

5

K öln
u nd
B onner
A rchaeologica



2015

K öln

u nd

B onn

A rchaeologica

KuBA 5/2015

Kölner und Bonner Archaeologica
KuBA 5/2015

Herausgeber

Martin Bentz – Dietrich Boschung – Eckhard Deschler-Erb –
Michael Heinzelmann – Frank Rumscheid – Eleftheria Paliou

Redaktion, Satz und Gestaltung
Jan Marius Müller

Umschlaggestaltung
Jan Marius Müller

Fotonachweis Umschlag
Manuela Broisch (Arbeitsgruppe Geophysikalische Prospektion, Universität zu Köln)

Alle Rechte sind dem Archäologischen Institut der Universität zu Köln und der
Abteilung für Klassische Archäologie der Rheinischen Friedrich-Wilhelms-Universität Bonn
vorbehalten. Wiedergaben nur mit ausdrücklicher Genehmigung.

Hinweise für Autoren sind unter <<http://www.kuba.uni-bonn.de/de/autoren>> einsehbar.

Durch die Vermittlung des Fördervereins Akademisches Kunstmuseum Bonn e. V. wurde die Hälfte der
Druckkosten freundlicherweise von der HypZert GmbH und der Sparkasse KölnBonn getragen.

HypZert



INHALT

Beiträge

AXEL MISS, Handwerkliche Produktionsstätten in westphönizisch-punischen Kontexten	5
JON ALBERS, Zur Rekonstruktion des Heiligtums für Hercules Musarum am flaminischen Circus in Rom	39
MICHELLE ROSSA – ALFRED SCHÄFER – DANIEL STEINIGER, Überlegungen zur Datierung des römischen Zentralheiligtums der CCAA	65

Projektberichte

DAPHNI DOEPNER, Weihgeschenke am Apollon-Tempel in Syrakus: ein Vorbericht	79
MICHAEL HEINZELMANN – BELISA MUKA, Vorbericht zur fünften Grabungskampagne 2015 in Dimal (Illyrien)	91
MAURO RUBINI – PAOLA ZAIO, A Paleoanthropological and Paleopathological Approach to the Dimal Population (3rd–2nd Century BCE, Albania)	107
MICHAEL HEINZELMANN – TALİ ERICKSON-GINI, Elusa – eine nabatäische Metropole im nördlichen Negev. Vorbericht zu den Kampagnen 2015 und 2016	111
NATALIE PICKARTZ – BÜLENT TEZKAN – MICHAEL HEINZELMANN, Geophysikalische Multimethodenprospektion des archäologischen Fundorts Elusa (Israel). Vorbericht zu den Kampagnen 2015 und 2016	137
MANUEL FLECKER – JOHANNES LIPPS – MANUELA BROISCH, Geophysikalische Untersuchungen im sog. <i>comitium</i> am Forum von Pompeji	153
DORU BOGDAN – CONSTANZE HÖPKEN – MANUEL FIEDLER, Kult in offenem Raum? Untersuchungen in einem Heiligtumsbezirk in Apulum (Alba Iulia, Rumänien) 2013–2014	167

Aus den Sammlungen

DYFRI WILLIAMS, A Special Dedication to Aphrodite and some Thoughts on the Early Years of the Greek	177
FRANK RUMSCHEID, Randfiguren aus Hyrtakina im Akademischen Kunstmuseum Bonn: Terrakotta-Reliefs als Reifaufsätze aus einem kretischen Demeter-Heiligtum	199
ERIKA ZWIERLEIN-DIEHL, Stiftung der bedeutenden Gemmen-Sammlung Klaus J. Müller für die Universität Bonn	235

CONSTANZE HÖPKEN, Mimosops: ägyptische Heilpflanze und römisches Glas	251
---	-----

ArchäoInformatik

DAPHNI DOEPNER – JULIA SCHULZ – ANNIKA SKOLIK, Terrakottafiguren aus Medma (Rosarno) und ihre digitale Präsentation in ARACHNE	259
--	-----

CHRISTOPH STOLLWERK – CHRISTIAN A. SCHÖNE – VINCENT KANNENGIESSER – ARNE SCHRÖDER, Erheben, Erstellen und Aufbereiten eines Geländemodells in Elusa (Israel)	269
--	-----

FELICIA MEYNERSEN – MARCEL RIEDEL, <i>Für die Zukunft sichern</i> . Im ‚Syrian Heritage Archive Project‘ (SHAP) des Deutschen Archäologischen Instituts (DAI) und des Museums für Islamische Kunst der Staatlichen Museen zu Berlin (MIK) wird ein digitales Kulturgüterregister für Syrien erstellt	277
--	-----

DAVID NEUGEBAUER – ULRICH STOCKINGER, Vom Produktionsabfall zur Produktivversion. Zum Aufbau einer interaktiven Onlinedatenbank zu Werkstätten in ARACHNE	285
---	-----

SHABNAM MOSHFEGH NIA – MARINA UNGER, Die Antike in Zeichnung, Plan und Bauaufnahme: Primäre Dokumentationsmaterialien des 19. und 20. Jahrhunderts im Deutschen Archäologischen Institut Rom. Ein Digitalisierungsprojekt zur Erhaltung von Archivbeständen	291
---	-----

A Paleoanthropological and Paleopathological Approach to the Dimal Population (3rd–2nd Century BCE, Albania)

MAURO RUBINI – PAOLA ZAIO

Während der letztjährigen Ausgrabungen in den Nekropolen von Dimal wurden die Reste von 12 Individuen freigelegt, die im August 2015 anthropologisch untersucht wurden. Im folgenden Arbeitsbericht werden die vorläufigen Ergebnisse zur Geschlechts- und Altersbestimmung sowie zu Fragen von Körperbau, Ernährung und Krankheitsbildern angesprochen.

Within the framework of the Albano-German research project at the Illyrian site of Dimal in modern Albania during the season 2014 and 2015 parts of a Hellenistic necropolis has been uncovered with the skeletal remains of 12 individuals. In order to investigate the human remains the Anthropological Service of the Soprintendenza per l'Archeologia del Lazio e Etruria Meridionale has joined the project and analysed the skeletal remains during a stay in August 2015. The aim of this study was to investigate the Illyrian-Albanian population during the first millennium BCE under the biological aspect. Biologically very little is known of the people who occupied these lands especially in the first millennium BCE. The discovery of a necropolis in Dimal allowed to start a number of studies which, though in the beginning, are an important source of biological information about the Illyrian people. The geneticist Cavalli-Sforza studying today's Albanian populations through the blood groups and especially the Y chromosome, came to the conclusion that under the genetic profile all the populations settled along the Adriatic coastal side of Italy and Albania belonged to the Illyrian ethnic¹. Furthermore according this author the Albanian population shows a genetic *substratum* very old that according him makes it one of the oldest European populations.

The Dimal population

The burials were dated to the 3rd century BCE by the grave-goods found in association and often occur embedded in a very tough clay. The cleaning

operations have necessitated of a long time but have product the advantage to be cleaned by laboratory specialists minimizing contaminants (such as especially invasive glues and consolidations) in anticipation of the deepening of chemical and physical analyses which among other the extraction of collagen for aDNA and stable isotopes, and the identification of trace elements by atomic spectrometry.

The anthropometric analysis (**tab. 1**) showed a skeletal structure with skulls rather broad and moderately long (mesocrania) with ovoid profile and fairly high. The face appears rather elongated well in the palate, narrow nose. The orbits are sub-rectangular Cro-Magnon type. The post-cranial skeleton shows femurs with circular section flattened in the sub-trochanteric region (platymeria) while the *tibiae* are of triangular section in both sexes. The morphological and ergonomic analysis related to functional stress highlights humeral diaphysis with robust torsions and presence of enthesopathies in all the analyzed individuals (n = 7). The interesting datum was the bilateral aspect of the lesions. This result suggests an indifferent functional use of the two limbs, this event quite rare today as yesterday. The lower limbs show in men's presence of hypertrophic femoral *aspere* lines associated with the presence of enthesopathies in the insertion of the muscles *adductor magnus* and *tibialis posterior*. These findings are found in most subjects who practice equestrian activities². Obviously this is just a guess though it could be indicative of the activities performed by the male group of Dimal.

¹ Cavalli-Sforza 2001; Cavalli-Sforza 2009.

² Capasso et al. 1999.

Burial	Sex	Age	Morphometric indexes										Stature (cm)	Genetic markers of the skeleton	
			Skull		Humerus		Ulna		Femur		Tibiae				
D3	M	40-50	Mesocranio	Platibrachia	Euribrachia	/	Eurolema	P. debole Platinmeria	Eurimeria	/	Euricnemidia	Euricnemidia	/	Absent	
			D3 (out)	F	>20	Mesocranio	Euribrachia	Platibrachia	/	/	P. debole Platinmeria	Eurimeria	P. debole	/	Absent
D6/7	M	45-50	Mesocranio Ipsicranio Acrocranio Orto cranio Tapesicranio C. frontali div. Fronte stretta	Euribrachia	Platibrachia	/	/	P. debole Platinmeria	P. debole platinmeria	Platincnemidia	Mesocnemidia	Mesocnemidia	170,5	Absent	
			D11	M	28-33	Mesocranio Ipsicranio Acrocranio C. frontali inter. Fronte larga Leptoprosopo Leptene Dolicocranio Brachystaphylino Orto cranio Obite subret.	/	Euribrachia	/	/	P. medio Iperplatinmeria	P. medio Iperplatinmeria	Mesocnemidia	Mesocnemidia	181,6 182
D12	A-F	22-29	Mesocranio	/	/	/	Platolema	P. medio Eurimeria	P. medio Eurimeria	Mesocnemidia	Mesocnemidia	164			
			B-M	C. frontali inter. Fronte stretta				P. debole Platinmeria					174,5	Metopic suture	
			C-M												
			D-infant	Adult					P. debole Iperplatinmeria						Absent
D13	B-F	30-35	Incomplete	Euribrachia				P. debole Iperplatinmeria						Absent	
			D14	F (?)	Adult	Incomplete									Metopic suture (Metopic suture)
		20-22	Incomplete	Euribrachia	Euribrachia	Eurolema	/	P. debole Platinmeria	P. debole Platinmeria	Mesocnemidia	Mesocnemidia	Euricnemidia	154-158		

Tab. 1: Morphometric indexes. The measurements were relevated according to the Martin and Saller method. Sex and age were estimated according to the international standard suggest by Bukstra and Ubelaker. The statures were calculated according to the Trotter and Gleser method for white. A, B, C, D are the individuals of multiple/collective burials (D12 and D13). M= Males; F= Females

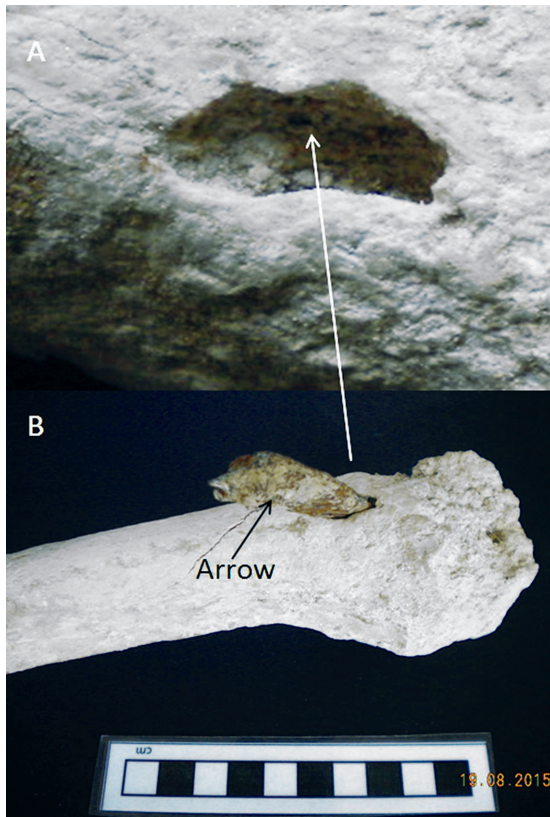


Fig. 1: Individual D11. A) Particular of the wound to kind. To note the complete healing of the lesion. B) The wound with a contemporary arrow to triangular section.

The presence in two individuals of a genetic marker of the skeleton (metopic suture) rather rare and of very low incidence in contemporary populations and not, would suggest the membership of these two individuals (D12 and D13) to the same kinship structure³. The stature is rather high in both sexes. The male range is between 171.6 and 182 cm while the female between 158 and 164 cm. Under the pathological profile the sample shows nothing of the articular, haematological or metabolic alteration (arthrosis, *cribra orbitalia* and/or *cranii*, rickets, osteoporosis, etc.) typical of the coeval populations in which there are always high percentages of presence⁴. The presence of a trauma in the right femur of a male of about 30 years (D11) is very interesting. In the external distal third the femur shows a wound caused by a throwing weapon, probably an arrow (**fig.1**). The lesion is not very deep (about 1.5 cm) but it presents a scar bone to kind similar to that of an arrow or a spear. We feel to exclude this

latter because it would be more deeply penetrated. Furthermore the width of the wound would be larger. The lesion has healed well and the individual has survived to long after the trauma. The wound penetration angle (about 45 degrees) and poor bone penetration suggest that the arrow was thrown from a distance with a sloping trajectory as was in use among the archers of the time. This trajectory had the advantage of giving greater power of penetration to the bolt (at the expense of accuracy) after being hurled upwards. The oral and dental pathology shows the total absence of caries (71 teeth observed) while is interesting to note the absence of periodontal diseases such as granulomas, even though a documented bacterial load highlighted by cases of alveolar retraction and dental losses *intra-vitam* is present. The preliminary analysis of some trace elements (Ba, Sr, Zn) was effected. The control of diagenesis was effected contrasting the values in the bone and teeth with those present in the soil, herbivorous and carnivores⁵. The results for two individuals (male and female) was that the assumption of the cereals and vegetables is very similar to that of protein derivatives.

Conclusions

Despite the limited number of skeletons (12 individuals; 7 males, 4 females and one sub-adult) this short report presented on Dimal sample has provided some responses of sure interest under the bio-cultural aspect. The statement of Cavalli-Sforza about the presence of some archaic traits associated with others more modern is partly confirmed by morphometric measurements. The presence of sub-rectangular orbits and face stretched of Cro-Magnon type associated with a large femoral platymeria can be considered simplesiomorphic characters. They are associated with other modern traits such as the enlargement of the parietal that gives to the skull an aspect evolutionarily modern and the section of the tibial shaft of sub-triangular profile. The presence of high stature is not surprising. Even today, the Albanian population has two main

³ Rubini – Coppa 1995.

⁴ Rubini 2007.

⁵ Gallelo 2015.

morphotypes: one high, blond and slender, the other of medium height with dark hair and stocky build. The presence today of high morphotypes (as those found in Dimal) suggests that in these centuries the Albanian population has received scarce bio-dynamic flows capable of changing the genetic sub-*substratum*. In fact in the past under the migration profile the sea to the west and mountains to the north and east have supported important gene flows only from the south by the Greek territory.

The analysis of the status of health of the sample has highlighted two particular aspects. The first is related to the absence of osteo-articular *stigmatae*. The presence of these last in the populations of the first millennium BCE is quite common in much of the Mediterranean basin. This is due to the fact that the predominant economic subsistence pattern was the agriculture. This activity right from adolescence produced lesions of articular whistles already aged adult-youth. That the individuals of the sample under study were not farmers also it emerges from the preliminary results of the paleo-diet reconstruction. The significant protein contribution expressed in both sexes excludes a primary agricultural activity. This data could be indirectly confirmed also by the absence of caries which is known (outside of hereditary and/or pathological aspects) to be linked to strong assumptions of carbohydrates rich in cariogenic sugar. In conclusion we could advance the hypothesis that this sample is not an expression of the whole population of Dimal in the 3rd century BCE, but which represents a sort of wealthy elite. This could be supported by the excellent state of health, by the diet and by the lack of stress working present as those generally found in contemporary individuals. Of course, in the future we hope that new discoveries make it possible to integrate and enrich this data, as well as to confirm or not the hypothesis advanced.

Bibliography

- Capasso et al. 1999
L. Capasso et al., Atlas of occupational markers on human remains, *Journal of Paleopathology, Monographic Publications* 3 (Teramo 1999).
- Cavalli-Sforza 2001
L. Cavalli-Sforza, Un approccio multidisciplinare all'evoluzione della specie umana, in: G. Bocchi – M. Ceruti (eds.), *Le radici prima dell'Europa: gli intrecci genetici, linguistici e storici* (Milano 2001) 3–22.
- Cavalli-Sforza 2009
L. Cavalli-Sforza, *Geni, popoli e lingue* 16 (Milano 2009).
- Gallelo 2015
G. Gallelo, *Western Mediterranean archaeology. Chemical element levels in archaeological materials as a methodological tool* (PhD thesis, Università di Valencia 2015).
- Rubini – Coppa 1995
M. Rubini – A. Coppa, *Atlante di caratteri discontinue* (Rom 1995).
- Rubini 2007
M. Rubini, *Atlante di Paleopatologia* (Roma 2007).

Credits: Tab. 1 and fig. 1: Mauro Rubini – Paola Zaiò.

Addresses: Prof. Dr. Mauro Rubini, Anthropological Service of the Soprintendenza per l'Archeologia del Lazio e Etruria Meridionale, via degli Stabilimenti 5, 00019 Tivoli Italy.

*Department of Archaeology Foggia University, I.go Civitella 1, 66100 Foggia, Italy.
eMail: mauro.rubini@beniculturali.it*

Dr. Paola Zaiò

*Anthropological Service of the Soprintendenza per l'Archeologia del Lazio e Etruria Meridionale, via degli Stabilimenti 5, 00019 Tivoli, Italy.
eMail: paola.zaiol@gmail.com*