

## WORKSHOPS & LABORATORIES

### Workshop

#### **ERC PROJECT AND ARCHAEOBOTANY**

*Thursday 06 June 2019 - h. 16.45 - Building 6, Room 2*

Archaeology, and specifically Archaeobotany, has been very successful over the years and secured several ERC grants at different level. The objective of this workshop is to sum up the last few years of accrued experience of archaeobotanists as PIs or panel members. The workshop will bring together a group of colleagues that were or are PIs in a starting, consolidator or advanced grant to discuss:

- 1) Their experience in preparing the grants and building the necessary network;
- 2) Selection procedures;
- 3) Administrative and management issues;
- 4) Suggestions for future applicants.

At the same time the workshop will showcase a few projects that are currently ongoing or that recently finished.

The workshop will be co-managed by Amy Bogaard, Dorian Fuller, Leonor Pena Chocarro, Sultana MariaValamoti, Carla Lancellotti.

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## Workshop

### **NATIONAL AND INTERNATIONAL ARCHAEOBOTANICAL NETWORKS: NOT ONLY DATABASES**

*Tools and keys for an interdisciplinary science and versatile applications*

*Thursday 06 June 2019 - h. 16.45 - Building 6, Room 7*

The great accumulation of botanical data coming from past deposits is at the base of the current need to create flexible platforms to collect information, improve knowledge on existing analyses and share data for common projects and publications. The existence of large datasets on plant micro/macroremains from archaeological sites, as well as from other sedimentary contexts, can give more and more accurate floristic lists and quantification of the environments and human-environment interactions. Despite the urgency of creating specialized networks and databases, there are few opportunities for scientific projects to support the needs of continuous updating and the maintenance of networks. Moreover, low cooperation among the different networks seems the only possible option as, currently, the net-systems have a low chance to talk to each other.

This workshop encourages the dialogue among networks and the different subfields of archaeobotany. The BRAIN-Botanical Record of Archaeobotany Italian Network, ArboDat-Multi, ArchbotLit, etc. ([brainplants.successoterra.net](http://brainplants.successoterra.net); <https://www.wikis.uni-kiel.de/archbotlit/>; <https://lape.prf.jcu.cz/en/arbodat-databasis/>) wants to be examples as they are databases of archaeobotanical research and analyses which was developed starting from the results on plant records from archaeological sites; then, also some different type of sites close to archaeological sites in Italy (off-sites, or near-sites), and located in the Mediterranean basin were added. Web site hosts the inventory of the researches, mainly archaeological, including pollen, palynomorphs, seeds/fruits, wood, charcoals and other plant remains analyses. The website also makes the archaeobotanical data available for archaeological researches and studies on conservation and biodiversity on a long-term perspective.

Following the idea that archaeobotany is a key tool 'for the understanding of the biological-cultural diversity', the general network on archaeobotany can include several different and specialty networks, becoming fruitfully used to deepen the history of past vegetation, land cover, land-uses and palaeoethnobotany, and the modern assessment of biodiversity conservation and ecological strategy for sustainability. Maintaining biodiversity and ecosystem services in a changing environment requires a competent knowledge of the past. The joint action of sciences and humanities, that is intrinsically rooted in archaeobotany, is based on digital platforms in the networks. The collected data are able to give the temporal perspective that informs correct reconstructions of past contexts, and realistic restoration and management targets.

The workshops wishes to explore the experiences of several databases, and proposes a more cooperative interaction between the different networks.

The workshop will be managed by Anna Maria Mercuri, Assunta Florenzano, Felix Bittmann, Wiebke Kirleis, Angela Kreuz, Alexandra Livarda, Lisa Lodwick, Adela Pokorna, Simone Riehl.

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## Workshop

### **ARCHAEOBOTANY AND PUBLIC**

#### **From Petri dish to spotlight: the opportunities for archaeobotany in the public eye**

*Thursday 06 June 2019 - h. 16.45 - Building 6, Room 3*

Much like archaeology in a broader sense, archaeobotany needs and deserves support of the public. Given the fact that everybody needs to eat and everybody has an environment, both now and in the past, botany offers countless possibilities to strike the audience's interest. Despite this, archaeobotany often seems neglected in museums and elsewhere. Existing initiatives tend to be largely historically inspired, as opposed to archaeobotanically. Can archaeobotanical results add to existing outreach?

Yes, they can!

To attain this, the archaeobotanical discipline needs to reach out and present botany to a wider audience in a way that is attractive and stimulating. Therefore, for the first time, IWGP organises this workshop where we explore the possibilities of putting archaeobotany in the spotlight. In this workshop, we hope to reach several goals:

- to share with fellow practitioners the efforts already made within public outreach;
- to learn how these presentations of archaeobotanical material by colleagues were set up and received;
- to compare ideas for different target audiences, ages etc.;
- to raise awareness of the occurring distance between the research field and the public;
- to discuss what we as a discipline are doing right and what requires improvement;
- to bring to mind why it is so important to share archaeobotanical results in an accessible way;
- last but not least: to let the participants of the workshop actively engage in designing new ideas for future presentations, exhibitions, museum quests and every other brainchild they can come up with.

We hope that by the end of the workshop, all participants can agree on the importance of public outreach and will have many fresh ideas!

The workshop will be managed by Cornelia Moolhuizen, Dragana Filipovic, David Stone, Eva Degli Innocenti.

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Laboratory**NAKED WHEAT*****Tuesday 04 June 2019 - h. 16.45 - Building 6, Room 4***

The lab session is structured to train participants on how to differentiate between tetraploid and hexaploid wheat to ensure that this important distinction does not go unremarked in the archaeobotanical assemblage. The presence of tetraploid naked wheat was first reported by Hillmann (1986), who defined the rachis criteria for the identification of naked wheats, and Jacomet and colleagues who recognized tetraploid wheat in the Late Neolithic Swiss Lake dwellings (Jacomet and Schlichtherle 1984; Jacomet *et al.* 1989).

Later studies proved the co-existence of tetraploid and hexaploid naked wheat in Neolithic dwelling of Central Europe (Schlumbaum *et al.* 1999). In recent years, Kirleis and Fischer prove that the tetraploid naked wheat was among the staples used by the Funnel Beaker North group in Denmark and Germany (2014). In addition the interrelation of the origin of tetraploid naked wheat and the beginning of agriculture in the Alpine foreland, as well as northern Germany have been discussed in Kreuz *et al.* 2014.

Since the 6th IWGP in Groningen, 1983, the meeting has become a platform to evaluate the role of tetraploid naked wheat among the early farmers and an opportunity to advance the identification criteria. The 16th IWGP in Thessaloniki, 2013, with its theoretical and practical lab sessions, highlighted the importance of training new generations of archaeobotanists on the identification of tetraploid wheat.

Here at the 18th IWGP, we pursue the same education goal and we invite the attendees to bring specimens of naked wheat chaff or grains to the lab-session for training in the analysis of their samples.

The laboratory session will be held by Angela Kreuz, Ferran Antolin and Marlu Kühn.

**References:**

Hillman, G.C., Mason, S.R.L., de Moulins, M.D., Nesbitt, R.M. (1996) *Identification of archaeological remains of wheat: the 1992 London Workshop*. Circaea, The Journal of the Association for Environmental Archaeology 12, 195-209.

Jacomet, S., & Schlichtherle, H. (1984). *Der kleine Pfahlbauweizen Oswald Heer's: neue Untersuchungen zur Morphologie neolithischer Nacktweizen-Ähren*. Sixth Symposium of International Workshop for Palaeoethnobotany, Plants and Ancient Man: Studies in Palaeoethnobotany. Gronigen, 30 May - 3 June 1983, pp. 153-176.

Jacomet, S., Brombacher, C., & Dick, M. (1989). *Archäobotanik am Zürichsee: Ackerbau, Sammelwirtschaft und Umwelt von neolithischen und bronzezeitlichen Seeufersiedlungen im Raum Zürich: Ergebnisse von Untersuchungen pflanzlicher Makroreste der Jahre 1979-1988* (Vol. 7). Komm. Orell Füssli.

Schlumbaum, A., Neuhaus, J. M., & Jacomet, S. (1998). *Coexistence of tetraploid and hexaploid naked wheat in a Neolithic lake dwelling of Central Europe: evidence from morphology and ancient DNA*. Journal of Archaeological Science, 25 (11), 1111-1118.

Kirleis, W., & Fischer, E. (2014). *Neolithic cultivation of tetraploid free threshing wheat in Denmark and Northern Germany: implications for crop diversity and societal dynamics of the Funnel Beaker Culture*. Vegetation History and Archaeobotany, 23 (1), 81-96.

Kreuz A., Märkle T., Marinova E., Rösch M., Schäfer E., Schamuhn S., Zerl T. (2014). *The Younger Neolithic Michelberg culture—just ramparts and ditches? A supra-regional comparison of agricultural and environmental data*. Prähistorische Zeitschrift 89 (1), 72-115.

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Laboratory**LEGUMES*****Tuesday 04 June 2019 - h- 16.45 - Building 6, Room 5***

The scope of the laboratory is to extend the knowledge about identification of legumes, with theoretical and practical approaches for the study of their anatomical features.

Morphological characteristics used by archaeobotanists to identify legumes are rarely illustrated or described. The earliest attempt to provide criteria for the identification of legumes from archaeological sites was that of Butler, in the early 2000's, who studies pods and, later, seeds testa (Butler 2002, 2014).

Among the most detailed study is that carried out by Fuller and Harvey who listed the criteria for the identification of archaeological seeds of Indian native legumes (Fuller & Harvey 2006). Around the same time, Tanno and Willcox analyzed in detail the anatomy of chickpea and faba bean seeds from a Pre-Pottery Neolithic site in northern Levant (Tanno & Willcox 2006). More recently, Caracuta and colleagues developed criteria for the identification of wild and domesticated legumes coming from Natufian and Pre-Pottery Neolithic sites in Southern Levant (Caracuta et al. 2016, 2017).

The laboratory session at the 18th IWGP conference is meant to provide archaeobotanists criteria for the identification of legumes coming from different ecological regions. Modern reference material will be compared to the archaeological samples to assess the effect of degradation on the anatomy of ancient specimens.

Valentina Caracuta and Yohel Melamed will lead this laboratory session.

## References:

Butler, A. (2002). *Investigations of pod characters in the Viciae*. *Vegetation History and Archaeobotany*, 11 (1-2), 127-132.

Butler, A. (2014). *24 Cryptic anatomical characters as evidence of early cultivation in the grain legumes (pulses)*. *Foraging and Farming: The Evolution of Plant Exploitation*, 390.

Fuller, D. Q., & Harvey, E. L. (2006). *The archaeobotany of Indian pulses: identification, processing and evidence for cultivation*. *Environmental Archaeology*, 11 (2), 219-246.

Tanno, K. I., & Willcox, G. (2006). *The origins of cultivation of *Cicer arietinum* L. and *Vicia faba* L.: early finds from Tell el-Kerkh, north-west Syria, late 10th millennium BP*. *Vegetation History and Archaeobotany*, 15 (3), 197-204.

Caracuta, V., Weinstein-Evron, M., Kaufman, D., Yeshurun, R., Silvent, J., & Boaretto, E. (2016). *14,000-year-old seeds indicate the Levantine origin of the lost progenitor of faba bean*. *Scientific Reports*, 6, 37399.

Caracuta, V., Vardi, J., Paz, Y., & Boaretto, E. (2017). *Farming legumes in the pre-pottery Neolithic: New discoveries from the site of Ahihud (Israel)*. *PloS ONE*, 12 (5), e0177859.

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## Laboratory

### NEW GLUME WHEAT

***Friday 07 June 2019 - h. 16.45 - Building 6, Room 4***

The Laboratory session at the 18th IWGP emphasizes a hands-on approach to identify the ‘New’ Glume Wheat based on the morphology of the grains’ spikelet.

The first identification, in 2000, of a new type of hulled wheat in Greece by Jones and colleagues paved the way for the study of this ‘new’ species that shares anatomical features of both the emmer and einkorn type (Jones *et al.* 2000).

Over the last two decades, findings of this “new” glume wheat multiplied all over Europe and the Near East. In 2013, a special session about New Glume Wheat was organized at the 16th IWGP conference, during which more records were presented. New findings quickly emerged in large parts of Eurasia, leading to more accurate morphometrical descriptions of spikelet bases and caryopses of the wheat, and to time its diffusion across continents (Kenez *et al.* 2014; Toulemonde *et al.* 2015).

This lab session intends to provide scholars with the most updated criteria for the identification of the spikelet of NGW. Participants are invited to bring chaff remains of hulled wheat to the lab-session for training in the analysis of their samples.

Dragana Filipovic, Liz Stroud, Amy Bogaard, Françoise Toulemonde, Sultana Valamoti and Burhan Ulas will host the session.

#### References:

Jones, G., Valamoti, S., & Charles, M. (2000). *Early crop diversity: a “new” glume wheat from northern Greece*. *Vegetation History and Archaeobotany*, 9 (3), 133-146.

Kenéz, Á., Pető, Á., & Gyulai, F. (2014). *Evidence of ‘new glume wheat’ from the Late Neolithic (Copper Age) of south-eastern Hungary (4th millennium cal. BC)*. *Vegetation history and archaeobotany*, 23 (5), 551-566.

Toulemonde, F., Durand, F., Berrio, L., Bonnaire, E., Daoulas, G., & Wiethold, J. (2015). *Records of “new” glume wheat in France: a review*. *Vegetation history and archaeobotany*, 24 (1), 197-206.

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## Laboratory

### MILLETS

***Friday 07 June 2019 - h. 16.45 - Building 6, Room 5***

A major problem for the identification of millets is the large number of small-seeds species that belong to this group which present similar morphological characteristics. The lab session at the 18th IWGP aims to define the criteria used for the identification of millets that are found in archaeological sites and provide general guidelines for archaeobotanists working in tropical areas.

The earliest attempts to develop criteria for the identification of archaeological come from the framework of African archaeobotany, and are based on the researches carried out in the 70's by Bruken and Hilu and colleagues who worked on finger millet and pearl millet (Brunken *et al.* 1977, Hilu *et al.* 1979).

Jacomet's work later implemented the criteria for the identification of other species, such as broomcorn and foxtail millets (Jacomet 1987). In the early 2000's, a comprehensive study was published by Fuller who provided guidance for the identification of the most common millets found in archaeological sites (Fuller 2006).

The lab session is open to archaeobotanists who are interested in learning the fundamentals of the identification of millets. Modern reference material, representative of the most common species, will be described and will serve as base for the identification of archaeological specimens.

Dorian Fuller and Marco Madella will lead this laboratory session.

#### References:

Brunken, J., de Wet, J. M., & Harlan, J. R. (1977). *The morphology and domestication of pearl millet*. Economic Botany, 31 (2), 163-174.

Hilu, K. W., De Wet, J. M. J., & Harlan, J. R. (1979). *Archaeobotanical studies of Eleusine coracana ssp. coracana (finger millet)*. American Journal of Botany, 66 (3), 330-333.

Jacomet, S. (1987). *Prähistorische Getreidefunde: eine Anleitung zur Bestimmung prähistorischer Gersten-und Weizen-Funde*. Selbstverlag.

Fuller, D. Q. (2006). *A millet atlas: some identification guidance*. London: University College London.

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## Laboratory

### IMAGE ANALYSIS

**Friday 07 June 2019 - h. 16.45 - Building 6, Room 6**

The Lab session on image analysis at the 18th IWGP intends to provide participants with an overview of the major techniques used to analyze seed shape. These involve fitting some type of curve to the seed's outline, with the resulting coefficients then being used as variables for statistical analysis.

There are several approaches that can be used to analyze seed shape. Since the early 2000s the elliptical Fourier analysis (EFA) method has been extensively used in archaeobotany to discriminate between wild, feral and domesticated forms of Mediterranean plants (Terral *et al.* 2009) and discriminate between different varieties of the same species (Terral *et al.* 2012).

An alternative method to Fourier analysis is Procrustes analysis, which is based on landmark configurations, was also used to study the spread of olive domestication in the Mediterranean basin in antiquity (Terral *et al.* 2004).

At the 18th IWGP scholars will have a hand-to-hand experience of fitting a polynomial curve to plant remains using the most common programs for shape analyses.

The Laboratory session will be led by Laurent Bouby and Clémence Pagnoux .

#### Reference:

Terral, Alonso, Buxò, Chatti, Fabre, Fiorentino, Marinval, Perez Jorda, Pradat, Rovira, Alibert 2004. *Historical biogeography of olive domestication (Olea europaea L.) as revealed by geometrical morphometry applied to biological and archaeological material*. Journal of Biogeography, 31, 63–77.

Terral, Newton, Ivorra, Gros-Balthazard, de Morais, Picq, Tengberg, Pintaud 2012. *Insights into the historical biogeography of the date palm (Phoenix dactylifera L.) using geometric morphometry of modern and ancient seeds*. Journal of Biogeography, 39 (5), 929-941.

Terral, Tabard, Bouby, Ivorra, Pastor, Figueiral, Picq, Chevance, Jung, Fabre, Tardy, Compan, Bacilieri, Lacombe, This 2009. *Evolution and history of grapevine (Vitis vinifera) under domestication: new morphometric perspectives to understand seed domestication syndrome and reveal origins of ancient European cultivars*. Annals of Botany, 105 (3), 443-455.

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## WORKSHOPS AND LABORATORIES

### ABSTRACTS

#### SEIGNEURIAL LAND MANAGEMENT AND CONTROL: AGRIFOOD PRODUCTION AND TRADE IN MEDIEVAL TUSCANY FROM THE 10TH CENTURY AD

Mauro Paolo Buonincontri<sup>1-2</sup>, Marta Rossi<sup>1</sup>, Giovanna Bianchi<sup>1</sup>, Richard Hodges<sup>1-3</sup>, Gaetano Di Pasquale<sup>2</sup>

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2. Department of Agricultural Sciences, University of Naples "Federico II", Portici, Italy.

3. Sustainable Cultural Heritage Faculty, American University of Rome, Italy.

The ERC-2014-ADG nEU-Med is investigating the causes and modes of the great economic growth in southern Tuscany and subsequently the central Mediterranean from the 10th c. AD bringing into question past historical frameworks. Sedimentological analysis identified significant river regulating measures and land reclamations supported by fire clearance from the mid-9th c. AD. Such activities were promoted by public authorities, manifested through an increase in crop and orchard surfaces, detectable as agrarian landscapes from the mid-10th c. AD. The agri-food production was controlled and stored in new granaries built in fortified sites.

Radiocarbon datings and new and revised taxonomic analyses of seeds and fruits from granaries of three rural archaeological sites (Vetricella, Rocca degli Alberti, and Montarrenti) and an urban site (Florence) clarified the relationship from the coast to the inland between producer sites and town consumer markets. *Triticum* sp., *Hordeum vulgare* and pulses were the main taxa cultivated, selected and stored in the seigneurial rural estates from the 10th c. AD, with interesting local peculiarities. The morphometric and shape analysis of caryopses defined the sizes and allowed to evaluate the agronomic skills of the Medieval Tuscan peasants. This trend continued later on when the towns encompassed rural areas in their juridical and fiscal systems. The expanding and changing agri-food system in the Early Middle Ages represented a revolutionary phase that gave way to the social and economic growth of Late Medieval Tuscany.

*Key-words: ERC-ADG, central Mediterranean, granaries, crop surplus control, socio-economic growth*

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## **ARCHBOTLIT – CONVERSION OF THE ONLINE DATABASE ON LITERATURE ON ARCHAEOLOGICAL REMAINS OF CULTIVATED PLANTS INTO A WIKI PLATFORM**

Wiebke Kirleis, Helmut Kroll

*Institute of Pre- and Protohistoric Archaeology, CAU Kiel, Germany*

The database on literature on archaeological remains of cultivated plants, established by Schultze-Motel in the 1980ies, continued from 1992 onwards in "Vegetation History and Archaeobotany" and as online database "archaeobotany.de" by Kroll, is an important tool to get targeted access to archaeobotanical publications. It offers the opportunity for archaeobotanists, archaeologists, students and an interested public to be informed, increases the visibility of archaeobotanical studies beyond the inner circle and supports teaching in environmental archaeology. To sustain the database in the long run, it is converted into the wiki-platform ArchbotLit hosted at Kiel University. ArchbotLit offers the known search options for multiple variables, such as species, site location, dating. Newly, links or DOI for the pdf can be included. The main change and challenge is, that the responsibility for data upload is now handed over to the authors of the respective archaeobotanical publications! This in order to cope with the by far increasing number of publications that no longer allow for upload by a single person. While search options are open access, data upload is restricted to archaeobotanists who register with us. We would like to encourage you archaeobotanists world-wide to make use of the updated online platform! Data search- and data upload-options are presented here. During the lab-session, we will offer guidance to try data entry and data retrieval on a laptop.

*Key-words: Literature database on archaeobotanical remains, Wiki-platform*

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## **REPRODUCIBILITY IN ARCHAEOBOTANY: DATA PUBLICATION AND CITATION PRACTICES**

Lisa Lodwick

*University of Oxford, U.K.*

Across a wide-range of academic disciplines a reproducibility crisis has been identified. As each data point is unique in archaeology, the reproducibility of research relies on the sharing of primary data and the methods used to analyse it. Archaeobotany is a sub-discipline built on the labour-intensive and skilled production of such data-sets. Previous studies have highlighted problems of data-availability from commercial archaeology, but there has been no assessment of data sharing and citation practices within research archaeobotany. This paper presents a review of data sharing and data citation practices in 8 specialist and general archaeology journals over the last 10 years. The analysis of 189 articles shows that publishing data as in-text tables is still the most common way of sharing data, followed by supplementary tables. Around half of all journal articles reporting on new assemblages have no primary data. An assessment of data citation practices shows that

many meta-analysis studies do not provide citations of the data used, meaning the results cannot be verified or built upon. The data sharing practices highlighted here result in data sets being lost, make meta-analysis difficult and time-consuming and limit the use of archaeobotany in wider disciplines. Recommendations are made for how data-sharing and citation practices can improve, including the implementation of journal research data policies and incorporating open science practices into training.

*Key-words: Archaeobotany, Open science, Data sharing, Data citation*

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## **DATA HARVESTING: TOWARDS THE DIGITAL AUTOMATION OF CHARRED CROP ANALYSIS**

Mark McKerracher, Amy Bogaard, Michael Charles, Elizabeth Stroud, Helena Hamerow

*University of Oxford, U.K.*

The past twenty years have witnessed two complementary trends in archaeobotanical research. First, the development of a suite of quantitative and semi-quantitative techniques for the analysis of charred cereal deposits, including crop processing and functional weed ecological analyses; alongside the application of more traditional approaches such as presence analysis and the calculation of the relative proportions of different species. Second, in the United Kingdom as elsewhere, the collection of charred archaeobotanical remains in development-led excavations has become increasingly routine and systematic, creating a growing body of ‘big data’ that has the potential to shed unprecedented light on past environments, diets, and farming practices.

It is advantageous to unite these two trends, by applying a package of tried-and-tested methodologies to the increasing mass of data, in a systematic and repeatable fashion, and to update results as new data emerge. Yet such an approach currently presents a significant practical challenge: how to achieve this level of systematic analysis repeatedly without investing prohibitive levels of time and labour? This paper, arising from the ‘Feeding Anglo-Saxon England’ project, presents recent progress towards the digitized automation of charred crop analyses using a bespoke computer database, in the context of archaeobotanical research into surplus crop production in early medieval English farming.

*Key-words: charred grain, crop processing, computer databases, big data, statistics*

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## **THE MANNA PROJECT, THE NEW ATLAS OF MEDITERRANEAN SEEDS AND FRUITS**

Diego Sabato, Leonor Peña-Chocarro

*GI Arqueobiología, Instituto de Historia, CSIC, Spain.*

The implementation of reference collections is often expensive and time-consuming that is why seed and fruit atlantes offer an important support to the identification process. Many of them have been published in the last sixty years, but they are concentrated mainly on a specific geographical

region and/or group of plants. These atlantes only partially include taxa native from the Mediterranean Basin, which can sometimes be disadvantageous for Southern European researchers.

Our research team started building its collection in the 90's. We are currently holding a collection of around 4000 taxa, mainly focused on cultivated and wild plants with emphases on Mediterranean species of economic importance. Driven by our desire to share the results achieved with scientists from all over the world, an idea was born of creating a new database with high quality images of seeds and fruits, especially intended for identification purposes.

We are now proud to present our monography, the Ma.N.N.A. project: *Maris Nostris Novus Atlas - seeds and fruits from the Mediterranean Basin*. More than 2600 taxa from 137 families and 880 genera have been selected. We have established a protocol designed to enhance and speed the identification process by primarily dividing taxa according to size in order to organize intuitive sheets showing the items in the same scale according to the size group. Our ultimate goal is to provide the scientific community with a new useful tool for the identification of plant diaspores.

*Key-words: Identification tool, Mediterranean, plant diaspores*

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### **STANDARDS, STORAGE AND DISSEMINATION: NEW APPROACHES TO ARCHIVING, CURATION AND DATA SHARING OF ENVIRONMENTAL ARCHAEOLOGICAL MATERIAL (FULBRIGHT CREATIVE IRELAND MUSEUM PROJECT)**

David Stone

*University College of Dublin, Ireland.*

The creation of stable, consistent and accessible archives from archaeological fieldwork is a fundamental building block of archaeological activity and research. The study of why and how archaeological material is retained and ways it can be better utilised and integrated into the discipline is vital and a recognition of the study of this resource needs to become a major area of activity in collaboration with the generation of new information through fieldwork. Museums in Azerbaijan currently have no procedures in place to curate plant or other environmental remains, facilitate access to, or disseminate information arising from their study. The sharing and availability of information from archaeobotanical assemblages is vital, as difficulty in accessing high quality information constitutes a major limiting factor in the advancement of archaeobotanical research in the region. This problem can be exacerbated by political unrest which may threaten access and possible collaborations in the future. The aim of my Fulbright research project is to collaborate with the Smithsonian Institute National Museum of Natural History, to address several key issues in Azerbaijani archaeology and to help depository institutions in Azerbaijan develop, enact and enforce guidance in best practice and curation of archaeobotanical materials.

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