11th INTERNATIONAL SYMPOSIUM ON KNAPPABLE MATERIALS

"From toolstone to stone tools"

Buenos Aires and Necochea (Argentina), November 7-12th, 2017

Second Announcement – Call for Abstracts

Dear friends and colleagues

We have been working on the sessions proposals received and we are happy to announce that there are 11 sessions which cover a wide range of topics. We believe the symposium will lead to some very interesting and fruitful discussions. Hence, we invite you to send your abstracts. Please find the list of sessions at the end of this announcement.

Abstracts should not exceed 200 words in length each, should be 1.5 spaced with 2.5 cm margins on all sides, and use Verdana font, 12 point. The title should be centred and in bold letters. The full name(s), institutional affiliation(s) and email address(es) of the author(s) should be included as footnotes, left aligned.

When you send your abstract, please choose the session you will be presenting your paper at and indicate if the presentation will be given online (a distance presentation) or in person (attending the symposium). Abstracts must be sent to the organizers of the session and also to the official email address of the symposium (11iskm2017@gmail.com).

The deadline for submitting abstracts is **May 15th, 2017**. The abstracts received will be evaluated by the Organizing Committee and sessions organizers and, if there are any changes to make, we will let you know by June 1st. The final list of presentations will be made afterwards in a future announcement.

We would like to remind you that English is the official language of the symposium.

WE LOOK FORWARD TO SEEING YOU AT THE SYMPOSIUM!

Contact us at:

11iskm2017@gmail.com

Look for us at:

http://www.imhicihu-conicet.gov.ar/iskm2017/

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Session 1

The Role of Experiments in Lithic Technology

Organizers: Daniel S. Amick[1], Philip J. Carr[2], and Laurence Bourguignon[3]

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Archaeological understanding of stone tools has long relied on knowledge gained from replication and experimentation. A wide range of approaches and goals have been undertaken in this pursuit. Sometimes this research has resulted in generalizable results while other times it has been designed to address highly specific problems. The level of rigor in these experiments has also varied – ranging from informal replications to highly controlled studies of the fracture mechanics underlying variability in lithic technology.

This session brings together an international group of researchers who have been involved in conducting experiments in lithic technology to discuss their work and link it to broader perspectives on what we have learned from more than a century of this methodological endeavor. Assessing the relationship of these experimental cases and approaches to the scientific method and archaeological epistemology is an important aspect of thinking about how to best design and implement experiments in lithic technology. The primary goal of this session seeks to take stock of what we think we have learned from experiments and how that knowledge can be applied. In other words, how have these modern-day experiments in lithic technology assisted our ability to approach and interpret archaeological artifacts and assemblages? Participants are encouraged to take a comprehensive and critical perspective on this research field to assess how and why these attempts may have failed or succeeded. What obstacles and limitations have researchers encountered and how have they been addressed? Where and how should research proceed in the future based on what we currently know?

Session 2

Production and maintenance of stone tools: How were stone tools made and maintained?

Organizers: Otis Crandell[1], Patrick Julig[2] and Leslye Valenzuela[3]

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This session proposes presentation and discussion regarding the processing and maintenance of stone tools, with the aim of better understanding how prehistoric human societies conceived, produced, used, reused, and finally discarded stone tools.

One of the main areas of investigation in lithic studies is the reconstruction of methods, techniques and patterns used by prehistoric people to produce and maintain tools. Depending on the desired results, there exists a number of ways to approach a set of tools. In this regard, some researches look at the mechanics of knapping which are specially destined to characterize and identify different knapping techniques. Some investigate shapes and patterns used among certain groups and in certain periods to better understand production preferences. Others look at methods of maintaining tools (often through the study of active edges) which tackles retouch techniques, rejuvenation, or types of utilisation. From this perspective, the reasons for replacement of pieces may also be considered. Thus, this session examines features of lithic technologies – including manufacturing, usage, and raw material selection perspectives - in their broader contexts, to arrive at different answers to how human groups across time and space processed and maintained stone tools to facilitate their subsistence.

Our aim, therefore, is to draw a better understanding of how people in the past thought about their tools and planned their work. Considering these ways of approaching the issue, the presentations in this session may be theoretical, be based on anthropological analogies with modern societies, come from archaeological assemblage studies, or may also be based purely on methods used by modern knappers today. Presentations may focus on relevant segments of the *chaînes opératoires*, reduction sequence, or on other aspects of the production and maintenance of stone tools.

Session 3

Tracking Stone: Recent Approaches to Reconstructing the Transport of Lithic Raw Materials and Artifacts

Organizers: Kane Ditchfield[1], Karen Borrazzo[2], and Flavia Morello[3]

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The fact that stone artifacts, and the raw materials from which they were manufactured, were transported by humans in the past is fundamental to archaeological reconstructions of past mobility, land-use, trade and exchange, and many other patterns. Indeed, in many cases, our knowledge on such behaviors would be almost non-existent without this record in stone. Yet reconstructing past artifact transport is not easy on any scale since, archaeologically, all that often remains is a palimpsest of stone materials from related or unrelated transport events.

To address this situation, over the last 20 – 30 years, archaeologists have introduced, applied and refined an increasing number of methods and techniques capable of recognizing lithic transport in different ways. Some of these include geochemical and/or petrographic sourcing, morphometrics, retouch and assemblage composition indices (e.g. GIUR, Cortex Ratio), refitting, and many others.

This has created a fruitful dialogue within, and beyond, archaeology on the material signature(s) of transport, exactly how we might go about reconstructing it, and its place within a broader behavioral context.

With the aim of building on this corpus of research, this session calls for papers dealing with lithic raw material and artifact transport operating at any scale (i.e. intra-site, inter-site, landscape etc.). We encourage participants to submit papers presenting theoretical frameworks and discussions, methodological approaches and techniques, and case studies that illustrate the potential contribution lithic transport research can make towards improving our knowledge on other aspects of past societies worldwide. Finally, we hope this session will

provide a stimulus for further dialogue and exchange among attendees about issues connected to the human transport of stone.

Session 4

Global Perspectives on Obsidian Provenance and Hydration Dating

Organizers: Michael D. Glascock[1], Brandi L. MacDonald[2], and Valeria Cortegoso[3]

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Obsidian is a unique geologic material with physical and chemical properties that make it an ideal subject for archaeological investigation.It has been utilized to create sharp-edged tools, knives, weapons, ritual objects, and jewelry, and its visual and mechanical properties have continued to capture the attention of people throughout human history. The homogeneous chemical properties of obsidian sources and their subsequent artifacts have enabled archaeologists to characterize and trace networks of its acquisition, exchange, and use. As such, obsidian has become a hallmark of provenance-based archaeological inquiry. Obsidian provenance data are used to answer anthropological questions pertaining to lithic resource procurement strategies, mobility and cultural exchange, and technological developments over time and space. Obsidian also has the time-dependent property of absorbing water making it potentially useful for dating artifacts made from obsidian. A variety of analytical methods have played an integral role in advancing this research. At present, researchers have characterized more than 800 geologic sources of obsidian in at least 40 different countries worldwide. We invite colleagues from around the world to share results from their current obsidian research.

Session 5

Learning the Lithic Landscape: Exploring the Effects of Dispersal, Migration, and Colonization on Lithic Technologies, and Vice Versa

Organizers: Ted Goebel[1], Nora Flegenheimer[2], and Peter Hiscock[3]

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This session explores how early humans adapted lithic technology to suit the requirements of dispersal, not just exploration but also migration, colonization, and settlement. Sample questions to be addressed include: In what ways were decisions regarding dispersal affected by lithic resources? In respective study areas, how reliable and predictable were lithic resources, and how did these parameters influence human decision-making during the dispersal process? Moreover, how did knowledge of the lithic landscape develop, and how did familiarity lead to modifications in procurement strategies and technological organization? Were there gender correlates, and what about social and ideological consequences? By taking an international perspective, we hope to explore the diversity of cultural solutions to these problems as well as further development of theory and method in the study of early human.

Session 6

The Study of Knappable Materials in Historical Contexts. State of the Art and Analytical Perspectives

Organizers: Amalia Nuevo Delaunay[1], Alistair Paterson[2], Jimena Alberti[3], and Silvana Buscaglia[4]

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Since the beginning of humanity rocks have been used to manufacture artifacts and structures necessary not only to ensure coping with the inhabited environments, but also to fulfill various social and symbolic functions. In historical contexts, the use of rocks has been heterogeneous, both from an artifactual and an architectural point of view. Studies on knappable materials recovered from historic archaeological sites are less frequent, although the variability of raw materials incorporated during this time span is broader; e.g. lithic, bones, glass, stoneware.

The goal of this session is to account for the state of the art on knappable materials' studies recovered from historical sites. In doing so we will discuss manufacturing techniques, uses, circulation, and social meanings of knapped materials, among them artifacts and/or structures of premodern and modern contexts. Debates on changes and continuities related to the use of knappable materials, theoretical frameworks, methodological approaches and current issues are also encouraged. This will allow for a dialogue and discussion among all those who participate in the session.

Session 7

Geometric Morphometrics and the Study of Lithic Artifacts: Towards an Integration with other Approaches

Organizers: Mercedes Okumura[1], Astolfo Araujo[2], and Michael J. Shott[3]

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Traditionally, there are several approaches to the study of prehistoric lithic industries, including technological analysis, raw material source, experimentation, traceology, taphonomic studies, measurement and typology, among others. The latter two long were the main ways of analysing form (size and shape) of artifacts in studies of lithic industries. The past decade has seen a sharp increase in a new approach to the study of form in archaeology: geometric morphometrics (GM). This approach allows the study of continuous variation in form and has been successfully applied to prehistoric stone tools (usually bifacial points or other formal artifacts), making form a valuable source of information which can be considered relevant to understand the dynamics of human groups in the past. The shape coordinates generated by geometric morphometrics can be further explored using multivariate statistics and can reveal spatial and/or temporal patterns of distribution of prehistoric artifacts. In this sense, results obtained by geometric morphometrics analysis can be compared to, complemented by, or even contrasted with results obtained from other approaches, including technology. GM can revolutionize the analysis of production sequences, defining tool types and transitions between successive ones, patterns and degrees of tool resharpening and other areas of lithic studies. The goal of this symposium is to promote interaction among researchers who have applied geometric morphometrics to lithic industries all over the world, as well as to increase awareness of the potential of such approach in archaeology. We aim to present geometric morphometrics as a useful tool to investigate lithic artifacts, as well as to discuss the current limitations and future developments of the use of geometric morphometrics in the study of lithic industries.

Session 8

Chert Sourcing and Provenance Studies: Theory, Methods, and Applications

Organizers: Ryan M. Parish[1], Charles A. Speer[2], and Gustavo Barrientos[3]

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The study of raw material tool-stone source is crucial in understanding the prehistoric acquisition, movement, consumption, and eventual discard of stone resources. Source studies of obsidian have and continue to demonstrate the powerful application of source data in understanding human behavior. Recently, analytical source studies upon chert are quantifying the extreme variation in chert and characterizing this variation at meaningful spatial scales. The papers presented here represent a broad and variable range of studies geared to determining chert and other cryptocrystalline sedimentary rocks' (flint, chalcedony, jasper, agate, silicified dolomites and limestones) material source as a proxy for understanding technological organization, interaction, resource selection, consumption, and movement. Continued investment in sourcing studies and the provenance data they produce will remain a benefit to explanatory models.

Session 9

"Other than Glassy Stones": The Selection of Biotic and Abiotic Raw Materials in Hunter-Gatherers

Organizers: Francesca Romagnoli[1], Vivian Scheinsohn[2], and Javier Baena[3]

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Ethnographic and archaeological evidences showed that hunter-gatherers adaptive capacity was expressed, among other things, by strategy of raw material selection and diversification. The variability of lithic raw materials used included resources such as limestone, quartz, schist, and other highly inhomogeneous and less isotropic stone resources. Furthermore, hunter-gatherers used organic raw materials such as shells, ivory, and bones among others. The study of raw material selection was in many occasions biased by "high-quality" lithic materials such as, for example, obsidian and fine-grained chert. Nevertheless, the concept of what should be considered as "high-quality" could be questioned and investigated taking into account functional, economic, and social parameters of technical behaviour. In this session we intend to highlight the techno-economic behaviour related to those apparently less valuable raw materials, including both biotic and abiotic. Particular attention will be devoted to the meaning of these evidences to understand human-environment interaction, cost-benefits strategies, mobility, and technological concepts. Ethnographic, archaeological, and experimental data are all welcome.

Session 10

Geochemical Methods Used to Characterize Lithic Artefacts and Sources: Research Potential and Limitations

Organizers: Marta Sánchez de la Torre[1], Adrian L. Burke[2], and François-Xavier Le Bourdonnec[3]

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Rocks were used since the beginning of human history and are also one of the best preserved materials in archaeological sites, especially those from Palaeolithic times. Their study is essential to knowing more about human behaviour and the relationships human groups had with their environment, in particular as concerns raw material procurement. Provenance studies have historically focused on the analysis of lithic artefacts and potential sources using visual and petrographic methods. Some decades ago, however, the development of geochemical methods to characterize lithic artefacts and potential sources began to be more established and studies using one or several of these methods have constantly increased since that time.

This session will focus on any geochemical methods that may be used to characterize lithic artefacts as well as potential sources. We will focus our attention on the comparison of different geochemical methods with the aim of discussing their applicability, their potential as well as their limitations. Proposals concerning preferably more than one geochemical method applied to characterize any type of stone artefact (e.g., tools, beads, pigments) will be considered.

Session 11

General Issues in Knappable Materials Studies

Organizers: pending.

Knappable materials have been the focus of a wide range of approaches to address diverse specific topics such as style, function, and use of artifacts, distinguishing natural from anthropic patterns, managment and conservation of these kind of materials, among others. This session gathers worldwide researches that contribute to general archaeological issues by studying knappable materials from these different perspectives, most of them not already included in the others sessions. Approaches and methodologies about the construction and use of lithoteques, essential for researchers working in lithics, are also welcomed.

In addition, participants of this session are encouraged to bring experiences on the management and preparation of artifacts for conducting different analyses and discuss current conservation and storage issues of different archaeological knappable materials, eventually providing input and/or guidelines for cultural resource management and conservation policies.