

ERGASTERIA



Premises and Processes
of Creation in Antiquity

Edited by
Elena C. Partida and Constanze Graml





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In memory of my father, my inspirator
E.C.P.

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Chapter 1

ΕΡΓΑΣΤΗΡΙΑ

Premises and Processes of Creation in Antiquity

An Introduction

The globalised state of modern, industrialised production systems was challenged in multiple ways during the pandemic years – as was the production of this book, too. Everyone was accustomed to a nearly instant and, irrespective of seasonality, availability of raw materials and final products, taking for granted the unhindered transfer of both goods and professionals/specialists involved in their development; all of a sudden, with the whole world almost put on pause, the modern just-in-time-production, relying on a prompt transportation system, reached its limits. During the same period, the incident with the container ship ‘Ever Given’, which carried goods from China to the Netherlands in order to supply the whole of Europe but, instead, blocked the Suez Canal for six full days, demonstrated anew the tight-knit economic global networks: other container vessels were caught up in a traffic jam waiting in the Mediterranean and the Red Sea or had to re-chart their route, circumnavigating the African continent.¹ Thereby the chains of production were affected at a global level, production rates were reduced and certain products, such as the pharmaceutical ones, became scarce commodities. On a smaller scale, the state of seclusion (‘under house arrest’) incited people to focus on home production. In Germany, for example, the habit of making pastries grew so excessive that the purchase of flour had to be limited to a certain amount per capita and yeast was sold out for many weeks. By contrast, in Greece the unprecedented purchase rate of bicycles and rackets via the internet shows a sudden turn to physical exercise, apparently as a means of evading or escaping the imposed seclusion. Having not foreseen such circumstances, our call for papers, publicised in January 2020 with the aim to explore the multiple facets of production and production sites in antiquity, received additional and unexpected food for thought, especially due to this exceptional worldwide experience.

The contributions compiled in this collective volume provide a kaleidoscopic insight into different aspects

¹ Cf. contemporary with the incident articles in the Washington Post <<https://www.washingtonpost.com/world/2021/03/31/suez-shipping-crisis-coronavirus/>> (latest accessed 30 January 2023) and by the Rotterdam School of Management, Erasmus University <<https://www.rsm.nl/discovery/2021/opinion-suez-blockage/>> (latest accessed 30 January 2023).

of creation, artistry, craftsmanship, manufacture and processing in antiquity. The comprehensive bibliography assembled at the end of the volume bears witness to the wide range of topics discussed and the various approaches attempted. Effortlessly this book brings forward the interlacing and intersection of evidence, as well as the confluence of observations, which automatically enhance the validity of an interpretation. Instead of summarising all contributions in a linear fashion, which would recreate the sequence of the table of contents, we prefer to outline/delineate here our quests and considerations while preparing this book, and to allow the keynote benefit from each author’s perspective to interlock and intertwine. It becomes obvious that every author’s multifaceted optics yield a proportionate amount of remarks and conclusions; as a whole, these eventually empower our further understanding.

Setting out to shed light on ancient production, our knowledge is certainly patchy, since the topic is vast in its complexity. Production did not take place only in specialised workshops or worksites, but also within the walls of a household, since self-sufficiency in at least some aspects was necessary. On the other hand, craftsmanship on a trading scale or for public use would be expected to be reflected in the size of the respective production places, without necessarily meaning that their remains would be more durable or traceable in archaeological terms.

Ateliers of renowned creators, such as the one of Phidias at Olympia are rare finds and illuminate the process of creation at a given time, for a particular and widely known end-product. The same cannot be asserted for Scopas’ or Exekias’ workplace – much less for the sheds of anonymous craftsmen, who nevertheless created masterpieces in all sorts of materials. Although they all originated from a certain cultural background and were nurtured in a certain regional tradition, they were also exposed to and receptive of influences, as we shall see. Regardless of their fame or recognition,² craftsmen

² Among the recent writings of our erudite teacher, Andrew F. Stewart, was his approach to the ancient sculptor’s social standing, the recognition/reputation and reimbursement he may have earned, and the change to his social rank entailed by the acquisition of land

reflect contemporary society, being in dialogue with its values, its symbolism and evolution, and eventually expressing all the above. The authors of this volume converge in discerning a dialectic relation between tradition and innovation, with the introduction of new techniques, ideas and styles being a catalyst in making progress.³

It is always intriguing to view craftsmen and artists in their social and geopolitical setting. For instance, the Achaean goldsmiths and the stonemasons who specialised in funerary stelae represent not only the artistic production in Late Hellenistic Patras and Dyme but, furthermore, the cultural background of the Achaean League, a famous political and military confederation. Moreover, the two specialties are likely to have collaborated in a 'post mortem honour' industry. The vegetal scrolls carved on grave stelae and typifying them as a local West Greek production recur in golden diadems from funerary context in the same area. Reasonably the stone moulds for this motif were crafted by the same indigenous stonemasons/sculptors. Those ateliers in Achaia were succeeded in the Roman Republic and Imperial period by local industries of glasswork (probably fabricating also window panes), mosaics and sarcophagi, as suggested by particular motifs, designs and unparalleled forms. The whereabouts of their facilities are gradually being discovered. On the other hand, cases of large-scale production of foodstuff, pharmaceuticals, clothing or building material, which did not require a 'head of design'-artist (much less a master developer), are also very scarcely known; for this reason, the discovery of ancient 'processing quarters', e.g. for fish sauce in Andalusia⁴ or flour production in southern France⁵ shed some light on the sophistication of these workplaces in terms of ergonomics and economics.

If indeed, as usually postulated, workshops within religious premises were provisional modest shacks made of perishable material, the possibilities of their preservation and, consequently, of a fair reconstitution of their original appearance is minimised. Often the only traces left behind are stone flakes, abort or unfinished products, and very seldom architectural remnants of the building itself. The supposedly (often) ephemeral nature of workplaces contrasts the sense of

endurance and permanence given out by the artefacts created inside them.

The fact that such workshops produced ritual vases alongside tableware, considered together with the frequent multi-functionality of a workshop's components, suggests the lack of 'labels' and – instead – the flexibility and adaptability of both the artisans and their installations. The case of a polyvalent and, at the same time, specialised workshop is highlighted by **Alla V. Bujskikh** at Olbia Pontica, where an open-air production space operated for almost two centuries within a sanctuary. Three workshops successively replaced each other on the same spot, involving different handicraft activities and probably serving rituals pertinent to the worship of Aphrodite.

Turning now to an urban setting, spaces of production were not always separated in districts defined as 'industrial'. Nor were they always marginal. In Paros, boundary stones demarcated a cluster of workshops⁶ in a sort of a suburban quarter distinct from the settlement. In Miletus, in the late sixth century BC, a metallurgical and a potters' workshop were installed on the acropolis of Kalabaktepe, whereas, at the harbour, the area of the temple of Athena has yielded storage spaces along with traces of a goldsmith's workshop.⁷ Clazomenae saw a bronze-foundry and an oil-mill operating at the same time in the city centre, near a river.⁸ The term *Kerameikos*, used in ancient Athens and Selinus eloquently shows the designation of an urban district to pottery production. With regard to the use of urban space and the legal aspects of landownership in ancient Athens, **Gerhard Zimmer** elaborates on an Athenian atelier/worksite probably of some master bronze-sculptor. The sophisticated work installations and tools unearthed below modern Amalias avenue in Athens attest to the fact that material culture forged the advance of immaterial civilisation and the advance of knowledge. Bronze foundries in fifth-century BC Athens were the birthplace of subtle notions regarding beauty and aesthetics, proportions and harmony, rules and norms which perfected the statuary, as well as its impact. The mastery of modelling in bronze evolved from coping with constraints and obstacles throughout the work in the foundries. In this respect, bronze casters should be ranked as creators.

Obviously advantageous for a workplace was its proximity either to the source of material or to overland or maritime routes, which would facilitate its distribution. Transportability of raw materials in itself formed part of a wide operational network (*réseau*

property (Stewart 2019). Although Andrew's untimely departure bedimmed our hearts, his excellence in understanding and reconstructing the Past will continue to illuminate our path in this direction.

On the 'Meisterforschung' (Meister, αρχιτεχνίτης, μάστορας), methodological advantages and limitations, with emphasis on the role of every artist/craftsman within the society, expressing societal values, etc.: Borbein 2005.

³ Particularly on the values established through creation processes, see Hochscheid and Russell 2021.

⁴ Cf. at Baelo Claudia: Bernal-Casasola *et al.* 2021.

⁵ Cf. at Barbegal watermill complex: Leveau 2007.

⁶ Papadimitriou 2018.

⁷ Verčič 2017.

⁸ Cevizoğlu and Ersoy 2016.

opérateur). About the shipping of purple dye across significant distances and possibly through the agency of travelling professionals, experts in dyeing, we learn from inscriptions of the second/third century AD, which also illustrate the distinguished social status of purple workers.⁹ In Hierapolis of Phrygia, an individual named Marcus Aurelius, son of Alexandros Moschianos, was commemorated on his gravestone as ‘a member of the civic council and purple dealer’ (πορφυροπώλης).¹⁰ The dyeing installation at late Classical/Hellenistic Helike, presented by **Dora Katsonopoulou**, profited from its vicinity to the shore of the Corinthian Gulf, especially since it represents a professional and commerce-oriented industry, rather than a family enterprise, and therefore it affected the economy of the entire society.

In terms of spatial arrangement, **Giorgos M. Sanidas** explores how a workshop’s location with reference to the overall site-plan brings forward parameters, such as the nuisance generated, for example, by a bronze foundry, which could be intolerable, depending on its operational duration but, mostly, on what it neighbored. Obviously the planting of a shoemaker’s atelier and shop near a street in the Athenian Agora caused no nuisance from a sensorial perspective. Interlaced with the location of an atelier, and decisive as to whether this could be afforded within urban environs (*intra urbem*), is the noise, the smell, the fumes and other annoying or unhealthy side-effects of the fabrication process.

Nevertheless, the possible localities of workshops seem to be unlimited and, to a certain extent, determined by the purpose and needs they met. The Late Classical pottery kiln excavated in the valley of ancient Dyme in Achaëa was established within a short distance from two necropoleis of the Classical/Late Classical period. An ensemble of red-figure vases of the fifth and fourth century BC, found as grave-offerings in these two cemeteries, is considered by the excavator Vassilis Argiropoulos to have been produced by a local Achaean workshop active in the countryside of Dyme, near the borderline with Elis. Moreover, these vases bear recognisable influence from South Italian ceramic workshops and especially those of Apulia with a tradition in red-figure vase-painting. To verify the plausible assumption that these funerary vases (from the outset meant to furnish graves) were fabricated in the aforementioned kiln, archaeometric and laboratory

analyses of clay are being conducted.¹¹ Established also near a cemetery at the end of the Classical/beginning of the Hellenistic period was a workshops’ quarter at Xobourgo (Tenos in the Cyclades), equipped with a pottery kiln, metallurgical pits, probably a stoa and other constructions.¹² Early on, in the Aegean islands a studio of sculptors or stonecutters could be set up literally on the site of a marble quarry.

This brings us to the very beginning of creation, namely the extraction of material, ranging from volcanic stone for the manufacture of mills on Nisyros in the Dodecanese (presented by **Eirene Poupaki**), to alabaster in Tunisia for architectural elements (investigated by **Ameur Younès**). Studies on the premises of quarries and other infrastructural worksites reveal also traces of cult¹³ via relief representations of Heracles (perhaps an allegoric visual connotation of the ‘heroic’ power required for the extraction and manoeuvring of stone blocks) besides aspects of management and administration. The subsumption of quarries under governmental control in the Roman period hints at their evaluation as a natural source with repercussions upon the accomplishment of public works (**Georgios Doulfis** in this volume). As regards the actual process of creation and the synthesis of the workforce, quarries in the Cyclades – already in the Archaic period – were manned with specialised stonecutters and sculptors, who carved the marble volumes to an advanced degree, prior to their ultimate refinement (**Georgia Kokkorou-Alevras** in this book).

That the craftsmen made progress *in situ*, while inventing ways to overcome obstacles in the process of making is inferred from the ‘blueprint’, the guidelines for quarrying in northern Gaul (**Raphaël Clotuche, Damien Censier and Sabine Groetembril** in this volume). Cuttings and marks in those open-air workshops indicate a methodical planning of the activity, credited to the input of skilful and experienced quarrymen. The subsequent change of technique with the quarrymen working at different levels/floors enabled them to choose from the stone vein and to cut out blocks of the desired consistency and dimensions.

The backstage of the erection of a colossal sculpture is elucidated, when we take into account the excessive amount of work accomplished at the quarry. **Georgia Kokkorou-Alevras** walks us through the entire procedure, also comparing between techniques implemented in different periods. We actually watch an artefact evolve through the creator’s eyes. Examples of what a sculptor faced in case of faulty material,

⁹ The overall importance of textile production is reflected in the administrative/managerial texts, often also with religious connotations, already in the Bronze Age; see Michel and Nosch 2010, whose edited volume covers the Bronze Age Near East and eastern Mediterranean.

¹⁰ Gambash *et al.* 2022. We are thankful to Gil Gambash for willingly allowing us access to his team’s research when libraries were out of reach, due to the covid-19 crisis.

¹¹ In the Geology Department of Patras University. Argiropoulos 2017: 55-57; Argiropoulos 2021: 231-234.

¹² Kourou 2023 and 2024.

¹³ As we are writing this, a brand new publication is released on the topic: Gatto and Van Haepere 2023.

for instance, and how this could have impeded the completion of his work, provokes the reader's empathy for the craftsman and thus adds a sentimental dimension to our book. Unfinished/ἡμίεργα sculptural works preserve marks and guidelines analogous to those we observe on architectural blocks. So, this essential first treatment by stonecutters within the confines of a quarry, which was much more advanced than a preliminary roughening, may be extrapolated on the shaping of architectural elements, too. Subtle technical details, such as the double incision outlining the body-form, suggest that figures were sketched by incision before the carving process commenced. Indicative of the diligent preparatory work is the sketching of a statue's outline on the rock-face of the quarry before the marble piece/block was even extracted, no different from the aforementioned 'blueprint', which guided the cutting of blocks at the quarry of Famars (**Raphaël Clotuche, Damien Censier and Sabine Groetembril** in this volume).

Open-air workshops, that is, the workshops of the stonemasons who carried out large-scale public projects, such as the building of temples or fortifications, have so far been overshadowed by the respective monuments' grandeur. Particularly the interaction of artists, architects and workforce in general, traceable especially in major sanctuaries, adds a new dimension to the exchange and dissemination of ideas and technical expertise. Throughout the centuries, the mobility of craftspeople – including builders and other specialities – propelled the diffusion of knowledge, the improvement of techniques, the evolution of 'the making'. By juxtaposing the architectural setting and spatial arrangement at Delphi to epigraphic testimonies and material comparanda also from other Classical sanctuaries, **Elena C. Partida** unfolds the immense potential of worksites operating in parallel, their interlocking, cases of merged crews, and the meticulous pre-planning in a major temenos. Considering that monumentality was a common denominator in public, religious, civic or military building programs, the need for a detailed drawing up of the ergonomics in advance was intense. The logistics of a different large-scale building operation, namely the erection of defensive walls on Agathonisi in the Dodecanese, is analysed in depth by **Konstantinos Sarantidis**, who starts from calculations about the necessary manpower, the timeline and budget, also taking into account the available building material, the volume and extent of construction, the levelling of the terrain, etc. Quantitative estimates of this sort allow us to trace the organisation of an open-air stonemasons' workshop. Preparation was an entire process, which preceded the materialising process. By approaching the building procedures at different sites, however, we

realise that adjustments were made as required and solutions were improvised on the spot.

Likewise adaptive were the craftsmen in the Roman town *Fanum Martis* in Gaul (Famars in northern France), who – confident in the quality of their raw materials, fabrics and techniques – developed a management system efficient enough to meet the demands of regional, as well as long-distance, trade. Their advanced level of production control and specialisation (analysed by **Raphaël Clotuche, Sonja Willems, Jean-Hervé Yvinec, Marie Derreumeaux, Jennifer Clerget, Nicolas Tisserand, Bérangère Fort and Gaëtan Jouanin**) is ascribed to a long-standing tradition, originally brought to the north by Mediterranean potters. Primarily due to its variety in productions, *Fanum Martis* evolved into a centre of processing and distribution, with a pivotal role in the economy of northern Gaul. Handicraft activities were dispersed across the urban tissue, with no particular sector allocated to a specific craft. Differently laid out but equally active commercially, *mutatis mutandis*, was the potters' quarter at Ano Petralona in Classical Athens (illustrated by **Marilena Kontopanagou**). It consisted of clusters of workshops within a short distance from the urban centre of public life. Its location in proximity to the city walls¹⁴ and the harbour, therefore to transportation routes, facilitated the circulation of its products across a broad market beyond the city, as far as the Greek colonies.

Is it possible for a workshop to reflect the current society even if no physical remains of the actual working place have been preserved? Going back to the early historical phases (the Protogeometric period), a variety of pithoi from the settlement of Stamna in Aetolia, presented by **Gioulika Christakopoulou and Helene Simoni**, attest to the existence of multiple techniques and specialised knowledge in producing ceramics of the particular typology. The pithoi seem to have evolved from storage vessels to funerary containers (coffins), being adapted to demand. Besides the production structure of this early settlement, the pithoi reveal facets of the concurrent cultural background: their possession by specific individuals indicates resource management, while the transition in their use implies some significance to be set against religion and society in Iron Age western Greece.

Moving further west, in a colonial ambience, we are transferred to a workshop of terracotta figurines in Archaic Magna Graecia,¹⁵ featuring the typical

¹⁴ Noteworthy at this point is the recent work by Vincenzo Capozzoli (2024), who traces the layout of *demes* in relation to the city walls, even the enigmatic ones, traceable via indirect testimonies rather than physical finds.

¹⁵ On the topic, and artisanal production in general, see the just published volume edited by De Cazanove *et al.* 2023b.

combination of the mould technique with manually crafted/shaped parts. **Eukene Bilbao Zubiri** brings forward the richness and diversity of practices employed by the coroplasts, which allow us to grasp the plurality in expression, but also in the synthesis of the population. The perseverance or co-existence of traditions, the codification of the imagery/iconography with religious connotations and, eventually, the different trends, stylistic influences and mixed techniques are taken to mirror cultural processes in a multicultural society. Local traditions and knowledge seem to reflect socio-cultural belonging and, in this respect, workshops clearly demonstrate how they fit into a multifaceted 'lived world' (after the all-encompassing German term 'Lebenswelt').

In the present volume, the space, the setting that enveloped the makers is consistently taken into account; all the different settings examined – in different geographical areas – manifest how the premises of creation may affect creation itself. In each case, the natural or built environment was differently exploited and adjusted to the particular needs. Artisans always made the best of it. **Raffaella Da Vela's** extensive study of the Etruscan pottery production on both sides of the Apennines builds on the theoretical framework of local knowledge combined with the setting, and introduces the term 'knowledgescapes'. The mountainous region is perceived as a contact zone rather than a barrier, while the craft is perceived as a social or societal constituent. Due to the multiple encounters fostered by this contact zone, the craft was susceptible or rather open to technical innovation. Local knowledgescapes are thought to define dynamic networks of material and immaterial resources, in turn related to the socio-cultural dynamics. In the *ergasteria* of the northern Apennines, tradition and innovation were part of a daily routine comprising production, crafts and social values.

The socio-historical setting/context also had an impact upon artisans. Underlying factors, usually stemming from politics and military coalitions, could instigate but also disturb or even disrupt a creative process. In his reconstitution of the ambitious building program on the island of Thasos in North Aegean, **Jacques des Courtils** demonstrates that the spread of a certain fashion – in this particular case, Athenian architectural practices – was occasionally conscious, deliberate and fostered by interstate relations or alliances. So, the dissemination of techniques and traditions did not always result from the role of itinerant craftsmen as 'carriers'. Unfortunately on Thasos political grudge eventually led to the abandonment of a worksite. By comparison, the radiance of the reputable Athenian achievements in architecture is imprinted upon worksites of Asia Minor in a... smoother manner. From specific traits on sepulchral monuments of Xanthos

in Lycia **Laurence Cavalier** is able to 'read' that their architects were familiar with Athenian techniques, which they consciously implemented alongside their own indigenous modes. Their motivation could simply be a matter of taste.

Adaptive reuse is a big chapter in the history of construction, approachable from the viewpoint of aesthetics, as well as logistics and ergonomics. To some extent, recycling depended on circumstances, as it could take place hastily under pressure or at leisure. A piece could be put to use analogous to its original function, or immured, or otherwise repurposed. By studying such decisions and 'gestures', we gain a glimpse into what may have happened in grandiose ancient sanctuaries and necropoleis. Apparently they did not turn into open-air museums, treated as untouchable and unchangeable revered places. On the contrary, they remained vivid by adapting to (or serving) current conditions.

Investigating the chaîne opératoire and its applicability to objects in secondary use, **Constanze Graml** concentrates on the re-use of Greek funerary monuments and illustrates that their deconstruction and re-employment in different settings, where they could be visible or not, was quite common. While dealing with pragmatics, namely the actual, physical handling of the marble furnishing of Greek funerary monuments, **Graml** raises matters of ethics and sentimentalism, touching upon grief, remembrance and religious beliefs. In addition to her conclusion that adaptability and a practical mentality predominated against wasting ready-made and re-usable material, she manages to absolve/exonerate the reworking and repurposing of a sepulchral monument. In the light of this, any assumption-based attempt to characterise such a practice as religious misconduct should be treated with scepticism and caution, given the absence of contemporaneous testimonies. Instead, Christian values unconsciously extrapolated by scholars are likely to have shaped the perception of re-use as supposedly sacrilegious.

Should we reckon with teams of masons specialised in selecting, trimming and adapting spolia? To what extent was this planned rather than a rescue operation? As regards the spoliation and management of spolia, was the edict by Majorianus realistic and enforceable? Along the lines of aesthetics, were the re-employed spolia concealed or on display creating some particular pattern¹⁶ and therefore visual impact? The above questions represent a modern mind's concern (if not obsession) with the hidden meaning behind re-use, whereas the stonemasons actually involved in it would

¹⁶ As in the Castle of Patras, where the immured spolia were on display and almost recreating courses of the source-building, interspersed with column-drums.

probably be preoccupied with practical issues of moving, cutting and re-shaping older blocks. An entire building project could be designed around the available spolia. Based on her observations of different sites in Late Roman Asia Minor, **Anna M. Sitz** shows that decisions concerning the exploitation of spoliated material were made *ad hoc*, without necessarily conforming to legal pronouncements. Instead, local conditions affected the motivations and methods of spoliation. Whereas aesthetic factors could be a priority in large-scale projects, it appears that, in smaller-scale projects, the builders gravitated towards utility. Although one might assume that such ‘informal’ reworking operations did not require much competence and specialisation, on the contrary, the traces of workmanship on the spolia reveal the craftsmen’s know-how and skill.

A different approach of the chaîne opératoire is attempted by **Susanne Bosche**, who juxtaposes work to work processes, namely the concept of chaîne opératoire. Having her theoretical approach projected against the example of the Elgin Lyre, **Bosche** discusses various discrepancies between the purely theoretical concept on the one hand, and the sensory, knowledge-based approach (applied in material studies) on the other. Her paper’s backbone is the oscillation between three levels, namely, a highly theoretical one, which includes formal descriptive concepts, a theoretical but content-charged level with concepts related to a ‘general reality’ and a third level of a ‘historical reality.’

Tightly associated both with production *ex novo* and cases of re-usage is the aspect of aesthetics, which surfaces often in the pages of this book. The aesthetic impact of ancient sculpture would be different, if parts of the stone surface had been coloured, to accentuate details of a figure’s garment, for instance. It would be entirely different, however, if the total surface of a marble statue was painted, and dramatically different, if the face, too, was colourful. Raised already by early archaeologists,¹⁷ and apparently encouraged by the extant Egyptian statuary of painted limestone, the matter has been vividly debated ever since.¹⁸ Most

recently, samples taken from a marble centaur head belonging to the Parthenon sculptural programme¹⁹ (today in the National Museum of Denmark) were analysed, to explain the traces of a brown coating. In particular, the aim was to determine whether this brown film could have been developed by some biological organism such as lichens, bacteria, algae or fungi, or whether it was the remains of some paint layer. The samples were subjected to a number of different analyses²⁰ but no sort of biological trace was detected, except perhaps a bird’s egg that had broken on the marble in antiquity. Even less probable is that the marble surface had been painted.

The existence of a local workshop of sculpture at Epidaurus in the Roman period is inferred from the large number of re-used and reshaped sculptural pieces of that era.²¹ Interestingly in this corpus there is no reference to colour traces, even though there is evidence for the gilding of parts of statuettes, including votive reliefs. What appeared to be the traces of a reddish-brown or sometimes purple pigment eventually turned out – by chemical analyses – to be the binding agent (a sort of glue) between the marble surface and the attached thin golden sheets. The polished surface of the marble was meant to simulate the texture of the ivory body-parts of chryselephantine statues. This was the aesthetic effect they wished to achieve.

The application of paint layers on ancient sculpture is revisited here by **Amalie Skovmøller**, who conducts an experiment on the potential reconstitution of polychromy on a Roman portrait. Moreover, seeking the whereabouts of a painter’s actual workshop, **Skovmøller** proposes that an encaustic painter was based in a sculptor’s workshop unearthed at Aphrodisias. So, the two specialists worked in the same premises, if not also in co-ordination.

Under publication is the special issue ‘Polychromy in Ancient Sculpture and Architecture’ of the *Heritage* journal, edited by Joanne Dyer (<https://www.mdpi.com/journal/heritage/special_issues/polychromy_sculpture_architecture>, last accessed 20 March 2024), in which, among other important case studies, the above-mentioned projects contribute.

¹⁷ On the detection of traces of Egyptian blue on pedimental statues of goddesses from the Parthenon, held at the British Museum, see <https://www.archaeology.org/issues/544-2403/digs/12133-dd-greece-parthenon-paint-job?fbclid=IwAR3HZdGKYKnBIQn2huJXYhIcuDriBbDCaCtkj3npTidkKXslfjy4STM->, accessed 13 March 2024.

²⁰ Including protein analysis and Laser Ablation Inductively Coupled Plasma Mass Spectrometry. In 1851 the German chemist Justus von Liebig determined that the brown film contained oxalates, i.e. salts of the oxalic acid. This was confirmed by later analyses, though where it originated from could not be resolved. Members of the research team: Kaare Lund Rasmussen (Physics, Chemistry and Pharmacy, University of Southern Denmark), Frank Kjeldsen and Vladimir Gorshkov (Department of Biochemistry and Molecular Biology at University of Southern Denmark), Bodil Bundgaard Rasmussen (former Head of the Antiquities Collection at the National Museum of Denmark), Delbey Thomas (Cranfield University), Ilaria Bonaduce (Università di Pisa), <<https://lnkd.in/dWf7hwTe>>, accessed 30 January 2023.

²¹ Katakis 2002.

¹⁷ On Hellenistic funerary monuments, in particular, see Abramitis and Abbe 2019.

¹⁸ As concerns cultic environs of the Roman period in particular, Vicky Jewell (Jewell 2024) draws attention to polychromy in temples of Mithras, by examining the way colours were perceived by ancient writers and how this may have contributed to a haptic-visual experience of Mithraic ritual spaces. By ‘seeing colour in Classical art’, Jennifer Stager (Stager 2022) contributes to the discussion. Other currently conducted projects cover areas/cultures beyond the Greco-Roman Mediterranean world: the Tracking Colour Project, housed at the Ny Carlsberg Glyptotek Copenhagen (<<http://trackingcolour.com/>>, last accessed 20 March 2024) and the project ‘PolyChroMon Colours Revealed – Polychromie römischer Monumente der Donauprovinzen’, under the auspices of the Austrian Academy of Sciences (<<https://www.oew.ac.at/oeai/forschung/altertumswissenschaften/antike-religion/polychromon>>, last accessed 20 March 2024).

The manifold approach of ancient workplaces finally offers insight into possible future research. The alabaster quarries illustrate the rich geology of Tunisia (**Ameur Younès** in this volume) and we can only envisage the optical effect of such a colour spectrum on the respective buildings. It would be interesting to explore whether these varieties have been recognised beyond Tunisia, and whether their exploitation had perhaps started in earlier times. If inaugurated in the Roman Imperial period, should these quarries be ascribed to an initiative of the Roman authorities, or some local elite class?²²

Evidence of an ancient military workshop of the Sassanid era, AD 224 to 651, was found in a mountainous region of northern Iran,²³ in September 2023. Measuring 80m by 100m, the cave's entrance is said to be one of the largest natural ones in the world. Its identification as perhaps an arms-making installation is induced from the metal melting furnace and the variety of weapons, ranging from arrowheads, daggers and harpoons to half-made swords. Obviously, scope for new discoveries is infinite.

As we had hoped while setting out the aims of this endeavour, a broad range of topics – both thematically

and geographically – is addressed on occasion of new finds from Greece, North Africa, the Black Sea, Italy and Central Europe. For the realisation of this book we heartily thank all contributors, our dear colleagues and teachers, who willingly responded to our proposal, entrusted us with the outcome of their research, collaborated with us throughout the reviewing and editing process, and endured every challenge posed by the pandemic and its aftermath. For the book-cover's artistic design, we are grateful to Petros Georgopoulos and Ilias Partidas. We are indebted to the University of Regensburg for kindly, willingly and generously funding the Open Access publication of this volume. Last, but not least, we sincerely thank Professor David Davison and Mike Schurer of the Archaeopress, for yet another impeccable co-operation.

The Editors

Elena C. Partida and Constanze Graml

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Bibliography

For the works cited above, please refer to the bibliography compiled at the end of the volume.

²² The publication on Marmor Numidicum (Beck, D.M. 2024. *Simitthus 6: Marmor Numidicum. Gewinnung, Verarbeitung und Distribution eines antiken Buntmarmors*. Wiesbaden: Reichert Verlag) may shed light on our queries, but was not yet available to us while writing our introductory section.

²³ Announced online by the Archaeology Information Network.

Chapter 23

Learning by ...? And learning what? Possibilities and limitations of chaîne(s) opératoire(s)-approaches using the example of the Elgin Lyre

Susanne Bosche

Abstract

Approaching ancient technology and craftsmanship is closely linked to the so-called chaîne opératoire. This theoretical concept was formulated and adapted to describe the sequence and connectivity between production steps and the respective participants, including both human and non-human (f)actors. In the course of evolving research, the range of relevant (f)actors and concepts has expanded considerably at both the macro and micro levels. In addition, there are concerns about a certain lack of consideration of individual human perception, sensation and cognition when studying craft activities using chaîne opératoire approaches. Although these voices should be considered highly valuable in terms of general research interest, some epistemological problems arise in their implementation. The paper discusses the theoretical concept with a particular focus on this area of tension using the remains of the so-called Elgin Lyre, one of the best-preserved stringed instruments of Classical antiquity.

Περίληψη

Η προσέγγιση της αρχαίας τεχνολογίας και χειροτεχνίας συνδέεται στενά με τη λεγόμενη λειτουργική αλυσίδα (chaîne opératoire). Αυτή η θεωρητική σύλληψη διαμορφώθηκε και προσαρμόστηκε ώστε να περιγράφει την ακολουθία και την σύνδεση/συνοχή ανάμεσα στα βήματα παραγωγής και σ' εκείνους που μετείχαν στη διαδικασία, συμπεριλαμβανομένων ανθρωπίνων και μη παραγόντων. Κατά την εξελικτική πορεία της έρευνας, το φάσμα σχετικών παραγόντων και αντιλήψεων επεκτάθηκε σημαντικά σε μικρο- και μακρο-επίπεδο. Επιπρόσθετα, υπάρχουν προβληματισμοί για το ότι δεν συνυπολογίζεται η εξατομικευμένη ανθρώπινη αντίληψη, αίσθηση και γνωστική λειτουργία, όταν μελετώνται χειροτεχνικές δραστηριότητες επιστρατεύοντας προσεγγίσεις της παραγωγικής αλυσίδας. Παρ' ότι αυτές οι φωνές θα αξιολογούνταν θετικά σε επίπεδο γενικού ερευνητικού ενδιαφέροντος, ωστόσο κατά την εφαρμογή τους προκύπτουν κάποια επιστημολογικά προβλήματα. Η παρούσα εργασία συζητά την θεωρητική σύλληψη με επίκεντρο αυτήν την περιοχή έντασης, χρησιμοποιώντας τα κατάλοιπα της λεγόμενης Λύρας του Έλγιν, ενός από τα πιο καλοδιατηρημένα έγχορδα μουσικά όργανα της Κλασικής αρχαιότητας.

Keywords: theory of science; craftsmanship; embodiment; ancient musical instruments; ancient instrument-making

Introduction

The British Museum in London exhibits the most fully preserved (although partially reconstructed and restored in its current form and state) *chelys* of Classical antiquity (**Figure 1**). The relatively good state of preservation of the musical instrument is quickly revealed to the viewer through the exhibition modalities. Fixed on a board, the viewers encounter the two arms and the cross yoke of the ancient stringed instrument, attached to a plaster cast of a tortoise shell.¹ The only surviving fragment of the original tortoise shell is showcased in a separate installation nearby. As revealed by the graphic documentation on the official museum webpage, seven strings are attached

to the back of the yoke at regular intervals. Slightly narrowing radially, they are led downwards into the area behind the carapace.² The exhibition presentation does not give us any information on the attachment of the wooden arms and the strings to the carapace, since the back of the instrument faces the visitors.³ A small plaque reads briefly: 'LYRE of sycamore wood (restored). From Athens. The fragment of tortoise-shell on the right was found with the lyre and formed part of it. The shell now attached to the lyre is a plaster-cast from a similar tortoise. Perhaps fifth century B.C. Elgin Collection.'⁴

Due to its good state of preservation, this ancient stringed instrument, known as the Elgin Lyre, attracted

¹ Dumoulin 1992a: 101; Steinmann 2021: 374. It is not known when this reconstruction was carried out. Bélis 1985: 213; Dumoulin 1992a: 101; Roberts 1981: 303; Steinmann 2021: 373.

² <https://www.britishmuseum.org/collection/object/G_1816-0610-501> (last accessed: 17.06.2023). See also **Figure 1**.

³ Steinmann 2021: 373.

⁴ Cited after **Figure 1**.



Figure 1: Today's exhibition of the Elgin Lyre, inv. 1816,0610.501, kept in the British Museum, London (© The Trustees of the British Museum).

the interest of instrument makers and restaurateurs of antique instruments relatively early on. At the end of the nineteenth century (after 1870), Auguste Tolbecque built 'instruments, which were modelled on ancient Greek and Roman instruments with a fair degree of freedom' on behalf of Victor-Charles Mahillon.⁵ A second, much better documented reconstruction was carried out in around 1980 by a team led by Helen Roberts, who in her unfortunately unpublished dissertation deals with antique stringed instruments.⁶ A third reconstruction was made between 2009 and 2010 by Paul J. Reichlin on behalf of Conrad Steinmann.⁷ In addition to – and in interaction with – this practical work, the remains of the Elgin Lyre play a central role in the theoretical reconstruction of ancient instrument-making. Both Roberts and (to a somewhat lesser extent) Steinmann integrate such considerations into their approach and presentation.⁸ These are joined by works that dispense with an independently modelled replica, but, instead, in some cases take into account the construction technique of the (or an) antique *chelys* in a very detailed way.⁹ The vibrational

properties of an (ideal-typical) replica with a (likewise ideal-typical) playing style have been analysed by a team led by Efthymios Bakarezos.¹⁰ Similar analyses are being undertaken by a team led by Nikolaos Koumartzis elaborating on the digital reconstruction of another ideal-typical *chelys* based on 3D scanning and advanced computer-aided design.¹¹

Despite their enormous (but also risky) potential for the archaeology of music and sound¹² we do not aim to deal with these replicas, their tonal characteristics and their relations to the 'original' Elgin Lyre in this paper. Instead, we will take a step back and focus on the starting point that makes the sounding of instruments feasible in the first place: their production and their scientific recording. Dealing with technological aspects has been an integral part of archaeological research since at least the second half of the twentieth century. In continental Europe, important impulses have come from the French-speaking world. In this context, the term *chaîne opératoire* emerged from around the 1950s as a term for a research concept for investigating the raw materials, tools, people and their work-steps that were needed or used to produce an artefact (we will return to this difference). The French archaeologist André Leroi-Gourhan, who is often credited with the term,¹³ defined in 1969:

'La notion de Chaîne Opératoire sera reprise aux chapitres VII et VIII mais il est nécessaire de l'évoque ici pour comprendre le lien entre technique et langage. La technique est à la fois geste et outil, organisés en chaîne par une véritable syntaxe qui donne aux séries Opératoires à la fois leur fixité et leur souplesse.'¹⁴

In the following decades, the concept was further developed. Today, it serves as a research concept for creating a (hypothesis about a) chain of work-steps, means of production, production contexts etc., which were necessary and/or used for the production of an artefact.¹⁵

¹⁰ Bakarezos *et al.* 2012.

¹¹ Koumartzis *et al.* 2015.

¹² Cf. Grüner 2019: 183.

¹³ For example, Bar-Yosef and Van Peer 2009: 104; Sellet 1993: 106-107; Soressi and Geneste 2011: 335. But see also Djindjian 2013: 93-94 with critical comments on this attribution.

¹⁴ Leroi-Gourhan 1964: 164.

¹⁵ See, for example, Soressi and Geneste 2011: 337: 'The *chaîne opératoire* approach allows archaeologists to reconstruct the time/order arrangement of the different steps used to produce an artifact (Geneste 1991b: 10). Each artifact can be situated within the process through an analysis of the technical stigmata (i.e., nature and location of large flake scars, abrasion traces, or the point of impact) of the previous operations that are preserved on the object (Pelegrin *et al.* 1988). The *chaîne opératoire* approach also allows an understanding of the geographical organisation of the technical process, as the location of each stage of the process can be identified by the presence or the absence of its by-products at a particular site (Geneste 1985, 1991a, b). Consequently, the differential management of raw materials and/

⁵ Steinmann 2021: 380: 'Instrumente, die antiken griechischen und römischen Instrumenten in ziemlicher Freiheit nachgeschöpft waren'. Three series of these replicas are said to be in Brussels, in the Collection du Musée de la Musique in Paris and in the St. Petersburg Instrument Museum in the Sheremetev Palace.

⁶ Important aspects of the procedure are presented in Roberts 1981.

⁷ Steinmann 2021: 455.

⁸ Roberts 1981; Steinmann 2021.

⁹ Bélis 1985; Dumoulin 1992a; Dumoulin 1992b.

In the English-speaking world, theoretical concepts with a similar orientation are developed, sometimes apparently in parallel.¹⁶ For example, the theoretical archaeologist Michael B. Schiffer, who also made important contributions to the particular theory of science of archaeology (*Spezielle Wissenschaftstheorie der Archäologie*) in general, deals with the sequence of all the activities an artefact was involved in during its time of production and use based on the general principles of his so-called 'Behavioral Archaeology'.¹⁷

The basic intention of research approaches with such or roughly comparable concepts is relatively easy to grasp (at least at first glance). Their aim is to reconstruct all the factors that played a role in the production of an artefact such as the Elgin Lyre, as comprehensively as possible and, at a second step, to arrange them in a sequential series of 'work-steps'. Those structures are meant to enable us to approach the organisational structure of the production activities and the entities involved. The main concern of my paper is a benevolent but also critical objection: As desirable as the knowledge of this chain may seem, the maximum we can achieve is a (hypothesis about a) chaîne opératoire of an 'artefact like' (the Elgin Lyre). The ('historical') chaîne opératoire of a certain artefact like our Elgin Lyre, however, is only partially accessible to us, regardless of how well-preserved the artefact and/or how extensive the sources may be. In the following sections, we will illuminate this objection from various perspectives. I am particularly interested in the (admittedly partial) discussion of an essay by Constance von Rüden published in 2017 with a similar objection to a point that is essential to my research approach:

'Of course, we cannot and should not avoid trying to reconstruct the chaîne opératoire with the help of objectifying research of our archaeological evidence, but we should keep in mind that this will always remain a highly reductive and distorted construction if we neglect the sensual involvement of the craftsperson. I would therefore encourage an attempt to identify and emphasize those moments of the work flow which obviously needed to be guided by a sensual intelligence, or something

or blanks can be observed, which allows us to define the economic management of raw-material and/or blanks within a territory (Inizan 1976; Perlès 1980, 1989).' Very comprehensive and far-reaching developments are emerging from the research on prehistoric times, and especially on stone processing. As these processes and methods are beyond the scope of this article, we will not discuss them here. For them, see indicatively, Audouze and Karlin 2017; Bar-Yosef and Van Peer 2009 with further bibliography and very detailed considerations of the possibilities, limitations and weaknesses of the methods; Boëda *et al.* 1990; Sellet 1993; Soressi and Geneste 2011.

¹⁶ For an indication of the similarities and differences, see also Sellet 1993: 107.

¹⁷ Schiffer 1975; Schiffer 1995: 55-66, see also 25-34. Cf. also LaMotta 2012: 74-80; Schiffer 1976: 49-55.

we might call an extended mind, and to tightly integrate them with our narrative of crafts.'¹⁸

Considering my following remarks, I would like to emphasise right now that I absolutely agree with this intent and do not wish to dispute or reject any of the points made in this passage. However, I have some concerns regarding the possibilities of its implementation, which I will address in the last section of this paper. While developing the basis for and of my point we will oscillate between three different levels: a highly abstract theoretical level including formal descriptive concepts; a still theoretical, but also content-filled level with concepts related to 'general reality'; and the level of a certain 'historical reality' (such as the one of the Elgin Lyre). We will use aspects of each of those levels to develop our thoughts on the other ones. With this we will formulate a first, basic auxiliary model for argumentation concerning chaîne(s) opératoire(s).

Components

Let us follow the wish of some recent voices of theoretical archaeologists and start with what we are directly confronted with: the 'material', the 'artefact' or its 'remains'.¹⁹ Due to a lack of opportunity to personally inspect the preserved remains before completing this paper, the following explanations must, however, be limited to the information collected from bibliography.²⁰ The Elgin Lyre can be grasped today by some remains of the wooden construction and the tortoise shell once used for the resonating body. The two arms and the cross yoke are its best-preserved parts. The arms are cylindrical at the bottom; the part protruding above the yoke is flat. The fully preserved left arm is slightly rounded and forms an almost quadrangular shape towards the yoke, which is followed by a 'leafy protrusion' ('blattförmige Ausstülpung'). The transverse yoke was originally placed on the conically tapering end of the arm.²¹ The crossbar is almost completely preserved as well, but 'broken into three parts: the two ends protruding beyond the arms and the middle part, to which the strings were attached'.²²

¹⁸ von Rüden 2017: 77.

¹⁹ For this wish, see for example Lucas 2012: explicitly 257. For its application in the archaeological approach to past sensory phenomena and experiences, see for example, Grüner 2019: 176, 179-180.

²⁰ Yet, even though I do not have direct sensory access to the Elgin Lyre or its replicas while writing these lines and therefore cannot report on my own sensory experiences, translate them into verbal or graphic representations, I can at least fall back on representations of sensory experiences of other direct recipients and sustain my argumentation with this information, provided that corresponding information is available and helpful for our argumentation. For this 'projection' of direct access, see Bosche 2023: 401-474.

²¹ Bélis 1985: 213; Steinmann 2021: 374. See also Dumoulin 1992a: 101.

²² Steinmann 2021: 374: 'ist in drei Teile zerbrochen, in zwei über die Arme hinausragende Enden und in den mittleren, rund 20 Zentimeter langen Teil, woran die Saiten befestigt waren'.

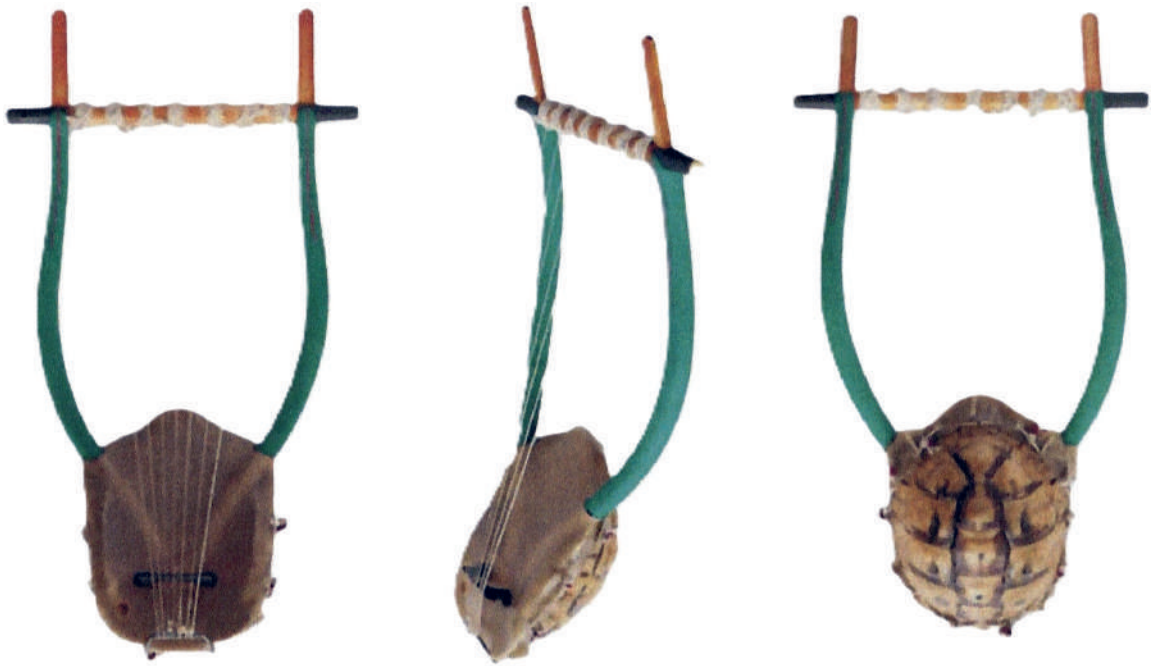


Figure 2: Reconstruction of the Elgin Lyre by the team led by Conrad Steinmann (after Steinmann 2021: 410 fig. 14).

According to the reports, the arms were originally decorated with ornaments. Steinmann speaks of a ‘finely chiselled raised ornament like a leafy vein’ (‘fein ziselierte[n] erhöhte[n] Verzierung [...], einer Blattrippe gleich’) on the slightly angular part of the left arm. The conically tapering end of the arm is said to have ‘the finest semi-circular and only millimetre-sized decorations’ (‘feinste[n] halbrunde[n] und nur Millimeter kleine[n] Verzierungen’).²³ Annie Bélis also reports small decorative circles on the front of the corner pin, which run along the outer line and may have been painted.²⁴ In addition, Steinmann mentions minimal traces of paint on the completely worn wooden parts; there may even be traces of gold in the semicircular decorations on the left side arm.²⁵ Unfortunately, Steinmann provides no further information on those paint residues, meaning that neither the colour tone nor the materials used for their production can be determined. Thus, the relationship between Steinmann’s colour reconstruction (Figure 2) and the colour traces of the original cannot be reliably established.²⁶

The tortoise shell (probably) used as the resonance body of the stringed instrument is much more difficult

to grasp. Since only small fragments have survived,²⁷ merely a small part of the original carapace is actually tangible. Although we have no explicit information about the condition of the instrument remains when they were found, Samuel Birch, an official of the British Museum, in a letter to Karl von Jan as early as 1862 referred to ‘pieces of tortoiseshell’ (‘Stücken von Schildkröten-Schale’), thus suggesting the already fragmentary condition at the time.²⁸ ‘The fragment bears individual perforations’.²⁹ Those provide clues to the construction and the original function of the natural find, as we will see in the following section. However, the available documentation and presentation of the features do not allow us to determine the exact position and span of the holes without our personal inspection. As far as we know from the reports, some are located in the outer plates of the carapace.³⁰

Past and present – definitions of states

Despite its fragmentary state of preservation, we are now in a position to associate the Elgin Lyre with the theoretical concept of *chaîne opératoire*. In doing so, we will initially limit our considerations to the central core of the research concept and gradually integrate further aspects into the discussion. Fundamentally, the *chaîne opératoire* describes a neatly arranged sequence

²³ Steinmann 2021: 374. Bélis (1985: 215) describes a fine rib (‘nervure très fine’), which is supposed to have a decorative rather than said to have no reinforcing function but was probably intended as a decorative element.

²⁴ Bélis 1985: 215.

²⁵ Steinmann 2021: 374.

²⁶ In the reconstruction, the arms were painted with copper acetate (Grünspan), the arm supports above the yoke and the yoke itself with a glaze of red iron oxide red. Steinmann 2021: 409. The choice of these techniques, materials and colours is not explained.

²⁷ Steinmann 2021: 373. According to Roberts (1981: 303), the state of preservation of the tortoise shell is said to be so poor that it was never used for a reconstruction until 1981.

²⁸ von Jan 1882: 17.

²⁹ Dumoulin 1992a: 101: [Im Fragment] ‘sind einzelne Durchbohrungen erkennbar’.

³⁰ Bélis 1985: 213.



Figure 3: Visualisation of a chaîne opératoire as a simple 'chain' with chain-links (cf. Figure 4) representing single work-steps and/or components (illustration by the author).

(geordnete Reihe) of steps beginning with a certain starting point and leading to the specific state of an artefact³¹ (Figure 3).³² At its core, the definition of these two states is flexible. Yet, in most cases it is aligned with specific stages in the production and/or use of an artefact.³³ For dealing with this point, it is sensible to recall some basic parameters of the archaeological sciences. Let us follow the predominant path of archaeological research and start with 'historical artefacts'. In our case, I would use this term to indicate artefacts of which the production we can no longer trace through our own sensory experiences.³⁴ From this perspective, we might wish to avoid starting our thoughts at the 'first' stage of our chain, but prefer to 're-induce' it from a later state of the artefact – the state that we can actually grasp by our own experiences. In doing so, we can sequentially determine earlier stages, as well as stages of the process and its course (differing between 'stage' as 'ordered step' and 'state' as 'content of a stage'). The team at the Greifenberger Institut für Musikinstrumentenkunde has introduced the term 'reverse engineering', projecting on this

procedure a term used in engineering, computing, biology and other fields.³⁵ Thus, the team has created a terminological basis for an approach that, in my opinion, can be combined well with various scientific-theoretical positions and 'world views'³⁶ – provided that possible connotations are reflected and integrated into the considerations.

Following this approach, the first step in working out one or more chaîne(s) opératoire(s) is the detailed examination and determination of the state at hand. This step includes firstly a detailed examination of the archaeological remains, which is essential for any artefact-based work. Secondly it comprises the assignment of this state to a relative stage of the chaîne opératoire: Do we start our considerations when an artefact leaves the workshop? Or do we deal with its state some time after leaving the workshop and (possibly) bearing traces of further 'life phases'?³⁷

Although this first two-part step is a fundamental and integral part of archaeological research, yet its details (unfortunately) are often partially or even entirely neglected in research papers. In writings on the concept of chaîne opératoire, this one particularly affects the relation of the state of the artefact under consideration to the sequential order of the chaîne. Despite the increasingly strong relativity of time boundaries such as the one between 'past', 'present' and 'future' in theoretical debates, archaeological research remains oriented towards the 'past'.³⁸ Thus, we should try and choose a state of the past as the 'starting state' of our considerations. The concept chaîne opératoire implies a strong focus on the production process or craft. Following this point and in line with the majority of its applications, our starting point by definition will be the state of the artefact when it leaves the workshop – a choice that may entail some argumentative difficulties despite being quite common.

Following this approach, we first need to capture our desired 'starting state' (or at least parts of it). Looking at

³¹ See for example, Balfet 1991: 12; Desrosiers 1991; Lemonnier 1976: 106; Soressi and Geneste 2011: 337; as well as the following definitions and quotations. For the subdivision into discrete steps, see also Sellet 1993: 107: 'It permits a reconstruction of distinct technological strategies through an understanding of the relation between raw material procurement, tool manufacture, tool use, maintenance and discard.'

³² The chain-links (Figure 4) are visualised by using the characteristics of a theoretical 'auxiliary concept' labelled *Assoziator*, cf. Bosche (forthcoming). Without possessing an ontological status, its definition elements (such as its outer demarcation) have three different 'states' depending on the observer's perspective: non-permeable (with the *Assoziator* being a black box), permeable (with the *Assoziator* being a White Box) and non-perceptible (with the *Assoziator* being a web of other *Assoziators*). Each *Assoziator* consists of (a potentially infinite number of) further *Assoziators* (appearing as entities or relations depending on the observer's perspective) graduated (*gestaffelt*) on distinct levels marking the sequence of reference by the observer. Because of this observer-dependency the levels are not fixed, but observer-dependent as well. For some basic concepts see Bosche 2023; Bosche (forthcoming); Bosche (in preparation).

³³ Frédéric Sellet (1993: 106), for example, defines: 'Consequently, the chaîne opératoire aims to describe and understand all cultural transformations that a specific raw material had to go through. It is a chronological segmentation of the actions and mental processes required in the manufacture of an artifact and in its maintenance into the technical system of a prehistoric group. The initial stage of the chain is raw material procurement, and the final stage is the discard of the artifact.' We will deal with the definition of these two states in the following sections.

³⁴ The basis of this perspective is a (by no means compelling) differentiation between 'present' and 'historical past' on the basis of our (strictly speaking, my) lifetime. For initial considerations on the justification of this position, see Bosche 2023.

³⁵ Personal communication with Helmut Balk and Frank Schröder. For an overview, see <<https://www.greifenberger-institut.de/dt/reverse-engineering/instrumentenbau.php>> (last accessed: 17 June 2023).

³⁶ For terminology, see Bosche 2023.

³⁷ For a critical discussion of the use of the term 'object biography' and related concepts, see Bosche (in preparation).

³⁸ For initial considerations on this topic, see Bosche 2023.

the Elgin Lyre as it is exhibited in the British Museum, the assumption that we do not see the state of the Elgin Lyre when it left the workshop seems very likely. Its remains are fragmentary, show signs of breakage and entire parts of the stringed instrument have been lost. Thus, we are inclined to assume that looking at the Elgin Lyre today, we are not presented with its condition when it left the workshop, but that it has undergone further changes between this 'stage' and the one we observe.³⁹

Despite several remarks, this problem surprisingly has only been dealt with very sporadically in previous works on the Elgin Lyre. Bélis, Dorothee Dumoulin and Steinmann report partial deformations of the surviving parts of the stringed instrument. In the area of the right break, the arm is said to be 'slightly deformed' ('leicht deformiert'), whereas the left joint is said to be intact.⁴⁰ According to Bélis, due to this change in the shape of the corner pin, the right arm should be off its original axis; the corner pin on the left side of the crosspiece, on the other hand, is well preserved.⁴¹ However, the left wooden arm and the crosspiece show massive cracks.⁴² The extent of these deformations reaches beyond individual parts. According to Steinmann, the current fixation 'gives the impression that the bowl and arms had been arranged on the same level in their original state. However, an examination of the wooden structures of the arms indicates that they once must have been inclined forwards.'⁴³ In the absence of a more detailed explanation, these observations and conclusions can only be assessed with further studies and comparisons, especially with an autopsy of the present-day exhibition of the Elgin Lyre. Bélis makes similar observations and considerations, which unfortunately are not explained in detail, either. According to her, it is 'very likely that the arms had been originally arch-shaped' ('sehr wahrscheinlich sein, dass die Arme im ursprünglichen Zustand gewölbt waren'), as shown in paintings of instruments in profile on many ancient vases.⁴⁴ Despite this additional information, it is unfortunately still not possible either to determine whether the assumption of a curvature is based exclusively on comparison with ancient instrument depictions, or whether observations of (working) traces in the preserved wooden elements were used as argumentative support.

The lack of information both on the reference point necessary to evaluate possible deformations (i.e. the ultimately reconstructed original course of the components) and on the methodological background of the mentioned arguments makes it difficult to integrate these points in our discussion in an elaborate way. Neither can we determine the timing of the (assumed) deformations. For example, we cannot rule out post-depositional processes,⁴⁵ or deformations during the period of use in antiquity, i.e. between the time (better, the sequence point) when the processing of the wooden parts had been completed and the time they were buried. Roberts, for example, reports further deformations of her present-day used replicas after completion.⁴⁶ Considering the physical forces at work and the changing environmental conditions, this hardly seems surprising. Having not seen the object, I can neither rule out nor assume that forensic examination of the preserved parts can provide (at least partial) information on such questions. We suffice to say that we cannot project the object's current state to another time of its life, without critical consideration – neither to the time immediately after completion, nor during use, deposition, or any other time. Since many of the points that we will deal with in more detail below relate to detailed aspects or at least include them implicitly, we must always keep this point in mind.

Unfortunately, it is very difficult and sometimes nearly impossible to order the single traces observed on the Elgin Lyre either chronologically or sequentially based on the information contained in the records. We do not know when and in what context the possible deformations occurred or could have occurred – a limitation that ultimately affects almost all recognisable traces on the Elgin Lyre. One of the few exceptions is the tortoise shell now connected to the wooden arms, visually hinted as a (probably) modern intervention by the exhibition modalities in the British Museum. Today, the surviving side arms of the Elgin Lyre are associated with a plaster cast of a complete tortoise shell.⁴⁷ That this component most likely did not belong to the ancient stringed instrument immediately after this left the workshop can be inferred with little knowledge of ancient instrument-making and without much study. Visitors of the exhibition can easily grasp this intervention from the mode of display of the Elgin Lyre. The fragment of the original carapace found together with the wooden arms is exhibited next to the plaster cast, as if it were an independent artefact, but with some connection to the Elgin Lyre expressed by being

³⁹ The (potential) degradation and change of artefact remains played an important role in theoretical archaeology in the second half of the twentieth century, with the already mentioned Schiffer playing an important role. Schiffer 1983. Cf. also Schiffer 1976 and Schiffer 1985, contra Binford 1981.

⁴⁰ Bélis 1985: 213; Dumoulin 1992a: 101; Steinmann 2021: 373.

⁴¹ Bélis 1985: 213.

⁴² Bélis 1985: 213; Dumoulin 1992a: 101; Steinmann 2021: 373.

⁴³ Steinmann 2021: 373: 'den Anschein, als wären Schale und Arme auch im ursprünglichen Zustand auf derselben Ebene angeordnet gewesen. Allerdings zeigt sich beim Untersuchen der Holzstrukturen der Arme, dass diese nach vorne geneigt gewesen sein müssen.'

⁴⁴ Bélis 1985: 219.

⁴⁵ On this topic see, for example, Schiffer 1983. Cf. also Schiffer 1976 and Schiffer 1985, contra Binford 1981.

⁴⁶ Roberts 1981: 305, 309-311.

⁴⁷ It is not known exactly when this intervention took place. Bélis 1985: 213; Dumoulin 1992a: 101; Roberts 1981: 303; Steinmann 2021: 373.

placed nearby. This presentation allows the viewer to draw conclusions about the partially reconstructive intervention.⁴⁸ Even if it cannot be conclusively refuted by formal argumentation, the assumption that this plaster cast was connected to the wooden arms during the ancient production process seems highly implausible.

Even if some isolated indications allow a comparatively simple (probable) exclusion of a component and/or a trace on the ancient remains, in most cases it is very difficult, if possible at all, to date components or even individual traces on artefacts independently. Basically, we are dealing with a group of components and traces, which we assume to be a conglomerate of elements and aspects from different time or sequence periods⁴⁹ without being able to sort it by explicit absolute or relative chronological or sequential data. On the same artefact, we encounter traces of processes, work-steps, tools, etc. probably related to our desired ‘ancient’ chaîne opératoire, as well as some most likely belonging to ‘later’ events. Our task during our second step is to distinguish between those two groups of traces and to identify those that we can use for our further argumentation: we are not just looking for traces, we are looking for traces of events from a certain ‘historical period’ – the time in which our (hypothetical) chaîne opératoire took place.⁵⁰

The extension of the artefact

Without any independent dating for the production of individual components or even the emergence of certain traces of processing, decorative elements, deformations, etc., chronological value-based sorting methods are not possible. Thus, we might attempt to approach our desired sequence of stages through indirect references and/or extended argumentation approaches. This leads us back to our theoretical research on chaînes opératoires. We will now be dealing with the determination of production steps and the means of production, localities, tools and resources used in their course. If we adhere to our approach, we again have to use the preserved physical/material remains and the traces observable on them as the starting point for our considerations.

If – as in the case of the Elgin Lyre – we have no explicit information about the production context(s), the people involved, the tools and other means of

production used, etc., we have to trace the interactions between our artefact or component and ‘factors’ such as tools, people, other artefacts etc. of its ‘environment’ from the traces observed in as much detail as possible.⁵¹ For this we have to start from the assumption that our artefact/component contains ‘stored’ information about its ‘environment’ and that this environment can be accessed by back-tracing the accessible information contained in the artefact – obviously in reverse direction. Elsewhere, I have labelled this concept based on considerations by John Robb, Chris Fowler and Graham Harman as ‘extension’ (‘Ausdehnung’). The decisive factor for its conception is that by storing ‘remnants’ (our traces) of past interactions (in the sense of transmission connections in the broadest sense) in/at the artefact we are looking at, a dynamic ‘past’ process is ‘transformed’ into a state (current at the time of observation) and can be construed as such. If we succeed in interpreting this (in parts or, ideally, in whole), an approximation to the elements ‘connected’ with the artefact during the period condensed in the ‘storage state’ will be possible.⁵²

In order to reduce the subjective bias as much as possible, I would use a starting point as broad as possible and reduce assumptions to a minimum.⁵³ For this, we will not assume without more detailed, critical discussion that all work-steps (the production of all components, the application of the decoration, etc.) were carried out by the same person and in the same workshop. But, at the same time, we will refrain from assuming a priori that the various materials employed in the production of the Elgin Lyre are associated with the activities of different people or workshops.⁵⁴ Speaking in terms of the chain metaphor, we are dealing with the question of

⁵¹ See, for example, Pelegrin *et al.* 1988: 57–58: ‘Des objets, qu’il définit uniquement comme *moyen d’action sur la matière*. For l’archéologue, ‘il ne s’agit pas de se limiter aux *outils*, souvent absents comme les *percuteurs* par exemple, mais d’utiliser aussi tous les *déchets* qui marquent les étapes de fabrication et tous les *produits* des actes techniques, dans le sens où ces derniers portent les traces des processus de fabrication [...]’. As well as Lemonnier 1976: 118 with a reference to the necessity of a ‘multi-dimensional analysis’. See also Lemonnier 1976: 137–138.

⁵² Sorting the individual transmission connections would be desirable, but is not absolutely necessary. For the terminology and the argumentative basis of this position, see Bosche 2023.

⁵³ The fact that a completely assumption-free starting point is impossible can be seen at various points in our argumentation.

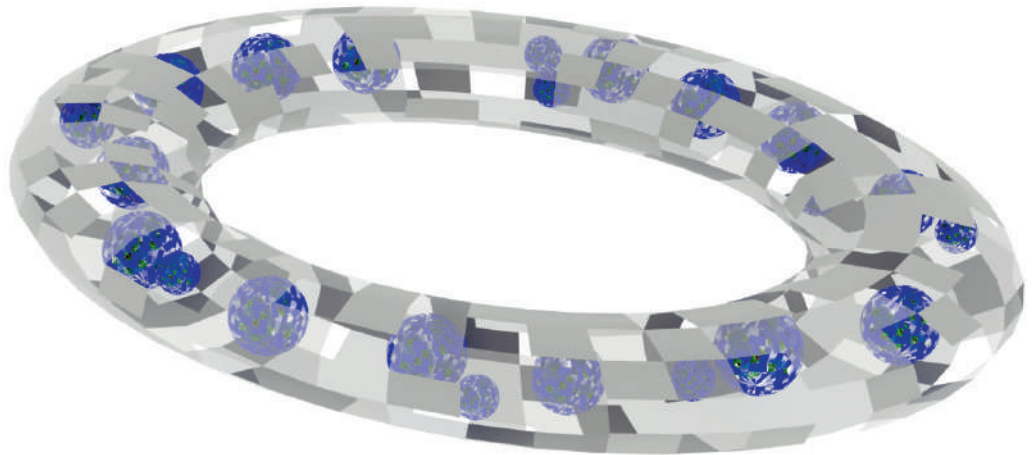
⁵⁴ This opinion seems to be held by Steinmann, for example. According to him, activities of several occupational groups should be combined in the Hermes myth. Outside of the myth, the wooden arms and the yoke are said to have been made by the instrument-maker in his workshop, whereas a tanner was needed to work the animal skin for the top of the resonating body. So ‘wissen wir (Anmerkung der Verfasserin: laut Conrad Steinmann), dass auch die Hersteller von Saiten aus Schafsdarm einer eigenen Berufsgattung angehörten’. Steinmann rules out the production of instruments by the performing musician himself. According to him, ‘we never read that a performing musician made his instruments himself, as it were by hobbyists’ (‘lesen wir nie, dass ein ausübender Musiker seine Instrumente, gleichsam hobbymäßig, selbst hergestellt hätte’). Steinmann 2021: 262. None of the points mentioned are further elaborated or explained.

⁴⁸ Dumoulin 1992a: 101.

⁴⁹ For terminology, see Bosche 2023: 401–474.

⁵⁰ Formally, we are also facing the argumentative problem, that we have no knowledge whatsoever about earlier states of the Elgin Lyre and that even the determination of an observed aspect as a trace of an earlier event is, strictly speaking, already an interpretation. Since we have accepted some preconditions that touch on this argumentative field, we will refrain from a more detailed discussion of this theoretical argumentative problem at this point.

Figure 4:
Visualisation
of a chain-link
as *Assoziator*
(without relation
between lower-
graded *Assoziators*)
(illustration by
the author).



determining the individual links (**Figure 4**) that make up the chain.

In many theoretical works on the chaîne opératoire, the chain links describe stages in the work and/or utilisation process or successive production steps, which in turn might be composed of several stages/steps as well.⁵⁵ The high importance of the sequence aspect in the theoretical conception of chaîne opératoire is reflected by the frequently encountered English translation of the French term 'chaîne opératoire' as 'Operational Sequence', whereas the more literal English translation 'Work Chain' is much less common.⁵⁶ Only along the lines of terminology does this translation focus on the creation of a sequence of individual work-steps and the elements, materials, people etc. involved in them. In my opinion, this does not accurately reflect the range of meanings of the theoretical term chaîne opératoire. A similar objection is raised by François Djindjian.⁵⁷ From the 'sequence perspective', we treat the components of the artefact themselves – in particular, the two arms, the transverse yoke and the carapace of the Elgin Lyre – as individual artefacts with an individual chaîne opératoire, which is subsumed under a chain link of the chaîne opératoire of the artefact as a whole.⁵⁸ If we want to approach this 'overall' chaîne opératoire, this perspective allows us to start our considerations with an examination of the individual components and only deal with their connection to the overall artefact in the next step.

⁵⁵ Cf. for example the already quoted definitions: Balfet 1991: 12, 14, 17; Leroi-Gourhan 1964: 164; Sellet 1993: 106; Soressi and Geneste 2011: 337. A similar idea can be found in the 'Behavioral Chain Analysis' by Schiffer: Schiffer 1995: 25-34, 55-66. Cf. LaMotta 2012: 74-80; Schiffer 1976: 49-55.

⁵⁶ Bar-Yosef and Van Peer 2009: 105. See also the passage quoted below by Monteix 2016: 153.

⁵⁷ Djindjian 2013: 97: 'En fait, le mot approprié est 'séquence' dans la connotation 'suite ordonnée d'opérations', alors que le mot chaîne fait référence à une suite ordonnée de postes de travail.'

⁵⁸ **Figure 3** visualises this notion by presenting all chain-links and the entire chain as 'Assoziator'. The highest grade presented is given the shape of a chain-link for metaphorical and visualisation purposes only.

Despite the realisation of three replicas, the detailed construction methods (probably) used in antiquity for the construction of the Elgin Lyre have received only little attention. Zoological investigations of the tortoise shell are not mentioned; Roberts seems to assume, based on a formulation, that it is the shell of a *Testudo marginata*. As this is said not to be available in British pet shops, a tortoise shell from southern Russia was chosen for her reconstruction.⁵⁹ Steinmann's team also used the bowl of a Greek mountain tortoise (*Testudo marginata*) with a size of 23cm for the replica, as this should correspond to the proportions on the pictorial evidence.⁶⁰ A zoological determination of the original is missing in the presentation of the team's work.

The processing of the Elgin Lyre tortoise shell is not explicitly discussed in the publications; in the absence of a detailed description and/or graphic documentation of the holes, we lack any basis for independently substantiated hypotheses that go beyond the collection of general tools (e.g. drills). Such basic processing methods are addressed by Roberts in the course of the presentation of her reconstruction. With regard to the tortoise shell, for example, the Zoology Department of Reading University is said to have removed the animal from the shell and then boiled it for several hours.⁶¹ In the absence of explicit evidence, we do not know whether these techniques might be projected onto production technology in antiquity. Here too, however, we must refer to the unfortunately unpublished dissertation by Roberts, in which a more detailed

⁵⁹ According to her, the fragments preserved from the original have not yet been used for a reconstruction. Roberts 1981: 303-304. The basis for the comparatively short essay by Roberts is her unfortunately unpublished dissertation titled 'Ancient Greek Stringed Instruments 700-220 B.C.', the digital copy of which unfortunately did not reach me before the completion of this paper. It cannot be ruled out that it contains corresponding studies.

⁶⁰ Steinmann 2021: 406. According to Steinmann, the shielded claw 'mentioned in the Hermes myth can be identified 'als Breitrandschildkröte, Testudo marginata, deren Länge zwischen 22 und 30 Zentimeter beträgt'; however, this statement is not explicitly substantiated. Steinmann 2021: 262.

⁶¹ Roberts 1981: 303-304.

argumentative justification of her approach may be found.

Statements about the identification of the preserved wooden parts are even more problematic, as the bibliography contains various indications without explicitly addressing material analyses. The 'Report from the Select Committee on the Earl of Elgin's Collection of Sculptures, Marbles &c.' from 1816 contains the unsubstantiated statement that the lyre was made of cedar wood ('in Cedar wood').⁶² The same information can be found, again without justification, in the commentary by Dumoulin.⁶³ Bélis, on the other hand, speaks of sycamore maple ('sycamore')⁶⁴ – without further explanation. Roberts uses maple ('sycamore') for her reconstruction because, according to her, the arms of the Elgin Lyre are made of this material.⁶⁵ According to Steinmann, 'no expertise' confirms the assumption that the wood is cedar.⁶⁶ His reconstruction team used maple to make the side arms and kermes oak for the transverse yoke, although the 1816 report specifies 'Cedar Wood'. Steinmann himself points out this area of conflict.⁶⁷ Without more detailed material analyses, which I hope to be able to carry out in the future, the wood species of the Elgin Lyre remains unknown at present.

Information on any tools used, the production techniques and other elements that could have been utilised in the course of making the Elgin Lyre is virtually non-existent in the current bibliography. There are no detailed descriptions of traces of processing, tool marks or similar indications. Again, we encounter only a few rather superficial statements, which are not further substantiated or explored. According to Steinmann, the arms were cut out of a plank and not bent by using heat, which, according to his interpretation, was also due to the needs of the musical instrument: 'The once strong, short arms cut out of a board – i.e. not bent with heat – allow a high string tension, which must have made the lúra a bright-sounding, sometimes virtuosically handled treble instrument.'⁶⁸ In the absence of further statements about the background to these observations and the conclusions derived from them, they should only be discussed in more detail after an autopsy of our own. If they are correct, they provide an indication that musical needs might have played a role in the production of the Elgin Lyre.

⁶² Report 1816: xliii.

⁶³ Dumoulin 1992a: 101.

⁶⁴ Bélis 1985: 213.

⁶⁵ Roberts 1981: 304.

⁶⁶ Steinmann 2021: 373.

⁶⁷ Steinmann 2021: 405–406.

⁶⁸ Steinmann 2021: 374: 'Die einstmals starken, aus einem Brett ausgesägten – also nicht mit Hitze gebogenen – kurzen Arme erlauben eine hohe Saitenspannung, was die lúra zu einem hell klingenden, bisweilen virtuos gehandhabten Diskantinstrument gemacht haben musste.' See also Steinmann 2021: 407.

In some attempts to infer the production context (e.g. the people involved, the tools used, localities, etc.) from traces on the surviving components of the Elgin Lyre, a certain conflict emerges. It is very well expressed in an essay by Nicolas Monteix on the chaîne opératoire of bakeries in Pompeii. Different from our case, his essay does not focus on an artefact but on a local site with specific characteristics and a spectrum of finds that can be integrated into the argumentation.⁶⁹ Monteix's work is not centered on deriving the extension of a physically/materially documentable artefact from traces stored in it, but with the reconstruction of a (stereotypical) production process from documentable remains of workshops. Its implementation is based on positive traces in the archaeological findings with references to sources on craftsmanship from other times and places (often without clearly specifying them).⁷⁰

Although Monteix reconstructs a (possible) chaîne opératoire, he encounters a fundamental methodological problem in the course of his explanations:

'Nevertheless, I must emphasize that this reconstruction is a theoretical synthesis: of the thirty-nine bakeries included in this study, not one presented all the features discussed above; not one produced bread using all of the possible steps mentioned.'⁷¹

From a methodological point of view, this statement reveals a logical-argumentative error in drawing conclusions from a lack of testimonies to the non-implementation of work-steps.⁷² Monteix himself

⁶⁹ Monteix 2016: 153: 'One way of approaching the material remains of Roman workshops is to investigate how they were designed specifically to accommodate the activity that took place within them. Such an approach may be based on the analysis, from a technological point of view, of a specific kind of workshop whose elements are all considered in their spatial context. In terms of theoretical background, such an approach relies on the notion of the chaîne opératoire (operational sequence), which was first defined by A. Leroi-Gourhan, was gradually refined by his successors, and was then applied to archaeology. The idea is that a close study of the different elements that characterise the operational sequence of a workshop, including materials, tools, gesture, knowledge, energy, and actors, combined with an analysis of their interaction, leads to further understanding of social and economic issues, particularly if one tries to take a more systemic point of view aimed at understanding the système technique or the complexe techno-économique.'

⁷⁰ Monteix 2016.

⁷¹ Monteix 2016: 169. The individual findings are not presented in detail.

⁷² The fact that Monteix is well aware of this argumentative problem is shown, for example, in the exemplary explanations directly after the quoted passage, see Monteix 2016: 169: 'For instance, bakery IX 3, 19-20 contained the main three structures used during grinding—a water system for soaking, four mills, and the L-shaped small wall for sieving—and most of those necessary to knead and form loaves—including a kneading machine, a boiler to warm water, embedded terracotta vessels for the first rising, and a table with two masonry feet. However, there are no clear traces of shelves, neither in the room where the kneading machine and vessels were situated, nor in the space where the table on which loaves were formed stood. In this

explicitly formulates this point only shortly after the quotation and addresses it as a limitation for approaches to the production activities in workshops:⁷³

‘Finally, a last technical point has to be made, despite its triviality: even at Pompeii, only production phases that can be traced through material remains can be reconstructed. Many, sometimes even crucial, operations cannot be studied owing to lack of physical evidence. [...] Some missing operations could perhaps be restored from textual or iconographic evidence, but such evidence should be treated cautiously in order to avoid over-interpretation. [...] In this manner, however precise our reconstruction of the operational sequence may be, it will necessarily always remain incomplete, although this does not invalidate it as a heuristic tool for further analysis.’⁷⁴

In this passage, Monteix takes a position that is very similar to ours: the starting point of the considerations and reconstructions should be the physical/material remains (and the traces recognisable on them) – in his case the remains of the workshops, in our case the remains of the Elgin Lyre. With due caution, it is possible to use additional sources, but this exposes us to a risk of over-interpretation. In my understanding of Monteix’s explanations, this objection is by no means the point behind the limitations that Monteix expresses in the passage quoted above. The argumentative limitations addressed there do not refer to the addition of the physical/material remains by or on the basis of further sources/remains, but to the subsumption of a comparatively high number of operations under a single chaîne opératoire:

‘These two examples clearly exemplify how the apparent uniformity of bakery structures is in fact misleading. *There are no two identical bakeries*: the whole spatial structure depended both on the features used but also, and more importantly, on the evolution of the workshop, and whether or not its owner was able and or willing completely to restructure the existing layout of the building.’⁷⁵

particular bakery, the lack of shelves could be due to preservation factors: although shelves identified by holes in walls are the most common type of feature used for rising loaves in bakeries, they might not be the only one.’ See also the next quotation for a recourse to precisely this argumentative point.

⁷³ Cf. also the limitations of his approach mentioned by Schiffer 1995: 62: ‘The above discussion, it must be emphasised, presents a framework for describing the interrelations between behavioral and spatial-material aspects of activity performances with reference to the life history of cultural elements. This orientation demands that the description of activities performed at an archaeological site be expressed in terms of highly specific hypotheses on an empirical, behavioral level. The deduce the test implications of so broad an activity category as ‘food preparation’ is a trying if not impossible task; evidence for such a demonstration is always ambiguous.’

⁷⁴ Monteix 2016: 170.

⁷⁵ Monteix 2016: 173 (emphasis by the author).

As is explicitly expressed in this passage, Monteix assumes that behind every single, ‘individual’ bakery there is an independent, specific chaîne opératoire, which differs (to a certain degree) from the chaîne opératoire of every other bakery. This view goes back to the earliest days of chaîne opératoire research.⁷⁶ Despite this, Monteix elaborates a chaîne opératoire for a higher number of bakeries and attributes a certain value to it as a ‘heuristic tool for further analyses’.⁷⁷

From our current perspective, this ‘heuristic value’ can be understood if we consider the chaîne opératoire as what Monteix calls it: as a ‘theoretical synthesis in the sense of a kind of average’ regression of all chaînes opératoires that can be observed or reconstructed on the basis of the findings and sources known to him and which, on this basis, can form the frame of reference for further considerations. Using it, you must always bear in mind that you are working with an ideal-typical ‘average model’ and that individual stages may be omitted or added in the specific investigation case. Such an approach abstracts the chaînes opératoires of several bakeries into a kind of chaîne opératoire of a type of a bakery, which can be given a case-specific expression – an approach that can be traced back to the beginnings of chaîne opératoire research.⁷⁸

Fragmentary chaînes opératoires

It is not only the extension(s) of the Elgin Lyre that is not accessible to us as a perceptible element; some (hypothetical) components also elude our direct sensory perception. All previous publications agree on the assumption that the wooden arms, the crossbar and the fragmentary carapace do not form a complete artefact even after their addition to complete and undamaged components, but represent a fragmentary state of preservation of such an artefact. Even if I do not want to dispute this assumption (based on the plausibility of common sense), I would like to point out that it is not formally and argumentatively compelling, since we have no information about the earlier states of the Elgin Lyre and alternative explanations for its current state, such as non-completion for reasons unknown to us, can be thought of. We will not deal with this argumentative problem in this paper, but assume (in accordance with previous publications and common sense) that the Elgin Lyre we can perceive today is a fragment of an artefact.

So far, we have dealt exclusively with possible chaîne(s) opératoire(s) limited to the preserved components

⁷⁶ See, for example, Lemonnier 1976; Pelegrin *et al.* 1988: 61.

⁷⁷ See the passage quoted above: Monteix 2016: 170.

⁷⁸ Leroi-Gourhan 1964: 132-133: ‘C’est en effet la règle pour tous les produits de l’industrie humaine aux temps historiques: il existe un stéréotype du couteau, de la hache, du char, de l’avoine qui n’est pas seulement le produit d’une intelligence cohérente mais le produit de cette intelligence intégrée dans la matière et la fonction.’



Figure 5: Visualisation of a chaîne opératoire as a simple ‘chain’ with chain-links related to preserved (grey) and lost (black) components (illustration by the author).

of the Elgin Lyre. This allows us (ideally) to work out a complete chaîne opératoire of the fragmentary artefact, but only a fragmentary chaîne opératoire of the overall artefact. The latter contains chain-links for the positive elements and/or their extension that we can directly grasp. If our goal is to reconstruct a chaîne opératoire of the Elgin Lyre as a complete, potentially functional stringed instrument, we must significantly expand the range of chain links taken into account and accept hypothetical components as its parts as well. Our decision to subdivide the chaîne opératoire on the basis of the components of the artefact is not affected by this extension.⁷⁹ We just have to accept that not every chain link necessarily contains at least one component of the Elgin lyre that is preserved today (Figure 5).

Debates about the reconstruction and/or rebuilding of now lost components of the Elgin Lyre make up the bulk of publications to date. The starting point for these considerations is additional sources of information in the form of written, pictorial and/or artefact sources. If we consider the Elgin Lyre as a fragment of an ancient functional stringed instrument with certain characteristics, we can (potentially) draw on all sources from (or about) antiquity that can provide information about such instruments. For ancient stringed instruments, we have a comparatively rich compendium of pictorial sources at our disposal; ancient written sources, some with music-theoretical considerations, provide indications of possible tuning(s) or perceptual impressions of the sound behaviour of the instruments.⁸⁰ Of particular importance for this topic is a myth referred to in several writings, which describes the invention and construction of the (first) *chelys* by Hermes.⁸¹ If we continue to focus on a functional (i.e. potentially playable) stringed instrument, we must

(at least) restore all components that are absolutely necessary for the performance of this function (i.e. through which sound production is possible).⁸²

Based on the information in the ancient sources and current knowledge, the overall structure of the stringed instrument suggests that the tortoise shell at the lower end of the two arms of the Elgin Lyre most probably was a resonance box. We know from physical acoustics and modern instrument-making that a resonance box must be sealed with a vibratory material, for the optimum performance of its function.⁸³ A similar effect might be assumed for the tortoise shell of the Elgin Lyre. The plausibility of this assumption is reinforced by various illustrations of ancient *chelys* all with a closed tortoise shell, and by the descriptions of the various versions of the Hermes myth, according to which the tortoise shell was covered with a cow-hide after the inner construction had been attached.⁸⁴ As far as the Elgin Lyre itself is concerned, the addition of this animal skin is a hypothesis based exclusively on additional sources of the species in question. Traces of an animal skin are not preserved;⁸⁵ however, some of the perforations could be interpreted as fastening holes and thus an

⁷⁹ For an indication of the ‘artificial’ (in my terms: observer-dependent) character of decompositions, see already Lemonnier 1976: 113–114; as well as Desrosiers 1991: 23–24.

⁸⁰ For an overview, see for example Anderson 1995; Bélis 1985 (with specific discussions of the Elgin Lyre); Hagel 2015; Lynch and Rocconi 2020; Maas and Snyder 1989 (focusing especially on stringed instruments); Steinmann 2021; von Jan 1882 (on stringed instruments).

⁸¹ The written sources referring to this myth are mostly traced back to the Homeric Hymn to Hermes. On the Homeric Hymn and its dating, see (with partial or complete editions, translations and commentaries) Dumoulin 1992b; Schenck zu Schweinsberg 2017; Thomas 2020; Vergados 2013.

⁸² In purely formal argumentative terms, other components could also be added which, for example, change or improve individual aspects of this functionality or which have a purely decorative function. We will not deal with these points in more detail in this article, as they are ultimately based on a generalization of the line of reasoning discussed below.

⁸³ The materials of the resonance box and the air-space inside it absorb the vibrations of the strings and interact with them. See for example Bakarezos *et al.* 2012; Egry 2023: 77; Hutchins 1998: 70–71. For an example of the importance of the sound box, see a short passage on the sound box of modern violins by Hutchins (1998: 70): ‘Käme nun zur Saite nichts weiter hinzu, dann wären die Dinge recht einfach und alle Einzelfrequenzen würden gleichmäßig verstärkt. Der hölzerne Geigenkorpus besitzt aber selbst zahlreiche natürliche Eigenfrequenzen, mit denen er schwingen kann. Fällt eine der Korpusresonanzen mit einer Harmonischen der Saite zusammen, so wird sehr viel Energie auf den Korpus übertragen und der entsprechende Ton erheblich verstärkt.’ For the amplifying effect of the sound box of the modern concert harp, see also Egry 2023: 77.

⁸⁴ (Pseudo-)Homeric Hymn to Hermes 5.49; Dumoulin 1992a: 92. The mention of reed stalks for the stave is only mentioned in the Homeric Hymn. According to Dumoulin, however, it was not needed to support the sound ceiling, and it can therefore be assumed that it only occurred very rarely. Dumoulin 1992b: 228–229.

⁸⁵ A few remains of an animal skin are suspected on a shell of unknown origins (today in London, British Museum, inv. 38171), which is also only partially preserved. Dumoulin 1992a: 101 b, with further bibliography; Dumoulin 1992b: 229. A complete acoustic ceiling is also not detectable here.

indication of their original attachment. Similar holes in a matching arrangement are attested on other shield craters from tombs and sanctuaries, where they are usually interpreted in the same way.⁸⁶

From a methodological point of view, we use the same argumentation structure for the addition of components that are no longer directly tangible as we used for the reconstruction of the extent of a preserved artefact (be it a component or an artefact composed of several components). This parallel allows us to discuss the argumentative procedure for the elaborations of this and the last section together. Formally, it is based on the connection of additional information to an observed 'data situation', which is often supplemented by one or a group of initial assumptions and/or suppositions. In the case of our cow-hide, these initial assumptions are (among others) that the Elgin Lyre was originally a functional stringed instrument to which a resonance box was added to improve the sound quality; and that the fragmentary preserved tortoise shell performed this function. As we have no explicit indications of the original design of this (hypothetical) acoustic ceiling, in the next step we set out to search possibilities for the realisation of such a ceiling. We link the results we come up with to the Elgin Lyre and thus postulate that the chosen concept for the state of the Elgin Lyre at the time of its 'completion' in one or more ancient workshops is certain or at least possible – depending on the theoretical positioning. If we are not looking for lost components, but for tools used, means of production and/or the way of thinking and acting of the people involved in the production, we proceed according to the analogous scheme, with the only difference that we do not link hypothetical components to the preserved components of the Elgin Lyre, but elements of the expansion to the Elgin Lyre as a whole and/or to its preserved or hypothetical components (**Figure 6** [components], **Figures 8, 9** [components and whole]). All additions, reconstructions and replicas are based on this approach, provided they are designed as replicas of the Elgin Lyre. If it is – as in the work and analyses of the teams led by Roberts, Bakarezos and Koumartzis⁸⁷ – a replica of a type, this type represents the reference point for the connection.⁸⁸

If we focus on reconstructing a functional stringed instrument, we could end our discussion of the soundbox at this point and decide (ultimately at random) on one of the possibilities that we come across in our research. In most cases, however, the decision for a conceivable solution is based on additional

parameters such as the sound quality/sound behaviour of the instrument, the efficiency and/or the cost/benefit ratio and/or the (or a) 'historical accuracy' of the solution. Depending on the choice of decision criterion and the rigour of implementation, the other parameters may be completely overshadowed, so that, for example, comparatively high costs and labour costs are accepted, in order to achieve the highest possible historical precision of a replica or a reconstructed chaîne opératoire.⁸⁹

If our goal is the reconstruction of a chaîne opératoire (and/or the production of a replica) with highest degree of historical precision within the framework of a historical (or archaeological) science possible, we have to assess our possible solutions with regard to the plausibility of their application to the Elgin Lyre. Afterwards, this assessment can form the basis for our decisions. Probably the most obvious and widely used classification criterion for the plausibility of a particular aspect, such as the use of a tool or the form of a lost component in historical or archaeological work, is its 'presence' in as close temporal and geographical proximity as possible to the historical production activity that is the focus of the work. To put it differently – and more simply – we often work with the following hypothesis: If a certain component, tool, technique, etc. is attested at a certain time in a certain place, it is more plausible that this component/tool/technique was used at this time in this place in the attested form than a component/tool/technique that is not attested at this place for this time.

In most cases, the implementation of this hypothesis faces two fundamental problems: the predominantly very poor evidence in periods of the distant past, and the spatially as well as temporally localised production activity. In the first case, even if the production activity can be safely dated and localised, no attributions can be made because the information required is either not available or to a limited extent. If the artefact under investigation is affected by the second problem, the working hypothesis cannot be implemented due to the lack of the necessary anchor points (Ankerpunkte)⁹⁰ that is, chronological and topographical 'fixed points'. If both problems occur, our working hypothesis can only be applied in a very rough and uncertain way, if at all.

The Elgin Lyre is a good example of this conflict. Given the known facts about its 'life' and research history, any attempt to identify the date of its production or use turns out to be very difficult. According to the known publications, the British Museum in London acquired

⁸⁶ Dumoulin 1992a: 101–106 with further bibliography; Dumoulin 1992b: 228 (on interpretation); Holzmann 2016.

⁸⁷ Bakarezos *et al.* 2012; Koumartzis *et al.* 2015; Roberts 1981.

⁸⁸ Due to this text's orientation, we will refrain from discussing this variant in detail. Basically, in it a concretely tangible (fragmentary or complete) artefact is replaced by a type.

⁸⁹ The approach of the Greifenberger Institut für Musikinstrumentenkunde reveals this area of tension in an impressive way.

⁹⁰ For terminology see Bosche 2023 and Bosche (in preparation).

the so-called Elgin Lyre on 06.10.1816 together with other pieces from Thomas Bruce, Seventh Earl of Elgin.⁹¹ In the same year, a first 'Report from the Select Committee on the Earl of Elgin's Collection of Sculptures, Marbles &c.' mentions the stringed instrument twice. It informs us that the remains of the lyre were found together with 'two flutes' (the so-called Elgin Aulos, also in the British Museum) during the excavation of burial grounds near Athens.⁹² The context of the discovery leads us to the undertakings of Thomas Elgin in the early nineteenth century. Unfortunately, the events relevant to our instruments are only partially documented. Some information can be derived from an essay of Arthur Hamilton Smith in *The Journal of Hellenic Studies* of 1816. His words enable us to deduce some of the stages of the probable transportation route of the instruments after their discovery. Lord Byron and Giovanni Battista Lusieri are said to have left Piraeus on board the 'Hydria' ship on April 22, 1811 and reached Malta on April 30, 1811. Lusieri returned to Athens on July 4, 1811.⁹³ While the 'Pauline' ship was anchored in the Athenian port of Piraeus from November 26, 1811, two boxes with smaller antiquities were brought on board by Lusieri. These two boxes were delivered from Malabar to Deptford from March 1812 and, according to the documentation, also contained the two musical instruments.⁹⁴

Smith's writings do not contain any further information about the discovery of the instruments. In the 1816 report, they are mentioned in the appendix under Addenda: 'One Lyre in Cedar wood; and, Two Flutes of the same material; found during the excavations among the tombs in the neighborhood of Athens'.⁹⁵ The locality of the tomb, its content and examination, and the route of the instruments from this tomb to the port cannot be deduced from the report. This lack of information led to several discussions about the identification of the find's context as early as the nineteenth century. M.A.S. Murray, curator of the British Museum, reported in a letter dated 05.09.1878 that the instruments were found in a grave on the road from Athens to Eleusis.⁹⁶ Linked to these statements is a letter by Louis François Sébastien Fauvel, excerpts of which are printed in the second volume of the *Magasin Encyclopédique* of 1807 (Gevaert erroneously

mentions the year 1809).⁹⁷ Probably also related to this is a statement by the already mentioned Birch to von Jan: 'the debris of the two lyres were found in a marble urn filled with ashes, together with a golden crown in a funerary hill on the path leading from Piraeus to the Salaminian ferry and Eleusis.'⁹⁸

We will deal with the mentioning of two instruments in Birch's letter in more detail below. While taking a critical look at this problem, Egert Pöhlmann separates the tomb reported by the letters and Fauvel from the finding context of the Elgin Lyre. The latter thus is only attested to by the scarce information in the report of 1816. Their phrasing not only provides no information about the condition and location of the tomb, but also offers no hint as to whether the aulos and the lyre were found in the same tomb. Bélis, for example, assumes that the instruments were found together. However, she also states that the objects and the exact location of this tomb are not known.⁹⁹

This conclusion deprives the date offered by Fauvel, who compared some of the grave's contents with the Erechtheion on Athens, of its argumentative basis, as it is based on grave goods from the tomb he discusses, and not the Elgin Lyre itself.¹⁰⁰ Since almost all previous and later datings are not explicitly justified and have the same or a very similar time-span as Fauvel's proposal, the question is whether we should classify the Elgin Lyre as undated.¹⁰¹ In research literature we can only find two dating approaches, which refer to aspects of the Elgin Lyre itself. Unfortunately, neither of them is documented in a way that would allow their critical understanding, since in both cases there is no indication of the comparanda the argumentation used.¹⁰² Paul Courbin associates the shape of the arms

⁹¹ Steinmann 2021: 372. François-Auguste Gevaert (1881: 647) reports: 'the lyre and flutes, came to the British Museum with the Elgin collection.' Thomas Elgin had recorded the lyre as number 501 in his collection. Steinmann 2021: 372.

⁹² Report 1816: 65, xliii.

⁹³ Smith 1916: 281-283.

⁹⁴ Smith 1916: 283-284: 'A rough list of the objects forming this supplementary collection was supplied by Hamilton to the Select Committee. It included [...] the ex votos from the Pnyx, a cedar-wood lyre, and two cedar flutes, the bronze urn with enclosing marble urn, and a variety of inscriptions. The above list represents the cargo of the Hydriote polacca.'

⁹⁵ Report 1816: xliii. See also Dumoulin 1992a: 101; Roberts 1981: 303.

⁹⁶ Gevaert 1881: 647.

⁹⁷ Fauvel 1807: 363-364. Cf. Pöhlmann 1987: 324. On the reception, see Gevaert 1881: 647.

⁹⁸ von Jan 1882: 17: 'die Trümmer der beiden Lyren wurden in einer mit Asche gefüllten marmornen Urne gefunden, zusammen mit einer goldenen Krone in einem Grabhügel auf dem Wege, der vom Piräus nach der salaminischen Fähre und Eleusis führt.'

⁹⁹ Bélis 1985: 213 note 27.

¹⁰⁰ Fauvel 1807: 363-364.

¹⁰¹ In the brief report of the year 1816, we can find only an undocumented dating (Report 1816: 65): 'Of what antiquity do you consider the lyre and the flutes? - I have always conceived them to be of the best time of Greece - the time of the Grecian Republic.' Gevaert (1881: 647) already states that there is no indication of the dating 'unless M. Fauvel was correct in comparing the ornaments of the wood coffin with those of the architecture of the Erechtheum'. Pöhlmann (1987: 319) speaks without justification of a 'instrument of the fifth century BC'. Steinmann reports the fifth-fourth century BC date given in the museum; Dumoulin (1992a: 101), referring to explanations offered by Panagiotis Faklaris, gives the fourth-first century BC. Strictly speaking, we should even ask ourselves whether we should consider the possibility that the find is not an ancient object, given the lack of evidence or sound arguments in bibliography and the lack of precise reference to the find's context. Since, at least in this paper, we deal primarily with the production of the instrument and not with its significance for ancient music or similar questions, we may set the dating aside. However, we must return to it at least briefly at a later point.

¹⁰² For the argumentative background, see Bosche 2023: 247-287.

with unnamed depictions of the late sixth-early fifth century BC.¹⁰³ According to Bélis, the technique used to attach the yoke to the arms is also visible on vase-paintings and a relief from the period between 510 and 410/400 BC, whereby the latter could also date to the fourth century BC. This comparability should confirm the dating of the Elgin Lyre to the fifth century BC.¹⁰⁴

Given this situation, we have only a very thin basis for any assessment of the plausibility of possible additions, reconstructions and extensions of the fragmentary Elgin Lyre by means of 'historical accuracy'. Accepting the aforementioned information, we can associate the stringed instrument with the city of Athens. Yet, strictly speaking, we only know that it was deposited in a tomb near to that city, but not that it was produced nearby – which is the information we actually need for our argumentation. In the end, we are unable to gather any reliable information about the period of its production, as the proposed dates are based either on feeble arguments or perhaps even on a line of reasoning that is to be rejected (since the presentation of the written evidence is only superficial and offering insufficient details for us to expand or even formulate the argument). This means that we lack any frame of reference for classifying the plausibility of a solution on the basis of 'historical accuracy' at a specific place and time – a problem that is common in archaeological research.

If we want to continue with our project, we may need to significantly expand our frame of reference – in the case of the Elgin Lyre, for example, to the 'Greek Classical period' or even 'Greek antiquity' in a broader sense. Since we have no artefact-bound parameters for determining such a chronological extension, the decision can only be made on the basis of 'artefact-external' factors. If we accept the idea that an aspect is temporally and spatially determined, we have to pay a high price, as we will see below. If we postulate that an artisanal solution, which is attested to us for example for the third century BC in Sparta, was used in the context of a chaîne opératoire of the fifth century BC in Athens, we assume that this solution was constant (at least) in the range of the temporal and spatial distance between these two points. If we regard the proposal as certain or as the only conceivable solution, we are in high danger of thereby denying any development of this technology between these two spatial and temporal anchor points. If we concede alternative reconstruction hypotheses, technology development is possible, but would not be observable at least at the two points we considered. In other words, the solution in both cases has a temporal and spatial constancy between the production activity we examined and the additional source associated with

it. If we have further sources from this distance range (or at least later time and other location ranges) at our disposal, we can increase the plausibility of such an assumption, but formally and argumentatively it always remains a hypothesis, since it is dependent on interpolations.

Ramifications

Let us briefly recapitulate and draw a conclusion from our considerations so far. From the outset, we focused on the individual components of the Elgin Lyre. In the course of our considerations, we have encountered preserved and (hypothetically) reconstructed parts that form an (overall) whole artefact and can (but do not have to) be treated as independent artefacts. If we want to transfer this notion to a chaîne opératoire and retain its understanding as a description of the production sequence that culminates in the completion of an artefact, we encounter two different 'types' of chaînes opératoires of an artefact: chaînes opératoires of an artefact as a whole; and chaîne's opératoires of a component-as-artefact incorporated into a chaîne opératoire of an artefact as a whole.¹⁰⁵ With this differentiation in mind, we may return to the starting point of our thoughts and take a closer look at the basic/essential concept of chaîne opératoire formulated at the beginning of the first section: the assumption that it describes an arranged sequence of steps between two states of an artefact as visualised in **Figure 3**. With this, we turn our focus to the theoretical background concept implicitly used when talking about the chaîne opératoire of an artefact. By incorporating hypothetically reconstructed components, tools, means of production, processes, people, etc. into our chaîne opératoire, we have already – albeit subcutaneously – dispensed with the possibility of working out a clear chaîne opératoire for the production of an artefact such as our Elgin Lyre. If the available evidence does not allow us to narrow down the spectrum of possible reconstitutions to one historically secure option, we are confronted with the necessity of incorporating case differentiations (hypothesising one scenario for each possible option) into the conception of our chaîne opératoire for all aspects of the artefact's extension and/or components that are subject to uncertainty. Thus, we do not deduce a single chaîne opératoire that describes the production of the artefact under investigation (component or overall whole artefact), but a spectrum of possible chaînes opératoires, which

¹⁰³ Courbin 1980: 109 note 51.

¹⁰⁴ Bélis 1985: 215.

¹⁰⁵ See **Figures 3, 4** and footnote 58. Cf. a passage from the work of Pierre Lemonnier (1976: 106-107): 'Une activité technique peut demander l'organisation relative et la combinaison de plusieurs chaînes opératoires; cette organisation et son déroulement dans le temps forment un processus technique.' In my understanding, the same basic idea is expressed in this passage, though not presented as chaînes opératoires. For the thematisation of an ever more progressive 'fragmentation', see also Lemonnier 1976: 117-118.

may or may not include the actual historical one.¹⁰⁶ In other words, we implicitly have used a separation between the ‘actual historical reality’ and the (content-charged) theoretical model used to describe this reality. While we tend to assume that there was a single, ‘true reality’ of the past, it is very common to consider theoretical models (at least partially) constructed by research, even though there might be some interconnection between the ‘constructed’ and the ‘real’.¹⁰⁷ All statements and considerations that we deal with in this paper therefore refer to one (and every) possible variant of this spectrum, provided that no case-specific narrowing down is feasible.

Focusing now on a single (possible) chaîne opératoire, we have dealt with the question of its unity. Based on formulations very common in bibliography, our first approach has started from the assumption that the individual chain-links of our chaîne opératoire can be uniquely determined by selecting a certain ‘definition element’. For the sake of simplicity (but without justifying it in detail), in the implementation of this assumption we have declared the individual components of the composite artefact ‘the Elgin Lyre’ to be the definition or ‘core elements’ (Kernelemente).¹⁰⁸ At the same time, we have associated each one of these components (at least potentially) with its own, separate chaîne opératoire and thus hypothetically composed the chaîne opératoire of the Elgin Lyre of the chaînes opératoires of its components. If we follow a very schematic approach, this seems to suggest the possibility of sorting the components or their chaînes opératoires in order to obtain the order of the production steps of the chaîne opératoire of the Elgin Lyre. This ‘simple sorting approach’ is based on the assumption that each stage of the chaîne opératoire can be treated as a self-contained unit. Any case differentiations (outside the components and their extension) only affect the order of the stages.

For a further discussion of our preliminary model, we have to turn our focus back to its application dealing with the Elgin Lyre. During the starting paragraphs we have deduced the preliminary theoretical model from argumentation lines present in bibliography and/or common in archaeological research. We have abstracted from the contents discussed there to isolate the structure of a theoretical background model implicitly sometimes applied in them. However, the same argumentation lines will also help us to see why

we have to label our model as preliminary and why the simplistic approach indicated in the last paragraph is not appropriate to cover all needs of archaeological research. For this, let us take a closer look at some further points that arise while applying our theoretical model to the discussion of the making of the Elgin Lyre.

The applicability of such a schematic approach to the sorting or sequential ordering of (reconstructed) production steps is determined (among other things) by the connections of the components of the Elgin Lyre. If it were feasible, it would have to be possible that all components had been produced entirely separately and independently without any reference to each other. Only later steps could have included attachments of the components to each other. Even though we only have partial information about the connections of the individual components of the Elgin Lyre, we should take a less schematic approach to the conception of a possible chaîne opératoire of its production in light of the recognisable aspects. Bélis investigated the connection of the transverse yoke with the two arms and documented it both verbally and graphically (**Figure 6**). The transverse yoke lies in the recess of a short fork in the vertical corner pin, which is inserted through a hole in the transverse yoke.¹⁰⁹ This solution requires that the fastening of the elements to each other had to be taken into account during the production of the individual components. In other words, fabrication and later assemblage of the components have been somehow interlinked during the planning and realisation of the instrument. The chaînes opératoires of the wooden parts therefore contain (at least) the intended concepts of the other wooden parts, and/or the overall artefact requires testing of the fitting with the other constituent parts of the instrument in the course of their manufacture.¹¹⁰ Since all wooden parts are provided with elements of this fastening solution, it is highly unlikely, if not impossible, that one or two of the components were designed after the third one had been made and they adapted their design to it. The planning concept of the attachment solution must have been known or developed already before or, at the latest, during the production of all three components for the given assemblage to be possible.

The attachment of the wooden construction to the tortoise shell is far more difficult to reconstitute, since

¹⁰⁶ Due to the usual limitations of our knowledge (the state of conservation and research, etc.), we cannot claim to be able to describe a complete spectrum. In addition, the selection of aspects that determine the individual chain is linked to the research question, the approach and the artefact/technology under investigation. For example, see Desrosiers 1991: 23-24; Lemonnier 1976: 113-114.

¹⁰⁷ This depends on the personal epistemological/ontological positioning. In this paper we will skip this discussion.

¹⁰⁸ For terminology, see Bosche 2023.

¹⁰⁹ Bélis 1985: 215; see also figs. 13 and 14 on p. 124. Cf. Dumoulin 1992a: 101: ‘Das Joch liegt also praktisch auf dem Absatz auf, der an dieser Stelle der Arme entstanden ist, und war dort befestigt.’, as well as Steinmann 2021: 374: ‘Das Ende der Arme läuft in einen konisch sich verjüngenden, mit feinsten halbrunden und nur Millimeter kleinen Verzierungen versehenen Teil aus, auf welchen einst das Joch aufgesetzt war.’

¹¹⁰ On the Elgin Lyre there may be an indication of an earlier planning concept. In a footnote, Steinmann (2021: 408 note 21) reports traces of (‘einer im originalen Holz eingeritzten Konstruktionshilfe mit einem Kreis und Punkten’). Unfortunately, having not seen the object, I cannot verify this point.

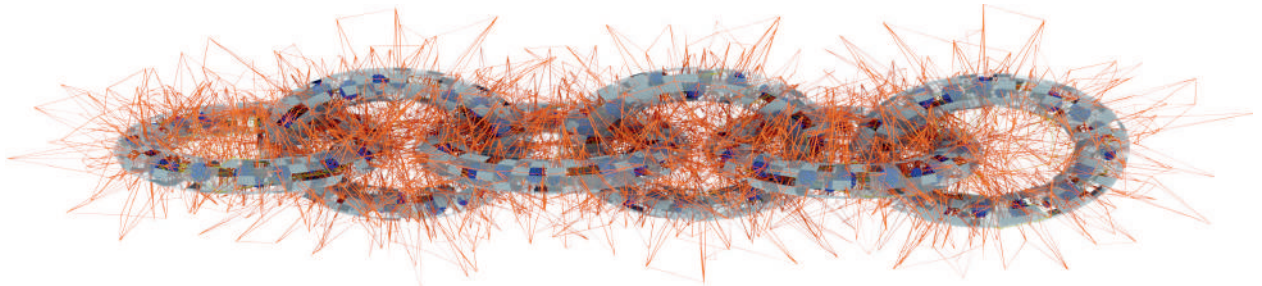


Figure 6: Visualisation of a chaîne opératoire as a simple 'chain' with chain-links embedded into a web of external relations ('extension') (illustration by the author).

it is only poorly preserved. Nevertheless, we gain insight from a similar/comparable situation. Birch, an official of the British Museum, mentions in a letter to von Jan 'an iron peg or nail by means of which it was attached to the body of the lyre'.¹¹¹ However, as we shall see, the statements of this official should be treated with great caution. Steinmann reports after his autopsy that at least one of the two arms of the Elgin Lyre was tapered. This might indicate that the ends of the two arms were fixed to each other in the tortoise shell.¹¹² If this observation is correct, the conception of the carapace and its intended relationship to the wooden construction would have been incorporated into its production as well. Whether the natural characteristics of the used tortoise shell were used for the attachment, as was the case in the production of the replica by Roberts' team,¹¹³ cannot be traced in detail because large parts of the original tortoise shell are missing.¹¹⁴ We do not know whether such solutions had also been employed in the construction of the Elgin Lyre in antiquity.

The reconstruction of the covering of the carapace can be classified as somewhat safer, since it might be part of our previous chaîne opératoire, drawing on current knowledge and the information from the Hermes myth. According to the latter, the carapace was covered with cow-hide before the arms were attached to it.¹¹⁵ However, Panagiotis Faklaris reconstructs a reverse sequence, since according to him the arms are said to have been fastened tightly to the walls of the carapace.¹¹⁶ For Dumoulin, 'the description of the attachment of the arms and cross yoke [...] is consistent

with the traditional image of the *chelys*: the arms are attached to the sonic body and connected to each other by the yoke'.¹¹⁷

In the case of an attachment that relies on mechanisms inside the carapace, the cow-hide would necessarily have to have been attached to the shell after the arms and all other construction work inside it. This is due to the technical requirements and the hide's intended function as a sound cover, since once it was attached, it would no longer be possible to work inside the carapace without damaging the sound cover and thus rendering it unusable.¹¹⁸ If it was really attached to the shell with the aid of holes, this production step would have to be taken into account (at least) during the processing of the carapace, unless the holes were created subsequently (i.e. after the arms had been attached and when the need for fastening options had been determined). At the same time, while creating the holes, the components to be attached to them and their arrangement had to be considered, for the position of the holes to be determined. As the exact fastening mechanism of the acoustic ceiling on the Elgin Lyre is unknown, this question must remain open. Even with our very fragmentary knowledge of the technical and planning solutions applied during the manufacture of the Elgin Lyre, complex interdependencies and interactions between different stages of its (potential) chaîne opératoire emerge (Figure 7a-c). These interdependencies make it impossible to work with completely separated, discrete stages similar to chain-links. Turning back to the conception of our theoretical model we therefore have to give up the idea of discrete, sequentially ordered stages resembling the metaphorical image of chain-links. Rather, we have to integrate possible ramifications between the single chain-links, making them only some kind of 'gravity centres' within a deeply ramified nest. For example, if we assume the use of a certain hammer in stages A and B, this hammer acts

¹¹¹ von Jan 1882: 17: 'eisernen Pflock oder Nagel, mittelst dessen dieselbe an dem Körper der Lyra befestigt war'.

¹¹² Steinmann 2021: 373. The procedure for the actual attachment of the arms to the plaster cast of the tortoise shell is not comprehensible to the viewer. Steinmann 2021: 374.

¹¹³ Roberts 1981: 304. The detailed craftsmanship of the replica by the team around Steinmann's team is unfortunately not published. For considerations on the attachment of the arms into the carapace from Argos, see Courbin 1980. For general considerations on this question, see Dumoulin 1992b: 233-235; Faklaris 1977: 226-230.

¹¹⁴ The inside of five tortoise shells with perforations found in Gordion were artificially smoothed. Holzmann 2016: 548.

¹¹⁵ (Pseudo-)Homeric Hymn to Hermes, v. 49-50.

¹¹⁶ Faklaris 1977: 226-230. Cf. Dumoulin 1992b: 233-234. Athanassios Vergados (2013: 259) concludes from this that the myth does not present the steps in the correct order.

¹¹⁷ Dumoulin 1992a: 92: 'die Schilderung der Anbringung von Armen und Querjoch stimmt mit dem überlieferten Bild der *Chelys* überein: die Arme sind am Schallkörper befestigt und untereinander durch das Joch verbunden.'

¹¹⁸ Cf. Schenck zu Schweinsberg 2017: 121-122.

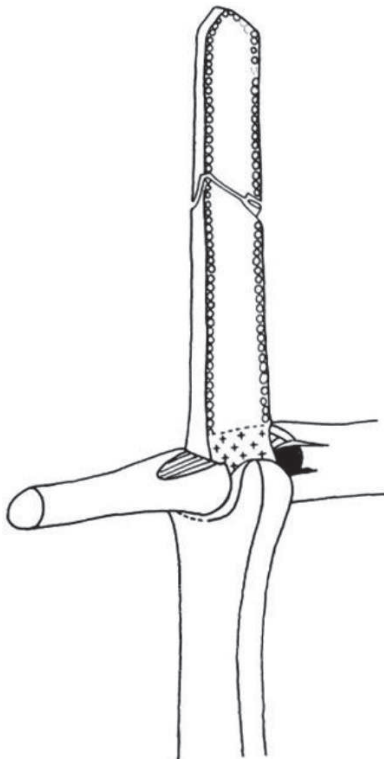


Figure 7: Drawing of the connection between the yoke and the left-side arm (after Bélis 1985: 214 fig. 13, © École française d'Athènes).

as some interweaving connection between these two stages.¹¹⁹

Those ramifications make it impossible to limit our case differentiation to several possible sequential orders of the stages (or, as we might now say, the 'gravity centres') of our chaîne opératoire. First of all, their mere presence leads us to integrating possible sequential parallels like two elements being planned and/or executed 'at the same time' (for example by different persons) in our spectrum of possible sequences. Second, since there (at least potentially) are no entirely separate stages, we can only sort their 'gravity centres', if at all. Other aspects connected to them – like our hammer – somehow transcend the sequential ordering since they span the otherwise sequential stages (Figure 7b and c). Third, those connected aspects are subject to the well-known uncertainties and knowledge deficits, as well. If we abandon the hypothesis of the use of the hammer in Stage A, the associated link between the two stages can no longer be maintained.¹²⁰ This does not only mean that it cannot be used as an argument for a sorting procedure; the 'existence' of its 'bridging/spanning function' is also subject to uncertainty. If we want to

¹¹⁹ If we take up an idea of my dissertation that is only incidentally relevant to this paper, this interweaving 'would not exist from the perspective of the hammer', and we would work with partial delimitations between the stages. For this idea, see Bosche 2023: 401-474. Since the conception of theoretical descriptive units is not discussed in this paper, I will refrain from not elaborating on this topic at this point.

¹²⁰ Making the visualisations of Figures 8 and 9 only one observer-dependent possibility.

integrate it into our discussion, we have to accept case differentiations for this point, as well.

Besides the chain-links of a (hypothetical or actual) chaîne opératoire, its overall course, too, is affected by the possible interweaving and interlocking of several stages. In other words, the integrating of possible ramifications in our thoughts might influence the identification of the starting and ending points of our chaîne opératoire. Let us assume for our further discussion, that we intend to deal with a 'functional' stringed instrument, referring to its (potential) playability or use for the intended production of sound events. Neither the joining of the wooden parts and the tortoise shell nor their covering with a sound-board are sufficient to produce intended sound events of the kind we expect from musical instruments. As testified by the additional sources mentioned above, a *chelys* like the Elgin Lyre can only produce its intended sound when strings are attached to it. As far as the remains of the Elgin Lyre itself are concerned, only indirect indications of the presence of strings can be found. The original strings have not been preserved and thus they belong to the reconstructed components of our chaîne opératoire.¹²¹ Whether they were made of sheep intestines, as reported in some versions of the Hermes myth, remains a hypothesis.¹²²

As early as in 1862, Birch mentions 'traces of the strings on the crosspiece, but no signs of pegs for tuning or tensioning the strings'.¹²³ According to him, the lyre should have had nine strings.¹²⁴ Since the 'traces' are not described in more detail, it is not possible to deduce what this information is based on – an important point, since Birch's explanations of the strings and the tuning device of the Elgin Lyre contain a number of misconceptions. In addition to the indication of the number of strings, he formulates a hypothesis about a tuning mechanism not otherwise attested in antiquity. This mechanism includes a tuning of the strings 'from below' and not by pegs on the yoke.¹²⁵ Von Jan and several other authors embrace this hypothesis and build on it, partly in combination with further 'observations' – but without having carried out an inspection of the preserved remains themselves. They conclude that they have discovered a 'new' tuning mechanism that is not

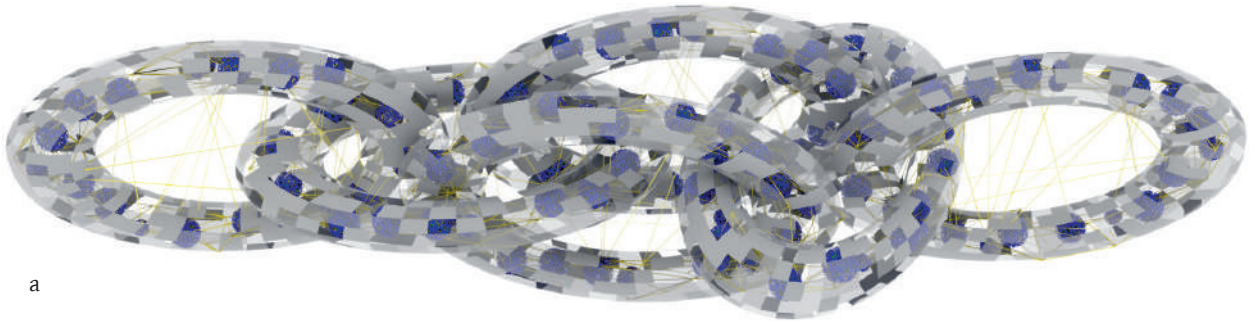
¹²¹ Considering the hypothetical character of our assumption of a former playability of the instrument, whether strings ever existed is hypothetical. In the end, we do not know whether the instrument has ever been played. As mentioned, we will not deal with this problem here.

¹²² (Pseudo-)Homer's Hymn to Hermes 51. According to Roberts (1981: 311), strings made of other materials are also known. Dumoulin (1992b: 239-240), considers sinews and intestines to be attested in the ancient sources. Steinmann's reconstruction team (Steinmann 2021: 406) refers to the production of sheep intestine.

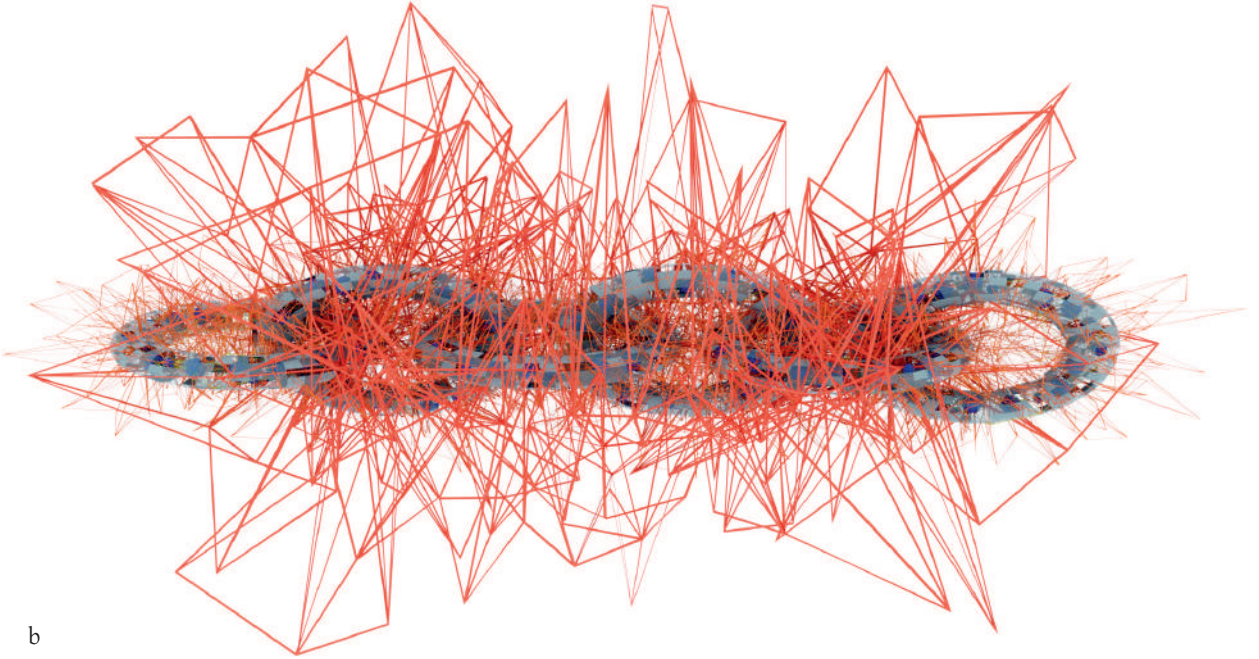
¹²³ von Jan 1882: 17.

¹²⁴ von Jan 1882: 18.

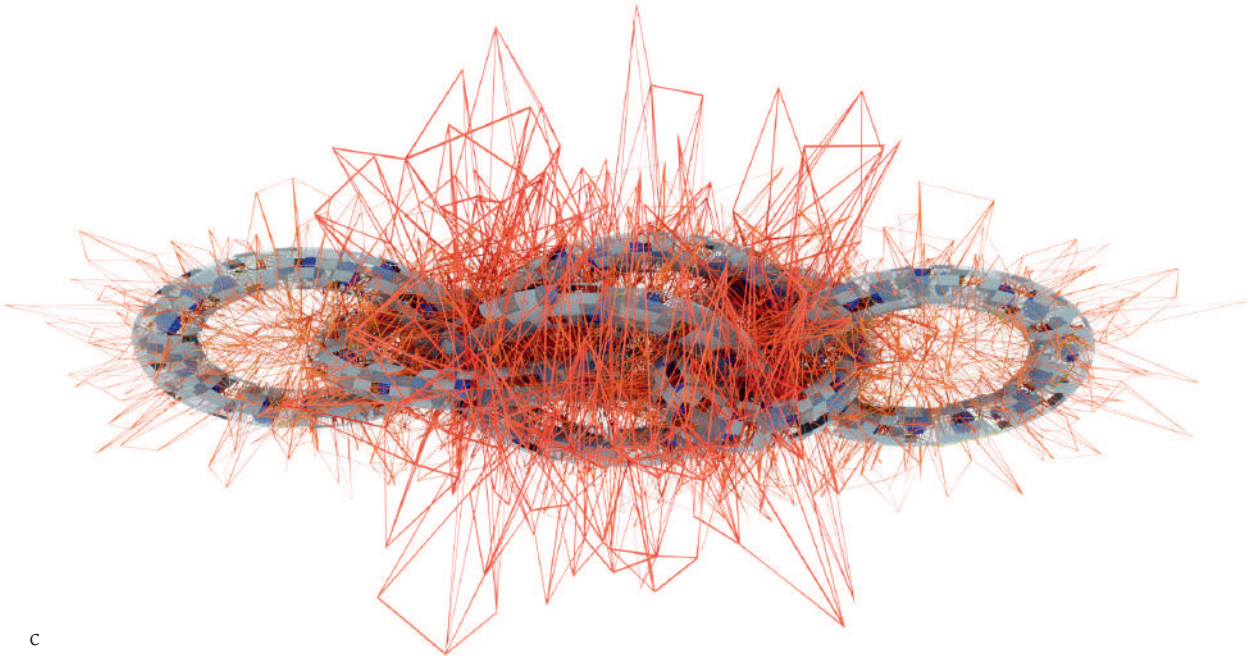
¹²⁵ von Jan 1882: 18.



a



b



c

Figure 8: Visualisation of three ramified forms of a chaîne opératoire with ramifications realised by the contact points of the chain-links (a), by extension factors/external web (b), and both the above (c) (illustrations by the author).

attested in the ancient written sources.¹²⁶ Since (possible) tuning elements of the Elgin Lyre are not preserved,¹²⁷ there are no grounds for refuting Birch's hypothesis on actual evidence. Nevertheless, the discovery of an alternative mechanism may raise scepticism. This occurs with Pöhlmann, who investigated this problem in 1987. In his letter quoted by von Jan, Birch speaks of 'two lyres'. Pöhlmann can identify one of these two 'lyres' as the hinge of a small box. This discovery entails that all thoughts and arguments based on these elements should be removed from the discussion.¹²⁸ The presence and form of the tuning mechanism, strings and a possible tail-piece on the Elgin Lyre can only be reconstructed hypothetically. Thus, all sound events produced today on the basis of replicas are also based on the sound of these hypothetical elements. Accordingly, the supposedly 'new' tuning mechanism is no longer addressed in later publications; instead, the usual mechanisms known from the ancient sources are used for the reconstruction. Dumoulin speaks of 'notches that should hold the strings in their intended position'.¹²⁹ Bélis adds the remark that no holes for fastening the strings can be found in the yoke.¹³⁰ According to her, the yoke of the Elgin Lyre should have carried eight *kollopes*, which were attached in such a way that the strings did not touch the wood. There are no notches that could have been caused by direct contact between the string and the wood. The marks should run around the entire round circumference of the yoke. Perhaps this is a system similar to that shown on a bowl from Delphi or on a crater fragment in Amsterdam.¹³¹

Our information about these *kollopes* is based exclusively on an interpretation of ancient written and pictorial sources, partly including modern instruments. Von Jan had reconstructed the tuning mechanism based on an etymological derivation of the term by Eusthathios in combination with a reference to the African Kissar as a string fastening by means of a sticky coil wrapped around the crossbar, which held the string in position. This view was taken up by many later authors and has been *communis opinio* for a long time.¹³² Pöhlmann and Eva Tichy object to this interpretation after a critical examination of the sources.¹³³ Without more detailed

studies and analyses, the exact reconstruction of the (possibly existing) tuning mechanism of the Elgin Lyre should remain open due to the interpretative uncertainties in some cases also noted by Pöhlmann and Tichy and the general argumentative limitations.¹³⁴ The remains of a lyre found in a grave at Locri could provide some help. Some of the parts are interpreted by Stefan Hagel as tuning pegs and used as a basis for the reconstruction of a yoke that would fit the dimensions of the yoke of the Elgin Lyre.¹³⁵ Without more detailed studies, I would rather not take a position on this proposal or make any further statements about the attachment of the strings and (possible) tunability.

With this limiting comment, let us turn back to our theoretical considerations regarding the chaîne opératoire. Although the core elements for sound production are not precisely known, their inclusion in the chaîne opératoire has massive implications for our argumentation line. Due to structural similarities, some basic elements of those points might be projected onto many other aspects regarding the functional or even symbolic understanding of the Elgin Lyre. As expressed by Sellet, for example, a chaîne opératoire often starts with the procurement of raw materials and ends with the completion or discard of the artefact.¹³⁶ In our relativism of a schematic separation of the individual stages of our chaîne opératoire, we have so far omitted discussing the connection between the first and the final stage, or, in other words, the start and the end of the chaîne opératoire. If we adhere to the schematic separation of (if only) those two stages, the only connection between the start and the end would be the chaîne opératoire itself (cf. **Figures 3 and 5**). Re-applying the argumentation line used above, the raw materials in this case had to be selected without reference to the intended function and design of the artefact and without taking into account the knowledge, tools and processing methods available; the same applied to the choice of all elements of the extension(s) of the individual stages, the planning of the shape and conception of the components, etc. All elements of the chaîne opératoire – all raw materials, tools, workstations, planning concepts, manufacturing processes, etc. – would be selected completely without context-bound decision criteria. The result would be a

jene suggestive Analogie zu der afrikanischen Kissar stützte, findet also auch in den literarischen Belegen keine Bestätigung.'

¹³⁴ For some considerations on possible tuning devices see also Dumoulin 1992b: 240-243.

¹³⁵ Hagel 2016. Hagel (2016: 161) interprets this as an indication of an 'organological optimisation mediation between conflicting demands: on the one hand, the need for a stable yoke that would not bend significantly during tuning; on the other, for an amount of friction that ensured that the strings would hold tight enough to maintain their grip on the yoke, while not becoming so tight that they would rather snap than allow re-adjustment.' If his reconstruction is correct, this would probably have circumvented some of the difficulties that Roberts encountered in her reconstruction.

¹³⁶ Sellet 1993: 106.

¹²⁶ Pöhlmann 1987: 319-321 with bibliography.

¹²⁷ See also Bélis 1985: 216; Steinmann 2021: 373.

¹²⁸ Pöhlmann 1987: 319-321.

¹²⁹ Dumoulin 1992a: 101: 'Kerben, die die Saiten in der für sie bestimmten Position halten sollten'.

¹³⁰ Bélis 1985: 217.

¹³¹ Bélis 1985: 219.

¹³² Pöhlmann and Tichy 1982: 287-289 with further literature, in particular 288 note 16 with the later receptions of von Jan's interpretation. See also Roberts 1981: 305-307 in the context of the presentation of its reconstruction.

¹³³ Pöhlmann and Tichy 1982: 299: 'Sieht man von jenem letzten Zeugnis ab, so kann man feststellen, daß überall, wo die Stimmvorrichtung gemeint ist, entweder eindeutig als 'Pflock, Wirbel' oder Verwandtes zu verstehen ist oder jedenfalls ohne weiteres so verstanden werden kann. Jans Theorie, die sich auf eine antike Fehltypologie — κόλλωψ von κόλλα und ἔψω — sowie auf

random conglomerate of individual components and influences, of which the form and design, conception, usability and sound behaviour were only influenced by chance, which from this perspective determined the choices of the actors involved. As was the case with the interconnections between the other stages discussed above, our daily observations speak against the applicability of such an assumption.

In addition to the argumentative weak 'daily observations', we can also counterargue for such an assumption while discussing (a) possible chaîne(s) opératoire(s) of the Elgin Lyre. Let us briefly mention some exemplary points. Regarding craft activities, the nature of the materials has a direct impact upon the choice of tools, the processing methods used and the knowledge required.¹³⁷ Maple and cedar wood (the two types of wood discussed for the Elgin Lyre) have partly similar, but also different properties. Their processing thus might pose different challenges.¹³⁸ At the same time, the sound behaviour of the stringed instrument directly depends on the wood the instrument is made of. Modern instrument-making and physical acoustics teach us that properties such as the vibrational behaviour of the materials used in an instrument can contribute to the character of its sound.¹³⁹ Due to a lack of sources, we do not know whether aspects such as the sound behaviour were taken into account during the planning of the Elgin Lyre. However, an observation by Steinmann suggests that this is at least possible. According to him, 'the forward-facing annual rings [of the stone arm] should allow a hugest strength possible'.¹⁴⁰ Unfortunately, there are no further details that explain or justify this statement. Of course, we do not know whether the ancient instrument-maker deliberately chose this aspect or whether the observed image was created by chance. If the processing qualities and perhaps even the tonal properties of the wood were incorporated into the design of the instrument, the instrument-maker had to consider the desired behaviour of the instrument before selecting the raw materials and base the choice of raw materials and further processing on this.

Depending on the quantity and quality of the aspects involved in the planning process, it might require knowledge far beyond pure craftsmanship skills. Even if many details of the possible tuning(s) of antique

stringed instruments are unknown to us,¹⁴¹ it seems rather unlikely that all the strings of the Elgin Lyre produced arbitrary pitches or even the same tone. Rather, they were tuned to different pitches (either once while fastening the strings or time and again by means of a tuning mechanism). From a physical point of view, different pitches can be generated by several approaches. The pitch of a string is the result of its vibration intensity. It can be changed by varying the string's thickness, length or the tension applied to it, provided that the string's material is constant. If the strings are made of different materials, we not only experience different timbres, but are also confronted with different physical features of the strings.¹⁴² The overall design of an instrument plays an important role in the adaptation of those points. The length of the strings is determined by its dimensions. Different string lengths are only possible if the instrument was built accordingly. This solution seems rather unlikely in the case of the Elgin Lyre due to the at least approximate symmetry of the wooden arms and the position of the fastening elements on the yoke. However, since we lack the fastening mechanism of the strings at the lower end of the resonance body has not been preserved, we can only conjecture on this point. Still, an overly large difference between the string lengths seems very unlikely.

Assuming that all strings were made of the same material and that they were tunable, different pitches of the strings of the Elgin Lyre were probably realised by means of thickness and/or tension applied. If this is true, the tuning and, by extension, also the making and fastening of the strings can be separated from the production of the instrument body (wooden arms, yoke, resonance box) – at least at first glance and to a certain extent. Taking a closer look, such a separation can only be maintained if the sound behaviour of the body was not taken into account when the instrument was built. In stringed instruments with a resonance box, 'the strings and body form mechanically coupled resonators [...]. Energy is cyclically exchanged between them, resulting in a beat.'¹⁴³ To reach an instrument's

¹⁴¹ For a summary, see Hagel 2015: esp. 76-92, 103-134 with bibliography.

¹⁴² For the physical principles, see for example Egry 2023: 70-73. For a reference to ancient stringed instruments, see also Hagel 2015: 76-92.

¹⁴³ Hutchins 1998: 71: 'Saiten und Korpus [bilden] mechanisch gekoppelte Resonatoren [...]. Zwischen ihnen wird zyklisch Energie ausgetauscht, wodurch eine Schwebung entsteht.' Bakarezos and his team (Bakarezos et al. 2012: 481) describe the interaction between the components of their reconstructed *chelys* during sound production in the following terms: 'The emitted *Chelys* sound is generated as follows: the strings are plucked by the plectrum and the resulting vibration, known as Helmholtz vibration, which consists of many frequencies is transferred to the bridge (magas). The bridge in turn, starts to vibrate and the energy is transferred to the front part of the sound box (leather). The lower side of the bridge is in full contact with the front side of the *Chelys* sound box. This is also the case for the lute-type musical instruments, such as the guitar, one of the most widely studied plucked string musical instruments. This category is of great interest due to its long history, since it includes

¹³⁷ A causal connection between the nature of the materials, and the working techniques and the finished products has been an integral part of chaîne opératoire since the beginning of its research. See, for example, Lemonnier 1976: 108-109.

¹³⁸ Wagenführ and Wagenführ 2022: 57-61 (maple), 892-893 (cedar).

¹³⁹ See e.g. Bakarezos et al. 2012; Egry 2023; Hutchins 1998. For specific statements on the Elgin Lyre or generally on the use of different materials in *chelys*-like instruments, further analyses are necessary.

¹⁴⁰ Steinmann 2021: 374: 'die nach vorne gerichteten Jahresringe [des Steinarms] eine grösstmögliche Festigkeit erlauben'.

full potential, the vibrational behaviour of the strings, the tortoise shell, the sound-board, the air and wooden construction inside the resonance box and their interactions had to be taken into account in the course of planning and building the instrument. Furthermore, the vibrational characteristics were not only important during the planning and construction phase, but also while using the already completed instrument. Environmental conditions and the tensions applied to the instrument can lead to later deformation of the materials.¹⁴⁴ We have no sources telling us whether the tonal potential and the later behaviour of the materials were taken into account in the construction process of the Elgin Lyre or other ancient stringed instruments. If this was the case, knowledge of wood- and horn-working would not be sufficient for the production of a stringed instrument such as the Elgin Lyre. The people involved in the planning and production process would either have to be qualified with theoretical and/or practical musical knowledge themselves and/or collaborate with musicians.¹⁴⁵

A rigorous linearity of the chaîne opératoire in the sense of a kind of ‘transformation’ of an initial state to a final state through a sequence of work-steps without overlaps, interactions and spiral steps does no justice to the complexity of an artefact production. It can only be applied if the representation of the process – for example by means of a chaîne opératoire of the overall artefact – is limited to and focused on the ‘transformation(s)’ of one (or, under certain circumstances, a few) parameters while neglecting the rest. This point will lead us back to the central concern of von Rüden and my objection to it.

Learning by ...? And learning what?

We have abandoned the idea of isolated chain links and the notion of a linearity of the chain between an initial

the necked chordophones, of which the *Chelys* is an example that was used in ancient cultures. Furthermore, there is also no direct connection between the bridge and the back side of the sound box. The initial excitation of the instrument is modulated by the bridge due to its geometry and elastic properties which make some of the initial frequency components be transferred to the sound box more efficiently than others. This excitation is further dispersed to the remaining sound box, where the frequency components are further modulated depending on the sound box geometry and its elastic properties.’

¹⁴⁴ Such observations were also made, for example, by the team led by Bakarezos (Bakarezos *et al.* 2012: 479) when dealing with the acoustic properties of an antique *chelys*: ‘Small deviations were observed from the desired tuning frequencies, and these were attributed to the instrument sensitivity to different string tension and ambient conditions, such as temperature and humidity.’ Cf. the observations by Roberts 1981: 305. 309-311.

¹⁴⁵ In the absence of explicit indications, we cannot answer whether the strings were produced, stretched and perhaps even tuned by the craftsmen who made the remaining parts of the instrument body. Following the Homeric Hymn of Hermes, Steinmann (2021: 262) assumes that several crafts were involved in the construction of a *chelys*.

and a final state. Due to the interlocking of the initial state and the intended final state, as well as all other intermediate and later states of the chaîne opératoire,¹⁴⁶ our chain takes on a ramified form including, among others, connections between the first and the final state. **Figure 8** gives an impression of the crowded and branched character our descriptive model of a chaîne opératoire has assumed while adding more and more aspects and relations between them. The clear-cut stages we started with (the ‘chain-links’) are blurred by a tight network of relations within and between the stages. Their boundaries fade or even vanish, if we are willing to accept them as created by our own definition. If we include case differentiations necessary due to lack of information and/or a spectrum of possibilities (which unfortunately cannot be properly visualised in a 3D-graphics focusing on the structure of one given chaîne) the number of potentially relevant elements and relations further increases significantly. Leaving aside (artificial) preconditions and hypotheses – as necessary for research as limiting for the object under investigation – we are free to include any aspect we can think of in a content-related application of our theoretical model.

Turning back to considerations on the ‘real-life level’ including humans, objects, artefacts, concepts etc. however, we might wish to employ at least one basic premiss that certainly limits the extent of our content-related model of (a) certain chaîne(s) opératoire(s) – but also values some argumentative tension regarding the accessibility of human perception. For an exemplary discussion of this point (related to one of the deepest problems of philosophy) we might look back at the starting and end point of a chaîne opératoire and focus on the character of the ‘transformations’ of the former while reaching the latter.

The notion that a chaîne opératoire does not necessarily have to be linear should not be credited to us, since it can already be found in some of the earliest publications dealing with the theoretical concept. A short passage of Pierre Lemonnier, for example, illustrates the decomposition of a chaîne opératoire into several smaller, separable chaînes opératoires,¹⁴⁷ which we have dealt with in our previous explanations.¹⁴⁸ Those ‘smaller’ chaînes opératoires can

¹⁴⁶ Basically, the raw materials and their properties affected the artefact even after the last step of its production.

¹⁴⁷ Lemonnier 1976: 106: ‘Une chaîne opératoire ‘série d’opérations qui transforment une matière première en un produit’ (Cresswell 1976), est constituée d’actions sur la matière de phases de préparation, matérielle ou non, de ces actions, et de temps morts, n’nécessaires ou non à l’obtention du résultat technique visé. Ces éléments ont une dimension temporelle: ils se succèdent, se déroulent simultanément ou se chevauchent; si une chaîne opératoire possède un début et une fin, elle n’est pas nécessairement linéaire.’

¹⁴⁸ In another passage, Lemonnier (1976: 107) mentions ‘parties de chaînes opératoires’. For the ‘staggering’ see also Lemonnier 1976: 112.

be arranged in sequence one after the other, but they can also take place simultaneously or overlap (**Figure 7a-c**).¹⁴⁹ Yet, there is one important difference between our approach and the one formulated by Lemonnier. The chaîne opératoire in his elaborations does not represent the ‘highest level’ of his theoretical concept, but is integrated into a kind of ‘superordinate’ concept: the ‘Processus Technique’.¹⁵⁰

The terminological separation between a single chaîne opératoire (for the production of an artefact as the ‘final state’ of an organised manufacturing process) and the Processus Technique (as an organisational concept for more complex technological processes) renders more relative, if not abandons, the idea that all ‘sequence concepts’ lead up to a single artefact. Rather, it is combined with an additional focus on the relationship between productions of several artefacts (as ‘independent production results’ or parts of a ‘superordinate production’). The investigation of an individual artefact production, however, is not abandoned. During the last sections we have taken up a similar core idea by distinguishing between a chaîne opératoire of a (construction) part of an artefact and a chaîne opératoire of an entire artefact. However, we have not followed the (at least terminological) shift of considerations towards technology research, which in my opinion is evident in Lemonnier’s explanations.

The differentiation between chaîne opératoire and technical activity/process or technology leads us to the words of von Rüden, who deals with Lemonnier’s approach in the course of her essay.¹⁵¹ One of her central objections to Lemonnier’s approach is his definition of technology as ‘physical renderings of mental schemas’, since, according to her, it is based on ‘a somehow Aristotelian perspective which conceives the mental schema as the primacy which is then physically rendered or executed in a bodily or material practice’. ‘Hence, despite his wish to integrate the material and the mental world, he carries forward a

Cartesian division and marginalises the integrative aspect of the bodily gesture and embodiment’.¹⁵² Von Rüden expresses a similar objection to Leroi-Gourhan’s approach:

‘Beyond this more general methodological approach, his aim was to understand the development of the human mental abilities in accordance with rhythm, movement and technique. The human subject was therefore always at the center of Leroi-Gourhan’s considerations, but maybe surprisingly one can nonetheless trace a certain neglect of the human’s sensual involvement in his description of technical processes. In his book ‘Le Geste et la Parole’ of 1964 he described the ‘progress’ of techniques from an evolutionist perspective: techniques conducted by the human body, techniques with tools moved by a human ‘motor’, and the externalization of technologies to machines. Certainly driven by a fascination for technologies and machines, he draws parallels between machines and humans, culminating in a description of habitualized human operations as ‘automatic’ or ‘machine-like’ (Leroi-Gourhan 1988: 289-293). Such a labelling of these often highly complex technical practices puts them closer to mechanics and technological functioning, and draws them away from the human sensual involvement in techniques. Whether intentionally or not, his choice of words reduces the motion within these techniques to a mechanical one, marginalizes the specific human character of the sensually guided body movement, and therefore dehumanizes techniques (von Rüden 2015: 36-37)’.¹⁵³

I have a great deal of understanding for the fact that the quoted formulations by Leroi-Gourhan can evoke the associations that von Rüden expresses. However, considering my own perception and some other formulations that Leroi-Gourhan uses, for example, in his (admittedly brief) explanations of the concept of chaîne opératoire, the question arises as to whether the tension between the approaches of Leroi-Gourhan and Lemonnier on the one hand and von Rüden on the other could not be summarised in an alternative way. If my view of the explanations is correct, it is not so much different research interests or perspectives on the significance of the cognitive aspects of the people involved in a production process that come together in them, but rather different ways of how cognitive processes can support and enrich current theoretical research on ancient craft activities.

In order to explain the concept, we need to take a brief excursion into some of the early trends in the history

¹⁴⁹ Pelegrin, Karlin and Bodu (Pelegrin *et al.* 1988: 60) summarise Lemonnier’s considerations: ‘De plus la description d’une chaîne opératoire n’est pas une simple organisation linéaire de données. C’est aussi l’articulation et l’interaction de tout un ensemble d’éléments qui permettent de pondérer chaque moment de valeurs différentes.’ See also Balfet 1991: esp. 17.

¹⁵⁰ Lemonnier 1976: 106-107: ‘Aussi en employant l’expression processus technique voulons-nous définir un ensemble de faits plus large que celui que représente une Chaîne opératoire. Une activité technique peut demander l’organisation relative et la combinaison de plusieurs Chaînes opératoires; cette organisation et son déroulement dans le temps forment un processus technique.’ Cf. Lemonnier 1976: 105: ‘Sous ce terme [processus technique] nous regroupons l’ensemble des opérations enchaînement d’actions sur la matière, attentes etc. qui interviennent lors d’une activité technique.’ Cf. Lemonnier 1976: 128. The concept is repeated by Pelegrin, Karlin and Bodu (Pelegrin *et al.* 1988: 58): ‘Des suites de gestes ou d’opérations, qui sont les processus techniques, eux-mêmes décomposables en chaînes opératoires regroupant des séquences gestuelles.’

¹⁵¹ For the connection between chaîne opératoire and technology, see also Bar-Yosef and Van Peer 2009: 105.

¹⁵² von Rüden 2017: 73-74 with reference to the (translated) passages by Lemonnier.

¹⁵³ von Rüden 2017: 72.

of research also addressed by von Rüden. We may start with the work of Leroi-Gourhan, which Lemonnier (among others) cites as a direct reference in several key passages. Leroi-Gourhan defines the chaîne opératoire in brief words in a passage in his work 'Le Geste et la Parole':

'La notion de Chaîne Opératoire sera reprise aux chapitres VII et VIII mais il est nécessaire de l'évoque ici pour comprendre le lien entre technique et langage. La technique est à la fois geste et outil, organisés en chaîne par une véritable syntaxe qui donne aux séries opératoires à la fois leur fixité et leur souplesse.'¹⁵⁴

In this short passage, Leroi-Gourhan distinguishes between three aspects: the 'chaîne opératoire', the 'séries opératoires', and the 'syntaxe (opératoire)'. The latter establishes the connection between these three aspects and has two 'tasks': it organises movements/gestures (geste) and tools (outil) in a chain (I), and it offers the séries opératoires (depending on the need or situation) independence and flexibility (II). The 'starting point' of the syntaxe opératoire for Leroi-Gourhan is situated in the memory, where (according to my interpretation of the passage) it is 'stored' after its emergence through an interaction between the brain as the centre of the human cognitive apparatus and the material world that surrounds man and can be perceived by him. As 'stored information' it can be 'retrieved' (and also modified) as required:

'La syntaxe opératoire est proposée par la mémoire et naît entre le cerveau et le milieu matériel.'¹⁵⁵

In my understanding of this passage, Leroi-Gourhan describes human learning through interaction with the (physical-material) environment. Sensory experiences necessarily play just as central a role in this learning as the cognitive processes in the human cognitive apparatus that are based on them. For Leroi-Gourhan, a tool is a kind of 'secretion' ('sécrétion') of body and brain, which should be treated as an 'artificial organ' ('organe artificiel') according to the rules that also apply to 'natural' organs. For this reason, 'il doit répondre à des formes constantes, à un véritable stéréotype'.¹⁵⁶ With the caution required for hasty connections or even for drawing parallels in complex situations, I would at least like to point out similar considerations from the context of today's cognitive sciences.¹⁵⁷ Even if

this point requires much more comprehensive analyses than can be accommodated in the scope of this paper, in my understanding, the previously quoted and paraphrased passages at least tend to take into account the body-bound level of perception or sensation in the conception of human cognition (which is admittedly strongly focused on the human brain). However, I am alarmed by the connection between human cognitive processes and a 'stereotype', which is at least hinted at in one of the passages. We will come back to this point later and in a different context.

The interplay between tool and action is taken up by Lemonnier.¹⁵⁸ He distinguishes between the three levels of work equipment ('moyens de travail'), chaînes opératoires and technical knowledge ('connaissances techniques') when dealing with a technique. In the summarised presentation of these three levels, Lemonnier emphasises (very clearly in my opinion) different research possibilities for these three levels. The means of labour would be by far the most frequently investigated by technologists, since 'the only material traces of human activity can be related to this category of technical facts' ('sans doute parce que les seules traces matérielles de l'activité humaine se rapportent à cette catégorie des faites techniques').¹⁵⁹ Technical knowledge, on the other hand, was mostly ignored in technological studies, as were also the definitions, since it left few material traces.

Despite these methodological limitations, Lemonnier ascribes essential importance to knowledge in the study of technical phenomena.¹⁶⁰ He presents cognitive concepts such as technical skills as a kind of complementary level to the chaîne opératoire and

¹⁵⁴ «Pour Leroi-Gourhan qui la nomme, la chaîne opératoire est dans le prolongement de sa vision biologique» (Schlanger 1991: 2004). On est loin de la méthode analytique sophistiquée que va devenir la chaîne opératoire au cours des années.' For some considerations on the relationship between 'body' and 'mind' in Leroi-Gourhan see, for example, Leroi-Gourhan 1964: 87. In my view, this passage also shows a differentiation between the 'constitution' of man and his 'acquisition', in the context of which 'body' and 'mind' 'depuis toujours' are regarded as separate.

¹⁵⁸ See, for example, Lemonnier 1976: 107: 'On a souvent insisté sur le caractère indissociable du couple geste-outil (Haudricourt, 1940: 760 ; 1948 : 54 : 1955 : 32 ; 1964 : 31 ; Leroi-Gourhan 1965 : 35 sq); l'action sur la matière ne peut être comprise qu'en complétant la connaissance de l'outil par la connaissance du geste qui le met en œuvre, il est inutile d'y revenir. L'étude d'une pratique technique doit donc comporter, à côté de la description des moyens de travail et des connaissances techniques mobilisés, la description des différentes actions sur la matière mises en œuvre, de leur succession (chaînes opératoires), de leurs agencements relatifs, etc.'; cf. Pelegrin *et al.* 1988: 60.

¹⁵⁹ Lemonnier 1976: 103-104.

¹⁶⁰ Lemonnier 1976: 104: 'Elles sont généralement ignorées dans les études technologiques (sans doute parce que laissant peu de traces matérielles), voire même omises dans les définitions du domaine technique; elle en sont pourtant un élément essentiel, ne serait-ce que parce qu'elles forment un préambule nécessaire à tout pratique technique. La difficulté de leur saisir ne doit pas faire oublier la complexité des choix et des élaborations intellectuels non exprimés et souvent non exprimables qui accompagnent tout processus technique.'

¹⁵⁴ Leroi-Gourhan 1964: 164. The chapters referred to cannot be found in the publication.

¹⁵⁵ Leroi-Gourhan 1964: 164.

¹⁵⁶ Leroi-Gourhan 1964: 132.

¹⁵⁷ See, for example, some considerations from the field of embodied cognition. For an overview: Shapiro and Spaulding 2021 with bibliography. The exact relationship between the concepts needs to be examined in more detail. For such an interpretation of Leroi-Gourhan, see also, for example, Audouze and Karlin 2017: 2-3:

does not explicitly integrate them into it. Instead, these flow into the Processus Technique together with the traces of work. Such a (admittedly rather schematic) differentiation can justifiably give the impression that the material and mental levels appear and are treated as clearly separate in Lemonnier's theoretical conception. However, in my opinion, this differentiation results – at least to a certain extent – from the different accessibility of these areas, as emphasised by Lemonnier.

As Lemonnier emphasises at various points of his explanations, his approach to the study of technology is focused on the interaction between humans and matter.¹⁶¹ In line with this, cognitive aspects play an essential role in Lemonnier's search for technological issues; however, limitations are posed by methodological problems, since these aspects – unlike, for example, certain work processes that leave tool marks – leave no material traces and thus cannot be 'read' on the artefacts.¹⁶²

In my opinion, this methodological problem plays a central role in the fact that cognitive aspects tend to recede into the background in some of the later works dealing with the concepts of Leroi-Gourhan and Lemonnier. Sellet, for example, describes the chaîne opératoire in the following words: 'It is a chronological segmentation of the actions and mental processes required in the manufacture of an artifact and in its maintenance into the technical system of a prehistoric group.'¹⁶³ His summary of the development of the concept in the history of research reveals a rather schematic conception of the integration of actions, objects/tools and cognitive concepts such as technical/technological knowledge:

'Subsequently, a chaîne opératoire study was seen as integrating three levels of analysis, which would reveal the technical decisions made in the process of tool manufacture. The most basic level is represented by the objects themselves (tools and by-products of the manufacture process); then comes a series of gestures or technical sequences (the methods by which the tools are produced); and finally, at the most abstract level, is the specific technical knowledge shared by all group members.'¹⁶⁴

Sellet traces the composition of this sentence back to a passage in Jacques Pelegrin, Claudine Karlin and

Pierre Bodu, who in turn summarise Lemonnier's explanations. In the course of this 'chain of reception', the network of interaction between humans and 'material' seems to recede further and further into the background, at least in the formulations used. Pelegrin, Karlin and Bodu discuss the 'connaissances spécifiques' as one of the three levels on which technical activities can be grasped, and mention in this context that they could not always be expressed by the actors and that their analysis could be underpinned by 'well thought-out reproductions'.¹⁶⁵ However – and at this point we reach the associations that von Rüden also sees – the three authors also bring in at least one formulation an (apparent or actual) 'primacy' of the mental¹⁶⁶ over the following physical realisation:

*'L'analyse de cette démarche, aidée de reproductions raisonnées, a néanmoins permis d'aborder le registre délicat du schéma conceptuel préexistant à tout projet dans l'esprit du tailleur et, parallèlement, l'espace des possibles et des choix dont il disposait selon ses connaissances, ses habitudes culturelles, ses ressources et les limites d'un matériau contraignant.'*¹⁶⁷

The italicised passage is close to a parallelism of one of the two most precise definitions (explicitly naming the materialising aspect implicitly present in the former passage) of the background to von Rüden's approach to her wish 'to bridge the Cartesian way of analysing technique in anthropological and archaeological research':¹⁶⁸

*'Archaeological research often tends to consider ancient techniques as a mechanical process, which simply materializes mental representations. This Cartesian perspective draws the attention away from the human sensual involvement and reduces techniques and in general crafts to externalized knowledge or bare information of mechanical functioning and hence clearly distorts our ideas of ancient crafts.'*¹⁶⁹

Let us now return to our theoretical model of the chaîne(s) opératoire(s) as presented at the beginning of this chapter, and think about the difference between the first and the final state of the chain. Von Rüden criticises that this difference 'would be measured' exclusively in the material (or better: materialising)¹⁷⁰ dimension, for example in the previously quoted passage by Pelegrin,

¹⁶⁵ Pelegrin et al. 1988: 58.

¹⁶⁶ Cf. a formulation by von Rüden 2017: 73 (emphasis by the author): 'Therefore, despite his careful analysis a certain Cartesian separation of his layers is still maintained as well as the idea of a primacy of higher mental processes.'

¹⁶⁷ Pelegrin et al. 1988: 58 (emphasis by the author).

¹⁶⁸ von Rüden 2017: 74.

¹⁶⁹ von Rüden 2017: 71 (emphasis by the author).

¹⁷⁰ For terminology and a complete research approach based on it, see Lucas 2012, discussed in Bosche 2023.

¹⁶¹ See, for example, Lemonnier 1976: 103: 'En limitant le domaine technique aux phénomènes relatifs à l'action de l'homme sur la matière [...].'

¹⁶² Lemonnier 1976: 104: 'Il est certain que notre analyse ne peut pas appréhender de manière exhaustive des processus mentaux largement inexprimables tels que ceux qui permettent à un acteur de suivre la piste d'un animal [...].'

¹⁶³ Sellet 1993: 106.

¹⁶⁴ Sellet 1993: 107.

Karlin and Bodu. Sensory experiences, on the other hand, would fade into the background.

I am not in a position to make statements about the majority of archaeological and anthropological research approaches, as I do not want to claim to have complete knowledge of published work in these two research areas or at least to have carried out a systematic examination of this aspect on a random basis. I can only state that, based on my personal, subjective impression, I would not be surprised if this were the case, and that the reception of the passages by Leroi-Gourhan and Lemonnier may be understood as an indication in this direction.¹⁷¹ However – and this is where my view partly differs from von Rüden’s words – I do not see that the topic addressed by von Rüden is completely absent from the theoretical work on the concept *chaîne opératoire*.¹⁷² I merely see that it is shifted out of focus – in line with an observation by von Rüden in the introductory abstract (‘This Cartesian perspective draws the attention away from the human sensual involvement.’).¹⁷³ In order not to break with my own argument, I am not able to judge at this point whether the reason for this ‘focusing’ is any kind of ‘Cartesian perspective’. However, there might be an alternative justification: the inclusion of individual/personal sensory experiences in scientific investigations in the sense of a science oriented towards any kind of ‘discourse of validity’ can present us with even greater problems than the beyond infinite number of possible case differentiations in the inclusion of as many details as possible in the reconstruction of a *chaîne opératoire*. This holds even in the case of an (in my opinion impossible) ideal reproduction of all and every planning and production contexts, if the attempt is made to uncritically transfer one’s own sensual experiences to other people (for example, the ancient producers of the Elgin Lyre), the inclusion of individual/personal sensory experiences in scientific investigations in the sense of a science oriented towards any kind of ‘discourse of validity’ can present us with even greater problems than the beyond infinite number of possible case differentiations in the inclusion of as many details as possible in the reconstruction of a *chaîne opératoire*.

So far, we have focused on the integration of artefact components and physical-material entities in our theoretical model of the *chaîne opératoire* – speaking of the Elgin Lyre, for example raw materials, tools, etc. possibly used for its manufacture. Thus, we have, at least at the beginning, taken up the perspective

of focusing on the (physical) material remains, as advocated by Lemonnier, for example. When we spoke of human interactions with these ‘non-human actors’, we described them verbally in a comparable form and attempted to reconstruct them in the form of hypothetical representations. We did not undertake any manual activities of our own. I completely agree with von Rüden that the sensory experience and understanding of production processes provides us with essential knowledge that allows us to view research interests like production processes of the past from different perspectives. Even from my personal experience alone, I also hold the view that certain things can only be learnt by incorporating one’s own observations and experiences in such a way that a satisfactory result is achieved. A musician must adjust to his instrument and harmonise the feedback from his body with the instrument in the literal sense in order to improve his sound quality – and I can report from my own experience that, at least for me subjectively, an examination of my own body perception is very conducive to this process.¹⁷⁴ Even though my own manual skills are rather limited, especially in specialised areas such as the processing of natural materials, it is very natural for me to assume something similar in an area that depends on the interaction between material, tool and body. However, this topic raises a central problem in the scientific discourse, which von Rüden deals with in detail in her essay and explicitly expresses in her concluding remarks:

‘This might be related to the fact that these aspects of craft are difficult to approach with the help of so-called rational and objective methods of archaeological research, the way we are categorizing our archaeological evidences, and our still very Cartesian way of thinking, no matter if we contrast mental processes or representations with bodily experiences and the material world. Furthermore, *to articulate all these largely nonverbal, embodied experiences in a theoretical, and therefore necessarily a verbal, discursive paper seems to be a paradox in itself* (von Rüden, 2015). *One can even postulate that a theoretical, and therefore necessarily a verbal, discursive paper about embodied knowledge and skill is not an appropriate way of approaching these aspects.*¹⁷⁵

¹⁷¹ For some critical considerations on the inclusion of mental concepts in *chaîne opératoire* research up to 2009, partly with similar implications as in my following remarks, see Bar-Yosef and Van Peer 2009: 113–115. For the consideration of cognitive factors in *chaîne opératoire* research, see also Soressi and Geneste 2011: 344–345.

¹⁷² See also some formulations in Lemonnier 1976: 118.

¹⁷³ von Rüden 2017: 71.

¹⁷⁴ At this point, in the course of self-reflection and in anticipation of a quite possible and in part certainly justified objection, I would like to allow myself a brief self-positioning: I am writing these explanations not only as a theoretical researcher, but also from the perspective of an (ambitious) amateur musician with many years of (classical) training on various (modern) instruments, including several years of lessons in stringed instruments (classical concert guitar and violin) in addition to my current focus on woodwind instruments. I therefore have some practical knowledge of stringed instruments – even if not on an antique *chelys* – and of the craftsmanship of musical instruments, as I maintain and repair most of my instruments myself as long as my knowledge and skills allow me to do so without the help of an expert, even though I am not a trained instrument maker.

¹⁷⁵ von Rüden 2017: 77 (emphasis by the author).

I fully agree with von Rüden on this point as well: the ‘necessity of representation’ is a massive problem for sensory comprehension. However, it is also inevitable if communication (scientific or not) is to be possible over greater distances. Von Rüden and I share the view, that communication is essential for scientific discourse. From this perspective, I see no fundamental contradiction between the representation-based forms of representation of cognitive aspects (partly supplemented by experimental procedures) within the framework of the chaîne opératoire in the older works (even if these can sometimes fade into the background) and von Rüden’s concern, even if I can only agree that the emphasis on the great importance of sensory experiences is essential with regard to some of the works I am familiar with.

Despite – or perhaps just because of – the essential importance of this point, I cannot avoid advising a high degree of caution and delicacy in its realisation for ethical reasons. If we want to integrate mental aspects or even sensory experiences in research questions like chaîne(s) opératoire(s), we have to find a way of grasping mental aspects and/or sensory experiences of other people, perhaps having lived centuries and miles apart. With this, we encounter a basic methodological problem that we have dealt with extensively in the previous section. However, now, we do not limit it to physical-material aspect, but extend it to sensory and mental phenomena. Such an extension is highly problematic, since the applicability of the method depends on the adaption of a fundamental premiss/precondition considered axiomatic as concerns certain aspects of the physical-material world, but at least partially refuted for mental and/or sensory phenomena. Let us take a closer look at this area of tension starting with the physical-material. If we deal with a projection and/or extrapolation of aspects (in the broader sense) or even conclusions across topographical and chronological (or, by extension, social and/or cultural) distances – be it by incorporating insights from modern crafts or by theoretical considerations – we presuppose a constancy of these projected aspects at least across the distances spanned. If these aspects are physical, chemical and/or other ‘scientific’ characteristics of entities, our laws of nature provide us with a millennia-long tradition and very plausible reasons for accepting this assumption. We assume – in my opinion in all plausibility – that wood of a certain type behaves in the same physical, chemical and biological way today, in Sparta in the third century BC and in Athens in the fifth century BC, and that on this basis we can at least calculate back (or transfer) individual aspects of our chaîne opératoire. Thus, in all areas that are based exclusively on natural laws and the aspects they can describe, we can perform ‘back-calculations’ from documented observations and conclusions – for example, from many parts of the construction processes of the components, the nature

of the raw materials, tools and components, and their reactions to each other under certain conditions, like the effect of a hammer blow on a piece of wood – provided that the elements and movements involved are exactly identical. If we include a tolerance range and/or other probability parameters in our considerations, we can significantly extend the applicability of these methods, even if this comes at the price of obtaining a spectrum of possible results rather than a certain result. If we stay within the limits of scientific laws, this spectrum can even be classified by probability values. This allows the individual options to be weighed against each other and, on this basis, their weighing within the spectrum.

The line of reasoning becomes much more problematic when we wish to include factors that lie beyond the boundaries of the natural sciences (in the classical sense) and/or whose scientific prerequisites cannot be measured in the preserved remains.¹⁷⁶ If we look at the fundamental approach to artefacts in archaeological theory, we can grasp a certain consensus towards the assumption that an artefact is embedded in a superordinate (according to ‘traditional’ language, cultural and/or social) ‘fabric’ or ‘web’ (e.g. network, entanglement, network, entanglement) (**Figure 9**)¹⁷⁷ that is structured quite differently depending on the approach, and which, in addition to non-human physical-material entities, might also include humans and immaterial entities.¹⁷⁸ In research projects with a similar orientation, the extension of the overall artefact and its components (the artefacts of the individual chain links) cannot be limited to aspects that can be reconstructed by applying the laws of natural science. The scientific aspects relevant to those studies among others also include the sensory experiences of the individual human being. Even if we know from scientific disciplines such as biology, medicine and the cognitive sciences (and ultimately also from our everyday experience) that large areas of the basic structure of the human anatomy represent a connecting factor for large parts of living (and deceased) people,¹⁷⁹ there are also

¹⁷⁶ Although Schiffer’s approach differs from mine in many respects, there is a hint in his explanations that at least points in a similar direction. The aim of his approach is not to formulate universally applicable generalisations to explain human behaviour, but to codify our assumptions and our provisional knowledge about behaviour in specific circumstances. LaMotta 2012: 65–66; Schiffer 2010: 11–12.

¹⁷⁷ The differentiations of **Figure 8** can be visualised accordingly.

¹⁷⁸ The bibliography on this topic is extremely extensive and cannot be compiled in full at this point. For example, see Fowler 2013 (assemblage); Hodder 2012; Hodder 2014 (entanglement); Lucas 2012 (assemblage and interdisciplinary, with theoretical considerations). For a discussion see Bosche 2023: 175–223, with bibliography. The refusal to reduce the behaviour of non-human physical-material entities to their scientifically ascertainable characteristics has been an integral part of archaeological research from the very beginning, and was never abandoned even during the methodological controversy in the second half of the twentieth century. The social and cultural dimension also plays a central role in Lemonnier’s explanations. See, for example, Lemonnier 1976: 57–58, 105, 111–112, 118, 137–138.

¹⁷⁹ This formulation is chosen very carefully for ethical reasons – I hope carefully enough.

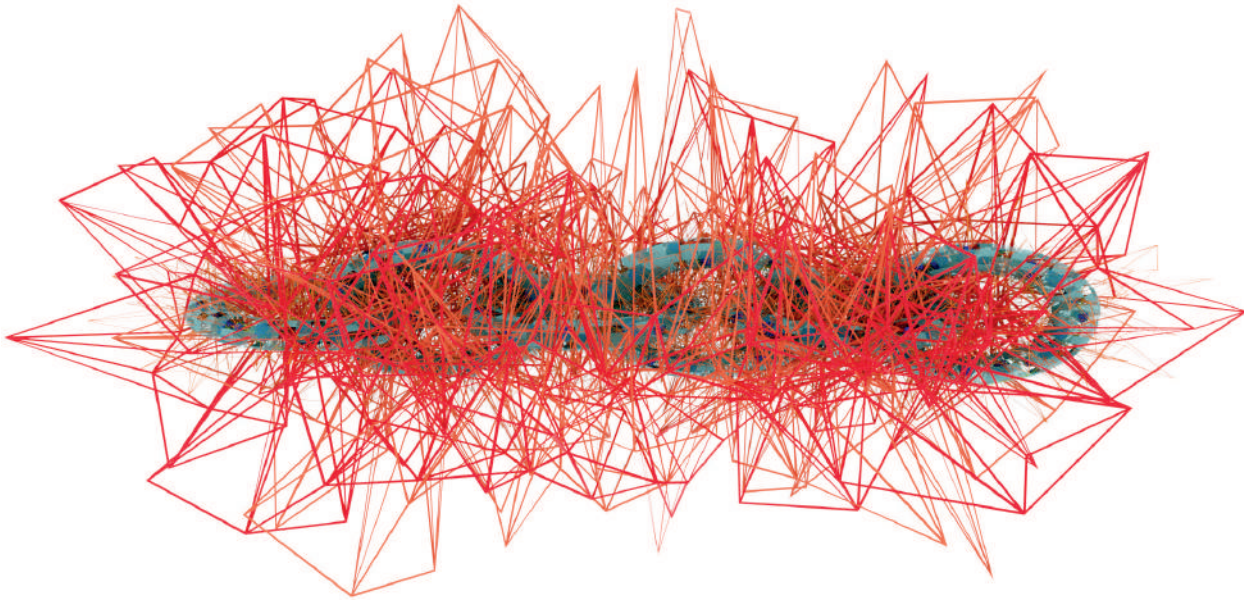


Figure 9: Visualisation of a chaîne opératoire as a simple 'chain' with extensional webs around the single chain-links (orange), several chain-links tying them together (dark orange) and the whole chain (red) (illustrations by the author).

many smaller or even larger deviations in all areas. The sharpness of vision and hearing varies from person to person (a central factor for the chaîne opératoire of our Elgin Lyre, as we have seen), the tertiary sulci (troughs of the folds in the human brain anatomy developing comparatively late during fetal development) of our brains differ, and so forth.¹⁸⁰ Certainly, the similarities between us offer us the opportunity not only to communicate with each other, but also to transfer certain aspects (empathically and/or rationally) between us. Nevertheless, we should be careful about which aspects we apply these generalisations to (because that is what they are essentially), as for to run the risk of making statements about one type of person and (explicitly or implicitly) assigning our own perceptions and sensory experiences a primacy over the individual perceptions and experiences of another, equally individual people. The desire to learn something about the sensory experiences and perceptions of other human individuals (for example the producers of the Elgin Lyre) from our own sensory experiences and perceptions is, in my opinion, associated with a very high level of ethical responsibility and respect for the individual human being. After all, everything we learn today through our sensory experiences is first and foremost our perception¹⁸¹ – and we must look

with great respect and even greater caution for the possibilities and limits, but also the risks and dangers, when we attempt to transfer them to people of antiquity. In other words, we should always ask ourselves: do we learn something about (the production of) an artefact, or do we learn something about the (or a) person who produces a (certain) artefact – and in the second case: who is this person?

Conclusion

The concept of chaîne opératoire was formulated and further developed as a methodological tool¹⁸² and, at a time when debates on scientific theory and epistemology revolved strongly around method-critical aspects, it fulfilled important needs and offered the possibility of capturing, documenting and presenting complex work processes through organising principles. Despite the sometimes strong further developments in the theoretical field, these basic needs are still present in scientific questions, and so it is hardly surprising that the chaîne opératoire as a term continues to be an important model in craft and technology research in the broader sense. At the beginning of the paper, we have started our thoughts with one (it not the) core ideas of the concept: the transformation of raw materials to a product, an artefact, with a certain form and function. This 'transformation', obviously,

notre regard. Nous voudrions ici insister sur le fait qu'il n'y a pas a priori de niveau d'analyse plus pertinent qu'un autre, déterminé par un quelconque 'bon sens'. Il faut par contre reconnaître que notre champ d'analyse est limité par des facteurs matériels. Nous ne savons pas étudier le détail d'un geste ('prendre une pomme'), et nous n'en avons pas les moyens en hommes, en temps et en matériel.'

¹⁸² Cf. also Audouze and Karlin 2017: 3.

¹⁸⁰ For the (neuro-)anatomical foundations of human cognition, see for example Trepel 2015.

¹⁸¹ A comparable objection can be found in Bar-Yosef and Van Peer 2009: 113-114. Cf. Grüner 2019: 188, with a reference to the explanations of Immanuel Kant. In my opinion, it is already expressed Lemonnier 1976: 111 (with an additional reference to practical realisability): 'Mais les processus techniques se présentent comme un continuum d'opérations', de séquences gestuelles et de gestes, eux-mêmes décomposables et analysables en termes anatomiques ou physiologiques. La question se pose alors de savoir où porter

includes the 'help' from other materials, instruments, tools, persons etc. Thus, the extent of a single stage of the chaîne opératoire cannot be limited to the raw materials and components, but has to include those elements as well (or at least relations to them). The extension of a single chain-link reaches beyond the element that defines it at the beginning. Thinking of everyday practicability and observations on preserved artefacts like the Elgin Lyre both the extension and the 'core' of the chain-links might (and often do) entail interconnections, since, for example, one tool is used in the manufacture of several components or the latter ones had to be planned together to ensure their later combination. Depending on the perspective taken on the descriptive model, the boundaries between the chain-links and their extensions are crossed, blurred or even transcended (in other words: not visible from the actual perspective). In addition, including self-reflection and epistemological concerns in our discussion we have to label many of the elements we wish to include in our content-filled application of the theoretical background model of a chaîne opératoire hypothetical/only potentially relevant. Formulation of case differentiations might help us describe a spectrum of possible models for a certain case, yet the uncertainties remain. The formulation of a single chaîne opératoire is only possible on an abstract background level without any 'real-life' content apart from the theoretical concepts used to describe the abstract elements. In this paper, we have explored some facets of such a model and visualised them in several graphics. Yet, as usual in archaeological science, we have developed most of our thoughts with reference to a historical artefact and/or topics necessary for its discussion. And it is this content-charging that leads us to a further and further increase of the number of elements and relations in our (now content-charged) model of a (still theoretical) chaîne opératoire.

This way parallels the development of the initial notion of the concept chaîne opératoire in archaeological and anthropological research. The parameters of the approach(es) to the investigation of past technologies and craft activities have developed in many respects in the recent decades and have also changed in some cases. The number of factors to be taken into account during a production step has increased enormously. The focus is not only on the interaction between the (more or less stereotypical) tools used, raw materials, thought and trading processes, forms of organisation and possible cooperation; the physical, natural and social and/or cultural environment in which a production process takes place has also become an integral part of the discussions. Due to the complex interdependencies observed and/or assumed there between a large

number of (potential and actual) 'actors' in the sense of entities that have or can have an influence on other entities in their environment,¹⁸³ a decomposition of a chaîne opératoire into several, clearly distinguishable and only one-dimensionally connected stages ('chain-links') can only be maintained if the analysed work process is only described from a single perspective. If – for example by choosing alternative definition points of the individual chain links or by including or reconstructing different extensions of these definition points – several perspectives are integrated into a discussion, not only the one-dimensional development, but also the linear sequence is placed in relation to the perspective adopted. Thus, even the last visualisation of the theoretical model of a chaîne opératoire (**Figure 8**) only gives one possible appearance of the theoretical model, changing its appearance with every turn of perspective.

However, if the spectrum of aspects described by (or integrated into) a chaîne opératoire is extended to such an extent that potentially all conceivable factors that can be perceived during a contemporary production process are to be transferred to historical production processes, one exposes oneself to what I consider to be a great risk of generalising human perception and cognition. My intention in making this point is not to argue in favour of abandoning this approach – quite the opposite: in my opinion, we can learn a great deal from today's experiences, which is of great importance for the investigation of a historical chaîne opératoire. However, we should always bear in mind that these experiences only provide us with insights into what can be relevant during the production process – and not how exactly it was during the production process. At least as far as the perception of the historical actors is concerned, I believe that we always remain within a hypothetical framework if we recognise people as individuals. Even with an ideal information situation about all actors and their nature in the extension of a completely observable chaîne opératoire, our maximum result thus always remains, in my opinion, a chaîne opératoire of an 'artefact like...', and not a chaîne opératoire of the concrete historical artefact that is before our eyes and of which the historical production process we are trying to investigate. If we integrate this theoretical discrepancy into the further handling of our statements, we have created a valuable and promising starting point for further work, despite these theoretical limitations.

Bibliography

For the works cited in this article, please refer to the bibliography compiled at the end of the volume.

¹⁸³ For some basic considerations on this problem, see Bosche 2023: 175-223.

Academic apparatus

Abbreviations

Epigraphical Corpora and Editions

CIL = *Corpus Inscriptionum Latinarum*. Berlin: Berlin-Brandenburgische Akademie der Wissenschaften, viewed 19 February 2024, <<https://cil.bbaw.de/hauptnavigation/das-cil/baende>>.

FHG = *Fragmenta Historicorum Graecorum*, viewed 19 February 2024, <<https://www.dfhg-project.org/>>.

I.Labraunda = Crampa, J. 1969–1972. *Labraunda. Swedish Excavations and Researches 3. Vol. 1 and 2: The Greek Inscriptions*. Lund: Gleerup and Stockholm: Swedish Research Institute in Istanbul.

I.Mus. Burdur = Horsley, G.H.R. 2007. *The Greek and Latin Inscriptions in the Burdur Archaeological Museum*. London: The British Institute of Archaeology at Ankara.

ID = *Inscriptions de Délos*. 7 vols, 1926–1972. Plassart, A. (ed.) 1950 Vol. 6 [1]: nos 1–88; Coupry, J. (ed.) 1972 Vol. 7 [2]: nos 89–10433; Durrbach, F. (ed.) 1926 Vol. 1 [3], nos 290–371; Durrbach, F. (ed.) 1929 Vol. 2 [4], nos 372–509; Durrbach, F. and P. Roussel (eds) 1935 Vol. 3 [5], nos 1400–1496; Roussel, P. and M. Launey (eds) 1937 Vol. 4 [6], nos 1497–2219; Roussel, P. and M. Launey (eds) 1937 Vol. 5 [7], nos 2220–2879. Paris: Académie des Inscriptions et Belles-Lettres.

IG = *Inscriptiones Graecae*. Berlin: Berlin-Brandenburgische Akademie der Wissenschaften, viewed 19 February 2024, <<http://telota.bbaw.de/ig/>>.

Lindos II = Blinkenberg, C. 1941. *Lindos. Fouilles et Recherches, 1902–1914. Vol. II: Inscriptions 1–2*. Berlin: De Gruyter.

OGIS = W. Dittenberger (ed.) 1903–1905. *Orientalis Graeci Inscriptiones Selectae*. Leipzig: Hirzel.

Paton, W.R. (ed.) 1915. *The Greek Anthology* (with an English translation). London: William Heinemann.

P. = *Papyrus*, viewed 19 February 2024, <<https://papyri.info/>>.

SEG = *Supplementum Epigraphicum Graecum*, viewed 19 February 2024, <<https://scholarlyeditions.brill.com/sego/>>.

SIG = W. Dittenberger (ed.) 1915–1924. *Sylloge Inscriptionum Graecarum*. Leipzig: Hirzel.

TL = Kalinka, E. (ed.) 1901. *Tituli Lyciae, lingua lycia conscripti* (Tituli Asiae Minoris I). Vienna: Österreichische Akademie der Wissenschaften.

TM = *Trismegistos*, viewed 24 February 2024, <<https://www.trismegistos.org/tm/detail.php?quick=5876>>.

Lexica

DNO = Kansteiner, S., K. Hallof, L. Lehmann, B. Seidensticker and K. Stemmer (eds) 2014. *Der neue Overbeck. Die antiken Schriftquellen zu den bildenden Künsten der Griechen*, vols I–V, Berlin: De Gruyter,

online edition, viewed 26 October 2023: <[doi:https://www.degruyter.com/database/overbeck/html](https://www.degruyter.com/database/overbeck/html)>.

DNP = Cancik, H., H. Schneider and M. Landfester (eds) *Der Neue Pauly*, online edition, viewed 26 October 2023, <<https://referenceworks.brillonline.com/browse/der-neue-pauly>>.

LGPN = *Lexicon of Greek Personal Names Database*, viewed 26 October 2023, <<https://www.lgpn.ox.ac.uk/>>.

LIMC = *Lexicon Iconographicum Mythologiae Classicae*, online edition, viewed 26 October 2023, <<https://weblimc.org/>>.

RE = *Paulys Realencyclopädie der classischen Altertumswissenschaft*, online edition, viewed 26 October 2023, <<http://de.wikisource.org/wiki/RE>>.

Großes Lexikon der Bestattungs- und Friedhofskultur = Zentralinstitut für Sepulkralkultur Kassel (ed.). *Großes Lexikon der Bestattungs- und Friedhofskultur. Wörterbuch zur Sepulkralkultur*. 2002. *Volume 1: Volkskundlich-kulturgeschichtlicher Teil: Von Abdankung bis Zweitbestattung*, 2005. *Volume 2: Archäologisch-kunstgeschichtlicher Teil: Von Abfallgrube bis Zwölftafelgesetz*, 2010. *Volume 3: Praktisch-aktueller Teil: Von Abfallbeseitigung bis Zwei-Felder-Wirtschaft*, 2020. *Volume 4: Medienkultureller Teil: Von Absurdes Theater bis Zombie*, 2016. *Biographischer Teil: von Abraham a Sancta Clara bis Johannes Zwingli*. Frankfurt am Main: Fachhochschulverlag. Der Verlag für angewandte Wissenschaft.

Varia

A.D.R.A. = Association pour la Diffusion de la Recherche sur l'Antiquité

APC = Association des Publications Chauvinoises

ARC = Archaeological Review from Cambridge

ASCSA = American School of Classical Studies at Athens

ASMOSIA = Association for the Study of Marble and Other Stones in Antiquity

BAR = British Archaeological Reports

BIAMA = Bibliothèque d'Archéologie Méditerranéenne et Africaine

CISAM = Centro italiano di Studi sull'alto medioevo di Spoleto

CNRS = Centre national de la recherche scientifique

CSIC = Consejo Superior de Investigaciones Científicas

CTHS = Comité des travaux historiques et scientifiques

CUEM = Cooperativa Universitaria Editrice Milanese S.C.R.L.

DAPCAD = Direction d'Archéologie Préventive de la Communauté d'Agglomération du Douaisis

ERAC = European Roma Institute for Arts and Culture

IFPO = Institut français du Proche-Orient

ABBREVIATIONS

Inrap = Institut national de recherches archéologiques préventives

MOM = Maison de l'Orient et de la Méditerranée

PUL = Presses universitaires de Louvain

PULIM = Presses Universitaires de Limoges

PUN-Édulor = Presses universitaires de Nancy-Éditions universitaires de Lorraine

PUR = Presses universitaires de Rennes

SFECAG = Société Française d'Étude de la Céramique Antique en Gaule

UPMC = Université Pierre et Marie Curie (Paris VI)

Archival Data

Hausbuch der Mendelschen Zwölfbrüderstiftung, Band 1. Nürnberg 1426–1549. Stadtbibliothek Nürnberg, Amb. 317, Mendel-1, fol. 36v, viewed 27 October 2023, <<https://www.nuernberger-hausbuecher.de/75-Amb-2-317-36-v/data>>.

Notebook 1948 (Labraunda Notebook 1). S. Brunnsåker. Uppsala University Library, alvin-record:294187, viewed 19 August 2022, <<https://www.alvin-portal.org/alvin/view.jsf?dswid=-1531&searchType=EX>

TENDED&query=labraunda+notebook+1948&aq=%5B%5B%7B%22A_FQ%22%3A%22labraunda+notebook+1948%22%7D%5D%5D&aqe=%5B%5D&af=%5B%5D&pid=alvin-record%3A294187&c=4#alvin-record%3A294187>.

Notebook Oikoi I, 1950–1951 (Labraunda Notebook 29). I. Dahlén and L. Käll. Uppsala University Library, alvin-record:294166, viewed 19 August 2022, <https://www.alvin-portal.org/alvin/view.jsf?dswid=5632&aq=%5B%5B%7B%22A_FQ%22%3A%22labraunda+oikoi%22%7D%5D%5D&c=4&aqe=%5B%5D&af=%5B%5D&searchType=EXTENDED&pid=alvin-record%3A294166&dspwid=5632>.

Notebook Oikoi II, 1951–1953 (Labraunda Notebook 40). I. Dahlén. Uppsala University Library, alvin-record:294147, viewed 19 August 2022, <https://www.alvin-portal.org/alvin/view.jsf?dswid=-1531&searchType=EXTENDED&query=labraunda+notebook+oikoi&aq=%5B%5B%7B%22A_FQ%22%3A%22labraunda+notebook+oikoi%22%7D%5D%5D&aqe=%5B%5D&af=%5B%5D&pid=alvin-record%3A294147&c=3#alvin-record%3A294147>.

Bibliography

- Abbe, M. 2008. Polychromy and gilding on marble statuary at Aphrodisias, in R.R.R. Smith and J. Lenaghan (eds) *Roman Portraits from Aphrodisias*: 136–151. Istanbul: Yapı Kredi Cultural Activities, Arts and Publishing.
- Abbe, M. 2015. Polychromy, in E.A. Friedland, M.G. Sobocinski and E.K. Gazda (eds) *The Oxford Handbook of Roman Sculpture*: 173–188. Oxford: Oxford University Press.
- Abbe, M. 2020. Politura and polychromy on ancient marble sculpture, in K. Kollandsrud and B. Kiilerich (eds) *Classical Art and Archaeology 5. Special Issue Perceiving Matter. Visual, Material and Sensual Communication from Antiquity to the Middle Ages and Beyond*: 1–21.
- Abramitis, D.H. and M.B. Abbe 2019. A group of painted funerary monuments from Hellenistic Alexandria in the Metropolitan Museum of Art, in B. Bourgeois, V. Jeammet and F. Prost (eds) *Technè 48. Special Issue Les Couleurs de l'Antique. Actes de la 8e table ronde sur la polychromie de la sculpture et de l'architecture antique*: 60–71.
- Adam, J.P. 1984. *La Construction Romaine, Matériaux et Techniques*. Paris: A. et J. Picard.
- Adamesteanu, D. 1973a. Le suddivisioni di terra nel Metapontino, in M.I. Finley (ed.) *Problèmes de la terre en Grèce ancienne*: 49–61. Paris-La Haye: Mouton & Co.
- Adamesteanu, D. 1973b. L'attività archeologica in Basilicata, in P. Romanelli (ed.) *Metaponto. Atti del tredicesimo convegno di studi sulla Magna Grecia (Taranto, 14-19 ottobre 1973)*: 441–456. Naples: Arte tipografica.
- Adiego, I. 2015. Standardization and variation in the Lycian alphabet, in E. Dupraz and W. Sowa (eds) *Genres Épigraphiques et Langues d'Attestation Fragmentaire dans l'Espace Méditerranéen (Cahiers de l'ERAC 9)*: 13–29. Rennes: PUR.
- Adiego, I. 2018. Local adaptations of the alphabet among the non-Greek peoples of Anatolia, in S. Ferrara and M. Valerio (eds) *Paths into Script Formation in the Ancient Mediterranean (Studi Micenei ed Egeo-Anatolici – Nuova Serie, Supplemento 1)*: 145–162. Rome: Edizioni Quasar.
- Agelarakis, A.P. 2002. Investigations of physical anthropology and palaeopathology at the ancient necropolis of Thasos. Appendix of M. Sgourou, Excavating houses and graves: exploring aspects of everyday life and afterlife in ancient Thasos, in M. Stamatopoulou and M. Yeroulanou (eds) *Excavating Classical Culture (BAR International Series 1031. Studies in Classical Archaeology I)*: 12–19. Oxford: Archaeopress.
- Agelarakis, A.P. 2004. The Clazomenian colonization endeavor at Abdera in retrospect: Evidence from the anthropological record, in A. Moustaka, E. Skarlatidou, M.-C. Tzannes and Y. Ersoy (eds) *Klazomenai, Teos and Abdera: Metropoleis and Colony. Proceedings of the International Symposium held at the Archaeological Museum of Abdera, 20-21 October 2001*: 327–349. Thessaloniki: University Studio Press.
- Agresti, A. and M. Zannoni 2014. Querciola 3: un nuovo sito etrusco nella piana di Sesto Fiorentino, in G. Poggesi and L. Sarti (eds) *Passaggio a Nord-Ovest: Interventi di archeologia preventiva nell'area fiorentina (Mezzana-Perfetti Ricasoni)* (Millenni. Studi di archeologia preistorica 10): 201–232. Siena: ARA Edizioni.
- Agresti, A., P. Giroladini and P. Pallecchi 2022. I manufatti ceramici: tecniche di realizzazione, in P. Giroladini (ed.) *Plasmati dal Fuoco: Storie di ceramiche nella Figline etrusca*: 44–48. Figline Valdarno: Comune di Figline e Incisa Valdarno.
- Agus, M., S. Cara, L. Lazzarini and A.M. Corda 2007. I marmi colorati di Uthina, in A.M. Corda, G. Sotgiu and H. Ben Hassen (eds) *Scavi archeologici ad Uthina (2001-2007): Rapporto preliminare dell'attività di ricerca dell'Institut national du patrimoine di Tunisi e dell'Università di Cagliari, Italia*: 375–394. Cagliari-Tunis: Askòs.
- Akrigg, B. 2019. *Population and Economy in Classical Athens*. Cambridge: Cambridge University Press.
- Alcherms, J. 1994. Spolia in Roman Cities of the Late Empire: Legislative rationales and architectural reuse. *Dumbarton Oaks Papers* 48: 167–178.
- Alexandrescu, P. 1978. *Histria IV: La Céramique d'Époque Archaique et Classique (VIIe - IVe s.)* Bucharest: Ed. Academiei române.
- Alexandri, O. 1975. Οδός Κυκλώπων 23. *Αρχαιολογικόν Δελτίον* 30.Β'1: 23
- Alexandri, O. 1976. Οδός Κυκλώπων 27. *Αρχαιολογικόν Δελτίον* 31.Β'1: 35.
- Alexandridou, A. 2016. Funerary variability in late eighth-century B.C.E. Attica (Late Geometric II). *American Journal of Archaeology* 120.3, viewed 23 January 2024, <<https://doi.org/10.3764/aja.120.3.0333>>.
- Alexoroulou, G. 2021. Συμβολή στην Αρχαιολογία και Τοπογραφία της Αζανίας (Βόρειας Αρκαδίας) Επαρχία Καλαβρύτων. Unpublished PhD dissertation, National and Kapodistrian University of Athens, viewed 23 January 2024, <<http://hdl.handle.net/10442/hedi/27848>>.
- Alfonso, G., P. Arnaud and F. Baucheron (eds) 2013. *Lezoux gallo-romain cinq années d'archéologie préventive, 2008 -*

2012. Clermont Ferrand: Conseil général du Puy-de-Dôme.
- Allgaier, B., K. Bolle, N. Jaspert, K. Knauber, L. Lieb, E. Roels, R. Sauer, N. Schneidereit and K. Wallenwein 2019. Gedächtnis – Materialität – Schrift: Ein erinnerungskulturelles Modell zur Analyse schrifttragender Artefakte. *Saeculum* 69.II: 181–244.
- Alston, R. 2002. *The City in Roman and Byzantine Egypt*. London and New York: Routledge.
- Altripp, I. 2010. *Athenastatuen der Spätklassik und des Hellenismus*. Köln: Böhlau Verlag.
- Amandry, P. and E. Hansen 2010. *Fouilles de Delphes II, Topographie et Architecture 14: Le Temple d'Apollon du IVe Siècle*. Paris: Éditions de Boccard.
- Ammerman, R. 2002. *The Sanctuary of Santa Venera at Paestum II: The Votive Terracottas*. Ann Arbor: University of Michigan Press.
- Ammirati, A. 1990. La prima età del Ferro, in D. Vitali (ed.) *Monterenzio e la valle dell'Idice. Archeologia e storia di un territorio*: 75–82. Bologna: Bologna University Press.
- Anderson, W.D. 1995. *Music and Musicians in Ancient Greece*. Ithaca, London: Cornell University Press.
- Ansieau, C., C. Frébutte and C. Urbain 1995. Enghien/Petit-Enghien: «Grand-Champ», four, fosses et fossés gallo-romains. *Chronique de l'Archéologie wallonne* 3: 41.
- Arafat, K. 1996. *Pausanias' Greece: Ancient Artists and Roman Rulers*. Cambridge: Cambridge University Press.
- Aravantinos, V. 1994. Ανασκαφικές εργασίες (Τάχι Θηβών – αρχ. Ποτνιαί), εργατικές κατοικίες οικισμού Θήβα II. *Αρχαιολογικόν Δελτίον* 49.Β'1: 269–271.
- Arfaras, M. 2002. *Νίσυρος: Η Πορφυρίς των Αρχαίων*. Athens: Kameiros.
- Argiropoulos, V. 2017. Νέα δεδομένα για την οργάνωση του χώρου στη Δυτική Αχαΐα στους Κλασικούς και Ελληνιστικούς χρόνους, in V. Argiropoulos, H. Simoni and K. Papagiannopoulos (eds) *Αρχαιολογικοί Χώροι και Μνημεία του Δήμου Δυτικής Αχαΐας. Workshop Proceedings 19.9.2016. Ephorate of Antiquities of Achaëa and Municipality of Western Achaëa*: 52–60. Δήμος Δυτικής Αχαΐας.
- Argiropoulos, V. 2021. Social changes from the fifth to the third century BC in the light of new archaeological discoveries in the countryside of Dymaia Chora. *Pelargòs* 2: 225–249.
- Arias, P.E. 1976. L'arte locale nelle sue manifestazioni artigianali: Terrecotte, bronzi, vasi, arti minori, in G. Pugliese Carratelli (ed.) *Locri Epizefirii. Atti del sedicesimo convegno di studi sulla Magna Grecia (Taranto, 3-8 ottobre 1976)*: 479–579. Naples: Arte tipografica.
- Arias Maldonado, M. 2015. *Environment and Society: Socionatural relations in the Anthropocene*. Heidelberg/New York: Springer.
- Aristodemou, G. 2020-21. Μια ποτάμια μορφή από τη Θάσο – και μια συζήτηση για τις ποτάμιες θεότητες της Μακεδονίας και της Θράκης. *Θασιακά* 21: 44–69.
- Aristodemou, G. and Th. Tassios (eds) 2018. *Great Waterworks in Roman Greece: Aqueducts and Monumental Fountains. Function in Context* (Archaeopress Roman Archaeology 35). Oxford: Archaeopress.
- Arnold, D.E. 1985. *Ceramic Theory and Cultural Process* (New Studies in Archaeology). Cambridge: Cambridge University Press.
- Antweiler, Ch. 1998. Local knowledge and local knowing: An anthropological analysis of contested 'cultural products' in the context of development. *Anthropos* 9: 468–494.
- Arribàs, A. 1987. Los Molinos, in A. Arribàs, M.G. Trias, D. Cerda and J. De Hoz (eds) *El Barco de El Sec (Calvia, Mallorca): Estudio de los materiales, Ayuntamiento de Calvia (Mallorca)*: 563–588. Palma de Mallorca: Ajuntament de Calvia.
- Attanasio, D. 2003. *Ancient White Marbles: Analysis and Identification by Paramagnetic Resonance Spectroscopy*. Rome: L'Erma di Bretschneider.
- Attanasio, D., M. Bruno, A.B. Yavyz and H. Elci 2008. Aphrodisias and the newly discovered quarries at Göktepe, in R.R.R. Smith and J. Lenaghan (eds) *Roman Portraits from Aphrodisias*: 216–227. Istanbul: Yapı Kredi Cultural Activities, Arts and Publishing.
- Attanasio, D., M. Bruno and W. Prochaska 2019. The marbles of Roman portraits: New data on the marble provenance of 261 imperial and private urban portraits dating from the mid 1st century B.C. to the early 6th century A.D. *Jahrbuch des Deutschen Archäologischen Instituts* 134: 167–277.
- Audouze, F. and C. Karlin 2017. La chaîne opératoire a 70 Ans: Qu'en ont fait les préhistoriens français. *Journal of Lithic Studies* 4: 5–73.
- Avagliano, G. 1992. Nuovi contributi alla conoscenza della chora meridionale di Poseidonia, in G. Greco and L. Vecchio (eds) *Archeologia e territorio: Ricognizioni, scavi e ricerche nel Cilento*: 139–151. Laureana Cilento: Edizioni dell'Alento.
- Baatz, D. 1994. Die Handmühlen, in G. Hellenkemper Salies, H.-H. von Prittwitz und Gaffron and G. Bauchhenß (eds) *Das Wrack I: Der Schiffsfund von Mahdia*: 97–103. Köln: Rheinland-Verlag.
- Babbi, A. 2008. *La piccola plastica fittile antropomorfa dell'Italia antica dal Bronzo Finale all'Orientalizzante (Mediterranea. Quaderni Annuali dell'Istituto di Studi sulle Civiltà Italiane e del Mediterraneo Antico del Consiglio Nazionale delle Ricerche, Supplemento I)*. Pisa and Rome: Fabrizio Serra Editore.
- Badiali, F. 2013. Il lago Bracciano di Montese: studio interdisciplinare di un'area sacra nell'Appennino modenese, in A.M. Stagno (ed.) *Montagne incise. Pietre incise: Archeologia delle Risorse nella Montagna Mediterranea / Craved Mountains. Engraved Stones: Environmental Resources Archaeology in the Mediterranean Mountains* (Archeologia Postmedievale. Società Ambiente Produzione 17): 323–332. Sesto Fiorentino: All'Insegna del Giglio.

- Bagnasco Gianni, G. 2007. Aristonothos: Il vaso, in *strumenti, suono, musica in Etruria e in Grecia: letture tra archeologia e fonti letterarie* (Aristhonotos 1): V–XVI. Milan: CUEM.
- Bak, V. and J.-H. Yvinec 2013. *Canal Seine-Nord Europe, fouille 38, Picardie, Somme, Béthencourt-sur-Somme: les traces d'un atelier de glutinariarius à Béthencourt-sur-Somme*. Croix-Moligneau: Inrap NP.
- Bakarezos, E., V. Vathis, S. Brezas, Y. Orphanos and N.A. Papadogiannis 2012. Acoustics of the chelys – An ancient Greek tortoise-shell lyre. *Applied Acoustics* 73.5: 478–483.
- Bakirtzis, C. 1989. *Βυζαντινά Τσουκαλολάγνηνα: Συμβολή στη μελέτη ονομασιών, σχημάτων και χρήσεων πυρίμαχων μαγειρικών σκευών, μεταφορικών και αποθηκευτικών δοχείων* (Δημοσιεύματα Αρχαιολογικού Δελτίου 39). Athens: Ταμείο Αρχαιολογικών Πόρων.
- Balfet, H. 1991. Des chaînes opératoires, pour quoi faire?, in H. Balfet (ed.) *Observer l'Action Technique: Des Chaînes Opératoires, Pour Quoi Faire?* (Matières et Manières): 11–19. Paris: Éditions du CNRS.
- Ballet, P., P. Cordier and N. Dieudonné-Glad (eds) 2003. *La Ville et ses Déchets dans le Monde Romain: Rebut et Recyclages. Actes du colloque de Poitiers, 19-20 Septembre 2002*. Montagnac: Éditions Monique Mergoïl.
- Ballet, P., N. Dieudonné-Glad and C. Saliou (eds) 2008. *La Rue dans l'Antiquité: Définition, Aménagement, Devenir*. Rennes: PUR.
- Bankel, H. 1984. Griechische Bleistifte. *Archäologischer Anzeiger* 1984: 409–411.
- Banou, E. 2013. Οι ανασκαφές της Γ' ΕΠΚΑ κατά την τελευταία πενταετία, in S. Oikonomou and M. Dogan-Toli (eds) *Αρχαιολογικές Συμβολές Β: Αττική, Α' και Γ' Εφορείες Προϊστορικών και Κλασικών Αρχαιοτήτων*: 281–303. Athens: Μουσείο Κυκλαδικής Τέχνης.
- Banou, E. and L. Bournias 2014. *Κεραμεικός*. Athens: Κοινωφελές Ίδρυμα Ιωάννη Σ. Λάτση.
- Barbet, A. 2008. *La Peinture Murale en Gaule Romaine*. Paris: A. and J. Picard.
- Barberis, V. 2004. *Rappresentazioni di Divinità e di Devoti dell'Area Sacra Urbana di Metaponto: La coroplastica dalla fine del VII all'inizio del V sec. a.C.* Florence: Olschki.
- Bar-Yosef, O. and P. Van Peer 2009. The chaîne opératoire approach in Middle Paleolithic archaeology. *Current Anthropology* 50.1: 103–131.
- Baldini Lippolis, I. 2007. Private space in Late Antique cities: Laws and building, in L. Lavan, L. Özgenel and A. Sarantis (eds) *Housing in Late Antiquity: From Palaces to Shops*: 197–237. Leiden: Brill.
- Barker, S.J. 2010. Roman builders – pillagers or salvagers? The economics of destruction and reuse, in S. Camporeale, H. Dessales and A. Pizzo (eds) *Arqueología de la Construcción II: Los Procesos Constructivos en el Mundo Romano. Italia y provincias orientales. Congreso, Certosa di Pontignano, Siena, 13-15 de noviembre de 2008* (Anejos de Archivo Español de Arqueología 57): 127–142. Madrid-Mérida: CSIC, Instituto de Arqueología de Mérida.
- Barker, S.J. 2018. The demolition, salvage, and recycling industry in Imperial Rome. *Aedificare* 2.4: 37–88.
- Barker, S.J. 2020. Reuse of statuary and the recycling habit of Late Antiquity: An economic perspective, in C. Duckworth and A. Wilson (eds) *Recycling and Reuse in the Roman Economy*: 105–190. Oxford: Oxford University Press.
- Barker, S.J. and B. Russell 2012. Labour figures for Roman stone-working: pitfalls and potential, in S. Camporeale, H. Dessales and A. Pizzo (eds) *Arqueología de la Construcción III: los Procesos Constructivos en el Mundo Romano. La economía de las obras. École Normale Supérieure, Paris, 10-11 de diciembre de 2009* (Anejos de Archivo Español de Arqueología 64): 83–94. Madrid-Mérida: CSIC, Instituto de Arqueología de Mérida.
- Barker, S.J. and B. Russell 2020. Historical sources, labour figures and ancient stone working costs, in M. Heinzlmann and C. Recko (eds) *Quantifying Ancient Building Economy: Panel 3.24. Archaeology and Economy in the Ancient World. Proceedings of the 19th International Congress of Classical Archaeology, Cologne/Bonn 2018* (Quantifying Ancient Building Economy 23): 1–3. Heidelberg: Propylaeum.
- Barker, S.J. and S. Perna 2018. Alabaster: Quarrying and trade in the Roman world. Evidence from Pompeii and Herculaneum, in D. Matetić Poljak and K. Marasović (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 11th international conference of Association for the Study of Marble and Other Stones in Antiquity, Split, Croatia, May 18-22, 2015* (ASMOSIA XI): 45–64. Split: Arts Academy in Split, University of Split.
- Barker, S.J. and Y. Marano 2017. Demolition laws in an archaeological context: Legislation and architectural re-use in the Roman building industry, in P. Pensabene, M. Milella and F. Caprioli (eds) *Décor: Decorazione e Architettura nel Mondo Romano*: 833–850. Rome: Edizioni Quasar.
- Barker, S.J., S. Perna, J.C. Fant, L. Lazzarini and I.M. Villa 2018. Archaeometric analyses of the alabaster thresholds of Villa A, Oplontis (Torre Annunziata, Italy) and new SR and PB isotopic data for alabastro Ghiaccione del Circeo, in D. Matetić Poljak and K. Marasović (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 11th international conference of Association for the Study of Marble and Other Stones in Antiquity, Split, Croatia, May 18-22, 2015* (ASMOSIA XI): 215–229. Split: Arts Academy in Split, University of Split.
- Barles, S. 2011. Les villes transformées par la santé, XVIIIe-XXe siècles. *Les tribunes de la santé* 33.2011/4: 31–37.
- Barra Bagnasco, M. 1986. *Protomi in Terracotta da Locri Epizefiri: Contributo allo studio della scultura arcaica in Magna Grecia*. Turin: Il Quadrante.

- Barral, P., C. Fruchart and C. Laplaige (in press). L'artisanat dans la ville : le cas de Mandeure, in G. Pagès and R. Clotuche (eds) *Le Rôle de l'Artisanat dans la Genèse et la Structuration des Agglomérations. Actes des trois tables rondes organisées à Nanterre (2 octobre 2014, 12 mars 2015 et 4 novembre 2015, dans le cadre du projet partagé de l'UMR 7041 ArScAn «Construire l'espace - Analyse chrono-spatiale des logiques territoriales»* (Humanités 1). Nanterre: Presses universitaires Paris Nanterre.
- Barresi, P. 2014. Calculating the cost of columns: The case of the temple of Apollo at Didyma, in P. Pensabene and E. Gasparini (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 10th international conference of the Association for the Study of Marble and Other Stones in Antiquity, Rome, Italy, May 21-26, 2012* (ASMOSIA X): 933-939. Rome: L'Erma di Bretschneider.
- Barry, F. 2020. *Painting in Stone: Architecture and the Poetics of Marble from Antiquity to the Enlightenment*. New Haven, CT: Yale University Press.
- Bartelheim, M., R. Hardenberg and T. Scholten 2021. Ressourcen – RessourcenKomplexe – RessourcenGefüge – RessourcenKulturen, in T. Schade, B. Schweizer, S. Teuber, R. Da Vela, W. Frauen, M. Karami, D.K. Ojha, K. Schmidt, R. Sieler and M.S. Toplak (eds) *Exploring Resources: On Cultural, Spatial and Temporal Dimensions of ResourceCultures* (RessourcenKulturen 13): 9-21. Tübingen: Tübingen University Press.
- Batchelor, D. 2000. *Chromophobia*. London: Reaktion.
- Bauchhenß, G. 1986. Hercules Saxanus, ein Gott der niedergermanischen Armee, in *Studien zu den Militärgrenzen Roms III: 13. Internationaler Limeskongreß. Aalen 1983. Vorträge* (Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 20): 90-95. Stuttgart: Konrad Theiß Verlag.
- Baudoux, J., A. Bocquet, R. Brulet, F. Laubenheimer, E. Marlière and F. Vilvorder 1998. La production des amphores dans le Nord et l'Est des Gaules: Typologie et caractérisation physico-chimique, in F. Laubenheimer (ed.) *Les Amphores en Gaule II: Production et circulation* (Amphores): 11-48. Paris: Presses Universitaires Franc-Comtoises.
- Baumer, L.E. 2001a. Klassische Bildwerke für tote Philosophen? Zu zwei spätklassischen Votivskulpturen aus Athen und ihrer Wiederverwendung in der späten Kaiserzeit. *Antike Kunst* 44: 55-69.
- Baumer, L.E. 2001b. Praeterea typos tibi mando. Klassische Weihreliefs in römischem Kontext, in Chr. Reusser (ed.) *Griechenland in Kaiserzeit: Neue Funde und Forschungen zu Skulptur, Architektur und Topographie. Kolloquium zum 60. Geburtstag von Prof. Dietrich Willers, Bern, 12.-13. Juni 1998*: 85-94. Bern: Institut für Klassische Archäologie der Universität Bern.
- Bayliss, R. 2004. *Provincial Cilicia and the Archaeology of Temple Conversion*. Oxford: Archaeopress.
- Baziotopoulou-Valavani, E. 1994. Ανασκαφές σε αθηναϊκά κεραμικά εργαστήρια αρχαϊκών και κλασικών χρόνων, in W. Coulson, O. Palagia and T.L. Shear (eds) *The Archaeology of Athens and Attica under the Democracy. Proceedings of an International conference celebrating 2500 years since the birth of democracy in Greece, held at the American School of Classical Studies at Athens, December 4-6, 1992*: 45-54. Oxford: Oxbow Books.
- Bean, G.E. and J.M. Cook 1957. The Carian coast III. *Annual of the British School at Athens* 52: 118-119.
- Beaussart, P. 1976a. Les vases à bustes de Famars. *Revue du Nord* 58.228/Janvier-Mars 1976: 14-24.
- Beaussart, P. 1976b. L'exploration archéologique de Famars: Les données du Haut-Empire. *Revue du Nord* 58.231/Octobre-Décembre 1976: 621-671.
- Beaussart, P. 1984. Famars: les fouilles de la parcelle AC69 premier bilan. *Revue du Nord* 66.260/Janvier-Mars 1984: 103-114.
- Bechtel, F., O. Kern, K. Praechter, C. Robert, E. von Stern, U. Wilcken and G. Wissowa 1913. *Dikaionmata: Auszüge aus alexandrinischen Gesetzen und Verordnungen, in einem Papyrus des Philologischen Seminars der Universität Halle (Pap. Hal. 1)*. Berlin: Weidmannsche Buchhandlung.
- Bechi, E. 2022. L'arte del modellare a mano: testimonianze di ceramica d'impasto non tornita dal sito etrusco di Monte Giovi (Pontassieve, Firenze), in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 421-432. Rome: L'Erma di Bretschneider.
- Bedon, R. 1984. *Les carrières et les carriers de la Gaule romaine*. Paris: A. and J. Picard.
- Belavilas, N. 2009. Το Αιγαίο των ορυχείων: Γεωγραφία των νησιωτικών μεταλλευτικών εγκαταστάσεων, in N. Belavilas and L. Papastefanaki (eds) *Ορυχεία στο Αιγαίο: Βιομηχανική Αρχαιολογία στην Ελλάδα*: 18-33. Athens: Melissa.
- Bélis, A. 1985. À propos de la construction de la lyre. *Bulletin du Correspondence Hellenique* 109.1: 201-220.
- Belot, E. 1984. A propos d'un poncif pictural provincial. *Revue du Nord* 66.260/Janvier-Mars 1984: 231-251.
- Belot, E. 1985. Architectures fictives de Famars. Mise en évidence d'une «vogue» picturale archaïsante antonino-sévérienne. *Revue du Nord* 67.264/Janvier-Mars 1985: 21-62.
- Bencze, Á. 2013. *Physionomies d'une cité grecque: Développements stylistiques de la coroplastie votive archaïque de Tarente*. Naples: Centre Jean Bérard.
- Bentz, M. and T. Helms (eds) 2018. *Craft Production in a Cross-Cultural Perspective*. Bonn: Habelt Verlag.
- Bentz, M., L. Adorno, J. Albers, A. Benz, A. Miss, J.M. Müller 2016. Das Handwerkerviertel von Selinunt: Vorbericht zu den Kampagnen 2010-2016. *Kölner und Bonner Archaeologica* 6: 59-74.
- Bentz, M., L. Adorno, J. Albers, J.M. Müller and G. Zuchtriegel 2013. Das Handwerkerviertel von

- Selinunt: Die Töpferwerkstatt in der Insula S 16/17-E. Vorbericht zu den Kampagnen 2010-2012. *Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung* 119: 69–98.
- Bentz, M., W. Geominy and J.M. Müller 2010. *TonArt: Virtuosität antiker Töpfertechnik*. Petersberg: Michael Imhof Verlag.
- Berger, E., H. Beck and P.C. Bol 1993. *Polykletforschungen*. Berlin: Gebr. Mann.
- Bergemann, J. 2022. Attische Gräber zwischen Lebenswirklichkeit, gesellschaftlichen Konstruktionen und moderner Eschatologie, in L. Balandat and K. Opitz (eds) *Grab-Denk-Mal: Workshop am Institut für Klassische Archäologie der Universität Tübingen, 17.-19. November 2017*: 53–65. Rahden, Westf.: VML Verlag Marie Leidorf.
- Bergquist, B. 1967. *The Archaic Greek Temenos: A study of structure and function*. Lund: Gleerup.
- Berhouma, M.-A. 2017. Les imaginaires de l'atelier ou l'expérience de la matière ouvrée. *Socio-anthropologie* 35, viewed 3 Februar 2022 <<https://doi.org/10.4000/socio-anthropologie.2530>>.
- Berkes, F. 2018. *Sacred Ecology*. New York: Routledge.
- Bernal-Casasola, D., J.J. Díaz Rodríguez, J.Á. Expósito Álvarez and V.M. Palacios Macías (eds) 2020. *Baelo Claudia y los Secretos del Garum: Atunes, ballenas, ostras, sardinas y otros recursos marinos en la cadena operativa haliéutica romana*. Cádiz: Universidad de Cádiz, Servicio de Publicaciones.
- Bernard, S.G. 2013. The transport of heavy loads in antiquity: Lifting, moving, and building in ancient Rome, in S. Altekamp, C. Marcks-Jacobs and P. Seiler (eds) *Perspektiven der Spolienforschung 1: Spolierung und Transposition* (Topoi. Berlin Studies of the Ancient World 15): 99–122. Berlin and Boston: De Gruyter.
- Berranger, D. 1983. Le relief inscrit en l'honneur des Nymphes dans les carrières de Paros. *Revue des Études Anciennes* 85.3-4: 235–259.
- Bessac, J.-C. 1986. *L'Outillage Traditionnel du Tailleur de Pierre de l'Antiquité à nos Jours* (Revue archéologique de Narbonnaise 14). Paris: Éditions du CNRS.
- Bessac, J.-C. 1988. Analyse des procédés de construction des remparts de pierre de Doura-Europos: Questions de méthodologie. *Syria. Archéologie, Art et Histoire* 65.3-4: 297–313.
- Bessac, J.-C. 1997. La Construction des Fortifications Hellénistiques en Pierre de Doura-Europos (Syrie). Unpublished PhD dissertation, University of Rennes.
- Bessac, J.-C. 2004. Restitution en pierre du mur nord du socle du Strategion de Doura-Europos et archéologie expérimentale, in P. Leriche, M.-F. Billot and A. Dandrau (eds) *Doura-Europos: Études V, 1993-1997*: 79–89. Paris: P. Geuthner.
- Bessac, J.-C. 2016. Techniques et économie de la construction des fortifications en pierre: méthodes et perspectives, in R. Frederiksen, S. Müth, P.I. Schneider and M. Schnelle (eds) *Focus on Fortifications: New Research on Fortifications in the Ancient Mediterranean and the Near East* (Fokus Fortifikation Studies 2): 129–141. Oxford: Oxbow Books.
- Bessac, J.-C., J. Abdul-Massih and Z. Vallat 1997. De Doura-Europos à Aramel: Enquête Ethno-Archéologique dans les carrières traditionnelles de Syrie, in P. Leriche and M. Gelin (eds) *Doura-Europos: Études IV, 1991-1993* (Bibliothèque archéologique et historique 149): 159–197. Beirut: IFPO.
- Bessac, J.-C. and S. Müth 2020. Economic challenges of building a Geländemauer in the middle of the 4th century BC: Quantifying the city wall of Messene, in M. Heinzlmann and C. Recko (eds) *Quantifying Ancient Building Economy: Panel 3.24. Archaeology and Economy in the Ancient World. Proceedings of the 19th International Congress of Classical Archaeology, Cologne/Bonn 2018* (Quantifying Ancient Building Economy 23): 23–37. Heidelberg: Propylaeum.
- Biermann, V. 2013. Ortswechsel: Überlegungen zur Bedeutung der Bewegung schwerer Lasten für die Wirkung und Rezeption monumentaler Architektur am Beispiel des Vatikanischen Obelisken, in S. Altekamp, C. Marcks-Jacobs and P. Seiler (eds) *Perspektiven der Spolienforschung 1: Spolierung und Transposition* (Topoi. Berlin Studies of the Ancient World 15): 123–156. Berlin and Boston: De Gruyter.
- Bilbao Zubiri, E. 2017. Nuove prospettive di ricerca sulla coroplastica arcaica di San Biagio alla Venella (Metaponto), in A. Pontrandolfo and M. Scafuro (eds) *Dialoghi sull'Archeologia della Magna Grecia e del Mediterraneo. Atti del 1° Convegno internazionale di studi. Paestum, 7-9 settembre 2016*: 997–1008. Paestum: Pandemos.
- Bilbao Zubiri, E. 2019. Le “style achéen” dans les terres cuites votives de Métaponte: critères de définition et filiations, in O. de Cazanove and A. Duploux (eds) *La Lucanie entre deux Mers: Archéologie et Patrimoine. Actes du Colloque international. Paris, 5-7 novembre 2015* (Collection du Centre Jean Bérard 50): 865–876. Naples: Centre Jean Bérard.
- Bilbao Zubiri, E. 2020. Évolutions de la coroplastie archaïque en Grande Grèce, de l'étude de cas à l'analyse régionale. *Quaderni ticinesi - Numismatica e Antichità Classiche* 49: 11–25.
- Bilbao Zubiri, E. 2022. Le modelage dans les pratiques artisanales de Métaponte à l'époque archaïque, in H. Aurigny and L. Rohaut (eds) «*Quand on a la Terre sous l'Ongle*»: *Le Modelage dans le Monde Grec Antique. Actes du Colloque international. Aix-en-Provence, 4-5 avril 2019* (BIAMA 32): 269–280. Aix-en-Provence: Presses universitaires de Provence, Centre Camille Jullian.
- Billi, A. 2005. Τα ελαιοτριβεία της Νισύρου. *Νισυριακά* 16: 374–378.
- Billot, M.-Fr. 1992. Le Cynosarges, Antiochos et les tanneurs: Questions de topographie. *Bulletin de Correspondance Hellénique* 116: 119–156.

- Binford, L.R. 1981. Behavioral archaeology and the 'Pompeii premise'. *Journal of Anthropological Research* 373: 195–208.
- Bintliff, J. 2012. *The Complete Archaeology of Greece: From Hunter-Gatherers to the 20th Century*. Oxford-New York: Wiley-Blackwell.
- Biris, K. 2006. *Αι τοπωνυμια της πόλεως και των περιχώρων των Αθηνών*. Athens: Ταμείο Αρχαιολογικών Πόρων.
- Birk, S. 2013. *Depicting the Dead: Self-Representation and Commemoration on Roman Sarcophagi with Portraits*. Aarhus: Aarhus University Press.
- Blanco-Pérez, A. 2016. Nomenclature and dating in Roman Asia Minor: (M.) Aurelius/a and the 3rd Century AD. *Zeitschrift für Papyrologie und Epigraphik* 199: 271–293.
- Blid, J. 2016. *Labraunda. Swedish Excavations and Researches 4: Remains of Late Antiquity*. Stockholm: Swedish Research Institute in Istanbul.
- Blondé, F., J.Y. Perreault and C. Péristeri 1992. Un atelier de potier archaïque à Phari (Thasos), in F. Blondé and J.Y. Perreault (eds) *Les Ateliers de Potiers dans le Monde Grec aux Époques Géométrique, Archaïque et Classique. Actes de la Table Ronde organisée à l'École française d'Athènes. 2 et 3 octobre 1987* (Bulletin de Correspondance Hellénique Supplément 23): 10–40. Wilsele: Peeters.
- Blume, C. 2015. *Polychromie hellenistischer Skulptur: Ausführung, Instandhaltung und Botschaften*. Petersberg: Michael Imhof Verlag.
- Blümel, C. 1941. *Griechische Bildhauer an der Arbeit*. Berlin: De Gruyter.
- Boardman, J. 1998. *Early Greek Vase Painting: 11th-6th Centuries BC*. London: Thames & Hudson.
- Boardman, J. 2006. Sources and models, in O. Palagia (ed.) *Greek Sculpture: Function, Materials and Techniques in the Archaic and Classical Periods*. 1–31. Cambridge: Cambridge University Press.
- Boëda, E., J.-M. Geneste and L. Meignen 1990. Identification de chaînes opératoires lithiques du Paléolithique Ancien et Moyen. *Paléo* 2: 43–80.
- Bogges, E.T. 1989. The Development of the Attic pithos. PhD dissertation, Bryn Mawr College. Ann Arbor, MI: University Microfilms.
- Bol, P.C. (ed.) 1989. *Forschungen zur Villa Albani. Katalog der Bildwerke I: Bildwerke im Treppenaufgang und im Piano nobile des Casino*. Berlin: Gebr. Mann.
- Bol, P.C. (ed.) 2004. *Die Geschichte der antiken Bildhauerkunst 2: Klassische Plastik* (Schriften des Liebieghauses). Mainz: Philipp von Zabern.
- Bol, P.C., M. Bückling and H. Beck (eds) 1990. *Polyklet: Der Bildhauer der griechischen Klassik. Ausstellung im Liebieghaus, Museum Alter Plastik, Frankfurt am Main*. Mainz: Philipp von Zabern.
- Bollen, E. 2011. Pottery, lamps and miniatures from the central acropolis, in S. Dietz and M. Stavropoulou-Gatsi (eds) *Kalydon in Aitolia I. Reports and Studies: Danish/Greek fieldwork 2001-2005*: 455–518. Aarhus: Aarhus University Press.
- Bommelaer, J.-F. 1996. Sur quelques nouveautés de l'architecture du IVe siècle, in P. Carlier (ed.) *Le IVe siècle av. J.-C.: Approches Historiographiques* (Collection d'Études anciennes 15): 141–156. Nancy: A.D.R.A.
- Bommelaer, J.-F. 2014. Delphica 5: Une niche étolienne en bas du sanctuaire d'Apollon? *Bulletin de Correspondance Hellénique* 138: 131–157.
- Bommelaer, J.-F. and D. Laroche 1991. *Guide de Delphes: Le Site*. Paris: Éditions de Boccard.
- Bommelaer, J.-F. and J. des Courtils 1994. *La Salle Hypostyle d'Argos* (Études Péloponnésiennes X). Paris: Éditions de Boccard.
- Bondarenko, D.V. and D.E. Chistov 2021. "Kvartal Goncharov" (Uchastok "GSH") v sisteme zastroiki i v ekonomike archaicheskogo Borisfena. *Stratum plus* 3: 235–259.
- Bonetto, J. and C. Previato 2018. The construction process of the Republican city walls of Aquileia (northeastern Italy). A case study of the quantitative analysis on ancient buildings, in A. Brysbaert, V. Klinkenberg, A. Gutiérrez Garcia-M. and I. Vikatou (eds) *Constructing Monuments, Perceiving Monumentality and the Economics of Building: Theoretical and Methodological Approaches to the Built Environment*: 309–330. Leiden: Sidestone Press.
- Bonnie, R. 2016. Thrown into limekilns: The reuse of statuary and architecture in Galilee from Late Antiquity onwards, in J. Day, R. Hakola, M. Kahlos and U. Tervahauta (eds) *Spaces in Late Antiquity: Cultural, Theological and Archaeological Perspectives*: 190–211. London and New York: Routledge.
- Bonsangue, M.L. 2015. Un aspect de la forme de la ville dans l'Occident romain : la topographie des lieux de l'artisanat sous la République et le Haut-Empire, in S. Bourdin, M. Paoli and A. Reltgen-Tallon (eds) *La Forme de la Ville de l'Antiquité à la Renaissance*: 385–404. Rennes: PUR.
- Borbein, A.H. and C. Boehringer 1995. *Das Alte Griechenland: Geschichte und Kultur der Hellenen*. Munich: C. Bertelsmann.
- Borbein, A.H. 2002. Polyklet, in W.-D. Heilmeyer and M. Maischberger (eds) *Die griechische Klassik: Idee oder Wirklichkeit; eine Ausstellung im Martin-Gropius-Bau, Berlin 1. März - 2. Juni 2002 und in der Kunst- und Ausstellungshalle der Bundesrepublik Deutschland, Bonn 5. Juli - 6. Oktober 2002 [12. Juli - 13. Oktober]*: 354–363. Mainz: Philipp von Zabern.
- Borbein, A.H. 2005. Sinn und Unsinn der Meisterforschung, in V.M. Strocka (ed.) *Meisterwerke: Internationales Symposium anlässlich des 150. Geburtstages von Adolf Furtwängler, Freiburg in Breisgau 30. Juni - 3. Juli 2003*: 223–234. Munich: Hirmer.
- Borchhardt, J. 1975. *Die Bauskulptur des Heroons von Limyra: Das Grabmal des lykischen Königs Perikles* (Istanbuler Forschungen 32). Berlin: Gebr. Mann.
- Borchhardt, J. 1993. *Die Steine von Zemuri: Archäologische Forschungen an den verborgenen Wassern von Limyra*. Vienna: Phoibos.

- Borchi, S. (ed.) 2007. *Gli Scavi e le Indagini Ambientali nel Sito Archeologico del Lago degli Idoli*. Stia: Comunità Montana del Casentino.
- Borgers, B., C. Ionescu, S. Willems, L. Barbu-Tudoran, M. Bernroider and R. Clotuche 2020. Continuity and diversity of Roman pottery production at Famars (northern France) in the 2nd-4th centuries AD: Insights from the pottery waste. *Archaeological and Anthropological Sciences* 12: 1–27.
- Bosche, S. 2023. *Distanzen: Über die Beobachtung von Übermittlungen im republikanischen Italien*. Heidelberg: Universitätsbibliothek Heidelberg, viewed 12 February 2024, <DOI:10.11588/heidok.00033937>.
- Bosche, S. (forthcoming). Romanisierung ohne Rom? Überlegungen zum Charakter eines Phänomens, in *Proceedings of the congress 'Romanisation - Romanization ??', Heidelberg, 15-17. Dezember 2017*. Heidelberg.
- Bosche, S. (in preparation) Das „Gedächtnis“ der Gemma Augustea: Über Biographien, Vergleiche und Interpretationen.
- Bosio, L. and G. Rosada 2020. Le fonti della fonte: L'Italia fisica nella descrizione della Tabula Peutingerana, in D. Usai, S. Tuzzato and M. Vidale (eds) *Tales of Three Worlds: Archaeology and Beyond - Asia, Italy, Africa. A tribute to Sandro Salvatori*: 119–134. Oxford: Archaeopress.
- Botte, E. 2020. Les tanneurs ont-ils toujours été des voisins gênants?. *Mélanges de l'École française de Rome. Antiquité* 132.2: 289–296.
- Bouaziz, S., M. Ghanmi and M. Zarbout 1989. La serie a dominante continentale (Oxfordien à Cenomanien) de la falaise du Dahar (Sud-tunisien); Son evolution du Tebaga de Medenine à la frontier tripolitaine. *Géologie Méditerranéenne* 16: 67–76.
- Boulanger, K. and C. Moulis (eds) 2018. *La Pierre dans l'Antiquité et au Moyen Âge en Lorraine*. Nancy: PUN-Édulor.
- Bourgeoise, B. (ed.) 2014. *Technè 40. Special Issue Thérapéa. Polychromie et restauration de la sculpture dans l'Antiquité*.
- Bourguet, E. 1903. ΘΥΑΙ – ΘΥΣΤΙΟΝ, in *Mélanges Georges Perrot: Recueil de mémoires concernant l'archéologie classique, la littérature et l'histoire anciennes*: 25–29. Paris: Fontemoing.
- Bourguet, E. 1914. *Les Ruines de Delphes*. Paris: Fontemoing.
- Bousquet, J. 1975. Arbinas, fils de Gergis, dynaste de Xanthos. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 119.1: 138–150.
- Bousquet, J. 1984. L'atelier de la Tholos de Delphes. *Bulletin de Correspondance Hellénique* 108: 199–206.
- Bousquet, J. 1985. L'hoplôthèque de Delphes. *Bulletin de Correspondance Hellénique* 109: 717–726.
- Bousquet, J. 1988. *Études sur les Comptes de Delphes*. Paris: Éditions de Boccard.
- Bousquet, J. 1989. *Corpus des Inscriptions de Delphes II : Les Comptes*. Paris: Éditions de Boccard.
- Bousquet, J. and Ph. Gautier 1994. Inscriptions du Letôon de Xanthos. *Revue des Études Grecques* 107: 319–361.
- Boussen, S., F. Chaabani and M. Jouirou 2016. Characterization and evaluation of the potential limestone Jebels Bent Saidane, Bou Garnine, Raous and Bridge of Fahs (North East Tunisia). *Industrial Engineering and Management* 5.2: 1–9.
- Boutsikas, E. 2017. The role of darkness in ancient Greek religion and religious practice, in C. Papadopoulos and H. Moyes (eds) *The Oxford Handbook of Light in Archaeology*: 43–63. Oxford: Oxford University Press, <<https://doi.org/10.1093/oxfordhb/9780198788218.013.2>>.
- Bouvier, M. 2000. Les goûts des vins antiques. *Pallas* 53: 125–138.
- Bowkett, L.C. 1995. *Well Built Mycenae: The Hellenistic Dye-works*. Oxford: Oxbow Books.
- Bowyer, E. 2018. The presumption of white, in L. Syson, S. Wagstaff, E. Bowyer and B. Kumar (eds) *Like Life: Sculpture, Color and the Body*: 76–81. New York: The Metropolitan Museum of Art.
- Bracci, S., G. Giachi, P. Liverani, P. Palleschi and F. Paolucci 2018. *Polychromy in Ancient Sculpture and Architecture*. Livorno: Sillabe.
- Brann, E. 1962. *Agora VIII: Late Geometric and Protoattic Pottery, Mid 8th to Late 7th Century B.C.* Princeton, NJ: ASCSA.
- Brandenburg, H. 1996. Die Verwendung von Spolien und originalen Werkstücken in der spätantiken Architektur, in J. Poeschke (ed.) *Antike Spolien in der Architektur des Mittelalters und der Renaissance*: 11–48. Munich: Hirmer.
- Brenk, B. 1987. Spolia from Constantine to Charlemagne: Aesthetics versus ideology. *Dumbarton Oaks Papers* 41: 103–109.
- Brenk, B. 1996. Spolien und ihre Wirkung auf die Ästhetik der varietas: Zum Problem alternierender Kapitelltypen, in J. Poeschke (ed.) *Antike Spolien in der Architektur des Mittelalters und der Renaissance*: 49–92. Munich: Hirmer.
- Brilliant, R. and D. Kinney (eds) 2011. *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*. Burlington, VT: Ashgate.
- Brinkmann, V. 2016. *Athen: Triumph der Bilder. Eine Ausstellung der Liebieghaus Skulpturensammlung, Frankfurt am Main, 4. Mai bis 4. September 2016*. Petersberg: Michael Imhof Verlag.
- Brinkmann, V., O. Primavesi and M. Hollein (eds) 2010. *Circumlitio: The Polychromy of Antique and Medieval Sculpture* (Schriftenreihe der Liebieghaus-Skulpturensammlung). Munich: Hirmer.
- Brinkmann, V., R. Dreyfuss and U. Koch-Brinkmann (eds) 2017. *Gods in Colour: Polychromy in the Ancient World*. New York: Fine Arts Museums of San Francisco, Legion of Honor DelMonico Books, Prestel.
- Broneer, O. 1971. *Isthmia I: The Temple of Poseidon*. Princeton, NJ: ASCSA.

- Brouskari, M.S. 1974. *The Acropolis Museum: A Descriptive Catalogue*. Athens: Εμπορική Τράπεζα Ελλάδος.
- Brouskari, M.S. 1979. *Από τον Αθηναϊκό Κεραμεικό του 8ου αι. π.Χ. αιώνα*. Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- Brown, A.R. 2016. Crosses, noses, walls, and wells: Christianity and the fate of sculpture in Late Antique Corinth, in T.M. Kristensen and L. Stirling (eds) *The Afterlife of Greek and Roman Sculpture: Late Antique Responses and Practices*: 150–176. Ann Arbor: University of Michigan Press.
- Brueckner, A. 1909. *Der Friedhof am Eridanos bei der Hagia Triada zu Athen*. Berlin: G. Reimer.
- Brulet, R., J.-P. Dewert, F. Vilvorder 2001. *Liberchies IV: Vicus Gallo-Romain. Travail de Rivière. Fouilles du Musée de Nivelles (1986/87 et 1991/97)* (Publication d'histoire de l'art et d'archéologie, série générale). Louvain-la-Neuve: UCL. Département d'archéologie et d'histoire de l'art.
- Brun, J.P. 2004. *Archéologie du Vin et de l'Huile: De la Préhistoire à l'Époque Hellénistique*. Paris: Errance.
- Brun, P., L. Cavalier, K. Konuk and F. Prost (eds) 2013. *Euploia: La Lycie et la Carie Antiques - Dynamiques des Territoires, Échanges et Identités*. Pessac: Ausonius.
- Bruneau, Ph. 1969. Documents sur l'industrie délienne de la pourpre. *Bulletin de Correspondance Hellénique* 93: 759–791.
- Bruneau, Ph. 1970. *Recherches sur les Cultes de Délos à l'Époque Hellénistique et à l'Époque Impériale* (Bibliothèque des Écoles françaises d'Athènes et de Rome 217). Paris: Éditions de Boccard.
- Bruneau, Ph. and J. Ducat 1983. *Guide de Délos*. Paris: Éditions de Boccard.
- Bruneau, Ph. and J. Ducat 2005. *Guide de Délos*. Athens: École française d'Athènes.
- Bruni, S. 2013. Attorno a Praxias, in G.M. Della Fina (ed.) *Mobilità Geografica e Mercenariato nell'Italia Preromana* (Annali della Fondazione per il Museo Claudio Faina di Orvieto 20): 257–337. Rome: Edizioni Quasar.
- Bruno, M., L. Lazzarini, M. Soligo, B. Turi and V. Matarangas 2000. The ancient quarry at Karavos (Paros) and the characterization of its marble, in D. Schilardi and D. Katsonopoulou (eds) *Παρία Λίθος: Λατομεία, Μάρμαρο και Εργαστήρια Γλυπτικής της Πάρου: Πρακτικά Α' διεθνούς συνεδρίου αρχαιολογίας Πάρου και Κυκλάδων, Παροικιά 2-5 Οκτωβρίου 1997*: 94–103. Athens: The Institute for Archaeology of Paros and the Cyclades.
- Bruno, M. 2002. Alabaster quarries near Hierapolis (Turkey), in L. Lazzarini (ed.) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 6th international conference of the Association for the Study of Marble and Other Stones in Antiquity, Venice, June 15-18, 2000* (ASMOSIA VI): 19–24. Padua: Bottega d'Erasmo Aldo Ausilio Editore.
- Buikstra, J. and A. Lagia 2009. Bioarchaeological approaches to Aegean archaeology, in L.A. Schepartz, S.C. Fox and C. Bourbou (eds) *New Directions in the Skeletal Biology of Greece* (Hesperia Supplements 43): 7–30. Princeton, NJ: ASCSA.
- Buiskikh, A.V. 2021. City plan of Olbia Pontica. *Vestnik drevnei istorii* 81.3: 673–698.
- Buiskikh, A.V. and J. Fornasier 2022. The city versus its suburb: The spatial development of Pontic Olbia. *Ancient Civilizations from Scythia to Siberia* 28: 195–230.
- Buiskikh, A.V. 2015. The southern temenos in Pontic Olbia (Preliminary Results of the Investigation). *Ancient Civilizations from Scythia to Siberia* 21: 222–250.
- Buiskikh, A.V. 2017. From dugouts to houses: Urban development in Late Archaic Olbia Pontica. *Arhitektură. Restaurare. Arheologie Reports* 8: 5–16.
- Buiskikh, A.V. 2022. Aphrodite in Olbia: Sacred gifts in cult practice, in C. Colombi, V. Parisi, O. Dally, M.A. Guggisberg and G. Piras (eds) *Comparing Greek Colonies: Mobility and Settlement Consolidation from Southern Italy to the Black Sea (8th - 6th Century BC). Proceedings of the International Conference (Rome, 7-9.11.2018)*: 494–507. Berlin and Boston: De Gruyter.
- Bulić, F. 1891. Starinska iznašašća na otoku Braču (Brattia). *Bulletino di archeologia e storia Dalmata* 14: 117–120.
- Buoite, C. 2013a. «Necessario è avere poi dei vasi per ogni bisogno» (Geoponica II, 49), in D. Locatelli, L. Malnati and D.F. Maras (eds) *Storie della Prima Parma: Etruschi, Galli, Romani. Le origini della città alla luce delle nuove scoperte archeologiche*: 23–26. Rome: L'Erma di Bretschneider.
- Buoite, C. 2013b. Culture in movimento, in D. Locatelli, L. Malnati and D.F. Maras (eds) *Storie della Prima Parma: Etruschi, Galli, Romani. Le origini della città alla luce delle nuove scoperte archeologiche*: 53–56. Rome: L'Erma di Bretschneider.
- Buoite, C. and L. Zamboni (eds) 2008. *Gli scavi di Castelfranco Emilia presso il Forte Urbano: Un abitato etrusco alla vigilia delle invasioni celtiche* (Quaderni di Archeologia dell'Emilia Romagna 21). Sesto Fiorentino: All'Insegna del Giglio.
- Buoite, C. and L. Zamboni 2017. Le officine mutevoli: Analisi spaziale e riesame delle evidenze produttive nel porto adriatico di Spina (VI-III sec. a.C.), in M.C. Biella, R. Cascino, A.F. Ferrandes and M. Revello Lami (eds) *Scienze dell'Antichità* 23.2. *Special Issue Gli Artigiani e la città: Officine e aree produttive tra VIII e III sec. a.C. nell'Italia centrale tirrenica*: 377–385.
- Burford, A. 1965. The economics of Greek temple building. *Proceedings of the Cambridge Philological Society* 191: 21–34.
- Burford, A. 1969. *The Greek Temple Builders at Epidauros: A Social and Economic Study of the Building in the Asklepien Sanctuary, during the Fourth and Early Third Centuries BC* (Liverpool Monographs in Archaeology and Oriental Studies). Liverpool: Liverpool University Press.

- Burford, A. 1972. *Craftsmen in Greek and Roman Society* (Aspects of Greek and Roman Life). London: Thames & Hudson.
- Burford, A. 1993. *Land and Labor in the Greek World* (Ancient Society and History). Baltimore, MD: Johns Hopkins University Press.
- Burkert, W. 1997. Impact and Limits of the Idea of Progress in Antiquity, in A. Burgen, P. McLaughlin and J. Mittelstraß (eds) *The Idea of Progress*: 19–46. Berlin and New York: De Gruyter.
- Cabouret, B. 2020. Le sanctuaire d'Apollon à Daphné. Syria. *Archéologie, art et histoire* 97: 143–164.
- Cahill, N.D. 2002. *Household and City Organization at Olynthus*. New Haven, CT: Yale University Press.
- Cain, H. 2012. *Lust auf Farbe: Die neue bunte Antike. Begleitheft zur Sonderausstellung. Antikenmuseum der Universität Leipzig, 7. Juli bis 25. November 2012*. Leipzig: Antikenmuseum der Universität Leipzig.
- Cambi, N. 2004. Kiparstvo na Braču u antičko doba. *Brački zbornik* 21: 239–272.
- Cambi, N. 2005. *Kiparstvo rimske Dalmacije: The Sculpture of the Roman Province of Dalmatia* (Biblioteka Knjiga Mediterana 38). Split: Književni Krug.
- Cambi, N. 2013. Herkul na Braču. *Klesarstvo i graditeljstvo* 24.1-2: 4–19.
- Cammis, C. 2017. Géographie des villes: Premiers résultats des analyses menées sur le site du Technopôle à Famars, in R. Clotuche, J. Clerget, G. Teyssie and A. Tixador (eds) *Un Quartier Antique de Fanum Martis: Résultats de la Fouille du Technopôle Transalley, Phase 1, 3 et 4 a, Campagnes 2011 à 2014, Tome 4, Vol. 2, Les études thématiques*: 5–84. Glisy: Inrap NP.
- Camp, J. McK II 1990. *The Athenian Agora: Site Guide*. Athens: ASCSA.
- Camporeale, G. 2015. Gli Etruschi di Firenze, in V. d'Aquino, G. Guarducci, S. Nencetti and S. Valentini (eds) *Archeologia a Firenze: Città e Territorio*: 39–54. Oxford: Archaeopress.
- Cannon, A. 1995. Two faces of power: Communal and individual modes of mortuary expression. *Arx* 1: 3–8.
- Capozzoli, V. 2024. The so-called “urban demes” of Athens during the Archaic period: Challenging multidimensional spaces beyond a binary logic, in N. Arvantis and A. Duploux (eds) *Athens and Attica from the Late Bronze Age to the End of the Archaic Period: The Spatial Roots of Politics and Society*: 309–340. Athens: Scuola Archeologica Italiana di Atene.
- Cappuccini, L. (ed.) 2017. *Monte Giovi. “Fulmini e saette”*: Da luogo di culto a fortezza di altura (Insediamenti di altura 2). Sesto Fiorentino: All'Insegna del Giglio.
- Cappuccini, L. 2022. Su alcune ceramiche orientalizzanti del Medio Valdarno: influenze e interazioni, in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 325–342. Rome: L'Erma di Bretschneider.
- Cappuccini, L. and A. Gaucci (eds) 2022. *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66). Rome: L'Erma di Bretschneider.
- Carbon, J.-M. 2022. Funerals and foreigners, founders and functionaries: On the boundary stones of associations from Kos, in A. Cazemier and S. Skaltsa (eds) *Associations and Religion in Context: The Hellenistic and Roman Eastern Mediterranean* (Kernos Supplément 39): 169–206. Liège: Presses Universitaires de Liège.
- Cardarelli, A. and L. Malnati (eds) 2003. *Atlante dei Beni Archeologici della Provincia di Modena I: Pianura*. Sesto Fiorentino: All'Insegna del Giglio.
- Cardarelli, A. and L. Malnati (eds) 2006. *Atlante dei Beni Archeologici della Provincia di Modena II: Montagna*. Sesto Fiorentino: All'Insegna del Giglio.
- Cardarelli, A. and L. Malnati (eds) 2009. *Atlante dei Beni Archeologici della Provincia di Modena III: Collina e Alta Pianura*. Sesto Fiorentino: All'Insegna del Giglio.
- Carless-Unwin, N. and O. Henry 2016. A new Olympichos inscription from Labraunda: I.Labraunda 137. *Epigraphica Anatolica* 49: 27–45.
- Carlson, D.N. and W. Aylward 2010. The Kızılburun shipwreck and the temple of Apollo at Claros. *American Journal of Archaeology* 114.1: 145–159.
- Carpenter, J. and D. Boyd 1977. Dragon houses: Euboea, Attica, Karia. *American Journal of Archaeology* 81.2: 179–215.
- Carpenter, R. 1968. The unfinished colossus on Mt. Pendeli. *American Journal of Archaeology* 72.3: 279–280.
- Carusi, C. 2021. The recruitment and remuneration of construction workers in Classical Athens, in K. Harter-Uibopuu and W. Riess (eds) *SYMPOSION 2019: Vorträge zur griechischen und hellenistischen Rechtsgeschichte, Hamburg, 26-28 August 2019*: 131–154. Vienna: Österreichische Akademie der Wissenschaften.
- Caruso, A. 1997. Materiale Coroplastico Inedito dall'Heraion Extraurbano di Metaponto: Contributo alla Definizione Cronologica. Unpublished Bachelor's dissertation in Archeologia della Magna Grecia, Università della Tuscia, Facoltà di Conservazione dei Beni culturali, Istituto di Scienze dell'Antichità.
- Casini, S. 2007. La ceramica di produzione locale: Impasto, bucchero, etrusco-padana, in R. De Marinis and M. Rapi (eds) *L'Abitato Etrusco del Forcello di Bagnolo San Vito (Mantova)*: 247–266. Florence: Tipografia Latini.
- Catarsi, M. 2013. Il villaggio con fornaci di Baganzola, in D. Locatelli, L. Malnati and D.F. Maras (eds) *Storie della Prima Parma: Etruschi, Galli, Romani. Le origini della città alla luce delle nuove scoperte archeologiche*: 30. Rome: L'Erma di Bretschneider.
- Catling, H.W. 1980–81. Archaeology in Greece, 1980–81. *Archaeological Reports* 27: 3–48.
- Cavalier, L. 2012. Deux nouveaux temples à Limyra?, in M. Seyer (ed.) *40 Jahre Grabung Limyra. Akten des internationalen Symposions Wien, 3.-5. Dezember*

- 2009: 133–141. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Cavalier, L. 2020. Influence, imitation, copy: From Athens to Lycia, in M. Grawehr, C. Leypold, M. Mohr and E. Thiermann (eds) *Klassik – Kunst der Könige: Kings and Greek Art in the 4th Century B.C., Tagung an der Universität Zürich vom 18.-20. Januar 2018* (Zürcher Archäologische Forschungen 7): 55–63. Rahden, Westf.: VML Verlag Marie Leidorf.
- Cavanagh, W., J. Crouwel, R.W.V. Catling and G. Shipley 1996. *Continuity and Change in a Greek Rural Landscape: The Laconia Survey. Archaeological Data II* (British School at Athens – Supplementary Volumes 27). London: British School at Athens.
- Caylus, A.C.Ph. de P. de L. de T.-G. de. 1759. *Recueil d'antiquités égyptiennes, étrusques, grecques romaines et gauloises* 3: 436–439, pl. XXXVIII. Paris: Desaint & Saillant.
- Censier, D., A. Dananai and G. Fronteau 2023. *Douchyles-Mines Z.A.C des Prouettes: Rapport de fouilles*. Douai: DAPCAD.
- Cevizoglu, H. and Y. Ersoy 2016. Zur Rolle der handwerklichen Betriebe in Bezug auf die wirtschaftliche Entwicklung von Klazomenai, in K. Piesker (ed.) *Wirtschaft als Machtbasis: Beiträge zur Rekonstruktion vormoderner Wirtschaftssysteme in Anatolien* (Byzas 22): 105–131. Istanbul: Phoibos.
- Chahine, C. 2005. L'utilisation de l'alun dans la transformation de la peau en cuir, in P. Borgard, J.-P. Brun and M. Picon (eds) *L'Alun de Méditerranée*: 299–309. Naples: Centre Jean Bérard.
- Champlin, E. 2003. *Nero*. Cambridge/London: The Belknap Press of Harvard University Press.
- Chankowski, V. 2014. Réparer les idoles, entretenir les lieux de culte. L'économie de la restauration dans les sanctuaires du monde grec, in B. Bourgeois (ed.) *Technè* 40. *Special Issue Thérapéia. Polychromie et restauration de la sculpture dans l'Antiquité*: 42–45.
- Chapman, W.P. 1993. *Karystos: City-State and Country Town*. Baltimore: Uptown Press.
- Charitos, N.K. 2005. Αρχαιολογικά ενδιαφέροντα Νισύρου. *Νισυριακά* 16: 320–351.
- Charneux, P. 1953. Inscriptions d'Argos. *Bulletin de Correspondance Hellénique* 77: 387–403.
- Charneux, P. 1956. Inscriptions d'Argos. *Bulletin de Correspondance Hellénique* 80: 596–618.
- Charneux, P. 1958. Inscriptions d'Argos. *Bulletin de Correspondance Hellénique* 82: 1–15.
- Charneux, P. 1990. En relisant des décrets argiens. *Bulletin de Correspondance Hellénique* 114: 395–415.
- Chartofyllis, G.M. 1990. Οι Μαχαλάδες της Νισύρου. *Νισυριακά* 11: 229–270.
- Chatzidimitriou, A. 2005. *Παραστάσεις εργαστηρίων και εμπορίου στην εικονογραφία των Αρχαϊκών και Κλασικών χρόνων*. Athens: Ταμείο Αρχαιολογικών Πόρων.
- Chatzidimitriou, A. 2018. Ο Αρχαίος Δήμος του Ικαρίου στον σύγχρονο δήμο του Διονύσου Αττικής, in *Αρχαία Θέατρα της Αττικής: Τα Θέατρα των Δήμων* 14: 139–157. Athens: Περιφερειακή Ένωση Δήμων Αττικής and ΔΙΑΖΩΜΑ.
- Chatziliias, Ch. 2009. Η Λέσβος και ο Πολιτισμός της Πέτρας (1850-1950): Η Περίπτωση του Σκαλοχωρίου και της Ανεμότιας. Unpublished PhD dissertation, University of the Aegean.
- Chatzirouliou, E. 1988a. Οδός Βαλαβάνη 6 και Παμφίλης. *Αρχαιολογικόν Δελτίον* 43.Β'1: 31.
- Chatzirouliou, E. 1988b. Οδός Βαλαβάνη 4. *Αρχαιολογικόν Δελτίον* 43.Β'1: 30–31.
- Chatzirouliou, E. 1988c. Οδός Καλλισθένους 36. *Αρχαιολογικόν Δελτίον* 43.Β'1: 31.
- Chauwin, L. and M. Tuffreau-Libre 1973. Le site gallo-romain du Pont-Rouge à Bourlon. *Bulletin de la commission départementale des monuments historiques du Pas-de-Calais* 9: 200–207.
- Chidioglou, M. 2012. Η Αρχαία Καρυστία: Συμβολή στην Ιστορία και Αρχαιολογία της Περιοχής από τη Γεωμετρική έως και την Αυτοκρατορική Εποχή. Unpublished PhD dissertation, National and Kapodistrian University of Athens, viewed 18.10.2023, <<http://hdl.handle.net/10442/hedi/29516>>.
- Chidioglou, M. 2017. Karystos revisited: Interaction networks of an Aegean island polity (sources and finds), in Ž. Tankosić, F. Mavridis and M. Kosma (eds) *An Island between two Worlds: The Archaeology of Euboea from Prehistoric to Byzantine Times* (Papers and Monographs from the Norwegian Institute at Athens 6): 321–344. Athens: The Norwegian Institute at Athens.
- Cherstich, L., O. Menozzi, S. Antonelli, I. Cherstich, M.C. Mancini, M.G. Di Antonio, A. Abdalrahim Sheriff Saad and S. Farag Abdel Hati 2018. A 'living' necropolis: Change and reuse in the cemeteries of Cyrene. *Libyan Studies* 49: 121–152.
- Christakopoulou, G. 2023. A mortuary testimony as a guide for a society's economic evaluation. Case study: The establishment of Protogeometric Stamna, Aetolia, Greece, in M. Bentz and M. Heinzelmann (eds) *Sessions 11-12, Single Contributions – Poster Sessions: Archaeology and Economy in the Ancient World. Proceedings of the 19th International Congress of Classical Archaeology, Cologne/Bonn 2018* (Archaeology and Economy in the Ancient World 56): 251–257. Heidelberg: Propylaeum.
- Christakopoulou, G. 2016. The Protogeometric settlement at Stamna, Aetolia: Some thoughts on the settlers' origin based on the typology of the graves, in E. Papadopoulou, V. Chrysikopoulos and G. Christakopoulou (eds) *ACHAIOS: Studies Presented to Professor Thanasis I. Papadopoulos*: 59–76. Oxford: Archaeopress.
- Christakopoulou-Somakou, G. (forthcoming). *Excavation Results of the Ancient Cemetery in Stamna Aetolia, Greece*

- (1994, 1998–2000): *The collapse of a myth*. Athens: Athens University Review of Archaeology – AURA.
- Christakopoulou-Somakou, G. 2009. Το Νεκροταφείο στην Σταμνά και η Πρωτογεωμετρική Περίοδος στην Αιτωλία/Ακαρνανία. Unpublished Phd dissertation, National and Kapodistrian University of Athens, viewed 12 February 2024, <<http://hdl.handle.net/10442/hedi/18271>>.
- Christien, J. 2018. Roads and quarries in Laconia, in A. Powell (ed.) *A Companion to Sparta 2* (Blackwell Companions to the Ancient World. Ancient History 2392): 615–642. Chichester: John Wiley & Sons.
- Christien, J. and M. De La Santa 2001–2002. Pausanias et Strabon: La route du Taygète et les carrières de marbre laconien, in *Πρακτικά του Στ' Διεθνούς Συνεδρίου Πελοποννησιακών Σπουδών. Τρίπολις 24–29 Σεπτεμβρίου 2000. Τόμος Β': Αρχαιότης και Βυζάντιο* (Πελοποννησιακά, Παράρτημα 24): 203–216. Athens: Εταιρεία Πελοποννησιακών Σπουδών.
- Christopoulou, V. 2004. *Αρχαία Αγορά της Αθήνας- Άρειος Πάγος: Σύντομο Ιστορικό και Περιήγηση* (Αρχαιολογικοί περίπατοι γύρω από την Ακρόπολη, Υπουργείο Πολιτισμού, Ά Εφορεία Προϊστορικών και Κλασικών Αρχαιοτήτων). Athens: Έκδοση Ένωσης Φίλων Ακροπόλεως.
- Christof, E. 2022. Zur antiken Umarbeitung und Wiederverwendung von Grabstelen in Kleinasien und in den griechischen Inseln. *Gephyra* 23: 1–78, <https://doi.org/10.37095/gephyra.1005665>.
- Chrysoulaki, S. 2022. Κραυγές και ψίθυροι: Οι αποκλίνουσες ταφές του Φαληρικού νεκροταφείου, in I. Pappas and I. Lourentzatos (eds) *ΦΑΛΗΡΟΘΕΝ Ανάμεσα σε Δύο Κόσμους*: 26–34. Athens: Υπουργείο Πολιτισμού και Αθλητισμού.
- Choisy, A. 1884. *Études Épigraphiques sur l'Architecture Grecque*. Paris: Librairie de la Société anonyme de publications périodiques.
- Cianferoni, G.C. and R. Da Vela 2015. Fornaci di età etrusca sotto l'ex Cinema Apollo in via Nazionale a Firenze, in V. d'Aquino, G. Guarducci, S. Nencetti and S. Valentini (eds) *Archeologia a Firenze: Città e Territorio*: 125–134. Oxford: Archaeopress.
- Cipriani, M. 2008. Il santuario settentrionale di Poseidonia: La documentazione archeologica dei culti dalla fondazione della città al tramonto dell'egemonia lucana, in G. Greco and B. Ferrara (eds) *Doni agli Dei: Il Sistema dei Doni Votivi nei Santuari*: 113–139. Pozzuoli: Naus.
- Cirucci, G. 2020. Too ugly to be collected? Unexpected Greek “originals” in Roman contexts, in G. Adornato, G. Cirucci, and W. Cupperi (eds) *Beyond “Art Collections”: Owning and Accumulating Objects from Greek Antiquity to the Early Modern Period*: 55–75. Berlin and Boston: De Gruyter.
- Clairmont, C.W. 1993. *Classical Attic Tombstones*. Kilchberg: Akanthus.
- Clerget, J. and R. Clotuche 2017. La production, in R. Clotuche, J. Clerget, G. Teyssie and A. Tixador (eds) *Un Quartier Antique de Fanum Martis: Résultats de la Fouille du Technopôle Transalley, Phase 1, 3 et 4 a, Campagnes 2011 à 2014, Tome 4, Vol. 2, Les études thématiques*: 69–292. Glisy: Inrap NP.
- Clinton, K. 2023a. Agora I 7538: A banquet for the ‘majority’. *ΓΡΑΜΜΑΤΕΙΟΝ* 12: 85–104.
- Clinton, K. 2023b. On the sanctuaries of Kalliste and Ariste, Artemis Soteira, and Agathe Theos at Athens. *Zeitschrift für Papyrologie und Epigraphik* 227: 69–80.
- Clop, X., M.R. Estrada and L. Salanova 2014. Raw material management in the first pottery production of the Mediterranean basin: A developing project. *The Old Potters' Almanack*: 26–31.
- Clotuche, R. 2016. Fanum Martis: Agglomération sans faubourg au cœur d'un espace de production et d'échanges, in C. Besson, O. Blin and B. Triboulot (eds) *Actes du colloque international (Versailles, 29 février-3 mars 2012): Franges Urbaines, Confins Territoriaux, la Gaule dans l'Empire*: 151–162. Pessac: Ausonius.
- Clotuche, R. 2019. Fanum Martis (Famars): Démantèlement d'une ville pour la construction d'un castellum au IVe s., in D. Bayard and J.-P. Fourdrin (eds) *Actes du colloque Villes et Fortifications de l'Antiquité Tardive dans le Nord de la Gaule, Lille III et Forum Antique de Bavay, 25-27 mars 2015* (Revue du Nord. Hors série, Collection Art et archéologie 26): 277–292. Lille: Université de Lille.
- Clotuche, R. 2022. L'agglomération de Fanum Martis (Famars) et son territoire. *Revue du Nord* 104.446/2022 *Archéologie*: 53–67.
- Clotuche, R., B. Fort, J. Donnadiou and N. Tisserand 2017a. L'agglomération secondaire de Famars/Fanum Martis (Nord) durant l'Antiquité tardive: D'un pôle commercial au centre militaire. *Gallia - Archéologie de la France antique* 74.1: 223–234.
- Clotuche, R., M. Derreumaux, F. Pigière, G. Jouanin, S. Preiss and J.-H. Yvinec 2017b. Les campagnes en territoire nervien: Approche croisée, in M. Reddé (ed.) *Gallia Rustica 1: Projet européen Rurland. Les campagnes du nord-est de la Gaule de la fin de l'âge du Fer à l'Antiquité tardive*: 179–210. Pessac: Ausonius.
- Clotuche, R., M. Derreumaux, J. Clerget, G. Teyssie, J.-H. Yvinec, G. Jouanin, N. Tisserand and C. Hoët-Vancauwenberghe 2018. Fanum Martis (Famars). Un exemple de gestion des productions agricoles dans une agglomération, in M. Reddé (ed.) *Gallia Rustica 2: Projet européen Rurland. Les campagnes du nord-est de la Gaule de la fin de l'âge du Fer à l'Antiquité tardive*: 568–584. Pessac: Ausonius.
- Clotuche, R., M. Derreumaux, S. Willems, J.-H. Yvinec (in press). The management of a territory for surplus production: The example of Fanum Martis (north, northern France), *Britannia*.

- Coldstream, J.N. 2008. *Greek Geometric Pottery: A survey of ten local styles and their chronology. Updated second edition*. Exeter: Bristol Phoenix Press.
- Coleman, J.E. 1977. *Keos I: Kephala. A Late Neolithic Settlement and Cemetery*. Princeton, NJ: ASCSA.
- Conwell, D.H. 2008. *Connecting a City to the Sea: The History of the Athenian Long Walls* (Mnemosyne Supplements 293). Leiden: Brill.
- Conze, A. 1893. *Die attischen Grabreliefs I*. Berlin: W. Spemann.
- Conze, A. 1900. *Die attischen Grabreliefs II*. Berlin: W. Spemann.
- Conze, A. 1906. *Die attischen Grabreliefs III*. Berlin: Georg Reimer.
- Conze, A. 1911-1922. *Die attischen Grabreliefs IV*. Berlin: Walter de Gruyter & Co.
- Cook, R.M. 1961. The double stocking tunnel of Greek kilns. *Annual of the British School at Athens* 56: 64-67.
- Cornet, J. 1919. Le Turonien entre Mons et l'Escaut. *Annales de la Société Géologique de Belgique* 42: 126-168.
- Corso, A. 2016. Sugli agoni di artisti della Grecia classica. *Rendiconti della Accademia Nazionale dei Lincei: Classe di Scienze Morali, Storiche e Filologiche* 27: 115-127.
- Costaki, L. 2006. *The Intra Muros Road System of Ancient Athens*. Toronto: University of Toronto.
- Coulson, W., O. Palagia and T.L. Shear (eds) 1994. *The Archaeology of Athens and Attica under the Democracy. Proceedings of an International Conference celebrating 2500 years since the Birth of Democracy in Greece, held at the American School of Classical Studies at Athens, December 4-6, 1992*. Oxford: Oxbow Books.
- Coulton, J.J. 1974. Lifting in early Greek architecture. *Journal of Hellenic Studies* 94: 1-19.
- Coupel, P. and P. Demargne 1969. *Fouilles de Xanthos III: Le Monument des Néréides. L'Architecture*. Paris: Klincksieck.
- Childs, W.A.P. and P. Demargne 1989. *Fouilles de Xanthos VIII: Le Monument des Néréides. Le Décor Sculpté. Relevés et études d'architecture par Pierre Coupel et Anca Lemaire avec la collaboration de S. Flatko, D. Bylund, N. Laos*. Paris: Klincksieck.
- Courbin, P. 1980. Lyres d'Argos. *Bulletin du Correspondance Hellénique Supplément 6: Special Issue Études argiennes*. 93-114.
- Courby, F. 1912. *Exploration Archéologique de Délos V: Le Portique d'Antigone ou du Nord-Est*. Paris: Éditions de Boccard.
- Courby, F. 1931. *Exploration Archéologique de Délos XII: Les temples d'Apollon*. Paris: Éditions de Boccard.
- Cracolici, V. 2003. *I Sostegni di Fornace dal Kerameikos di Metaponto*. Bari: Edipuglia.
- Crampa, J. 1969. *Labraunda. Swedish Excavations and Researches 3. Vol. 1: The Greek Inscriptions*. Lund: Gleerup.
- Crampa, J. 1972. *Labraunda. Swedish Excavations and Researches 3. Vol. 2: The Greek Inscriptions*. Stockholm: Swedish Research Institute in Istanbul.
- Croissant, F. 1992. Sybaris: La production artistique, in G. Pugliese Carratelli (ed.) *Sibari e la Sibaritide. Atti del trentaduesimo Convegno internazionale di studi sulla Magna Grecia. Taranto, 7-12 ottobre 1992*: 538-559. Taranto: Istituto per la storia e l'archeologia della Magna Grecia.
- Culasso Gastaldi, E. 2010. Lemnos e il V secolo. *Annuario della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente* 88 NS 3.10: 135-147.
- Cullen, J. and D. Keller 1990. The Greek pithos through time: Multiple functions and diverse imagery, in W.D. Kingery (ed.) *The Changing Roles of Ceramics in Society: 26000 B.P. to the Present* (Ceramics and Civilisation V): 183-209. Westerville, OH: The American Ceramic Society.
- Cuomo Di Caprio, N. 1992. Les ateliers de potiers en Grande Grèce: Quelques aspects techniques, in F. Blondé and J.Y. Perreault (eds) *Les Ateliers de Potiers dans le Monde Grec aux Époques Géométrique, Archaique et Classique. Actes de la Table Ronde organisée à l'École française d'Athènes. 2 et 3 octobre 1987* (Bulletin de Correspondance Hellénique Supplément 23): 69-85. Wilsele: Peeters.
- Cuomo Di Caprio, N. 2007. *La Ceramica in Archeologia 2: Antiche Tecniche di Lavorazione e Moderni Metodi di Indagine* (Studia archeologica 144). Rome: L'Erma di Bretschneider.
- Dagmar, L. 2002. Carrières et extraction romaines dans le nord-est de la Gaule et en Rhénanie. *Gallia - Archéologie de la France antique* 59: 155-174.
- D'Agostino, B. 1995. La "stipe dei cavalli" di Pitecusa. *Atti e Memorie della Società Magna Grecia, Serie III* 1994-1995: 9-108.
- Dahlén, I. 1955. Fragments of a kline from Labraunda. *Opuscula Atheniensi* 2: 37-46.
- Dakoura-Vogiatzoglou, O. 2004. Λόφοι Φιλοπάπου-Πνύκας-Νυμφών: Σύντομο Ιστορικό και Περιήγηση (Αρχαιολογικοί περιπάτοι γύρω από την Ακρόπολη, Υπουργείο Πολιτισμού, Α' Εφορεία Προϊστορικών και Κλασικών Αρχαιοτήτων). Athens: Έκδοση Ένωσης Φίλων Ακροπόλεως.
- Dakoura-Vogiatzoglou, O. 2009. Η «δια Κοίλης» οδός, in M. Korres (ed.) *Αττικής Οδοί: Αρχαίοι Δρόμοι της Αττικής*: 220-235. Athens: Melissa.
- Dakoura-Vogiatzoglou, O. 2013. Αναδιώνοντας την ιστορία των δυτικών λόφων, in S. Oikonomou and M. Doga-Toli (eds) *Αρχαιολογικές Συμβολές Β: Αττική, Α' και Γ' Εφορείες Προϊστορικών και Κλασικών Αρχαιοτήτων*: 193-212. Athens: Μουσείο Κυκλαδικής Τέχνης.
- Dakoura-Vogiatzoglou, O. 2017. The water supply network on the western hills of Athens, in K. Wellbrock (ed.) *Cura Aquarum in Greece. Proceedings of the 16th International Conference on the History of Water Management and Hydraulic Engineering in the Mediterranean Region. Athens, Greece. 28-30 March 2015* (Schriften der Deutschen Wasserhistorischen

- Gesellschaft 27): 89–132. Siegburg: Deutsche Wasserhistorische Gesellschaft.
- D'Andria, F. 1975. Scavi nella zona del kerameikos, in D. Adamesteanu, D. Mertens and F. D'Andria (eds) *Metaponto I* (Atti della Accademia Nazionale dei Lincei. Notizie degli scavi di Antichità 29 suppl.): 355–452. Rome: Accademia Nazionale dei Lincei.
- D'Andria, F. 2003. *Hierapolis di Frigia (Pamukkale): Guida Archeologica*. Istanbul: Ege.
- Darcque, P., R. Étienne and A.-M. Guimier-Sorbets (eds) 2013. *PROASTEION: Recherches sur le Périurbain dans le Monde Grec* (Travaux de la MAE René Ginouvès 17). Paris: Éditions de Boccard.
- Daux, G. 1968. Chronique des fouilles: Corinthe – péribole d'Apollon. *Bulletin de Correspondance Hellénique* 92: 787–788.
- Daux, G. and E. Hansen 1987. *Fouilles de Delphes II: Le Trésor de Siphnos*. Paris: Éditions de Boccard.
- Da Vela, R. 2019. L'officina ceramica etrusca nel centro di Firenze: Strutture e pratiche di obliterazione, in M. Denti and M. Villette (eds) *Archéologie des Espaces Artisanaux: Fouiller et Comprendre les Gestes des Potiers. Actes du colloque international de Rennes, 27-28 novembre 2014*: 33–41. Lattes: Éditions ADAL.
- Da Vela, R. 2022a. For the pottery and for the potters: An ergonomic approach to pottery production in Italy (8th to 1st century BC), in N. Burkhardt and R.P. Krämer (eds) *Organizations of Production and Craft in Pre-Roman Italy* (Archaeology and Economy in the Ancient World 11): 31–45. Heidelberg: Propylaeum.
- Da Vela, R. 2022b. Le ceramiche miniaturistiche casentinesi a altoaltiberine di età arcaica e classica: Produzioni, scambi, contatti culturali e pratiche sociali, in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 281–299. Rome: L'Erma di Bretschneider.
- Da Vela, R. 2022c. The Memory of Little Things: Mobility and Encounters as Constitutive Elements of Memoryscapes in the Iron Age Apennines. *Ocnus* 30: 183–195.
- Da Vela, R. and R.P. Krämer 2022. Eine etruskische Residenz bei Cortona? Neue deutsch-italienische Forschungen zu einem etruskischen Hofgebäude des 7. /6. Jhs. v. Chr. im Herzen der Toskana. *Antike Welt* 4: 69–75.
- Davies, J. 2021. Soldiers, peasants, industry and towns: The Roman army in Britain. A Welsh perspective, in P. Erdkamp (ed.) *The Roman Army and the Economy*: 169–203. Leiden: Brill.
- Dawkins, R.M. and A.J.B. Wace 1905. Notes from the Dodecanese: Astypalea, Telos, Nisyros, Leros. *Annual of the British School at Athens* 12: 165–171.
- Debord, P. 1999. *L'Asie Mineure au IV^e siècle (412-323 a.C.). Pouvoirs et Jeux Politiques (Ausonius - Publications. Études 3)*. Pessac: Ausonius.
- De Cazanove, O., A. Esposito, N. Monteix and A. Pollini 2023a. Activités de production et lieux de culte dans le monde antique: Quelques remarques, in O. de Cazanove, A. Esposito, N. Monteix and A. Pollini (eds) *Travailler à l'Ombre du temple: Activités de Production et Lieux de Culte dans le Monde Antique* (Collection du Centre Jean Bérard 57. Archéologie de l'artisanat antique 11): 5–14. Naples: Centre Jean Bérard.
- De Cazanove, O., A. Esposito, N. Monteix and A. Pollini (eds) 2023b. *Travailler à l'Ombre du Temple: Activités de Production et Lieux de Culte dans le Monde Antique* (Collection du Centre Jean Bérard 57. Archéologie de l'artisanat antique 11). Naples: Centre Jean Bérard.
- Dekoulakou, I. 1971. Πλευρών. *Αρχαιολογικόν Δελτίον* 26.B'2: 326–327.
- Dekoulakou, I. 1973. Γεωμετρικοί ταφικοί πίθοι εξ Αχαΐας. *Αρχαιολογική Εφημερίς* 112: 15–29.
- Dekoulakou, I. 1982. Κεραμική 8ου και 7ου αιώνα π.Χ. από τάφους της Αχαΐας και της Αιτωλίας. *Annuario della Scuola archeologica di Atene e delle missioni italiane in Oriente* 60: 219–236.
- DeLaine, J. 1997. *The Baths of Caracalla. A Study in the Design, Construction, and Economics of Large-Scale Building Projects in Imperial Rome* (Journal of Roman Archaeology Supplementary Series 25). Portsmouth, RI: Journal of Roman Archaeology.
- DeLaine, J. 2006. The cost of creation: Technology at the service of construction, in E. Lo Cascio (ed.) *Innovazione Tecnica e Progresso Economico nel Mondo Romano. Atti degli incontri capresi di storia dell'economia antica, Capri, 13-16 aprile 2003* (Pragmateiai 10): 237–252. Bari: Edipuglia.
- DeLaine, J. 2017. Quantifying manpower and the cost of construction in Roman building projects: Research perspectives, in G.P. Brogiolo, St. Camporeale, and Al. Chavarría Arnau Costi (eds) *Tempi e Metri Cubi. Quantificare in Architettura. Giornata Di Studi. Padova, 28 Ottobre 2016* (Archeologia dell'Architettura 22): 13–19. Sesto Fiorentino: All'Insegna del Giglio.
- Delattre, L. 1992. Autel d'Apollon, le sondage 1a, in J. de La Genière (ed.) *Cahiers de Claros I*: 19–50. Paris: Éditions Recherche sur les civilisations.
- Delivorrias, A., in collaboration with G. Berger-Doer and A. Kossatz-Deissmann 1984. s.v. Aphrodite, in *LIMC II*: 2-151.
- Dell'Aglia, A. 1996. Taranto, in E. Lippolis (ed.) *Greci in Occidente: Arte e Artigianato in Magna Grecia*: 51–79. Naples: Electa.
- Dell'Aglia, A. 2001. La forma della città: aree e strutture di produzione artigianale, in *Taranto e il Mediterraneo. Atti del quarantunesimo Convegno internazionale di studi sulla Magna Grecia, Taranto, 12-16 ottobre 2001*: 171–193. Taranto: Istituto per la storia e l'archeologia della Magna Grecia.
- Demangel, R. and G. Daux 1923. *Fouilles de Delphes II: Le Sanctuaire d'Athéna Pronaia. Les Temples de Tuf. Les Deux Trésors*. Paris: Éditions de Boccard.

- Demargne, P. 1958. *Fouilles de Xanthos I: Les Piliers Funéraires*. Paris: Klincksieck.
- Demargne, P. 1974. *Fouilles de Xanthos V: Tombes-Maisons, Tombes Rupestres et Sarcophages*. Paris: Klincksieck.
- Demargne, P. 1981. Le fronton oriental du monument des Néréides à Xanthos: Archaismes et provincialismes. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 125.4: 584–592.
- De Marinis, R. and M. Rapi (eds) 2007. *L'Abitato Etrusco del Forcello di Bagnolo San Vito (Mantova)*. Florence: Tipografia Latini.
- Demarolle, J.M. 2010. Recherches sur le travail du lapicide à partir d'une nouvelle dédicace à Hercule Saxsetanus, in P. Chardon-Picault (ed.) *Aspects de l'Artisanat en Milieu Urbain: Gaule et Occident Romain. Actes du colloque international d'Autun, 20-22 sept. 2007* (Revue archéologique de l'Est Supplément 28): 269–279. Dijon: Revue Archéologique de l'Est.
- Denti, M. 2014. Rites d'abandon et opérations d'obliteration 'conservative' à l'Age du Fer. *Revue de l'histoire des religions* 4, viewed 03.09.2021, <<https://doi.org/10.4000/rhr.8328>>.
- Denti, M. and M. Villette 2013. Ceramisti greci dell'Egeo in un atelier indigeno d'Occidente: Scavi e ricerche sullo spazio artigianale dell'Incoronata nella valle del Basento (VIII-VII secolo a.C.). *BArte* 17: 1–36.
- Denti, M. and M. Vilette (eds) 2019. *Archéologie des Espaces Artisanaux: Fouiller et Comprendre les Gestes des Potiers. Actes du colloque international de Rennes, 27-28 novembre 2014*. Lattes: Éditions ADAL.
- De Polignac, F. 1998. Cité et territoire à l'époque géométrique: un modèle argien?, in A. Pariente and Ph. Touchais (eds) *Argos et l'Argolide: Topographie et Urbanisme. Actes de la table ronde internationale 28.4-1.5.1990. Athènes-Argos (Recherches franco-helléniques III)*: 145–162. Paris: Éditions de Boccard.
- Déroche, V., V. Mandi, Y. Maniatis and A. Nikolaou 1989. Identification de marbres antiques à Delphes. *Bulletin de Correspondance Hellénique* 113: 403–416.
- Desantis, P., L. Manzoli and P. Poli 2022. L'insediamento de La Quercia e la sua ceramica di produzione locale, in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 179–191. Rome: L'Erma di Bretschneider.
- Des Courtils, J. 1983. Ionisme en Péloponnèse? À propos d'un anthémion archaïque de Thasos. *Bulletin de Correspondance Hellénique* 107: 133–148.
- Des Courtils, J. 1992. L'architecture et l'histoire d'Argos dans la première moitié du Ve s. av. J.-C., in M. Piérart (ed.) *Polydipsion Argos: Argos de la Fin des Palais Mycéniens à la Constitution de l'État Classique. Actes de la table ronde de Fribourg 1987* (Bulletin de Correspondance Hellénique Supplément 22): 241–251. Athens, Fribourg: École française d'Athènes, Éd. universitaires.
- Des Courtils, J. 1997. Moulures architecturales en marbre de l'île de Thasos. *Bulletin de Correspondance Hellénique* 121: 489–552.
- Des Courtils, J. 2007. La Lycie dans l'histoire, in S. Lemaître (ed.) *Céramiques Antiques en Lycie (VIIe s. a.C. – VIIe s. p.C.): Les Produits et les Marches*: 11–23. Pessac: Ausonius.
- Des Courtils, J. 2020. Le temple inachevé d'Athéna à Thasos. *Bulletin de Correspondance Hellénique* 144: 477–530.
- Desoignies, J. 1967. *Carte Géologique de la France à 1/50 000. Feuille n°28 with 22 pages key to the maps, Valenciennes*. Paris: Ministère de l'Industrie, Service de la carte géologique de la France, Édition de BRGM.
- Desrosiers, S. 1991. Sur le concept de chaîne opératoire, in H. Balfet (ed.) *Observer l'Action Technique: Des Chaînes Opératoires, Pour Quoi Faire?* (Matières et Manières): 21–25. Paris: Éditions du CNRS.
- De Staebler, P.D. 2008. The city wall and the making of a Late-Antique provincial capital, in C. Ratté and R.R.R. Smith (eds) *Aphrodisias Papers 4: New Research on the City and Its Monuments* (Journal of Roman Archaeology Supplementary Series 70): 284–318. Portsmouth, RI: Journal of Roman Archaeology.
- De Staebler, P.D. 2016. The building experience, in S. Müth, P.I. Schneider, M. Schnelle and P.D. De Staebler (eds) *Ancient Fortifications: A Compendium of Theory and Practice* (Fokus Fortifikation Studies 1): 61–74. Oxford: Oxbow Books.
- Detoratu, S. 2013. Παριανή Γλυπτική της Ελληνιστικής και Ρωμαϊκής Περιόδου: Η περίπτωση ενός Εργαστηρίου Γλυπτικής στην Πάρο. Unpublished PhD dissertation, National and Kapodistrian University of Athens, viewed 18 October 2023, <<http://hdl.handle.net/10442/hedi/28675>>.
- Dey, H.W. 2015. *The Afterlife of the Roman City: Architecture and Ceremony in Late Antiquity and the Early Middle Ages*. Cambridge: Cambridge University Press.
- Dietrich, N. 2016. Exposed bedrock in Miletus and Priene: An overlooked aspect of Hellenistic and Imperial-era urbanism. *Revue Archéologique* 62: 303–328.
- Dietrich, V.J. 2018. Geography, nature and habitation of Nisyros volcano, in V.J. Dietrich and E. Lagios (eds) *Nisyros Volcano: The Kos – Yali – Nisyros Volcanic Field*: 1–12. Cham: Springer.
- Dietz, S. 2019. Town and sanctuary in Aetolia – Calydon in context, in E.C. Partida and B. Schmidt-Dounas (eds) *Listening to the Stones: Essays on Architecture and Function in Ancient Greek Sanctuaries, in Honour of Richard Alan Tomlinson*: 81–92. Oxford: Archaeopress.
- Dillon, S. and E. Palmer Baltes 2013. Honorific practices and the politics of space on Hellenistic Delos: portrait statue monuments along the dromos. *American Journal of Archaeology* 117: 207–246.
- Dinsmoor, W.B. 1934. The repair of the Athena Parthenos: A story of five dowels. *American Journal of Archaeology* 38: 93–106.

- Dirksmeier, L. and F. Fechner 2021. Indigenous knowledge as a resource: Transmission, reception, and interaction of knowledge between the Americas and Europe, 1492–1800. Truthmakers and contexts of indigenous knowledge transmission, in L. Dirksmeier, F. Fechner and K. Takeda (eds) *Indigenous Knowledge as a Resource: Transmission, Reception and Interaction of Knowledge between the Americas and Europe, 1492-1800* (RessourcenKulturen 14): 15–25. Tübingen: Tübingen University Press.
- Di Tuccio, A. 2021. Coroplastica votiva e sistemi rituali. Il caso metapontino delle terrecotte con Ninfa e Pan o Sileno. *Polygraphya* 3: 37–62.
- Djindjian, F. 2013. Us et abus du concept de 'chaîne opératoire' en archéologie, in S. Krausz, A. Colin, K. Gruel, I. Ralston and T. Dechezleprêtre (eds) *L'Âge du Fer en Europe: Mélanges Offerts à Olivier Buchenschutz* (Mémoires): 93–107. Pessac: Ausonius.
- D'Onofrio, A.-M. 2008. L'apporto cicladico nella piu' antica plastica monumentale in Attica, in Y. Kourayos and F. Prost (eds) *La Sculpture des Cyclades à l'Époque Archaique: Histoire des Ateliers, Rayonnement des Styles. Actes du colloque international organisé par l'Ephorie des Antiquités préhistoriques et classiques des Cyclades et l'École française d'Athènes (7-9 Septembre 1998)* (Bulletin de Correspondance Hellénique Supplément 48): 201–262. Wilsle: Peeters.
- D'Onofrio, A.-M. 2020. The beautiful monument: The aristocracy of images in Athenian funerary sculpture (c. 530–480 BCE), in M. Meyer and G. Adornato (eds) *Innovations and Inventions in Athens c. 530 to 470 BCE - Two Crucial Generations* (Wiener Forschungen zur Archäologie 18): 167–186. Vienna: Phoibos.
- Doufifis, G. 2019. Η Εικόνα της Σπάρτης και της Λακωνίας από τη Ρωμαϊκή Κατάκτηση έως την Ύστερη Αρχαιότητα μέσω των Κιονοκράνων: Τυπολογία – Μορφολογία – Τοπογραφικά Συμφραζόμενα. Unpublished PhD dissertation, National and Kapodistrian University of Athens, accessed 18 October 2023, <<http://hdl.handle.net/10442/hedi/45512>>.
- Doufifis, G. 2020. Building for the mos Romanus in the Peloponnese: The columbaria monuments, in N. Dimakis and T. Dijkstra (eds) *Mortuary Variability and Social Diversity in Ancient Greece: Studies on Ancient Greek Death and Burial. Netherlands Institute at Athens, 1-2 December 2016*: 126–141. Oxford: Archaeopress.
- Drachmann, A.G. 1963. *The Mechanical Technology of Greek and Roman Antiquity: A Study of the Literary Sources*. Copenhagen: Munksgaard.
- Drine, A. 2000. Les fouilles de Meninx: Résultats des campagnes de 1997 et 1998. *Africa Romana* 13.1: 87–94.
- Drine, A. 2007. Les entrepôts de Meninx. *Antiquités Africaines* 43: 239–251.
- Drine, A., E. Fentress and R. Holod 2009. *Jerba Studies I: An Island Through Time. The Punic and Roman Periods* (Journal of Roman Archaeology Supplementary Series 71). Portsmouth, RI: Journal of Roman Archaeology.
- Drougou, S. (ed.) 2020. *1^η Διεθνής Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική / 10th International Scientific Meeting on Hellenistic Pottery. Κεραμεία, Τεχνίτες και Εργαστήρια / Pottery Workshops, Craftsmen and Workshops*. Athens: Ταμείο Αρχαιολογικών Πόρων.
- Dubois, C. 1908. *Étude sur l'Administration et l'Exploitation des Carrières Marbres, Porphyre, Granit, etc. dans le Monde Romain*. Paris: Fontemoing.
- Ducat, J. 1966. *Les Vases Plastiques Rhodiens Archaiques en Terre Cuite*. Paris: Éditions de Boccard.
- Ducci, C., L. Paoli and S. Sarti (eds) 2015. *Museo Archeologico Comprensoriale del Mugello e della Val di Sieve a Dicomano: Revisione inventariale del materiale esposto nei locali del museo ottobre 2015*. Florence: Soprintendenza Archeologia della Toscana.
- Duchêne, H. 1992. *Études Thasiennes XIV: La Stèle du Port. Fouilles du Port 1. Recherches sur une nouvelle inscription thasienne*. Athens: École française d'Athènes.
- Duckworth, C. and A. Wilson (eds) 2020. *Recycling and Reuse in the Roman Economy*. Oxford: Oxford University Press.
- Dumoulin, D. 1992a. Die Chelys. Ein altgriechisches Saiteninstrument, Teil I. *Archiv für Musikwissenschaft* 49.2: 85–109.
- Dumoulin, D. 1992b. Die Chelys. Ein altgriechisches Saiteninstrument, Teil II. *Archiv für Musikwissenschaft* 49.3: 225–257.
- Dumser, E.A. 2018. Visual literacy and reuse in the architecture of Late Imperial Rome, in D.Y. Ng and M. Swetnam-Burland (eds) *Reuse and Renovation in Roman Material Culture: Functions, Aesthetics, Interpretations*: 140–159. Cambridge: Cambridge University Press.
- Dupré Raventos, X. and J.-A. Remola (eds) 2000. *Sordes Urbis: La Eliminación de Residuos en la Ciudad Romana. Actas de la reunión de Roma, 15-16 de noviembre de 1996*. Rome: L'Erma di Bretschneider.
- Durm, J. 1910. *Die Baukunst der Griechen*. Leipzig: A. Krömer.
- Durugönül, S. 1989. *Die Felsreliefs im Rauhen Kilikien* (BAR International Series 511). Oxford: BAR Publishing.
- Dworakowska, A. 1975. *Quarries in Ancient Greece*. Breslau: Ossolineum.
- Dworakowska, A. 1983. *Quarries in Roman Provinces*. Breslau: Ossolineum.
- Dyer, J. (ed.) 2023-2024 (in press). *Heritage. Special Issue Polychromy in Ancient Sculpture and Architecture*. <https://www.mdpi.com/journal/heritage/special_issues/polychromy_sculpture_architecture>, last accessed 20 March 2024.
- Egry, I. 2023. *Die Physik der Musik und ihrer Instrumente: Von Schallschnellen, Wolfstönen und Liebesfüßen*. Weinheim: WILEY-VCH.
- Eichner, I. 2011. *Frühbyzantinische Wohnhäuser in Kilikien: Baugeschichtliche Untersuchung zu den Wohnformen*

- in der Region um Seleukeia am Kalykadnos*. Tübingen: Wasmuth.
- Eichner, H. 2017. Ein philologisch-sprachwissenschaftlicher Blick auf den Fortgang der lykischen Studien seit Emmanuel Laroche, in A. Mouton (ed.) *L'Hittitologie aujourd'hui: Études sur l'Anatolie Hittite et néo-hittite à l'occasion du centenaire de la naissance d'Emmanuel Laroche. 5e Rencontres d'archéologie de l'IFEA, Istanbul 21-22 novembre 2014: 277-293*. Istanbul: Institut français d'Études Anatoliennes.
- Eleftheratou, S. 2005. Στοιχεία πολεοδομικής και οικιστικής οργάνωσης από το νότιο τμήμα της αρχαίας Αθήνας, in S. Vlizos (ed.) *Athens during the Roman Period: Recent Discoveries, New Evidence* (40 Παράρτημα): 185-205. Athens: Μουσείο Μπενάκη.
- Elsner, J. 2000. From the culture of spolia to the cult of relics: The Arch of Constantine and the genesis of Late Antique forms. *Papers of the British School at Rome* 68: 149-184.
- Engelmann, I. and P. Niewöhner 2010. Bauen nach der Krise: Die Spoliengalerie an der Apsis der Apostelkirche von Anazarbos, in D. Kreikenbom, K.-U. Mahler, P. Schollmeyer and Th. Weber (eds) *Krise und Kult: Vorderer Orient und Nordafrika von Aurelian bis Justinian*: 109-137. Berlin: De Gruyter.
- Engels, J. 1998. *Funerum Sepulcrorumque Magnificentia: Begräbnis- und Grabluxusgesetze in der griechisch-römischen Welt. Mit einigen Ausblicken auf Einschränkungen des funeralen und sepulkralen Luxus im Mittelalter und in der Neuzeit*. Stuttgart: Franz Steiner Verlag.
- Espósito, A. 2013. Ateliers de potiers et choix du lieu d'implantation en Grande Grèce et en Sicile: Bilan de la recherche, in P. Darcque, R. Étienne and A.-M. Guimier-Sorbets (eds) *PROASTEION: Recherches sur le Périurbain dans le Monde Grec* (Travaux de la MAE René Ginouvès 17): 201-221. Paris: Éditions de Boccard.
- Espósito, A. and G.M. Sanidas (eds) 2012a. «Quartiers» *Artisanaux en Grèce Ancienne, une Perspective Méditerranéenne*. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Espósito, A. and G.M. Sanidas 2012b. La question des regroupements des activités économiques et le concept de «quartier d'artisans»: Quelle approche?, in A. Espósito and G.M. Sanidas (eds) «Quartiers» *Artisanaux en Grèce Ancienne, une Perspective Méditerranéenne*: 11-21. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Estrin, S. 2023. *Grief Made Marble: Funerary Sculpture in Classical Athens*. New Haven, CT: Yale University Press.
- Étienne, R. 2013. La notion de proasteion dans les textes grecs, in P. Darcque, R. Étienne and A.-M. Guimier-Sorbets (eds) *PROASTEION: Recherches sur le Périurbain dans le Monde Grec* (Travaux de la MAE René Ginouvès 17): 13-30. Paris: Éditions de Boccard.
- Fachard, S., S.C. Murray, A.R. Knodell and K. Papangeli 2020. The fortress of Eleutherai: New insights from survey, architecture, and epigraphy. *Hesperia* 89.3: 475-549.
- Faklaris, P. 1977. Χέλυσ. *Αρχαιολογικόν Δελτίον* 32.A': 218-233.
- Fant, J.C. 2001. Rome's marble yards. *Journal of Roman Archaeology* 14: 167-198.
- Farnsworth, M. and I. Simmons 1963. Coloring agents for Greek glazes. *American Journal of Archaeology* 67: 389-396.
- Fauvel, L.F.S. 1807. Extrait d'une Lettre de M. Fauvel, Sous-Commissaire des Relations Commerciales de France à Athènes, et Correspondant de la Classe d'Histoire et de Littérature Anciennes de l'Institut, Adressée à M. Barbie du Bocage, Membre de ladite Classe, Athènes, le 30 Septembre 1806. *Magasin Encyclopédique* 2: 358-359.
- Favennec, B., S. Willems, R. Clotuche and B. Borgers 2019. Nouvelles mises en perspectives, interprétations et particularités de l'officine de Famars (Nord), in *Actes du Congrès de Maubeuge-Bavay, SFECAG, 30 mai - 2 juin 2019*: 65-86. Marseille: SFECAG.
- Fayder-Faitmans, G. 1952. Les limites de la cité des Nerviens. *L'antiquité classique* 21: 338-358.
- Fedeli, L. and G. Warden 2005. Vicchio (FI): Recenti scavi a Poggio Colla. *Notiziario della Soprintendenza per i Beni Archeologici della Toscana* 1: 366-369.
- Fedeli, L., F. Guidelli, G. Gori and A. Salvi 2007. Cortona (AR), Fossa del Lupo: Intervento di scavo 2006-2007. *Notiziario della Soprintendenza per i Beni Archeologici della Toscana* 3: 255-259.
- Fedeli, L., P. Giroladini and G. Baldini 2013. Figline Valdarno (FI), Località La Rotta: Campagna di scavo 2013. *Notiziario della Soprintendenza per i Beni Archeologici della Toscana* 9: 317-321.
- Feld, O. and H. Weber 1967. Tempel und Kirche über der Korykischen Grotte (Cennet Cehennem) in Kilikien. *Istanbuler Mitteilungen* 17: 254-78.
- Ferdière, A. 2006-2007. La place de l'artisanat en Gaule romaine du Centre, Nord-Ouest et Centre-Ouest (province de Lyonnaise et cités d'Aquitaine septentrionale). *Revue archéologique du Centre de la France* 45-46, viewed 12 October 2023, <<http://journals.openedition.org/racf/758>>.
- Ferrandini Troisi, F. and M. Chelotti 1992. Artigianato epigrafico, in L. Todisco and M. Catucci (eds) *Introduzione all'Artigianato della Puglia Antica: Dall'Età Coloniale all'Età Romana*: 207-226. Bari: Edipuglia.
- Ferrandini Troisi, F., B. Buccoliero and D. Ventrelli 2012. *Coroplastica Tarantina: Le Matrici Iscritte*. Bari: Edipuglia.
- Ferrari, A., G. Steffè, F. Fontana and P. Mazzieri 2006. Il comprensorio montano tra paleolitico superiore ed età del rame: Il caso modenese, in A. Caradelli and L. Malnati (eds) *Atlante dei Beni Archeologici della Provincia di Modena II: Montagna*: 17-39. Sesto Fiorentino: All'Insegna del Giglio.

- Feyel, C. 1998. La structure d'un groupe socio-économique: Les artisans dans les grands sanctuaires grecs du IV^e siècle. *Topoi* 8.2: 561–579.
- Feyel, C. 2006. *Les Artisans dans les Sanctuaires Grecs aux Époques Classique et Hellénistique à Travers la Documentation Financière en Grèce* (Bibliothèque des Écoles françaises d'Athènes et de Rome 318). Athens: École française d'Athènes.
- Ficuciello, L. 2008. *Le Strade di Atene* (Studi di Archeologia e di Topografia di Atene e dell'Attica 4). Athens, Paestum: Scuola Archeologica Italiana di Atene, Pandemos.
- Filimonos, M. 1993. Ανασκαφικές έρευνες στη Νίσυρο. *Νισυριακά* 12: 139–146.
- Filimonos-Tsorotou, M. 2004. Ρόδος I: Η Ελληνιστική Οχύρωση της Πόλης της Ρόδου (Δημοσιεύματα του Αρχαιολογικού Δελτίου 86). Athens: Υπουργείο Πολιτισμού.
- Filimonos-Tsorotou, M. 2013a. Το Παλαιόκαστρο της Νισύρου. *Νισυριακά* 20: 149–172.
- Filimonos-Tsorotou, M. 2013b. Πρώρα πολεμικού πλοίου από τη Νίσυρο, in A. Giannikouri (ed.) *Ρόδος IV: Όλβιος Άνερ. Μελέτες στη μνήμη του Γρηγόρη Κωνσταντινόπουλου*: 265–285. Athens: Υπουργείο Πολιτισμού και Αθλητισμού/Αρχαιολογικό Ινστιτούτο Αιγαϊακών Σπουδών.
- Finley, M. 1973. *The Ancient Economy* (Sather Classical Lectures 43). Berkeley, Los Angeles and London: University of California Press.
- Flahaut, J., S. Willems and B. Borgers 2014. Les vases à visage et à bustes dans le nord de la Gaule : Nouvelles données à Fanum Martis, in *Actes du Congrès de Chartres, SFECAG, 29 mai - 1er juin 2014*: 703–718. Marseille: SFECAG.
- Floren, J. 1987. Die geometrische und archaische Plastik, in W. Fuchs and J. Floren (eds) *Die griechische Plastik I* (Handbuch der Archäologie). Munich: C.H. Beck.
- Florescu, G. 1936. Cariera romana de la Cernavoda. *Analele Dobrogei* 17: 33–46.
- Florescu, G. 1937. Römischer Steinbruch bei Cernavoda, Rumänien. *Germania* 21: 108–113.
- Fol, V. 2017. Culte héroïque dans la Thrace – images littéraires grecques ou images réelles du chevalier-héros thrace, in P. Delev, T. Stoyanov, S. Yanakieva, H. Popov, A. Bozkova, M. Vassileva, J. Tzvetkova, M. Damyanov, P. Ilieva and J. Emilov (eds) *Ancient Thrace: Myth and Reality II. The Proceedings of the Thirteenth International Congress of Thracology Kazanlak, September 3 – 7, 2017*: 95–98. Sofia: St. Kliment Ohridski University Press.
- Forbes, R.J. 1955. *Studies in Ancient Technology* 3. Leiden: Brill.
- Forbes, R.J. 1964. *Studies in Ancient Technology* 4: *The Fibres and Fabrics of Antiquity*. Leiden: Brill.
- Formigli, E. 1984. La tecnica di costruzione delle statue di Riace, in *Due Bronzi da Riace: Rinvenimento, Restauro, Analisi ed Ipotesi di Interpretazione* (Bollettino d'arte. Serie speciale 3): 107–142. Rome: Istituto poligrafico e zecca dello Stato.
- Fornasier, J., A.V. Bujskich, A.G. Kuz'miščev, A. Patzelt, M. Helfert and N. Kratzsch 2017. Vor den Toren der Stadt: Deutsch-ukrainische Forschungen in der Vorstadt von Olbia Pontike. *Archäologischer Anzeiger* 2017: 19–61.
- Fornasier, J., A. Buiskykh and O.H. Kuzmishchev 2022. Urban planning with divine protection? On the location of (sub-)urban sanctuaries in Olbia Pontica in the Archaic-Classical period. *Arheologia* 2: 67–95.
- Forster, E. and A. Woodward 1906–07. Laconia: II: Topography. *Annual of the British School at Athens* 13: 219–267.
- Fort, B. and N. Tisserand 2011. Découverte d'une cymbale à Famars Fanum Martis (F, Nord). *Instrumentum* 34: 11.
- Fort, B. and N. Tisserand 2017. Étude du mobilier métallique et d'instrumentum, in R. Clotuche, J. Clerget, G. Teyssere and A. Tixador (eds) *Un Quartier Antique de Fanum Martis: Résultats de la Fouille du Technopôle Transalley, Phase 1, 3 et 4 a, Campagnes 2011 à 2014, Tome 4, Vol. 2, Les études thématiques*: 7–282. Glisy: Inrap NP.
- Fossey, J.M. (ed.) 1981. *Khostia 1980: A Preliminary Report on the First Season of Canadian Excavations at Khostia, Boiotia, Central Greece* (McGill University Monographs in Classical Archaeology and History 1). Montreal: McGill University Press.
- Fossey, J.M. and J. Morin (eds) 1986. *Khostia 1983: Preliminary Report of the Second Season of Canadian Excavations at Khostia, Boioia, Central Greece* (McGill University Monographs in Classical Archaeology and History 3). Amsterdam: J.C. Gieben.
- Fouquet, J. 2019. *Bauen zwischen Polis und Imperium: Stadtentwicklung und urbane Lebensformen auf der kaiserzeitlichen Peloponnes*. Berlin: De Gruyter.
- Fournier, P. and D. Massounie 2001. *Eau et Salubrité dans le Midi de la France à l'Époque Moderne. Siècles 14*, viewed 24 October 2023, <<https://journals.openedition.org/siecles/3220>>.
- Fowler, C. 2013. Dynamic assemblages, or the past is what endures: Change and the duration of relation, in B. Alberti, A.M. Jones and J. Pollard (eds) *Archaeology after Interpretation: Returning Materials to Archaeological Theory*: 235–256. Walnut Creek: Left Coast Press.
- Fox, M. 1996. Greek and Roman Hercules: Moments in pre-historical imperialism. *Kunapipi* 18.1: 9–21.
- Foxhall, L. 1998. The Greek countryside, in B.A. Sparkes (ed.) *Greek Civilization: An Introduction*: 99–114. Oxford: Blackwell.
- Foxhall, L. and K. Stears 2000. Redressing the balance: Dedications of clothing to Artemis and the order of life stages, in M. Donald and L. Hurcombe (eds) *Gender and Material Culture in Historical Perspective*: 3–16. London: Macmillan.

- Fraser, P.M. 1977. *Rhodian Funerary Monuments*. Oxford: Clarendon Press.
- Frébutte, C. 1996. Enghien/Petit-Enghien (Ht), “Warelles” et “Grand Champ”, vestiges gallo-romains, in K. Bausier, R. Borremans, D. Bosquet, H. Remy and M. Soumoy (eds) *Sur la Voie de l'Histoire, Archéologie et TGV : Études et Documents, Fouilles 2*: 151–154. Namur: Service public de Wallonie, Département du patrimoine.
- Freccero, A. 2015. Marble trade in antiquity: Looking at Labraunda. *Anatolia Antiqua* 23: 11–54.
- Frey, J.M. 2015a. *Spolia in Fortifications and the Common Builder in Late Antiquity*. Leiden: Brill.
- Frey, J.M. 2015b. The Archaic colonnade at ancient Corinth: A case of early Roman spolia. *American Journal of Archaeology* 119.2: 147–175.
- Freyer-Schauenburg, B. 1974. *Samos XI: Bildwerke der Archaischen Zeit und des Strengen Stils*. Bonn: Habelt Verlag.
- Frödin, O. and A.W. Persson 1938. *Asine: Results of the Swedish Excavations 1922–1930*. Stockholm: Generalstabens Litografiska Anstalts Förlag i Distribution.
- Fuchs, W. 2008. Das Reiterrelief Albani. *Thetis* 15: 19–44.
- Gabelmann, H. 1965. *Studien zum frühgriechischen Löwenbild*. Berlin: Gebr. Mann.
- Gadolou, A. 2008. *Η Αχαΐα στους Πρώιμους Ιστορικούς Χρόνους: Κεραμική Παραγωγή και Έθιμα Ταφής*. Athens: Ταμείο Αρχαιολογικών Πόρων.
- Gaillard, J. 2011. *L'Exploitation Antique de la Pierre de Taille dans le Bassin de la Charente* (coll. Mémoire 11). Chauvigny: APC.
- Gambash, G., B. Pestarino and D. Friesem 2022. From murex to fabric: The Mediterranean purple. *Technai* 13: 85–113.
- Gardner, W.A. 1908. *In Greece with the Classics*. Boston: Little, Brown, and Co.
- Gatsi, M. 2010. Θέση “Ρηγαίικα” Μεσολογίου Χ.Θ. 27+200 – Χ.Θ. 27+530-550, 1057-1058. Έργο: Παραϊόνια Οδός. Οδικές συνδέσεις σήραγγας Αγ. Ηλίας, Χ.Θ. 27+682 έως 27+787, 1052-1055, θέση “Χονδρέικα” Χ.Θ. 23+550 – Χ.Θ. 23+750, Είσοδος Σήραγγας Καλυδώνας Ιόνιας Οδού. *Αρχαιολογικόν Δελτίον* 65.Β'1.2: 1059–1062.
- Gasparini, D. 2016, in D. Gasparini and Rossi T., 1.1.2 Periodo II. L'Età del Ferro, in M. Miari and C. Negrelli (eds) *Ritmi di Transizione 2: Dal Garampo al Foro Annonario. Ricerche Archeologiche 2009–2013* (Università Ca' Foscari di Venezia Monografie): 43–44. Sesto Fiorentino: All'Insegna del Giglio.
- Gatto, F. and F. Van Haerperen (eds) 2023. *Cultes et Divinités dans les Carrières et les Mines de l'Empire Romain* (Fervet Opus). Louvain: PUL.
- Gaucci, A. 2016. Nuovi studi sull'isolato Mansuelli di Marzabotto (Regio IV, Insula I), in G.M. Della Fina (ed.) *Dalla Capanna al Palazzo: Edilizia Abitativa nell'Italia Preromana* (Annali della Fondazione per il Museo Claudio Faina di Orvieto 23): 243–299. Rome: Edizioni Quasar.
- Gaucci, A. 2010. I Graffiti, in E. Govi and G. Sassatelli (eds) *Marzabotto. La Casa 1 della Regio IV, Insula 2. I Materiali*: 350–395. Bologna: Ante Quem.
- Gaucci, A. 2021. *Iscrizioni della città etrusca di Adria: Testi e contesti tra Arcaismo ed Ellenismo* (Università di Bologna Dipartimento di Storia Culture Civiltà 28). Bologna: Bologna University Press.
- Geertz, C. 1993. *Local Knowledge: Further Essays in Interpretive Anthropology*. London: Fontana Press.
- Gelichi, S. and C. Negrelli (eds) 2008. *A Misura d'Uomo: Archeologia del territorio cesenate e valutazione dei depositi* (Università Ca' Foscari di Venezia Monografie). Sesto Fiorentino: All'Insegna del Giglio.
- Georgiadis, M. 2012. *Kos in the Neolithic and Early Bronze Age: The Halasarna Finds and the Aegean Settlement Pattern*. Philadelphia, PA: INSTAP Academic Press.
- Georgiadis, M. 2020. The Prehistoric period, in G. Kokkorou-Alevras (ed.) *ΑΛΛΑΞΑΡΝΑ V*: 9–120. Athens: National and Kapodistrian University of Athens.
- Gerster, B. 1896. *L'Isthme de Corinthe et son Percement*. Paris: Márkus.
- Gevaert, F.A. 1881. *Histoire et Théorie de la Musique de l'Antiquité II*. Gent: Typographie C. Annoot-Braeckmann.
- Geyer, A. 1993. Ne ruinis urbs deformatur... Ästhetische Kriterien in der spätantiken Baugesetzgebung. *Boreas. Münstersche Beiträge zur Archäologie* 16: 63–77.
- Giannakakis, I. 2015. *Ελλαδικοί Προϊστορικοί Πίθοι. Αποθηκευτικά Αγγεία στη Νότια Ηπειρωτική Ελλάδα*. Unpublished PhD dissertation, University of Ioannina, <<http://hdl.handle.net/10442/hedi/37422>>.
- Giannakopoulos, P.E. 1906. *Το Γύθειον: Αρχαιολογική και Ιστορική Άποψις από της Προϊστορικής Εποχής μέχρι του Μεγάλου Κωνσταντίνου*. Athens.
- Giannopoulou, D. 2002. Η Τεχνολογία των Χειροποίητων Αποθηκευτικών Αγγείων στον Ελλαδικό Χώρο. Διαχρονική έρευνα της τεχνολογίας αυτής με βάση τα χειροποίητα αποθηκευτικά αγγεία στα νεότερα εργαστήρια του Μεσσηνιακού Κόλπου. Unpublished PhD dissertation, Aristotle University of Thessaloniki.
- Giannopoulou, M. 2010. Περί κατασκευής πύλων, in D. Papanikola-Bakirtzi and D. Kousoulakou (eds) *Κεραμική της Ύστερης Αρχαιότητας από τον Ελλαδικό Χώρο (3ος- 7ος αιώνας μ.Χ.). Επιστημονική Συνάντηση Θεσσαλονίκη 12-16 Νοεμβρίου 2006* (Δημοσιεύματα Αρχαιολογικού Ινστιτούτου Μακεδονικών και Θρακικών Σπουδών 8): 65–80. Thessaloniki: Αρχαιολογικό Ινστιτούτο Μακεδονικών και Θρακικών Σπουδών.
- Giannicchedda, E. and J.A. Quirós Castillo 1997. La ceramica vacuolata nell'Appennino ligure e toscano, in *1. Congresso nazionale di archeologia medievale*: 379–383. Sesto Fiorentino: All'Insegna del Giglio.
- Giannidis, L.I. 1987. Ludwig Ross: Ταξιδιωτικές εντυπώσεις από τη Νίσυρο. *Νισυριακά* 10: 109–122.

- Gillet, E. 2017. *Douchy-les-Mines Z.A.C des Prouettes: Rapport de diagnostic*. Villeneuve d'Ascq: Publications Nord – Pas-de-Calais du Service régional de l'archéologie.
- Ginouvès, R. 1970. *Le Théâtre à Gradins Droits et l'Odéon d'Argos (Études Péloponnésiques II)*. Paris: Éditions de Boccard.
- Ginouvès, R. and R. Martin 1985. *Dictionnaire Méthodique de l'Architecture Grecque et Romaine I: Matériaux, techniques de construction, techniques et formes du décor* (Publications de l'École française de Rome 84). Rome: École française de Rome.
- Giroldini, P. (ed.) 2022. *Plasmati dal Fuoco: Storie di ceramiche nella Figline etrusca*. Figline Valdarno: Comune di Figline e Incisa Valdarno.
- Giroldini, P. and G. Baldini 2020. Il sito Archeologico in località La Rotta a Figline e Incisa Valdarno (FI): Le Campagne 2013 e 2014. *Tutela e Restauro* 2020. *Notiziario della Soprintendenza Archeologica Belle Arti e Paesaggio per la Città Metropolitana di Firenze e le Province di Pistoia e Prato*: 209–216.
- Giuliani, L. 2019: Unser, Unser Winckelmann: Zwischen Kanonisierung und Verdrängung. *Zeitschrift für Ideengeschichte* 13.1: 114–124.
- Gliozzo, E., A. Comini, A. Cherubini, A. Ciacci, A. Moroni and I. Turbanti Memmi 2011. Ceramic production and metal working at the Trebbio archaeological site (Sansepolcro, Arezzo, Italy), in I. Turbanti Memmi (ed.) *Proceedings of the 37th International Symposium on Archaeometry*: 61–69. Berlin/Heidelberg: Springer.
- Gnoli, R. 1988. *Marmora Romana*. Rome: Edizioni dell'Elefante.
- Goette, H.R. 1991. Die Steinbrüche von Sounion im Agrileza-Tal. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 106: 201–229.
- Goette, H.R. 1994. Der sogenannte römische Tempel von Karystos. Ein Mausoleum der Kaiserzeit. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 109: 259–300.
- Golvin, J.C. 1993. Quelques grands principes de la construction pharaonique à la lumière de l'étude des échafaudages antiques égyptiens. *Bulletin de la Société Nationale des Antiquaires de France* 1991: 116–135.
- Govi, E. 2010. Il settore III: L'atelier ceramico, in G. Sassatelli and E. Govi (eds) *Marzabotto: La Casa I della Regio IV, Insula 2* (Studi e Scavi nuova serie 26, Kainua 2): 189–191. Bologna: Ante Quem.
- Graml, C. 2020. *The Sanctuary of Artemis Soteira in the Kerameikos of Athens* (Philippika 136). Wiesbaden: Harrassowitz.
- Grandjean, Y. 1988. *Études Thasiennes XII: Recherches sur l'Habitat Thasien à l'Époque Grecque*. Paris: Éditions de Boccard.
- Grandjean, Y. and F. Salviat 2006. Règlement du Délion de Thasos. *Bulletin de Correspondance Hellénique* 130: 293–327.
- Grandjean, Y. and F. Salviat 2012. *Οδηγός της Θάσου*, transl. G.M. Sanidas (Sites et Monuments 3). Athens: École française d'Athènes.
- Gras, M., H. Tréziny and H. Boise 2004. *Mégara Hyblaea 5: La Ville Archaique – l'Espace Urbain d'une Cité Grecque de Sicile Orientale*. Rome: École française de Rome.
- Greco, G. 1998. Da Hera Argiva ad Hera Paestana, in C. Delplace (ed.) *I Culti della Campania Antica. Atti del Convegno internazionale di studi in ricordo di Nazarena Valenza Mele. Napoli, 15-17 maggio 1995*: 46–62. Rome: Giorgio Bretschneider.
- Greco, G. 2010. Il culto, il rito, i doni votivi: La fenomenologia religiosa dell'universo olimpico a quello ctonio, in J. de La Genière and G. Greco (eds) *Il Santuario di Hera alla Foce del Sele: Indagini e studi 1987-2006. Atti e Memorie della Società Magna Grecia, Serie IV (2008-2010)*: 556–589. Rome: Società Magna Grecia.
- Greco, E. and L. Ficuciello 2010. Cesure e continuità: Lamno, dai 'Tireni' agli Ateniesi. *Annuario della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente* 88 NS 3.10:149–168.
- Greenberg, C. 1995. David Smith's new sculpture, in J. O'Brian (ed.) *The Collected Essays and Criticism 4: Modernism with a Vengeance: 1957-1969*: 188–192. Chicago: University Press of Chicago.
- Greenhalgh, M. 1999. Spolia in fortifications: Turkey, Syria, and North Africa, in *Ideologie e Pratiche del Reimpiego nell'alto Medioevo. 16-21 aprile 1998*: 785–935. Spoleto: CISAM.
- Greenhalgh, M. 2009. *Marble Past, Monumental Present: Building with Antiquities in the Medieval Mediterranean*. Leiden: Brill.
- Greenhalgh, M. 2011. Spolia: A definition in ruins, in R. Brilliant and D. Kinney (eds) *Reuse Value: Spolia and Appropriation in Art and Architecture from Constantine to Sherrie Levine*: 75–95. Burlington, VT: Ashgate.
- Griira, K. 2013. Caractérisation des Lipides Contenus dans des Échantillons Archéologiques. Mémoire de stage de licence de chimie 3e année, effectué au laboratoire de biogéochimie et écologie des milieux continentaux de Jussieu, sous la direction T. Nguyen Tu, Paris : Université Pierre et Marie Curie.
- Grmek, M.D. 1989. *Diseases in the Ancient Greek World*. Baltimore, MD: Johns Hopkins University Press.
- Groessens, E. 2002. Les matériaux de construction de Belgique et du Nord de la France. *Géologues – Revue officielle de l'Union Française des géologues* 133-134: 84–92.
- Grossmann, J.B. 2013. *The Athenian Agora XXXV: Funerary Sculpture*. Princeton, NJ: ASCSA.
- Grüner, A. 2019. Meta Sudans, oder: Akustik und Geruch im antiken Rom: Kritische Bemerkungen zu einer archäologischen Urbanistik der Sinne, in C. Illies (ed.) *Bauen mit Sinn: Schritte zu einer Philosophie der Architektur*: 175–208. Wiesbaden: Springer Fachmedien.
- Guidorzi, G. 2013. Non solo abitazioni: Il complesso produttivo di San Pancrazio, in D. Locatelli, L.

- Malnati and D.F. Maras (eds) *Storie della Prima Parma: Etruschi, Galli, Romani. Le origini della città alla luce delle nuove scoperte archeologiche: 27–29*. Rome: L'Erma di Bretschneider.
- Guyon, J., M. Bouiron and J. Lucan 2009. «Débat»: les faubourgs ou l'ambiguïté urbaine. *Archéopages, Quartiers et faubourgs* 24: 56–63.
- Guzzo, P.G., A. Bedini, R. Spadea and L. Rota 1970. Campagna di scavo 1970: Stombi, in *Sibari II* (Atti della Accademia Nazionale dei Lincei. Notizie degli scavi di Antichità 24 suppl. 3): 216–366. Rome: Accademia Nazionale dei Lincei.
- Guzzo, P.G. 1972. Relazione preliminare della terza campagna di scavo a Sibari, in P.G. Guzzo, M.N. Pagliardi, U. Spigo, L. Rota, A. Pennacchi, P. Quiri and D. Mertens (eds) *Sibari III: Rapporto preliminare della campagna di scavo: Stombi, Casa Bianca, Parco del Cavallo, San Mauro 1971* (Atti della Accademia Nazionale dei Lincei. Notizie degli scavi di Antichità 26): 19–48. Rome: Accademia Nazionale dei Lincei.
- Guzzo, P.G., M.N. Pagliardi, U. Spigo and L. Rota 1972. Descrizione dei materiali, in P.G. Guzzo, M.N. Pagliardi, U. Spigo, L. Rota, A. Pennacchi, P. Quiri and D. Mertens (eds) *Sibari III: Rapporto preliminare della campagna di scavo: Stombi, Casa Bianca, Parco del Cavallo, San Mauro 1971* (Atti della Accademia Nazionale dei Lincei. Notizie degli scavi di Antichità 26): 48–146. Rome: Accademia Nazionale dei Lincei.
- Gygax, M.D and W. Tietz 2005. 'He who of all mankind set up the most numerous trophies to Zeus': The inscribed pillar of Xanthos reconsidered. *Anatolian Studies* 55: 89–98.
- Hafner, G. 1997. *Polyklet Doryphoros: Revision eines Kunsturteils*. Frankfurt am Main: Arbeitskreis Frankfurt und die Antike.
- Hagel, S. 2015. *Ancient Greek Music. A New Technical History*. Cambridge: Cambridge University Press.
- Hagel, S. 2016. An invention worth fifty cows: Evidence for supra-regionality in tortoise shell lyre construction, in L. Bravi, L. Lomiento, A. Meriani and G. Pace (eds) *Tra Lyra e Aulos: Tradizioni Musicali e Generi Poetici* (Rivista di Cultura Classica e Medioevale. Quaderni 14): 157–166. Rome: Fabrizio Serra Editore.
- Hägg, R. 1974. *Die Gräber der Argolis in Submykenischer, Protogeometrischer und Geometrischer Zeit 1: Lage und Form der Gräber* (Boreas 7.1). Uppsala: Uppsala University Press.
- Hallof, K. and S. Kansteiner 2014. s.v. Archedamos (Ἀρχέδαμος) von Thera, in *DNO* 2: 662–664.
- Hallof, K., S. Kansteiner and S. Prignitz 2014. s.v. Pythokritos (Πυθόκριτος) von Rhodos, in *DNO* 4: 521–545.
- Hamilakis, Y. and A. Meirion Jones 2017. Archaeology and assemblage. *Cambridge Archaeological Journal* 27.1: 77–84, viewed 27 November 2023, <<https://doi.org/10.1017/S0959774316000688>>.
- Hanoune, R. 2002. Amoenitas urbium? Quelques textes en réaction, in R. Bedon (ed.) *Amoenitas Urbium: Les Agréments de la Vie Urbaine en Gaule Romaine et dans les Régions Voisines. Hommage à Pierre Pouthier* (Caesarodunum XXXV-XXXVI): 287–293. Limoges: PULIM.
- Hansen, E. 1991. Versetzen von Baugliedern am griechischen Tempel, in A. Hoffmann, E.L. Schwandner, W. Hoepfner and G. Brands (eds) *Bautechnik der Antike. Internationales Kolloquium in Berlin vom 15.-17. Februar 1990 veranstaltet vom Architekturreferat des DAI in Zusammenarbeit mit dem Seminar für Klassische Archäologie der Freien Universität Berlin*: 72–79. Mainz: Philipp von Zabern.
- Hansen, E. 2010. Une pierre à Delphes, in E. Hallager and D. Mulliez (eds) *The French Connection - 100 Years with Danish Architects at L'École française d'Athènes* (Monographs of the Danish Institute at Athens 13): 33–40. Athens: École française d'Athènes.
- Hansen, E. and G. Algreen-Ussing 1975. *Fouilles de Delphes II: Atlas*. Paris: Éditions de Boccard.
- Hansen, E., G. Algreen-Ussing and R. Frederiksen 2016. A short-cut to Delphi: Indications of a vehicle track from a stone quarry to the sanctuary of Apollo at Delphi. *Proceedings of the Danish Institute at Athens* 8: 208–263.
- Hansen, M.F. 2003. *The Eloquence of Appropriation: Prolegomena to an Understanding of Spolia in Early Christian Rome*. Rome: L'Erma di Bretschneider.
- Harari, M. 2010. Gli Etruschi nella valle del Po, in G. Bonini, A. Brusa and R. Cervi (eds) *Quaderni dell'Istituto Alcide Cervi* 6. *Storia e Didattica: Special Issue Il paesaggio agrario italiano protostorico e antico*: 51–57.
- Hardenberg, R., M. Bartelheim and J. Staecker 2017. The 'Resource Turn': A sociocultural perspective on resources, in A.K. Scholz, M. Bartelheim, R. Hardenberg, and J. Staecker (eds) *ResourceCultures: Sociocultural Dynamics and the Use of Resources - Theories, Methods, Perspectives* (RessourcenKulturen 5): 13–23. Tübingen: Tübingen University Press.
- Hardenberg, R. 2021. The rise of a new millet assemblage in India, in T. Schade, B. Schweizer, S. Teuber, R. Da Vela, W. Frauen, M. Karami, D.K. Ojha, K. Schmidt, R. Sieler and M.S. Toplak (eds) *Exploring Resources: On Cultural, Spatial and Temporal Dimensions of ResourceCultures* (RessourcenKulturen 13): 141–156. Tübingen: Tübingen University Press.
- Hardenne, L. 2015. *Le Décor Architectonique en Pierre en Cités des Tongres, Nerviens et Ménapiens. Mémoire de Master en histoire de l'art et archéologie*. Université de Louvain-la-Neuve.
- Harris E.M. 2006. *Law and Society in Ancient Athens*. Cambridge: Cambridge University Press.
- Harrison, E.B. 1965. *The Athenian Agora XI: Archaic and Archaistic Sculpture*. Princeton, NJ: ASCSA.
- Harter-Uibopuu, K. 2012. Öffentliches und privates Eigentum an Grabstätten im kaiserzeitlichen Athen und Kleinasien. Antwort auf M. Faraguna, in B.

- Legras and G. Thür (eds) *Symposion 2011. Vorträge zur griechischen und hellenistischen Rechtsgeschichte* (Paris, 7.-10. September 2011): 187–198. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Harter-Uibopuu, K. 2014. Tote soll man ruhen lassen ... Verbote und Strafen zur Sicherung von Gräbern am Beispiel der Inschriften von Ephesos, in J. Fischer (ed.) *Der Beitrag Kleinasiens zur Kultur- und Geistesgeschichte der Griechisch-Römischen Antike. Akten des internationalen Kolloquiums, Wien, 3.-5. November 2010*: 157–180. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Harter-Uibopuu, K. and K. Wiedergut (eds) (forthcoming) „Vorsorge, Verbote und Sanktionen. Grabschutz in der griechisch-römischen Antike nach den epigraphischen Quellen“, viewed 26 October 2023, <https://www.academia.edu/87729041/Tagungsprogramm_Vorsorge_Verbote_und_Sanktionen_Grabschutz_in_der_griechisch_r%C3%B6mischen_Antike_nach_den_epigraphischen_Quellen_>.
- Hasaki, E. 2002. Ceramic Kilns in Ancient Greece: Technology and Organization of Ceramic Workshops. Unpublished PhD dissertation, University of Cincinnati, <http://rave.ohiolink.edu/etdc/view?acc_num=ucin1023219003>.
- Hasaki, E. 2011. Crafting spaces: Archaeological, ethnographic and ethnoarchaeological studies of spatial organization in pottery workshops in Greece and Tunisia, in M. Lawall and J. Lund (eds) *Pottery in the Archaeological Record – Greece and Beyond. Acts of the international colloquium held at the Danish and Canadian Institutes in Athens, June 20-22 2008*: 11–28. Aarhus: Aarhus University Press.
- Hasaki, E. 2012. Craft apprenticeship in ancient Greece: Reaching beyond the masters, in W. Wendrich (ed.) *Archaeology and Apprenticeship: Body Knowledge, Identity and Communities of Practice*: 171–202. Tucson: Arizona University Press.
- Hasaki, E. 2020. Ο διαδίκτυακός Άτλας των κεραμικών κλιβάνων της αρχαίας Ελλάδας, in S. Drougou (ed.) *1^η Διεθνής Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική / 10th International Scientific Meeting on Hellenistic Pottery. Κεραμεία, Τεχνίτες και Εργαστήρια / Pottery Workshops, Craftsmen and Workshops*: 280–312. Athens: Ταμείο Αρχαιολογικών Πόρων.
- Hasaki, E. and D. Pont 2019. Potters and their wheels in ancient Greece: Skills and secrets in communities of practice, in M. Denti and M. Villette (eds) *Archéologie des Espaces Artisanaux: Fouiller et Comprendre les Gestes des Potiers. Actes du colloque international de Rennes, 27-28 novembre 2014*: 293–314. Lattes: Éditions ADAL.
- Haug, F. 1913. s.v. Hercules, in *RE* 8.1: 550–612.
- Haussoullier, B. 1919. Inscriptions de Didymes: Classement chronologique de comptes de la construction du Didymeion. *Revue de Philologie, de Littérature et d'histoire Anciennes* 43: 175–226.
- Hayson, M. and J. Wallensten 2011 (eds) *Current Approaches to Religion in Ancient Greece. Papers presented at a symposium at the Swedish Institute at Athens. 17-19 April 2008* (Skrifter utgivna av Svenska institutet i Athen. 80 = Acta Instituti Atheniensis Regni Sueciae). Stockholm: Swedish Institute at Athens.
- Heilmeyer, W.-D. and H. Born 1996. *Der Jüngling von Salamis: Technische Untersuchungen zu Römischen Großbronzen*. Mainz: Philipp von Zabern.
- Heilmeyer, W.-D., G. Zimmer and G. Schneider 1987. Die Bronzegießerei unter der Werkstatt des Phidias in Olympia. *Archäologischer Anzeiger* 1987: 239–299.
- Hellmann, M.-C. 1980. Un problème d'architecture et d'épigraphie déliennes. *Bulletin de Correspondance Hellénique* 104: 151–159.
- Hellmann, M.-C. 1999. *Choix d'Inscriptions Architecturales Grecques, Traduites et Commentées* (Travaux de la Maison de l'Orient et de la Méditerranée 30). Lyon: MOM éditions.
- Hellner, N. 2018. Überlegungen zum Gebrauch von singulären Werkzeugfunden unter dem archaischen Tempelbau von Kalapodi, in M. Korres, S. Mamaloukos, F. Mallouchou-Tufano and K. Zampas (eds) *HPΩΣ ΚΤΙΣΤΗΣ. Μνήμη Χαράλαμπου Μπούρα*: 293–300. Athens: Melissa.
- Hellström, P. 1965. *Labraunda. Swedish Excavations and Researches 2. Vol. 1: Pottery of Classical and Later Date, Terracotta Lamps and Glass*. Lund: Gleerup.
- Hellström, P. 2007. *Labraunda: A Guide to the Karian Sanctuary of Zeus Labraundos*. Istanbul: Ege.
- Hellström, P. and J. Blid 2019. *Labraunda. Swedish Excavations and Researches 5: The Andrones*. Stockholm: Swedish Research Institute in Istanbul.
- Hellström, P. and T. Thieme 1982. *Labraunda. Swedish Excavations and Researches 1. Vol. 3: The Temple of Zeus*. Stockholm: Swedish Research Institute in Istanbul.
- Hennig, D. 1999. Rechtliche und wirtschaftliche Aspekte, in W. Hoepfner (ed.) *Geschichte des Wohnens 1: 5000 v. Chr. – 500 n. Chr., Vorgeschichte, Frühgeschichte, Antike*: 587–600. Stuttgart: Deutsche Verlags-Anstalt.
- Henry, O. and D. Aubriet 2015. Le territoire de Mylasa et le serment d'Olympichos: Autour d'une nouvelle inscription découverte au sanctuaire de Zeus Labraundos en Carie. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 159.2: 673–702.
- Henry, O., E. Andersson, C. Bost, Ö. D. Çakmaklı, A. Commito, M. Cormier-Huguet, P. de Staebler, P. Dupont, D. Ergenc, A. Frejman, B. Kepenek, P. Leboutteiller, H. Nilsson, F. Rojas and B. Vergnaud 2015. *Labraunda 2014. Anatolia Antiqua* 23: 301–394.
- Henry, O., E. Andersson, C. Bost, Ö. Çakmaklı, F. Cederling, A. Commito, M. Cormier-Huguet, A. Coutelas, A. Dolea, D. Ergenc, A. Freccero, A. Frejman, P. Leboutteiller, F. Lesguer, D. Löwenborg, V. Lungu, F. Marchand-Baulieu, A. Sitz, P. de Staebler and B.

- Vergnaud 2016. Labraunda 2015. *Anatolia Antiqua* 24: 339–457.
- Herbin, P., D. Roger and E. Calonne 2005. Une production de céramique commune à pâte claire à Famars (Nord), in M. Polfer (ed.) *Artisanat et Économie Romaine : Italie et Provinces Occidentales de l'Empire. Actes du 3e colloque international d'Erpeldange (Luxembourg) sur l'artisanat romain*: 147–168. Dremil Lafage: Edition Mergoil.
- Herdt, G., A. Erkal, D. D'Ayala and M. Wilson Jones 2014. The structural assessment of ancient building components: The temple of Artemis at Corfu, in G. Earl, T. Sly, A. Chrysanthi, P. Murrieta-Flores, C. Papadopoulos, I. Romanowska, D. Wheatley and Ph. Verhagen (eds) *Archaeology in the Digital Era. Proceedings of the 40th Annual Conference on Computer Applications and Quantitative Methods in Archaeology* (Southampton, 26–30.3.2012): 130–137. Amsterdam: Amsterdam University Press.
- Hermann, J., A. van den Hoek and R.H. Tykot 2012. Alabastro a Pecorella, Aïn Tekballet, and Bou Hanifa, Algeria: A preliminary report, in A. Gutiérrez Garcia-M., P. Lapuente and I. Rodà (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 9th international conference of Association for the Study of Marble and Other Stones in Antiquity, Tarragona, Spain, June 8–13, 2009* (ASMOSIA IX. Documenta 23): 463–470. Tarragona: Institut Català d'Arqueologia Clàssica.
- Hermitage State Museum (ed.) 2005. *Borysthenes-Berezan: The 120th Anniversary of Archaeological Investigations of the Ancient Settlement on Berezan Island*. St. Petersburg: St. Petersburg Hermitage Publishing House.
- Herrmann, K. 2014/2015. Miniaturbauteile aus Olympia: Paradeigmata oder Anathemata? mit einem Beitrag von Wolf Koenigs. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 129/130: 147–162.
- Hildebrandt, F. 2006. *Die attischen Namenstelen: Untersuchungen zu Stelen des 5. und 4. Jahrhunderts v. Chr.* Berlin: Frank & Timme.
- Hill, A.F. 1952. *Economic Botany: A Textbook of Useful Plants and Plant Products*. London: McGraw-Hill Book Company Inc.
- Hiller, F. 1971. *Formgeschichtliche Untersuchungen zur griechischen Statue des späten 5. Jahrhunderts v. Chr.* Mainz: Philipp von Zabern.
- Hirt, A.M. 2010. *Imperial Mines and Quarries in the Roman World: Organizational Aspects 27 BC – AD 235*. Oxford: Oxford University Press.
- Hirt, A.M. 2015. Centurions, quarries, and the emperor, in P. Erdkamp, K. Verboven and A. Zuiderhoek (eds) *Ownership and Exploitation of Land and Natural Resources in the Roman World*: 289–316. Oxford: Oxford University Press.
- Heuzey, L. 1860. *Le Mont Olympe et l'Akarnanie*. Paris: Éditions Firmin-Didot.
- Hochscheid, H. 2015. *Networks of Stone: Sculpture and Society in Archaic and Classical Athens*. Oxford: Peter Lang.
- Hochscheid, H. 2020. Review of Van Voorhis, J. 2018. *Aphrodisias 10: The Sculptor's Workshop*. Wiesbaden: Reichert Verlag. *Bryn Mawr Classical Review* 2020.06.2023, viewed 24 October 2023, <<https://bmcr.brynmawr.edu/2020/2020.06.23/>>.
- Hochscheid, H. and B. Russell (eds) 2021. *The Value of Making: Theory and Practice in Ancient Craft Production* (Studies in Classical Archaeology 13). Turnhout: Brepols.
- Höcker, Chr. 2006a. s.v. Straßen- und Brückenbau, in *DNP Online*, viewed 26 October 2023, <http://dx.doi.org/10.1163/1574-9347_dnp_e1123690>.
- Höcker, Chr. 2006b. s.v. Städtebau. Städtebau IV. Klassische Antike B. Griechenland, in *DNP Online*, viewed 26 October 2023, <http://dx.doi.org/10.1163/1574-9347_dnp_e1120730>.
- Hodder, I. 2012. *Entangled: An Archaeology of the Relationships between Humans and Things*. Chichester: Wiley-Blackwell.
- Hodder, I. 2014. The entanglement of humans and things: A long-term view. *New Literary History* 45: 19–36.
- Hoët-Van Cauwenberghe, C. 2015. Les Nerviens dans et hors de leur cité: Une population active, in *Rome en Pays Nervien: Retour sur Notre Passé Antique. Catalogue de l'exposition présentée au Forum antique de Bavay, Musée archéologique du Département du Nord et à l'Espace gallo-romain de Ath, du 5 février au 25 août 2015*. 108–115: Bavay: Forum antique de Bavay – Ath, Espace gallo-romain.
- Holtzmann, B. 1994. *Études Thasiennes XV: La Sculpture de Thasos. Corpus des Reliefs I. Reliefs à thème divin*. Paris: Éditions de Boccard.
- Holzman, S. 2016. Tortoise-shell lyres from Phrygian Gordion. *American Journal of Archeology* 120.4: 537–564.
- Homolle, Th. 1909. *Fouilles de Delphes IV, 1: Art Primitif. Art Archaique du Péloponnèse et des Îles*. Paris: Éditions de Boccard.
- Hornblower, S. 1982. *Mausolus*. Oxford: Clarendon Press.
- Houser, C. 1998. The 'Alexander Sarcophagus' of Abdalonymos, in O. Palagia and W. Coulson (eds) *Regional Schools in Hellenistic Sculpture. Proceedings of an international conference held at the American School of Classical Studies at Athens, March 15–17, 1996* (Oxbow Monograph 90): 281–292. Oxford: Oxbow Books.
- Howard, H. 2001. Analyses of the painted plaster, in J. Mitchell and I. Hanson (eds) *San Vincenzo al Volturno 3: The Finds from 1980–86 Excavations*: 288–295. Spoleto: CISAM.
- Howard, H. 2003. *Pigments of English Medieval Wall Painting*. London: Archetype Publications.
- Huguenot, C. 2012. Production et commerce dans la cité hellénistique d'Érétie, in A. Esposito and G.M. Sanidas (eds) *«Quartiers» Artisanaux en Grèce Ancienne*,

- une Perspective Méditerranéenne: 175–200. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Hutchins, C.M. 1998. Violinen, in *Die Physik der Musikinstrumente (Verständliche Forschung)*: 64–77. Heidelberg: Spektrum Akademischer Verlag.
- Iaculli, G. 1986. Note di coroplastica crotoniate. *Annali della Scuola Normale Superiore di Pisa. Classe di Lettere e Filosofia* 16.2: 411–426.
- laia, C. and A. Moroni Lanfredini (eds) 2009. *L'Età del Ferro a Sansepolcro, Attività Produttive e Ambiente nel Sito del Trebbio*. Sansepolcro: Aboca.
- Intagliata, E.E., C. Courault and S.J. Barker (eds) 2020. *City Walls in Late Antiquity*. Oxford: Oxbow Books.
- Ismaelli, T. 2013. Ancient architectural restoration in Asia Minor: Typology, techniques and meanings discussed with reference to examples of large-scale public buildings in Hierapolis of Phrygia, a seismic city in Western Turkey. *Istanbuler Mitteilungen* 63: 267–324.
- Ismaelli, T. 2016. Architecture and decoration in context – a cross-analysis of the ancient building site in five steps: The case study of the Severan Temple A in the Sanctuary of Apollo at Hierapolis, Phrygia, in T. Ismaelli and G. Scardozzi (eds) *Ancient Quarries and Building Sites in Asia Minor: Research on Hierapolis in Phrygia and Other Cities in South-Western Anatolia – Archaeology, Archaeometry, Conservation* (Bibliotheca Archaeologica 45): 339–364. Bari: Edipuglia.
- Ismaelli, T. 2017. Architettura, decorazione e spazio sacro a Hierapolis di Frigia: Il tempio severiano del Santuario di Apollo, in: P. Pensabene, M. Milella and F. Caprioli (eds) *Décor: Decorazione e Architettura nel Mondo Romano. Atti del Convegno Roma 21-24 maggio 2014* (Thiasos Monografie 9): 683–698. Rome: Edizioni Quasar.
- Ismaelli, T. and S. Bozza 2016. Ancient construction sites in Hierapolis: New data on strategies, materials and techniques, in T. Ismaelli and G. Scardozzi (eds) *Ancient Quarries and Building Sites in Asia Minor: Research on Hierapolis in Phrygia and Other Cities in South-Western Anatolia – Archaeology, Archaeometry, Conservation* (Bibliotheca Archaeologica 45): 437–458. Bari: Edipuglia.
- Jacobs, I. 2010. Production to destruction? Pagan and mythological statuary in Asia Minor. *American Journal of Archaeology* 114.2: 267–303.
- Jacobs, I. 2013. *Aesthetic Maintenance of Civic Space: The 'Classical' City from the 4th to the 7th c. AD*. Leuven: Peeters.
- Jacquemin, A. 1992. Thyia et Castalie, in J.-F. Bommelaer (ed.) *Delphes: Centenaire de la Grande Fouille réalisée par l'Ecole française d'Athènes (1892-1903). Actes du Colloque Paul Perdrizet, Strasbourg, 6-9 novembre 1991*: 167–175. Leiden: Brill.
- Jacquemin, A. 1993. Répercussions de l'entrée de Delphes dans l'Amphictionie sur la construction à Delphes à l'époque archaïque in J. des Courtils and J.-C. Moretti (eds) *Les Grands Ateliers d'Architecture dans le Monde Égéen du VIe s. av. J.-C. Actes du colloque d'Istanbul, 23-25 mai 1991* (Varia Anatolica III): 217–225. Istanbul : Institut français d'Études Anatoliennes.
- Jacquemin, A. and D. Laroche 2001. Le monument de Daochos ou le trésor des Thessaliens. *Bulletin de Correspondance Hellénique* 125: 305–332.
- Jacquemin, A. and D. Laroche 2012. Regards nouveaux sur deux quadriges delphiques, in M. Denoyelle, S. Descamps-Lequime, B. Mille and S. Verger (eds) *Bronzes Grecs et Romains: Recherches Récentes. Hommage à Claude Rolley*. Paris: Publications de l'Institut national d'histoire de l'art, viewed 1 November 2023, <<https://books.openedition.org/inha/7243>>.
- Jacquemin, A. and D. Laroche 2014. Un espace politique au coeur du sanctuaire de Delphes. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 158.2: 727–753.
- Jacquemin, A., D. Mulliez and G. Rougement 2012. *Choix d'Inscriptions de Delphes Traduites et Commentées* (Études Épigraphiques 5). Athens: École française d'Athènes.
- Jaczynowska, M. 1981. s.v. Le culte de l'Hercule romain au temps du Haut-Empire, in *Aufstieg und Niedergang der römischen Welt* 2.17.2: 631–661.
- Jeammet, V. (ed.) 2010. *Tanagra: Figurines for Life and Eternity. The Musée du Louvre's Collection of Greek Figurines*. Valencia: Fundación Banjaca.
- Jenkins, I. 2006. *Greek Architecture and its Sculpture*. Cambridge, MA: Harvard University Press.
- Jewell, V. 2024. Haptic colour: Experiential viewing in Graeco-Roman sacred spaces, in B. Misic and A. Graham (eds) *Senses, Cognition, and Ritual Experience in the Roman World* (Ancient Religion and Cognition): 89–117. Cambridge: Cambridge University Press.
- Johnson, M. 2010. *Archaeological Theory: An Introduction*. Oxford: Wiley-Blackwell.
- Judeich, W. 1931. *Topographie von Athen*. Munich: C.H. Beck.
- Jürke, F., J. Montes-Landa and A. Ceccarelli 2021. Knowledge-scapes in Archaeology: An Introduction, in F. Jürke, J. Montes-Landa and A. Ceccarelli (eds) *Archaeological Review from Cambridge* 35.2. *Special Issue Knowledge-scapes*, <<https://doi.org/10.17863/CAM.71846>>.
- Kahrstedt, U. 1954. *Das wirtschaftliche Gesicht Griechenlands in der Kaiserzeit*. Bern: Bernae Aedibus A. Francke.
- Kairofilas, G. 1995. *Τοπωνύμια της Αθήνας, του Πειραιά και των περιχώρων*. Athens: Εκδόσεις Φιλιππότη.
- Kakavoyannis, E. 1984. Παραγωγή μολύβδου από λιθαργύρους στην ελληνιστική Ρόδο. *Αρχαιολογικά Ανάλεκτα εξ Αθηνών* 17: 124–140.
- Kalligas, P. 2000. Acropolis Station/Σταθμός Ακρόπολις, in L. Parlama and N.Ch. Stampolidis (eds) *Η Πόλη κάτω από την Πόλη: Ευρήματα από τις Ανασκαφές του Μητροπολιτικού Σιδηροδρόμου των Αθηνών*: 28–39. Athens: Υπουργείο Πολιτισμού, Ίδρυμα Ν.Π. Γουλανδρή, Μουσείο Κυκλαδικής Τέχνης.

- Kalpaxis, A.E. 1980. Die Pfostenlöcher unter dem Naxieroikos auf Delos: Spuren eines Vorgängerbaues oder eines Baugerüstes?, in F. Krinzing, B. Otto and E. Walde-Psenner (eds) *Forschungen und Funde. Festschrift Bernhard Neutsch*: 237–242. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- Kalpaxis A.E. 1990. Naxier-Oikos I und andere Baugerüste. *Archäologischer Anzeiger* 1990: 149–153.
- Kanellopoulos, C. and E. Kolia 2011. Ancient Keryneia, Aigialeia: Excavations and architecture in the sanctuary of Profitis Elias. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 126: 137–176.
- Kanellopoulos, C. and E. Zavvou 2014. The Agora of Gytheion. *Annual of the British School at Athens* 109: 357–378.
- Kansteiner, S., L. Lehmann and B. Seidensticker 2014. s.v. Theodoros (Θεόδωρος) von Samos, in: *DNO online*, viewed 14 November 2023, <<https://www.degruyter.com/database/OVERBECK/entry/ov.0040.b1/html>>.
- Kantirea, M. 2023. Building inscriptions from Roman Lydia, in E. Laflı and G. Labarre (eds) *Archaeology and History of Lydia from the Early Lydian Period to Late Antiquity* (Collection de l'Institut des Sciences et Techniques de l'Antiquité): 379–386. Besançon: Presses Universitaires de Franche-Comté.
- Karagiorga-Stathakopoulou, Th. 1971. Κεραμεικός κλίβανος εν Ήλιδι. *Αρχαιολογικά Ανάλεκτα εξ Αθηνών* 4.1: 27–31.
- Karagiorga-Stathakopoulou, Th. 1979. Οδός Βαλαβάνη 10. *Αρχαιολογικόν Δελτίον* 34.Β'1: 18.
- Karagiorga-Stathakopoulou, Th. 1988. Δημόσια έργα και ανασκαφές στην Αθήνα τα τελευταία 5 χρόνια. *Ήρος* 6: 87–108.
- Karakasi, K. 2003. *Archaic Korai*. Los Angeles: Getty Publications.
- Karasev, A.N. 1964. Monumentalnye pamyatniki Olviiskogo temenosa, in V.F. Gaidukevich (ed.) *Olviya: Temenos i Agora*: 27–130. Moscow and Leningrad: Nauka.
- Kardara, C.P. 1961. Dyeing and weaving works at Isthmia. *American Journal of Archaeology* 65: 261–266.
- Katakis, S. 1997. s.v. Die Sphinx in der römischen Welt, in *LIMC VIII*: 1169–1170, figs. 268, 272.
- Katakis, S. 2002. *Επίδαυρος: Τα Γλυπτά των Ρωμαϊκών Χρόνων από το Ιερό του Απόλλωνος Μαλεάτα και του Ασκληπιού*. Athens: Η εν Αθήναις Αρχαιολογική Εταιρεία.
- Katerinopoulos, A., G. Kokkorou-Alevras, K. Mavrogonatos and E. Poupaki 2016. Volcanic millstones from ancient Halasarna, Kos island. Mineralogy, geochemistry and comparison of archaeological samples to rock samples from ancient quarries on Kos and Nisyros, Dodecanese, Greece. *HEROM* 5.2: 161–197.
- Katerinopoulos, A., G. Kokkorou-Alevras, K. Mavrogonatos and E. Poupaki 2017. Ανάλυση ηφαιστειογενών λίθων, in G. Kokkorou-Alevras (ed.) *ΑΛΑΣΑΡΝΑ VI: Το Ιερό του Απόλλωνα Πυθαίου/ Πυθαέως και ο Οικισμός Πρώιμων Βυζαντινών Χρόνων στην Αρχαία Αλάσαρνα της Κω. Γλυπτική, Λιθοτεχνία, Επιγραφές*: 251–323. Athens: National and Kapodistrian University of Athens.
- Katsonopoulou, D. 1991. Αρχαία Ελίκη: Ιστορία και σύγχρονη έρευνα, in A.D. Rizakis (ed.) *Achaia und Elis in der Antike* (Μελετήματα 13): 227–234. Athens. Εθνικό Ίδρυμα Ερευνών.
- Katsonopoulou, D. 1995. Ελίκη. *Αρχαιολογία* 54: 35–40.
- Katsonopoulou, D. 1998. Η πρώτη ανασκαφή στην Ελίκη: Κτήμα Κλωνή. Μια εισαγωγική παρουσίαση, in D. Katsonopoulou, S. Soter and D. Schilardi (eds) *Helike II: Ancient Helike and Aigialeia*: 125–145. Athens: The Helike Society.
- Katsonopoulou, D. 2002. Helike and her territory in the light of new discoveries, in E. Greco (ed.) *Gli Achei e l'Identità Etnica degli Achei d'Occidente. International conference* (Tekmeria 3): 205–216. Paestum: Pandemos.
- Katsonopoulou, D. 2005a. The earthquake of 373 BC. Literary and archaeological evidence, in D. Katsonopoulou, S. Soter and I. Koukouvelas (eds) *HELIKE III: Archaeological Sites in Geologically Active Regions*: 15–32. Athens: The Helike Society.
- Katsonopoulou, D. 2005b. Test excavations in the Helike Delta in 2000, in D. Katsonopoulou, S. Soter and I. Koukouvelas (eds) *HELIKE III: Archaeological Sites in Geologically Active Regions*: 33–66. Athens: The Helike Society.
- Katsonopoulou, D. 2011a. A proto-urban Early Helladic settlement found on the Helike Delta, in D. Katsonopoulou (ed.) *HELIKE IV: PROTOHELLADIKA – The Southern and Central Greek Mainland*: 63–88. Athens: The Helike Society.
- Katsonopoulou, D. 2011b. The Hellenistic dye-works at Helike, Achaia, Greece, in C. Alfaro, J.P. Brun, Ph. Borgard and R. Pierobon Benoit (eds) *Purple Vestes III: Textiles y Tintes en la Ciudad Antigua*: 237–242. València-Naples: Universitat de València, Centre Jean Bérard.
- Katsonopoulou, D. 2016. Natural catastrophes in the Gulf of Corinth, northwestern Peloponnese, from Prehistory to Late Antiquity: The example of Helike, in J. Borsch and L. Carrara (eds) *Erdbeben in der Antike*: 137–152. Tübingen: Mohr Siebeck.
- Katsonopoulou, D. 2018. Recent evidence of sculptures in Parian marble, in D. Katsonopoulou (ed.) *Η Πάρος και οι Αποικίες της / Paros and its Colonies. Proceedings of the fourth international conference on the archaeology of Paros and the Cyclades, Paroikia 11-14.6.2015* (PAROS IV): 101–113. Athens: The Institute for Archaeology of Paros and the Cyclades.
- Katsonopoulou, D. and S. Katsarou 2017. Mainland cosmopolitanism and the rise of personal prestige:

- New evidence from the coastal Early Helladic town of Helike, northwest Peloponnese. *Annual of the British School at Athens* 112: 1–32.
- Katsonopoulou, D. and I. Koukouvelas 2019. Η άγνωστη Γεωμετρική Ελική – νέα αρχαιολογικά και παλαιοσεισμικά ευρήματα. *Αρχαιολογία* 129: 66–77.
- Katsonopoulou, D. and E. Partida 2023. Filling a gap in the history of an Achaean leader city: Post-373 BC Helike. *Numismatica e Antichità Classiche* 52: 169–199.
- Katsonopoulou, D. and E. Partida 2024. Η αναγέννηση της Ελικής μετά το 373 π.Χ., in D. Katsonopoulou (ed.) *HELIKE VI: Helike after 373 BC – An Interdisciplinary Approach*: 33–60. Athens: The Helike Society.
- Keen, A. 1998. *Dynastic Lycia: A Political History of the Lycians and their Relationship with Foreign Powers*. Leiden: Brill.
- Keune, J. 1921. s.v. Saxanus, in *RE* 2A.1: 266–268.
- Khalil, L.A.H., J. Seigne and Th. Weber 2013. *Metal Casting in Roman Gerasa: Preliminary reports on the Jordanian-European cultural heritage conservation program at Jerash in 2012 funded by the Hashemite Kingdom of Jordan, the Republic of France, and the Federal Republic of Germany* (Guides archéologiques de l'Institut français d'Archéologie du Proche-Orient 10). Amman: IFPO.
- Kilikoglou, V., G. Vekinis, Y. Maniatis and P.M. Day 1998. Mechanical performance of quartz-tempered ceramics, Part I: Strength and toughness. *Archaeometry* 40.2: 261–279.
- King, L.W. 1915. *The Code of Hammurabi* (with commentary from Ch. F. Horne). Yale Law School, Avalon Project, viewed 25 October 2023, <https://avalon.law.yale.edu/subject_menus/hammenu.asp>.
- Kinney, D. 1997. Spolia: Damnatio and renovatio memoriae. *Memoirs of the American Academy in Rome* 42: 117–148.
- Kinney, D. 2001. Roman architectural spolia. *Proceedings of the American Philosophical Society* 145.2: 138–161.
- Kinney, D. 2006. The concept of spolia, in C. Rudolph (ed.) *A Companion to Medieval Art: Romanesque and Gothic in Northern Europe*: 233–252. Malden, MA: Blackwell.
- Kinney, D. 2013. Spoliation in Medieval Rome, in S. Altekamp, C. Marcks-Jacobs and P. Seiler (eds) *Perspektiven der Spolienforschung 1: Spolierung und Transposition* (Topoi. Berlin Studies of the Ancient World 15): 261–285. Berlin and Boston: De Gruyter.
- Kissas, K. 2008. *Archaische Architektur der Athener Akropolis* (Archäologische Forschungen 24). Wiesbaden: Reichert Verlag.
- Kissel, T. 2021. Road-building as a munus publicum, in P. Erdkamp (ed.) *The Roman Army and the Economy*: 127–160. Leiden: Brill.
- Kleemann, I. 1984. *Frühe Bewegung: Untersuchung zur Archaischen Form bis zum Aufkommen der Ponderation in der Griechischen Kunst. Einführung und Überblick*. Mainz: Mainz: Philipp von Zabern.
- Kleiss, W. 1970. Zur Topographie des „Partherhanges“ in Bisutun. *Archäologische Mitteilungen aus Iran, N.F.* 3: 133–168.
- Klocke-Daffa, S. 2017. ResourceKomplexes, networks, and frames: The Sambrata in Madagascar, in A.K. Scholz, M. Bartelheim, R. Hardenberg, J. Staecker (eds) *ResourceCultures: Sociocultural Dynamics and the Use of Resources – Theories, Methods, Perspectives* (RessourcenKulturen 5): 253–270. Tübingen: Tübingen University Press.
- Knappett, C. 2011. *An Archaeology of Interaction: Network Perspectives on Material Culture and Society*. Oxford: Oxford University Press.
- Koch, N. 1999. Fügung zur Einheit: Zu Polyklet Frg. B 1 D./K. (with Th. Schirren). *Hermes* 127: 263–273.
- Kokkoliou, A. 2000a. Οδός Δημοφώντος 111–113 (οικόπεδο Κ. Πούλιου). *Αρχαιολογικόν Δελτίον* 55.Β'1: 80.
- Kokkoliou, A. 2000b. Οδός Δρυόπων 38 και Τρώων (οικόπεδο Δ. και Β. Καποπούλου). *Αρχαιολογικόν Δελτίον* 55.Β'1: 81.
- Kokkoliou, A. 2001–04. Συμβολή των οδών Δωριέων και Τρώων. *Αρχαιολογικόν Δελτίον* 56–59.Β'1: 227.
- Kokkorou-Alevras, G. 1992. Τα αρχαία λατομεία μαρμάρου της Νάξου. *Αρχαιολογική Εφημερίς* 131: 101–128.
- Kokkorou-Alevras, G. 1993. Τμήμα κούρου από τον Τουρκολέκα Αρκαδίας, in O. Palagia and W. Coulson (eds) *Sculpture from Arcadia and Laconia* (Oxbow Monograph 30): 13–24. Oxford: Oxbow Books.
- Kokkorou-Alevras, G. 2014. I.1.176: Ημίεργο άγαλμα κούρου από τη Νάξο, in G. Despintis and N. Kaltsas (eds) *Εθνικό Αρχαιολογικό Μουσείο: Γλυπτά των Αρχαϊκών Χρόνων από τον 7ο αιώνα έως το 480 π.Χ.*: 188–190. Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- Kokkorou-Alevras, G. 2015. Η σημασία του καθορισμού της προέλευσης του μαρμάρου των αρχαίων ελληνικών γλυπτών, in L. Karali and G. Pherentinos (eds) *Τετράδια Γεωαρχαιολογίας*: 37–46. Athens: OLKOS.
- Kokkorou-Alevras, G. 2020. A new Hellenistic grave relief stele from the sanctuary of Apollo Pythaios-Pythaeus at ancient Halasarna on the island of Kos, in A. Delivorrias, E. Vikela, A. Zarkadas, N. Kaltsas and I. Trianti (eds) *Σπονδή. Αφιέρωμα στη Μνήμη του Γιώργου Δεσπίνη* (Παράρτημα 12): 721–732. Athens: Μουσείο Μπενάκη.
- Kokkorou-Alevras, G., A. Efstathopoulos, K. Kopanias, E. Poupaki and A. Chatziconstantinou 2006. Αρχαία λατομεία στη «Γυνάικα» και στο Πλατυβούνι Τα-ϋέτου, in *Πρακτικά Β' Τοπικού Συνεδρίου Λακωνικών Σπουδών: Ξηροκάμπι Λακωνίας, 28 Οκτωβρίου – 1 Νοεμβρίου 2004* (Λακωνικά Σπουδαί 13–14): 109–121. Athens: Εταιρεία Λακωνικών Σπουδών.
- Kokkorou-Alevras, G., A. Chatziconstantinou, A. Efstathopoulos, E. Zavvou, N. Themis, K. Kopanias and E. Poupaki 2009a. Ancient quarries in Laconia,

- in W.G. Cavanagh, C. Gallou and M. Georgiadis (eds) *Sparta and Laconia: From Prehistory to Pre-Modern. Proceedings of the Conference held in Sparta, organised by the British School Athens, the University of Nottingham, the 5th Ephorate of Prehistoric and Classical Antiquities and the 5th Ephorate of Byzantine Antiquities, 17-20 March 2005*: 169–179. London: British School at Athens.
- Kokkorou-Alevras, G., A. Chatziconstantinou, A. Efstathopoulos and E. Poupaki 2009b. Ancient Quarries of Kythera, in Ph. Jockey (ed.) *Λευκός Λίθος: Marbres et Autres Roches de la Méditerranée Antique – Études Interdisciplinaires. Actes du 8ème colloque international de l'Association for the Study of Marble and Other Stones Used in Antiquity, Aix-en-Provence, June 12-18, 2006 (ASMOSIA VIII)*: 177–188. Paris: Éd. Karthala, Maison méditerranéenne des sciences de l'homme.
- Kokkorou-Alevras, G., E. Poupaki and A. Efstathopoulos 2010. *Αρχαία Ελληνικά Λατομεία: Οργάνωση Χώρου και Εργασίας, Τεχνικές Λατόμησης και Λάξευσης, Τρόποι Μεταφοράς, Κόστος, Διασπορά και Χρήση Λίθων*. Athens: Πολιτιστικό Ίδρυμα Ομίλου Πειραιώς.
- Kokkorou-Alevras, G., E. Poupaki and A. Efstathopoulos 2013. Αρχαίο λατομείο μαρμάρου στον Απόλλωνα της Νάξου, in I. Probonas and E.S. Psarras (eds) *Πρακτικά Δ' Πανελληνίου Συνεδρίου με θέμα 'Η Νάξος διά μέσου των Αιώνων' (Κωμιακή, 4-7 Σεπτεμβρίου 2008)*: 109–126. Athens: Δήμος Νάξου και Μικρών Κυκλάδων.
- Kokkorou-Alevras, G., E. Poupaki, A. Efstathopoulos, E. Rigatou and A. Chatziconstantinou 2014. *Corpus Αρχαίων Λατομείων. Λατομεία του Ελλαδικού Χώρου από τους Προϊστορικούς έως και τους Μεσαιωνικούς Χρόνους*. Athens: National and Kapodistrian University of Athens.
- Kokkorou-Alevras, G., E. Poupaki, A. Efstathopoulos, E. Rigatou and A. Chatziconstantinou 2019. An overview on ancient quarries of southeastern Attica: The ancient quarries of Hymettus revisited. *Aura* 2: 117–136.
- Kokkorou-Alevras, G. 1993. Die Entstehungszeit der naxischen Delos-Löwen und anderer Tierskulpturen der Archaik. *Antike Kunst* 36: 91–126.
- Kokkorou-Alevras, G. 1995. Die archaische naxische Bildhauerei. *Antike Plastik* 24: 37–138.
- Kokkorou-Alevras, G. 2008. Les Cavaliers archaïques de Délos, in Y. Kourayos and F. Prost (eds) *La Sculpture des Cyclades à l'Époque Archaique: Histoire des Ateliers, Rayonnement des Styles. Actes du colloque international organisé par l'Ephorie des Antiquités préhistoriques et classiques des Cyclades et l'École française d'Athènes (7-9 Septembre 1998)* (Bulletin de Correspondance Hellénique Supplément 48): 417–435. Wilsele: Peeters.
- Kolonas, L. 1981. Οδός Παλληναίων 37 (οικόπεδο Σερεφόγλου). *Αρχαιολογικόν Δελτίον* 36.B'1: 23.
- Kolonas, L. 1997. Τα μνημεία της Αιτωλοακαρνανίας κατά την υλοποίηση της προγραμματικής σύμβασης Αμβρακικού. *Πυρφόρος* 27: 49–83.
- Kolonas, L. 2018. Χάλκινοι ταφικοί λέβητες από τη θέση 'Σταθμός – Κεφαλόβρυσο' του Πρωτογεωμετρικού νεκροταφείου της Σταμνάς Αιτωλοακαρνανίας, in *2ο Διεθνές Αρχαιολογικό-Ιστορικό Συνέδριο Αιτωλοακαρνανίας και Λευκάδας, 6-8 Δεκεμβρίου 2013, Μεσολόγγι*: 71–98. Messolonghi: Υπουργείο Πολιτισμού.
- Kolonas, L. and G. Christakopoulou 1994. Σταμνά. *Αρχαιολογικόν Δελτίον* 49.B'1: 242–243.
- Kolonas, L. and G. Christakopoulou 1998. Επαρχιακή οδός Σταμνάς-Αγγελοκάστρου. *Αρχαιολογικόν Δελτίον* 53.B'1: 281.
- Kolonas, L. and G. Christakopoulou 1999. Σταμνά. *Αρχαιολογικόν Δελτίον* 54.B'1: 271–272.
- Kolonas, L. and G. Christakopoulou 2000. Σταμνά. *Αρχαιολογικόν Δελτίον* 55.B'1: 330.
- Kolonas, L. and G. Christakopoulou 2001-04. Σταμνά. *Αρχαιολογικόν Δελτίον* 56-59.B'2: 72.
- Kontoleon, N. 1960. Ανασκαφάι Νάξου. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας* 1960: 258–262.
- Kontopanagou, M. 2009. Οδός Τέλλου 6. *Αρχαιολογικόν Δελτίον* 64.B'1: 105.
- Kontopanagou, M. 2010a. Άνω Πετράλωνα – Οδός Δημοφώντος 132 και Δωριέων 17 (Ο.Τ. 59014). *Αρχαιολογικόν Δελτίον* 65.B'1: 52.
- Kontopanagou, M. 2010b. Άνω Πετράλωνα – Οδός Τριών Ιεραρχών 159 (Ο.Τ. 59024, οικόπεδο Σ. Λουμάκου). *Αρχαιολογικόν Δελτίον* 65.B'1: 105–107.
- Kontopanagou, M. and A. Stamoudi 2013. Ο αρχαιολογικός χαρακτήρας των Άνω Πετράλων κατά τους κλασικούς και πρώιμους ελληνιστικούς χρόνους, in S. Oikonomou and M. Doga-Toli (eds) *Αρχαιολογικές Συμβολές Β: Αττική, Άκαι Γ' Εφορείες Προϊστορικών και Κλασικών Αρχαιοτήτων*: 305–322. Athens: Μουσείο Κυκλαδικής Τέχνης.
- Kormann, M. and D. Katsonopoulou 2024. Exploring the use of GNSS survey of the Helike Delta with point cloud data visualisation and analysis of dyeworks structures in Late Classical-Hellenistic Helike, in D. Katsonopoulou (ed.) *HELIKE VI: Helike after 373 BC – An Interdisciplinary Approach*: 71–91. Athens: The Helike Society.
- Korres, M. 1994. Από την Πεντέλη στον Παρθενώνα: Τα Αρχαία Λατομεία και η Ιστορία ενός Ημιτελούς Δωρικού Κιονοκράνου του Πρώτου Μαρμάρινου Παρθενώνας. Athens: Melissa.
- Korres, M. 1995. Από την Πεντέλη στον Παρθενώνα. Κατάλογος της Έκθεσης: Τα Αρχαία Λατομεία και η Ιστορία ενός Ημιτελούς Δωρικού Κιονοκράνου του Πρώτου Μαρμάρινου Παρθενώνας. Athens. Melissa.
- Korres, M. (ed.) 2009. *Αττικής Οδοί: Αρχαίοι Δρόμοι της Αττικής*. Athens: Melissa.
- Korres, M. 2021. Αρχαία Λατομεία Μελάνων Νάξου και Κολοσσικά Αγάλματα, in V. Lambrinoudakis, L.G. Mendoni, M. Koutsoubou, T. Panagou, A. Sfyroera

- and X. Charalambidou (eds) *Έξοχος Άλλων. Τιμητικός Τόμος για την Καθηγήτρια Εύα Σημαντώνη-Μπουρνιά*: 315–344. Athens: Υπουργείο Πολιτισμού.
- Korver, J. 1950. Néron et Musonius: À propos du dialogue du Pseudo-Lucian 'Néron, ou sur le percement de l'isthme de Corinthe'. *Mnemosyne* 3: 319–329.
- Koumartzis, N., D. Tzetzis, P. Kyratsis and R.G. Kotsakis 2015. A new music instrument from ancient times: Modern reconstruction of the Greek lyre of Hermes using 3D laser scanning, advanced computer aided design and audio analysis. *Journal of New Music Research* 44.4: 324–346.
- Koumentos, N.I. 1994. Το Μοναστήρι Σταυρός στο Άργος Νισύρου. *Νισυριακά* 13: 31–122.
- Kourayos, Y. 2008. Γλυπτά από το ιερό του Απόλλωνα στη θέση Μάντρα της νησίδας Δεσποτικού και νέα γλυπτά από την Πάρο, in G. Kokkorou-Alevras and W.-D. Niemeier (eds) *Neue Funde Archaischer Plastik aus Griechischen Heiligtümern und Nekropolen. Internationales Symposium, Athen, 2-3. November 2007* (Athenaia 3): 102–132. Munich: Hirmer.
- Kourayos, Y. 2012. *Δεσποτικό: Το ιερό του Απόλλωνα*. Athens: Ίδρυμα Παύλου και Αλεξάνδρας Κανελλοπούλου.
- Kourou, N. 2023. Τήνος – Ξώμπουργο 2021-2022: Η βιοτεχνική περιοχή στα όρια του νεκροταφείου, in *Ανασκαφή και Έρευνα XIV: Από το ερευνητικό έργο του Τομέα Αρχαιολογίας και Ιστορίας Τέχνης του Εθνικού και Καποδιστριακού Πανεπιστημίου Αθηνών*. 14ο Επιστημονικό Συμπόσιο, Αθήνα 1-2.6.2023, viewed 30 January 2024, <<https://hub.uoa.gr/excavation-and-research-xiv/>>.
- Kourou, N. 2024. Αρχαιομεταλλουργικοί κλίβανοι στο Ξώμπουργο της Τήνου, in Π. Μ. Φώσκολος, Μ. Σικφωσκόλου and Μανώλης Σκαρής (eds) *Navigare necesse est. Τιμή στον Κώστα Δανούση*: 75–100. Athens: Αδελφότης των εν Αθήναις Τηνίων.
- Koutelakis, Ch. 1993. Τα Νικιά της Νισύρου 1760-1948: Μέσα από το αρχείο του Σταύρου Χαρτοφύλλη. *Νισυριακά* 12: 147–192.
- Koželj, T. 1988a. Les carrières des époques Grecque, Romaine et Byzantine: Techniques et organisation, in J.C. Fant (ed.) *Ancient Marble, Quarrying and Trade. Papers from a Colloquium held at the Annual Meeting of the Archaeological Institute of America, San Antonio, Texas, December 1986* (BAR International Series 453): 3–79. Oxford: BAR Publishing.
- Koželj, T. 1988b. Extraction of blocks in antiquity: Special methods of analysis, in N. Herz and M. Waelkens (eds) *Classical Marble: Geochemistry, Technology, Trade*: 31–39. Dordrecht-Boston: Kluwer Academic Publishers.
- Koželj, T. and M. Wurch-Koželj 1992. The military protection of the quarries of the Aliko Area during the Byzantine period, in M. Waelkens, N. Herz and L. Moens (eds) *Ancient Stones: Quarrying, Trade and Provenance. Interdisciplinary Studies on Stones and Stone Technology in Europe and Near East from the Prehistoric to the Early Christian Period* (Acta Archaeologica Lovaniensia 4): 43–57. Leuven: Leuven University Press.
- Koželj, T. and M. Koželj-Wurch 1995. Dragon-houses of southern Euboea: Military guard-places of the quarries, in Y. Maniatis, N. Herz and Y. Bassiakos (eds) *The Study of Marble and Other Stones in Antiquity. Proceedings of the 3rd international conference of the Association for the Study of Marble and Other Stones in Antiquity, Athens, Greece, May 17-19, 1993* (ASMOSIA III): 17–31. London: Archetype Publications.
- Koželj, T., A. Muller and J.-P. Sodini 1981. Thasos: Carrières de marbre de la région de Saliari. *Bulletin de Correspondance Hellénique* 105: 961–963.
- Koželj, T., A. Muller and J.-P. Sodini 1982. Thasos: Les carrières de marbre. *Bulletin de Correspondance Hellénique* 106: 676–677.
- Kozlovskaya, V. 2008. The harbour of Olbia. *Ancient Civilizations from Scythia to Siberia* 14: 25–65.
- Krämer, R.P. 2022. *Etruskische Heiligtümer des 8.-5. Jhs. v. Chr. als Wirtschaftsräume und Konsumptionsorte von Keramik* (Italiká 8). Wiesbaden: Reichert Verlag.
- Kremer, G., S. Insulander, E. Draganits, M. Kronberger, B. Moshhammer, M. Mosser and A. Rohatsch 2021. Stone supply for Carnuntum and Vindobona: Provenance analysis in a historico-economical context, in D. van Limbergen and D. Taelman (eds) *The Exploitation of Raw Materials in the Roman World: A Closer Look at Producer-Resource Dynamics: Panel 4.4* (Archaeology and Economy in the Ancient World 27): 47–62. Heidelberg: Propylaeum.
- Kritzas, Ch. and S. Prignitz 2016. A building inscription from Epidauros: IG IV2.1, 114, SEG XLI 298, IG IV2.1, 110. *Αρχαιολογική Εφημερίς* 155: 1–41.
- Kruta Poppi, L. 2015. Casalecchio su Reno (BO), via Isonzo: la tomba 1. Una famiglia di maggiorenti di epoca orientalizzante, in L. Kruta Poppi and D. Neri (eds) *Donne dell'Etruria Padana dall'VIII al VII Secolo a.C.: Tra gestione domestica e produzione artigianale*: 103–117. Florence: All'Insegna del Giglio.
- Krutilov, V.V. 2006. Liteinye formy, in V.N. Zin'ko (ed.) *Drevneishyi temenos Olvii Pontiiskoi* (Materials in Archaeology, History and Ethnography of Tauria. Suppl. 2): 213–220. Simferopol': Krymskoe otdelenie Instituta vostokovedeniya im. A.E. Krymskogo, Tsentr arkheologicheskikh issledovaniy Blagotvoritelnyy fond "Demetra".
- Krutilov, V.V. 2007. Zhelezodelatelnaya masterskaya s syrtzovymi stenami na territorii temenosa Berezanskogo poseleniya, in V.N. Zin'ko and V.V. Krapivina (eds) *Drevnosti Severnogo Prichernomor'ya v antichnoe vremya* (Materials in Archaeology, History and Ethnography of Tauria. Suppl. 4): 117–126. Simferopol': Krymskoe otdelenie Instituta vostokovedeniya im. A.E. Krymskogo, Tsentr arkheologicheskikh issledovaniy Blagotvoritelnyy fond "Demetra".

- Krutilov, V.V. and D.V. Bondarenko 2015. Keramicheskie obzhygatelnye pechi Borisfena serediny VI v. do n.e. (po materialam raskopok 2011-2013 gg.). *Archeologiya i davnya istoriya Ukrainy* 1.15: 205–216.
- Krutilov, V.V., H. Mommsen and J. Fornasier 2021. Neue Perspektiven zur Herkunftsbestimmung griechischer Keramik im nordwestlichen Schwarzmeerraum, in J. Fornasier and A.V. Bujtskich (eds) *An den Ufern des Bug: Deutsch-Ukrainische Ausgrabungen in Olbia Pontike im Kontext internationaler Forschungen zu antiken Migrationsprozessen* (Frankfurter Archäologische Schriften 42): 253–276. Bonn: Habelt Verlag.
- Kuhn, G. 2017. *Kerameikos 19: Das Heilige Tor*. Wiesbaden: Reichert Verlag.
- Kuntz, U.S. 1994. Griechische Reliefs aus Rom und Umgebung, in G. Bauchhenß, H. v. Prittwitz und Gaffron and G. Hellenkemper Salies (eds) *Das Wrack II: Der antike Schiffsfund von Mahdia*: 889–899. Köln: Rheinland-Verlag.
- Kurtz, D.C. and J. Boardman 1994. *Έθιμα Ταφής στον Αρχαίο Ελληνικό Κόσμο*. Athens: Kardamitsa Publications.
- Labarre, D. and S. Willems 2019. Une officine de potiers à Bavay entre la période augustéenne et la période flavienne, in *Actes du Congrès de Maubeuge-Bavay, SFECAG, 30 mai - 2 juin 2019*: 13–23. Marseille: SFECAG.
- Labate, D. 2006. *Castelvetro: Archeologia e Ricerche Topografiche* (Quaderni di Archeologia dell'Emilia Romagna 17). Sesto Fiorentino: All'Insegna del Giglio.
- La Buff, J. 2016. *Polis Expansion and Elite Power in Hellenistic Karia*. Lanham, Boulder, New York and London: Lexington Books.
- Lacroix, L. 1853. *Les Îles de la Grèce*. Paris: Éditions Firmin-Didot.
- Ladstätter, S. 2019. The so-called imperial cult temple for Domitian in Ephesos, in D. Schowalter, S. Ladstätter and S. Friesen (eds) *Religion in Ephesos Reconsidered: Archaeology of Spaces, Structures, and Objects*: 11–40. Leiden: Brill.
- Lahusen, G. and E. Formigli 2001. *Römische Bildnisse aus Bronze: Kunst und Technik*. Munich: Hirmer.
- Lalonde, G.V. 2006. IG 13 1005 B and the boundary of Melite and Kolytos. *Hesperia* 75: 83–119.
- La Marciada, I., M. Maguregiu, H. Morillas and N. Prieto-Taboada 2018. In situ non-invasive characterization of the composition of Pompeian pigments preserved in their local bowls. *Microchemical Journal* 139: 458–466.
- Lambrinouidakis, V.K. 1980. Ανασκαφή Νάξου. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας* 1980: 259–262.
- Lambrinouidakis, V.K. 1991. Ανασκαφή Νάξου. Έργον της εν Αθήναις Αρχαιολογικής Εταιρείας 94-96: 84–96.
- Lambrinouidakis, V.K. 2005. A new archaic building on Naxos: Some thoughts on the Oikos of the Naxians on Delos, in M. Geroulanou and M. Stamatopoulou (eds) *Architecture and Archaeology in the Cyclades. Papers in Honour of J.J. Coulton* (BAR International Series 1455): 79–86. Oxford: BAR Publishing.
- Lambrinouidakis, V.K. 2013. Η βορειοανατολική Νάξος κατά την κλασική αρχαιότητα, in I. Probonas and E.S. Psarras (eds) *Πρακτικά Δ΄ Πανελληνίου Συνεδρίου με θέμα 'Η Νάξος διά μέσου των Αιώνων'* (Κωμιακή, 4-7 Σεπτεμβρίου 2008): 99–108. Athens: Δήμος Νάξου και Μικρών Κυκλάδων.
- Lambrinouidakis, V.K., A. Sfyroera and Th. Bilis 2010. Συντήρηση και Ανάδειξη του Αρχαίου Υδραγωγείου Μελάνων Νάξου, Αρχαίου Ιερού στις Πηγές των Μελάνων και Αγαλμάτων στα Αρχαία Λατομεία της Περιοχής. Athens: National and Kapodistrian University of Athens.
- Lambrinouidakis, V.K. 2021. Ναξιακές σφίγγες, in V.K. Lambrinouidakis, L.G. Mendoni, M. Koutsoubou, T. Panagou, A. Sfyroera and X. Charalambidou (eds) *Έξοχος Άλλων. Τιμητικός Τόμος για την Καθηγήτρια Εύα Σημαντώνη-Μπουρνιά*: 375–391. Athens: Υπουργείο Πολιτισμού.
- LaMotta, V.M. 2012. Behavioral archaeology, in I. Hodder (ed.) *Archaeological Theory Today*: 62–92. Cambridge: Polity Press.
- Lamy, P.-A. and M. Ribolet 2020. Dismantling, re-carving, and re-using: Some observations about the Late Antique city wall of Agedincum, in E.E. Intagliata, C. Courault, and S.J. Barker (eds) *City Walls in Late Antiquity*: 101–108. Oxford: Oxbow Books.
- Lancaster, L. 2010. Parthian influence on vaulting in Roman Greece? An inquiry into technological exchange under Hadrian. *American Journal of Archaeology* 114: 447–472.
- Laroche, D. 2018. Considérations sur les transformations, les dégradations et la ruine des édifices antiques, in O. Zunal, Y. Polat, Yasemin, H. Cevizoğlu and G.R. Gürtekin-Demir (eds) *EPIPHANEIA. A Festschrift for Prof. Dr. Nuran Şahin from her colleagues, friends and former students* (Ege Üniversitesi Edebiyat Fakültesi yayınları 198): 245–256. Izmir: Ege Üniversitesi Basımevi.
- Laroche, D. and A. Jacquemin 2016. L'offrande des Messéniens et Naupactiens à Delphes, in O. Palagia (ed.) *Ναύπακτος: Η Αρχαία Πόλη και η Σημασία της κατά τον Πελοποννησιακό Πόλεμο και τα Ελληνιστικά Χρόνια*: 85–103. Naupaktos: Ίδρυμα Μπότσαρη.
- Laroche, D. and A. Jacquemin 2017. Observations sur le temple d'Apollon à Delphes au IV^e siècle. *Bulletin de la Société Française d'Archéologie Classique* 47/2015-2016: 130–139.
- Lave, J. and E. Wenger 1991. *Situated Learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lazari, K., G. Riginos, Ch. Spanodimos and A. Tzortzatou 2018. Ανασκαφικές έρευνες στα οικόπεδα του Δικαστικού μεγάρου και του Λυρικού θεάτρου στη βόρεια νεκρόπολη της Αρχαίας Κέρκυρας (2000-2007), in *Το Αρχαιολογικό Έργο στη Βορειοδυτική Ελλάδα και τα Νησιά του Ιονίου. Ιωάννινα, 10-13 Δεκεμβρίου 2014* -

- Πρακτικά: 705–716. Athens: Υπουργείο Πολιτισμού και Αθλητισμού.
- Lazaridis, P. 1953. Συμβολή εις την μελέτη των παλαιοχριστιανικών μνημείων της Δωδεκανήσου, in S. Kyriakidou, A. Xuggoroulou and P. Zepou (eds) *Πεπραγμένα του Θ' Διεθνούς Βυζαντινολογικού Συνεδρίου*: 227–248. Thessaloniki: Εταιρεία Μακεδονικών Σπουδών.
- Lazaridou, K. 2004. *Hills of Philorappou-Pnyx-Nymphs: Brief History and Tour* (Archaeological promenades around the Acropolis 7, Published on the occasion of Olympic Games, Athens, 2004). Athens: Ministry of Culture, First Ephorate of Prehistoric and Classical Antiquities.
- Lazzarini, L. 2004. *Pietre e Marmi Antichi: Natura, Caratterizzazione, Origine, Storia d'uso, Diffusione, Collezionismo*. Padova: Cedam.
- Lazzarini, L. 2007. *Poikiloi Lithoi, Versicolores Maculae: I marmi colorati della Grecia antica - storia, uso, diffusione, cave, geologia, caratterizzazione scientifica, archeometria, deterioramento*. Pisa and Rome: Fabrizio Serra Editore.
- Lazzarini, L. 2009. The distribution and re-use of the most important coloured marbles in the provinces of the Roman empire, in Y. Maniatis (ed.) *Actes du 7ème colloque international de l'Association for the Study of Marble and Other Stones in Antiquity, Thassos 15-20 September, 2003* (ASMOSIA VII. Bulletin de Correspondance Hellénique Supplément 51): 459–484. Athens: École française d'Athènes.
- Lazzarini, L. 2019. Ancient mediterranean polychrome stones. *EMU Notes in Mineralogy* 20: 367–392.
- Lazzarini, L. and C. Marconi 2014. A new analysis of major Greek sculptures in the Metropolitan Museum: Petrological and stylistic. *Metropolitan Museum Journal* 49: 117–140.
- Lazzarini, L., D. Visonà, M. Giamello and I. Villa 2012. Archaeometric characterization of one Tunisian and two Italian calcareous alabasters used in antiquity, in A. Gutiérrez Garcia-M., P. Lapuente and I. Rodà (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 9th international conference of Association for the Study of Marble and Other Stones in Antiquity, Tarragona, Spain, June 8-13, 2009*. (ASMOSIA IX. Documenta 23): 436–444. Tarragona: Institut Català d'Arqueologia Clàssica.
- Lefèvre, F. 2019. Privilèges honorifiques ou avantages contractuels? Observations sur quelques documents épigraphiques ambigus. *Chiron* 49: 187–213.
- Lefert, S. and K. Bausier 2011. Villas gallo-romaines en Cendrois namurois: Situations contrastées. *Signa Romana* : 81–99, viewed 22 January 2024, <<https://signaromana.files.wordpress.com/2012/05/jar-2011.pdf>>.
- Leidwanger, J., E.S. Greene, and A. Donnelly 2021. The sixth-century CE shipwreck at Marzamemi. *American Journal of Archaeology* 125.2: 283–317.
- Leka, E. 2012. Unfinished kouros in the Mytilene archaeological museum: Marble sculpture in Lesbos in the Archaic period, in A. Gutiérrez Garcia-M., P. Lapuente and I. Rodà (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 9th international conference of Association for the Study of Marble and Other Stones in Antiquity, Tarragona, Spain, June 8-13, 2009*. (ASMOSIA IX. Documenta 23): 75–81. Tarragona: Institut Català d'Arqueologia Clàssica.
- Lemaître, S. 2007. Contribution à l'étude du mobilier céramique des époques archaïque et classique du Létôon de Xanthos, in S. Lemaître (ed.) *Céramiques Antiques en Lycie (VIIe s. a.C. - VIIe s. p.C.): Les Produits et les Marches*: 115–126. Pessac: Ausonius.
- Lemonnier, P. 1976. La description des chaînes opératoires: Contribution à l'analyse des systèmes techniques. *Techniques and Culture* 1: 100–151.
- Lentini, M.C. 2012. Fours et quartier de potiers à Naxos de Sicile (VIIe-Ve siècle av. J.-C.), in A. Esposito and G.M. Sanidas (eds) *«Quartiers» Artisanaux en Grèce Ancienne, une Perspective Méditerranéenne*: 281–300. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Lenzi, S. 2016. *La Policromia dei Monochromata: La Ricerca del Colore su Dipinti su Lastre di Marmo di Età Romana*. Florence: Firenze University Press.
- Leone, A. 2013. *The End of the Pagan City: Religion, Economy, and Urbanism in Late Antique North Africa*. Oxford: Oxford University Press.
- Lepetz, S. 2008. Boucherie, sacrifice et marché à la viande en Gaule romaine septentrionale: L'apport de l'archéozoologie, in W. Van Andringa (ed.) *Food and History* 5.1/2007. *Special Issue Sacrifices, marché de la viande et pratiques alimentaires dans les cités du monde romain*: 73–105.
- Lernould, A. 2000. Plutarque, E de Delphes 387 d2-9: Une interprétation philosophique de l'épisode de l'enlèvement du trépied par Héraclès – une erreur de jeunesse. *Revue des Études Grecques* 113: 147–171.
- Leroi-Gourhan, A. 1964. *Le Geste et la Parole: Technique et Langage* (Sciences d'Aujourd'hui). Paris: Éditions Albin Michel.
- Leroux, J. 2008. *Building New Brunswick: An Architectural History*. Fredericton: Goose Lane.
- Letta, C. 1971. *Piccola Coroplastica Metapontina nel Museo Archeologico Provinciale di Potenza*. Naples: Libreria scientifica.
- Leveau, P. 1983. La ville antique et l'organisation de l'espace rural: Villa, ville, village. *Annales: Économies, Sociétés, Civilisations* 4: 920–942.
- Leveau, P. 2007. Les moulins de Barbegal 1986–2006, in J. Brun and J. Fiches (eds) *Énergie Hydraulique et Machines Élévatrices d'Eau dans l'Antiquité. Actes du colloque international organisé par l'établissement public de coopération culturelle Pont du Gard, UMR 5140 du CNRS «Archéologie des sociétés méditerranéennes» et le Centre Jean Bérard (UMS 1797 du CNRS/EFR) à Vers-Pont-du-Gard 20 - 22 septembre 2006* : 185–199. Naples: Centre Jean Bérard.

- Leventi, I. and C. Mitsopoulou (eds) 2010. *Ιερά και Λατρείες της Δήμητρας στον Αρχαίο Ελληνικό Κόσμο. Πρακτικά Επιστημονικού Συμποσίου, Πανεπιστήμιο Θεσσαλίας, Τμήμα Ιστορίας, Αρχαιολογίας και Κοινωνικής Ανθρωπολογίας. Βόλος, 4-5 Ιουνίου 2005*. Volos: Εργαστήριο Αρχαιολογίας Πανεπιστημίου Θεσσαλίας, Τμήμα ΙΑΚΑ.
- Levi, E.I. 1985. *Olviya: Gorod Epokhi Ellinizma*. Leningrad: Nauka.
- Lézine, A. 1968. *Carthage-Utique: Études d'Architecture et d'Urbanisme*. Paris: Éditions du CNRS.
- Liangouras, A. 1973-74. Οδός Κυκλώπων 16-18. *Αρχαιολογικόν Δελτίον* 29.Β'1: 41-43.
- Lichtenberger, A. 2011. *Severus Pius Augustus: Studien zur sakralen Repräsentation und Rezeption der Herrschaft des Septimius Severus und seiner Familie (193-211 n. Chr.)*. Leiden: Brill.
- Lindenlauf, A. 2000. Waste Management in Ancient Greece from the Homeric to the Classical period: Concepts and Practices of Waste, Dirt, Recycling and Disposal. Unpublished Doctoral Thesis, University of London, viewed 26 October 2023, <<https://discovery.ucl.ac.uk/id/eprint/1317693/>>.
- Lindenlauf, A. 2001. Thrown away like rubbish – disposal of the dead in ancient Greece. *Papers from the Institute of Archaeology* 12: 86-99.
- Lindenlauf, A. 2006. Recycling of votive offerings in Greek sanctuaries: Epigraphical and archaeological evidence, in C.C. Mattusch, A.A. Donohue and A. Brauer (eds) *Common Ground: Archaeology, Art, Science and Humanities. Proceedings of the XVIth International Congress of Classical Archaeology, Boston, August 23-26, 2003*: 30-32. Oxford: Oxbow Books.
- Liseno, M.G. 2004. *Metaponto: Il Deposito Favale*. Rome: L'Erma di Bretschneider.
- Lister, F.C. and R.H. Lister 1976. *A Descriptive Dictionary for 500 Years of Spanish-Tradition Ceramics (13th through 18th centuries)* (The Society of Historical Archeology special publication series 1). Glassboro, NJ: The Society of Historical Archeology.
- Liverani, P. 2004. Reimpiego senza ideologia: La lettura antica degli spolia dall'arco di Costantino all'età di Teodorico. *Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung* 111: 383-436.
- Liverani, P. 2013. Il museo come 'Spolienraum', in S. Altekamp, C. Marcks-Jacobs and P. Seiler (eds) *Perspektiven der Spolienforschung 1: Spolierung und Transposition* (Topoi. Berlin Studies of the Ancient World 15): 351-365. Berlin and Boston: De Gruyter.
- Liverani, P. and U. Santamaria (eds) 2014. *Diversamente Bianco: La Policromia della Scultura Romana*. Rome: Edizioni Quasar.
- Locatelli, D. 2005. La 'fonderia' della Regio V, insula 5: elementi per una definizione dell'attività produttiva, in G. Sassatelli and E. Govi (eds) *Culti, Forma Urbana e Artigianato a Marzabotto: Nuove Prospettive di Ricerca*: 213-237. Bologna: Università di Bologna.
- Locatelli, D. 2013a. Agricoltori, ma anche mercanti: Distribuzioni e carattere dell'insediamento, in D. Locatelli, L. Malnati and D.F. Maras (eds) *Storie della Prima Parma: Etruschi, Galli, Romani. Le origini della città alla luce delle nuove scoperte archeologiche*: 10-12. Rome: L'Erma di Bretschneider.
- Locatelli, D. 2013b. Una produzione di buccheri monumentali, in D. Locatelli, L. Malnati and D.F. Maras (eds) *Storie della Prima Parma: Etruschi, Galli, Romani. Le origini della città alla luce delle nuove scoperte archeologiche*: 38. Rome: L'Erma di Bretschneider.
- Loewy, E. 1885. *Inschriften griechischer Bildhauer*. Leipzig: B.G. Teubner.
- Logothetis, M. 2017. Τα θειοχώματα του ηφαιστείου της Νισύρου: Διαχρονική προσέγγιση της εκμετάλλευσής τους. *Δωδεκανησιακά Χρονικά ΚΖ'*: 547-556.
- Lolos, Y. 1997. The Hadrianic aquaduct of Corinth (with an appendix on the Roman aqueducts in Greece). *Hesperia* 66.2: 271-314.
- Loney, H.L. 2000. Society and technological control: A critical review of models of technological change in ceramic studies. *American Antiquity* 65: 646-668.
- Loney, H.L. 2007. Prehistoric Italian pottery production: Motor memory, motor development and technological transfer. *Journal of Mediterranean Archaeology* 20.2: 183-207.
- Lo Porto, F.G. 1964. Satyrion (Taranto): Scavi e ricerche nel luogo del più antico insediamento laconico in Puglia. *Atti della Accademia Nazionale dei Lincei. Notizie degli scavi di Antichità* 18: 177-279.
- Lo Porto, F.G. 1966. Metaponto - Scavi e ricerche archeologiche. *Atti della Accademia Nazionale dei Lincei. Notizie degli scavi di Antichità* 20: 136-231.
- Luberto, M.R. 2021. Spazi sacri e aree di produzione a Caulonia e Sibari tra periodo arcaico e classico. *Hesperia. Studi sulla grecità d'Occidente* 39: 105-128.
- Lucas, G. 2012. *Understanding the Archaeological Record*. Cambridge: Cambridge University Press.
- Łukaszewicz, A. 1975. Some remarks on P. Lond. III 755 and the problem of building materials in the fourth century AD. *Archeologia* 30: 115-118.
- Lupu, E. 2005. *Greek Sacred Law: A Collection of New Documents* (Religions in the Graeco-Roman World 152). Leiden: Brill.
- Lynch, T.A.C. and E. Rocconi (eds) 2020. *A Companion to Ancient Greek and Roman Music* (Blackwell Companions to the Ancient World). Hoboken: John Wiley & Sons.
- Lyngouri-Tolia, E. 1985a. Αιολέων και Ψαμάθης. *Αρχαιολογικόν Δελτίον* 40.Β': 16-18.
- Lyngouri-Tolia, E. 1985b. Ανασκαφική έρευνα παρά την Πειραιϊκή πύλη: Νέα στοιχεία για την οχύρωση των Αθηνών. *Αρχαιολογικά Ανάλεκτα εξ Αθηνών* 18: 137-142.
- Lyngouri-Tolia, E. 2000. Evangelismos Station, in L. Parlama and N.Ch. Stampolidis (eds) *Η Πόλη κάτω από την Πόλη: Ευρήματα από τις Ανασκαφές του Μητροπολιτικού Σιδηροδρόμου των Αθηνών*: 208-

214. Athens: Υπουργείο Πολιτισμού, Ίδρυμα Ν.Π. Γουλανδρή, Μουσείο Κυκλαδικής Τέχνης.
- Maas, M. and J.M. Snyder 1989. *Stringed Instruments of Ancient Greece*. New Haven, CT: Yale University Press.
- Macridy, T. 1905. *Altertümer von Notion. Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 8: 155–173.
- Macridy, T. 1912. *Antiquités de Notion II. Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 16: 36–67.
- Magdelaine, C. 2002. Ville et campagne: Réflexions sur la salubrité chez les médecins grecs. *Ktéma* 27: 325–342.
- Magdelaine, C. 2003. Ville, déchets et pollution urbaine chez les médecins grecs, in P. Ballet, P. Cordier and N. Dieudonné-Glad (eds) *La Ville et ses Déchets dans le Monde Romain: Rebut et Recyclages. Actes du colloque de Poitiers, 19-20 Septembre 2002*: 27–36. Montagnac: Éditions Monique Mergoil.
- Maier, F.G. 1959. *Griechische Mauerbauinschriften 1: Text und Kommentare* (Vestigia 1). Heidelberg: Quelle & Meyer.
- Maier, F.G. 1961. *Griechische Mauerbauinschriften 2: Untersuchungen* (Vestigia 2). Heidelberg: Quelle & Meyer.
- Maillot S. 2020. Synoikia: Remarques sur l’habitat locatif et collectif dans le monde égéen classique et hellénistique, in L. Lopez-Rabatel, V. Mathé and J.-Ch. Moretti (eds) *Dire la Ville en Grec aux Époque Antique et Byzantine. Actes du colloque de Créteil, 10-11 juin 2016*: 77–96. Lyon: MOM éditions.
- Maischberger, M. 2009. Das Nymphäum, in O. Dally, M. Maischberger, P.I. Schneider and A. Scholl (eds) *ZeitRäume - Milet in Kaiserzeit und Spätantike. Ausstellung der Antikensammlung und des Deutschen Archäologischen Instituts im Pergamonmuseum auf der Berliner Museumsinsel, 6. Mai 2009 - 10. Januar 2010*: 97–107. Regensburg: Schnell & Steiner.
- Malnati, L. 2015. Emilia, in A. Naso (ed.) *Etruscology: 1437–1452*. Boston and Berlin: De Gruyter.
- Maniaki, A. 2009. Δρέπανο, θέση Αλώνια (οικόπεδα Ε. Χαλκίδη και Ε. Καρέλα). *Αρχαιολογικόν Δελτίον* 64.Β’: 419–422.
- Maniaki, A. 2013. Δρέπανο, οικόπεδο Η. Ηλιοπούλου. *Αρχαιολογικόν Δελτίον* 68.Β’: 341–343.
- Maniaki, A. 2014. Αρχαίο νεκροταφείο στο Δρέπανο Αχαΐας. *Αρχαιολογική Εφημερίς* 153: 141–183.
- Maniaki, A. 2019a. New research in the cemetery of Drepanon in Achaea: Preliminary results, in E. Greco and A. Rizakis (eds) *Gli Achei in Grecia e in Magna Grecia: Nuove scoperte e nuove prospettive. Atti del convegno di Aigion (12-13.12.2016)* (Annuario della Scuola archeologica di Atene e delle missioni italiane in Oriente, Supplemento 3): 241–259. Rome: Scuola Archeologica Italiana di Atene.
- Maniaki, A. 2019b. Το αρχαίο νεκροταφείο του Δρεπάνου Αχαΐας. Η παρουσίαση των δεδομένων από τις πρώτες έρευνες της Αρχαιολογικής Υπηρεσίας έως σήμερα, in E. Kountouri and A. Gadolou (eds) *Σωστικές ανασκαφές της Αρχαιολογικής Υπηρεσίας Ι: Τα νεκροταφεία. Χωροταξική οργάνωση – ταφικά έθιμα – τελετουργίες*: 95–124. Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- Maniaki, A. and I. Moutafi 2019. The latest Geometric finds of the cemetery in Drepanon Achaea, Greece: The rescue excavation at the Iliopoulos plot. *Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 88: 281–344.
- Maniatis, Y., Y. Facorellis, S. Soter, D. Katsonopoulou and B. Kromer 1995. Locating archaeological horizons with 14C sediment dating: The case of the lost city of Helike. *Radiocarbon* 37.3: 931–941.
- Mann, M.I. (1962) 1978. *Méthodes Artisanales de Tannage* (Organisation des Nations Unies pour l’alimentation et l’agriculture). Rome: F.A.O.
- Marano, Y. 2016. The circulation of marble in the Adriatic Sea at the time of Justinian, in J. Herrin and J. Nelson (eds) *Ravenna: Its Role in Earlier Medieval Change and Exchange*: 111–132. London: University of London Press.
- Marano, Y. 2020. Teoria e pratica del reimpiego in età romana: Fonti scritte ed evidenza archeologica, in E. Culasso-Gastaldi (ed.) *La Seconda Vita delle Iscrizioni: E Molte Altre Ancora*: 107–132. Alessandria: Edizioni dell’Orso.
- Marc, J.-Y. 1995. Who owned the marble quarries of Thasos during the Imperial Period?, in Y. Maniatis, N. Herz and Y. Bassiakos (eds) *The Study of Marble and Other Stones in Antiquity. Proceedings of the 3rd international conference of the Association for the Study of Marble and Other Stones in Antiquity, Athens, Greece, May 17-19, 1993* (ASMOSIA III): 33–37. London: Archetype Publications.
- Marcadé, J., A. Hermary, Ph. Jockey and Fr. Queyrel (eds) 1996. *Sculptures Déliennes* (Sites et Monuments 17). Paris: Éditions de Boccard.
- Marchiandi, D. and L. Mercuri 2011. s.v. Il Santuario di Pan presso la chiesa di Hag. Fotini, in E. Greco (ed.) *Topografia di Atene: Sviluppo urbano e monumenti dalle origini al III secolo d.C. Colline sud-occidentali - Valle dell’Ilisso* (Studi di Archeologia e di Topografia di Atene e dell’Attica 1.2): 485–486. Athens, Paestum: Scuola Archeologica Italiana di Atene, Pandemos.
- Marginesu, G. 2010. *Gli Epistati dell’Acropoli: Edilizia Sacra nella Città di Pericle 447/6-433/2 a.C.* (Studi di Archeologia e di Topografia di Atene e dell’Attica 5). Athens, Paestum: Scuola Archeologica Italiana di Atene, Pandemos.
- Marinatos, S. 1960. Helice: A submerged town of classical Greece. *Archaeology* 13.3: 186–193.
- Mark, I.S. 1993. *The Sanctuary of Athena Nike in Athens: Architectural Stages and Chronology* (Hesperia Supplements 26). Princeton, NJ: ASCSA.
- Marksteiner, Th. 1997. *Die befestigte Siedlung von Limyra: Studien zur vorrömischen Wehrarchitektur und Siedlungsentwicklung in Lykien unter besonderer*

- Berücksichtigung der klassischen Periode* (Forschungen in Limyra). Vienna: Phoibos.
- Maršić, D. 2007. Novi Heraklov žrtvenik iz Trogira. *Archaeologia Adriatica* 1.1: 111–128.
- Martens, M. and S. Willems 2002. La production et la diffusion de céramiques locales: Les exemples de Tirmont et Tongres, in *Actes du Congrès de Bayeux, SFECAG, 9-12 mai 2002*: 331–344. Marseille: SFECAG.
- Martin, R. 1965. *Manuel d'Architecture Grecque I: Matériaux et Techniques*. Paris: A. and J. Picard.
- Martin, R. 1971. Le monument des Néréides et l'architecture funéraire. *Revue Archéologique* 1971 N.S. 2: 327–337.
- Maschek, D. 2016. The marble stoa at Hierapolis: Materials, labour force and building costs, in T. Ismaelli and G. Scardozzi (eds) *Ancient Quarries and Building Sites in Asia Minor: Research on Hierapolis in Phrygia and Other Cities in South-Western Anatolia – Archaeology, Archaeometry, Conservation* (Bibliotheca Archaeologica 45): 393–402. Bari: Edipuglia.
- Masi von Eles, P. 1982. 78 Imola, via di Montericco: Insestimento, in P. Masi von Eles (ed.) *La Romagna tra VI e V sec. a.C.: La Necropoli di Montericco e la Protostoria Romagnola*: 142. Bologna: University Press.
- Mastrokostas, E. 1961–62. Αρχαιότητες και μνημεία Αιτωλοακαρνανίας. *Αρχαιολογικόν Δελτίον* 17.B': 182–185.
- Mastrokostas, E. 1963. Ανασκαφή Αγίου Ηλίας Ιθωρίας. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας* 1963: 203–217.
- Mastrokostas, E. 1965. Αρχαιότητες και μνημεία Αχαΐας. *Αρχαιολογικόν Δελτίον* 20.B'2: 220–227.
- Mastrokostas, E. 1967. Αρχαιότητες και μνημεία Αιτωλοακαρνανίας. *Αρχαιολογικόν Δελτίον* 22.B'2: 318–324.
- Mastrokostas, E. 1985. Αποθράυματα υστεροαρχαϊκών εναετίων γλυπτών εκ Κερυνείας Αχαΐας, in H. Kyrileis (ed.) *Archaische und Klassische griechische Plastik. Akten des internationalen Kolloquiums vom 22.-25. April 1985 in Athen*: 139–141. Mainz: Philipp von Zabern.
- Matijević, K. 2010. *Römische und Frühchristliche Zeugnisse im Norden Obergermaniens: Epigraphische Studien zu unterer Mosel und östlicher Eifel* (Pharos 27). Rahden, Westf.: VML Verlag Marie Leidorf.
- Matijević, K. 2016. Hercules Saxanus: Germanisch, keltisch oder römisch?, in K. Matijević (ed.) *Kelto-Römische Gottheiten und ihre Verehrer. Akten des 14. F.E.R.C.A.N.-Workshops, Trier, 12.–14. Oktober 2015* (Pharos 39): 41–73. Rahden, Westf.: VML Verlag Marie Leidorf.
- Mattern, M. 2005. *Römische Steindenkmäler aus Hessen südlich des Mains sowie vom bayerischen Teil des Mainlimes* (Corpus Signorum Imperii Romani, Deutschland II.13). Mainz: Verlag des Römisch-Germanischen Zentralmuseums.
- Matthiesen, U. 2005. *KnowledgeScapes: Pleading for a Knowledge Turn in Socio-Spatial Research* (Working Paper, No. 31). Erkner: Leibniz-Institut für Regionalentwicklung und Strukturplanung (IRS).
- Mattusch, C.C. 1977. Bronze- and ironworking in the area of the Athenian Agora. *Hesperia* 46.4: 340–379.
- Mattusch, C.C. 1988. *Greek Bronze Statuary: From the Beginning Through the Fifth Century B.C.* Ithaca, London: Cornell University Press.
- Mattusch, C.C. and H. Lie 2005. *The Villa dei Papiri at Herculaneum: Life and Afterlife of a Sculpture Collection*. Los Angeles: Getty Publications.
- Mauné, S., N. Monteix and M. Poux (eds) 2013. *Cuisines et Boulangeries en Gaule Romaine* (coll. Gallia 70.1). Paris: Éditions du CNRS.
- McDonald, W.A., W.D.E. Coulson and J. Rosser 1983. *Excavations at Nichoria in Southwest Greece III: Dark Age and Byzantine Occupation*. Minneapolis: University of Minnesota Press.
- Mégnién, C. (ed.) 1980. *Synthèse Géologique du Bassin de Paris III: Lexique des Noms de Formations* (Mémoire BRGM 104). Paris: Édition de BRGM.
- Meirano, V. 2012. Productions et espaces artisanaux à Locres Epizéphyrienne, in A. Esposito and G. Sanidas (eds) «Quartiers» *Artisanaux en Grèce Ancienne, une Perspective Méditerranéenne*: 255–279. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Meneghini, R. and R. Santangeli Valenzani 2007. *I Fori Imperiali: Gli Scavi del Comune di Roma (1991-2007)*. Rome: Viviani.
- Metzger, H. 1963. *Fouilles de Xanthos II: L'Acropole Lycienne*. Paris: Klincksieck.
- Metzger, H. 1972. *Fouilles de Xanthos IV: Les Céramiques Archaiques et Classiques de l'Acropole Lycienne*. Paris: Klincksieck.
- Meylan-Krause, M.-F. (in press). Aventicum (Avenches, Suisse), capitale de la cité des Helvètes: Les artisanats urbains/suburbains et leur interaction avec les agglomérations et des domaines ruraux de l'arrière-pays, in G. Pagès and R. Clotuche (eds) *L'Influence des Activités Économiques dans l'Occupation du Territoire de l'Antiquité au Moyen Âge*. Nanterre: Presses universitaires Paris Nanterre.
- Miari, M. 2003. Un impianto produttivo per ceramica a Savignano sul Rubicone (FO), in *Atti del XXXV Convegno di Studi dell'Istituto Italiano di Preistoria e Protostoria*: 499–514. Florence: Istituto Italiano di Preistoria e Protostoria.
- Miari, M. 2016. Il Garampo nell'età del Ferro, in M. Miari and C. Negrelli (eds) *Ritmi di Transizione 2: Dal Garampo al Foro Annonario: Ricerche Archeologiche 2009–2013* (Ca' Foscari di Venezia Monografie): 149–150. Sesto Fiorentino: All'Insegna del Giglio.
- Miari, M. 2022. Il materiale ceramico nella Romagna più interna, in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 205–215. Rome: L'Erma di Bretschneider.
- Miari, M., C. Mazzoni, C. Gentile and T. Rossi 2008. San Zaccaria-Maiano (RA): Indagine archeologica su un

- complesso produttivo della seconda età del Ferro, in M. Ficara and V. Manzelli (eds) *Orme nei Campi: Archeologia a Sud di Ravenna* (Quaderni di Archeologia dell'Emilia Romagna 20): 13–36. Sesto Fiorentino: All'Insegna del Giglio.
- Michel, C. and M.-L. Nosch (eds) 2010. *Textile Terminologies in the Ancient Near East and Mediterranean from the Third to the First Millennia BC* (Ancient Textiles Series 8). Oxford and Oakville: Oxbow Books.
- Mielsch, H. 1982. Review of Fraser, P.M. 1977. Rhodian funerary monuments. Oxford: Clarendon Press. *Gnomon* 54: 574–577.
- Miliadis, I. 1956. Ανασκαφαί νοτίως της Ακροπόλεως. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας* 1956: 262–265.
- Miliadis, I. 1957. Ανασκαφή νοτίως της Ακροπόλεως. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας* 1957: 23–26.
- Miller Ammerman, R. 1991. The naked standing goddess: A group of Archaic terracotta figurines from Paestum. *American Journal of Archaeology* 95: 203–230.
- Mirković, M. 1971. Sirmium: Its history from the 1st century AD to 582 AD, in Đ. Bošković (ed.) *Sirmium I: Archaeological Investigations in Syrmian Pannonia*: 5–90. Belgrade: National Archaeological Institute.
- Misailidou-Despotidou, V. 2020. Τα κεραμικά εργαστήρια της Μακεδονίας στους υστεροκλασικούς και ελληνιστικούς χρόνους. Τυπολογία και διάδοση, in S. Drougou (ed.) *Κεραμεία, Τεχνίτες και Εργαστήρια. 1^η Διεθνής Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική/Pottery Workshops, Craftsmen and Workshops. 10th International Scientific Meeting on Hellenistic Pottery*: 14–48. Athens: Ταμείο Αρχαιολογικών Πόρων.
- Mitchell, W.J.T. 2005. *What do Pictures Want? The Lives and Loves of Images*. Chicago: University Press of Chicago.
- Mitford, T.B. 1950. Kafizin and the Cypriot syllabary. *The Classical Quarterly* 44.3-4: 97–106.
- Mitford, T.B. 1980. *The Nymphaeum of Kafizin: The Inscribed Pottery* (Kadmos Supplement 2). Berlin and New York: De Gruyter.
- Mitsopoulou, C. 2010. Το ιερό της Δήμητρας στην Κύθνο και η μίσθωση του Ελευσινιακού τεμένους, in I. Leventi and C. Mitsopoulou (eds) *Ιερά και λατρείες της Δήμητρας στον αρχαίο ελληνικό κόσμο. Πρακτικά Επιστημονικού Συμποσίου, Πανεπιστήμιο Θεσσαλίας, Τμήμα Ιστορίας, Αρχαιολογίας και Κοινωνικής Ανθρωπολογίας. Βόλος, 4-5 Ιουνίου 2005*: 43–90. Volos: Εργαστήριο Αρχαιολογίας Πανεπιστημίου Θεσσαλίας, Τμήμα ΙΑΚΑ.
- Mitsopoulou, C. 2011. The Eleusinian processional cult vessel. Iconographic evidence and Interpretation, in M. Hayson and J. Wallensten 2011 (eds) *Current Approaches to Religion in Ancient Greece. Papers presented at a symposium at the Swedish Institute at Athens. 17-19 April 2008* (Skrifter utgivna av Svenska institutet i Athen. 80 = Acta Instituti Atheniensis Regni Sueciae): 189–226 Stockholm: Swedish Institute at Athens.
- Mitsopoulou, C. 2014. Το αττικό σκεύος των Ελευσινίων Μυστηρίων: Πρόταση χρονολόγησης, in *Η' Επιστημονική Συνάντηση για την Ελληνιστική Κεραμική. Ιωάννινα, 5-9 Μαΐου 2009*: 441–467. Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- Mittica, G. and N. Perrone 2019. Espressioni votive e rituali nel Santuario arcaico di Timpone della Motta: Le novità dagli scavi DIR 2017*. *Analecta Romana Instituti Danici* 43: 237–263.
- Moeinipour, K., R. Ellerbrok, A.R. Bührig-Polaczek, P.R. Ellerbrok, G. Sahm, G. Zimmer and A. Dostert 1995. Bestimmung historischer Gießtechnik mittels numerischer Simulation am Beispiel etruskischer Handspiegel. *Berliner Beiträge zur Archäometrie* 13: 5–86.
- Monaco, M.C. 2000. *Ergasteria: Impianti Artigianali Ceramici ad Atene ed in Attica dal Protogeometrico alle Soglie dell'Ellenismo*. Rome: L'Erma di Bretschneider.
- Monaghan, M.D. 2013. Coats of Many Colours: Dyeing and Dyeworks in Classical and Hellenistic Greece. Unpublished PhD dissertation, University of Leicester. Ann Arbor, MI: ProQuest.
- Monteix N. 2010a. La localisation des métiers dans l'espace urbain: Quelques exemples pompéiens, in P. Chardron-Picault (ed.) *Aspects de l'Artisanat en Milieu Urbain: Gaule et Occident Romain. Actes du colloque international d'Autun, 20-22 sept. 2007* (Revue archéologique de l'Est Supplément 28): 147–160. Dijon: Revue Archéologique de l'Est.
- Monteix, N. 2010b. *Les Lieux de Métier: Boutiques et Ateliers d'Herculanum* (Bibliothèque des Écoles françaises d'Athènes et de Rome 344). Rome: École française de Rome.
- Monteix, N. 2016. Contextualizing the operational sequence: Pompeian bakeries as a case study, in A. Wilson and M. Flohr (eds) *Urban Craftsmen and Traders in the Roman World*: 153–180. Oxford: Oxford University Press.
- Monthel, G. and M. Pinette 1977. La carrière gallo-romaine de Saint-Boil. *Revue d'archéologie de l'Est et du Centre-Est* 28: 50–51.
- Moore, H. 1934. Statement for Unit One, in H. Read (ed.) *Unit One: The Modern Movement in English Architecture*: 29–30. London: Cassell and Company Ltd.
- Moralee, J. 2006. The stones of St. Theodore: Disfiguring the pagan past in Christian Gerasa. *Journal of Early Christian Studies* 14.2: 183–215.
- Moretti, J.-C., N. Bresch, I. Bonora, J.-J. Malmay and O. Riss 2016. Claros, le temple d'Apollon: Travaux réalisés en 2015. *Anatolia Antiqua* 24: 299–310.
- Morgan, C., R.K. Pitt and T. Whitelaw 2008-09. Archaeology in Greece 2008-2009. *Archaeological Reports* 55: 1–101.
- Morigi Govi, C. 1981. L'anforetta con iscrizione etrusca da Bologna. *Studi Etruschi* 49: 67–93.

- Morpurgo, G. 2017. Luoghi di produzione urbani tra Bologna e Marzabotto, in M.C. Biella, R. Cascino, A. F. Ferrandes and M. Revello Lami (eds) *Scienze dell'Antichità 23.2. Special Issue Gli Artigiani e la Città. Officine e aree produttive tra VIII e III sec. a.C. nell'Italia centrale tirrenica*: 353–375.
- Morpurgo, G., C. Pizzirani and C. Mattioli 2017. The craft settings in Kainua-Marzabotto: Places and archaeological issues. *Archeologia e Calcolatori* 28.2: 113–127.
- Moschos, I. 2009. Western Achaea during the succeeding LHIII C Late period – The final Mycenaean phase and the Submycenaean period, in S. Deger-Jalkotzy and A.E. Bächle (eds) *LH III C Chronology and Synchronisms III: LH III C Late and the Transition to the Early Iron Age. Proceedings of an international workshop held at the Austrian Academy of Sciences at Vienna, 23-24 February 2007* (Mykenische Studien 30, Denkschriften der philosophisch-historischen Klasse 384): 235–288. Vienna: Österreichische Akademie der Wissenschaften.
- Moschou, L., S. Raftopoulou and Th. Chatzitheodorou 1998. Λίθος ερυθρός Ταivάριος. *Αρχαιολογικόν Δελτίον* 53.A': 267–288.
- Mossé, C. 1993. Les polykrateia erga à Samos: Un exemple d'architecture tyrannique?, in J. des Courtils and J.-C. Moretti (eds) *Les Grands Ateliers d'Architecture dans le Monde Égéen du VIe s. av. J.-C. Actes du colloque d'Istanbul, 23-25 mai 1991* (Varia Anatolica III): 77–81. Istanbul: Institut français d'Études Anatoliennes.
- Moustaka, A. 2014. I.1.70: Ο κούρος Α του Σουνίου, in G. Despinis and N. Kaltsas (eds) *Εθνικό Αρχαιολογικό Μουσείο: Γλυπτά των Αρχαϊκών Χρόνων από τον 7ο αιώνα έως το 480 π.Χ.*: 94–100. Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- Moutsopoulos, N. 1982. Τα δρακόσπιτα της ΝΔ Εύβοιας: Συμβολή στην αρχιτεκτονική, την τυπολογία και τη μορφολογία τους. *Επιστημονική Επετηρίδα της Πολυτεχνικής Σχολής. Τμήμα Αρχιτεκτόνων. Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης* 8.1978-1980: 263–479.
- Mühlbauer, L. 2006. Ein lykisches Fußmaß?, in K. Dörflük, B. Varkivanç, T. Kahya, J. des Courtils, M. Alparslan and R. Boyraz (eds) *The IIIrd International Symposium on Lycia, 07-10 November 2005, Antalya. Symposium Proceedings II*: 489–514. Antalya: Suna & Inan Kiraçk Research Institute on Mediterranean Civilizations.
- Muller, A. and E. Laflı (eds) 2016. *Figurines en Terre Cuite en Méditerranée Grecque et Romaine 1: Production, Diffusion, Étude. Actes du colloque international Colloquia Anatolica et Aegea Antiqua. Izmir, 2-6 juin 2007* (Bulletin de Correspondance Hellénique Supplément 54). Athens: École française d'Athènes.
- Mulliez, D. 1998. Vestiges sans ateliers: Le lapicide. *Topoi* 8.2: 815–830.
- Mulliez, D. 2016. La loi, la norme et l'usage dans les relations entre maîtres et esclaves à travers la documentation delphique (200 av. J.-C. – 100 ap. J.-C.), in M. Dondin-Payre and N. Tran (eds) *Esclaves et Maîtres dans le Monde Romain: Expressions Épigraphiques de Leurs Relations*: 13–30. Rome: École française de Rome.
- Munro, B. 2011. Approaching architectural recycling in Roman and Late Roman villas, in D. Mladenović and B. Russell (eds) *TRAC 2010. Proceedings of the Twentieth Annual Theoretical Roman Archaeology Conference, Oxford 2010*: 76–88. Oxford: Oxbow Books.
- Munro, B. 2016. Sculptural deposition and lime kilns at Roman villas in Italy and the western provinces in Late Antiquity, in T.M. Kristensen and L. Stirling (eds) *The Afterlife of Greek and Roman Sculpture: Late Antique Responses and Practices*: 47–67. Ann Arbor: University of Michigan Press.
- Munro, B. 2020. The organized recycling of Roman villa sites, in C. Duckworth and A. Wilson (eds) *Recycling and Reuse in the Roman Economy*: 383–400. Oxford: Oxford University Press.
- Murer, C. 2016. The reuse of funerary statues in Late Antique prestige buildings at Ostia, in T.M. Kristensen and L. Stirling (eds) *The Afterlife of Greek and Roman Sculpture. Late Antique Responses and Practices*: 177–197. Michigan: University of Michigan Press.
- Murer, C. 2018. From the tombs into the city: Grave robbing and the reuse of funerary spolia in Late Antique Italy. *Acta ad Archaeologiam et Artium Historiam Pertinentia* 30.16 N.S.: 115–137.
- Murer, C. 2022. Recycling Roman funerary sculpture in Italy and the Late Roman West, in C. Parigi (ed.) *Recycling and Reuse of Sculpture in Roman and Late Antique Times: Panel 6.8. Proceedings of the 19th International Congress of Classical Archaeology, Cologne/Bonn 2018*: 49–57. Heidelberg: Propylaeum.
- Müseler, W. and D. Schürr 2018. Zur Chronologie in den Inschriften auf dem Agora-Pfeiler von Xanthos (TL 44), den betroffenen Dynasten und ihren Münzen. *Klio* 100: 381–406.
- Nazarov, V.V. 2007. A temenos of the 6th century B.C. at Berezan, in J. Cobet, V. von Graeve, W.-D. Niemeier and K. Zimmermann (eds) *Frühes Ionien: Eine Bestandsaufnahme. Panionion-Symposium Güzelçamlı 26. September – 1. Oktober 1999*: 541–549. Mainz: Philipp von Zabern.
- Neer, R. 2001. Framing the gift: The politics of the Siphnian treasury at Delphi. *Classical Antiquity* 20.2: 273–344.
- Negrini, C. 2022. Dalla Valle del Marecchia a San Martino in Gattara: Influenze etrusche ed alto-tiberine nelle produzioni ceramiche umbro-padane di VI secolo a.C., in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 217–236. Rome: L'Erma di Bretschneider.

- Neri, D. 2007. *Catalogo della Ceramica con Decorazione a Stampiglia nell'Emilia Centro-Occidentale*. Nonantola: Centro Studi Nonantolani.
- Neri, D. 2012. *Gli Etruschi tra VIII e VII sec. a.C. nel Territorio di Castelfranco Emilia (MO)* (Quaderni di archeologia dell'Emilia Romagna 29). Sesto Fiorentino: All'Insegna del Giglio.
- Ng, D.Y. and M. Swetnam-Burland (eds) 2018. *Reuse and Renovation in Roman Material Culture: Functions, Aesthetics, Interpretations*. Cambridge: Cambridge University Press.
- Niemeier, W.-D. 2002. *Der Kuros vom Heiligen Tor: Überraschende Neufunde Archaischer Skulptur im Kerameikos in Athen*. Mainz: Philipp von Zabern.
- Niewöhner, P. 2018. Varietas, spolia, and the end of antiquity in East and West, in I. Jevtić and S. Yalman (eds) *Spolia Reincarnated: Afterlives of Objects, Materials, and Spaces in Anatolia from Antiquity to the Ottoman Era: 237–257*. Istanbul: Anamed.
- Niewöhner, P. 2019. Byzantine preservation of ancient monuments at Miletus in Caria: Christian antiquarianism in western Asia Minor, in J. Borsch, O. Gengler and M. Meier (eds) *Die Weltchronik des Johannes Malalas im Kontext spätantiker Memorialkultur: 191–216*. Stuttgart: Franz Steiner Verlag.
- Nijboer, A.J. 1998. From Household Production to Workshops: Archaeological Evidence for Economic Transformations, Pre-Monetary Exchange and Urbanisation in Central Italy from 800 to 400 BC. Unpublished PhD dissertation, Rijksuniversiteit Groningen.
- Nikolić, D. 2019. Stoneworkers' Hercules. A comment on an Upper Moesian inscription. *Studia Antiqua et Archaeologica* 25.2: 457–463.
- Noble, J. 1960. The technique of Attic vase-painting. *American Journal of Archaeology* 64: 307–318.
- Noethlich, K.L. 2013. Kaiserzeitliche und spätantike staatliche Regularien zur Spolierung – ein Kommentar, in S. Altekamp, C. Marcks-Jacobs and P. Seiler (eds) *Perspektiven der Spolienforschung 1: Spolierung und Transposition* (Topoi. Berlin Studies of the Ancient World 15): 11–21. Berlin and Boston: De Gruyter.
- Nolte, S. 2006. *Steinbruch-Werkstatt-Skulptur: Untersuchungen zu Aufbau und Organisation griechischer Bildhauerwerkstätten* (Beihefte zum Göttinger Forum für Altertumswissenschaft 18). Göttingen: Edition Ruprecht.
- Nora, P. 1990. *Zwischen Geschichte und Gedächtnis. Aus dem Französischen von Wolfgang Kaiser*. Berlin: Verlag Klaus Wagenbach.
- Nosch, M.-L. 2014. Linen textiles and flax in Classical Greece: Provenance and trade, in H. von Kerstin Droß-Krüpe (ed.) *Textile Trade and Distribution in Antiquity: 17–42*. Wiesbaden: Harrassowitz.
- Oakley, J., W. Coulson and O. Palagia (eds) 1997. *Athenian Potters and Painters. The conference proceedings*. Oxford: Oxbow Books.
- Ogden, D. 2009. *Magic, Witchcraft, and Ghosts in the Greek and Roman Worlds*. Oxford: Oxford University Press.
- Oikonomou, A. and P. Triantafyllidis 2018. An archaeometric study of archaic glass from Rhodes, Greece: Technological and provenance issues. *Journal of Archaeological Science* 22: 493–505.
- Olcese, G. 2012. *Atlante dei Siti di Produzione Ceramica (Toscana, Lazio, Campania e Sicilia) con le Tabelle dei Principali RELITTI del Mediterraneo Occidentale (Immensa Aequora 2)*. Rome: Edizioni Quasar.
- Ol'govskii, S.Ya. 2011. *Skifo-Antychna Metaloobrobka Arkhaichnogo chasu*. Kyiv: KNT.
- Onasoglou, A. 1981. Οι Γεωμετρικοί τάφοι της Τραγάνας στην Ανατολική Λοκρίδα. *Αρχαιολογικόν Δελτίον* 36.Α': 1–57.
- Orfanou, V. 1993. Οδός Τριών Ιεραρχών 196. *Αρχαιολογικόν Δελτίον* 48. Β'1: 38.
- Orfanou, V. 1994. Οδός Δημοφώντος 115 και Κυκλώπων 31. *Αρχαιολογικόν Δελτίον* 49.Β'1: 40.
- Orfanou, V. and N. Kaletzi 1994. Οδός Δωριέων 15. *Αρχαιολογικόν Δελτίον* 49.Β'1: 40–41.
- Orlandi, S. 2017. Urban prefects and the epigraphic evidence of Late-Antique Rome. *Antiquité Tardive* 25: 213–222.
- Orlandini, P. 1983. Le arti figurative, in G. Pugliese Carratelli, D. Adamesteanu, L. Forti, A. Frajese, M. Gigante, G. Gullini, P. Orlandini, C. Rolley, A. Stazio, Á. Szabó and L. Vagnetti (eds) *Megale Hellas: Storia e Civiltà della Magna Grecia: 329–554*. Milan: Libri Scheiwiller.
- Orlandos, A. 1924–25. Ανασκαφαί εν Μολυκρείω της Αιτωλίας. *Αρχαιολογικόν Δελτίον* 9 (Παράρτημα/Appendix): 55–64.
- Orlandos, A. 1947. Nouvelles observations sur la construction du temple d'Athéna Niké. *Bulletin de Correspondance Hellénique* 71-72: 1–3.
- Orlandos, A. 1959–60. Τα Υλικά Δομής των Αρχαίων Ελλήνων και οι Τρόποι Εφαρμογής αυτών κατά τους Συγγραφείς, τας Επιγραφάς και τα Μνημεία 2: Τα Μέταλλα, το Ελεφαντοστόν, τα Κονιάματα και οι Λίθοι. Athens: Η εν Αθήναις Αρχαιολογική Εταιρεία.
- Orlandos, A. 1994. Τα Υλικά Δομής των Αρχαίων Ελλήνων και οι Τρόποι Εφαρμογής αυτών κατά τους Συγγραφείς, τας Επιγραφάς και τα Μνημεία. Athens: Η εν Αθήναις Αρχαιολογική Εταιρεία.
- Ormerod, H.A. 1909–10. Laconia II: Topography. *Annual of the British School at Athens* 16: 62–71.
- Ortalli, J. 2002. La 'rivoluzione' felsinea: nuove prospettive dagli scavi di Casalecchio su Reno. *Padusa* 38: 57–90.
- Ortalli, J. 2009. Modena e il suo territorio: Fisionomia e peculiarità di una colonia Romana, in A. Cardarelli and L. Malnati (eds) *Atlante dei Beni Archeologici della Provincia di Modena III: Collina e Alta Pianura: 76–86*. Sesto Fiorentino All'Insegna del Giglio.
- Østby, E. 2000. Delphi and archaic Doric architecture in the Peloponnese, in A. Jacquemin (ed.) *Delphes:*

- Cent Ans après la Grande Fouille – Essai de bilan. Actes du colloque international, Athènes-Delphes 17-20 septembre 1992* (Bulletin de Correspondance Hellénique Supplément 36): 239–262. Athens: École française d’Athènes.
- Østby, E. 2014. The sanctuary of Alea at Tegea in the pre-Classical period, in E. Østby (ed.) *Tegea I: Investigations in the Temple of Athena Alea 1991-94* (Papers and Monographs from the Norwegian Institute at Athens 3): 11–56. Athens: Norwegian Institute at Athens.
- Østergaard, J.S. 2008. Emerging colors: Roman sculptural polychromy revived, in R. Panzanelli, E.D. Schmidt and K. Lapatin (eds) *The Color of Life: Polychromy in Sculpture from Antiquity to the Present*: 40–61. Los Angeles: Getty Publications.
- Østergaard, J.S. and A.M. Nielsen (eds) 2014. *Transformations: Classical Sculpture in Colour*. Copenhagen: Naryana Press.
- Oteros-Rozas, E., R. Ontillera-Sánchez, P. Sanosa, E. Gómez-Baggethun, V. Reyes-García, and J.A. González 2013. Traditional ecological knowledge among transhumant pastoralists in Mediterranean Spain. *Ecology and Society* 18.3, viewed 08 August 2021, <<http://dx.doi.org/10.5751/ES-05597-180333>>.
- Ottati, A. and M.S. Vinci 2021. From the quarry to the monument: The process behind the process – design and organization of the work in ancient architecture. Introduction, in A. Ottati and M.S. Vinci (eds) *From the Quarry to the Monument: The Process behind the Process – Design and Organization of the Work in Ancient Architecture: Panel 4.3: Archaeology and Economy in the Ancient World. Proceedings of the 19th International Congress of Classical Archaeology, Cologne/Bonn 2018* (Archaeology and Economy in the Ancient World 26): 1–3. Heidelberg: Propylaeum.
- Ouaja, M., S. Ferry, G. Barale and D. Srarfi 2002. *Faciès de Dépôt du Jurassique et du Crétacé du Bassin de Tataouine (Sud de la Tunisie): Livret guide de l’excursion organisée par le Service Géologique de Tunisie et l’Association des Sédimentologistes Français*. Tunis: Office National de Mines.
- Pagnini, L. 2022a. Ambienti orientali e porticato adiacente, in Donati, L., G. Millemaci, L. Pagnini and G. Poggesi (eds) *Gonfienti: L’insediamento etrusco e romano. Lo scavo*: 180–182. Florence: Edifir.
- Pagnini, L. 2022b. La ceramica d’impasto, in Donati, L., G. Millemaci, L. Pagnini and G. Poggesi (eds) *Gonfienti: L’insediamento etrusco e romano. I materiali*: 171–249. Florence: Edifir.
- Pakkanen, J. 2013. The economics of shipshed complexes: Zea, a case study, in D.J. Blackman, N.B. Rankov and K. Baika (eds) *Shipshefts of the Ancient Mediterranean*: 55–75. Cambridge and New York: Cambridge University Press.
- Pakkanen, J. 2021. Building BIG and Greek Classical and Hellenistic houses? Estimating total costs of private housing in Attica, in J. Pakkanen and A. Brysbaert (eds) *Building BIG – Constructing Economies: From Design to Long-Term Impact of Large-Scale Building Projects: Panel 3.6: Archaeology and Economy in the Ancient World. Proceedings of the 19th International Congress of Classical Archaeology, Cologne/Bonn 2018* (Archaeology and Economy in the Ancient World 10): 59–75. Heidelberg: Propylaeum.
- Palagia, O. 1986. s.v. Daphne, in *LIMC III*: 344–348.
- Palagia, O. 1988. s.v. Herakles: C. Classical Greek/Roman, in *LIMC IV*: 738–790.
- Palagia, O. 1990. Two statues of Hercules in the Forum Boarium in Rome. *Oxford Journal of Archaeology* 9.1: 51–70.
- Palagia, O. 2006. Marble carving techniques, in O. Palagia (ed.) *Greek Sculpture: Function Materials and Techniques in the Archaic and Classical Periods*: 243–279. Cambridge: Cambridge University Press.
- Palagia, O. 2011. An unfinished Mollosian hound from the Dionysos quarry on mount Pentelikon. *Marmora* 7: 3–12.
- Pallecchi, P. 2011. I caratteri fisici e l’antropizzazione del territorio, in P. Perazzi and G. Poggesi (eds) *Carta Archeologica della Provincia di Prato: Dalla Preistoria all’Età Romana*: 9–16. Sesto Fiorentino: All’Insegna del Giglio.
- Pallis, G. 2019. The second life of inscriptions in Late Antique and Byzantine Asia Minor: Some remarks on the reuse of the inscribed material. *Gephyra* 18: 59–76.
- Pantelidou, M. 1975. Αι Προϊστορικά Αθήναι. Unpublished PhD dissertation, National and Kapodistrian University of Athens.
- Papachatzis, N. 1974. *Πασανίου Ελλάδος Περιήγησις – Αττικά*. Athens: Εκδοτική Αθηνών.
- Papachristodoulou, I.Ch. 1993. Σχέσεις Νισύρου και Ρόδου στην αρχαιότητα: Ο Δήμος Νισυρίων στα πλαίσια της ενιαίας ροδιακής πολιτείας. *Νισυριακά* 12: 39–52.
- Papaconstantinou, A. 2013. A fourth-century inventory of columns and the Late Roman building industry, in R. Ast, H. Cuvigny, T. Hickey and J. Lougovaya (eds) *Papyrological Texts in Honor of Roger S. Bagnall*: 215–231. Durham, NC: American Society of Papyrologists.
- Papadimitriou, A. 2018. Εργαστήρια στην αρχαία Πάρο, in D. Katsonopoulou (ed.) *Η Πάρος και οι Αποικίες της / Paros and its Colonies. Proceedings of the fourth international conference on the archaeology of Paros and the Cyclades, Paroikia 11-14.6.2015* (PAROS IV): 143–160. Athens: The Institute for Archaeology of Paros and the Cyclades.
- Papadopoulos, J.K. 1992. Lasana: Tuyeres and kiln firing supports. *Hesperia* 61: 203–221.
- Papadopoulos, J.K. 2001. Magna Achaea: Akhaian Late Geometric and Archaic pottery in South Italy and Sicily. *Hesperia* 70.4: 373–460.
- Papadopoulos, J.K. 2003. *Ceramicus Redivivus: The Early Iron Age Potters’ Field in the Area of the Classical Athenian*

- Agora (Hesperia Supplements 31). Princeton, NJ: ASCSA.
- Papadopoulos, J.K and L.E. Smithson 2017. *The Athenian Agora XXXVI: The Early Iron Age – The Cemeteries (with contributions by M.A. Liston, D. Ruscillo, S. Strack, and E. Dimitriadou)*. Princeton, NJ: ASCSA.
- Parageorgakis, I. 1964. Συμβολή εις την γνώσιν των εις την αρχαίαν Ελλάδα χρησιμοποιηθέντων μαρμάρων και των λατομείων αυτών II: Τα αρχαία λατομεία του Καρυστίου μαρμάρου. *Πρακτικά της Ακαδημίας Αθηνών* 39: 262–278.
- Parageorgakis, I. 1967. Τα εις την μαρμαρικήν τέχνην χρήσιμα πετρώματα της Ελλάδος. *Γεωλογικά Χρονικά των Ελληνικών Χωρών* 18: 193–270.
- Papagrigrorakis, M.J., C. Yarijakis and P.N. Synodinos 2008. Typhoid fever epidemic in ancient Athens, in D. Raoult and M. Drancourt (eds) *Paleomicrobiology: Past Human Infections*: 161–173. Heidelberg: Springer.
- Papaioikounou, Y. 1983. La stèle de Ktésikratès et le monument des Néréides. *Revue Archéologique* 2: 317–324.
- Papapostolou, I.A. 1993. *Achaean Grave Stelai [with epigraphical notes by A. Rizakis]* (Βιβλιοθήκη της εν Αθήναις Αρχαιολογικής Εταιρείας 135). Athens: Η εν Αθήναις Αρχαιολογική Εταιρεία.
- Papapostolou, I.A. 2008. *Θέρμος: Το Μέγαρο Β και το Πρώμο Ιερό – Η Ανασκαφή 1992-2003* (Βιβλιοθήκη της εν Αθήναις Αρχαιολογικής Εταιρείας 261). Athens: Η εν Αθήναις Αρχαιολογική Εταιρεία.
- Papapostolou, I.A. 2014. *Το Ιερό του Θέρμου στην Αιτωλία: Ιστορία – Μνημεία – Περιήγηση του Χώρου* (Βιβλιοθήκη της εν Αθήναις Αρχαιολογικής Εταιρείας 291, Αρχαίοι Τόποι και Μουσεία της Ελλάδος 31). Athens: Η εν Αθήναις Αρχαιολογική Εταιρεία.
- Pappas, I. and I. Lourentzatos (eds) 2022. *ΦΑΛΗΡΟΘΕΝ Ανάμεσα σε Δύο Κόσμους*. Athens: Υπουργείο Πολιτισμού και Αθλητισμού.
- Parker, R. 1983. *Miasma: Pollution and Purification in Early Greek Religion*. Oxford: Clarendon Press.
- Parlama, L. 1990-91. Ο Μητροπολιτικός Σιδηρόδρομος και οι αρχαιότητες των Αθηνών. *Ηόρος* 8-9: 231–245.
- Parlama, L. 1992-98. Αθήνα 1993-1995, από τις ανασκαφές του Μητροπολιτικού Σιδηροδρόμου. *Ηόρος* 10-12: 521–544.
- Parlama, L. and N.Ch. Stampolidis (eds) 2000. *Η Πόλη κάτω από την Πόλη: Ευρήματα από τις Ανασκαφές του Μητροπολιτικού Σιδηροδρόμου των Αθηνών / The City beneath the City: Antiquities from the Metropolitan Railway Excavations; exhibition held at the Museum of Cycladic Art, Athens, 29 February 2000 – 31 December 2001*. Athens: Υπουργείο Πολιτισμού, Ίδρυμα Ν.Π. Γουλανδρή, Μουσείο Κυκλαδικής Τέχνης.
- Partida, E. 2000a. *The Treasuries at Delphi: An Architectural Study* (Studies in Mediterranean Archaeology 160). Jonsered: P. Åström.
- Partida, E. 2000b. Two Boeotian treasuries at Delphi, in V. Aravantinos (ed.) *Γ' Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα 4-8 Σεπτεμβρίου 1996)* (Επετηρίς Εταιρείας Βοιωτικών Μελετών): 536–564. Athens: Εταιρεία Βοιωτικών Μελετών.
- Partida, E. 2000c. Architecture in Parian marble at Delphi, in D. Schilardi and D. Katsonopoulou (eds) *Παρία Λίθος: Λατομεία, Μάρμαρο και Εργαστήρια Γλυπτικής της Πάρου. Πρακτικά Α' διεθνούς συνεδρίου αρχαιολογίας Πάρου και Κυκλάδων, Παροικιά 2-5 Οκτωβρίου 1997*: 355–363. Athens: The Institute for Archaeology of Paros and the Cyclades.
- Partida, E. 2009a. From hypaethral depots to hypaethral exhibitions: Casting light on architecture and society in fourth/third-century BC Delphi. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 124: 273–324.
- Partida, E. 2009b. Φυσικά και αρχιτεκτονικά μνημεία Δελφών, αρχαία μονοπάτια, νέα ευρήματα. *Αρχαιολογικόν Δελτίον* 64 Β'1: 529–536.
- Partida, E. 2011. The nexus of inter-regional relations established by creators and artisans in the ancient sanctuary and the town of Delphi. *Pallas: Revue d'Études Antiques* 87: 223–242.
- Partida, E. 2012. Υπαίθριες εκθέσεις στους Δελφούς: Μία προσπάθεια ανασύστασης μνημείων και κοινωνίας της αρχαιότητας. *Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας* 3: 1087–1097. Volos: Πανεπιστήμιο Θεσσαλίας, Υπουργείο Πολιτισμού.
- Partida, E. 2013. Parian creators and a new find of the age of Skopas at Delphi, in D. Katsonopoulou and A. Stewart (eds) *Skopas of Paros and his World*: 477–498. Athens: The Institute for Archaeology of Paros and the Cyclades.
- Partida E. 2015a. Architectural elements and historic circumstances that shaped the sanctuary of Delphi during the so-called 'Age of the Warriors', in J. des Courtils (ed.) *L'Architecture Monumentale Grecque au IIIe Siècle a. C.*: 29–50. Pessac: Ausonius.
- Partida, E. 2015b. Η διαδοχή πολιτικών δυνάμεων στους Δελφούς και η επιρροή τους στην αρχιτεκτονική διαμόρφωση του ιερατικού τοπίου. *Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας* 4: 877–882.
- Partida, E. 2016. Post-earthquake architecture at Olympia: The impact of natural phenomena upon the builders' attitude in the 4th century BC, in D. Katsonopoulou and E. Partida (eds) *ΦΙΛΕΛΛΗΝ. Essays presented to Stephen G. Miller*: 299–316. Athens: The Helike Society.
- Partida, E. 2017a. Glorification of the Sun (Helios) at Delphi and reflections on some architectural remains on Mount Parnassos, in H. Frielinghaus and J. Stroszeck (eds) *Griechische Kulte und Heiligtümer: Neue Funde und Forschungen (Beiträge zur Archäologie Griechenlands 4)*: 207–231. Möhnesee: Bibliopolis.
- Partida, E. 2017b. The disaster and the experience of 373 BC followed through the architecture and topography of Delphi, in D. Katsonopoulou (ed.) *HELIX V: Poseidon, God of Earthquakes and Waters – Cult and Sanctuaries*: 227–258. Athens: The Helike Society.

- Partida, E. 2018. Οι Αιτωλοί ως παράγων διαμόρφωσης του αρχιτεκτονικού τοπίου στους Δελφούς, in *2ο Διεθνές Αρχαιολογικό-Ιστορικό Συνέδριο Αιτωλοακαρνανίας και Λευκάδας, 6-8 Δεκεμβρίου 2013, Μεσολόγγι*: 363–376. Messolonghi: Υπουργείο Πολιτισμού.
- Partida, E. 2019. Politics reflected on architecture: An evaluation of the Aetolian, the Pergamene and the Roman input to the religious landscape at Delphi, in E.C. Partida and B. Schmidt-Dounas (eds) *Listening to the Stones. Essays on Architecture and Function in Ancient Greek Sanctuaries, in Honour of Richard Alan Tomlinson*: 65–79. Oxford: Archaeopress.
- Partsch, J. 1913. Die alexandrinischen Dikaiomata. *Archiv für Papyrusforschung* 6: 34–76.
- Patsiada, V. 1996. Grabtische und Grabaltäre in der Nekropole von Rhodos, in D. Berges (ed.) *Rundaltäre aus Kos und Rhodos*: 84–109. Berlin: Gebr. Mann.
- Patsourakos, I.B. 1902. *Πραγματεία περί του αρχαίου Γυθείου*. Athens: Π.Δ. Σακελλαρίου.
- Pautasso, A. 2014. Terrecotte locresi d'età arcaica da Catania : Un contributo alla storia dei rapporti tra Sicilia e Magna Grecia, in *Κατά Κορυφήν Φάος. Studi in Onore di Graziella Fiorentini* (Sicilia Antiqua XI): 355–362. Pisa and Rome: Fabrizio Serra Editore.
- Peacock, D.P.S. 1980. The Roman millstone trade: A petrological sketch. *World Archaeology* 12.1: 43–53.
- Peacock, D.P.S. 1982. *Pottery in the Roman World: An Ethnoarchaeological Approach*. London: Longman.
- Pedersen, P. 2013. Architectural relations between Karia and Lykia at the time of the Ionian Renaissance, in P. Brun, L. Cavalier, K. Konuk and F. Prost (eds) *Euploia: La Lycie et la Carie Antiques – Dynamiques des Territoires, Échanges et Identités*: 127–143. Pessac: Ausonius.
- Pegoretti, G. 1863. *Manuale Pratico per l'Estimazione dei Lavori architettonici, Stradali, Idraulici e di Fortificazione per Uso degli Ingegneri ed Architetti* (Biblioteca Scelta dell'Ingegnere Civile 13). Milan: tip. D. Salvi.
- Peinetti, A., M. Cattani and F. Debandi (eds) 2019. *Focolari, Forni e Fornaci tra Neolitico ed Età del Ferro: Comprendere le attività domestiche e artigianali attraverso lo studio delle installazioni pirotecniche e dei residui di combustione*. Florence: Istituto Italiano di Preistoria e Protostoria.
- Pelacci, C. 2022. Produzioni artigianali tra Mugello ed Emilia-Romagna: La ceramica dipinta a motivi ornamentali, L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 433–453. Rome: L'Erma di Bretschneider.
- Pelegrin, J., C. Karlin and P. Bodu 1988. Chaînes opératoires: Un outil pour le préhistorien. *Technologie Préhistorique* 1988: 55–62.
- Pensabene, P. 1998. Il fenomeno del marmo nella Roma tardo-repubblicana e imperiale, in A. Alvarez i Pérez (ed.) *Marmi Antichi 2: Cave e Tecnica Di Lavorazione – Provenienze e Distribuzione* (Studi Miscellanei 31): 333–391. Rome: L'Erma di Bretschneider.
- Pensabene, P. 2015. *Roma su Roma: Reimpiego architettonico, recupero dell'antico e trasformazioni urbane tra il III e il XIII secolo*. Vatican City: Pontificio Istituto di Archeologia Cristiana.
- Pensabene, P. 2017. Architectural spolia and urban transformation in Rome from the fourth to the thirteenth century, in S. Altekamp, C. Marcks-Jacobs and P. Seiler (eds) *Perspektiven der Spolienforschung 1: Spolierung und Transposition* (Topoi. Berlin Studies of the Ancient World 15): 177–233. Berlin and Boston: De Gruyter.
- Pensabene, P. and C. Panella 1993/94. Reimpiego e progettazione architettonica nei monumenti tardoantica di Roma. *Rendiconti della Pontificia Accademia Romana di Archeologia* 66: 111–283.
- Pensabene, P., E. Gasparini and M. Carlucci 2015. Marble quarries: Ancient imperial administration and modern scientific analysis, in E.A. Friedland, M.G. Sobocinski and E.K. Gazda (eds) *The Oxford Handbook of Roman Sculpture*: 93–106. Oxford: Oxford University Press.
- Perazzi, P. and G. Poggesi (eds) 2011. *Carta Archeologica della Provincia di Prato: Dalla Preistoria all'Età Romana*: 9–16. Florence: All'Insegna del Giglio.
- Perkins, P. 2021. The Etruscan pithos revolution, in M. Gleba, B. Marín-Aguileira and B. Dimova (eds) *Making Cities: Economies of Production and Urbanization in Mediterranean Europe, 1000-500 BC*: 231–258. Cambridge: McDonald Institute for Archaeological Research.
- Perkins, P. 2022. The bucchero from Poggio Colla, in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 363–383. Rome: L'Erma di Bretschneider.
- Perkins, P., A. Nocentini and P.G. Warden 2020. Ricerca e scavi a Albagino (2017-2019), in *Tutela e Restauro. 2016-2019. Notiziario della Soprintendenza Archeologica Belle Arti e Paesaggio per la Città Metropolitana di Firenze e le Province di Pistoia e Prato*: 414–416.
- Perrier, A. 2019. La réorganisation de l'espace du sanctuaire d'Apollon à Delphes au IV^e siècle av. J.-C., in S. Montel and A. Pollini (eds) *La Question de l'Espace au IV^e siècle avant J.-C. dans les Mondes Grec et Étrusco-Italique: Continuités, Ruptures, Reprises* (Collection de l'Institut des Sciences et Techniques de l'Antiquité 1442): 71–91. Besançon: Presses Universitaires de Franche-Comté.
- Peschlow-Bindokat, A. 1981. Die Steinbrüche von Milet und Herakleia am Latmos. *Jahrbuch des Deutschen Archäologischen Instituts* 96: 157–235.
- Peschlow-Bindokat, A. 1990. *Die Steinbrüche von Selinunt: Di Cave di Cusa und di Cave di Barone* [Vicenzo Tusa zum 70. Geburtstag]. Mainz: Philipp von Zabern.
- Petrutaki, M. 2009. Προσπάθεια ανασύθησης του αρχαιολογικού τοπίου στην ευρύτερη περιοχή του Πειραιά βάσει των νέων ανασκαφικών δεδομένων, in V. Vasilopoulou and S. Katsarou-Tseveleki (eds) *Από τα Μεσόγεια στον Αργοσαρωνικό: Β' Εφορεία*

- Προϊστορικών και Κλασικών Αρχαιοτήτων, Το έργο μίας δεκαετίας, 1994-2003. Πρακτικά Συνεδρίου Αθήνα, 18-20 Δεκεμβρίου 2003: 451-480. Athens: Δήμος Μαρκοπούλου Μεσογαίας.
- Petrović, V. 2019. Some considerations about the Roman road network in Central Balkan provinces, in A. Kolb (ed.) *Roman Roads: New Evidence - New Perspectives*: 252-271. Berlin and Boston: De Gruyter.
- Pettegrew, D. 2016. *The Isthmus of Corinth: Crossroads of the Mediterranean World*. Ann Arbor: University of Michigan Press.
- Pfanner, M. 1989. Über das Herstellen von Porträts. *Jahrbuch des Deutschen Archäologischen Instituts* 104: 157-257.
- Pfanner, M. 2008. Review of Nolte, S. 2006. Steinbruch-Werkstatt-Skulptur: Untersuchungen zu Aufbau und Organisation griechischer Bildhauerwerkstätten (Beihefte zum Göttinger Forum für Altertumswissenschaft 18). Göttingen: Edition Ruprecht. *Bonner Jahrbücher* 208: 329-332.
- Pharaklas, N. 1970. The stone tripods from Plataea. *Annual of the British School at Athens* 65: 175-178.
- Pharr, C. 1952. *The Theodosian Code and Novels and the Sirmondian Constitutions*. Princeton: Princeton University Press.
- Philaniotou, O. 1988. Ανασκαφικές εργασίες: Απόλλωνας, οικόπεδο Ειρήνης Ρουφάνη. *Αρχαιολογικόν Δελτίον* 43.Β'2: 496-497.
- Philippa-Touchais, A. 2011. Cycles of collapse in Greek prehistory: Reassessing social change at the beginning of the Middle Helladic and the Early Iron Age, in A. Mazarakis Ainian (ed.) *The 'Dark Ages' Revisited. An International Symposium in Memory of William D.E. Coulson. University of Thessaly, Volos, 14-17 June 2007*: 31-44. Volos: University of Thessaly Press.
- Piérart, M. and J.-P. Thalmann 1980. Nouvelles inscriptions d'Argos (I) (Fouilles de l'agora), in G. Touchais, E. Deilaki and J.-F. Bommelaer (eds) *Études Argiennes* (Bulletin de Correspondance Hellénique Suppléments 6): 255-278. Paris: Éditions de Boccard.
- Pierattini, A. 2019. Interpreting rope channels: Lifting, setting, and the birth of Greek monumental architecture. *Annual of the British School at Athens* 114: 1-40.
- Pierce-Blegen, E. 1941. News items from Athens. *American Journal of Archaeology* 45: 446-450.
- Pikoulas, Y.A. 2002. Η χερσόνησος του Μαλέα: Απολογισμός και προοπτικές. Σχεδιάγραμμα έρευνας. *Αρέσκουσα* 2: 229-246.
- Pisani, M. 2012. Impianti di produzione ceramica e coroplastica in Sicilia dal periodo arcaico a quello ellenistico: Distribuzione spaziale e risvolti socio-economici, in A. Esposito and G.M. Sanidas (eds) «Quartiers» *Artisanaux en Grèce Ancienne, une Perspective Méditerranéenne*: 311-332. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Pittinger, J. 1975. The mineral products of Melos in antiquity and their identification. *Annual of the British School at Athens* 70: 191-197.
- Pizziolo, G. 2015. Strutture evidenti e paesaggi nascosti dell'area fiorentina nella preistoria, in V. d'Aquino, G. Guarducci, S. Nencetti and S. Valentini (eds) *Archeologia a Firenze: Città e Territorio*: 111-120. Oxford: Archaeopress.
- Plage, D.L. 1953. Thucydides' description of the Great Plague. *The Classical Quarterly* 3: 97-119.
- Plattner, G. 2014. Werkstatt und Muster: Zur Methode der Scheidung von Arbeitsprozessen und Stilelementen, in J. Lipps and D. Maschek (eds) *Antike Bauornamentik: Möglichkeiten und Grenzen ihrer Erforschung* (Studien zur antiken Stadt 12): 53-68. Wiesbaden: Reichert Verlag.
- Plattner, G. 2017. New methods to understand tradition and transformation in Roman Imperial architectural decoration, in P. Pensabene, M. Milella and F. Caprioli (eds) *Décor: Decorazione e Architettura nel Mondo Romano. Atti del Convegno, Roma 21-24 maggio 2014* (Thiasos Monografie 9): 79-86. Rome: Edizioni Quasar.
- Plessis, M. 2013. *Extraction et Caractérisation des Lipides Contenus dans des Échantillons Archéologiques*. Paris: UPMC Sorbonne.
- Poggesi, G. 2011. Il popolamento del territorio in età etrusca e romana, in P. Perazzi and G. Poggesi (eds) *Carta Archeologica della Provincia di Prato: Dalla Preistoria all'Età Romana*: 31-53. Sesto Fiorentino: All'Insegna del Giglio.
- Poggiali, L. 2017. La ceramica vacuolata dall'insediamento etrusco di Monte Giovi. *Florentia. Studi di Archeologia* 3: 115-134.
- Poggiali, L. and M.A. Serafini 2022. La ceramica d'impasto vacuolato in Etruria settentrionale: ricerche e risultati sulle produzioni di Pietramarina e di Monte Giovi, in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 455-469. Rome: L'Erma di Bretschneider.
- Pöhlmann, E. 1987. Zwei Elgin-Leiern im British Museum?, in M. von Albrecht and W. Schubert (eds) *Musik in Antike und Neuzeit* (Quellen und Studien zur Musikgeschichte von der Antike bis in die Gegenwart 1): 319-331. Frankfurt am Main: Verlag Peter Lang.
- Pöhlmann, E. and E. Tichy 1982. Zur Herkunft und Bedeutung von κόλλοψ, in J. Tischler (ed.) *Serta Indogermanica. Festschrift für Günter Neumann zum 60. Geburtstag* (Innsbrucker Beiträge zur Sprachwissenschaft 40): 287-315. Innsbruck: Universität Innsbruck, Institut für Sprachen und Literaturen.
- Pollitt, J.J. 1979. Kernoi from the Athenian Agora. *Hesperia* 48: 205-233.
- Posamentir, R. 2008. Kulturkontakt als Impuls architektonischer Innovation: Austausch und

- Inspiration in Anazarbos, einer vergessenen Grenzstadt zwischen Ost und West, in F. Pirson and U. Wulf-Rheidt (eds) *Austausch und Inspiration: Kulturkontakt als Impuls architektonischer Innovation*: 89–106. Mainz: Philipp von Zabern.
- Pologiorgi, M. 1999. Παρατηρήσεις για την επανεπεξεργασία και την επαναχρησιμοποίηση αττικών επιτύμβιων στηλών. *Αρχαιολογικόν Δελτίον* 54.Α':173–214.
- Poupaki, E. 2001. Πελεκητά: Το αρχαίο λατομείο του Δήμου των Ισθμιωτών, in G. Kokkorou-Alevras, A. Laimos and E. Simantoni-Bournia (eds) *Ιστορία - Τέχνη - Αρχαιολογία της Νήσου Κω. Α' Διεθνές Επιστημονικό Συνέδριο, Kos, 2-4 May 1997* (Series of Monographs of Αρχαιογνωσία Journal 1): 59–76. Athens: National and Kapodistrian University of Athens.
- Poupaki, E. 2011a. *ΑΛΑΣΑΡΝΑ II: Λίθινα Αγγεία, Χειρόμυλοι και άλλα Τέχνηρα από το Ιερό του Απόλλωνα και τον Παλαιοχριστιανικό Οικισμό*. Athens: National and Kapodistrian University of Athens.
- Poupaki, E. 2011b. Κωακοί Λίθοι και Κωακή Λιθοξοία: Η χρήση των λίθων στην αρχιτεκτονική, γλυπτική και κατασκευή ενεπίγραφων μνημείων και τέχνηρων. Αρχαϊκή-Παλαιοχριστιανική περίοδος. Η σημασία της για την οικονομία του νησιού. Unpublished PhD dissertation. National and Kapodistrian University of Athens, viewed 18 October 2023, <<http://hdl.handle.net/10442/hedi/27083>>.
- Poupaki, E. 2014-15. Handmills from the vicinity of the Athenian Acropolis: Finds from Athens metropolitan railway excavations. *Eulimene* 15-16: 11–53.
- Poupaki, E. 2017. Λίθινα αγγεία, χειρόμυλοι και άλλα αντικείμενα από το ιερό του Απόλλωνα Πυθαίου / Πυθαέως και τον πρώιμο βυζαντινό οικισμό στην αρχαία Αλάσαρνα (σημερινή Καρδάμαινα) της Κω, in G. Kokkorou-Alevras (ed.) *ΑΛΑΣΑΡΝΑ VI: Το Ιερό του Απόλλωνα Πυθαίου/ Πυθαέως και ο Οικισμός Πρώιμων Βυζαντινών Χρόνων στην Αρχαία Αλάσαρνα της Κω. Γλυπτική, Λιθοτεχνία, Επιγραφές*: 67–118. Athens: National and Kapodistrian University of Athens.
- Poupaki, E. 2020. Recent research providing clues on the Koan stone crafting during antiquity, in M. Panagiotaki, I. Tomazos and F. Papadimitrakopoulos (eds) *Cutting-Edge Technologies in Ancient Greece: Materials science applied to trace ancient technologies in the Aegean world. Proceedings of two conferences held in Rhodes, 12-14 January 2018 and 11-13 January 2019*: 173–182. Oxford: Oxbow Books.
- Poupaki, E. 2021a. Stone artifacts from Agathonisi, Dodecanese, Greece: Evidence of insularity, in E. Angliker and L. De Angelo Laky (eds) *Mare Nostrum 12.2: Special Issue Questions of Insularity in Ancient Aegean*: 127–164.
- Poupaki, E. 2021b. Imports of building stones from Hekatomnid Karia in early-synoikized Kos: Architectural remains and possible quarry-sources, in P. Pedersen, B. Poulsen and J. Lund (eds) *Karia and the Dodekanese: Cultural interrelations in the south-eastern Aegean ca. 500 BC – AD 500. Danish Institute at Athens, 24th-26th of January 2018*: 143–154. Oxford: Oxbow Books.
- Poupaki, E. and A. Chatziconstantinou 2001. Νεότερες έρευνες σε λατομεία της Κω, in I. Bassiakos, E. Aloupi and G. Facorellis (eds) *Αρχαιομετρικές Μελέτες για την Ελληνική Προϊστορία και Αρχαιότητα*: 541–556. Athens: Ελληνική Αρχαιομετρική Εταιρεία.
- Poupaki, E. and A. Chatziconstantinou 2002. The extraction of travertine in antiquity on the island of Cos, Dodecanese, Greece. *Mediterranean Archaeology and Archaeometry* 2.2: 59–68.
- Poupaki, E. and A. Chatziconstantinou 2004. Το αρχαίο λατομείο τραβερίνη στο Πυλί της Κω, in A. Giannikouri, E. Zervoudaki, E. Kollias and I. Papachristodoulou (eds) *Χάρης Χαίρε. Μελέτες στη μνήμη της Χάρης Κάντζια*: 111–124. Athens: Υπουργείο Πολιτισμού, Αρχαιολογικό Ινστιτούτο Αιγαϊακών Σπουδών.
- Poupaki, E. and M. Chidiroglou 2017. A half-carved marble vessel (tsoukali) from the ancient quarries of Myloi, Karystos in southern Euboea: A contribution to the study of the use of Karystian marble for vase carving in antiquity, in Ž. Tankosić, F. Mavridis and M. Kosma (eds) *An Island between Two Worlds: The Archaeology of Euboea from Prehistoric to Byzantine Times. Proceedings of the international conference, Eretria, 12-14 July 2013* (Papers and monographs from the Norwegian Institute at Athens 6): 441–460. Athens: The Norwegian Institute at Athens.
- Pozzi, A. 2010. Le fornaci e gli apprestamenti artigianali, in G. Sassatelli and E. Govi (eds) *Marzabotto: La Casa I della Regio IV, Insula 2* (Studi e Scavi nuova serie 26, Kainua 2): 256–283. Bologna: Ante Quem.
- Preka-Alexandri, K. 2016. La coroplastie de Corcyre: Ateliers et sanctuaires, in A. Muller and E. Laflı (eds) *Figurines en Terre Cuite en Méditerranée Grecque et Romaine 1: Production, Diffusion, Étude. Actes du colloque international Colloquia Anatolica et Aegea Antiqua I. Izmir, 2-6 juin 2007* (Bulletin de Correspondance Hellénique Supplément 54): 223–237. Athens: École française d'Athènes.
- Prieto, A. and J.C. Carter 2011. Types of structures in the Chora, in J.C. Carter and A. Prieto (eds) *The Chora of Metaponto 3: Archaeological Survey Bradano to Basento*: 592–615. Austin: Institute of Classical Archaeology, University of Texas Press.
- Proeva, N. 2017. Les représentations du «cavalier thrace» sur les monuments funéraires en Haute Macédoine, in P. Delev, T. Stoyanov, S. Yanakieva, H. Popov, A. Bozkova, M. Vassileva, J. Tzvetkova, M. Damyanov, P. Ilieva and J. Emilov (eds) *Ancient Thrace: Myth and Reality II. Proceedings of the thirteenth international congress of Thracology, Kazanlak, September 3 – 7, 2017*: 271–281. Sofia: St. Kliment Ohridski University Press.
- Prost, F. 2015. La tradition de la sculpture pariennne en Asie Mineure, in S. Montel (ed.) *La Sculpture Gréco-*

- Romaine en Asie Mineure: Synthèses et Recherches Récentes. Colloque international de Besançon 9-10 Octobre 2014* (Collection de l'Institut des Sciences et Techniques de l'Antiquité – 1345): 209–222. Besançon : Institut des Sciences et Techniques de l'Antiquité.
- Quercia, A. and L. Foxhall 2014. Temporality, materiality and women's networks: The production and manufacture of loom weights in the Greek and indigenous communities of southern Italy, in K. Rebay-Salisbury, A. Brysbaert and L. Foxhall (eds) *Knowledge Networks and Craft Traditions in the Ancient World: Material Crossovers*: 62–82. New York: Routledge.
- Raeder, J. and L. Lehman 2014. s.v. Alkamenes (Ἀλκαμένης) aus Athen, in: *DNO online*, viewed 14 November 2023, <<https://www.degruyter.com/database/OVERBECK/entry/ov.0008.b2/html>>.
- Raftopoulou, S. 1997. s.v. Sphinx Classical and Hellenistic, in *LIMC VIII*: 1156–1157; 1163–1164, figs. 102, 106.
- Rangavis, A.R. 1991. *Τοπογραφικά των Αρχαίων Αθηνών*. Athens: Kardamitsa Publications.
- Rapp, G.R. 2013. *Archaeomineralogy* (series *Natural Science in Archaeology*). Berlin, Heidelberg: Springer.
- Rastrelli, A. 2002. Nuovi rinvenimenti in Toscana. *Etruscan Studies* 9: 122–131.
- Ratka, M. and P.R. Sahm. 1997. Antike Gußtechnik in der numerischen Simulation, in G. Zimmer and N. Hackländer (eds) *Der Betende Knabe: Original und Experiment. Ausstellung der Antikensammlung der Staatlichen Museen zu Berlin, Preußischer Kulturbesitz*: 67–80. Berlin: Staatliche Museen zu Berlin, Preußischer Kulturbesitz.
- Ratté, C., F. Rojas and A. Commito 2020. Notion archaeological survey 2017–2018. *Araştırma Sonuçları Toplantısı* 37.1: 333–353.
- Razgallah, S., M.C. Chaouachi and A. M'Rabet 1989. Les récifs à algues du permien supérieur du Jebel Tebaga de Médenine. Sud-Est de la Tunisie, in *Genèse, Diagenèse et Intérêt Économique des Récifs. Actes du colloque tuniso-français de sédimentologie-récifs, Tunis, 26-29 mai 1988* (Géologie Méditerranéenne 16.2-3): 213–231.
- Reber, K. 2010. The Dragon Houses of Styra: Topography, architecture and function. *Mediterranean Archaeology and Archaeometry* 10.3: 53–61.
- Reitzenstein, D. 2020. Aurelii in Lykien: Namenslisten aus der Zeit vor und nach der Constitutio Antoniniana, in G. Frija (ed.) *Être Citoyen Romain dans le Monde Grec au IIe Siècle de Notre Ère*: 73–93. Pessac: Ausonius.
- Report 1816. *Report from the Select Committee on the Earl of Elgin's Collection of Sculptures, Marbles &c.* London: J. Murray.
- Rescigno, C. 2019. Produzioni architettoniche fittili e distretti territoriali: dinamiche tra città dell'arco ionico e territorio lucano, in O. de Cazanove and A. Duplouy (eds) *La Lucanie Entre Deux Mers: Archéologie et Patrimoine. Actes du colloque international, Paris, 5-7 novembre 2015* (Collection du Centre Jean Bérard 50): 883–891. Naples: Centre Jean Bérard.
- Reuterswård, P. 1960. *Studien zur Polychromie der Plastik*. Stockholm: Almqvist and Wiksell.
- Revenu, M. 2009. Ressources et Utilisations de la Pierre dans le Bassin Parisien à l'Époque Romaine. Unpublished PhD dissertation, Université de Paris-Nanterre.
- Révillion, S., K. Bouche and L. Wozny 1994. La partie agricole d'une grande exploitation rurale d'époque romaine: Le gisement des «Hauts de Clauwiers», Seclin (Nord). *Revue du Nord* 76.308/1994 *Archéologie*: 99–146.
- Rhomaïos, K. 1930. Το Ηρώον της Αλυζίας. *Αρχαιολογική Εφημερίς* 1930: 141–159.
- Rice, P.M. 1987. *Pottery Analysis: A Sourcebook*. Chicago: University Press of Chicago.
- Richter, G.M.A. 1961. *Archaic Gravestones of Attica*. London: Phaidon.
- Richter, G.M.A. 1988a. *Kouroi: A Study of the Development of the Kouros Type in Greek Sculpture*. New York: Hacker Art Books.
- Richter, G.M.A. 1988b. *Korai: A Study of the Development of the Kore Type in Greek Sculpture*. New York: Hacker Art Books.
- Ridgway, B.S. 1993. *The Archaic Style in Greek Sculpture*. Chicago, IL: Ares Publishers.
- Rinaudo, Y. 1987. Un travail en plus: Les paysans d'un métier à l'autre (vers 1830-vers 1950). *Annales: Économies, Sociétés, Civilisations* 42.2: 283–302.
- Risberg, Ch. 1992. Metal-working in Greek sanctuaries, in T. Linders and B. Alroth (eds) *Economics of Cult in the Ancient Greek World. Proceedings of the Uppsala Symposium 1990* (Acta Universitatis Upsaliensis Boreas 21): 33–40. Uppsala: Uppsala University Press.
- Ritter, S., S. Ben Tahar, J.E.E. Fassbinder and L. Lambers 2018. Landscape archaeology and urbanism at Meninx: Results of geophysical prospection on Jerba (2015). *Journal of Roman Archaeology* 31: 357–372.
- Rizzo, M.L. 2019. *Aree e Quartieri Artigianali in Magna Grecia* (Ergasteria 9). Paestum: Pandemos.
- Robert, L. 1960. Claros: Summary of archaeological research in Turkey in 1959. *Anatolian Studies* 10: 21–22.
- Roberts, H. 1981. Reconstructing the Greek tortoise-shell lyre. *World Archaeology* 12.3: 303–312.
- Robinson, H.S. 1963. Excavations at Corinth. *Αρχαιολογικόν Δελτίον* 18.Β'1: 76–80.
- Rockwell, P. 1993. *The Art of Stoneworking: A Reference Guide*. Cambridge: Cambridge University Press.
- Rocco, G. 2016. The role of Cycladic workshops in Late Archaic architectural change, in K. Zambas, V. Lambrinouidakis, E. Simantoni-Bournia and A. Ohnesorg (eds) *ΑΡΧΙΤΕΚΤΩΝ. Τιμητικός Τόμος για τον Καθηγητή Μανόλη Κορρέ*: 507–515. Athens: Melissa.

- Rolley, C. 2002. Le travail du bronze à Delphes. *Bulletin de Correspondance Hellénique* 126: 41–54.
- Romagnoli, S. (ed.) 2014. *Il Santuario Etrusco di Villa Cassarini a Bologna* (Dipartimento di Storia Culture e Civiltà DiSci 4). Bologna: Bologna University Press.
- Romualdi, A. 2004. Riflessioni sul problema della presenza dei Greci a Populonia nel quinto sec. a.C., in G. M. Della Fina (ed.) *I Greci in Etruria* (Annali della Fondazione per il Museo Claudio Faina di Orvieto 9): 181–206. Rome: Edizioni Quasar.
- Rönneberg, M. 2021. *Athen und Attika vom 11. bis zum frühen 6. Jh. v. Chr.: Siedlungsgeschichte, politische Institutionalisierung und gesellschaftliche Formierungsprozesse*. Rahden, Westf.: VML Verlag Marie Leidorf.
- Rosamilia, E. 2017. Firmare matrici a Taranto: Il coroplasta Pantaleon e i suoi colleghi. *Archeologia Classica* 68: 453–473.
- Rose, C.B. 2021. Reconsidering the frieze on the Arch of Constantine. *Journal of Roman Archaeology* 34: 175–210.
- Ross, L. 1843. *Reisen auf den Griechischen Inseln des Ägäischen Meeres II*. Stuttgart, Tübingen: J.G. Cotta'sche Buchhandlung.
- Ross, L. 1848. *Reisen des Königs Otto und der Königin Amalia in Griechenland 2*. Halle: C.A. Schwetschke [=1851. *Wanderungen in Griechenland, im Gefolge des Königs Otto und der Königin Amalia*. Halle: C.A. Schwetschke].
- Rostoker, W. and E. Gebhard 1980. The sanctuary of Poseidon at Isthmia: Techniques of metal manufacture. *Hesperia* 49.4: 347–363.
- Rotroff, S.I. 1982. *The Athenian Agora XXII: Hellenistic Pottery – Athenian and Imported Moldmade Bowls*. Princeton, NJ: ASCSA.
- Rotroff, S.I. 2006. *The Athenian Agora XXXIII: Hellenistic Pottery – The Plain Wares*. Princeton, NJ: ASCSA.
- Rougetet, J. 1992. Note en vue de la présentation et de la restauration du sanctuaire de Claros, in J. de La Genière (ed.) *Cahiers de Claros I*: 101–115. Paris: Éditions Recherche sur les civilisations.
- Rous, S.A. 2019. *Reset in Stone: Memory and Reuse in Ancient Athens*. Madison: University of Wisconsin Press.
- Rouvier, H. 1985. *Géologie de l'Extrême-Nord Tunisien: Tectoniques et Paléogéographies Superposées à L'extrémité Orientale de la Chaîne Nord-Maghrébine* (Annales des Mines et de la Géologie 29). Tunis: Editions du Service géologique de Tunisie.
- Roux, G. 1961. *L'Architecture de l'Argolide aux IVe et IIIe s. avant J.-C.* (Bibliothèque des Écoles françaises d'Athènes et de Rome 199). Paris: Éditions de Boccard.
- Roux, G. 1975. Un chef-d'œuvre d'architecture gréco-lycienne: Le monument des Néréides à Xanthos. *Revue des Études Grecques* 88: 182–189.
- Roux, G. 1979. *L'Amphictionie, Delphes et le temple d'Apollon au IVe siècle*. Lyon: MOM éditions.
- Roux, G. 1987. *Fouilles de Delphes II: La Terrasse d'Attale I*. Paris: Éditions de Boccard.
- Roux, G. 1989. Problèmes delphiques d'architecture et d'épigraphie. *Revue Archéologique* 1: 23–64.
- Roux, V. 2019. *Ceramics and Society: A Technological Approach to Archaeological Assemblages*. In collaboration with Marie-Agnès Courty. Cham: Springer Nature.
- Roux, V. 2020. Chaîne opératoire, technological networks and social interpretation. *Cuadernos de Arqueología de la Universidad de Granada* 30: 15–34.
- Ruffing, K. 2008. *Die berufliche Spezialisierung in Handel und Handwerk: Untersuchungen zu ihrer Entwicklung und zu ihren Bedingungen in der römischen Kaiserzeit im östlichen Mittelmeerraum auf der Grundlage griechischer Inschriften und Papyri* (Pharos 24). Rahden, Westf.: VML Verlag Marie Leidorf.
- Rumscheid, F. 1994. *Untersuchungen zur Kleinasiatischen Bauornamentik des Hellenismus*. Mainz: Philipp von Zabern.
- Runnels, C. 1981. A Diachronic Study and Economic Analysis of Millstones from the Argolis, Greece. PhD dissertation, Indiana University. Ann Arbor, MI: UMI University Microfilms International.
- Runnels, C., D.J. Pullen and S. Langdon 1995. *Artifact and Assemblage: The Finds of a Regional Survey of the Southern Argolid, Greece 1 – The Prehistoric and Early Iron Age pottery and the lithic artifacts*. Stanford, CA: Stanford University Press.
- Russell, B. 2011. Lapis transmarinus: Stone-carrying ships and the maritime distribution of stone in the Roman empire, in D. Robinson and A. Wilson (eds) *Maritime Archaeology and Ancient Trade in the Mediterranean*: 139–155. Oxford: Oxford Centre for Maritime Archaeology.
- Russell, B. 2013a. Roman and Late-Antique shipwrecks with stone cargoes: A new inventory. *Journal of Roman Archaeology* 26: 331–361.
- Russell, B. 2013b. *The Economics of the Roman Stone Trade* (Oxford Studies on the Roman Economy). Oxford: Oxford University Press.
- Russell, B. and K. Glicksman 2015. Recent work on Roman quarries near Korčula and on Brač. *Vjesnik za arheologiju i historiju dalmatinsku* 108.1: 223–244.
- Russell, B. and J. Leidwanger 2020. The energetics of lost cargoes. *Memoirs of the American Academy in Rome* 65: 194–260.
- Rusyaeva, A.S. 2006. Masterskie, in V.N. Zin'ko (ed.) *Drevneishyi Temenos Olvii Pontiiskoi* (Materials in Archaeology, History and Ethnography of Tauria. Suppl. 2): 90–91. Simferopol': Krymskoe otdelenie Instituta vostokovedeniya imeni A.E. Krymskogo, Tsentr arheologicheskikh issledovaniy Blagotvoritelnyy fond "Demetra".
- Rusyaeva, A. S. 2015. Graffiti from the southern temenos in Pontic Olbia. *Ancient Civilizations from Scythia to Siberia* 21: 251–279.
- Saba, S. 2012. *The Astynomoi Law from Pergamon: A New Commentary* (Die hellenistische Polis als Lebensform 6). Mainz: Verlag Antike.

- Sabbione, C. 1970. Intorno ad una serie di statuette arcaiche locresi. *Klarchos* 47-48: 109-156.
- Sabbione, C. 1996. Il santuario di Persefone in contrada Mannella, in E. Lattanzi (ed.) *I Greci in Occidente: Santuari della Magna Grecia in Calabria*: 32-39. Naples: Electa.
- Şahin, H., F.A. Yüksel, and Z. Görücü 2010. Korykion Antron ve Göztepesi: Eski Problemler, Yeni Bulgular, Yeni Çözüm Önerileri. *Adalya* 13: 65-89.
- Şahin, H. 2012. Korykion Antron'daki Tapınak Zeus Tapınağı Mıdır?. *Adalya* 15: 65-79.
- Sakellaridis, G.M. 1993. Οδοιπορικό στις γειτονιές των Νικιτών Νισύρου. *Νισυριακά* 12: 193-232.
- Saliou, C. 1994. *Les Lois des Bâtiments, Voisinage et Habitat Urbain dans l'Empire Romain: Recherches sur les Rapports entre le Droit et la Construction privée du siècle d'Auguste au siècle de Justinien*. Beirut: IFPO.
- Saliou, C. 1996. *Le Traité d'Urbanisme de Julien d'Ascalon: Droit et Architecture en Palestine au VIe Siècle* (Travaux et mémoires du Centre de recherches d'histoire et civilisation de Byzance - Monographies 8). Paris: Éditions de Boccard.
- Saliou, C. 2003. Le nettoyage des rues dans l'Antiquité: Fragments de discours normatifs, in P. Ballet, P. Cordier and N. Dieudonné-Glad (eds) *La Ville et ses Déchets dans le Monde Romain: Rebutts et Recyclages. Actes du colloque de Poitiers, 19-20 Septembre 2002*: 37-49. Montagnac: Éditions Monique Mergoïl.
- Saliou, C. 2012. Artisanats et espace urbain dans le monde romain: Droit et projets urbains (Ier siècle av. J.-C. - IIe siècle ap. J.-C., in A. Esposito and G.M. Sanidas (eds) «Quartiers» *Artisanaux en Grèce Ancienne, une Perspective Méditerranéenne*: 39-53. Villeneuve d'Ascq: Presses universitaires du Septentrion.
- Salowey, C.A. 1994. Herakles and the waterworks: Mycenaean dams, Classical fountains, Roman aqueducts, in K.A. Sheedy (ed.), *Archaeology in the Peloponnese* (Oxbow Monograph 48): 77-94. Oxford: Oxbow Books.
- Salvini, M. 1994. L'intervento archeologico in loc. I Monti a San Piero a Sieve: Lo scavo - I materiali, in *Archeologia in Alto Mugello, Mugello, Val di Sieve e il Caso di S. Piero a Sieve*: 25-38. San Piero a Sieve: Il Torchio.
- Salvini, M. 2009. L'orientalizzante in Mugello e nella Val di Sieve: Il sito etrusco I Monti a San Piero a Sieve, in L. Cappuccini, C. Ducci, S. Gori and L. Paoli (eds) *Museo Archeologico Comprensoriale del Mugello e della Val di Sieve*: 25-56. Florence: Aska.
- Salvini, M. and E. Salvadori 2022. Insedimenti e produzioni etrusche in località "I Monti" a San Piero a Sieve, L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 471-494. Rome: L'Erma di Bretschneider.
- Sampson, A. 1988. *Η Νεολιθική Κατοίκηση στο Γυαλί της Νισύρου*. Athens: Ευβοϊκή Αρχαιόφιλος Εταιρεία.
- Sampson, A. 2001. Η Κως και η νησίδα Γυαλί στη Νεολιθική περίοδο, in G. Kokkorou-Alevras, A. Laimos, E. Simantoni-Bournia (eds) *Ιστορία-Τέχνη-Αρχαιολογία της Κω. Α' Διεθνές Επιστημονικό Συνέδριο, Κως 2-4 Μαΐου 1997* (Series of Monographs of Αρχαιογνωσία Journal 1): 37-48. Athens: National and Kapodistrian University of Athens.
- Sanader, M. 1994. O kultu Herakla u Hrvatskoj. *Opuscula Archaeologica* 18: 87-114.
- Sanders, G.D.R. 2005. Urban Corinth: An introduction, in D. Scholwalter and S. Friesen (eds) *Urban Religion in Roman Corinth: Interdisciplinary Studies* (Harvard Theological Studies 53): 11-24. Cambridge, MA: Harvard University Press.
- Sanidas, G.M. 2013a. *La Production Artisanale en Grèce: Une approche spatiale et topographique à partir des exemples de l'Attique et du Péloponnèse du VIIe s. au Ier s. siècle avant J.-C.* Paris: CTHS.
- Sanidas, G.M. 2013b. La question des activités «à nuisance» dans les villes grecques: Intra ou extra muros?, in P. Darcque, R. Étienne and A.-M. Guimier-Sorbets (eds) *PROASTEION: Recherches sur le Périurbain dans le Monde Grec* (Travaux de la MAE René Ginouvès 17): 173-192. Paris: Éditions de Boccard.
- Sanidas, G.M. 2016. La production coroplastique ἐν ἄστει: Questions et approches sur la période classique, in A. Muller and E. Laflı (eds) *Figurines en Terre Cuite en Méditerranée Grecque et Romaine 1: Production, Diffusion, Étude. Actes du colloque international Colloquia Anatolica et Aegea Antiqua I. Izmir, 2-6 juin 2007* (Bulletin de Correspondance Hellénique Supplément 54): 17-31. Athens: École française d'Athènes.
- Sanidas, G.M. 2017. Activités économiques dans l'espace urbain de la cité: Quelques approches à partir du cas de Thasos (VIIe - IVe s. av. n.è.), in D. Mulliez and Z. Bonias (eds) *Thasos: Métropole et Colonies. Actes du symposium international à la mémoire de Marina Sgourou, Thasos, 21-22 septembre 2006* (Recherches franco-helléniques 5): 125-144. Athens: École française d'Athènes.
- Sanidas, G.M. 2019. Comprendre le Céramique d'Athènes: À propos du modèle de «quartier des potiers», in M. Denti and M. Vilette (eds) *Archéologie des Espaces Artisanaux: Fouiller et Comprendre les Gestes des Potiers. Actes du colloque international de Rennes, 27-28 novembre 2014*: 77-88. Lattes: Éditions ADAL.
- Sanidas, G.M. 2020. La ville infecte? Origines et gestion des nuisances artisanales urbaines dans l'Athènes classique: L'exemple des grandes fonderies de bronze. *Mélanges de l'École française de Rome. Antiquité* 132.2: 277-288.
- Sanidas, G.M. 2022. Le feu dans les villes grecques et l'attitude de la cité: Aspects pratiques et mises au point, in G. Poccardi and G.M. Sanidas (ed.) *Le Feu dans la Ville Antique: Usages, Risques, Réglementations*: 15-30. Villeneuve d'Ascq: Presses universitaires du Septentrion.

- Sanidas, G.M., A. Muller and S. Dadaki 2014. Το εργοτάξιο του τρικλινίου μίας πρωτοβυζαντινής έπαυλης στην Θάσο: Η αρχαιολογική μαρτυρία. *Αρχαιολογικό Έργο Μακεδονίας και Θράκης* 28: 675–688.
- Santocchini Gerg, S. 2012. Riflessioni sui contatti fra Etruria settentrionale e padana: Motivi e tecniche decorative tra VII e V sec. a.C. *Ocnus* 20: 223–252.
- Santocchini Gerg, S. 2021. L'orientalizzante nel Bolognese, in S. Bourdin, O. Dally, A. Naso and C. Smith (eds) *The Orientalizing Cultures in the Mediterranean, 8th–6th Cent. BC. Origins, Cultural Contacts and Local Developments: The Case of Italy* (Mediterranea. Studi e Ricerche sul Mediterraneo Antico Suppl. N.s. 1): 63–92. Rome: Edizioni Quasar.
- Santocchini Gerg, S. 2022. Il bucchero dell'Etruria padana e le sue relazioni con l'Etruria settentrionale fra VII e VI secolo a.C., in L. Cappuccini and A. Gaucci (eds) *Officine e Artigianato Ceramico nei siti Etruschi dell'Appennino Tosco-Emiliano tra VII e IV sec. a.C.* (Biblioteca di Studi Etruschi 66): 39–74. Rome: L'Erma di Bretschneider.
- Sapirstein, P. 2016. The columns of the Heraion at Olympia: Dörpfeld and early Doric architecture. *American Journal of Archaeology* 120.4: 565–601.
- Saranti, F. 2008. Αιτωλία και Ακαρνανία: Από τον Εύηνο ως το Μόρνο, in A. Vlachopoulos (ed.) *Εύβοια και Στερεά Ελλάδα* (Αρχαιολογία 2): 390–397. Athens: Melissa.
- Saranti, F. 2022. *Ναύπακτος: Η Εξέλιξη του Οικισμού από την Προϊστορία έως το Τέλος του Αρχαίου Κόσμου*. Athens: Kardamitsa Publications.
- Sarantidis, K. 2017. Ανάλυση ενός αρχαίου συστήματος κατασκευής στεγών από το Μιλησιακό οχυρό στο Καστράκι Αγαθονησίου, in P. Triantafyllidis and K. Sarantidis (eds) *Το Αρχαιολογικό Έργο στα Νησιά του Αιγαίου. Διεθνές επιστημονικό συνέδριο, Ρόδος, 27 Νοεμβρίου 1 Δεκεμβρίου 2013, v. Γ'*: 75–84. Mytilene: Typokykladiki.
- Sarantidis, K. 2020. *Milesian Islands: The Fortified Installations in the Insular Environment of Miletus in the Aegean in Context* (Thiasos Monografie 15). Rome: Edizioni Quasar.
- Sarantidis, K. 2024. «Σκάριφος: ξέσις, γραφή, μίμησις άκριβής τόπου» ή το ιχνογράφημα αρχαίου οχυρωματικού πύργου από το Καστράκι στο Αγαθονήσι, in E. Dimitriadou and N. Dimakis (eds) *ΚΑΛΛΙΝΙΚΟΣ. Honorary Volume for Professor Panos Valavanis by His Students*: 347–357. Athens: Kapon editions.
- Sare, T. 2013. The sculpture of the Heroon of Perikles at Limyra: The making of a Lycian king. *Anatolian Studies* 63: 55–74.
- Sargent, M.L. 2011. Recent investigation of the polychromy of a metropolitan Roman garland sarcophagus, in J.S. Østergaard (ed.) *Tracking Colour: The Polychromy of Greek and Roman Sculpture in Ny Carlsberg Glyptotek. Preliminary Report 3*: 14–34. Copenhagen: Ny Carlsberg Glyptotek.
- Sarti, S. 2020. Mugello, alto Mugello e val di Sieve: Evidenze etrusche e romane, in C. Ducci, A. Nocentini and S. Sarti (eds) *Archeologia del Mugello, Centro di Documentazione di Sant'Agata: Museo e Territorio*: 223–238. Florence: Consiglio Regionale della Toscana.
- Sassatelli, G. 1991. Nuovi dati epigrafici da Marzabotto e il ruolo delle comunità locali nella “fondazione” della città. *Archeologia Classica* 43: 693–715.
- Sassatelli, G. 1994. *Iscrizioni e Graffiti della Città Etrusca di Marzabotto*. Bologna: Bologna University Press.
- Sassatelli, G. 2008. Gli Etruschi nella valle del Po, in G.M. Della Fina (ed.) *La Colonizzazione Etrusca in Italia* (Annali della Fondazione per il Museo Claudio Faina di Orvieto 15): 71–114. Rome: Edizioni Quasar.
- Sassatelli, G. 2010. Le città dell'Etruria padana, in S. Bruni (ed.) *Le Etruschi delle Città: Fonti, Ricerche e Scavi*: 204–215. Cinisello Balsamo: Silvana.
- Sassatelli, G. 2011. Città etrusca di Marzabotto: Una fornace per il tempio di Tina, in D.F. Maras (ed.) *Corollari: Scritti di Antichità Etrusche e Italiche in Omaggio all'Opera di Giovanni Colonna* (Studia Erudita 14): 150–158. Pisa and Roma: Fabrizio Serra Editore.
- Sassatelli, G. and R. Macellari 2009. Tuscorum Ager: Comunità etrusche tra Enza e Ongina, in D. Vera (ed.) *Storia di Parma II: Parma Romana*: 110–145. Parma: Monte Università Parma.
- Sbroscia, M., M. Cestelli-Guidi, F. Colao, S. Falzone, C. Gioia, P. Gioia, C. Marconi, D. Mirabile Gattia, E.M. Loreti, M. Marinelli, M. Missori, F. Persia, L. Pronti, M. Romani, A. Sodo, G. Verona-Rinati, M.A. Ricci and R. Fantoni 2020. Multi-analytical non-destructive investigation of pictorial apparatuses of “Villa della Piscina” in Rome. *Microchemical Journal* 153: 104–450.
- Scardozi, G. 2012. Ancient marble and alabaster quarries near Hierapolis in Phrygia (Turkey): New data from archaeological surveys, in A. Gutiérrez Garcia-M., P. Lapuente and I. Rodà (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 9th international conference of Association for the Study of Marble and Other Stones in Antiquity, Tarragona, Spain, June 8-13, 2009* (ASMOSIA IX. Documenta 23): 573–583. Tarragona: Institut Català d'Arqueologia Clàssica.
- Scardozi, G., M. Brillì and F. Guistini 2018. Calcite alabaster artefacts from Hierapolis in Phrygia, Turkey: Provenance determination using carbon and oxygen stable isotopes. *Geoarchaeology* 34.2: 169–186.
- Schaaff, H. 2015. *Antike Tuffbergwerke am Laacher See-Vulkan* (Monographien des RGZM 107). Mainz: Verlag des Römisch-Germanischen Zentralmuseums.
- Scheibler, I. 1992. *Ελληνική Κεραμική: Παραγωγή, Εμπόριο και Χρήση των Αρχαίων Ελληνικών Αγγείων* (transl. E. Manakidou). Athens: Kardamitsa Publications.
- Scheidel, W., I. Morris and R.P. Saller (eds) 2008. *The Cambridge Economic History of the Greco-Roman World*. Cambridge: Cambridge University Press.

- Schenck zu Schweinsberg, J.-M. 2017. *Der Pseudo-homerische Hermes-Hymnus: Ein interpretierender Kommentar* (Wissenschaftliche Kommentare zu griechischen und lateinischen Schriftstellern). Heidelberg: Universitätsverlag Winter.
- Schiffer, M.B. 1972. Archaeological context and systemic context. *American Antiquity* 37.2: 156–165.
- Schiffer, M.B. 1975. Behavioral chain analysis: Activities, organization, and the use of space. *Anthropology* 65: 103–119.
- Schiffer, M.B. 1976. *Behavioral Archeology* (Studies in Archeology). New York: Academic Press.
- Schiffer, M.B. 1981. Some issues in the philosophy of archaeology. *American Antiquity* 46.4: 899–908.
- Schiffer, M.B. 1983. Toward the identification of formation processes. *American Antiquity* 48.4: 675–706.
- Schiffer, M.B. 1985. Is there a 'Pompeii premise' in archaeology?. *Journal of Anthropological Research* 41.1: 18–41.
- Schiffer, M.B. 1995. *Behavioral Archaeology: First Principles* (Foundations of Archaeological Inquiry). Salt Lake City: University of Utah Press.
- Schiffer, M.B. 2010. *Behavioral Archaeology: Principles and Practice* (Equinox Handbooks in Anthropological Archaeology). London: Equinox Publishing.
- Schilardi, D. 1982. Ανασκαφές και επιφανειακές έρευνες στην Πάρο. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας* 1980: 263–286.
- Schilardi, D. 2000. Σημειώσεις για τον ημίεργο αθλητή της Πάρου, in D. Schilardi and D. Katsonopoulou (eds) *Παρία Λίθος: Λατομεία, Μάρμαρο και Εργαστήρια Γλυπτικής της Πάρου. Πρακτικά Α' διεθνούς συνεδρίου αρχαιολογίας Πάρου και Κυκλάδων, Παροιικά 2-5 Οκτωβρίου 1997*: 163–171. Athens: The Institute for Archaeology of Paros and the Cyclades.
- Schild-Xenidou, V. 2008. *Corpus der Boiotischen Grab- und Weihreliefs des 6. bis 4. Jahrhunderts v. Chr.* Mainz: Philipp von Zabern.
- Schlanger, N. 2005. The Chaîne Opératoire, in C. Renfrew and P. Bahn (eds) *Archaeology: The Key Concepts*: 18–23. London and New York: Routledge.
- Schliephake, C., N. Sojc and G. Weber (eds) 2020. *Nachhaltigkeit in der Antike: Diskurse, Praktiken, Perspektiven*. Stuttgart: Franz Steiner Verlag.
- Schmaltz, B. 1983. *Griechische Grabreliefs*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Schmaltz, B. 1998. Zur Weiter- und Wiederverwendung klassischer Grabreliefs Attikas. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 113: 165–190.
- Schmaltz, B. 2001. Zur Wiederverwendung klassischer Grabreliefs, in G. Hoffmann and C.W. Clairmont (eds) *Les Pierres de l'Offrande: Autour de l'Oeuvre de Christoph W. Clairmont*: 44–51. Kilchberg: Akanthus.
- Schmaltz, B. 2010a. Eine attische Frauenstele spätarchaischer Zeit. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 125: 143–171.
- Schmaltz, B. 2010b. Aktualisierte Denkmäler in Paros. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 125: 173–197.
- Schmaltz, B. and M. Salta 2003. Zur Weiter- und Wiederverwendung attischer Grabreliefs klassischer Zeit. *Jahrbuch des Deutschen Archäologischen Instituts* 118: 49–203.
- Schmidt, S. 1991. *Hellenistische Grabreliefs: Typologische und chronologische Beobachtungen*. Köln: Böhlau Verlag.
- Schmidt-Dounas, B. 1985. *Der Lykische Sarkophag aus Sidon* (Istanbuler Mitteilungen Beiheft 30). Tübingen: Wasmuth.
- Scholl, A. 1993. Das „Charonrelief“ im Kerameikos. *Jahrbuch des Deutschen Archäologischen Instituts* 108: 353–373.
- Scholl, A., 2010. Τα αναθήματα της Ακροπόλεως από τον όγδοο έως τις αρχές του έκτου αιώνα π.Χ. και η συγκρότηση της Αθήνας σε πόλη-κράτος. *Αρχαιολογία και Τέχνες* 113: 74–85.
- Scholl, A. 2020. *Der attische Grabbau: Entwicklung und Bedeutung freistehender Grabarchitektur in Athen und Attika von der archaischen Epoche bis in die römische Kaiserzeit*. Berlin: De Gruyter.
- Schörner, G. and H.R. Goette 2004. *Die Pan-Grotte von Vari: Mit epigraphischen Anmerkungen von Klaus Hallof*. Mainz: Philipp von Zabern.
- Schuchhardt, W.-H. 1977. *Alkamenes* (Winckelmannsprogramm der Archäologischen Gesellschaft zu Berlin 126). Berlin: De Gruyter.
- Schuller, M. 1985. Dorische Architektur der Kykladen. *Jahrbuch des Deutschen Archäologischen Instituts* 100: 319–398.
- Schürr, D. 2007. Formen der Akkulturation in Lykien: Griechisch-lykische Sprachbeziehungen, in Ch. Schuler (ed.) *Griechische Epigraphik in Lykien: Eine Zwischenbilanz. Akten des Internationalen Kolloquiums, München 24.-26. Februar 2005* (Ergänzungsbände zu den Tituli Asiae Minoris 2, Denkschriften der philosophisch-historischen Klasse 354): 27–41. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Schweizer, B. 2021. Knowledge-scapes as resources: An archaeological approach to the construction of cultural and social identities, in F. Jürcke, J. Montes-Landa and A. Ceccarelli (eds) *Archaeological Review from Cambridge* 35.2: 'Knowledge-scapes' in Archaeology: An Introduction: 45–59.
- Seigne, J. 2002. A sixth century water-powered sawmill at Jarash. *Annual of the Department of Antiquities of Jordan* 46: 205–213.
- Selekou, M. 2014. Το Νεκροταφείο στη Θέση Τριανταφυλλιά Λιβανάτων (6ος-2ος αιώνας π.Χ.): Συμβολή στη Μελέτη της Αρχαίας Λοκρίδας. Unpublished PhD dissertation, University of Ioannina. <<http://hdl.handle.net/10442/hedi/36614>>.

- Sellet, F. 1993. Chaîne opératoire: The concept and its applications. *Lithic Technology* 18.1/2: 106–112.
- Semenova, A.A. 2021. Horn processing in western temenos of Olbia Pontica. *Eminak* 3.35: 146–153.
- Sengoku-Haga, K. 2017. Polykleitos and his followers at work: How the Doryphoros was used, in J. Daehner, K.D.S. Lapatin and A. Spinelli (eds) *Artistry in Bronze: The Greeks and their Legacy. XIX International congress on ancient bronzes*: 87–93. Los Angeles: Getty Publications.
- Serafini, M.A. 2019. Le ceramiche d'impasto vacuolare del sito di Pietramarina. *Florentia. Studi di Archaeologia* 4: 143–159.
- Sestieri, P.C. 1940. Metaponto – campagna di scavo (marzo-aprile 1939). *Atti della Accademia Nazionale dei Lincei. Notizie degli scavi di Antichità* 19: 51–122.
- Sestieri Bertarelli, M. 1990. Statuette femminili arcaiche e del primo classicismo nelle stipi votive di Poseidonia. *Rivista dell'Istituto Nazionale d'Archeologia e Storia dell'Arte* N.S. 3.12: 5–47.
- Sève, M. 2014. *Philippes 1914-2014: 100 Ans de Recherches Françaises* (Patrimoine Photographique 2). Athens: École française d'Athènes, Melissa.
- Shapiro, L. and S. Spaulding 2021. Embodied cognition, in E.N. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Winter 2021 Edition), viewed 23 June 2023, <<https://plato.stanford.edu/archives/win2021/entries/embodied-cognition/>>.
- Siddall, R. 2006. Not a day without a line drawn: Pigments and painting techniques of Roman artists. *infocus Magazine* 2: 18–31.
- Sillitoe, P. 2006. Introduction: Indigenous knowledge in development. *Anthropology in Action* 13.3: 1–12.
- Silvestrelli, F. 2005. Le fasi iniziale della ceramica a figure rosse nel Kerameikos di Metaponto, in M. Denoyelle (ed.) *La Céramique Apulienne: Bilan et perspectives. Actes de la table ronde organisée par l'École française de Rome en collaboration avec la Soprintendenza per i Beni culturali della Puglia et le Centre Jean Bérard (30 novembre – 2 décembre 2000)*: 113–124. Naples: Centre Jean Bérard.
- Simon, Ch.G. 1986. The Archaic Votive Offerings and Cults of Ionia. Unpublished PhD dissertation, University of California, Berkeley.
- Simoni, H., K. Papagiannopoulos, R. Tsiakiris and K. Stara 2021. Local resource management imprinted in the landscape: Convergent evolution in two Greek mountain plains during the last five centuries, in M. Bartelheim, L. Garcia Sanjuan and R. Hardenberg (eds) *Human-Made Environments: The Development of Landscapes as Resource Assemblages* (RessourcenKulturen 15): 53–74. Tübingen: Tübingen University Press.
- Sioumpara, E.P. 2020. Zerstörung und Wiederherstellung der Ordnung: Wiederverwendung von Baumaterialien in attischen Heiligtümern nach den Perserkriegen, in U. Wulf-Rheidt and K. Piesker (eds) *Umgebaut: Umbau-, Umnutzungs- und Umwertungsprozesses in der antiken Architektur. Internationales Kolloquium in Berlin vom 21.-24. Februar 2018, veranstaltet vom Architekturreferat des DAI*: 91–110. Regensburg: Schnell & Steiner.
- Sismanidis, K. 2003. *Αρχαία Στάγαιρα: Η Πατρίδα του Αριστοτέλη*. Athens: Υπουργείο Πολιτισμού.
- Sitz, A. 2019a. Inscribing Caria: The perseverance of epigraphic traditions in Late Antiquity, in S. Mitchell and P. Pilhofer (eds) *Early Christianity in Asia Minor and Cyprus: From the Margins to the Mainstream*: 202–225. Leiden: Brill.
- Sitz, A. 2019b. Beyond spolia: A new approach to old inscriptions in Late Antique Anatolia. *American Journal of Archaeology* 123.4: 643–674.
- Sitz, A. 2019c. Hiding in plain sight: Epigraphic reuse in the temple-church at Aphrodisias. *Journal of Late Antiquity* 12.1: 136–168.
- Sitz, A. 2023. *Pagan Inscriptions, Christian Viewers: The Afterlives of Temple and Their Texts in the Late Antique Eastern Mediterranean*. Oxford: Oxford University Press.
- Skandalidis, M. 2015. *Λεξικό του Ιδιώματος της Νισύρου*. Athens: Εταιρεία Νισυριακών Μελετών.
- Skorda, D. 1992. Recherches dans la vallée du Pléistos, in J.-F. Bommelaer (ed.) *Delphes: Centenaire de la Grande Fouille réalisée par l'École française d'Athènes (1892-1903). Actes du Colloque Paul Perdrizet, Strasbourg, 6-9 novembre 1991*: 39–66. Leiden: Brill.
- Skorda, D. 2003. Η αρχαιολογική έρευνα στην περιοχή της Ιτέας και του Γαλαξειδίου, in P. Themelis and R. Stathaki-Koumari (eds) *Το Γαλαξείδι από την Αρχαιότητα έως Σήμερα*. Πρακτικά Α' επιστημονικού συνεδρίου, Γαλαξείδι 29-30.9.2000: 1–9. Athens: Δήμος Γαλαξειδίου.
- Skovmøller, A. 2020. *Facing the Colours of Roman Portraiture* (Image & Context 19). Berlin: De Gruyter.
- Skovmøller, A. 2021. The final touch: On Thorvaldsen's marble surfaces, in J. Fejfer and K.B. Johannsen (eds) *The Workshop as Concept and Space: Creating the Portrait*: 128–150. London and New York: Routledge.
- Skovmøller, A. and R.H. Therkildsen 2011. On the high gloss polish of Roman sculpture, in J.S. Østergaard (ed.) *Tracking Colour: The Polychromy of Greek and Roman Sculpture in Ny Carlsberg Glyptotek. Preliminary Report* 3: 35–46. Copenhagen: Ny Carlsberg Glyptotek.
- Skovmøller, A. and R.H. Therkildsen 2014. A reconstruction, in J.S. Østergaard and A.M. Nielsen (eds) *Transformations: Classical Sculpture in Colour*: 256–271. Copenhagen: Naryana Press.
- Skovmøller, A. and R.H. Therkildsen 2015. The polychromy of Roman polished marble portraits, in P. Pensabene and E. Gasparini (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 10th international conference of the Association for the Study of Marble and Other Stones in Antiquity, Rome, Italy, May 21-26, 2012 (ASMOSIA X)*: 891–900. Rome: L'Erma di Bretschneider.

- Skytte Jakobsen, L. 2019. *Metaskulptur: Skulpturbegrebet i Bevægelse*. Aarhus: Rævens Sorte Bibliotek.
- Smith, A.H. 1916. Lord Elgin and his collection. *Journal of Hellenic Studies* 36: 163–372.
- Smith, R.O. 2009. Architecture and Boat Building: Connecting with Spolia. Unpublished MA dissertation, Carleton University.
- Sodini, J.-P. 1989. Le commerce des marbres à l'époque protobyzantine, in C. Abadie-Reynal, V. Kravari, J. Lefort and C. Morrisson (eds) *Hommes et Richesses dans l'Empire Byzantine I: IVe-VIIe Siècles*: 163–186. Paris: Lethielleux.
- Sodini, J.-P., A. Lambraki and T. Koželj 1980. *Aliki I: Les Carrières de Marbre à l'Époque Paléochrétienne*. Paris: Éditions de Boccard.
- Sokolowski, F. 1962. *Lois Sacrées des Cités Grecques* (Supplément. Travaux et mémoires 11). Paris: Éditions de Boccard.
- Solov'yanov, N. 2016. Peculiarities of the worship of Hercules in the Roman army (in Russian). *Problemy istorii, filologii, kul'tury* 2: 121–127.
- Soressi, M. and J.-M. Geneste 2011. The history and efficacy of the chaîne opératoire approach to lithic analysis: Studying techniques to reveal past societies in an evolutionary perspective. *PaleoAnthropology* 2011: 334–350.
- Soter, S. and D. Katsonopoulou 1998. The search for ancient Helike, 1998–1995: Geological, sonar and bore-hole studies, in D. Katsonopoulou, S. Soter and D. Schilardi (eds) *HELIKE II: Ancient Helike and Aigialeia*: 67–116. Athens: The Helike Society.
- Soter, S. and D. Katsonopoulou 1999. Occupation horizons found in the search for the ancient Greek city of Helike. *Geoarchaeology* 14: 531–563.
- Soter, S. and D. Katsonopoulou 2005. Studies on the geoarchaeology of the Helike Delta: 1991–2000, in D. Katsonopoulou, S. Soter and I. Koukouvelas (eds) *HELIKE III: Archaeological Sites in Geologically Active Regions*: 169–182. Athens: The Helike Society.
- Soter, S. and D. Katsonopoulou 2011. Submergence and uplift of settlements in the area of Helike, from the Early Bronze Age to Late Antiquity. *Geoarchaeology* 26: 584–610.
- Sotgia, A. 2019. Italian pottery kilns and production areas from the Bronze Age to the Archaic period (2200–500 BC): A typological approach, in D. Gheorghiu (ed.) *Architecture of Fire: Processes, Space and Agency in Pyrotechnologies* (Access Archaeology): 48–46. Oxford: Archaeopress.
- Spadea, R. 1994. Il tesoro di Hera. *Bollettino d'Arte* 88: 1–34.
- Sparkes, B.A. and L. Talcott 1970. *The Athenian Agora XII: Black and Plain Pottery of the 6th, 5th and 4th Centuries B.C.* Princeton, NJ: ASCSA.
- Spathari, E. 1982. Ηρακλειδών 50 (οικόπεδο Σαπέτα). *Αρχαιολογικόν Δελτίον* 37.B'1: 23–24.
- Spathatou, G. 1980. Πειραιάς, οδός Εθν. Αντίστασης – Ιπποδάμειας – Γούναρη. *Αρχαιολογικόν Δελτίον* 35.B'1: 61–62.
- Sporn, K. 2012/2013. Grab-, Weih- oder Ehrenstele? Überlegungen zu einem Relief mit Panzerfigur in Patras. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 127/128: 259–288.
- Squarciapino, M.F. 1943. *La Scuola di Afrodisia*. Rome: L'Erma di Bretschneider.
- Squarciapino, M. F. 1983. La Scuola di Aphrodisias (40 anni dopo). *Archeologia Classica* 35: 74–87.
- Squarciapino, M. 1991. La scuola di Aphrodisias (dopo 40 anni), in R.R.R. Smith and K.T. Erim (eds) *Aphrodisias Papers 2: The Theatre, a Sculptor's Workshop, Philosophers, and Coin-Types* (Journal of Roman Archaeology Supplementary Series 2): 123–126. Portsmouth, RI: Journal of Roman Archaeology.
- Stafford, E. 2012. *Herakles* (Gods and Heroes of the Ancient World). London and New York: Routledge.
- Stager, J.M.S. 2022. *Seeing Color in Classical Art: Theory, Practice, and Reception, from Antiquity to the Present*. Cambridge: Cambridge University Press, <<https://doi.org/10.1017/9781009030212>>.
- Stanier, R.S. 1953. The cost of the Parthenon. *Journal of Hellenic Studies* 73: 68–76.
- Stavropoulou-Gatsi, M. 1980. Πρωτογεωμετρικό νεκροταφείο Αιτωλίας. *Αρχαιολογικόν Δελτίον* 35.A: 102–130.
- Stavropoulou-Gatsi, M. 2008. Ακαρνανία: Ιστορικό και αρχαιολογικό περίγραμμα, in A. Vlachopoulos (ed.) *Εύβοια και Στερεά Ελλάδα* (Αρχαιολογία 2): 414–425. Athens: Melissa.
- Stavropoulou-Gatsi, M. 2011. Thirty Protogeometric vases from Kalydon in Aitolia, in S. Dietz and M. Stavropoulou-Gatsi (eds) *Kalydon in Aitolia I: Reports and Studies. Danish/Greek fieldwork 2001–2005*: 279–299. Aarhus: Aarhus University Press.
- Stavropoulou-Gatsi, M. 2005. Κρουονέρι, θέση Σπηλιές. *Αρχαιολογικόν Δελτίον* 60.B'1: 473–475.
- Stavropoulou-Gatsi, M. 2018. Νεότερα αρχαιολογικά δεδομένα για την Αιτωλία μέσα από το ανασκαφικό έργο της ΛΣΤ' ΕΠΚΑ κατά τα έτη 2004–2010, in *2ο Διεθνές Αρχαιολογικό-Ιστορικό Συνέδριο Αιτωλοακαρνανίας και Λευκάδας, 6-8 Δεκεμβρίου 2013, Μεσολόγγι*: 71–98. Messolonghi: Υπουργείο Πολιτισμού.
- Stavropoulou-Gatsi, M. and S. Dietz 2011. Pre-Achaic finds from inside and outside the city wall, in S. Dietz and M. Stavropoulou-Gatsi (eds) *Kalydon in Aitolia I: Reports and Studies. Danish/Greek fieldwork 2001–2005*: 275–277. Aarhus: Aarhus University Press.
- Steinhauer, G. 2009. Οδικό δίκτυο της Αττικής, in M. Korres (ed.) *Αττικής Οδοί: Αρχαίοι Δρόμοι της Αττικής*: 34–73. Athens: Melissa.
- Steinmann, C. 2021. *Nachklänge: Instrumente der griechischen Klassik und ihre Musik - Materialien und Zeugnisse von Homer bis Heute*. Basel: Schwabe Verlag.

- Stephani, E., E. Tsagkaraki and A. Arvanitaki (eds) 2019. *Από το Νότο στο Βορρά: Αποικίες των Κυκλάδων στο Βόρειο Αιγαίο. Κατάλογος περιοδικής έκθεσης στο Αρχαιολογικό Μουσείο Θεσσαλονίκης*. Thessaloniki: Αρχαιολογικό Μουσείο Θεσσαλονίκης.
- Stevens, G.H., J.M. Paton, L. Caskey and H.N. Fowler 1927. *The Erechtheum*. Cambridge, MA: Harvard University Press.
- Stewart, A. 2019. Patronage, compensation, and the social status of sculptors, in O. Palagia (ed.) *Handbook of Greek Sculpture I*: 50–88. Berlin, Boston: De Gruyter.
- Stillwell, A.N. 1948. *Corinth XV, Part I: The Potters' Quarter*. Princeton, NJ: ASCSA.
- Stoll, O. 1998. 'Silvanus im Steinbruch': Kulturtransfer durch Soldaten der legio IIII Scythica in Syrien?, in L. Schumacher (ed.) *Religion - Wirtschaft - Technik: Althistorische Beiträge zur Entstehung neuer kultureller Strukturmuster im historischen Raum Nordafrika/Kleinasien/Syrien*: 99–145. St. Katharinen: Scripta Mercaturae Verlag.
- Stoppani, C. 2013. Materiali per Parma etrusca, in D. Locatelli, L. Malnati and D.F. Maras (eds) *Storie della Prima Parma: Etruschi, Galli, Romani. Le origini della città alla luce delle nuove scoperte archeologiche*: 7–9. Rome: L'Erma di Bretschneider.
- Stoppani, C. and L. Zamboni 2009. L'insediamento di Baggiovara, via Martiniana (MO), in D. Labate and D. Locatelli (eds) *L'insediamento Etrusco e Romano di Baggiovara (MO): Le indagini archeologiche e archeometriche* (Quaderni di Archeologia dell'Emilia Romagna 27): 349–423. Sesto Fiorentino: All'Insegna del Giglio.
- Stroszeck, J. 1999. Kerameikosgrabung 1998. *Archäologischer Anzeiger* 1999: 147–172.
- Stroszeck, J. 2014. *Der Kerameikos in Athen: Geschichte, Bauten und Denkmäler im Archäologischen Park*. Mönnesee: Bibliopolis.
- Stroszeck, J. 2017. *Ο Κεραμεικός των Αθηνών: Ιστορία και Μνημεία εντός του Αρχαιολογικού Χώρου*. Mönnesee: Bibliopolis.
- Stroszeck, J. 2020. Grabrelief und Kanalbau: Zum Neufund einer Familienstele im Kerameikos, in A. Delivorrias, E. Vikela, A. Zarkadas, N. Kaltsas and I. Trianti (eds) *Σπονδή. Αφιέρωμα στη Μνήμη του Γιώργου Δεσπίνη* (Παράρτημα 12): 403–416. Athens: Μουσείο Μπενάκη.
- Stroszeck, J. 2021. Review of Graml, C. 2020. The Sanctuary of Artemis Soteira in the Kerameikos of Athens (Philippika 136). Wiesbaden: Harrassowitz. *Bonner Jahrbücher* 221: 272–278.
- Stroszeck, J. and G. Zimmer 2023 (in press). Werkstattfunde aus dem Kerameikos von Athen. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung*.
- Stucky, R.A. 2005. *Das Eschmun-Heiligtum von Sidon: Architektur und Inschriften* (Antike Kunst Beihefte 19). Basel: Birkhäuser.
- Tagliente, M. 1986. Policoro: Nuovi scavi nell'area di Siris, in A. De Siena and M. Tagliente (eds) *Siris-Polieion: Fonti letterarie e nuova documentazione archeologica. Incontro di studi. Policoro, 1984*: 129–133. Galatina: Congedo.
- Taglioni, C. 1997. Le fornaci del sepolcreto San Vitale a Bologna. *Ocnus* 5: 207–224.
- Talloon, P. and L. Vercauteren 2011. The fate of temples in Late Antique Anatolia, in L. Lavan and M. Mulryan (eds) *The Archaeology of Late Antique 'Paganism'*: 347–388. Leiden: Brill.
- Tchekhanovets, Y. 2016. Spoils and spolia: Large marble assemblage from Givati excavations, Jerusalem. *Liber Annuus* 66: 269–300.
- Tesan, H. 1998. *Thorvaldsen und seine Bildhauerschule in Rom*. Köln: Böhlau Verlag.
- Teuber, S. and B. Schweizer 2020. Resources redefined: Resources and ResourceComplexes, in S. Teuber, A.K. Scholz, T. Scholten and M. Bartelheim (eds) *Waters* (RessourcenKulturen 11): 9–19. Tübingen: Tübingen University Press.
- Themos, A. 1996–97. Το ρωμαϊκό υδραγωγείο του Γυθείου: Μία πρώτη επανεξέταση των στοιχείων, in T. Gritsopoulos (ed.) *Πρακτικά του Ε' Διεθνούς Συνεδρίου Πελοποννησιακών Σπουδών, Άργος-Ναύπλιον, 6-10 Σεπτεμβρίου 1995*: 400–409. Athens: Εταιρεία Πελοποννησιακών Σπουδών.
- Themos, A. 2012. Λακωνία: Γύθειο, in A. Vlachopoulos (ed.) *Πελοπόννησος* (Αρχαιολογία 3): 548–551. Athens: Melissa.
- Theocharaki, A.M. 2011. The ancient Circuit Wall of Athens: Its changing course and the phases of construction. *Hesperia* 80: 71–156.
- Theocharaki, A.M. 2020. *The Ancient Circuit Walls of Athens*. Berlin and Boston: De Gruyter.
- Therkildsen, R.H. 2012. A 2nd century CE colossal marble head of a woman: A case study in Roman sculptural polychromy, in J.S. Østergaard (ed.) *Tracking Colour: The Polychromy of Greek and Roman Sculpture in Ny Carlsberg Glyptotek. Preliminary Report 3*: 45–63. Copenhagen: Ny Carlsberg Glyptotek.
- Thomas, Y. 2004. Res Religiosae: On the categories of religion and commerce in Roman law, in A. Pottage and M. Mundy (eds) *Law, Anthropology, and the Constitution of the Social: Making Persons and Things*: 40–72. Cambridge: Cambridge University Press.
- Thomas, O. 2020. *The Homeric Hymn to Hermes: Edited with Introduction, Translation, and Commentary* (Cambridge Classical Texts and Commentaries 62). Cambridge: Cambridge University Press.
- Thompson, H.A. 1936. Two centuries of Hellenistic pottery. *Hesperia* 3: 311–476.
- Thompson, H.A. 1937. Buildings on the west side of the Agora. *Hesperia* 6: 1–226.
- Thompson, H.A. 1940. *The Tholos of Athens and Its Predecessors* (Hesperia Supplement 4). Athens: ASCSA.
- Thompson, H.A. and R.L. Scranton 1943. Stoas and city walls on the Pnyx. *Hesperia* 12.4: 269–383.

- Threpsiadis, I. 1971. Ανασκαφαί και τυχαία ευρήματα Αττικής, Βοιωτίας και Ευβοίας. *Αρχαιολογική Εφημερίς* 1971: 32-35.
- Tomas, A. 2016. *Inter Moesos et Thraces: The Rural Hinterland of Novae in Lower Moesia (1st - 6th Centuries AD)* (Archaeopress Roman Archaeology 14). Oxford: Archaeopress.
- Touloupa, E. 1986. Das bronzene Reiterstandbild des Augustus aus dem nordägäischen Meer. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 101: 185-205.
- Townsend, R.F. 1995. *The Athenian Agora XXVII: The East Side of the Agora - The Remains beneath the Stoa of Attalos*. Princeton, NJ: ASCSA.
- Traill, J.S. 1975. *The Political Organization of Attica: A study of the Demes, Trittyes, and Phylai and their Representation in the Athenian Council* (Hesperia Supplements 14). Princeton, NJ: ASCSA.
- Traina, G. 1987. L'impossibile taglio dell'Istmo (Ps. Lucian, Nero 1-5). *Rivista di filologia e di istruzione classica* 115: 40-49.
- Travlos, I.N. 1971. *Bildlexikon zur Topographie des antiken Athen*. Tübingen: Wasmuth.
- Travlos, I.N. 1993. *Πολεοδομική Εξέλιξις των Αθηνών από των Προϊστορικών Χρόνων μέχρι των Αρχών του 19ου Αιώνος*. Athens: Kapon Editions.
- Trepel, M. 2015. *Neuroanatomie: Struktur und Funktion*. Munich: Urban & Fischer.
- Triantafyllidis, P. 2003. Classical and Hellenistic glass workshops from Rhodes, in D. Foy and M.-D. Nenna (eds) *Échanges et Commerce du Verre dans le Monde Antique. Actes du colloque de l'Association Française pour l'Archéologie du Verre, Aix-en-Provence et Marseille, 7-9 juin 2001*: 131-138. Montagnac: Éditions Monique Mergoil.
- Triantafyllidis, P. 2006. Ιστορικά και αρχαιολογικά Αγαθονησίου. *Αρχαιολογικά Ανάλεκτα εξ Αθηνών* 39: 175-192.
- Triantafyllidis, P. 2010. *Agathonisi on the Frontier: The Archaeological Investigations at Kastraki (2006-2010)*. Athens: Prefecture of the Dodecanese.
- Triantafyllidis, P. 2015. Archaeological researches on Milesian Agathonisi in the Dodecanese, Greece, in E. Laflı, S. Patacı and G. Cankardeş-Şenol (eds) *Recent Studies on the Archaeology of Anatolia* (BAR International Series 2750): 95-104. Oxford: Archaeopress.
- Triantafyllos, D. 1990. Ανάγλυφο Μίθρα ταυροκτόνου στις Θέρμες του Νομού Ξάνθης. *Θρακικά Χρονικά* 44: 46-55.
- Troumpouki, C., Y. Facorellis and S. Boyatzis 2024. Physicochemical study of mortars, ceramics and other findings from the Late Classical-Hellenistic dyeworks of ancient Helike, in D. Katsonopoulou (ed.) *HELIX VI: Helike after 373 BC - An Interdisciplinary Approach*: 265-284. Athens: The Helike Society.
- Tsirpanlis, Z. 1990. Το κτητορικό δίκαιο των κατοίκων του Άργους στην Ιπποτοκρατούμενη Νίσυρο. *Νισυριακά* 11: 19-36.
- Tsivikis, N. 2020. Messene and the changing urban life and material culture of an Early Byzantine city in the western Peloponnese (4th-7th century), in B. Böhlendorf-Arslan and R. Schick (eds) *Transformation of City and Countryside in the Byzantine Period*: 30-53. Mainz: Verlag des Römisch-Germanischen Zentralmuseums.
- Tsouklidou-Penna, D. 1981. Οδός Δρυόπων 34 (οικόπεδο Κανέλλου). *Αρχαιολογικόν Δελτίον* 36.Β'1: 19.
- Tsouli, M. 2010. Εντοπισμοί αρχαιοτήτων: Έρημος-Κουτρέλα. *Αρχαιολογικόν Δελτίον* 65.Β'1: 568.
- Tsouli, M. 2015. New evidence on ancient quarrying activity at the Mani Peninsula, southwestern Laconia, Greece, in P. Pensabene and E. Gasparini (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 10th international conference of the Association for the Study of Marble and Other Stones in Antiquity, Rome, Italy, May 21-26, 2012* (ASMOSIA X): 823-830. Rome: L'Erma di Bretschneider.
- Tsouli, M. 2018. Το έργο της Ε'ΕΠΚΑ στη Λακωνική Μάνη, 2006-2009: Τα πορίσματα των ερευνών, in E. Zymi, A.-V. Karapanagiotou and M. Xanthopoulou (eds) *Το Αρχαιολογικό Έργο στην Πελοπόννησο. Πρακτικά του διεθνούς συνεδρίου, Τρίπολη, 7-11 Νοεμβρίου 2012* (ΑΕΠΕΑ 1): 353-376. Kalamata: Πανεπιστήμιο Πελοποννήσου.
- Tuci, D. 2007. Calenzano (FI). Località Carraia: area con forni etruschi e strutture di età classica. *Notiziario della Soprintendenza per I Beni Archeologici della Toscana* 3: 149-152.
- Tuci, D. 2022. La fornace dell'Autostrada delle Acque, in Donati, L., G. Millemaci, L. Pagnini and G. Poggesi (eds) *Gonfienti: L'insediamento etrusco e romano. I materiali*: 302-306. Florence: Edifir.
- Tuffreau-Libre, M. 1976. La céramique de l'officine gallo-romaine du Pont-Rouge à Bourlon. *Bulletin de la Commission Départementale des Monuments Historiques du Pas-De-Calais* 10: 1-20.
- Tuffreau-Libre, M. and N. Vanbrugge 1994. La céramique du IIIe siècle du site de Famars (Nord), in M. Tuffreau-Libre and A. Jacques (eds) *Actes de la table ronde La Céramique du Bas-Empire en Gaule Belgique et dans les Régions Voisines, Arras 8-10 octobre 1991* (Revue du Nord. Hors série, Collection archéologie 4): 33-41. Villeneuve d'Ascq: Université de Lille.
- Underwood, D. 2013. Reuse as archaeology: A test case for Late Antique building chronologies in Ostia, in L. Lavan and M. Mulryan (eds) *Field Methods and Post-Excavation Techniques in Late Antique Archaeology*: 383-409. Leiden: Brill.
- Underwood, D. 2019. *(Re)using Ruins: Public Building in the Cities of the Late Antique West, A.D. 300-600*. Leiden: Brill.
- Vaessen, R. 2014. Craftmanship at Athens in the 11th century BCE: Improvisation, networking and pottery making, in K. Rebay-Salisbury, A. Brysbaert and L. Foxhall (eds) *Knowledge Networks and Craft Traditions in the Ancient World: Material Crossovers*: 127-146. New York: Routledge.

- Vallois, R. 1939. Les moulures grecques (Review of L.T. Shoe, Profiles of Greek Mouldings). *Revue des Études Anciennes* 41: 49–56.
- Vallois, R. 1966. *L'Architecture Hellénique et Hellénistique à Délos jusqu'à l'Éviction des Déliens II*, 1. Paris: Éditions de Boccard.
- Vallois, R. 1978. *L'Architecture Hellénique et Hellénistique à Délos jusqu'à l'Éviction des Déliens II*, 2. Paris: Éditions de Boccard.
- Vanbrugghe, N. 1986. *Famars, Déviation du CD958 (Déviation d'Aulnoye-Famars), parcelles A265, A267, A270, Rapport de fouilles*. Villeneuve d'Ascq: Association pour les fouilles archéologiques nationales, Service Régional de l'Archéologie.
- Vanbrugghe, N. 1989. Recherches archéologiques à Famars (1986–1988). *Revue du Nord* 71.280/Janvier-Mars 1989: 79–103.
- Vanderhoeven, A. and A. Ervinck 2007. Not in my back yard? The industry of secondary animal products within the Roman civitas capital of Tongeren, Belgium, in R. Hingley and S. Willis (eds) *Roman Finds: Context and Theory. Proceedings of a conference held at the University of Durham*: 156–175. Oxford: Oxbow Books.
- Vander Poppen, R.E. 2013. Evidence from flaws: Hellenistic pottery technology at Podere Funghi (Vicchio di Mugello). *Etruscan Studies* 16.2: 165–189.
- Van Voorhis, J. 2008. The training of marble sculptors at Aphrodisias, in R.R.R. Smith and J. Lenaghan (eds) *Roman Portraits from Aphrodisias*: 120–135. Istanbul: Yapı Kredi Cultural Activities, Arts and Publishing.
- Van Voorhis, J. 2018. *Aphrodisias 10: The Sculptor's Workshop*. Wiesbaden: Reichert Verlag.
- Vanzini, R. 2019. L'abitato villanoviano di via San Donato-Caserma Battistini a Bologna. *Studi Etruschi* 82: 3–34.
- Vaos, Z. and S. Nomikos 1993. *Ο Ανεμόμυλος στις Κυκλάδες*. Athens: Melissa.
- Verbanck-Piérard, A. 2021. Prince Charles Alexander of Lorraine and Hercules: A political emblem between tradition and innovation, in V. Mainz and E. Stafford (eds) *The Exemplary Hercules from the Renaissance to the Enlightenment and Beyond*: 119–148. Leiden: Brill.
- Verbicaro, G. 2010. Aree produttive a Crotona tra VII e III sec. a.C., in L. Lepore and P. Turi (eds) *Caulonia tra Crotona e Locri. Atti del convegno internazionale, Firenze, 30 maggio-1 giugno 2007*: 227–241. Florence: Firenze University Press.
- Verčič, M. 2017. Frühe Eisentechnologie in der Ägäis: case study Ionien. *Studia Hercynia* 21.1: 25–44.
- Verdelis, N. 1960. Ανασκαφή του δίορκου. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας* 1960: 136–143.
- Vergados, A. 2013. *The Homeric Hymn to Hermes: Introduction, Text and Commentary* (Texte und Kommentare 41). Berlin: De Gruyter.
- Verri, G., T. Opper and T. Deviese 2010. The “Treu Head”: A case study in Roman sculptural polychromy. *The British Museum Technical Research Bulletin* 4: 39–53.
- Veymiers, R. 2010. Dieux de l'Orient en Hainaut à l'époque romaine, in M.-C. Bruwier (ed.) *Mémoires d'Orient: Du Hainaut à Héliopolis. Catalogue d'exposition, Musée royal de Mariemont, du 7 mai au 17 octobre 2010*: 41–61. Mariemont: Musée royal de Mariemont.
- Vidas, A. 2019. *Religijska Slika Otoka Brača od 1. do 4. Stoljeća*. Unpublished Master's thesis, Sveučilište u Zadru.
- Vikatu, O. 2012a. Η Ιονία οδός (Μέρος Γ'). Η οχύρωση στις «Τρεις Εκκλησιές» Μεσολογγίου και οι νέες ανασκαφές στο πρωτογεωμετρικό νεκροταφείο Σταμνάς. <<https://www.archaiologia.gr/blog/2012/09/24/%CE%B7->>, accessed 24.01.2024.
- Vikatu, O. 2012b. Η Ιονία οδός (Μέρος Β'). Ιερά και νεκροπόλεις στην περιοχή της αρχαίας Αλικυρνας. <<https://www.archaiologia.gr/blog/2012/09/10/%CE%B7->>, accessed 24.01.2024.
- Vikatu, O. 2015a. Είσοδος σήραγγας Καλυδώνας (Χ.Θ. 23+550 έως 23+800). *Αρχαιολογικόν Δελτίον* 70.Β'1: 566–568.
- Vikatu, O. 2015b. Θέση Ρηγαίικα Μεσολογγίου (Χ.Θ. 27+650 έως 27+750). *Αρχαιολογικόν Δελτίον* 70.Β'1: 566–570.
- Vikatu, O. 2015c. Θέση Ρηγαίικα Μεσολογγίου (Χ.Θ. 26+800 έως 26+880): Παρόδιο ταφικό μνημείο. *Αρχαιολογικόν Δελτίον* 70.Β'1: 570–571.
- Vikatu, O. 2015d. Αρχαία Αλικυρνα (Άγιος Θωμάς Μεσολογγίου) (Χ.Θ. 28+860 έως 29+360). *Αρχαιολογικόν Δελτίον* 70.Β'1: 572–576.
- Vikatu, O. 2015e. Θέση Τρεις Εκκλησιές Μεσολογγίου (Χ.Θ. 38+245). *Αρχαιολογικόν Δελτίον* 70.Β'1: 577–579.
- Vikatu, O. 2015f. Έργο «Παραϊόνια Οδός». Οδικές συνδέσεις σήραγγας Αγ. Ηλία (Χ.Θ. 27+682 έως 27+787). *Αρχαιολογικόν Δελτίον* 70.Β'1: 579–584.
- Vikatu, O. 2016. Η Ιονία οδός: Μακύνεια – Πλευρώνα. Ένας άγνωστος αρχαίος κόσμος. *Αρχαιολογία* 121: 22–35.
- Vikatu, O. 2019. Από τη ζωή στο θάνατο: Ανιχνεύοντας έθιμα ταφής και πρακτικές στην Αιτωλοακαρνανία με αφορμή την εκτέλεση μεγάλων δημόσιων έργων οδοποιίας, in E. Kountouri and A. Gadlou (eds) *Σωστικές Ανασκαφές της Αρχαιολογικής Υπηρεσίας Ι. Τα Νεκροταφεία: Χωροταξική οργάνωση – ταφικά έθιμα – τελετουργίες*: 395–435. Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- Vinogradov, Yu.G. and S.D. Kryžickii 1995. *Olbia: Eine altgriechische Stadt im nordwestlichen Schwarzmeerraum (Mnemosyne, bibliotheca classica Batava. Supplementum 149)*. Leiden: Brill.
- Vlassopoulos, K. 2007. *Unthinking the Greek Polis: Ancient Greek History beyond Eurocentrism*. Cambridge: Cambridge University Press.
- Vokotroulou, I. 1969. Πρωτογεωμετρικά αγγεία εκ της περιοχής του Αγρινίου. *Αρχαιολογικόν Δελτίον* 24.Α': 74–94.
- Völling, T. and G. Zimmer 1995. Bewegliche Tiegel: Ein Neufund in Olympia. *Archäologischer Anzeiger* 1995: 661–666.

- von Jan, K. 1882. *Die griechischen Saiteninstrumente*. Leipzig: B.G. Teubner.
- von Rüden, C. 2017. From mechanics to embodiment: Some theoretical considerations on techniques, in P. Eisenach, T. Stöllner and A. Windler (eds) *The RITaK Conferences 2013-2014: Raw Materials, Innovation, Technology of Ancient Cultures 1* (Der Anschnitt Beiheft 34= Veröffentlichungen aus dem Deutschen Bergbau-Museum Bochum 219): 71–79. Rahden, Westf.: VML Verlag Marie Leidorf.
- Vougioukalakis, G. and E. Theodosiou 2012. Γεωδιαδρομές στην Ελλάδα: Νήσος Νίσυρος. *Ελληνική Γεωσφαίρα* Απρίλιος-Αύγουστος: 18–36.
- Voutira, P. 2017. Η Περίπτωση του Αρχαίου Δρόμου «Δια Κοίλης Οδού». Unpublished PG Diploma dissertation. National and Kapodistrian University of Athens.
- Vrsalović, D. 1960. Pretpovijest i Stari Vijek. *Brački zbornik* 4: 33–110.
- Wace, A.J.B., W.A. Heurtley, W. Lamb, L.B. Holland and C.A. Boethius 1921-1923. Excavations at Mycenae. *Annual of the British School at Athens* 25: 1–435.
- Waelkens, M., P. De Paepe and L. Moens 1988. Patterns of extraction and production in the white marble quarries of the Mediterranean: History, present problems and prospects, in J.C. Fant (ed.) *Ancient Marble, Quarrying and Trade. Papers from a colloquium held at the annual meeting of the Archaeological Institute of America, San Antonio, Texas, December, 1986*: 81–116. Oxford: Archaeopress.
- Wagenführ, R. and A. Wagenführ 2022. *Holzatlas*. Munich: Carl Hanser Verlag.
- Walter, U. 2006. s.v. Infrastruktur, in *DNP Online*, viewed 26 October 2023, <http://dx.doi.org/10.1163/1574-9347_dnp_e524460>.
- Walter-Karydi, E. 2015. *Die Athener und ihre Gräber (1000-300 v. Chr.)* (Image & Context 14). Berlin, Munich, Boston: De Gruyter.
- Warden, P.G., M.L. Thomas, A. Steiner and G. Meyers 2005. Poggio Colla: A north Etruscan settlement of the 7th-2nd c. B.C. (1998-2004 excavations). *Journal of Roman Archaeology* 18: 252–266.
- Ward-Perkins, B. 1984. *From Classical Antiquity to the Middle Ages: Urban Public Building in Northern and Central Italy, AD 300-850*. Oxford: Oxford University Press.
- Watzinger, A. 1901. Die Ausgrabungen am Westabhang der Akropolis V: Einzelfunde. *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 26: 229–232.
- Weinkauf, E. (in press). Topographie des ateliers artisanaux au sein des agglomérations implantées sur les territoires des cités des Ménapiens, des Nerviens et des Tongres au Haut-Empire, in G. Pagès and R. Clotuche (eds) *Le Rôle de l'Artisanat dans la Genèse et la Structuration des Agglomérations. Actes des trois tables rondes organisées à Nanterre (2 octobre 2014, 12 mars 2015 et 4 novembre 2015, dans le cadre du projet partagé de l'UMR 7041 ArScAn «Construire l'Espace - Analyse chrono-spatiale des logiques territoriales» (Humanités 1)*. Nanterre: Presses universitaires Paris Nanterre.
- Weir, R. 1999. Nero and the Herakles frieze at Delphi. *Bulletin de Correspondance Hellénique* 123: 397–404.
- Weir, R. 2016. Coins including Sikyonian and Corinthian issues found at the excavations of the Helike Project in Helike of Achaia, in D. Katsonopoulou and E. Partida (eds) *ΦΙΛΕΛΛΗΝ. Essays Presented to Stephen G. Miller*: 37–65. Athens: The Helike Society.
- Weller, Ch. 1903. The cave at Vari: I. Description, account of excavation, and history. *American Journal of Archaeology* 7.3: 263–288.
- Welzer H. 2001. Das soziale Gedächtnis, in H. Welzer (ed.) *Das soziale Gedächtnis: Geschichte, Erinnerung, Tradierung*: 9–24. Hamburg: Hamburger Edition.
- Werner, W. 1997. The largest ship trackway in ancient times: The diolkos of the Isthmus of Corinth, Greece, and early attempts to build a canal. *International Journal of Nautical Archaeology* 26.2: 98–119.
- Wescoat, B.D., C. Arnold-Biucchi, S. Ludi Blevins, Sh. Dillon, N.M. Dimitrova, L.M. Gadbery, J. Gaunt, K.K. Jones, A. Sowder Koch, M.L. Popkin and D.A. Stewart 2017. *Samothrace Excavations conducted by the Institute of Fine Arts of New York University 9: The Monuments of the Eastern Hill*. Princeton, NJ: ASCSA.
- Westholm, A. 1963. *Labraunda. Swedish Excavations and Researches I. Vol. 2: The Architecture of the Hieron*. Lund: Gleerup.
- Whitley, J. 2001. *The Archaeology of Ancient Greece* (Cambridge World Archaeology). Cambridge: Cambridge University Press.
- Willems, S. and B. Borgers 2016. Pottery workshops at Fanum Martis (Northern France): Analysis of pottery production and consumption. *Rei Cretariae Romanae Fautorum Acta* 44: 429–437.
- Willems, S. and B. Borgers 2017. Les transferts de techniques potières: Les officines antiques de Bavay, Pont-sur-Sambre et Famars (Nord). *Archéopages* 45: 72–79.
- Willems, S., B. Borgers, J. Clerget, R. Clotuche, G. Teysseire and A. Tixador 2019. Fanum Martis (Famars, Nord): Une officine de potiers au coeur de l'agglomération, in M. Denti and M. Villette (eds) *Archéologie des Espaces Artisanaux: Fouiller et Comprendre les Gestes des Potiers. Actes du colloque international de Rennes, 27-28 novembre 2014*: 257–270. Lattes: Éditions ADAL.
- Willems, S., R. Delage, J. Donnadiou, J. Flahaut and N. Venant 2017a. Le mobilier céramique: consommation, in R. Clotuche, J. Clerget, G. Teysseire and A. Tixador (eds) *Un Quartier Antique de Fanum Martis: Résultats de la Fouille du Technopôle Transalley, Phase 1, 3 et 4 a, Campagnes 2011 à 2014, Tome 4, Vol. 2, Les études thématiques*. Glisy: Inrap NP.
- Willems, S. and B. Favennec 2019. Abandon et clôture des fours de potiers: Un geste systématique?, in *Actes du congrès de Maubeuge-Bavay, SFECAG, 30 mai - 2 juin 2019*: 177–188. Marseille: SFECAG.

- Willems, S., B. Favennec, B. Borger, J. Flahaut and N. Warmé 2017b. Le mobilier céramique: La production, in R. Clotuche, J. Clerget, G. Teyssière and A. Tixador (eds) *Un Quartier Antique de Fanum Martis: Résultats de la Fouille du Technopôle Transalley, Phase 1, 3 et 4 a, Campagnes 2011 à 2014, Tome 4, Vol. 2, Les études thématiques*. Glisy: Inrap NP.
- Willems, S. and A. Ledauphin 2019. Les productions précoces de Bavay (Nord), un répertoire sous influence, in *Actes du congrès de Maubeuge-Bavay, SFECAG, 30 mai - 2 juin 2019*: 267–272. Marseille: SFECAG.
- Williams-Thorpe, O. 1988. Provenancing and archaeology of Roman millstones from the Mediterranean area. *Journal of Archaeological Science* 15: 253–305.
- Williams-Thorpe, O. and R.S. Thorpe 1990. Millstone provenancing used in tracing the route of a 4th-century B.C. Greek merchant ship. *Archaeometry* 32.2: 115–137.
- Williams-Thorpe, O. and R. Thorpe 1991. The import of millstones to Roman Mallorca. *Journal of Roman Archaeology* 4: 152–159.
- Williams-Thorpe, O., R.S. Thorpe, C. Elliot and C. Xenophontos 1991. Archaeology, geochemistry and trade of igneous rock millstones in Cyprus during the Late Bronze Age to Roman periods. *Geoarchaeology* 6.1: 27–60.
- Wilson, J.R. 2000. Fundamentals of ergonomics in theory and practice. *Applied Ergonomics* 31.6: 557–567.
- Wilson, A. 2011. Developments in Mediterranean shipping and maritime trade from the Hellenistic period to AD 1000, in D. Robinson and A. Wilson (eds) *Maritime Archaeology and Ancient Trade in the Mediterranean* (Oxford Centre for Maritime Archaeology Monographs): 33–59. Oxford: Oxford Centre for Maritime Archaeology.
- Wilson Jones, M. 2002. Tripods, triglyphs, and the origin of the Doric frieze. *American Journal of Archaeology* 106.3: 353–390.
- Wilson Jones, M. 2016. Reflections on interpretation and the origins of the Doric frieze, in K. Zambas, V. Lambrinouidakis, E. Simantoni-Bournia and A. Ohnesorg (eds) *ΑΡΧΙΤΕΚΤΩΝ. Τιμητικός Τόμος για τον Καθηγητή Μανόλη Κορρέ*: 645–658. Athens: Melissa.
- Wipszycka, E. 1965. *L'Industrie Textile dans l'Égypte Romaine* (Archiwum Filologiczne 9). Breslau: Ossolineum.
- Wiseman, J. 1968. An unfinished colossus on Mount Penteli. *American Journal of Archaeology* 72: 75–76.
- Wiseman, J. 1978. *The Land of the Ancient Corinthians*. Göteborg: P. Åström.
- Wooten, W., B. Russell and P. Rockwell 2013. Stone-working tools and toolmarks (version 1.0), in *The Art of Making in Antiquity: Stoneworking in the Roman World*, viewed 30 June 2022, <<https://artofmaking.ac.uk/content/essays/2-stoneworking-tools-and-toolmarks-w-wootton-b-russell-p-rockwell/>>.
- Wörrle, M. 1995. Inschriftenfunden von der Hallenstraßengrabung in Aizanoi 1992. *Archäologischer Anzeiger* 1995: 719–727.
- Wurch-Koželj, M. 1988. Methods of transporting blocks in antiquity, in N. Herz and M. Waelkens (eds) *Classical Marble: Geochemistry, Technology, Trade*: 55–64. Dordrecht-Boston: Kluwer Academic Publishers.
- Wurch-Koželj, M. and T. Koželj 1995. Roman quarries of apse-sarcophagi in Thasos of the second and third centuries, in Y. Maniatis, N. Herz and Y. Bassiakos (eds) *The Study of Marble and Other Stones in Antiquity. Proceedings of the 3rd international conference of the Association for the Study of Marble and Other Stones in Antiquity, Athens, Greece, May 17-19, 1993* (ASMOSIA III): 39–50. London: Archetype Publications.
- Wurch, M. 2017. *Les Carrières de Thasos: Étude Technique et Socio-Économique*. Unpublished PhD dissertation. University of Paris 1.
- Wypustek, A. 2012. *Images of Eternal Beauty in Funerary Verse Inscriptions of the Hellenistic and Greco-Roman Periods*. Leiden: Brill.
- Yavuz, A.B., M. Bruno and D. Attanasio 2012. A new source of bigio antico marble: The ancient quarries of Iznik (Turkey), in A. Gutiérrez Garcia-M., P. Lapuente and I. Rodà (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 9th international conference of Association for the Study of Marble and Other Stones in Antiquity, Tarragona, Spain, June 8-13, 2009*. (ASMOSIA IX. Documenta 23): 255–262. Tarragona: Institut Català d'Arqueologia Clàssica.
- Younès, A. 2014a. Les pierres marbrières antiques au nord de la Dorsale Tunisienne: Etat de la question et mise au point, in M. Hassan and A. Younès (eds) *Les Ressources Naturelles au Maghreb Durant l'Antiquité et le Moyen Âge. Actes du Vème colloque international, Tunis 25-27 novembre 2010*: 161–192. Tunis: Université de Tunis.
- Younès, A. 2014b. Étude Préliminaire sur le Marbre Vert Antique de la Région de Chemtou, in M. Hassan and A. Younès (eds) *Les Ressources Naturelles au Maghreb Durant l'Antiquité et le Moyen Âge. Actes du Vème colloque international, Tunis 25-27 novembre 2010*: 236–240. Tunis: Université de Tunis.
- Younès, A. 2018. Geoarchaeological study of the ancient quarries of Thugga (north-west of Tunisia). *Marmora. An International Journal for Archaeology, History and Archaeometry of Marbles and Stones* 13/2017: 97–110.
- Younès, A. and M. Ouaja 2009. The ancient underground quarries between Sullecthum and Leptiminus, in Ph. Jockey (ed.) *Λευκός Λίθος: Marbres et Autres Roches de la Méditerranée Antique – Études Interdisciplinaires. Actes du VIIIème colloque international de l'Association for the Study of Marble and Other Stones Used in Antiquity, Aix-en-Provence, June 12-18, 2006* (ASMOSIA VIII): 229–237. Paris: Éd. Karthala, Maison méditerranéenne des sciences de l'homme.
- Younès, A., M. Gaied and W. Gallala 2015. The Roman Mio-Pliocene underground quarries at Ksour Essaf

- (Tunisia), in P. Pensabene and E. Gasparini (eds) *Interdisciplinary Studies on Ancient Stone. Proceedings of the 10th international conference of the Association for the Study of Marble and Other Stones in Antiquity, Rome, Italy, May 21-26, 2012* (ASMOSIA X): 861–867. Rome: L’Erma di Bretschneider.
- Young, R.S. 1951. An industrial district of ancient Athens. *Hesperia* 20: 135–288.
- Zachariadou, O. 1994. Λεωφόρος Αμαλίας. *Αρχαιολογικόν Δελτίον* 49.Β’1: 27–34.
- Zachariadou, O., D. Kyriakou and E. Baziotopoulou 1985. Σωστική ανασκαφή στον ανισόπεδο κόμβο Λένορμαν-Κωνσταντινουπόλεως. *Αρχαιολογικά Ανάλεκτα εξ Αθηνών* 18: 39–50.
- Zachariadou, O., D. Kyriakou and E. Baziotopoulou 1992. Ateliers de potiers à l’Angle des Rues Lenormant et de Constantinople (rapport préliminaire), in F. Blondé and J.Y. Perreault (eds) *Les Ateliers de Potiers dans le Monde Grec aux Époques Géométrique, Archaique et Classique. Actes de la table ronde organisée à l’École française d’Athènes. 2 et 3 Octobre 1987* (Bulletin de Correspondance Hellénique Supplément 23): 53–56. Wilsele: Peeters.
- Zamboni, L. 2012. Testimonianze arcaiche in Emilia occidentale: Una cultura di frontiera alla luce delle nuove indagini, in M.P. Bologna and M. Ornaghi (eds) *Novissima Studia: Dieci Anni di Antichistica Milanese* (Quaderni di Acme 129): 1–29. Milan: Cisalpino.
- Zamboni, L. 2018. *Sepulture Arcaiche della Pianura Emiliana: Il Riconoscimento di una Società di Frontiera* (Reditus. Riflessioni di Archeologia 1). Rome: Edizioni Quasar.
- Zapheirou, Ph. 1988. *Naxos: Denkmäler und Museum*. Athens: Krene Verlag.
- Zavvou, E. 2007. Νέα στοιχεία για τις λακωνικές πόλεις της δυτικής ακτής της χερσονήσου του Μαλέα, in *Πρακτικά του 7’ Διεθνούς Συνεδρίου Πελοποννησιακών Σπουδών, Πύργος-Γαστούνη-Αμαλιάδα, 11-17 Σεπτεμβρίου 2005*: 413–451. Athens: Εταιρεία Πελοποννησιακών Σπουδών.
- Zelnick-Abramovitz, R. 2015. Whose grave is this? The status of grave plots in ancient Greece. *Dike* 18: 51–95.
- Zimmer, G. 1982. *Antike Werkstattbilder* (Bilderhefte der Staatlichen Museen Berlin, Stiftung Preussischer Kulturbesitz 42). Berlin: Gebr. Mann.
- Zimmer, G. 1984. Gießereieinrichtungen im Kerameikos. *Archäologischer Anzeiger* 1984: 63–83.
- Zimmer, G. 1990. *Griechische Bronzegegusswerkstätten: Zur Technologieentwicklung eines antiken Kunsthandwerkes*. Mainz: Philipp von Zabern.
- Zimmer, G. 1993. Werkstattbauten des fünften Jahrhunderts, in W. Hoepfner and G. Zimmer (eds) *Die Griechische Polis: Architektur und Politik*: 94–101. Tübingen: Wasmuth.
- Zimmer, G. 2003. Hellenistische Bronzegegusswerkstätten in Demetrias, in A.E. Furtwängler, G. Zimmer and G. Schneider (eds) *Demetrias VI: Hellenistische Bronzegegusswerkstätten, Lampenproduktion und -importe, Amphorenfunde*: 9–64, pls 1–13. Würzburg: Ergon.
- Zimmer, G. 2006. Die Suche nach dem Schmelztiegel: Ein deutsches Problem?. In A. Dostert, F. Lang, und W. Heilmeyer (eds) *Mittel und Wege: Zur Bedeutung von Material und Technik in der Archäologie*: 23–36. Möhnesee: Bibliopolis.
- Zimmer, G. 2009. Εργαστήρια χαλκοπλαστικής στην Ελλάδα. *Εγνατία* 13: 216–223.
- Zimmer, G. 2016. Searching for the goddess, in A. Giunlia-Mair and C.C. Mattusch (eds) *Proceedings of the XVIIth International Congress on Ancient Bronzes, Izmir* (Monographies Instrumentum 52): 231–236. Montagnac: Éditions Monique Mergoïl.
- Zimmer, G. and K. Baïrami 2008. *Ρόδος II: Ροδιακά Εργαστήρια Χαλκοπλαστικής*. Athens: Υπουργείο Πολιτισμού.
- Zimmer, G. and N. Hackländer (eds) 1997. *Der Betende Knabe: Original und Experiment. Ausstellung der Antikensammlung der Staatlichen Museen zu Berlin, Preußischer Kulturbesitz*. Berlin: Staatliche Museen zu Berlin, Preußischer Kulturbesitz.
- Zink, S., J. Pflug and M. Ceci 2020. How a temple survives: Resilience and architectural design at Temple A of Largo Argentina in Rome. *Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung* 126: 387–427.
- Zouari, H., K. Regaya, A. Mamou, Y. Kamoun, M. Amouri and L. Louhaïchi 1996. *Carte Géologique au 1/100 000 et Notice Explicative de Matmata*, 91. Tunis: Service Géologique de Tunisie, Office National de Mines.
- Zurbach, J. 2013. The formation of the Greek city states. *Annales: Histoire, Sciences Sociales* 68: 927–968 [617–657 for English translation].

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Ergasteria offers insights into aspects of creation, manufacture and processing in antiquity, viewing craftsmen and artists in their socio-cultural and geopolitical setting. New finds from Greece, North Africa, the Black Sea, Italy and Central Europe provide a trigger for discussion. Bronze foundries for life-size statues were the birthplace of proportions and harmony which imbued the perception of beauty, but could also be a source of nuisance. The mastery of modelling in any material evolved from coping with constraints in the course of manufacture, and craftsmen invented ways of overcoming obstacles. Polyvalent ateliers suggest the artisans' adaptability, in addition to their specialisation. An investigation of the first step in the process, namely the extraction of material, reveals that quarries were manned with a specialised workforce (stonecutters, sculptors) who carved the marble volumes to an advanced stage, prior to their refinement. Meticulous preparation was also crucial in the field of logistics, particularly in large-scale public works, such as temples or fortifications. Interaction of artists with architects and the workforce in general can be primarily observed in sanctuaries, which became open-air workshops of stonemasons, carpenters etc. Accordingly, part of the book is devoted to construction-sites, the mobility of craftspeople who propelled the diffusion of knowledge, and the range of practices employed in individual settings thereby allowing us to grasp both the diversity of artistic expression and the composite population that it may reflect. The mountainous, littoral, urban or suburban space in which manufacturing took place is also taken into account, along with the socio-historical context, which had an impact upon artisans, as politics and military coalitions could instigate or disrupt a creative process. Cases of adaptive reuse are evaluated from the viewpoint of aesthetics, ergonomics, managerial issues concerning spolia, and the technical skills required. The book benefits from the intersection of the contributors' perspectives, mirroring the multifaceted nature of the topic.

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