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Pyroarchaeology Commission

April 25th, 2023

Dear colleagues,

it has now been 5 years since we started this commission and this is already the 10th newsletter of the Pyroarchaeology Commission! Our community has grown over the years and we had many great sessions together. We look forward to continuing this commision and will celebrate this occasion at our next commission meeting at the XX UISPP congress later this year at the West University of Timișoara. We are organizing two session on pyroarchaeology here and you can find more information on this and other conference news on page 2. Publications news are on pages 3 to 7.

With our best wishes

Carolina, Chris and Mareike*

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Conference News

Commission member V. Aldeias and colleagues are organizing a virtual micromorphology meeting this week, on April 26th and 27th. Join in to see thin sections with fire residues and see their webpage for more information: https://sites.google.com/view/vimi4

In early May, the **Experimental Archaeology Conference** will take place in Torún, Poland. There are several talks on pyroarchaeology, including some online only. You can find more information here https://exarc.net/meetings/eac13

The **XXI INQUA** congress takes places in Rome, July 13th to 20th, 2023, with several sessions on geoarchaeology (including by our commission member Vera Aldeias) providing ample opportunity to discover ongoing pyroarchaeology research.

Happening later this year is the next **UISPP congress, September 3th to 10th, 2023**. This XXth congress will take place in Timisoara, Romania, and the **abstract submission deadline is May 15th**. Our commission is organizing two session this time:

S17-1. Multifaceted Pyroarchaeology: from environmental to cultural proxies by M.C. Stahlschmidt, C.E. Miller, S. Vandevelde, C. Mallol, M.C. Stahlschmidt, C.E. Miller

S17-2. Studies on diachronic and synchronic fire use patterns by C Mallol, S. Vandevelde,

Find the conference webpage here https://uispp2023.uvt.ro/

Publication News

A series of special issue on pyroarchaeological topics is in process! Our commission is organizing a Topical Collection in the journal Archaeological and Anthropological Sciences on “Archaeological Sciences Approaches to Pyroarchaeology” - with 11 submitted contributions.

Segolene Vandevelde and colleagues are also organizing a Special Issue on “From Fire to Light” in the Journal of Archaeological Sciences: Reports. This call for papers is still open and you can contact lighting.eaa@gmail.com for further information.

Carme Belarte and colleagues organized a Special Issue on “Fire installations in Mediterranean Late Prehistory: multidisciplinary approaches to their uses and functions” in the Journal of Archaeological Sciences: Reports. The special has 9 papers online now, as listed below, and one remaining submission.

In the last 6 months the following pyroarchaeological papers were published (up to April, not a complete list):

Abdolahzadeh, A., Leader, G.M., Li, L., Olszewski, D.I., Schurr, T.G., 2023. Heat exposed lithics: An experimental approach to quantifying potlids by temperature. J. Archaeol. Sci. Rep. 48, 103894. https://doi.org/10.1016/j.jasrep.2023.103894

Alessandretti, L., Giannini, P.C.F., Warren, L., Brückmann, M.P., Martini, A., 2023. Earth, wind and fire: Interactions between Quaternary environmental dynamics and human occupation on the southern coast of Brazil. Quat. Sci. Rev. 301, 107950. https://doi.org/10.1016/j.quascirev.2022.107950

Belarte, M.C., Portillo, M., Mateu, M., Saorin, C., Pastor Quiles, M., Vila, S., Pescini, V., 2023. An interdisciplinary approach to the combustion structures of the Western Mediterranean Iron Age. The first results. J. Archaeol. Sci. Rep. 47, 103803. https://doi.org/10.1016/j.jasrep.2022.103803

Borgna, E., Corazza, S., Marchesini, M., Pecci, A., Petrucci, G., 2022. Fire installations at the Bronze Age site of Ca’ Baredi near Aquileia: An interdisciplinary insight into subsistence and social practices. J. Archaeol. Sci. Rep. 46, 103648. https://doi.org/10.1016/j.jasrep.2022.103648

Cavulli, F., Costa, A., Pedrotti, A., 2023. Pyrotechnological processes behind fire traces: Experimental archaeology for the interpretation of the archaeological record of Lugo di

Grezzana. J. Archaeol. Sci. Rep. 47, 103829. https://doi.org/10.1016/j.jasrep.2023.103829

Craig, C., Collins, B., Nowell, A., Ames, C.J.H., 2022. Abrasive wear in heat-treated ostrich eggshell beads: implications for the archaeological record. Archaeol. Anthropol. Sci. 15, 4. https://doi.org/10.1007/s12520-022-01703-2

Esteban, I., Stratford, D., Sievers, C., Peña, P. de la, Mauran, G., Backwell, L., d'Errico, F., Wadley, L., 2023. Plants, people and fire: Phytolith and FTIR analyses of the post-Howiesons Poort occupations at Border Cave (KwaZulu-Natal, South Africa). Quat. Sci. Rev. 300, 107898. https://doi.org/10.1016/j.quascirev.2022.107898

Frank, A.D., 2023. Hearths, firewood availability, and intensity of occupations in the Central Plateau of Santa Cruz (Southern Patagonia, Argentina). Archaeol. Anthropol. Sci. 15, 32. https://doi.org/10.1007/s12520-023-01733-4

Golani, A., Asscher, Y., 2023. A ceramic kiln of the Early Bronze Age from Tel Lod in the southern Levant: Microarchaeological analyses and technological significance. J. Archaeol. Sci. Rep. 49, 103853. https://doi.org/10.1016/j.jasrep.2023.103853

Holst, D., 2023. Differentiation of thermal activities by FTIR – Analyses of sandstone slabs from the late Mesolithic and early Neolithic site of Neustadt LA 156 (Northern Germany). J. Archaeol. Sci. Rep. 48, 103917. https://doi.org/10.1016/j.jasrep.2023.103917

Julia Westner, K., Klein, S., Sergeev, D., Müller, M., 2022. Temperature estimates of historical Pb-Ag smelting slags: A multi-methodological approach. J. Archaeol. Sci. Rep. 46, 103654. https://doi.org/10.1016/j.jasrep.2022.103654

Kabukcu, C., Hunt, C., Hill, E., Pomeroy, E., Reynolds, T., Barker, G., Asouti, E., 2023. Cooking in caves: Palaeolithic carbonised plant food remains from Franchthi and Shanidar. Antiquity 97, 12–28. https://doi.org/10.15184/aqy.2022.143

Lambri, M.L., Lambri, O.A., Weidenfeller, M., Bozzano, P.B., Bonifacich, F.G., Weidenfeller, B., Lambri, F.D., Zelada, G.I., Rocchietti, A.M., 2023. Recognizing boiled bone-remains from the Boca de Lega archaeological site in Argentina through mechanical spectroscopy studies. J. Archaeol. Sci. Rep. 49, 103985. https://doi.org/10.1016/j.jasrep.2023.103985

Maor, Y., Toffolo, M.B., Feldman, Y., Vardi, J., Khalaily, H., Asscher, Y., 2023. Dolomite in archaeological plaster: An FTIR study of the plaster floors at Neolithic Motza, Israel. J. Archaeol. Sci. Rep. 48, 103862. https://doi.org/10.1016/j.jasrep.2023.103862

March, R.J., 2023. Reconstruction of control and application of thermal energy process and its technical, social, symbolic and palaeoenvironmental consequences. J. Archaeol. Sci. Rep. 48, 103828. https://doi.org/10.1016/j.jasrep.2023.103828

Mavromati, A., 2022. Wood charcoal macroremains from the Heraion on Samos: firewood and tree management during the Early-Middle Bronze and Roman periods. Archaeol. Anthropol. Sci. 14, 231. https://doi.org/10.1007/s12520-022-01700-5

Medina-Alcaide, M.Á., Vandevelde, S., Quiles, A., Pons-Branchu, E., Intxaurbe, I., Sanchidrián, J.L., Valladas, H., Deldicque, D., Ferrier, C., Rodríguez, E., Garate, D., 2023. 35,000 years of recurrent visits inside Nerja cave (Andalusia, Spain) based on charcoals and soot micro-layers analyses. Sci. Rep. 13, 5901. https://doi.org/10.1038/s41598-023-32544-1

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Moreno, P.I., Méndez, C., Henríquez, C.A., Fercovic, E.I., Videla, J., Reyes, O., Villacís, L.A., Villa-Martínez, R., Alloway, B.V., 2023. Fires and rates of change in the temperate rainforests of northwestern Patagonia since ∼18 ka. Quat. Sci. Rev. 300, 107899. https://doi.org/10.1016/j.quascirev.2022.107899

Ogloblin Ramirez, I., Galili, E., Shahack-Gross, R., 2023. Underwater Neolithic combustion features: A micro-geoarchaeological study in the submerged settlements off the Carmel Coast, Israel. J. Isl. Coast. Archaeol. 0, 1–23. https://doi.org/10.1080/15564894.2022.2138642

Ortiz Ruiz, S., de Lucio, O.G., Mitrani Viggiano, A., Perez Castellanos, N.A., Luis Ruvalcaba Sil, J., Barba Pingarrón, L., Goguitchaichvili, A., 2023. Mayan Fire: Calibration curve for the determination of heating temperatures of limestone, lime and related materials by FTIR measurements. J. Archaeol. Sci. Rep. 49, 103966. https://doi.org/10.1016/j.jasrep.2023.103966

Portillo, M., Llergo, Y., Dudgeon, K., Anglada, M., Ramis, D., Ferrer, A., 2023. Integrating microfossil records from livestock dung burned as fuel in Menorca, Balearic Islands. J. Archaeol. Sci. Rep. 47, 103791. https://doi.org/10.1016/j.jasrep.2022.103791

Prossor, L., Denham, T., Brink, F., Troitzsch, U., Stern, N., 2022. The microstratigraphic investigation of hearth features at Lake Mungo, Australia. J. Archaeol. Sci. Rep. 46, 103711. https://doi.org/10.1016/j.jasrep.2022.103711

Reidsma, F.H., 2022. Laboratory-based experimental research into the effect of diagenesis on heated bone: implications and improved tools for the characterisation of ancient fire. Sci. Rep. 12, 17544. https://doi.org/10.1038/s41598-022-21622-5

Roos, C.I., Laluk, N.C., Reitze, W., Davis, O.K., 2022. Stratigraphic evidence for culturally variable Indigenous fire regimes in ponderosa pine forests of the Mogollon Rim area, east-central Arizona. Quat. Res. 1–18. https://doi.org/10.1017/qua.2022.61

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Shaw, C., 2022. An evaluation of the infrared 630 cm−1 OH libration band in bone mineral as evidence of fire in the archaeological record. J. Archaeol. Sci. Rep. 46, 103655. https://doi.org/10.1016/j.jasrep.2022.103655

Sisa-López de Pablo, J., Wattez, J., Álvarez, R., Bach-Gómez, A., Molist, M., 2022. Combustion features and use of space. A micromorphological approach to the Neolithic occupation at Cova de les Pixarelles (Barcelona, Spain). J. Archaeol. Sci. Rep. 46, 103712. https://doi.org/10.1016/j.jasrep.2022.103712

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