

ABSTRACTS

ANDREA ZIFFERERO, *Archeologia e circolazione varietale: prospettive di ricerca e valorizzazione del paesaggio agrario in Italia centrale*

This work highlights the concepts of ancient circulation of cultivars, in order to integrate botanical and bio-molecular methods with an archaeological perspective into the analysis of the domestication of grapevine. Particular emphasis is devoted to detect the role of the Greek colonies in *Magna Graecia* and Sicily as promoters of varieties that can still be recognized today through application of bio-molecular analyses in the investigation of DNA genotypes.

The need for a more integrated pathway by different disciplines in carrying out such research emerge from the archaeological exploration of the settlement system of the low Albegna Valley, in the territory controlled by the Etruscan city of *Volci*.

The two main centers located there, Marsiliana d'Albegna and Doganella, promoted the intense agricultural activities at the base of the massive production of wine, whose trade has been revealed by the distribution of Etruscan amphoras in the Celtic and Iberian sites facing the Gulf of Lion.

The features of the wild grapevines from these zones have been evaluated by the Archeo-Vino Project, carried out in the countryside of the Etruscan site of Ghiaccio Forte, nearby Marsiliana and Doganella. These data showed genetic correlations between some plants and the varieties *Sangiovese*, *Canaiolo nero* and *Ciliegiolo*: most probably the Albegna Valley intercepted the circulation of such varieties during the Etruscan period, whose origin must be

searched between Eastern Sicily and Ionic and Tyrrhenian Calabria. This Project has brought in 2015 to plant an experimental vineyard, hosting cultivars derived from the wild grapevines sampled.

ATTILIO SCIENZA, OSVALDO FAILLA, *La circolazione varietale della vite nel Mediterraneo: lo stato della ricerca*

For European viticulture, boundaries between populations, often marked by strong conflicts, have always been privileged places for the emergence of new expressions of viticulture. The development of the molecular markers genetics offers a unique diagnostic tool to recreate the pedigree of the cultivars, using the DNA of the oldest varieties and of the wild grapevines still existing in nature. However, it is necessary to integrate the results of the analysis of molecular markers with literature, historical, archaeological and anthropological sources. The history of European viticulture presents features that vary from one area to the other, hence specific researches to be carried out in the places concerned by those studies are necessary, in order to collect the often uncertain *in situ* testimonies, a *corpus* of oral traditions and terminological sets of the semantic field, latent structures that become explicit thanks to the so called "revealing situations". At a genetic level, great effort is required in individuating the wild grapevines and the oldest grape varieties. The Greeks contributed to the spread of the myth of Wine in the West. The analysis of the pedigree of cultivated vines in the regions of *Magna Graecia* and Sicily makes it possible to identify the real geographical

origin of the grape varieties and the route that they had followed to reach the current areas of cultivation, highlighting the essential role played by the culture and by the original aspects of living of different populations in the selection and spreading of varieties.

ROBERTO MARIOTTI, SORAYA MOUSAVI, SAVERIO PANDOLFI, NICOLÒ G.M. CULTRERA, LORENZO COSTANTINI, LUCIANA BALDONI, *La coltivazione antica dell'olivo a confronto con le varietà attuali: il contributo della ricerca genetica*

The genetic patrimony of olive (*Olea europaea* L.) is represented by several genotypes, which include main and minor varieties, wild plants and related forms. This huge variability, consequent to species longevity, lack of new improved genotypes and agronomical relevance, could be used to increase product quality, reduce cultivation inputs and help facing ongoing environmental constraints. Molecular, archaeobotanical, palynological, historical and climatic studies have contributed to clarify the origin of olive cultivation, to define the relationships between ancestral forms and modern cultivars and to establish primary and secondary centers of domestication. Recent studies are drawing new routes of olive domestication: from the Fertile Crescent to the west along the Mediterranean basin, and to the east, up to present Iran and Pakistan.

ANDREA CIACCI, *Il Progetto Farfalla*

Together with traceability and quality, Italian products are characterized by their historical value. Each typical product is a messenger of intangible knowledge and know-how in close contact with a peculiar territory and historic period: both aspects are more and more appreciated by consumers and are able to influence the production and marketing strategies of agricultural industries.

The "FARFALLA" Project is the continuation of a set of research activities carried in Tuscany by Universities and research institutions, dealing with the study of the connection between agricultural productions, history and landscape evolution, focusing on ancient agricultural landscapes of the Etruscan and Roman periods.

The project aims at developing a pilot initiative for the identification, preservation and promotion of a set of agricultural cultivations, focusing on those varieties that are rapidly disappearing due to the diffusion of few globally

used varieties, trying to point out their historical identity and their link with their land of origin. The project joins together archaeology, botany, agronomy, chemistry and biology up to economics and information engineering and aims at developing the following activities:

1. Mapping of local agricultural productions together with their relations with the landscape, the territory and its history.

2. Creation a seed bank for a set of agricultural varieties in areas with strong historical and archaeological vocation.

3. Analysis and dissemination of traditional farming and agro-processing techniques.

4. Tools and methods for the tourist development of the territory through a participatory approach of the local system.

5. Development of ICT solutions for communication and promotion of the identity and the productions of the territory.

MASSIMO BOTTO, *La produzione del vino in Sardegna tra Sardi e Fenici: lo stato della ricerca*

The aim of this paper is to clarify the socio-economic and historical conditions whereby Sardinian communities, during the transition from the Middle Bronze to the Final Bronze Age, started producing wine. The second half of the second millennium BC represents a crucial moment in the history of the island, due to the rapid growth of local communities and the inclusion of Sardinia in international trading circuits. As for wine, sensational discoveries have been made at Sa Osa (Cabras), near Oristano, where excavations have found grape pips attributable to the subspecies *Vitis vinifera* L. ssp. *vinifera* in Late Bronze Age contexts. Equally important in this regard are the biochemical analyzes conducted by Nicolas Garnier on vessels dated to the Late and Final Bronze Age from Nuraghe Arrubiu at Orroli and the nearby Giant's Tomb, called "Tomb of the Sword", which reveal a consumption of local wine obtained through a "white vinification". Thanks to this analysis it is possible to say that there was an increase in practices related to social consumption of wine among the Nuragic populations of the end of the second millennium BC. This situation would explain the rapid development of wine producing activities within the Sardinian communities during the early stages of the early Iron Age, when Sardinia was involved in the Phoenician diaspora. In fact, the Phoenician request for large quantities of wine to export to the major

international markets must have triggered positive interactions that within a short time led to an increase in wine growing on the island and to an improvement in its quality.

CINZIA LOI, *Antichi impianti e tecniche di spremitura dell'uva nella Sardegna centroccidentale*

The stone presses constitute a fundamental element of the production process and they are of significant interest due to their historical and archaeological value.

Those artifacts, being considered less valuable than others, have enjoyed relative anonymity on Sardinia. Furthermore, those we are in possession of are of doubtful and mysterious origin and it is difficult to interpret their typology and age.

The aim of this research project is to clarify the topic through the establishment of a stone presses' sample organised by type and function. This is to be achieved by employing experimental archaeology, ethnoarchaeology and the multi-disciplinary archaeology of line production as approached by the landscape archaeology.

Of those artifacts concerned with the production of wine, the millstones, 103 fixed rural wineries have been found: 12 within the Guilcer area and 91 within the Barigadu area. This is in addition to 53 movable containers connected to at least other 30 wineries.

Having analysed the evidence discovered, it is appropriate to assume that production was widespread in those areas for a long period of time, namely from the Nuragic period to the late Middle Ages.

ALESSANDRO USAI, MARIANO UCCHESU, GIANLUIGI BACCHETTA, OSCAR GRILLO, MARTINO ORRÙ, DIEGO SABATO, *L'insediamento nuragico di Sa Osa (Cabras, OR). Il sito e i materiali archeobotanici*

The excavation of the nuragic settlement at Sa Osa (Cabras, province of Oristano, Sardinia) allowed to investigate the state of domestication of the waterlogged grape seeds found inside three pits belonging to the advanced Middle Bronze and Late Bronze Ages.

Adopting the linear discriminating analysis and the morphometric analysis, the archaeological grape seeds have been compared to the present Sardinian ones, both wild and cultivated. The results have shown that the seeds dated to the later Middle Bronze Age (1303-1126 and

1322-1191 BC cal. 2σ) had morphological features intermediate between the wild and cultivated grapes, while the Late Bronze Age seeds (1285-1115 and 1276-1108 BC cal. 2σ) were very similar to the modern cultivated grapes of Sardinia. These results offer the first document of the existence of cultivated grapes in Sardinia during the Late Bronze Age and support the hypothesis that Sardinia could have been a secondary domestication centre of grapevine thanks to the existence of the wild ancestor (*Vitis vinifera* subsp. *sylvestris*) of the cultivated grapes.

The Late Bronze Age grape seeds were associated, in the same pit, with melon seeds (*Cucumis melo*), which at present are the earliest document in the area of the western Mediterranean basin (1297-1111 BC cal. 2σ).

ALESSANDRO GUIDI, *Pratiche conviviali in Italia tra età del Bronzo Finale ed età del Ferro*

The paper deals with the problem of detecting the first examples of domesticated grapevines in the archaeological record of pre- and protohistoric Italy (a significant coincidence in the Middle Bronze Age 1-2 is the presence of these seeds in the settlement of San Lorenzo a Greve in Tuscany and in the same period a burial rite with collective drinking from a jar in the Murgia Timone graveyard, in Basilicata) and their presence in various context between the Late Bronze Age and the Early Iron Age, and at the same time, the beginnings of the Archaic period banquet in the archaeological record of the VIII century settlement of *Cures Sabini*.

CRISTINA CHIARAMONTE TRERÉ, *Riti e offerte: testimonianze di età orientalizzante e arcaica da Tarquinia*

The object of contribution is to resume the evidence about votive gifts, votive deposits, food offerings types, from the site of Pian di Civita (10th through 2nd BC), in the archaeological documentation coming from the *area sacral* monumental complex in the inhabited area of Tarquinia (VT Italy) excavated by University of Milan from thirty years.

During the late 10th century BC the offerings were placed around a cavity at the centre of the plan. About 700-650 BC a novelty was the construction of the *edificio beta* with the beginning of the richest phase of religious practices. In this chronological window we note the continuity of the basic typology of offerings by the

Tarquian community. In the middle of the 7th century, the *edificio beta* was flanked by two courtyards which gave an impressive view of the building complex.

In many votive deposits, different for modes of ritual actions, cereal and vegetable remains are found with animal bone remains and the composition has often the feature of a meal that gives us a lot of data about the food of the ancient time in an Etruscan town of high social level.

MARINA MICOZZI, *Continuità e trasformazione nei servizi da banchetto di età medio-orientalizzante: appunti da Cerveteri*

In recent years, some important works considered the presence of ceramic tableware intended for the ceremonial wine consumption in the Etruscan funerary contexts dating back to Early and Late Orientalizing age. The Mid-Orientalizing period, instead, was not investigated as thoroughly. In fact, this transition phase is harder to define, owing to the difficulty in identifying clear turning points in the funerary furnishings, where classes of production and pottery shapes are in continuity with the previous and next phase. Starting from the necropolis of Monte Abatone, this paper deals with some Mid-Orientalizing grave-goods from Cerveteri trying to highlight the process of selection and transformation recorded in the local Italo-geometric and impasto pottery from this period.

VALERIA ACCONCIA, VINCENZO D'ERCOLE, *Simposio e banchetto attraverso le testimonianze funerarie nell'Abruzzo della prima metà del I millennio a.C.*

The ancient Abruzzo territory is characterized by a specific pattern of drinking wine or other alcoholic beverages, different from what is known for Etruria and Latium vetus. During the first half of the I millennium BC, "local" ritual habits of drinking beverages and also eating meals in the funerary practice are recognized for almost the whole region. They include the deposition at the bottom side of the typical fossa graves, of a big-medium jar containing liquids (wine? or, better, the products of alcoholic fermentation of fruits different from grapes) combined with a little vessel useful to draw its contents, both covered by a relevant amount of stones; and also the deposition of an open vessel

on the legs of the deceased, probably containing meat or cereal mushes. Most of the shapes used in this particular ritual pattern have local origins, but some of them are directly influenced by pottery and bronze models from the Tyrrhenian area (or also imported), although they are not used for banqueting practices. On the other hand, in the modern area of Teramo, adjoining to the Picene region, funerary practices are mostly influenced by the Etruscan use of the banquet, inspired to the Homeric tradition, characterized by the adoption of a relevant number of pottery and bronze vessels, used to drink wine during the funerary ceremonies and to eat roasted meats. The clearest example of this "exotic" pattern (transmitted probably by the Picene to the nearby area), is the necropolis of Campovalano.

LUCA CERCHIAI, MARIASSUNTA CUOZZO, *Tra Pithecusa e Pontecagnano: il consumo del vino nel rituale funebre tra Greci, Etruschi e indigeni*

The paper aims to analyze, in an archaeological perspective, the strategies of wine consumption in funerary practices of Greek and Indigenous communities of Campania during the Orientalizing period. The study focuses on the cases of Pithekoussai, Sarno Valley and Pontecagnano and deepens the different ways in which wine drinking is integrated into the funerary performances: from the collective dynamics involved by the use of the krater or a local vessel as the olla (Pithekoussai and Sarno Valley), to the introduction of a personal "basic vase service" in the burial sets (Pithekoussai and Pontecagnano).

SIMONA DALSOGLIO, ANNA MARIA D'ONOFRIO, *Associazioni di vasi e pratiche conviviali nelle sepolture ateniesi della prima età del Ferro: un riesame delle evidenze dal Transizionale al Geometrico Medio*

This paper aims to analyze the vases from the Athenian graves of the Early Iron Age (from Transitional to Middle Geometric I), focusing on the well known cemeteries of Kerameikos and Agora, in order to reconstruct the main features of the funeral feasts and rites through a middle term diachrony. A methodological innovation of the research is the careful distinction between the vases found as grave equipment given to the deceased and vases retrieved from the pyre refuse, almost regularly thrown in the trench-and-hole tomb which is

the typical interment in this period. Observing the archaeological record from this renovated perspective leads the Authors to trace a history of the feasting and drinking funeral practices where a progressive codification of the rules of the aristocratic banquet as a social institution is clearly discernible.

LUCIA MORI, *Paesaggi agrari e scelte alimentari: orzo e sesamo nella Mesopotamia del Bronzo Antico*

The economic relevance of cereal production in the centralized economies of III millennium BCE Mesopotamia has been often underlined. But beside the cereal production, oil, together with wool, formed the standard base of a redistributive economy. The article deals with the introduction of the sesame cultivation in Mesopotamia and its relation to the barley cultivation cycle, main cereal of southern-Mesopotamia, in the wider frame of an administrative rural landscape.

FRANCESCA BALOSSI RESTELLI, *Gli utensili della cucina. Pentole, piatti, focolari e la preparazione e consumo del cibo nell'Anatolia preistorica*

Food consumption patterns, in ancient and in modern cultures, are determined by a variety of factors that include resource availability, social and biological status, as well as ideology. "Food behaviour" is culturally specific and all human groups identify themselves amongst other by sharing food habits. The present article tackles the issues of food preparation and consumption in two domestic contexts of Late Chalcolithic Anatolia (IV millennium BCE) through the functional analysis of cooking pots and consumption vessels. Pot shapes and use wear traces shall be used to discuss the way food was prepared. Ware categories and the dimensions of consumption vessels shall instead provide interesting clues on the way meals were performed and on their participants. The intent is that of comparing "foodways" of two communities of the Middle and Upper Euphrates valleys in a

phase of increasing social complexity and inequality.

GIAN MARIA DI NOCERA, *Identificazione, uso e conservazione dei cibi nell'età del Bronzo Antico di Arslantepe (Turchia): modello di ricerca interdisciplinare e sperimentale*

Little research has been done on the elaboration of foodstuffs and their manipulation in order to reconstruct the food system of proto-state prehistoric contexts of the Near East. The most frequent approach and of longstanding tradition is concerned with analyses on ceramics aimed at understanding the potential function of containers which were used for the storage or daily consumption of liquids or solids. These studies are of technological, morphological and morphometric nature. Over the last 25 years, a whole series of highly sensitive analytical tools, such as *Gas and Liquid Chromatography, Mass-Spectrometry, DNA Sequencing*, together with other techniques such as *Infrared Spectrometry* and *Biosensors*, have contributed to a substantial change in perspective concerning the analysis of contents of ancient ceramic vessels, focusing research on direct recognition of organic residues.

The research follows a strictly analytical approach and intends to investigate the presence of organic and nucleic food residues inside archaeological vessels or adsorbed within floors of domestic and residential areas (fireplaces, platforms, floor surfaces, etc.) devoted to food processing. The aim is to provide, through integrated methodologies, a research program for the recognition of food even where no visible residues are preserved, and analyse the control on food and primary resources during the different periods. In this framework, Arslantepe, a large tell-excavation in the Turkish upper Euphrates, is the ideal context for these types of studies. The long-term excavation campaigns have provided a vast and detailed archaeological, archaeozoological and archeobotanical documentation. It is on this now mature reference that we base our research.

Finito di stampare
nel mese di gennaio 2017
dalla Tipografia Baroni e Gori (Prato)

