G., Lucas, S.G., and **Musiba, C.** Ichnotaxonomy of the Laetoli trackways: The earliest hominin footprints. *Journal of African Earth Sciences*, 60:1-12.

2011

**Musiba, C.M.**, Laciny, C., and Magori, C.C. Endocast of Saldanha skull: revised description, comparative status and behavioral possibilities. In G. Sarana and R.P. Sarivastava (Eds.,) *Studies in Socioal and Physical Anthropology.* Rawat Publications, Jaipur, New Delhi.

2010

Dominquez-Rodrigo, M and **Musiba, C.M**. How accurate are paleoecological reconstructions of early paleontological and archaeological sites. *Evolutionary Biology*, 37: 128-140 (*DOI* 10.1007/s11692-010-9087-2).

2008

**Musiba, C.**, Mabulla, A., Selvaggio, M., and Magori, C. Pliocene Animal trackways at Laetoli: Research and Conservation Potential. *Ichnos* 15: 166-178.

2007

**Musiba, C.M.,** Williams, B., Magori, C.C., Wright, J., and Dechesne, M. Conservation efforts of the Laetoli hominin footprints at Site G: What next? In J.Y. Kim and K.S. Kim (Eds.,) Proceedings of the 2007 International Symposium on the Conservation and Application of Hominid Footprints. Jeju Island, Korea. *Korean Journal of Earth Sciences*.

2007

**Musiba, C.M.**, Magori, C.C., Stoller, M.K., Stein, T., Branting, S., Vogt, M., Tuttle, R.H., Hallgrímsson, B., Killindo, S., Mizambwa, F., Ndunguru, F., Mabulla, A., and Kamamba, D.M.K. Taphonomy and paleoecological context of the Upper Laetolil Beds (Localities 8 & 9), Laetoli in northern Tanzania (Chapter 10). In R. Bobe, Z. Alemseged, and A.K. Behrensmeyer (Eds.). *Hominid environments in the East African Pliocene: an assessment of the faunal evidence.* Vertebrate Paleobiology and Paleoanthropology Series, Kluwer Academic Press.

2005

**Musiba, C.** and Magori, C.C. Laetoli Pliocene Paleoecology: Predictive Behavioral Ecology Model Based on Functional Morphology and Sediment Proxy Data. Proceedings of the *Millennium Workshop on the Cultural Heritage of Tanzania*. In Bertram, E. Mapunda and Paul Msemwa (Eds.). *The Archaeological Heritage of Tanzania*. University of Dar es Salaam Press.

2003

**Musiba, C.** and Mabulla, A.Z. Politics, Cattle, Conservation and Management of Archaeological Resources: Ngorongoro at Crossroads. In C. Kusimba and S.B. Kusimba (eds.), *East African Archaeology: Foragers, Potters, Smiths, and Traders*. University of Pennsylvania Museum of Archaeology and Anthropology Press.

**Musiba, C.**, Selvaggio, M., Magori, C.C., Karoma, N.J., and Kamamba, D.M.K. Merging Community Participation, Science Education, and Conservation of Cultural Heritage: The Role of Tanzania Field School in Anthropology. Proceedings of the *International Conference on Teaching World Heritage and New Technologies of Information and Communication in Africa*, Dakar, Senegal (October 15 – 17, 2002). UNESCO Conference on World Heritage in the Digital Age, 30<sup>th</sup> Anniversary of the World Heritage Convention Publication.

### 1997

**Musiba, C**., Tuttle, R.H. and Hallgrimsson, B. Swift and Sure-footed on the Savanna: A Study of Hadzabe Gaits and Feet in Northern Tanzania. *American Journal of Human Biology, vol.* 9(3): 303-321.

## Manuscripts Submitted (in review)

### 2016

Laird, M.F., Schroeder, L., Garvin, H.M., Scott, J.E. Dembo, M., Radovčić, D., **Musiba, C.M.**, Ackermann, R.R., Schmid, P., Hawks, J. Berger, L.R., and De Ruiter, D.J. The skull of *Homo naledi. Journal of Human Evolution*.

2016

Mabulla, Z.P., **Musiba, C.M.**, Gidna, A.O., Itambu, M.P., and Mabulla, I.A. Museums in Tanzania: History, Transformation and Impact. *Journal of Conservation and Museum Studies*.

2016

Abella, E.F., **Musiba, C**., and Lancaster, T. Morphological Affinities of Recently Discovered Fossil Cercopithecidae from the Pliocene Upper Laetolil Beds in Laetoli, Tanzania. *Quaternary International Journal*.

2016

**Musiba, C.M.** and Kang, Dongjing. Towards a community based conservation and sustainable use of Tanzania's heritage: Lessons from Zhoukoudian (China) to Laetoli (Tanzania) World Heritage Sites. World Heritage-UNESCO International Conference entitled '*African World Heritage as a Driver of Sustainable Development*', to be held from 31 May to 3 June 2016 at the World Heritage property, the Ngorongoro Conservation Area, in Arusha Tanzania.

## **Refereed Presentations at Meetings (peer reviewed abstracts)**

### 2016

Elliott, M.C., Dirks, P.H., Berger, L.R., Roberts, E.M., Kramers, J.D., Hawks, J., Randolph-Quinney, P.S., **Musiba, C.M.**, Churchill, S.E., De Ruiter, D.J., Schmid, P., Blackwell, L.R., Belyanin, G.A., Boshoff, P., Hunter, K., Feuerriegel, E.M., Gurtov, A., Harrison, J.D.G., Hunter, R., Krueger, A., Morris, H., and Peixotto, B. Geological and taphonomic context of excavations within the Rising Star cave system. 85<sup>th</sup> Annual Meetings of the America Association of Physical Anthropologists, Atlanta, Georgia, April 12-16, 2016.

2015

Abella, E., **Musiba, C**. and Lancaster, T. Morphological affinities of recently discovered Cercopithecids from the Pliocene Upper Laetolil Beds at Laetoli, in northern Tanzania. 84<sup>th</sup> Annual Meetings of the America Association of Physical Anthropologists, St. Louis, Missouri, March 25-28, 2015.

2015

**Musiba, C**. Towards a community based conservation and sustainable use of Tanzania's heritage: The Laetoli footprints Project. 95<sup>th</sup> Annual Meetings of the Southwestern Social Science Association, Denver, Colorado, April 8-11, 2015.

2014

Lancaster, T., Musiba, C., and Abella, E. Taphonomic histories and ecomorphological implications of bovids limb elements in construction of hominin habitats at Pliocene Laetoli in

northern Tanzania. 83<sup>rd</sup> Annual Meetings of the America Association of Physical Anthropologists, Calgary, Canada, April 8-12, 2014.

# 2012

Cummings, L.S., Varney, R.A., and **Musiba**, C. A Pollen Record of Vegetation Associated with Hominid Remains from the Laetolil Beds in Tanzania, Africa, Approximately 3 Million Years Ago. *SAA Meetings*, April, 2012.

#### 2011

Bergstrom, K. and **Musiba**, C. Bovid distal femoral morphology as ecological indicators of Pliocene Laetoli environments. *Texas Association of Biological Anthropologists (TABA) Annual Conference*, November 4-5, 2011. San Marcos, Texas.

## 2011

**Musiba, C.,** Matthews, N., Noble, T., Kim, J.Y., and Domínguez-Rodrigo. How many individuals left their footprints at Laetoli? Reinterpretation of the trackways based on recently acquired 3D data. *Society for Vertebrate Paleontology* 71<sup>st</sup> Annual Meetings, November 2-5, 2011. Paris, Las Vegas, Nevada, USA.

#### 2011

Matthews, N.A., Noble, T. A., **Musiba, C.**, and Breithaupt, B.H. Stepping from the past to the future: Cross-range photogrammetry at the Laetoli footprint site in Tanzania. 2011 *GSA Annual Meetings* in Minneapolis, Minnesota (9-12 October, 2011). Paper No. 48-6.

### 2011

**Musiba, C.**, Replogle, M., George, N., Magori, C., Luque, L., Carpio, M., Dominguez-Rodrigo, M., and Bergstrom, K. Taphonomic Study of bone surface modification of Pliocene fossil assemblage from Laetoli, Tanzania. Abstracts of the PaleoAnthropology Society, 2011 Meetings, April 9-12, Minneapolis, MN. *PaleoAnthropology* 2011.

# 2010

**Musiba, C.,** Magori, C. Luque, L.A., Hallgrimsson, B., Rubin, S., Killindo, S., Williams, B., Carpio, J., Bergstrom, J., Caporale, S., and Whyte, A. Newly Discovered Hominin Remains from Upper Laetolil Beds in northern Tanzania. Abstracts of the PaleoAnthropology Society, 2010 Meetings. *PaleoAnthropology* 2010: A0001-A0040

### 2010

**Musiba, C.,** Magori, C., Luque, L.A., Hallgrimsson, B., Rubin, S., Killindo, S., Williams, B., Carpio, J., Bergstrom, K., Caporale, S., and Whyte, A. Newly discovered hominin remains from Upper Laetolil Beds in Northern Tanzania. PaleoAnthropology, April/May 2010, pp. 28.

### 2009

**Musiba, C.M.**, Magori, C., Msemwa, P., Williams, B., Carpio, J., and Mabulla, A.Z.P. Laetoli hominin footprints site G: the changing views of sustainable conservation of Tanzania's ichnofossil record. *American Journal of Physical Anthropology*, Volume 13, issue S48: 197.

### 2009

**Musiba, C.**, Carpio, J., Magori, C., Dechesne, M. Killindo, S., and Williams, B. What does the stratigraphy, taphonomy, and paleoecology of the upper unit of the Laetolil Beds tell us about Laetoli depositional environments during the Pliocene? *East African Association for Paleoanthropology and Paleontology* (EAAPP) 2<sup>nd</sup> Bi-Annual Conference, August 16 – 21, 2009, Arusha, Tanzania.

## 2009

**Musiba, C.,** Magori, C., and Carpio, C. Laetoli Pliocene Ecology Inferred from Bovid Foot Morphology. 50<sup>th</sup> Golden Anniversary of Zinjanthropus Discovery and the Current Establishment of Serengeti National Park and Ngorongoro Conservation Area Authority. Arusha, Tanzania August 13<sup>th</sup> – 17<sup>th</sup>, 2009.

2009

Williams, B., **Musiba, C.,** Carpio, J., and Magori, C. Laetoli Ichnofossil Record and its Paleoecological Implications on Past Environments. 50<sup>th</sup> Golden Anniversary of Zinjanthropus Discovery and the Current Establishment of Serengeti National Park and Ngorongoro Conservation Area Authority. Arusha, Tanzania August 13<sup>th</sup> – 17<sup>th</sup>, 2009.

2009

Magori, C., **Musiba, C**., Msemwa, P., Williams, B., Carpio, J., and Mabulla, A.Z. Laetoli Hominin Footprints Site G: Conservation Challenges, Lessons Learned, and Plan of Actions. 50<sup>th</sup> Golden Anniversary of Zinjanthropus Discovery and the Current Establishment of Serengeti National Park and Ngorongoro Conservation Area Authority. Arusha, Tanzania August 13<sup>th</sup> – 17<sup>th</sup>, 2009.

2008

Williams, B., **Musiba, C.,** Wright, J., Florence, J., Magori, C., and Carpio, J. Refining data collection and documentation of ichnofossil animal trackways at Laetoli and their potential use in paleoecological interpretations. *PaleoAnthropology*.

### 2008

Wulff, R.J., Tracer, D.P. and **Musiba, C.M**. Effect of settlement pattern and rites of passage on growth among Tanzanian youth. *American Journal of Human Biology*, volume 20, Issue 2: 240.

2007

Dechesne, M., Fleming, A., Dirling, KM., **Musiba, C.**, Wright, J., Killindo, SA., Mataro, S., and Abwalo, P. In the footprints of Hay: Stratigraphy of Pliocene Upper Laetolil Beds, northern Tanzania. **Paper No. 205-4**. *Geological Society of America*, Annual Meeting (28-31 October 2007, Denver, Colorado)

### 2006

Kyauka, P.S. and **Musiba, C**. Laetoli Hominid 21: An evaluation of the size of the second metacarpal. *American Association of Paleoanthropologists*, Milwaukee, Wisconsin, April 3 to 5, 2005.

2003

**Musiba, C**., Magori, C., Branting, S., Ndunguru, F., Killindo, S., Tuttle, R., and Kamamba, D.M.K. Laetoli Pliocene environments revisited: Stratigraphic and taphonomic context of Upper Laetolil fauna at localities 8 and 9. *American Journal of Physical Anthropology, Supplement* #36.

1998

Tuttle, R.H., **Musiba, C.M**., and Webb, D.M. False Impressions from the Laetoli Hominid Footprints. *American Journal of Physical Anthropology, Supplement* # 26.

1996

**Musiba, C.M.**, Tuttle, R.H., Hallgrimsson, B., and Webb, D. Hadzabe feet and Gaits. *American Journal of Physical Anthropology, Supplement* # 24.

## **Seminars/Workshops Presented**

#### 2016

UNESCO, World Heritage Center International Conference "Safeguarding African World Heritage as a Driver for Sustainable Development", May 31 – 3, June, 2016, Arusha, Tanzania. <u>http://whc.unesco.org/en/events/1295/</u>. The Ngorongoro Declaration on *Safeguarding African World Heritage as a Driver for Economic Development*. <u>http://whc.unesco.org/en/news/1506</u>.

### 2015

ICOMOS International Scientific Committee on Archaeological Heritage Management (ICAHM): Workshop to Develop Standards for the Management of Archaeological World Heritage Sites (Archaeological Parks), Florence, Italy. November 30 – December 3, 2015.

2014

Laetoli World Heritage Site: Museum and Research and Educational Facilities Development, Stakeholders Workshop. Ngorongoro Conservation Area Authority, Karatu. November 23 – 30, 2014.

2014

The Rising Star Paleoanthropological Workshop: The Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg, South Africa. May 6 – June 6, 2014.

### 2013

The Paleobiology, Taxonomy, and Paleoecology of Early *Australopithecus*: A Collaborative Approach to Synthesizing the Evidence. September 21, 2013, Cleveland, Ohio.

2011

**Musiba, C**. Laetoli (Tanzania) y la investigación sobre los australopithecos. "*La historia comienza en África/The (Hi) Story Starts in Africa*", La UVa en Curso 2011, University of Valladolid, Spain. November 29 – 30, 2011.

2009

**Musiba, C.** Stratigraphy, Taphonomy, and ecomorphologies: what do they tell us about Laetoli paleoecology? *La arqueología de los orígenes humanos en Africa Oriental*. Conference organized by the Complutense University of Madrid, Spain in collaboration with the Museo Arqueológico Regional of Madrid, Spain. Madrid, Spain. February 17 - 26, 2009.

## 2009

**Musiba, C**. Seven million years of human origins and Darwin's legacy. 200 Years of Darwin: Are We Still Evolving? A Bicentennial Conference, Metro State College of Denver and the University of Colorado Denver. February 12, 2009.

## 2009

**Musiba, C.** Bipedalism and Becoming Human: Darwin's Scenario. *150 Years After On the Origin of Species: Darwin's Magnificent Legacy* Conference. University of Colorado Denver. February 12, 2009.

## 2007

**Musiba, C.** Laetoli animal trackways: Research and conservation potentials. *The World Heritage of Human Origins Conference*, Mildura, Victoria, Australia. April 17 – 21, 2007 (invited).

### 2006

**Musiba, C.M.**, Laciny, C., Singer, R. and Magori, C. Morphological Considerations and Reanalysis of Saldanha Skull. *Out of Africa Conference*, 24<sup>th</sup> – 27<sup>th</sup> July 2006 at the national Museums of Kenya, Nairobi, Kenya (invited).

## 2005

**Musiba, C.** Conservation and Sustainable Development: Lessons from the Maasai of the Ngorongoro Conservation Area. *Proceedings of the International Conference on Indigenous Knowledge Systems (IKS) in Africa and their Relevance for Sustainable Development*, Brussels, 21-23 November 2005. Free University of Brussels Press (invited).

#### 2004

**Musiba** C. Taphonomic and stratigraphic context of faunal remains from Upper Laetolil Beds and their implications for Laetoli paleoenvironments. *Workshop on Miocene to Pleistocene East African faunas*, May 21-23, 2004, the Smithsonian Institution, Washington D.C.

### 2002

**Musiba, C**., Selvaggio, M., Magori, C.C., Karoma, N.J., and Kamamba, D.M.K. Merging Community Participation, Science Education, and Conservation of Cultural Heritage: The Role of Tanzania Field School in Anthropology. *International Conference on Teaching World Heritage and New Technologies of Information and Communication in Africa*, Dakar, Senegal. October 15 – 17, 2002. UNESCO Conference on World Heritage in the Digital Age, 30<sup>th</sup> Anniversary of the World Heritage Convention.

#### 2001

**Musiba, C**. Laetoli Pliocene Paleoecology: Predictive Behavioral Ecology Model Based on Functional Morphology and Sediment Proxy Data. *Millennium Workshop on the Cultural Heritage of Tanzania*. December 13 – 15, 2001, Dar es Salaam, Tanzania.

### 2001

**Musiba, C**. Establishing a National Inventory and Database for Archaeology in Tanzania: Why should we care? *Millennium Workshop on the Cultural Heritage of Tanzania*. December 13 - 15, 2001, Dar es Salaam, Tanzania.

### 2001

Selvaggio, M. and **Musiba**, C. The Changing Role of Museum in the New Millennium. *Millennium Workshop on the Cultural Heritage of Tanzania*. December 13 – 15, 2001, Dar es Salaam, Tanzania.

2001

**Musiba, C**., Branting, S., Magori, C., Mabulla, A., and Tuttle, R. Laetoli Web-based GIS Database Infrastructure: A Model for the Future of Paleoanthropological Enterprise in Tanzania. *Computer Applications in Archaeology Meetings*, April 25<sup>th</sup> – 29<sup>th</sup>, 2001, Visby, Gotland, Sweden.

**Musiba, C.M.** Ngorongoro Crater Conservation Area: A Need for a Cultural, Ecological, and Community-based Conservation Strategy. *Connecticut Consortium on Africa Seminar*, University of Connecticut Campus in Storrs, October 28, 2000.

### **Courses Taught since 2006**

ANTH 1303: Introduction to Biological Anthropology ANTH 3500: Human Osteology ANTH 3512: Human Evolution ANTH 4500: Advanced Issues in Human Evolution ANTH 4580: Modern Human Origins ANTH 4995/5995: Field School in Tanzania – Human Origins, Climate Change and Adaptation ANTH 5580: Neanderthals and the Origin of Modern Humans ANTH 6503: Biological Anthropology Core: The Fossil Record

### **Students Supervision**

### 2016

Kersten Bergstrom (PhD student, Texas A&M), Elicia Abella (PhD student, University of Arkansas), Timothy Campbell (PhD student, Texas A&M), Ray Macpherson, Lucyna Bowland, Alex Pelissero, and Sewasew Assefa (MA students, University of Colorado Denver).

## 2015

Kersten Bergstrom (PhD student, Texas A&M), Rachelle Keeling (PhD student, University of the Witwatersrand, Johannesburg, South Africa).

## 2014

Elicia Abella (MA student, University of Colorado Denver), Tracey Lancaster (MA thesis, University of Colorado Denver), Marc Campo (BA student, University of Colorado Denver), Elly Mahorski (BA student, University of Colorado Denver), Calum Stewart (BA student, University of Colorado Denver), Corina Marin (MA student, University of Colorado Denver), Kevin Darcy (MA student, University of Colorado Denver).

# 2012

Andrew Vorsanger (MA student, University of Colorado Denver), Elicia Abella (MA student, University of Colorado Denver), Tracey Lancaster (MA thesis, University of Colorado Denver),

### 2011

Bethany Williams (MA student, University of Colorado Denver), Jamie Carpio (BA student, University of Colorado Denver).

2008

Hillary Bell (MA student, University of Colorado Denver), Jerry Wulff, (MA student, University of Colorado Denver), Jami Vigil (MA student, University of Colorado Denver), Thomas Divel (BA student, University of Colorado Denver), Stephanie Crissey (BA student, University of Colorado Denver), Warren Brennan Mann (BA student, University of Colorado Denver).

### 2007

Jessica Zotcavage (MA student, University of Colorado Denver), Holly Whitesides (MA student, University of Colorado Denver), Nicole Heimink (BA student, University of Colorado Denver).

## **Recognitions, Honors, Awards, etc.**

### 2016

Research Associate Professor, Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg, South Africa.

## 2014

Honorary Visiting Associate Professor, Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg, South Africa.

### 2011 - 2012

Distinguished Visiting Professor, Facultad Geografía e Historia, Universidad Complutense de Madrid, Spain.

### 2011 - 2012

Visiting Research Professor, Departmento de Zoología y Antropología Física, Universidad de Alcalá, Spain.

### 2011

University of Colorado Denver, College of Liberal Arts and Science: CLAS Outstanding Teaching Award.

### 2005

Royal Museum for Central Africa (RMCA, Belgium – 15,000 Euros) Fellow: Comparative morphometric study of primate craniodental remains from Laetoli Pliocene Site, in Northern Tanzania. Worked on the African primate collection collecting data for my comparative study of extant and extinct Old World monkeys from northern Tanzania.

### 2004

Japan Society for Promotion of Science Post-Doctoral Fellow (1,150,000 Japanese Yen): Laboratory of Physical Anthropology/Primate Research Institute in Inuyama, University of Kyoto: Department of Zoology. Analysis of Cercopithecoids dental remains and development of collaborative paleoanthropological research projects in Tanzania.

### 1999 - 2000

Postdoctoral Fellow: Argonne National Laboratory, Center for Environment Restoration Systems (ANL-CERS). GIS application in environmental modeling and restoration. (\$100,000). Co-participant in GIS application development in ERDAS Imagine to create an algorithm that we used in a discriminant analysis of raster based data.

### 1996

Wenner-Gren Foundation (\$13,500): Dissertation Research Grant "Pliocene Laetoli Paleoecology: Reanalysis via Morphological and Behavioral Approaches".

## 1998 - 1999

Lab-Graduate Fellow (\$50,000): Argonne National Laboratory, Center for Environmental Restoration Systems (CERS). GIS application in environmental modeling and restoration.

1997 – 1996 Bassand

Research Fellow: Department of Anthropology, Field Museum of Natural History, Chicago. Functional morphology of bovid hind limbs as ecological indicators in archaeological sites. 1993 – 1996

Graduate Fellow: The Division of Social Sciences, the University of Chicago.

# 1992 - 1996

Century Scholar: The Division of Social Sciences, the University of Chicago.

### 1992

Deutscher Academischer Austausch Dienst (DAAD) Visiting Scholar (15,000 Euros): Karl Eberhart Universität Tübingen, and the Humboldt Museum für Naturkunden zu Berlin, Germany. Faunal analysis of Dr. Kohl-Larsen's collection of East African mammals (Eyasi Basin and Wembere Plateau, central Tanzania).

1991

British Council Visiting Scholar (£10,000): The British Museum of Natural History, London, Department of Paleoanthropology. Faunal analysis of Dr. L.S.B. Leakey's 1938 Olduvai Gorge bovid collection housed in the British Natural History Museum in London.

## Grants

## 2013-2015

First South African and Tanzanian Scientific Collaboration Grants for a paleoanthropological study of Laetolil depositional environments. South Africa National Science Foundation and Tanzania Commission for Science and Technology grant (\$50,000 with Cassian C. Magori, Audax, Mabulla, Pastory Bushozi, and Marion Bamford).

### 2013-15

Valorization of Laetoli and Olduvai Gorge as World Heritage Sites (2,000,000 Euros). European Union Development Grant to NCAA.

2012

Five Years Training and Research Needs for the Proposed Laetoli Museum of Fossil Hominin Footprints. (\$8,000,000.00). Commission for Science and Technology and the Ministry of Natural Resources and Tourism in Tanzania.

### 2011

University of Colorado Denver, College of Liberal Arts and Sciences CRISP grants (\$4000): Morphological comparative study of recently discovered hominin remains from Laetoli, northern Tanzania.

2010

LSB Leakey Foundation Research Grant (\$15,000): Recovery of additional hominin remains from the Upper Laetolil Beds, Tanzania (with Cassian C. Magori, Julia Lee-Thorp, Linda Scott-Cummings, and Marieke Dechesne). I coordinated paleoanthropological fossil collection, field logistics, permits acquisition and proposals/report preparation.

### 2009

University of Colorado Denver, Faculty Development Grant (\$20,000): Climate Forcing and Human Evolution at Laetoli in northern Tanzania (with Tiffany Terneny). Project PI, coordinating all research aspects, data acquisition, research permits and field logistics.

2009

Institute of Human Evolution in Africa at Complutense University of Madrid, Museo Arqueológico Regional de la Comunidad de Madrid, Cives Mundi, Spain and the Ministry of Natural Resources and Tourism, Tanzania (150,000 Euros): Establishment of a multifunctional field research station at Olduvai Gorge, Tanzania (with Manuel Dominguez-Rodrigo, Enrique Baquedamo, Cassian C. Magori, Audax Mabulla, and Pilar Fernandez). Proposal preparation, field logistics, and coordination of project in terms of preparations of Memorandum of Understanding and construction permits for the field station at Olduvai Gorge.

2008 - 2009

University of Colorado Denver, Faculty Development Grant (\$24,900): Morphometric Study of Hominoid Craniodental Remains from Laetoli Pliocene Site in Northern Tanzania Coordinating field research and analyses: comparative primate morphology and preparation of original specimens for analyses from the Tanzanian National Museum and House of Culture.

2007

University of Colorado Denver, Diversity and Excellence Grant (\$5000): Death and Dying: Spiritual and Professional Perspectives (with Joanna Brennan, Stacy Fischer, Paula Cushing and Jerry Vigil). Participating in a documentary process of the project as an expert bringing in an African cultural perspective on death and dying. Furthermore, I was one of the four discussants during the inauguration of the exhibit and film documentary on the project.

2003

NSF ND-EPSCOR (\$10,000): 3-D Morphometric study of hominoid craniodental remains from Laetoli Pliocene Site in northern Tanzania. North Dakota State University. Overseeing data collection on fossil hominins from Tanzania.

NSF Grant #EPS-0132289 to North Dakota Experimental Program to Stimulate Competitive Research for equipping the paleoanthropology teaching and research laboratory at North Dakota State University. Coordinated laboratory re-tooling process.

# 2001

Southern Connecticut State University Seed grant for the SCSU-HKMU Tanzania Field School in Paleoanthropology.

2001

Connecticut State University Research Grant: Morphometric Study of Hominoid Craniodental Remains from Laetoli Pliocene Site, in Northern Tanzania.

# 2001

Southern Connecticut State University Faculty Development Grant: Development of a Fossil Hominid Remains Teaching Tool: A Three-Dimensional Laboratory Manual for Paleoanthropology.

## 1999

The University of Chicago-Argonne National Laboratory Collaborative Seed Grant (with Mike Vogt and David B. Rowley). Continuation of the "Development of an Innovative GIS-based Tool to Permit Enhanced Data Analysis in Studies of Continental Drift, Global Climate Change, Paleontology, and Archaeology".

## 1998

National Geographic Society Exploratory Grant (collaborative grant with Russell H. Tuttle, Cassian Magori, Pelaji Kyauka, Audax Mabulla, Charles Kaaya, and Scott Branting). Seed grant for initial GIS infrastructure for Laetoli.

## 1996 - 97

Wenner-Gren Foundation for Anthropological Research: Small Grants (GR #5980) for dissertation fieldwork.

# Professional organizations/societies/associations

- Member, International Advisory and Monitoring Board, Laetoli Hominin Footprints World Heritage Site, Tanzania: 2015 – Present.
- Member, International Council on Archaeological Heritage Management/International Council on Monuments and Sites: 2014 – Present.
- Member, American Association of Physical Anthropologists.
- Member, American Association of Paleoanthropologists.
- Member, East African Association for Paleoanthropology and Paleontology
- Technical Reviewer, World Heritage Center, Archaeological Sites to be listed as World Heritage List.
- Special Issue Guest Editor, Quaternary International, the Journal of International Union for Quaternary Research. Elsevier. 2013
- Guest Editor, International Committee on Archaeological Heritage Management, *Multidisciplinary Perspectives in Archaeological Heritage Management* series. 2013.
- Technical Advisor, Dual Human Origins Exhibit with as special focus on Tanzania's paleoanthropological contributions at the National Museum and House of Culture in Dar es Salaam, Tanzania and the Human Origins Museum in Burgos, Spain (2012)
- Member of the Scientific Committee (2011/12), 1<sup>st</sup> International Conference in Best Practice on World Heritage: Archaeology (International Conference on World Heritage Menorca (Spain)).
- Affiliate member, ICOMOS, International Committee on Archaeological Heritage Management (ICAHM 2011-2013)

- National Committee member: Laetoli Footprints Museum Scientific Committee, Tanzania (2008 – present)
- National Committee member: Tanzania National Committee on Repatriation of Cultural and Natural Heritage Remains (2009 – present)
- Board Member, Spanish Institute of Human Origins Studies in East Africa (IDEA), Complutense University of Madrid, Spain (2009 – present)
- Technical Advisor, Olduvai Multifunctional Paleoanthropological Field Station project, Olduvai Tanzania (2009 - present)
- Technical expert: Human origins and adaptability exhibit at the Tanzania National Museum and House of Culture (2009 – present)
- Committee member: Korean National Heritage Committee on Preservation and Conservation of the 10,000 years old Hominin Footprints on Jeju Island, Korea (2008)
- Reviewer, Nature (2011)
- Reviewer, Proceedings of National Academy of Sciences Journal Paleoanthropology (2009)
- Reviewer: Proceeding of the International Symposium on Quaternary Footprints of Hominids and other Vertebrates, Journal of Ichnos (2008)
- Reviewer: Journal of Paleobiology (2008)
- Reviewer, NSF Biological Anthropology Grant proposals (2007/2011)
- Technical Expert Review: National Geographic Society (2006 2007)
- Reviewer: Computer Applications in Archaeology Society, Meeting Proceedings (2006)
- Reviewer: Proceeding of the International Symposium on Quaternary Footprints of Hominids and other Vertebrates, journal of *Ichnos*