#### The Different Steps of the Rough-Hewing on a Monumental Sculpture at the Greek Archaic Period: the Unfinished Kouros of Thasos

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*Source / Izvornik:* ASMOSIA XI, Interdisciplinary Studies on Ancient Stone, Proceedings of the XI International Conference of ASMOSIA, 2018, 711 - 716

Conference paper / Rad u zborniku

Publication status / Verzija rada: Published version / Objavljena verzija rada (izdavačev PDF)

https://doi.org/10.31534/XI.asmosia.2015/05.11

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:123:780328

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Download date / Datum preuzimanja: 2024-11-24



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# ASMOSIA XI

## Interdisciplinary Studies on Ancient Stone

## PROCEEDINGS

### of the XI ASMOSIA Conference, Split 2015

Edited by Daniela Matetić Poljak and Katja Marasović







#### Interdisciplinary Studies on Ancient Stone Proceedings of the XI ASMOSIA Conference (Split 2015)

Publishers:

#### ARTS ACADEMY IN SPLIT UNIVERSITY OF SPLIT

and

#### UNIVERSITY OF SPLIT FACULTY OF CIVIL ENGINEERING, ARCHITECTURE AND GEODESY

Technical editor: Kate Bošković

English language editor: Graham McMaster

Computer pre-press: Nikola Križanac

> Cover design: Mladen Čulić

Cover page: Sigma shaped mensa of pavonazzetto marble from Diocletian's palace in Split

ISBN 978-953-6617-49-4 (Arts Academy in Split) ISBN 978-953-6116-75-1 (Faculty of Civil Engineering, Architecture and Geodesy)

e-ISBN 978-953-6617-51-7 (Arts Academy in Split) e-ISBN 978-953-6116-79-9 (Faculty of Civil Engineering, Architecture and Geodesy)

CIP available at the digital catalogue of the University Library in Split, no 170529005

Association for the Study of Marble & Other Stones in Antiquity

## ASMOSIA XI Interdisciplinary Studies of Ancient Stone

Proceedings of the Eleventh International Conference of ASMOSIA, Split, 18–22 May 2015

> Edited by Daniela Matetić Poljak Katja Marasović







Split, 2018

**Nota bene** All papers are subjected to an international review. The quality of the images relies on the quality of the originals provided by the authors.

#### CONTENT

	PRESENTATION	15
	NECROLOGY: NORMAN HERZ (1923-2013) by Susan Kane	17
1.	APPLICATIONS TO SPECIFIC ARCHEOLOGICAL QUESTIONS – USE OF MARBLE	
	Hermaphrodites and Sleeping or Reclining Maenads: Production Centres and Quarry Marks Patrizio Pensabene	25
	First Remarks about the Pavement of the Newly Discovered Mithraeum of the Colored Marbles at Ostia and New Investigations on Roman and Late Roman White and Colored Marbles from Insula IV, IX <i>Massimiliano David, Stefano Succi and Marcello Turci</i>	22
	Alabaster. Quarrying and Trade in the Roman World: Evidence from Pompeii and Herculaneum Simon J. Barker and Simona Perna	
	Recent Work on the Stone at the Villa Arianna and the Villa San Marco (Castellammare di Stabia) and Their Context within the Vesuvian Area Simon J. Barker and J. Clayton Fant	65
	Marble Wall Decorations from the Imperial Mausoleum (4 <sup>th</sup> C.) and the Basilica of San Lorenzo (5 <sup>th</sup> C.) in Milan: an Update on Colored Marbles in Late Antique Milan <i>Elisabetta Neri, Roberto Bugini and Silvia Gazzoli</i>	79
	Sarcophagus Lids Sawn from their Chests Dorothy H. Abramitis and John J. Herrmann	89
	The Re-Use of Monolithic Columns in the Invention and Persistence of Roman Architecture Peter D. De Staebler	
	The Trade in Small-Size Statues in the Roman Mediterranean: a Case Study from Alexandria Patrizio Pensabene and Eleonora Gasparini	101
	The Marble Dedication of Komon, Son of Asklepiades, from Egypt: Material, Provenance, and Reinforcement of Meaning <i>Patricia A. Butz</i>	109
	Multiple Reuse of Imported Marble Pedestals at Caesarea Maritima in Israel Barbara Burrell	117
	Iasos and Iasian Marble between the Late Antique and Early Byzantine Eras Diego Peirano	123

	Thassos, Known Inscriptions with New Data	
	Tony Kozelj and Manuela Wurch-Kozelj	131
	The Value of Marble in Roman <i>Hispalis</i> : Contextual, Typological and Lithological Analysis of an Assemblage of Large Architectural	
	Elements Recovered at Nº 17 Goyeneta Street (Seville, Spain)	
	Ruth Taylor, Oliva Rodríguez, Esther Ontiveros, María Luisa Loza,	
	José Beltrán and Araceli Rodríguez	143
	Giallo Antico in Context. Distribution, Use and Commercial Actors According	
	to New Stratigraphic Data from the Western Mediterranean (2 <sup>nd</sup> C. Bc – Late 1 <sup>st</sup> C. Ad)	
	Stefan Ardeleanu	155
	Amethystus: Ancient Properties and Iconographic Selection	
	Luigi Pedroni	167
2.	PROVENANCE IDENTIFICATION I: (MARBLE)	
	Unraveling the Carrara – Göktepe Entanglement	
	Walter Prochaska, Donato Attanasio and Matthias Bruno	175
	The Marble of Roman Imperial Portraits	
	Donato Attanasio, Matthias Bruno, Walter Prochaska and Ali Bahadir Yavuz	185
	Tracing Alabaster (Gypsum or Anhydrite) Artwork Using Trace Element Analysis	
	and a Multi-Isotope Approach (Sr, S, O)	
	Lise Leroux, Wolfram Kloppmann, Philippe Bromblet, Catherine Guerrot,	105
	Anthony H. Cooper, Pierre-Yves Le Pogam, Dominique Vingtain and Noel Worley	195
	Roman Monolithic Fountains and Thasian Marble	
	Annewies van den Hoek, Donato Attanasio and John J. Herrmann	207
	Archaeometric Analysis of the Alabaster Thresholds of Villa A, Oplontis	
	(Torre Annunziata, Italy) and New Sr and Pb Isotopic Data for	
	Alabastro Ghiaccione del Circeo Simon J. Barker, Simona Perna, J. Clayton Fant, Lorenzo Lazzarini and Igor M. Villa	215
	Simon J. Burker, Simonu Fernu, J. Cluyton Funt, Lorenzo Luzzarini unu igor M. Villa	213
	Roman Villas of Lake Garda and the Occurrence of Coloured Marbles	
	in the Western Part of "Regio X Venetia et Histria" (Northern Italy)	001
	Roberto Bugini, Luisa Folli and Elisabetta Roffia	231
	Calcitic Marble from Thasos in the North Adriatic Basin:	
	Ravenna, Aquileia, and Milan	
	John J. Herrmann, Robert H. Tykot and Annewies van den Hoek	239
	Characterisation of White Marble Objects from the Temple of Apollo	
	and the House of Augustus (Palatine Hill, Rome)	247
	Francesca Giustini, Mauro Brilli, Enrico Gallocchio and Patrizio Pensabene	247
	Study and Archeometric Analysis of the Marble Elements Found	
	in the Roman Theater at Aeclanum (Mirabella Eclano, Avellino - Italy)	
	Antonio Mesisca, Lorenzo Lazzarini, Stefano Cancelliere and Monica Salvadori	255

Two Imperial Monuments in Puteoli:	
Use of Proconnesian Marble in the Domitianic and Trajanic Periods in Campania	
Irene Bald Romano, Hans Rupprecht Goette, Donato Attanasio and Walter Prochaska	
Coloured Marbles in the Neapolitan Pavements (16th And 17th Centuries):	
the Church of Santi Severino e Sossio	
Roberto Bugini, Luisa Folli and Martino Solito	
Roman and Early Byzantine Sarcophagi of Calcitic Marble from Thasos in Italy:	
Ostia and Siracusa	
Donato Attanasio, John J. Herrmann, Robert H. Tykot and Annewies van den Hoek	
Revisiting the Origin and Destination of the Late Antique Marzamemi	
'Church Wreck' Cargo	
Justin Leidwanger, Scott H. Pike and Andrew Donnelly	291
The Marbles of the Sculptures of Felix Romuliana in Serbia	
Walter Prochaska and Maja Živić	301
Truce I Fochusku unu muju zirre	
Calcitic Marble from Thasos and Proconnesos in Nea Anchialos (Thessaly)	
and Thessaloniki (Macedonia)	
Vincent Barbin, John J. Herrmann, Aristotle Mentzos and Annewies van den Hoek	311
Architectural Decoration of the Imperial Agora's Porticoes at Iasos	
Fulvia Bianchi, Donato Attanasio and Walter Prochaska	
The Winged Victory of Samothrace - New Data on the Different Marbles	
Used for the Monument from the Sanctuary of the Great Gods	
Annie Blanc, Philippe Blanc and Ludovic Laugier	331
Polychrome Marbles from the Theatre of the Sanctuary of Apollo Pythios	
in Gortyna (Crete)	
Jacopo Bonetto, Nicolò Mareso and Michele Bueno	337
Paul the Silentiary, Hagia Sophia, Onyx, Lydia, and Breccia Corallina	245
John J. Herrmann and Annewies van den Hoek	
Incrustations from Colonia Ulpia Traiana (Near Modern Xanten, Germany)	
Vilma Ruppienė and Ulrich Schüssler	351
Stone Objects from Vindobona (Austria) – Petrological Characterization	
and Provenance of Local Stone in a Historico-Economical Setting	
Andreas Rohatsch, Michaela Kronberger, Sophie Insulander,	
Martin Mosser and Barbara Hodits	
Marbles Discovered on the Site of the Forum of Vaison-la-Romaine (Vaucluse, France):	
Preliminary Results Elsa Roux, Jean-Marc Mignon, Philippe Blanc and Annie Blanc	272
Lisu Noux, jeun-wine wignon, r nuppe dunc and Annie dunc	
Updated Characterisation of White Saint-Béat Marble. Discrimination Parameters	
from Classical Marbles	
Hernando Royo Plumed, Pilar Lapeunte, José Antonio Cuchí, Mauro Brilli and Maria Clairo Savin	270
Mauro Brilli and Marie-Claire Savin	

Grey and Greyish Banded Marbles from the Estremoz Anticline in Lusitania Pilar Lapuente, Trinidad Nogales-Basarrate, Hernando Royo Plumed, Mauro Brilli and Marie-Claire Savin	391
New Data on Spanish Marbles: the Case of <i>Gallaecia</i> (NW Spain) Anna Gutiérrez Garcia-M., Hernando Royo Plumed and Silvia González Soutelo	401
A New Roman Imperial Relief Said to Be from Southern Spain: Problems of Style, Iconography, and Marble Type in Determining Provenance John Pollini, Pilar Lapuente, Trinidad Nogales-Basarrate and Jerry Podany	413
Reuse of the <i>Marmora</i> from the Late Roman Palatial Building at Carranque (Toledo, Spain) in the Visigothic Necropolis <i>Virginia García-Entero, Anna Gutiérrez Garcia-M. and Sergio Vidal Álvarez</i>	427
Imperial Porphyry in Roman Britain David F. Williams	435
Recycling of Marble: Apollonia/Sozousa/Arsuf (Israel) as a Case Study Moshe Fischer, Dimitris Tambakopoulos and Yannis Maniatis	443
Thasian Connections Overseas: Sculpture in the Cyrene Museum (Libya) Made of Dolomitic Marble from Thasos John J. Herrmann and Donato Attanasio	457
Marble on Rome's Southwestern Frontier: Thamugadi and Lambaesis Robert H. Tykot, Ouahiba Bouzidi, John J. Herrmann and Annewies van den Hoek	467
Marble and Sculpture at Lepcis Magna (Tripolitania, Libya): a Preliminary Study Concerning Origin and Workshops Luisa Musso, Laura Buccino, Matthias Bruno, Donato Attanasio and Walter Prochaska	481
The Pentelic Marble in the Carnegie Museum of Art Hall of Sculpture, Pittsburgh, Pennsylvania <i>Albert D. Kollar</i>	491
Analysis of Classical Marble Sculptures in the Michael C. Carlos Museum, Emory University, Atlanta	471
Robert H. Tykot, John J. Herrmann, Renée Stein, Jasper Gaunt, Susan Blevins and Anne R. Skinner	501
PROVENANCE IDENTIFICATION II: (OTHER STONES)	
Aphrodisias and the Regional Marble Trade. The <i>Scaenae Frons</i> of the Theatre at Nysa <i>Natalia Toma</i>	513

The Stones of Felix Romuliana (Gamzigrad, Serbia)	
Bojan Djurić, Divna Jovanović, Stefan Pop Lazić and Walter Prochaska	523
Aspects of Characterisation of Stone Monuments from Southern Pannonia	
Branka Migotti	537

3.

	The Budakalász Travertine Production Bojan Djurić, Sándor Kele and Igor Rižnar	545
	Stone Monuments from Carnuntum and Surrounding Areas (Austria) – Petrological Characterization and Quarry Location in a Historical Context	
	Gabrielle Kremer, Isabella Kitz, Beatrix Moshammer, Maria Heinrich and Erich Draganits	557
	Espejón Limestone and Conglomerate (Soria, Spain):	
	Archaeometric Characterization, Quarrying and Use in Roman Times	
	Virginia García-Entero, Anna Gutiérrez Garcia-M, Sergio Vidal Álvarez, María J. Peréx Agorreta and Eva Zarco Martínez	567
	The Use of Alcover Stone in Roman Times (Tarraco, Hispania Citerior).	
	Contributions to the Officina Lapidaria Tarraconensis	
	Diana Gorostidi Pi, Jordi López Vilar and Anna Gutiérrez Garcia-M.	577
4.	ADVANCES IN PROVENANCE TECHNIQUES, METHODOLOGIES AND DATABASES	
	Grainautline – a Supervised Grain Boundary Extraction Tool	
	Supported by Image Processing and Pattern Recognition	
	Kristóf Csorba, Lilla Barancsuk, Balázs Székely and Judit Zöldföldi	587
	A Database and GIS Project about Quarrying, Circulation and Use of Stone	
	During the Roman Age in Regio X - Venetia et Histria.	
	The Case Study of the Euganean Trachyte	
	Caterine Previato and Arturo Zara	597
5.	QUARRIES AND GEOLOGY	
	The Distribution of Troad Granite Columns as Evidence for Reconstructing	
	the Management of Their Production	612
	Patrizio Pensabene, Javier Á. Domingo and Isabel Rodà	613
	Ancient Quarries and Stonemasonry in Northern Choria Considiana	
	Hale Güney	621
	Polychromy in Larisaean Quarries and its Relation to Architectural Conception Gizem Mater and Ertunç Denktaş	622
	Euromos of Caria: the Origin of an Hitherto Unknown Grey Veined Stepped Marble	
	of Roman Antiquity	
	Matthias Bruno, Donato Attanasio, Walter Prochaska and Ali Bahadir Yavuz	639
	Unknown Painted Quarry Inscriptions from Bacakale at <i>Docimium</i> (Turkey) <i>Matthias Bruno</i>	651
	The Green Schist Marble Stone of Jebel El Hairech (North West of Tunisia):	
	a Multi-Analytical Approach and its Uses in Antiquity	
	Ameur Younès, Mohamed Gaied and Wissem Gallala	659
	Building Materials and the Ancient Quarries at <i>Thamugadi</i> (East of Algeria),	
	Case Study: Sandstone and Limestone <i>Younès Rezkallah and Ramdane Marmi</i>	673
	A C FFFF WC A CONFERENCE VERIFUL A CONFERENCE A CONFERENC	

	The Local Quarries of the Ancient Roman City of <i>Valeria</i> (Cuenca, Spain) Javier Atienza Fuente	683
	The Stone and Ancient Quarries of Montjuïc Mountain (Barcelona, Spain) Aureli Álvarez	693
	<i>Notae Lapicidinarum</i> : Preliminary Considerations about the Quarry Marks from the Provincial Forum of <i>Tarraco</i> <i>Maria Serena Vinci</i>	699
	The Different Steps of the Rough-Hewing on a Monumental Sculpture at the Greek Archaic Period: the Unfinished Kouros of Thasos <i>Danièle Braunstein</i>	
	A Review of Copying Techniques in Greco-Roman Sculpture Séverine Moureaud	717
	Labour Forces at Imperial Quarries <i>Ben Russell</i>	
	Social Position of Craftsmen inside the Stone and Marble Processing Trades in the Light of Diocletian's Edict on Prices <i>Krešimir Bosnić and Branko Matulić</i>	
6.	STONE PROPERTIES, WEATHERING EFFECTS AND RESTORATION, AS RELATED TO DIAGNOSIS PROBLEMS, MATCHING OF STONE FRAGMENTS AND AUTHENTICITY	
	Methods of Consolidation and Protection of Pentelic Marble Maria Apostolopoulou, Elissavet Drakopoulou, Maria Karoglou and Asterios Bakolas	749
7.	PIGMENTS AND PAINTINGS ON MARBLE	
	Painting and Sculpture Conservation in Two Gallo-Roman Temples in Picardy (France): Champlieu and Pont-Sainte-Maxence Véronique Brunet-Gaston and Christophe Gaston	
	The Use of Colour on Roman Marble Sarcophagi Eliana Siotto	
	New Evidence for Ancient Gilding and Historic Restorations on a Portrait of Antinous in the San Antonio Museum of Art Jessica Powers, Mark Abbe, Michelle Bushey and Scott H. Pike	783
	Schists and Pigments from Ancient Swat (Khyber Pukhtunkhwa, Pakistan) Francesco Mariottini, Gianluca Vignaroli, Maurizio Mariottini and Mauro Roma	
8.	SPECIAL THEME SESSION: "THE USE OF MARBLE AND LIMESTONE IN THE ADRIATIC BASIN IN ANTIQUITY"	
	Marble Sarcophagi of Roman Dalmatia Material – Provenance – Workmanship <i>Guntram Koch</i>	809

Funerary Monuments and Quarry Management in Middle Dalmatia Nenad Cambi	827
Marble Revetments of Diocletian's Palace Katja Marasović and Vinka Marinković	839
The Use of Limestones as Construction Materials for the Mosaics of Diocletian's Palace Branko Matulić, Domagoj Mudronja and Krešimir Bosnić	855
Restoration of the Peristyle of Diocletian's Palace in Split Goran Nikšić	
Marble Slabs Used at the Archaeological Site of Sorna near Poreč Istria – Croatia <i>Deni Gobić-Bravar</i>	871
Ancient Marbles from the Villa in Verige Bay, Brijuni Island, Croatia Mira Pavletić and Đeni Gobić-Bravar	
Notes on Early Christian Ambos and Altars in the Light of some Fragments from the Islands of Pag and Rab <i>Mirja Jarak</i>	
The Marbles in the Chapel of the Blessed John of Trogir in the Cathedral of St. Lawrence at Trogir <i>Deni Gobić-Bravar and Daniela Matetić Poljak</i>	
The Use of Limestone in the Roman Province of Dalmatia Edisa Lozić and Igor Rižnar	
The Extraction and Use of Limestone in Istria in Antiquity Klara Buršić-Matijašić and Robert Matijašić	925
Aurisina Limestone in the Roman Age: from Karst Quarries to the Cities of the Adriatic Basin <i>Caterina Previato</i>	933
The Remains of Infrastructural Facilities of the Ancient Quarries on Zadar Islands (Croatia) <i>Mate Parica</i>	941
The Impact of Local Geomorphological and Geological Features of the Area for the Construction of the Burnum Amphitheatre <i>Miroslav Glavičić and Uroš Stepišnik</i>	951
Roman Quarry Klis Kosa near Salona Ivan Alduk	957
Marmore Lavdata Brattia Miona Miliša and Vinka Marinković	963
Quarries of the Lumbarda Archipelago Ivka Lipanović and Vinka Marinković	

Island of Korčula – Importer and Exporter of Stone in Antiquity	
Mate Parica and Igor Borzić	
Faux Marbling Motifs in Early Christian Frescoes	
6 7	
in Central and South Dalmatia: Preliminary Report	
Tonči Borovac, Antonija Gluhan and Nikola Radošević	
INDEX OF AUTHORS	1009

#### THE DIFFERENT STEPS OF THE ROUGH-HEWING ON A MONUMENTAL SCULPTURE AT THE GREEK ARCHAIC PERIOD: THE UNFINISHED KOUROS OF THASOS

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#### Abstract

On the colossal unfinished kouros from Thasos (around VI B.C.) exhibited in the Archeological Museum of Thasos, the marks of one tool only can be seen: the point. But they are not all the same. In fact, there are four types of marks which correspond to four different ways of using the point. And each way of using the point corresponds to one step of rough-hewing the sculpture. After that, it is possible to deduce some hypotheses about the work in a quarry, the work in the place of exhibition or in the workshop, the order of operations on the statue and the different crafts (stone-cutters, sculptors, specialized sculptors).

Therefore, the study of the marks of just one tool on this unfinished kouros allows a much better understanding of the process of making a statue in the archaic period and the importance of the role of stone-cutters in the rough-hewing of sculptures.

#### Keywords

tools, rough-hewing, stone-cutters

I studied the colossal unfinished kouros exhibited in the Archeological Museum of Thasos in great detail by looking for the marks of tools on the Greek archaic marble sculpture<sup>1</sup>. This specific study allowed me to suggest a restitution of the different steps from rough-hewing, started in the quarry after the extraction of the block, and finished in the place where the statue was exhibited and to suggest a theory to explain why the sculpture had been abandoned before being finished.

Discovered and partially removed in 1914 by Charles Picard<sup>2</sup> in a medieval part of the surrounding east wall of the Acropolis, the colossal unfinished kouros from Thasos was entirely extracted in 1920 (Fig. 1). Broken in five parts – head and shoulders, torso with beginning of the legs, each leg and the feet adhering to



Fig. 1. Part of the kouros, after the extraction from the east wall of the Acropolis (photo: EfA 1920)

the plinth – the kouros was reconstituted on the ground in the courtyard of the museum (Fig. 2), repaired and then stood upright again<sup>3</sup>. It was exhibited in a room in the Archeological Museum of Thasos especially built for it because of its 3.50 meter height with the plinth<sup>4</sup>.

It is dated around 600 B.C. and is registered under inventory number  $1^5$ .

#### Description (Fig. 4 and Fig. 5)

The kouros is presented front face view. The left leg is advanced, the right arm along the body, the left bent on the breast. He holds a ram vertically against the right part of the torso.

- 4 The plinth is 0,10 meter high.
- 5 POTTIER 1920, 218-223; HOLTZMANN 2000, 245-246.

<sup>1</sup> Subject of my doctoral thesis, accepted in 2007.

<sup>2</sup> PICARD 1921, 88.

<sup>3</sup> PICARD 1921, 113-127.



Fig. 2. Kouros reconstituted in the courtyard of the museum (photo: EfA 1920)

Radiating from the crown of the head, the hair is arranging in long pearl locks, except on the forehead where the pearls are not yet carved. The hair is retained by a headband tied in the back and falls down on the back and on each side of the face in four parotid locks.

A big crack runs from the left ear to the breast.

#### Technique

On the unfinished kouros of Thasos the marks of only one tool can be seen: the point. But these marks are not all the same everywhere.

But to start, let us come back to the tool and its technical definition<sup>6</sup>.

A point is a metal rod with a circular or octagonal section. Its extremity has a pyramidal shape. It is used from the beginning of cutting stone, for extracting material surplus, from the biggest to the smallest, and for coarsely approximating the shape (Fig. 5).

Points with a large section allowed the removal of big fragments of marble. They produce coarse marks with deep grooves. As the rough-hewing continues, smaller points, taking out little fragments of material, are used to approximate the shape little by little. The marks become thinner, with smaller grooves, longer and deeper, ending in impacts, and then with short grooves ending in impacts, almost like pricking. In the very last step, thinner points<sup>7</sup>, used with a strike angle of nearly 90°, create the "pricking".

So, according to the size of the tool and the ways of working the material, we have different marks from the same tool. As stated earlier, the unfinished kouros of Thasos shows all of them. They can be classified in four types:

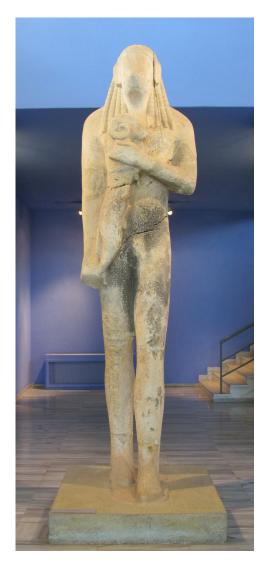


Fig. 3. Kouros, front face view, Thasos 1 (photo: D. Braunstein)

- 1. coarse marks with deep grooves
- 2. thinner marks with smaller grooves, longer and deeper, ending in impacts
- 3. marks almost like pricking, with short grooves ending in impacts
- 4. finally, pricking marks, perfectly clear.

And each type of mark matches a particular step of rough-hewing:

1. From the right heel, the ankle and above the foot (Fig. 6), the obvious thickness of the material shows the very first rough-hewing of the sculpture: the marks are coarse and big; the grooves are short, closer together (Fig. 7). We notice this kind of mark on the back of the right leg, corresponding to the same step. They are probably made with a pickaxe in the quarry, after the extraction of the block.

<sup>6</sup> BESSAC 1986, 108-115.

<sup>7</sup> A "needle" in French stone-cutter language.



Fig. 4. Kouros, back view, Thasos 1 (photo: D. Braunstein)

- 2. Marks located on the inner face and top of the right foot, on the profile of the right leg (Fig. 8), on the inner face of the left leg, on the back of the right hand and the throat too correspond to the following step of rough-hewing. The point used for this work is probably a big one. The marks from the profile of the right leg are characteristic of a stone-cutter's work: the angle formed by the two sides of the block has been cut down (Fig. 9). The same applies for the back of the right hand. This work could have been done in the quarry.
- The third type of mark, sometimes close to pricking, is located on the top of the right foot, the profile of the right leg and the entire left thigh (Fig. 10), the left hand and the ram (Fig. 11). The shape is beginning to appear and the point, now smaller, is often used with an angle of more than 45°. At this step, we can notice that the left leg is thinner than



Fig. 5. Points with different sizes (photo: D. Braunstein)

the right: the work is more advanced (Fig. 12). We can also see that by observing the point marks.

4. At last, a tight pricking, nearly imperceptible, located essentially on the hair (Fig. 13 and Fig. 14), constitutes the last step of rough-hewing. The shape appears.

#### Analysis

Analyzing all this technical information, it is possible to arrive at some hypotheses about the work in the quarry, the work in the place of exhibition or in the workshop, the order of operations on the statue and the different crafts (stone-cutters, sculptors, specialized sculptors).

I suggest the following hypothesis:

- In the quarry, a big block of marble is extracted and cut into the form of an approximate parallelepiped;
- There, *in situ*, the first rough-hewing is done with pickaxes and big points. Stone-cutters work the faces and geometric forms, in order to reduce the weight of the block and facilitate transport;
- Then the block is carried horizontally to the place where it will be exhibited<sup>8</sup>. There, it is stood up and a scaffolding is built.
- Some parts of the body, such as the shoulders, arms, legs, are left deliberately for the end because of the large planes which are easily workable with abrasives.

<sup>8</sup> On the Acropolis of Thasos.



Fig. 6. Right ankle, coarse marks (photo: D. Braunstein)



Fig. 7. Side profile of the right foot, thickness of material (photo: D. Braunstein)



Fig. 8. Right leg, deep and long grooves ended by impacts (photo: D. Braunstein)



Fig. 9. Right leg, edge formed by two sides of the block cut down (photo: D. Braunstein)



Fig. 10. Left thigh, short grooves ended by impacts (photo: D. Braunstein)



Fig. 11. Ram's head, very short grooves, close to pricking (photo: D. Braunstein)



Fig. 12. Left leg thinner than the right one: more advanced work (photo: D. Braunstein)



Fig. 13. Hair on the left shoulder, pricking (photo: D. Braunstein)



Fig. 15. Left part of the head, big crack (photo: D. Braunstein)



Fig. 16. Top of the head, crack on the left (photo: D. Braunstein)



Fig. 14. Hair locks and headband bow, back view, pricking (photo: D. Braunstein)

- On site, given the size of the sculpture and the tightness of the base, the work begins at the top. In this way, there is less weight on the top so a better balance is achieved. Some specialists, probably stone masters, work in the shape of the hair and the ram with thin points, very precisely.
- The work of the face and the final work too are left to the sculptor, master of the project.

And at this moment, an accident probably happened: the sculpture fell face down and broke in five pieces. The tightness in addition to the imposing height has probably made the sculpture unstable, despite the scaffolding. The unfinished kouros was left and discarded.

We used to say that the kouros was left because of the big crack going through the left part of the head (Fig. 15 and Fig. 16). If the argument of an accident can be supported, another theory can be suggested: the fragments were big enough to be re-used for building materials. Locked into the surrounding east wall of the Acropolis, at the mercy of the damp climate of Thasos, the cold winters and hot summers, the fragments have suffered damage from erosion and fragile parts, such as micro-cracks or veining, became true cracks over the course of time.

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