

## CURRENT POSITION

Associate professor, Dipartimento di Scienze Fisiche, della Terra e dell’Ambiente, Università degli Studi di Siena

## SKILLS AND EXPERTISE

**Zooarchaeology**

**Taphonomy**

**Prehistory**

**3D Microscopy**

**Micro-tomography of animal remains**

## EDUCATION

**18/12/2013 PhD in Earth Science and Prehistory** at the University of Siena. Title of dissertation: *Macromammal remains from the Epigravettian of Grotta Paglicci: taphonomy, palaeoecology, and palaeoeconomy during the Late Glacial in Southern Italy*. Tutor: Prof. Paolo Boscato.

**8-10/04/2005 - Stage in zooarchaeology “Determinazione dei micromammiferi e studio nell’indagine paleoclimatica e biocronologica”** at the University of Ferrara.

**11/12/2004 - Degree in Natural Sciences** with zooarchaeological options at the Faculty of Sciences, University of Trieste (**final mark 110/110 cum laude**). Title of dissertation: *The macromammals remains from the sauveterrian layers of the Edera Cave (Trieste Karst, Excavations: 1990-2001)*. Tutors: Prof. Dr. Biagi Paolo; Prof. Dr. Pugliese Nevio; Dr. Riedel Alfredo.

## SCHOLARSHIPS

- **2008** November 1<sup>st</sup> – 2009 January 31<sup>st</sup>, **Lubiana (Slovenia)** - Bilateral Project Italy – Slovenia; zooarchaeological research project at the Institute of Archaeology of Lubiana.
- **2007** October 1<sup>st</sup> – December 31<sup>st</sup>, **Lubiana (Slovenia)** - Bilateral Project Italy – Slovenia; zooarchaeological research project at the Institute of Archaeology of Lubiana.
- **2006** August 22<sup>nd</sup> – December 16<sup>th</sup>, **Vienna (Austria)** - ERDISU-MOVE project - University of Trieste; research experience at the Natural History Museum of Vienna.

## Experience as Invited Researcher or free lance

- **2014-2015** Heritage office of **Trento (Italy)** - Study of animal remains from Epigravettian, Mesolithic, Neolithic and Eneolithic sites.
- **2014** South Tyrol Museum of Archaeology, **Bolzano (Italy)** – Study of animal remains and bone tools from Galgenbühel/Dos de la Forca (South Tyrol, Italy, Mesolithic).
- **2008-2011** Institute for the Protection of Cultural Heritage of Slovenia - **Nova Gorica (Slovenia)** – Study of animal remains from Iron Age and Roman Age sites.
- **2009** Natural History Museum of **Vienna (Austria)** – Study of animal remains from Brixlegg (Tyrol, Austria, Bronze Age).
- **2005, 2008** Heritage Office of **Bolzano (Italy)** - Study of animal remains from Prehistoric, Roman Age and Middle-Age sites.
- **2006-2009** Natural History Museum of **Trieste (Italy)** - Identification and cataloguing of

Francesco Boschin – Curriculum Vitae  
palaeontological and zooarchaeological remains.

### INVITED SEMINARS

**2014 March, 14<sup>th</sup> - Seminar for the “PalMeso Discussion Group” at the McDonald Institute for Archaeological Research, University of Cambridge:** Francesco Boschin and Valentina Borgia (University of Siena and University of Cambridge) - *Late Upper Palaeolithic Macromammal Remains from Grotta Paglicci (Southern Italy): Hunters in a Changing World.*  
**2022 October 4<sup>th</sup>, Tohoku University, Japan, Workshop “Recovering ancient remains and reconstructing past”.** Boschin F., Crezzini J. - Zooarchaeology and the Middle to Upper Palaeolithic transition: Some methodological insights [online].

### COMMISSIONS OF TRUST

- Member, Board, **Associazione Italiana di Archeozoologia.**
- Member, Steering Committee, **IRN TaphEN, European Network for Taphonomy.**
- Member, Scientific Committee, **Società Speleologica Italiana.**
- Member, Academic Board, **PhD School in Environmental, geological and polar sciences and technologies, University of Siena.**

### MEMBERSHIP OF EVALUATION COMMITTEE OF PHD STUDENTS

- 15/09/23, **Trento** (Italy). Andrea Perez, **Università di Trento**, Dottorato di Ricerca in Culture d’Europa. Ambiente, spazi, arti, idee.
- 09/02/23, **Avila** (Spain). Lloyd Austin David Courtenay, **Universidad de Salamanca**, Escuela de Doctorado "Studii Salamantini".

### DIRECTION OF PROJECTS

#### 2022 – ongoing

- **Fiutare I Domestici (FIDO): nuovi metodi per identificare i primi stadi del processo di domesticazione.** Call F-CUR 2021, PSR Università degli Studi di Siena. Budget: 9.282 €.

#### 2021

- **A small hafted-tool for a man, a giant leap for mankind**, Elettra proposal number 20205302.

#### 2018

- Co-direction of the project **“The analysis of insects-induced modifications on bones”** with Dr. Jean-Bernard Huchet (UMR 7209 Archaeozoo/Archaeobota & UMR 7205 ISYeB & UMR 5199 Pacea) in the frame of the (IRN) TaphEN.

### TEACHING EXPERIENCE

2023, 2022, 2020, 2019, 2018, 2017, 2015 – **University of Perugia. Scuola di Paleoantropologia.**

2019- ongoing – Prehistoric Ecology, Course in Natural and Environmental Sciences, **University of Siena.**

2019 – 2022 – Prehistory, environment and Culture, Course in Natural and Environmental Sciences, **University of Siena.**

2020 – ongoing – Anthropology, Course in Physiotherapy, University of Siena.

2021 – ongoing – Anthropology, Course in Natural and Environmental Sciences, **University of Siena.**

## **SUPERVISION OF STUDENTS**

### **As main tutor:**

**2022 – University of Siena.** Student: Massimiliano Legler (Master of Science at the University of Siena). Thesis: Analisi archeozoologica dei livelli 13-11 e 8/1-6/2 del sito del Paleolitico medio di Grotta del Poggio (Marina di Camerota, SA).

**2020 – University of Siena.** Student: Francesco D'Alcantera (Master of Science at the University of Siena). Thesis: Analisi di associazioni faunistiche in Europa negli ultimi 45000 anni.

**2020 – University of Siena.** Student: Marco Garofalo (Master of Science at the University of Siena). Thesis: Studio dei caratteri discontinui su denti di popolazioni dell'Età del Bronzo: il caso di Grotta della Cala (Marina di Camerota, SA).

### **As co-tutor:**

**2020 – University of Siena.** Student: Simone Fanti (Bachelor's degree at the University of Siena). Thesis: Suscettività magnetica come proxy paleoambientale: studio metodologico su successioni di grotta di interesse archeologico. (Tutor: prof. Ivan Martini).

**2020 – University of Florence.** Student: Clarissa Dominici (Bachelor's degree at the University of Florence). Thesis: Studio archeozoologico dei resti faunistici provenienti dallo strato M relativo all'Epigravettiano evoluto di Grotta della Cala (Marina di Camerota, SA). (Tutor: prof. P. Mazza).

**2018 – University of Siena.** Student: Marco Batini (Master of Science at the University of Siena). Thesis: Il riparo l'Oscurusciuto (Ginosa – Taranto). Studio dei resti faunistici della campagna di scavo 2017, US 4-5-6-7 – Paleolitico Medio. (Tutor: prof. P. Boscato).

**2017 – University of Siena.** Student: Clarissa Dominici. (Master of Science at the University of Siena). Thesis: La fine del Gravettiano a Grotta Paglicci (Rignano Garganico, FG): studio archeozoologico delle faune dello strato 18b. (Tutor: prof. P. Boscato).

**2016 – University of Siena.** Student: Melania Farnese. (Master of Science at the University of Siena). Thesis: Grotta Paglicci (Rignano Garganico, FG): I due piani d'ossa della sepoltura gravettiana PA III. (Tutor: prof. P. Boscato).

## **MEMBERSHIP OF SCIENTIFIC SOCIETIES**

- 2000 – ongoing: **Società per la Preistoria e la Protostoria della Regione Friuli-Venezia Giulia.**
- 2004 – ongoing: **AIAZ** (Associazione Italiana di Archeozoologia)
- 2010 – ongoing: **ICAZ** (International Council for Archaeozoology)
- 2022 – ongoing: **AAI** (Associazione Antropologica Italiana)

## **ORGANIZATION OF MEETINGS AND CONFERENCES**

- **2021, 3<sup>rd</sup>-6<sup>th</sup> November (Siena)** Organization of the 10<sup>o</sup> National Conference of Archaeozoology.
- **2019, 4<sup>th</sup> – 6<sup>th</sup> December (Florence)** Organization of the special session “Metrology for taphonomy: quantifying the alterations of skeletal remains in archaeology” - 2019 IMEKO TC-4 International Conference on Metrology for Archaeology and Cultural Heritage.
- **2017, 23<sup>rd</sup> -24<sup>th</sup> January – University of Siena.** Organization of the seminar: “Dallo Scavo al Microscopio: indagine multidisciplinare su un'area di sfruttamento delle carcasse del Paleolitico Medio a Grotta dei Santi (Monte Argentario – GR), together with Dott. Jacopo Crezzini, Dott. Vincenzo Spagnolo, Dott.ssa Simona Arrighi.
- **2014, 13<sup>th</sup> May – Accademia dei Fisiocritici, Siena.** Organization of the meeting

“Videomicroscopia 3D e Beni Culturali” together with Prof. Aggr. Marco Giamello, Dott. Jacopo Crezzini, Dott.ssa Simona Arrighi, Dott.ssa Sara Mancigotti.

- **2014, 12<sup>th</sup> May – Università degli Studi di Siena and Associazione Italiana di Archeozoologia.** Organization of the Stage “La microscopia digitale 3D applicata all’indagine archeozoologica: risultati, metodi e prospettive” together with Prof. aggr. Paolo Boscato and Dott. Jacopo Crezzini.

## DIRECTION OF ARCHAEOLOGICAL EXCAVATIONS

- **2019-2023 – Riparo L’Oscurusciuto (Ginosa, TA)** Middle Palaeolithic.
- **2016 - Riparo di Aterrana (AV)** Middle Palaeolithic.

## PUBLICATIONS

- Dominici C., Stani C., Bonanni V., Rossini M., Mihalić I.B., Provatas G., Fazinić S., **Boschin F.**, Giannoncelli A., Vaccari L. **2023.** Combining SR-FTIR, SR-LEXRF and PIXE microscopies for residue analysis on Palaeolithic stone artefacts. **Eur. Phys. J. Plus** 138:742
- Crezzini J., Boscato P., Ronchitelli A., **Boschin F.** **2023** A peculiar exploitation of ungulates at Grotta di Santa Croce: bone grease rendering and nutritional patterns among Neanderthals in southern Italy. **Historical Biology** Doi: 10.1080/08912963.2023.2242630.
- Mariotti Lippi M., Aranguren B., Arrighi A., Attolini D., Benazzi S., **Boschin F.**, Florindi S., Moroni A., Negrino F., Pallecchi P., Pisaneschi L., Riel-Salvatore J., Ronchitelli A., Revedin A. **2023** New evidence of plant food processing in Italy before 40ka. **Quaternary Science Reviews** 312, 108161.
- Posth C., Yu H., Ghalichi A., Rougier H., Crevecoeur C., et al. **2023** Palaeogenomics of Upper Palaeolithic to Neolithic European hunter-gatherers. **Nature** 615, 117-126.
- Quagliariello A., Modi A., Innocenti G., Zaro V., Conati Barbaro C., Ronchitelli A., **Boschin F.**, Cavazzuti C., Dellù E., Radina F., Sperduti A., Bondioli L., Ricci S., Lognoli M., Belcastro M.G., Mariotti V., Caramelli D., Mariotti Lippi M., Cristiani E., Martino M.E., Muntoni I.M., Lari M. **2022.** Ancient oral microbiomes support gradual Neolithic dietary shifts towards agriculture. **Nature Communications** 13, 6927.
- Leonardi M., **Boschin F.**, Boscato P., Manica A. **2022.** Following the niche: the differential impact of the last glacial maximum on four European ungulates. **Communications Biology** 5, 1038.
- Gatti L., Lugli F., Sciutto G., Zangheri M., Prati S., Mirasoli M., Silvestrini S., Benazzi S., Tütken T., Douka K., Collina C., **Boschin F.**, Romandini M., Iacumin P., Guardigli M., Roda A., Mazzeo R. **2022.** Combining elemental and immunochemical analyses to characterize diagenetic alteration patterns in ancient skeletal remains. **Scientific Reports** 12, 5112.
- Nannini N., Duches R., Fontana A., Romandini M., **Boschin F.**, Crezzini J., Peresani M. **2022.** Marmot hunting during the Upper Palaeolithic: The specialized exploitation at Grotte di Pradis (Italian pre-Alps). **Quaternary Science Reviews** 277, 107364.
- **Boschin F.**, Columbu A., Spagnolo V., Crezzini J., Bahain J.-J., Falguères C., Benazzi S., Boscato P., Ronchitelli A., Moroni A., Martini I **2022.** Human occupation continuity in southern Italy towards the end of the Middle Palaeolithic: a palaeoenvironmental perspective from Apulia. **Journal of Quaternary Science** 37, 204-216.
- Sorrentino R., Stephens N.B., Marchi D., DeMars L.J.D. Figus C., Bortolini E., Badino F., Saers J.P.P., Bettuzzi M., **Boschin F.**, Capecchi G., Feletti F., Guarnieri T., May H., Morigi M.P., Parr W., Ricci S., Ronchitelli A., Stock J.T., Carlson K.J., ryan T.M., Belcastro M.G., Benazzi S. **2021.** Unique foot posture in Neanderthals reflects their body mass and high mechanical stress. **Journal of Human Evolution** 161, 103093.
- Posth C., Zaro V., Spyrou M.A., Vai S., Gneccchi-Ruscione G.A., Modi A., Peltzer A.,

- Mötsch A., Nägele K., Vågene Å.J., Nelson E.A., Radzevičiūtė R., Freund C., Bondioli L.M., Cappuccini L., Frenzel H., Pacciani E., **Boschin F.**, Capecchi G., Martini I., Moroni A., Ricci S., Sperduti A., Turchetti M.A., Riga A., Zavattaro M., Zifferero A., Heyne H.O., Fernández-Domínguez E., Kroonen G.J., McCormick M., Haak W., Lari, M., Barbujani G., Bondioli L., Bos K.I., Caramelli D., Krause J. **2021**. The origin and legacy of the Etruscans through a 2000-year archeogenomic time transect. *Science Advances* 7, eabi7673. Doi: 10.1126/sciadv.abi7673.
- **Boschin F.**, Columbu A., Spagnolo V., Crezzini J., Bahain J-J., Falguères C., Benazzi S., Boscato P., Ronchitelli A., Moroni A., Martini I **2021**. Human occupation continuity in southern Italy towards the end of the Middle Palaeolithic: a palaeoenvironmental perspective from Apulia. *Journal of Quaternary Science* DOI: 10.1002/jqs.3319.
  - Modi A., Vai S., Posth C., Vergata C., Zaro, V., Diroma M.A., **Boschin F.**, Capecchi G., Ricci S., Ronchitelli A., Catalano G., Lauria G., D'Amore G., Sineo L., Caramelli D., Lari M. **2021**. More data on ancient human mitogenome variability in Italy: new mitochondrial genome sequences from three Upper Palaeolithic burials. *Annals of Human Biology* 48, 213-222. <https://doi.org/10.1080/03014460.2021.1942549>.
  - Martini I., Baucon A., **Boschin F.** **2021**. Depositional processes and environmental settings in rock shelters: the case of the prehistoric Oscurusciuto site (Southern Italy). *Geological Magazine* 158, 891-904. DOI: 10.1017/S0016756820001041
  - Ricci C., Kakularam K.R., Marzocchi C., Capecchi G., Riolo G., **Boschin F.**, Kuhn H., Castagna M.G., Cantara S. **2020**. Thr92Ala polymorphism in the type 2 deiodinase gene: an evolutionary perspective. *Journal of Endocrinological Investigation* 43, 1749-1757. DOI: 10.1007/s40618-020-01287-5
  - **Boschin F.**, Bernardini F., Pilli E., Vai S., Zanolli C., Tagliacozzo A., Fico R., Fedi M., Corny J., Dreossi D., Lari M., Modi A., Vergata C., Tuniz C., Moroni A., Boscato P., Caramelli D., Ronchitelli A. **2020**. The first evidence for Late Pleistocene dogs in Italy. *Scientific Reports* 10, 13313. DOI: 10.1038/s41598-020-69940-w.
  - Duches R., Nannini N., Fontana A., **Boschin F.**, Crezzini J., Peresani M. **2020**. Experimental and Archaeological data for the identification of projectile impact marks on small-sized mammals. *Scientific Reports* 10, 9092. DOI: 10.1038/s41598-020-66044-3
  - **Boschin F.**, **2020**. Holocene macromammal remains from Grotta dell'Edera/Stenašca, Trieste Karst (excavations in 1990-2001). *Arheološki vestnik* 71, 321-357. DOI: 10.3986/AV.71.11
  - Marciani, G., Spagnolo, V., Martini I., Casagli A., Sulpizio R., Aureli, D., Boscato, P., Ronchitelli A., **Boschin, F.** **2020**. Neanderthal occupation during the tephra fall-out: Technical and hunting behaviours, sedimentology and settlement patterns in SU 14 of Oscurusciuto rock shelter (Ginosa, southern Italy). *Archaeological and Anthropological Sciences* 12: 152. DOI: 10.1007/s12520-020-01116-z.
  - Spagnolo, V., Crezzini, J., Marciani, G., Capecchi, G., Arrighi, S., Aureli, D., Scaramucci, S., **Boschin, F.**, Moroni, A. **2020**. Neandertal camps and hyena dens. Living floor 150A at Grotta dei Santi (Monte Argentario, Tuscany, Italy). *Journal of Archaeological Science: Report*, 30, 102249. DOI: 10.1016/j.jasrep.2020.102249
  - Spagnolo, V., Aureli, D., Martini, I., Ekberg, I., **Boschin, F.**, Crezzini, J., Poggi G., Boscato P., Ronchitelli A. **2020**. Short and close in time: overlapped occupation from the layer 56 of the Molare Rock shelter (Southern Italy). *Archaeological and Anthropological Sciences*, 12, 92. DOI: 10.1007/s12520-020-01037-x.
  - Spagnolo V., Marciani G., Aureli D., Martini I., Boscato P., **Boschin F.**, Ronchitelli A. **2020**. Climbing the time to see Neanderthal behaviour's continuity and discontinuity: SU 11 of the Oscurusciuto Rockshelter (Ginosa, Southern Italy). *Archaeological and Anthropological Sciences* 12, 54. DOI: 10.1007/s12520-019-00971-9.

- Moroni A., Spagnolo V., Crezzini J., **Boschin F.**, Benvenuti M., Gardin S., Cipriani S., Arrighi S. **2020**. Settlement, space organization and land-use of a small Middle Bronze Age community of central Italy. The case study of Gorgo del Ciliegio (Arezzo-Tuscany). **Quaternary International** 539, 122-137. DOI: 10.1016/j.quaint.2019.02.011
- Arrighi S., Bortolini E., Tassoni L., Benocci A., Manganelli G., Spagnolo V., Foresi L.M., Bambini A.M., Lugli F., Badino F., Aureli D., **Boschin F.**, Figus C., Marciani G., Oxilia G., Silvestrini S., Cipriani A., Romandini M., Peresani M., Ronchitelli A., Moroni A., Benazzi S. **2020**. Backdating systematic shell ornament making in Europe to 45,000 years ago. **Archaeological and Anthropological Sciences** 12, 59. DOI: 10.1007/s12520-019-00985-3.
- **Boschin F.** **2020**. Caprine mortality profiles from prehistoric cave-sites of the northern Adriatic: Livestock strategies or natural death? **International Journal of Osteoarchaeology** 30, 3-12. DOI: 10.1002/oa.2824
- **Boschin F.**, Moretti E., Crezzini J., Arrighi S., **2020**. Geometric morphometrics reveal relationship between cutmark morphology and cutting tools. *Acta IMEKO* 10, 109-113. DOI: 10.21014/ACTA\_IMEKO.V10I1.846
- Romandini M., Crezzini J., Bortolini E., Boscato P., **Boschin F.**, Carrera L., Nannini N., Tagliacozzo A., Terlato G., Arrighi S., Badino F., Figus C., Lugli F., Marciani G., Oxilia G., Moroni A., Negrino F., Marco P., Riel-Salvatore J., Ronchitelli A., Spinapolice E.E., Benazzi S., **2020**. Macromammal and bird assemblages across the Late Middle to Upper Palaeolithic transition in Italy: an extended zooarchaeological review. **Quaternary International** 551, 188-223. DOI: 10.1016/j.quaint.2019.11.008
- Arrighi S., Moroni A., Tassoni L., **Boschin F.**, Badino F., Bortolini E., Boscato P., Crezzini J., Figus C., Forte M., Lugli F., Marciani G., Oxilia G., Negrino F., Riel-Salvatore J., Romandini M., Peresani M., Spinapolice E.E., Ronchitelli A., Benazzi S. **2020**. Bone tools, ornaments and other unusual objects during the Middle to Upper Palaeolithic transition in Italy. **Quaternary International** 551, 169-187. DOI: 10.1016/j.quaint.2019.11.016
- Marciani G., Ronchitelli A., Arrighi S., Badino F., Bortolini E., Boscato P., **Boschin F.**, Crezzini J., Delpiano D., Falcucci A., Figus C., Lugli F., Oxilia G., Romandini M., Riel-Salvatore J., Negrino F., Peresani M., Spinapolice E.E., Moroni A., Benazzi S. **2020**. Lithic techno-complexes in Italy from 50 to 39 thousand years BP: An overview of lithic technological changes across the Middle-Upper Palaeolithic boundary. **Quaternary International** 551, 123-149. DOI: 10.1016/j.quaint.2019.11.005
- Fiore I., Gala M., **Boschin F.**, Crezzini J., Tagliacozzo A., Moroni A., **2020**. Archeozoology and taphonomy of bird remains from Grotta di Castelcivita (Salerno, Italy) and clues for human-bird interactions. **Quaternary International** 551, 224-242. DOI: 10.1016/j.quaint.2019.09.004
- Sano K., Arrighi S., Stani C., Aureli D., **Boschin F.**, Fiore I., Spagnolo V., Ricci S., Crezzini J., Boscato P., Gala M., Tagliacozzo A., Birarda G., Vaccari L., Ronchitelli A., Moroni A., Benazzi S. **2019**. The earliest evidence for mechanically delivered projectile weapons in Europe. **Nature Ecology and Evolution** 3, 1409-1414. <https://doi.org/10.1038/s41559-019-0990-3>
- Moroni A., Boschin G., Crezzini J., Montanari-Canini G., Marciani G., Capecchi G., Arrighi S., Aureli S., Aureli D., Berto C., Freguglia M., Araujo A., Scaramucci S., Hublin JJ, Lauer T, Benazzi S, Parenti F, Bonato M, Ricci S, Talamo S, Segre AG, **Boschin F.**

- Spagnolo V. **2019**. Late Neandertals in central Italy. High-resolution chronicles from Grotta dei Santi (Monte Argentario - Tuscany). **Quaternary Science Reviews** 217, 130-151. Doi: 10.1016/j.quascirev.2018.11.021.
- **Boschin F. 2019**. Exploitation of carnivores, lagomorphs and rodents at Grotta Paglicci during the Epigravettian: The dawn of a new subsistence strategy? **Journal of Archaeological Science: Reports** 26, 101871. Doi: 10.1016/j.jasrep.2019.101871
  - Lugli F., Cipriani A., Capecchi G., Ricci S., **Boschin F.**, Boscato P., Iacumin P., Badino F., Mannino M.A., Talamo S., Richards M.P., Benazzi S., Ronchitelli A. **2019**. Strontium and stable isotope evidence of human mobility strategies across the Last Glacial Maximum in southern Italy. **Nature Ecology and Evolution** 3 (6), 905-911. Doi: 10.1038/s41559-019-0900-8.
  - Duches R., Nannini N., Fontana A., **Boschin F.**, Crezzini J., Bernardini F., Tuniz C., Dalmeri G. **2019**. Archeological bone injuries by lithic backed projectiles: new evidence on bear hunting from the Late Epigravettian site of Cornafessa rock shelter (Italy). **Archaeological and Anthropological Sciences** 11, 2249-2270. Doi: 10.1007/s12520-018-0674y.
  - Spagnolo V., Marciani G., Aureli D., Berna F., Toniello G., Astudillo F., **Boschin F.**, Boscato P., Ronchitelli A. **2019**. Neanderthal activity and resting areas from stratigraphic unit 13 at the Middle Palaeolithic site of Oscurusciuto (Ginosa-Taranto, Southern Italy). **Quaternary Science Reviews** 217, 169-193. Doi: 10.1016/j.quascirev.2018.06.024.
  - Raneri S., Crezzini J., Arrighi S., **Boschin F.**, Alfieri I., Barone G., Begamonti L., Giamello M., Lottici P.P., Mazzoleni P. **2019**. Measuring Weathering and Nanoparticle Coating Impact on Surface Roughness of Natural Stones. **Studies in Conservation**. 64, 298-309. Doi: 10.1080/00393630.2018.1507706
  - **Boschin F.**, Boscato P., Berto C., Crezzini J., Ronchitelli A. **2018**. The palaeoecological meaning of macromammal remains from archaeological sites exemplified by the case study of Grotta Paglicci (Upper Palaeolithic, southern Italy). **Quaternary Research** 90, 470-482.
  - Leonardi M., **Boschin F.**, Giampoudakis K., Beyer R.M., Krapp M., Bendrey R., Sommer R., Boscato P., Manica A., Nogues-Bravo D., Orlando L. **2018**. Late Quaternary horses in Eurasia in the face of climate and vegetation change. **Science advances** 4, eaar5589.
  - Moroni A., Ronchitelli A., Arrighi S., Aureli D., Bailey S., Boscato P., **Boschin F.**, Capecchi G., Crezzini J., Douka K., Marciani G., Panetta D., Ranaldo F., Ricci S., Scaramucci S., Spagnolo V., Benazzi S., Gambassini P. **2018**. Grotta del Cavallo (Apulia-Southern Italy). The Uluzzian in the mirror. **Journal of anthropological sciences** 96. Doi: 10.4436/JASS.96004.
  - **Boschin F. 2018**. Animal remains from the multi-layered site of Elvas-Kreuzwiese p. f. 574 (South Tyrol, Italy). **Ann. Naturhist. Mus. Wien**, 120 serie A: 195-209.
  - **Boschin F.**, Rocca R., Aureli D., **2018**. New archaeozoological and taphonomic analysis on macro- and megafauna remains from the Lower Palaeolithic site of Ficoncella (Tarquinia, central Italy). **Quaternaire** 29 (1): 45-51. Doi: 10.4000/quaternaire.8607.
  - Oxilia G., Fiorillo F., **Boschin F.**, Boaretto E., Apicella S.A., Matteucci C., Panetta C., Pistocchi R., Guerrini F., Margherita C., Andretta M., Sorrentino R., Boschian G., Arrighi S., Dori I., Mancuso G., Crezzini J., Riga A., Serrangeli M.C., Vazzana A., Salvadori P.A., Vadini M., Tozzi C., Moroni A., Feeney R.N.M., Willman J.C., Moggi-

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