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The Madrague de Giens ship: A photogrammetry from the past

Laetitia Cavassa, Pierre Poveda, Vincent Dumas, Ninon Basuau, Philippe Soubias

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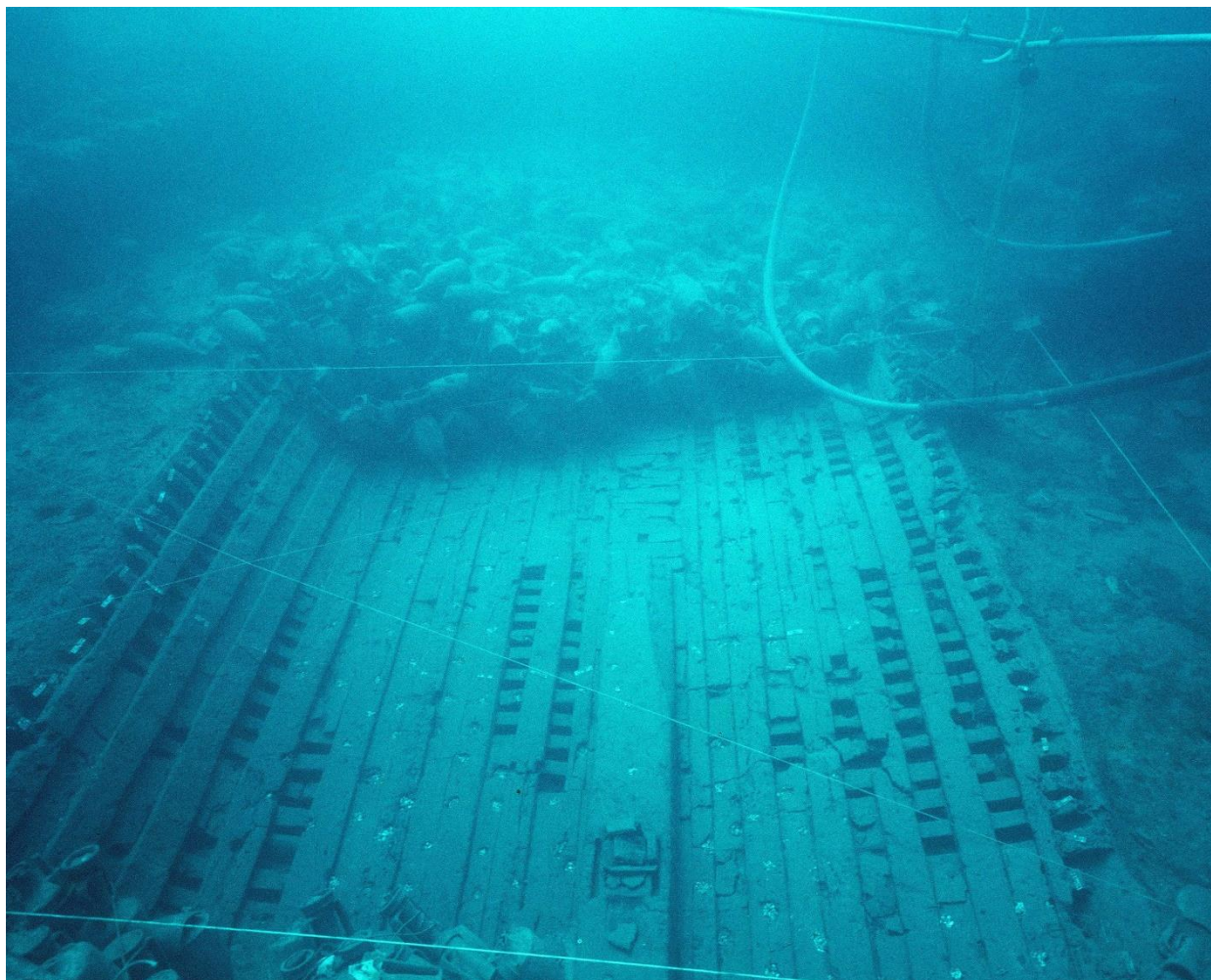
HAL Id: halshs-04015726

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Submitted on 6 Mar 2023

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The Madrague de Giens ship

A photogrammetry from the past:
completing the study of an exceptional roman wreck

Laetitia Cavassa
Pierre Poveda
Vincent Dumas
Ninon Basuau
&
Philippe Soubias

Centre Camille Jullian
CNRS & Aix-Marseille University



With the support of the
White Levy Program
for
Archaeological Publications





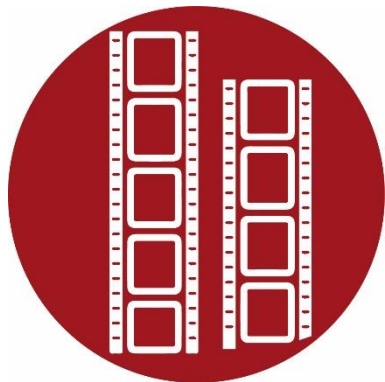
Ceramic Studies



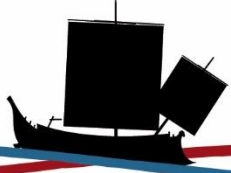
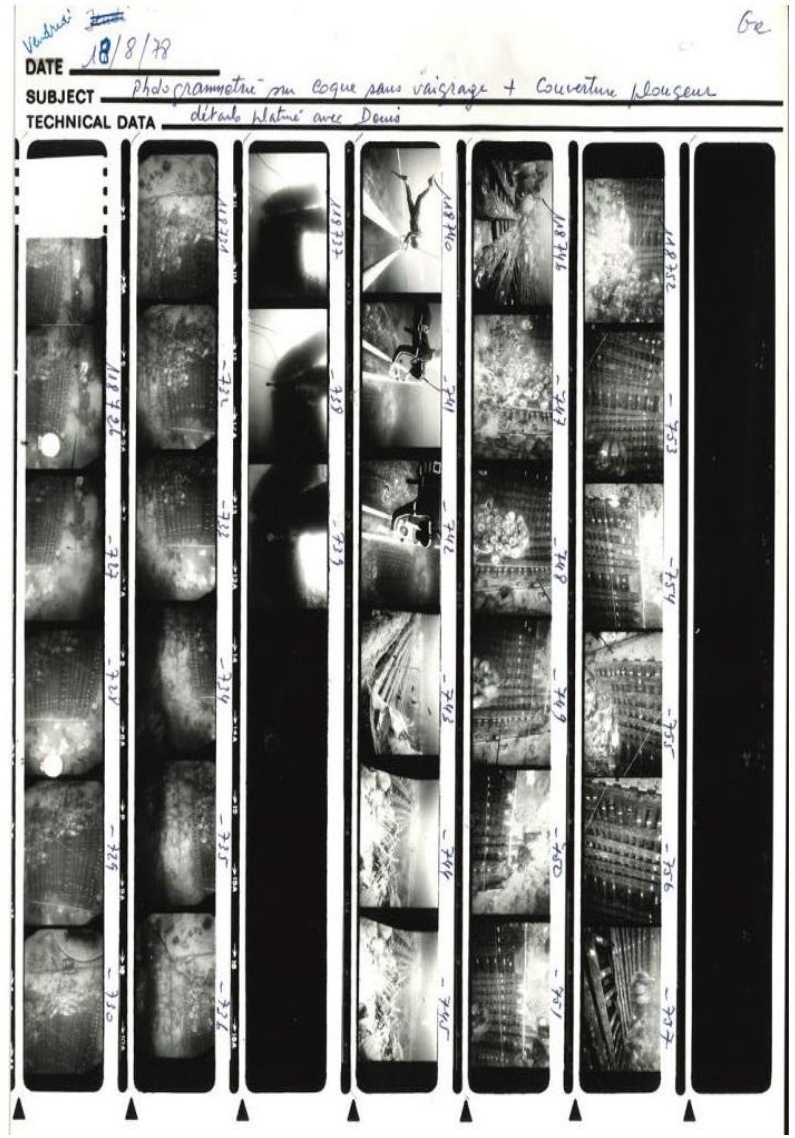
The Madrague de Giens A photogrammetry from the past



Ceramic Studies



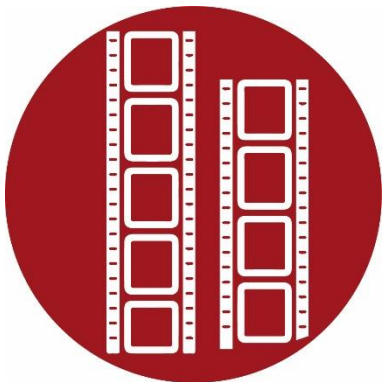
Photos digitizing



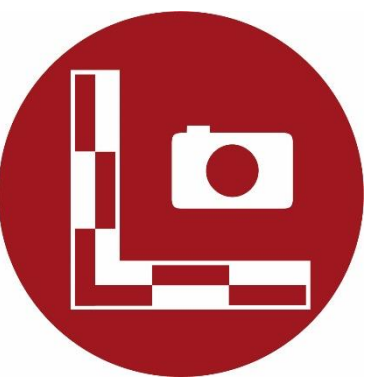
The Madrague de Giens A photogrammetry from the past



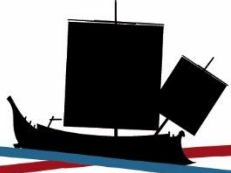
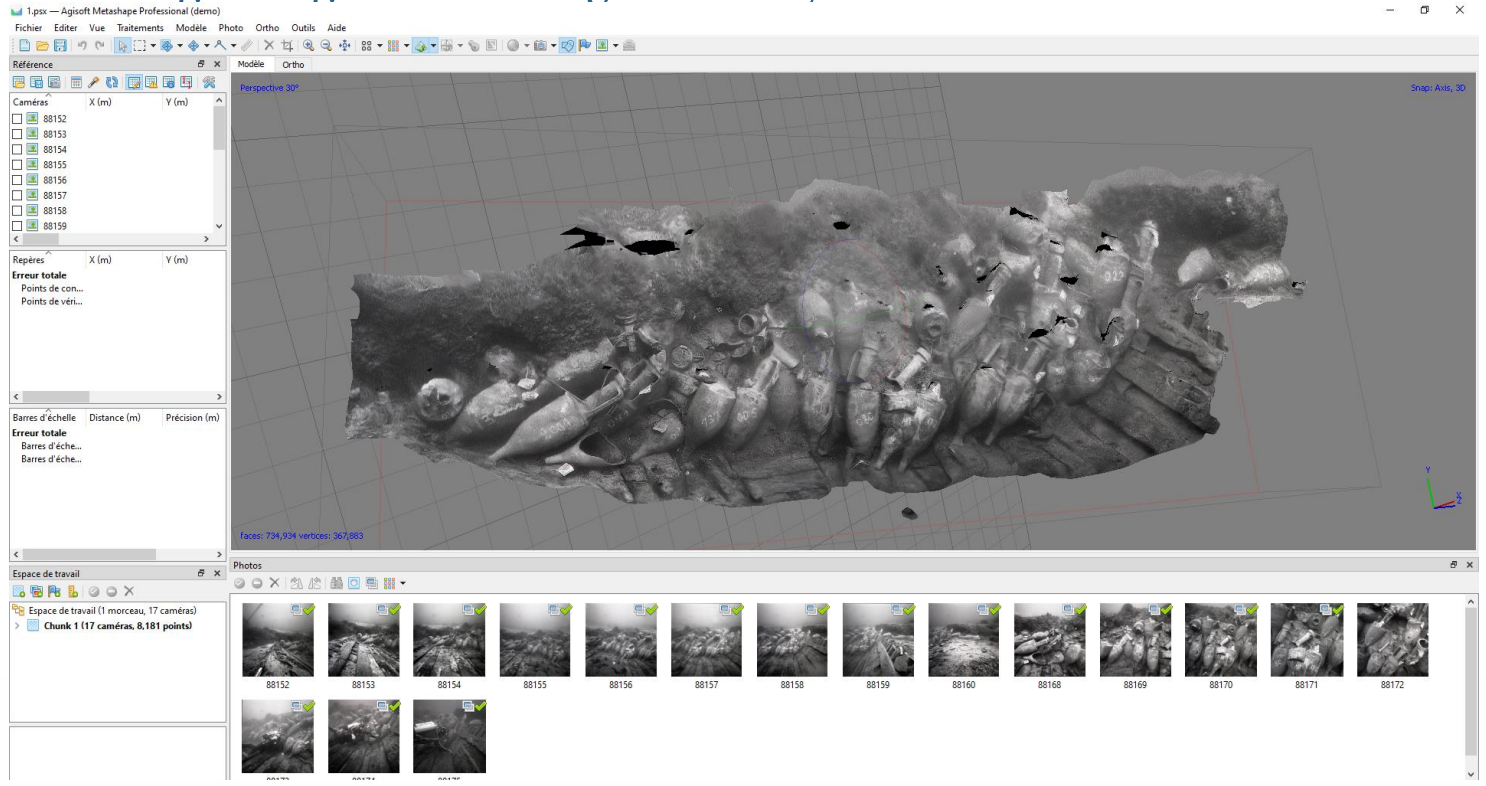
Ceramic Studies



Photos digitizing



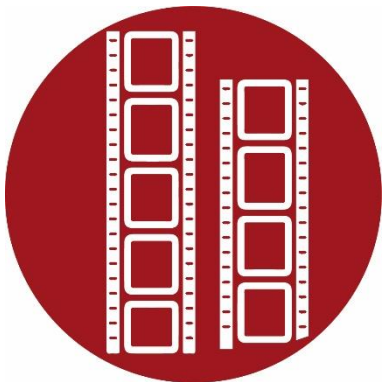
Photogrammetry



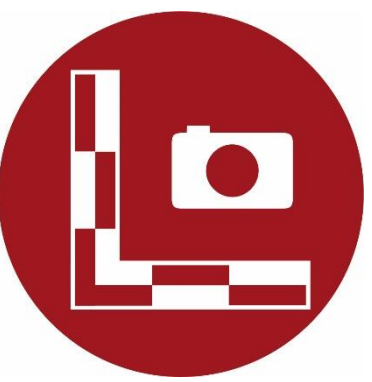
The Madrague de Giens --- A photogrammetry from the past



Ceramic Studies



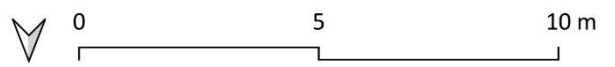
Photos digitizing



Photogrammetry

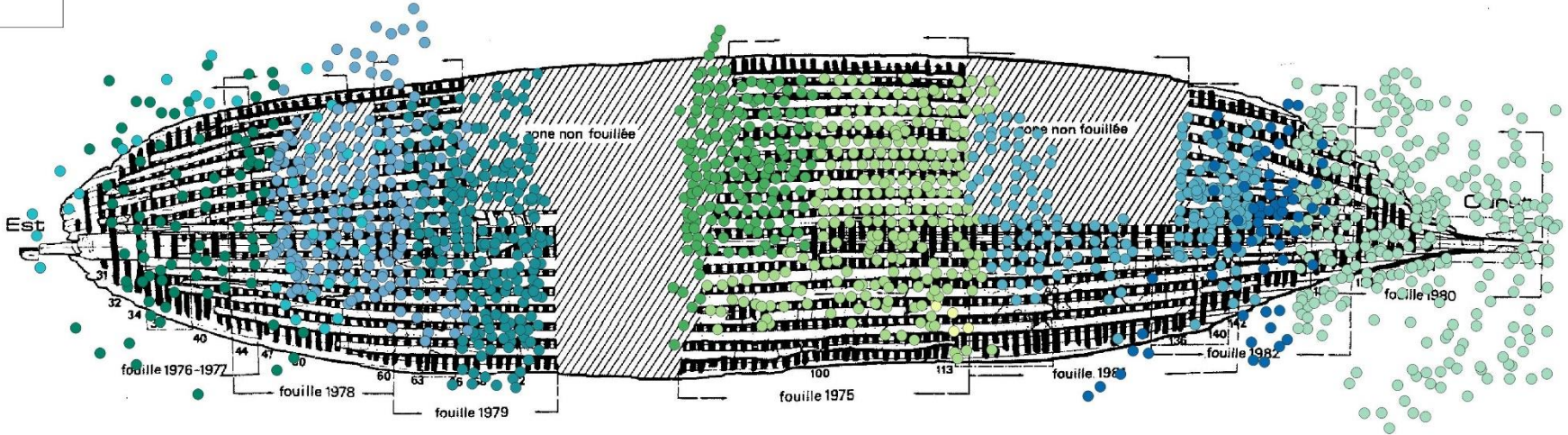


GIS



Géoréférencement de la cargaison
État au 15 décembre 2021

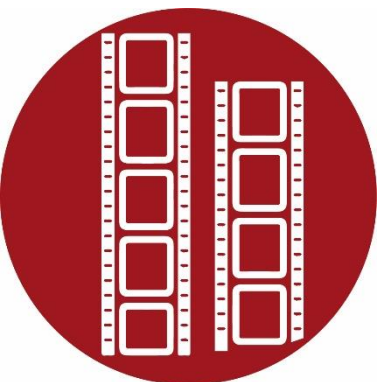
Avant	Centre	Arrière
● 1982	● 1973	● 1976
● 1981	● 1974	● 1977
● 1980	● 1975	● 1978
		● 1979



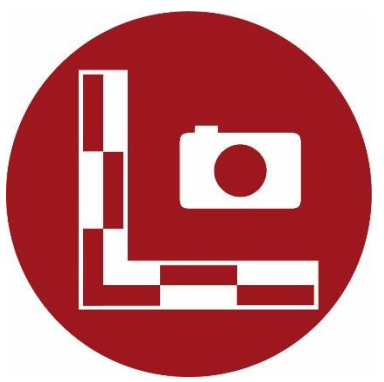
The Madrague de Giens --- A photogrammetry from the past



Ceramic Studies



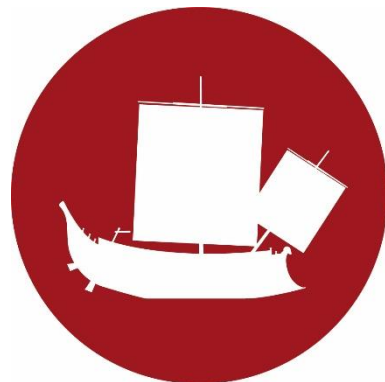
Photos digitizing



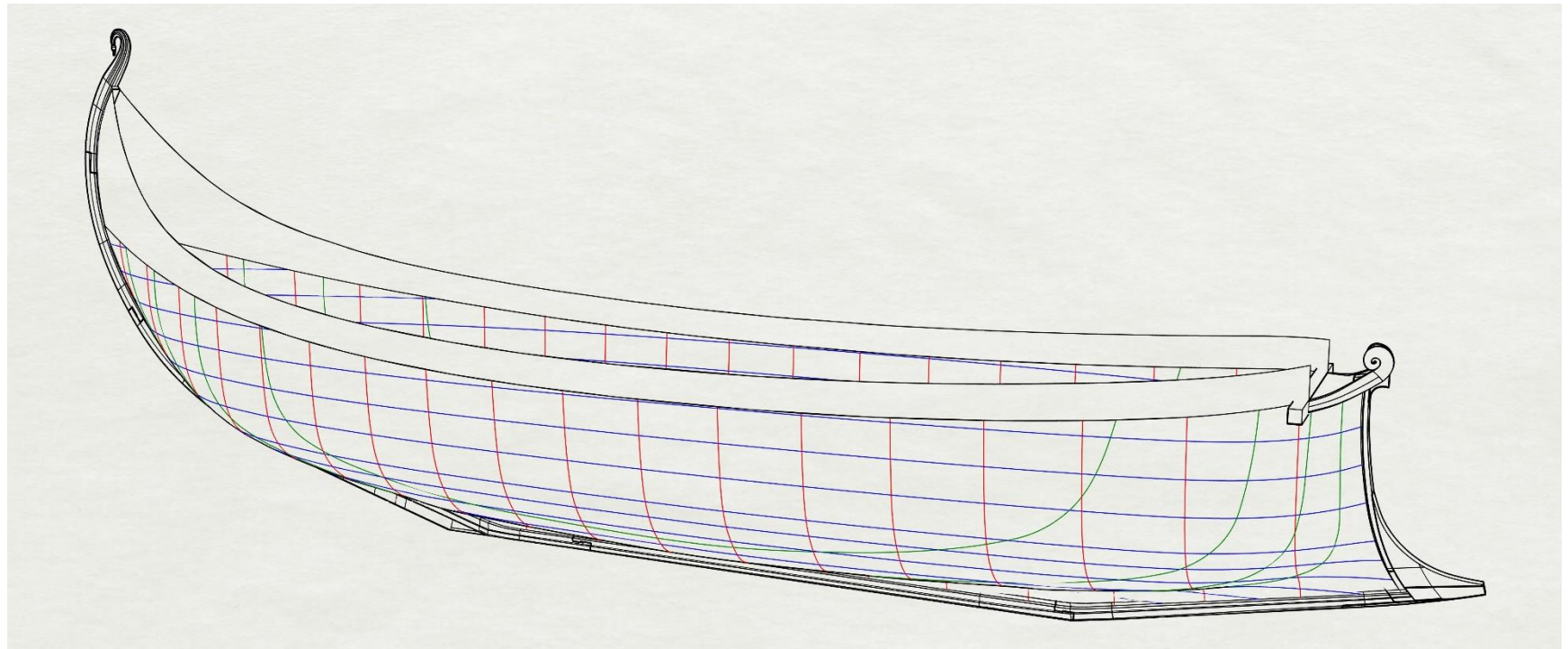
Photogrammetry



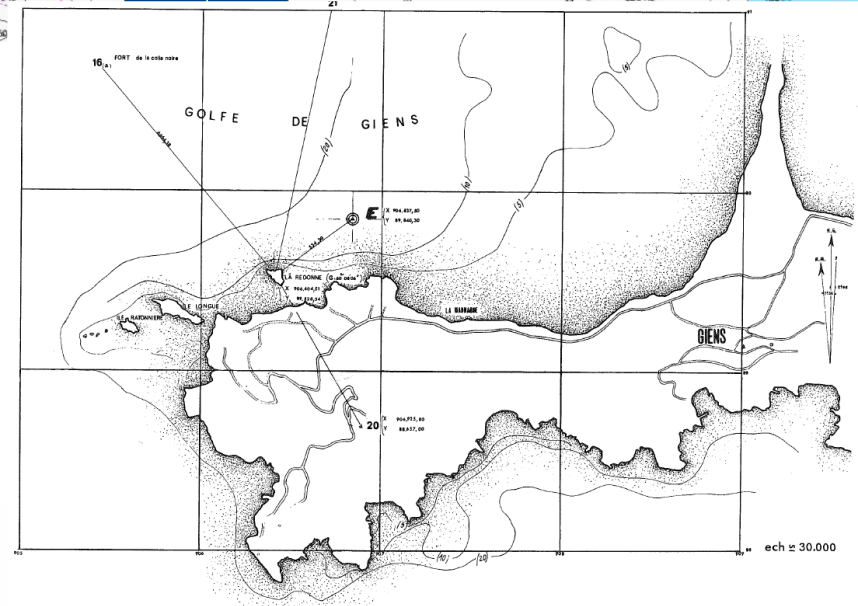
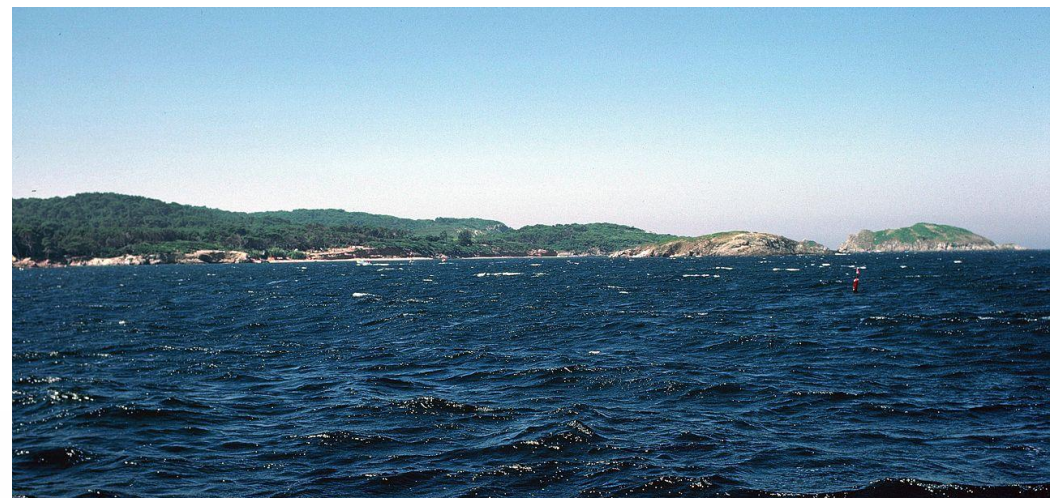
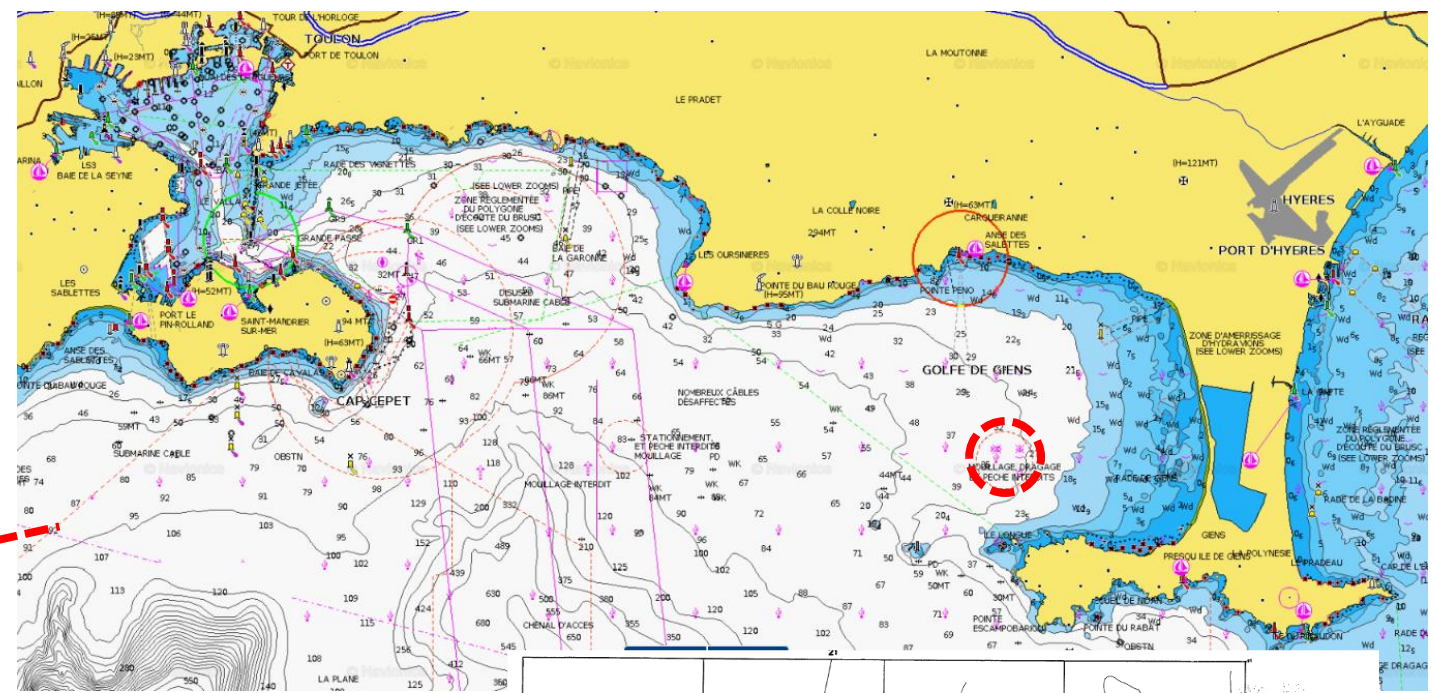
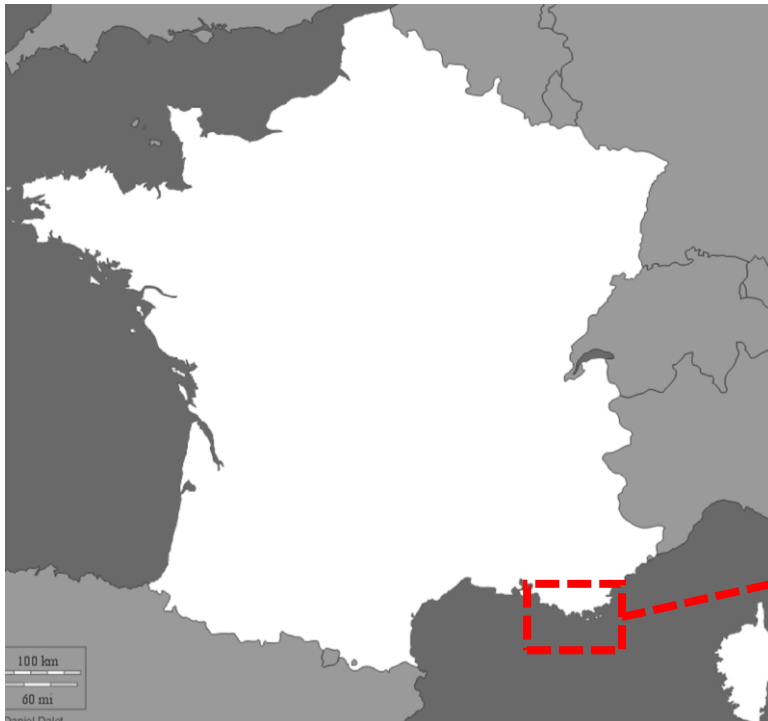
GIS



Reconstruction



The Madrague de Giens — A photogrammetry from the past



situation géographique de l'épave (E)



The Madrague de Giens --- A photogrammetry from the past



1972 - 1982



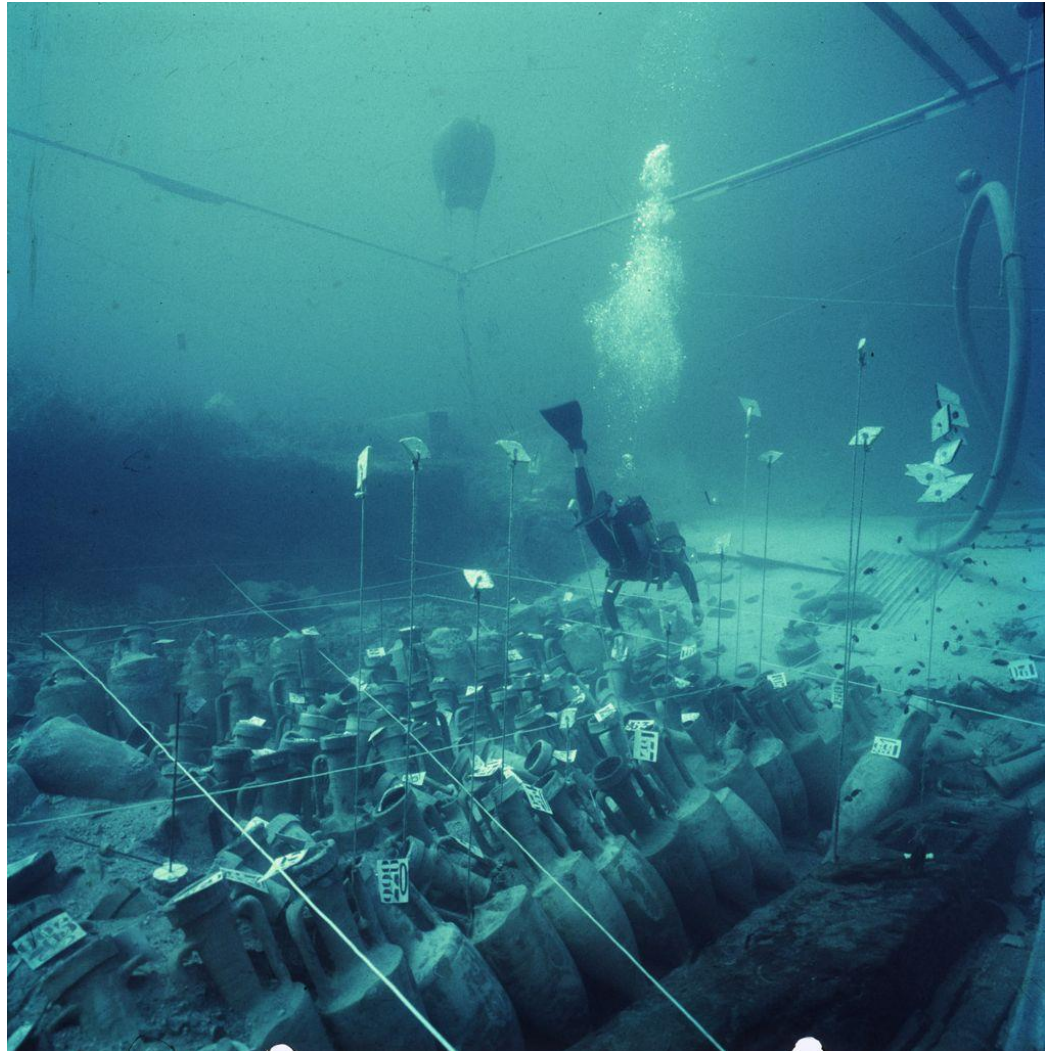
The Madrague de Giens A photogrammetry from the past

Epave de la Madrague de Giens
Plan de situation

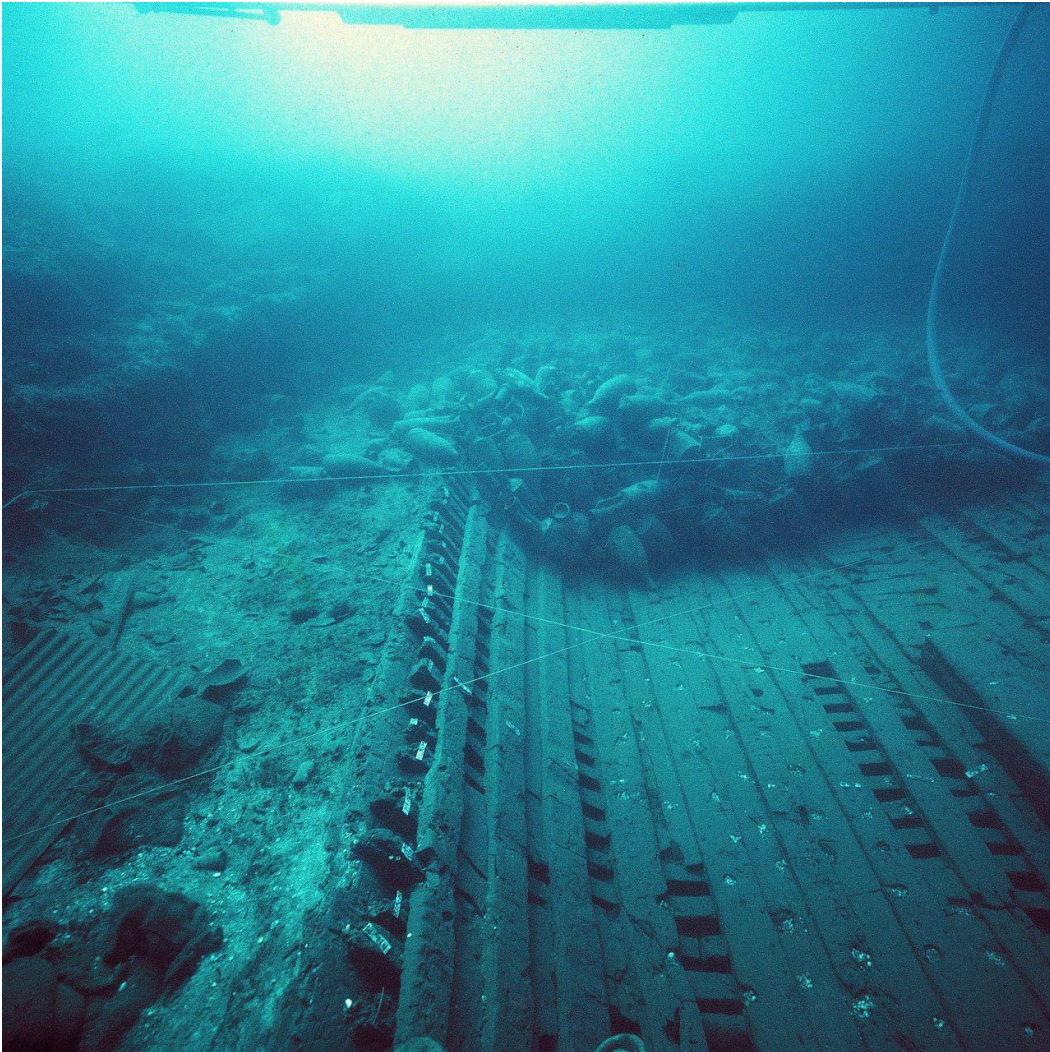
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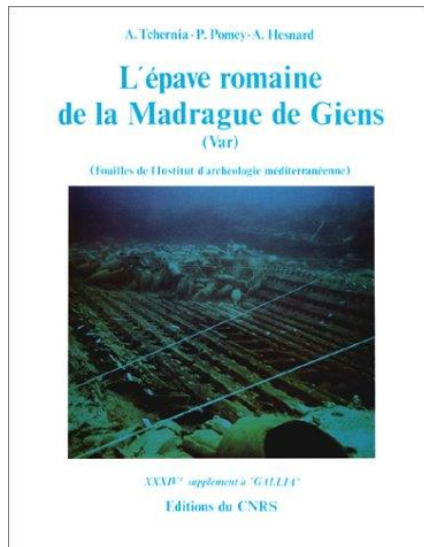
The Madrague de Giens --- A photogrammetry from the past



The Madrague de Giens --- A photogrammetry from the past

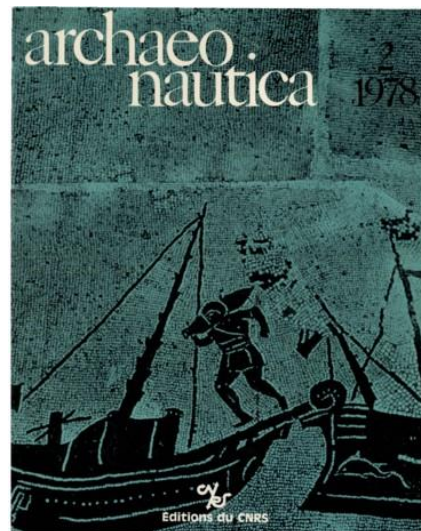


The Madrague de Giens — A photogrammetry from the past



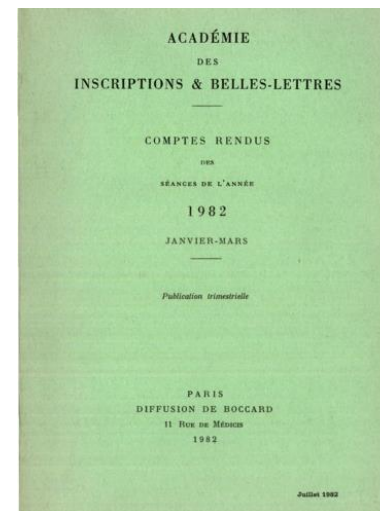
1978

Tchernia, André; P. Pomey; A. Hesnard (1978).
L'épave romaine de la Madrague de Giens, Var: campagnes 1972-1975 (XXXIV supplément à Gallia ed.)



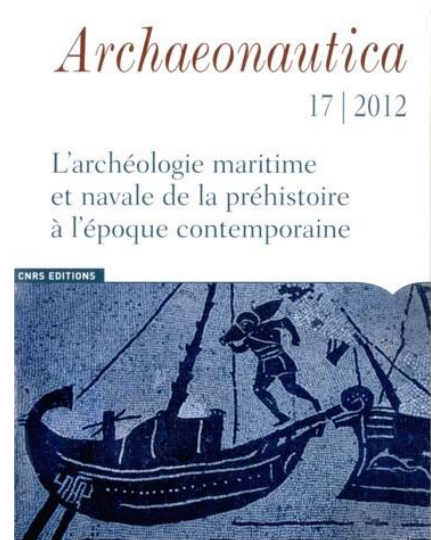
1978

Formenti Françoise, Hesnard Antoinette, Tchernia André. Note sur le contenu d'une amphore Lamboglia 2 de l'épave de la Madrague de Giens. In: *Archaeonautica*, 2, 1978. pp. 95-100



1982

Pomey, Patrice (1982). "Le Navire Romain de la Madrague de Giens". *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*. 126 (1): 133–154.



2012

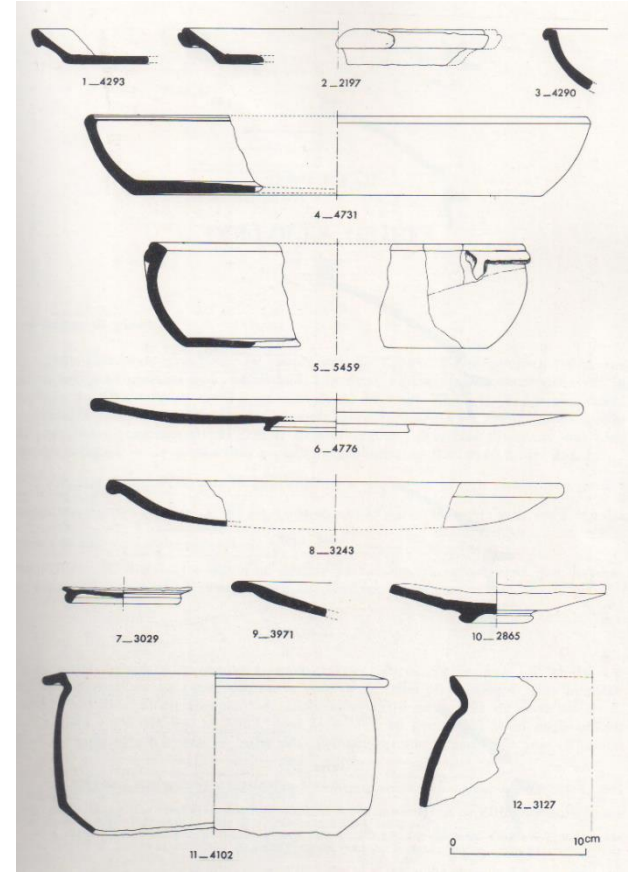
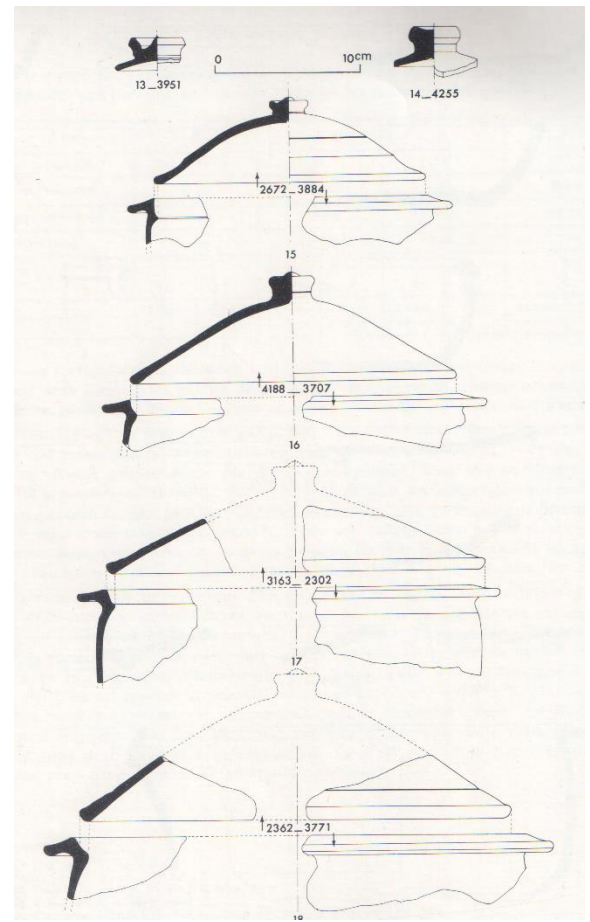
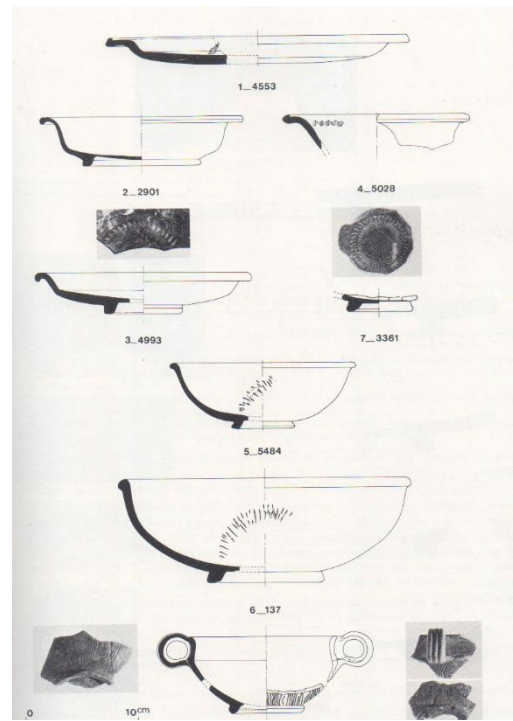
Hesnard Antoinette. L'épave la *Madrague de Giens* (Var) et la plaine de Fondi (Latium). Producteurs des vins, des amphores Dr. 1b et commerçants. In: *Archaeonautica*, 17, 2012. pp. 71-93.



The Madrague de Giens — A photogrammetry from the past



Ceramic Studies



Cooking pots



Black ware pottery



The Madrague de Giens --- A photogrammetry from the past



Ceramic Studies



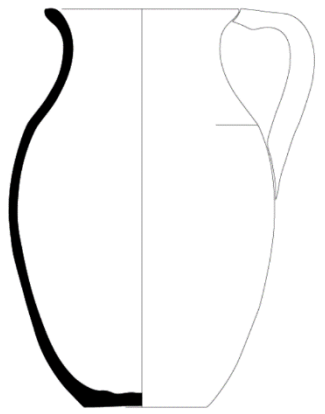
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The Madrague de Giens — A photogrammetry from the past



Ceramic Studies

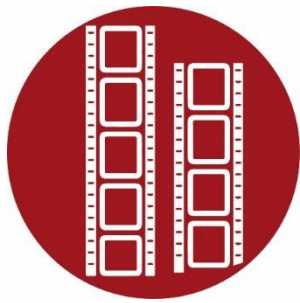


Madrague de Giens
73241

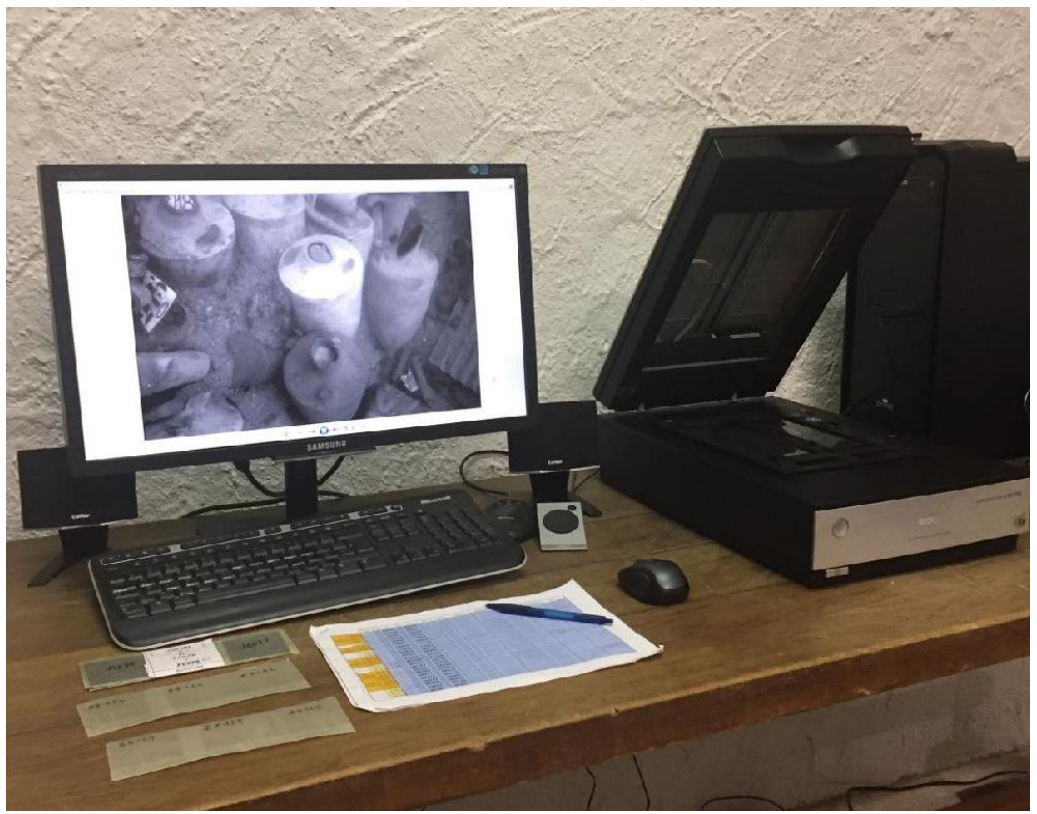
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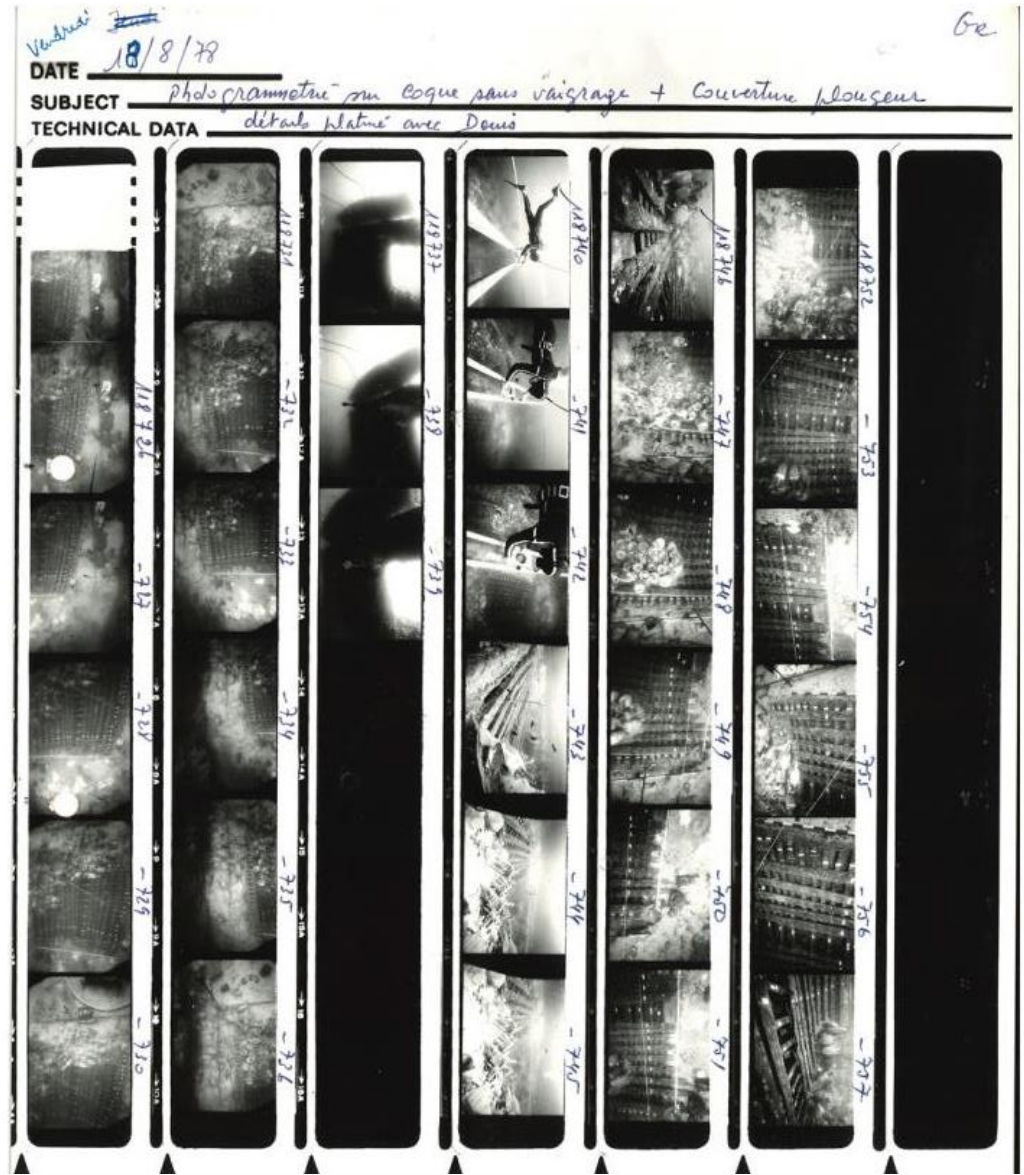
The Madrague de Giens --- A photogrammetry from the past



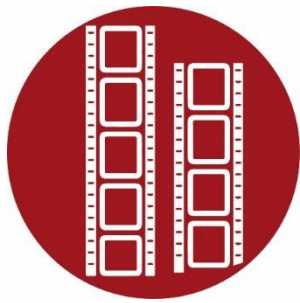
Photos digitizing



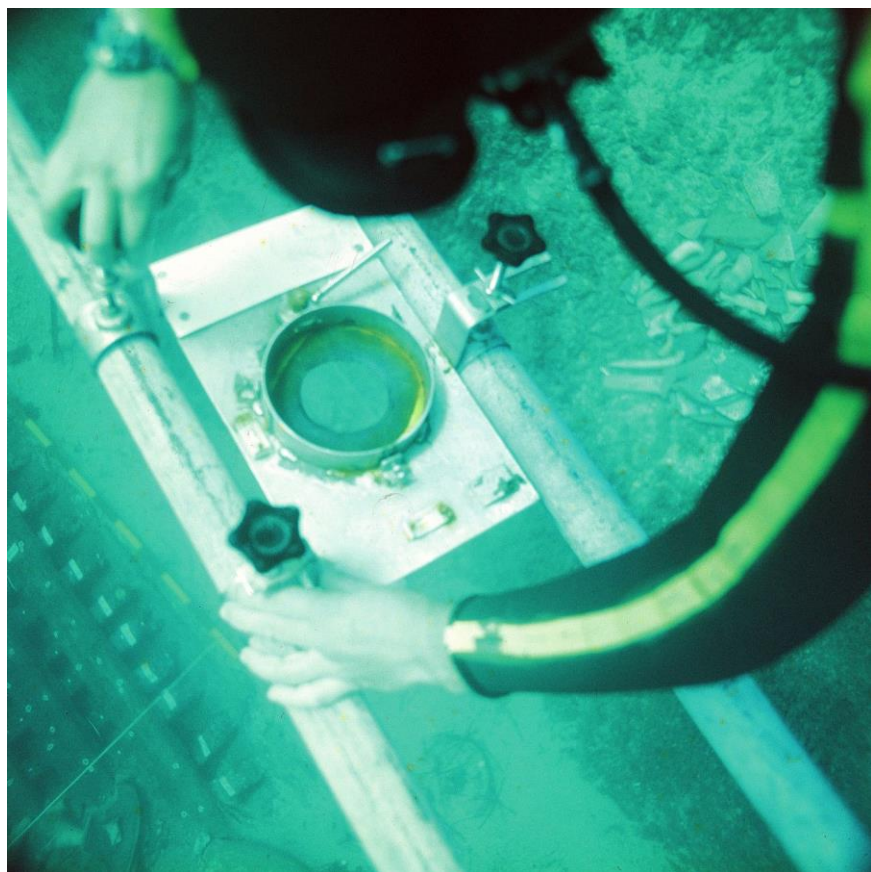
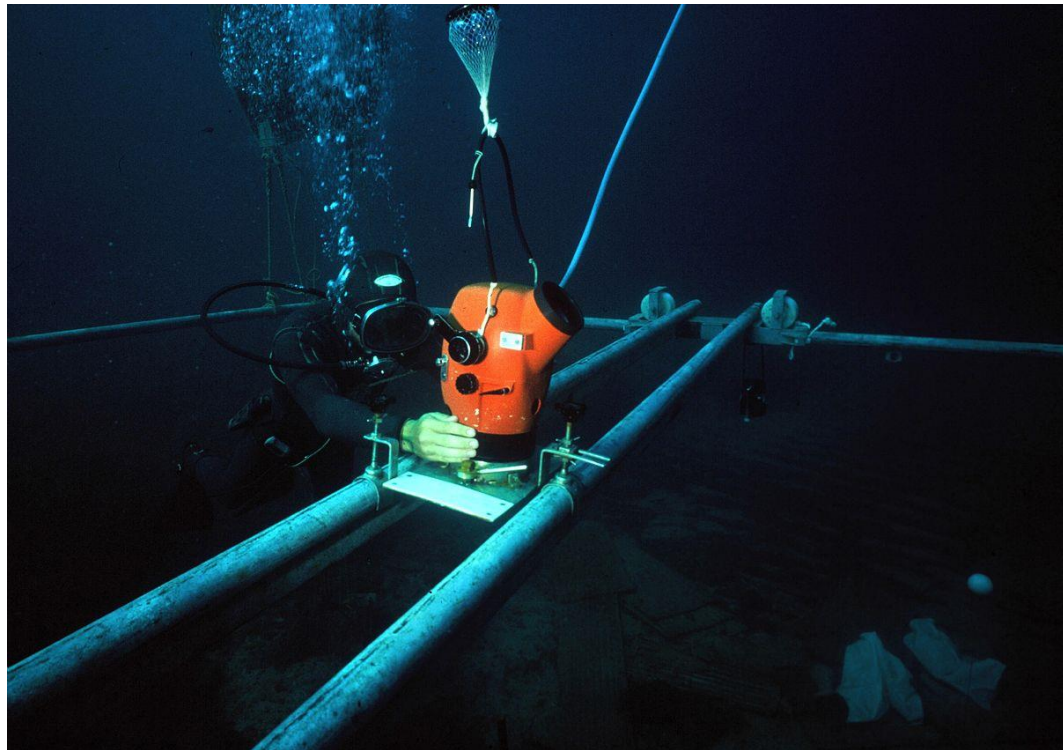
10'171 photo negatives digitized



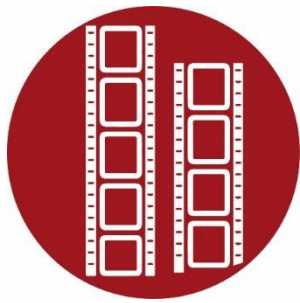
The Madrague de Giens --- A photogrammetry from the past



Photos digitizing



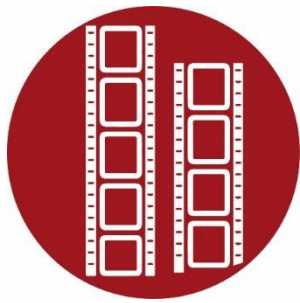
The Madrague de Giens — A photogrammetry from the past



Photos digitizing



The Madrague de Giens A photogrammetry from the past



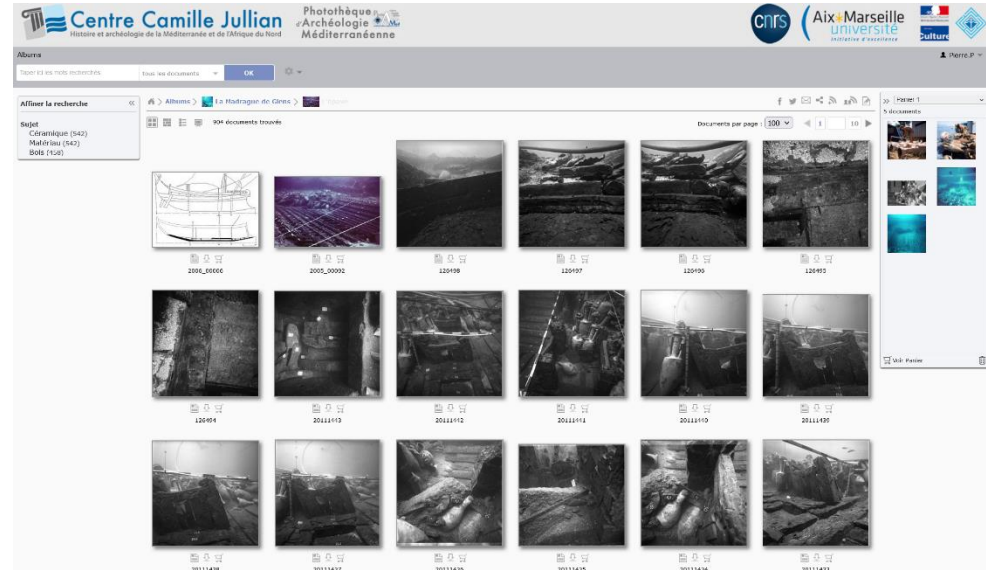
Photos digitizing



Dr.2 Lamps



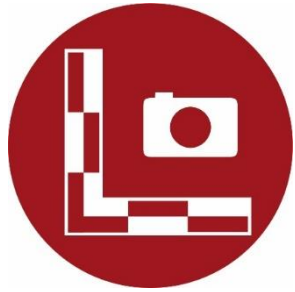
Dr.3 Lamps



<https://photoarcheomed.mmsh.fr/phototheque>



The Madrague de Giens A photogrammetry from the past



Photogrammetry

Nom fichier Photogram	N° de Lot	Année prise de vue	Date de développement	Partie concernée	N° cliché début	N° cliché fin	N° clichés
1974	41	1974	20-sept	Partie centrale	84132	84146	15
1975_1	58	1975	10-sept	Amphores Plani	87956	87973	18
1975_2	60	1975	10-sept	Amphores Coupe	88152	88175	17
1975_3	71	1975	10-sept	Maitre-Couple	89016	89070	37
1977	112	1977	01-juil	Extrémité arrière	97525	97670	22
1978	129	1978	01-sept	arrière	118726	118757	18
1979_1	139	1979	01-sept	Puits de la pompe	122356	122384	26
1979_2	139	1979	01-sept	Puits de la pompe	122356	122384	26
1979_3	141	1979	01-sept	Pompe + vaigrage	122472	122492	18
1979_4	146	1979	01-sept	Puits de la pompe	123163	123194	29
1980	153	1980	15-sept	Avant (avec l'étrave)	126544	126667	44
1981	165	1981	01-janv	avant emplanture tribord	129955	129981	27
1982	168	1982	01-janv	Avant (sans l'étrave)	132488	132507	20
							317



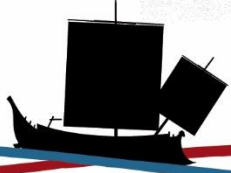
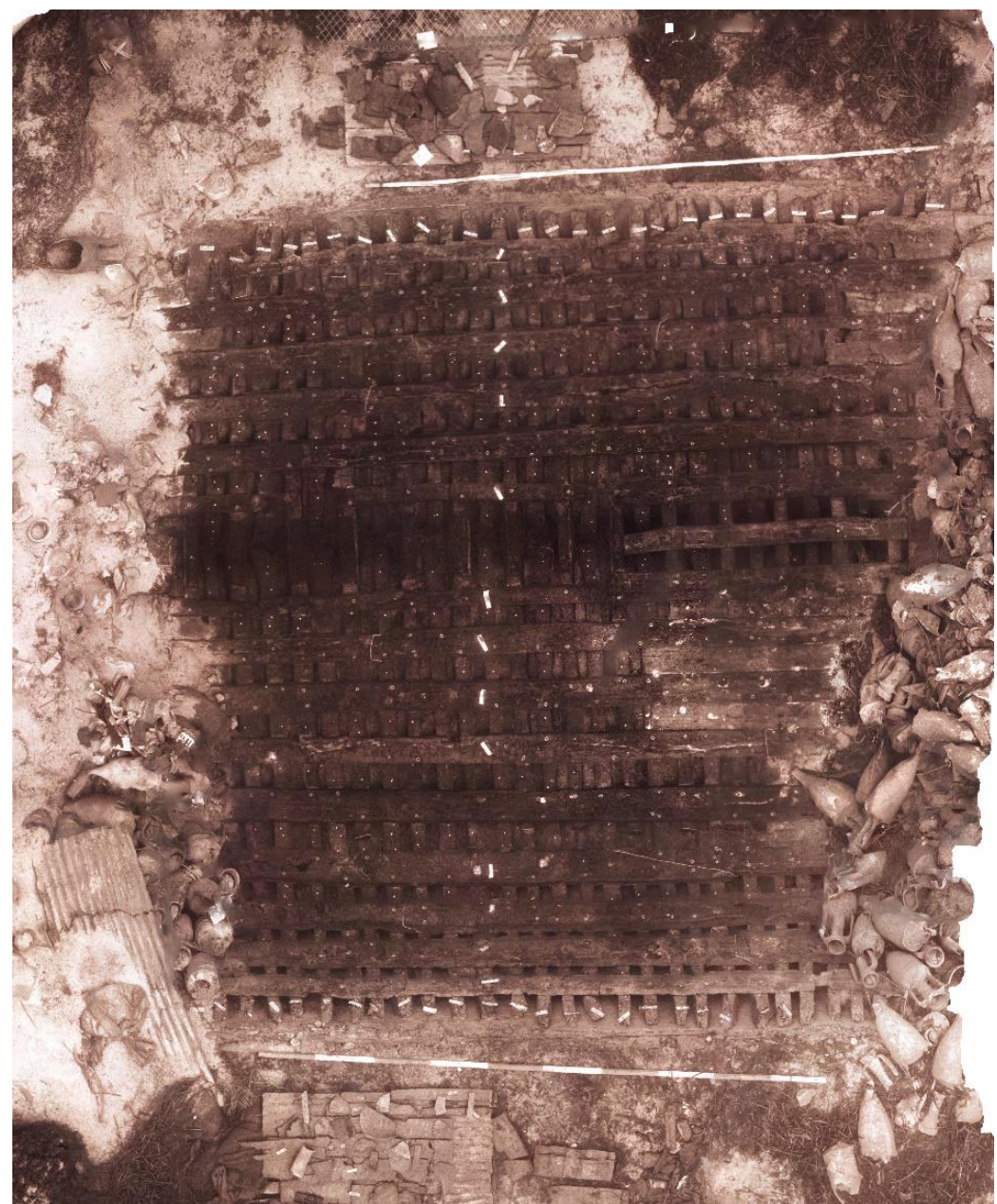
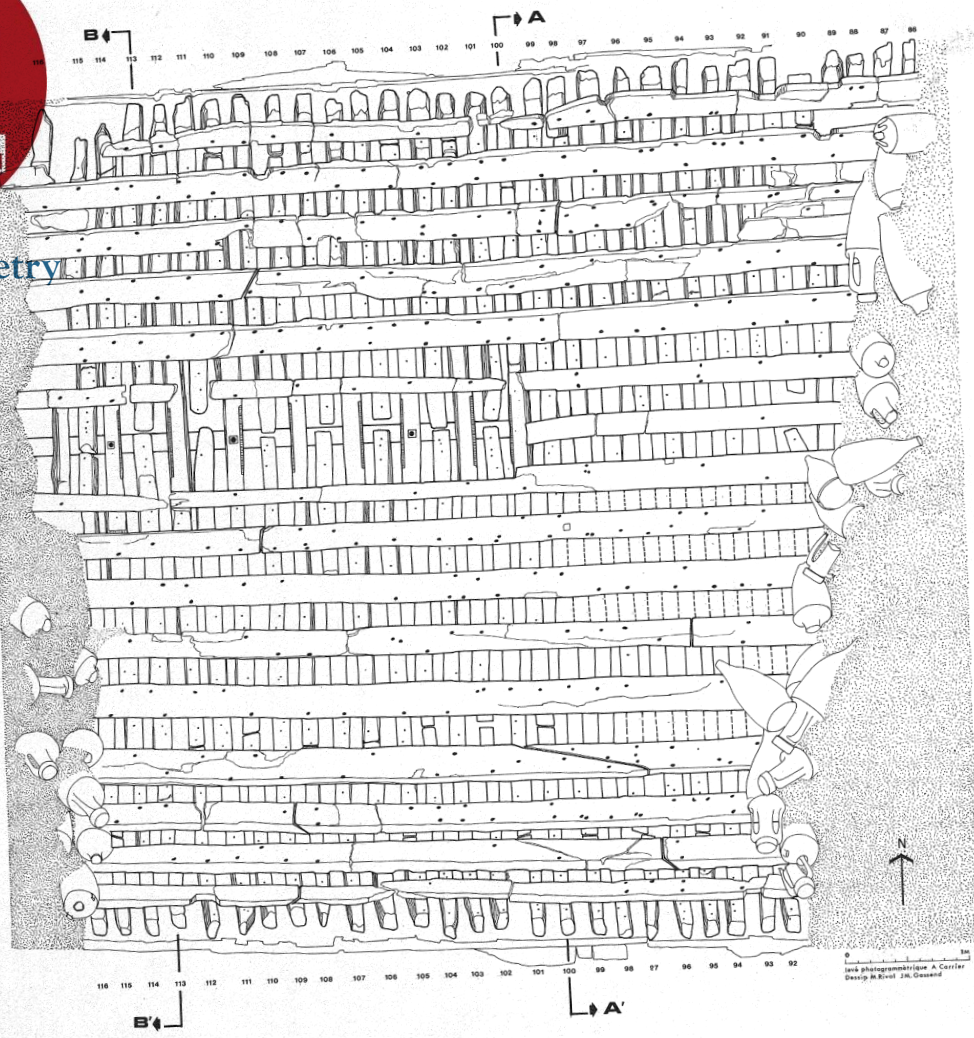
Set of 28 photos used for the reconstruction of the stern area
(1977 campaign)



The Madrague de Giens — A photogrammetry from the past



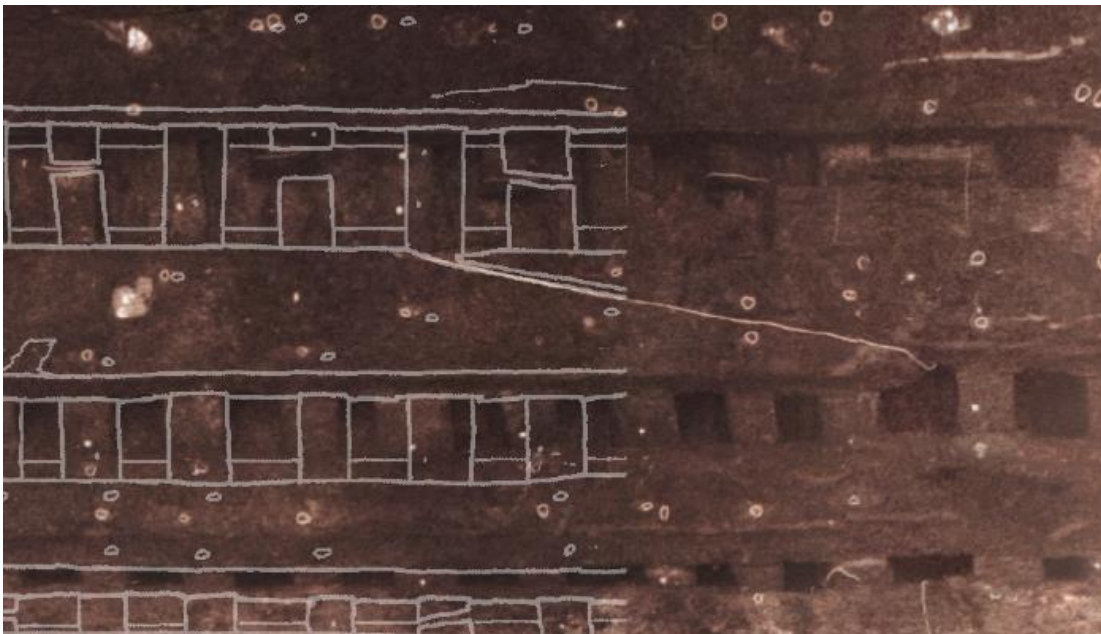
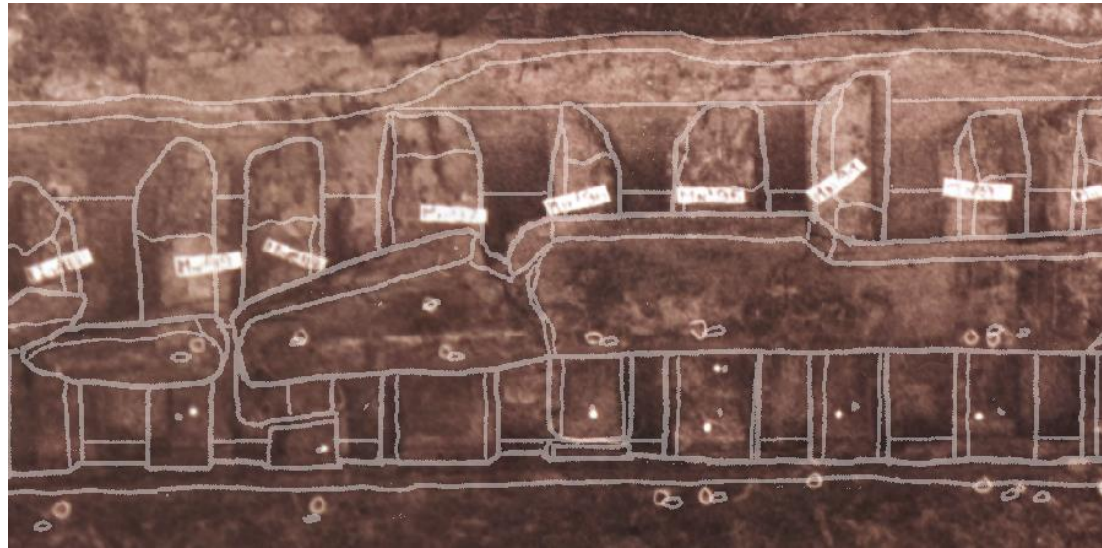
Photogrammetry

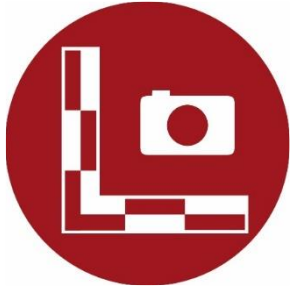


The Madrague de Giens --- A photogrammetry from the past



Photogrammetry





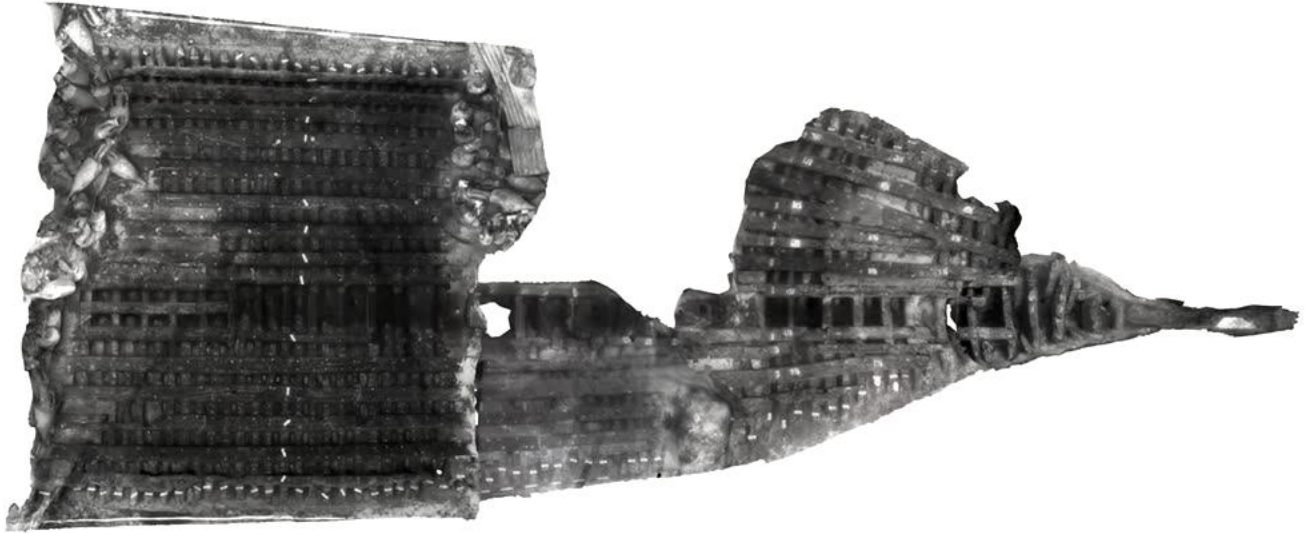
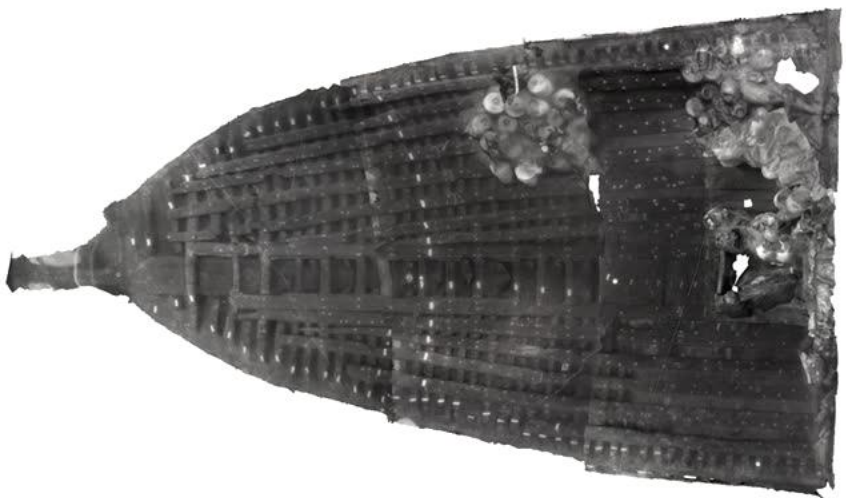
Photogrammetry



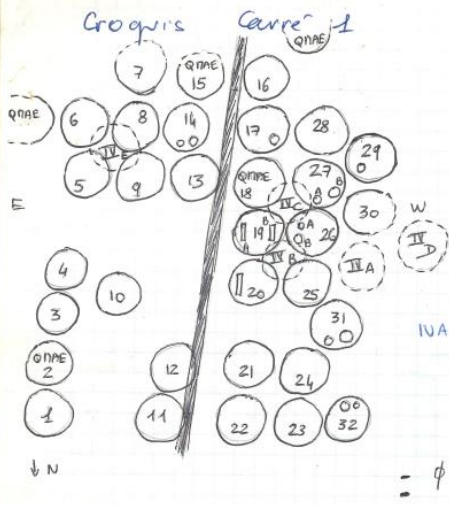
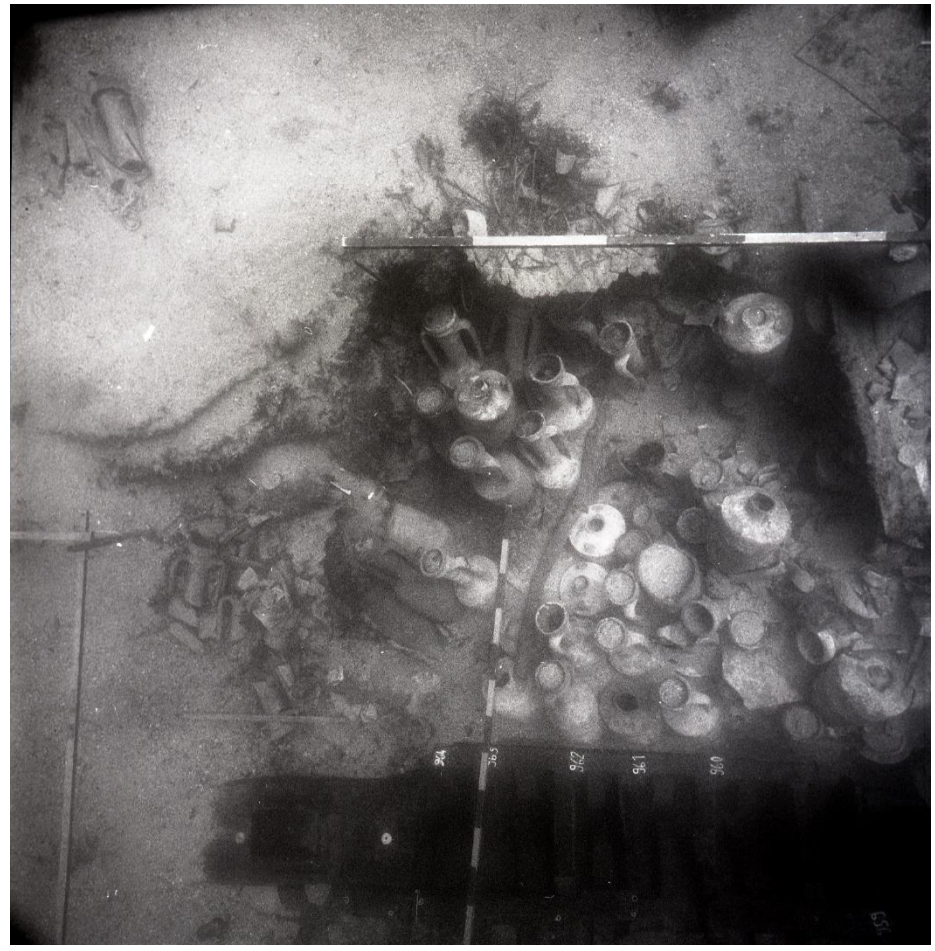
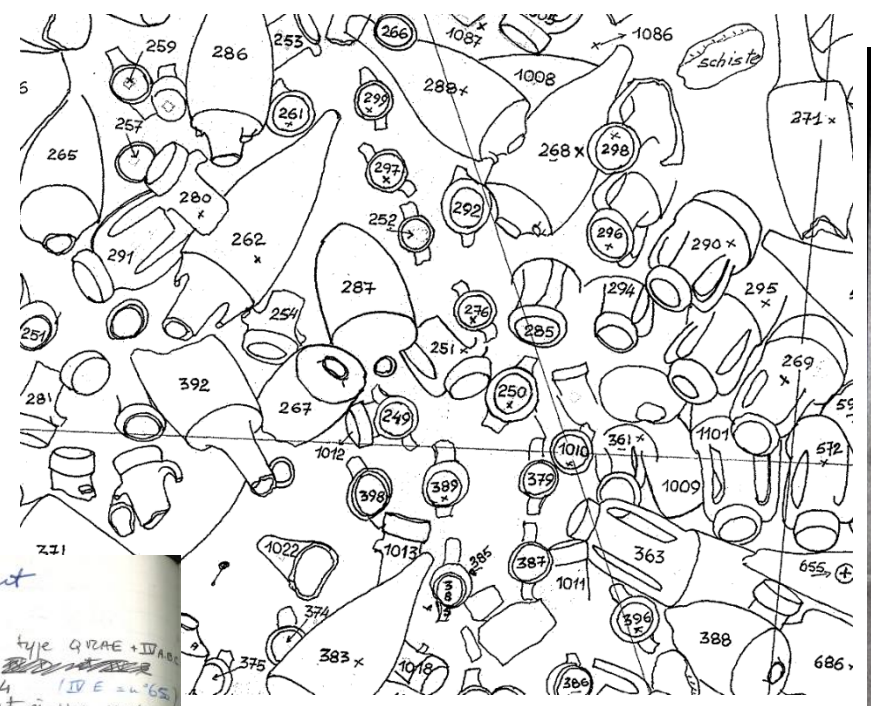
The Madrague de Giens — A photogrammetry from the past



Photogrammetry



The Madrague de Giens --- A photogrammetry from the past



le 7 Août

QRAE = Argile type QRAE + IV A B C
 * + ~~QRAE~~

- IV: Couche 4 (IV E = 265)
- IV D et E sont à un niveau supérieur par rapport aux autres IV

Troncs:

- 14 → ACIPE circulaire
- 17 → 34 mm = PAPUS
- 19 → A = 56 x 11 = SABINA
B = 54 x 10 = PAPUS
- 20 → ACIPE rectangulaire
- 26 → A = 27 = NICOMAS
B = 33 = PAPUS
- 27 → A = 25 = ACIPE
B = 32 = PAPUS
- 29 → 27 = NICOMAS
- 58 → ACIPE possible
- 32 → illegible

IVA = fond of 35
sappu 4 25

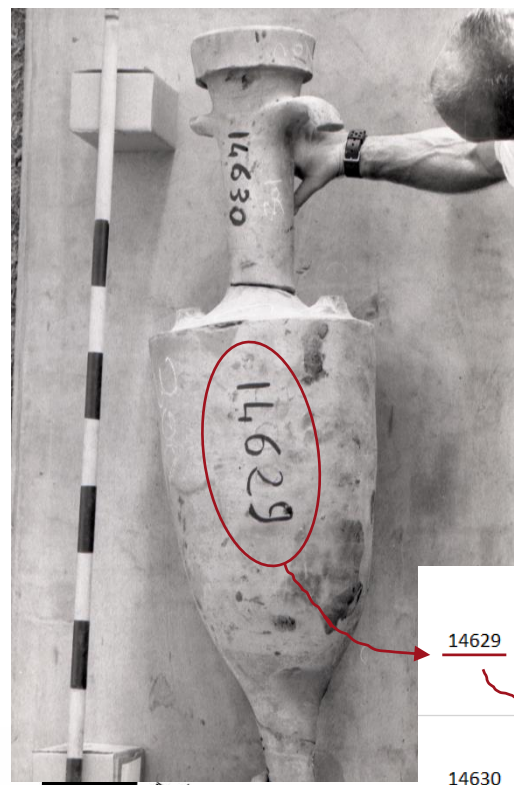
- φ Petit madrague supérieur : 60 mm
- Gros — supérieur : 80 mm



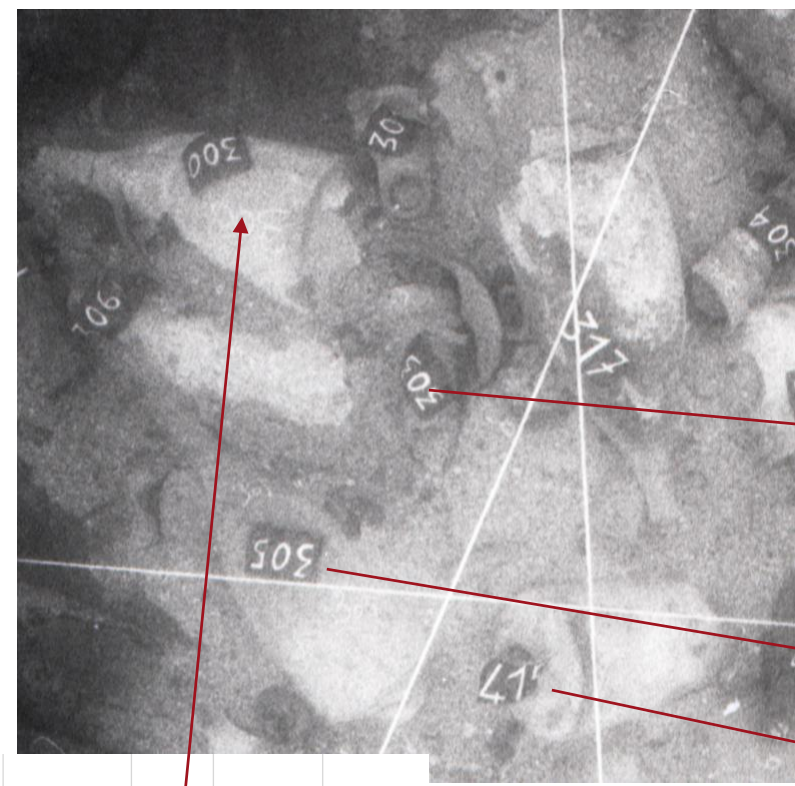


GIS

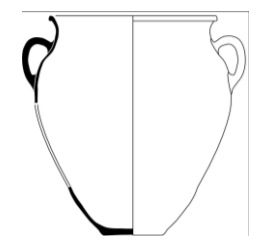
From well located amphora...



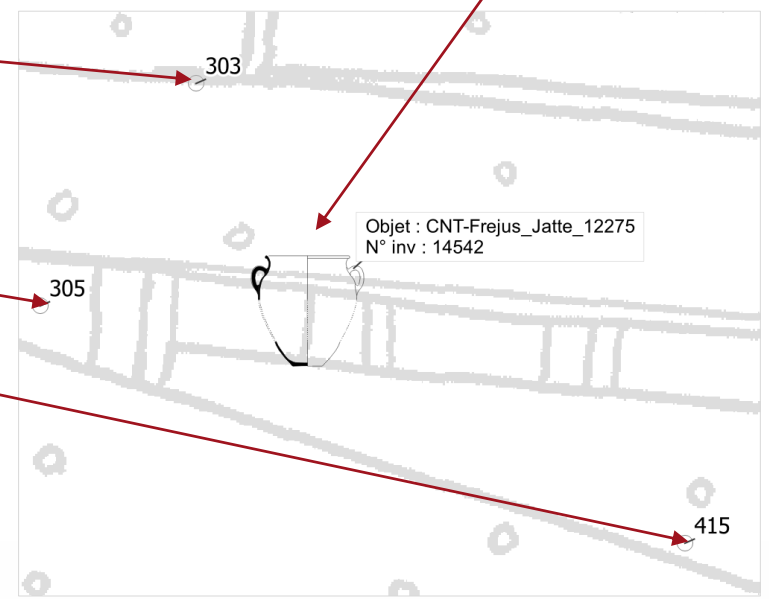
14629	Démontage le 21/6/1982	Carré 3, couche 7, dans la coque	300	AMPH	Dr. 1B
14630	Démontage le 21/6/1982	Carré 3, couche 7	301	AMPH	Dr. 1B



...to smaller scattered objects



CNT-Frejus_Jatte_12275	14542	3	415 au sud-est, entre 415, 305 et 303, couche 7, carré 3
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Objet : CNT-Frejus_Jatte_12275
N° inv : 14542



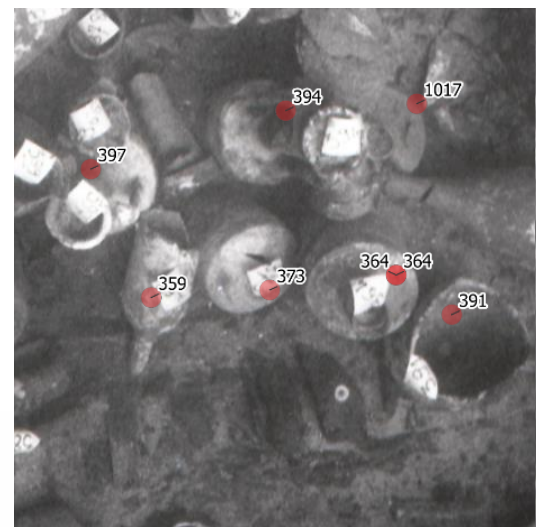
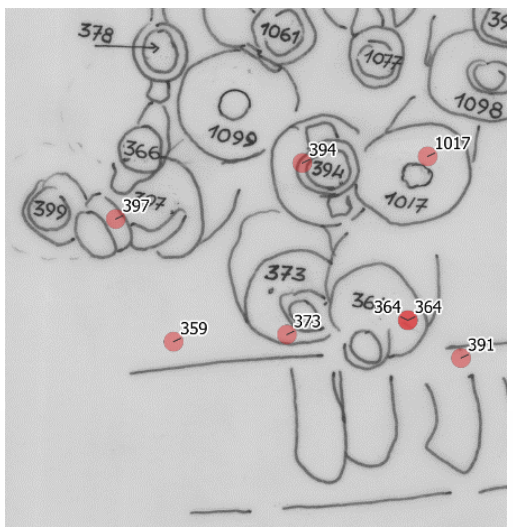
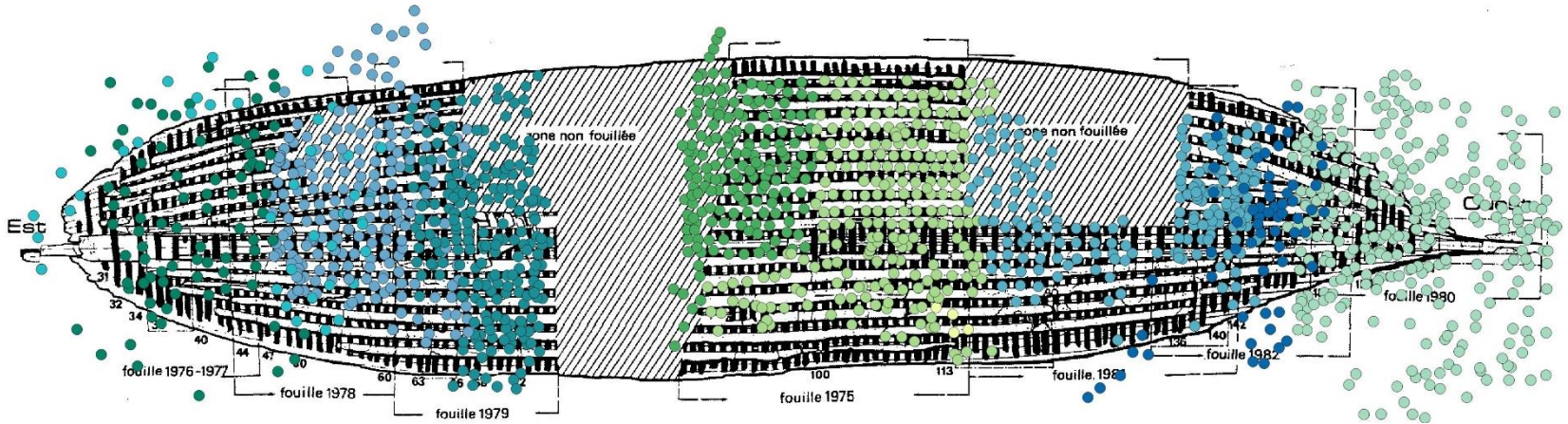
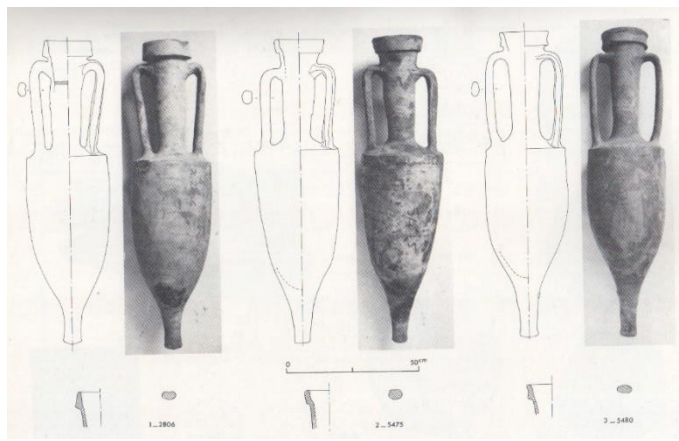
The Madrague de Giens — A photogrammetry from the past

Géoréférencement de la cargaison
État au 15 décembre 2021



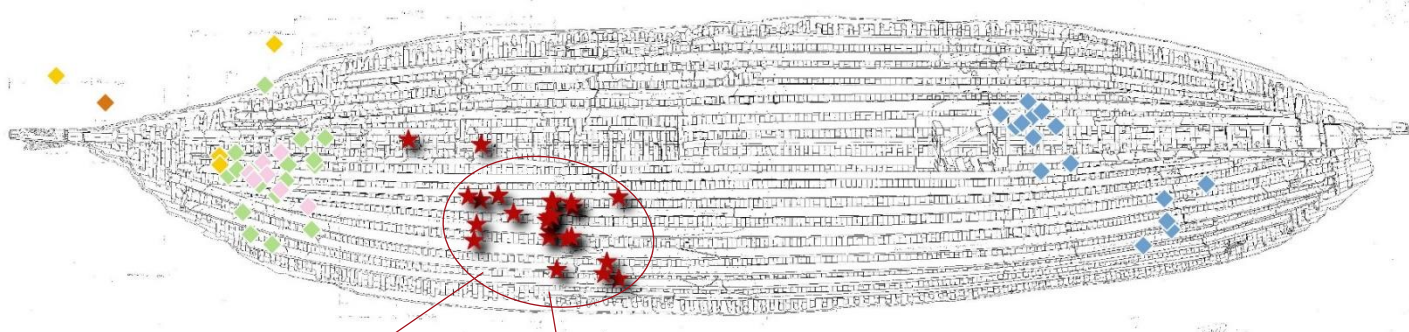
GIS

Avant	Centre	Arrière
● 1982	● 1973	● 1976
● 1981	● 1974	● 1977
● 1980	● 1975	● 1978
		● 1979





- Objet**
- ◆ OBJ_001 (Marmite)
 - ★ OBJ_002 (Cloche à pain)
 - ◇ CNT
 - ◆ CNT-PRO
 - ◆ CNT Fréjus
 - ◆ CNT-ALP 1
 - ◆ CNT-ALP 2

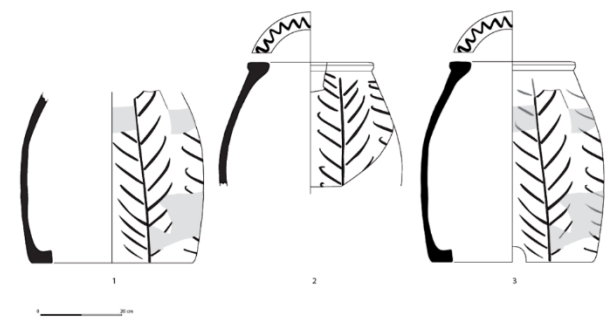
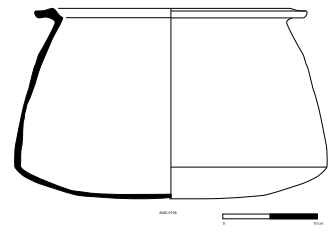


Fragments
of
bricks and tegulae



Bread kiln

Used cooking
pots

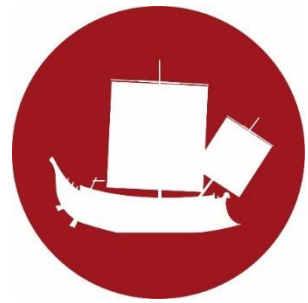


Archaic
Megara Hyblaea

Tunisian bread kiln
calling *Tabouna*



The Madrague de Giens — A photogrammetry from the past



Reconstruction

Epave de la Madrague de Giens
Profil évolutif des débits de membrures
2^{ème}, 3^{ème} et 4^{ème} séries

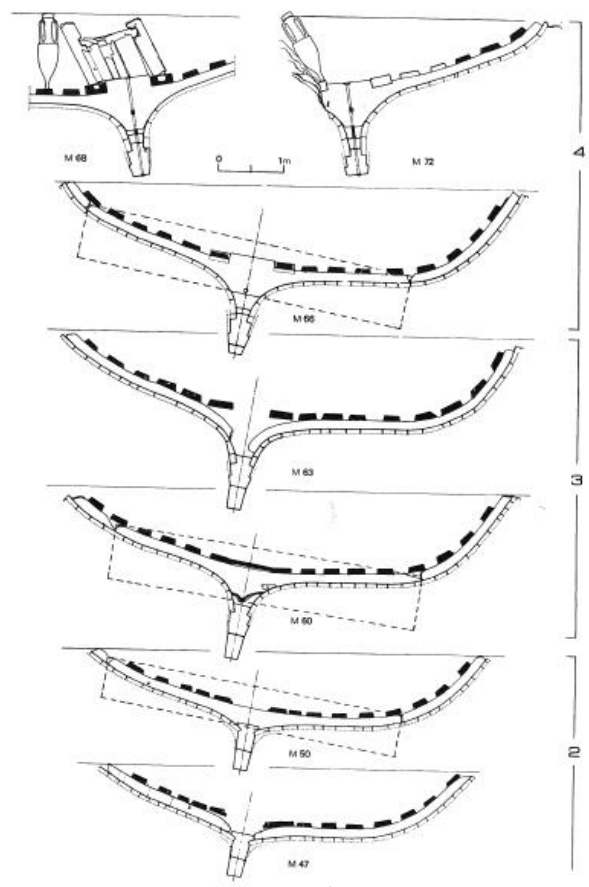


Planche 61

Epave de la Madrague de Giens
Profil évolutif des débits de membrures
1^{ère} et 2^{ème} séries

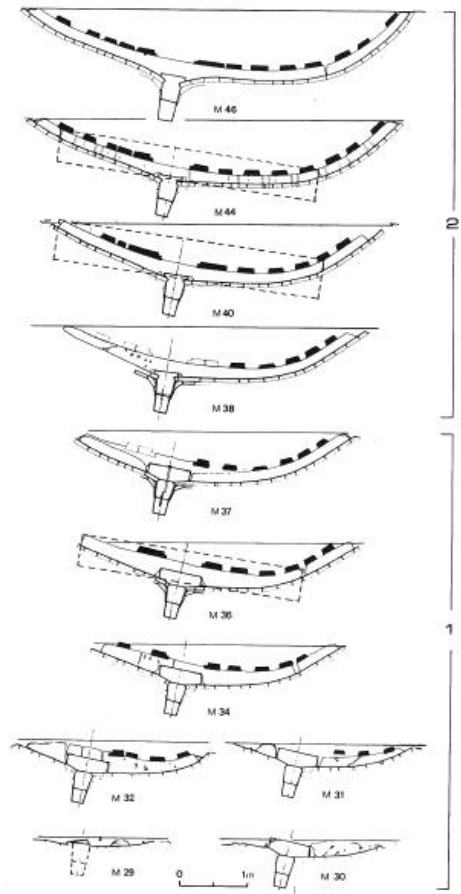


Planche 60

Epave de la Madrague de Giens

Position des coeurs des bois dans le débit des pièces axiales du navire

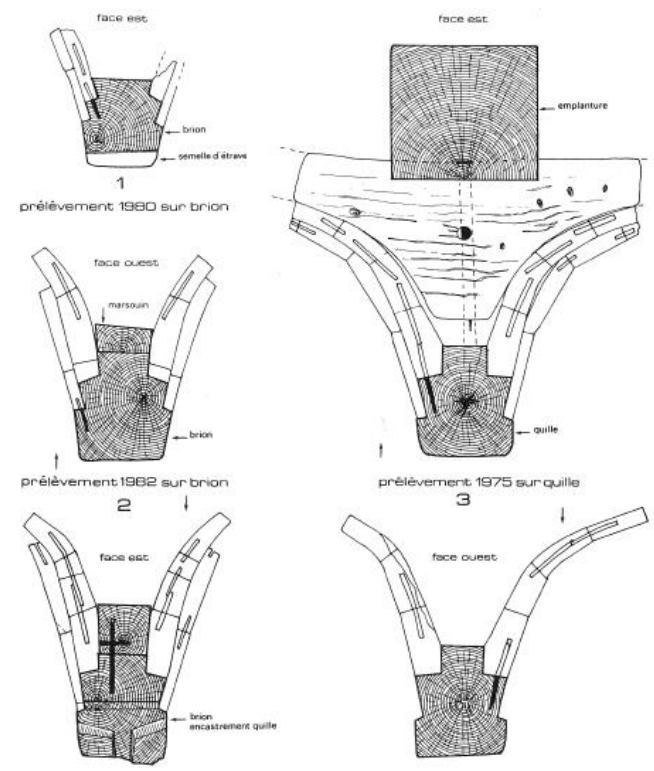
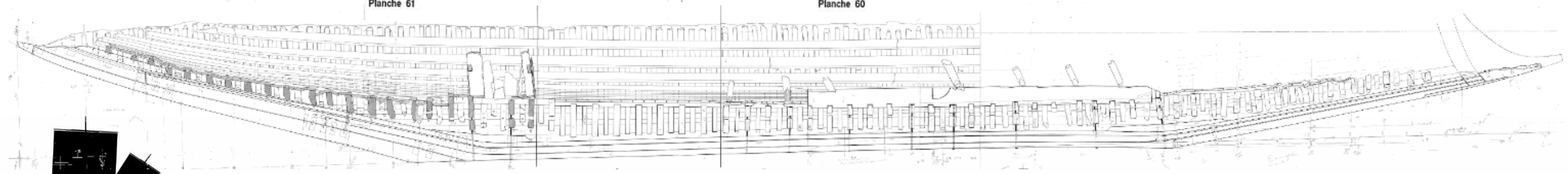
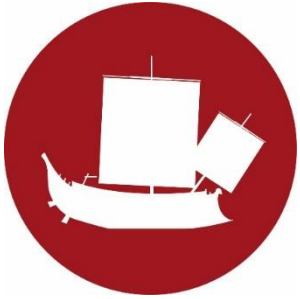


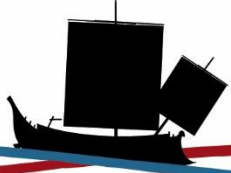
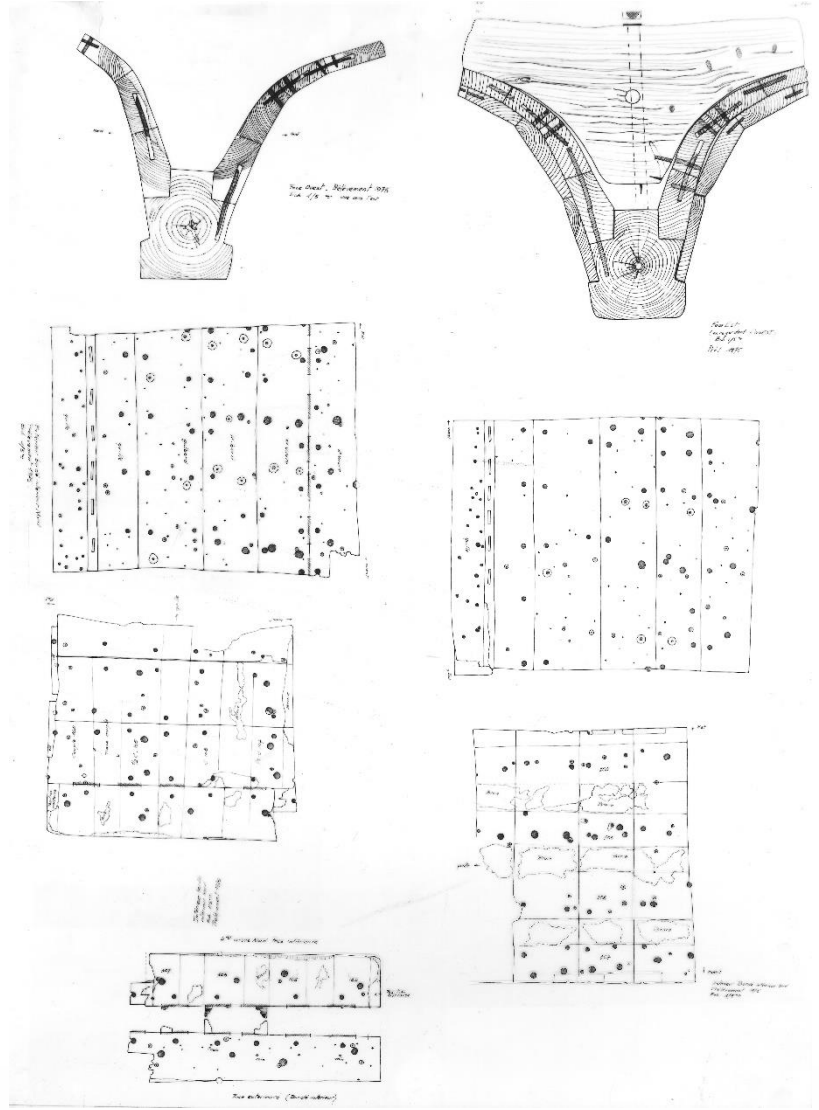
Planche 29



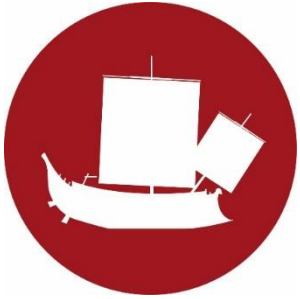
The Madrague de Giens — A photogrammetry from the past



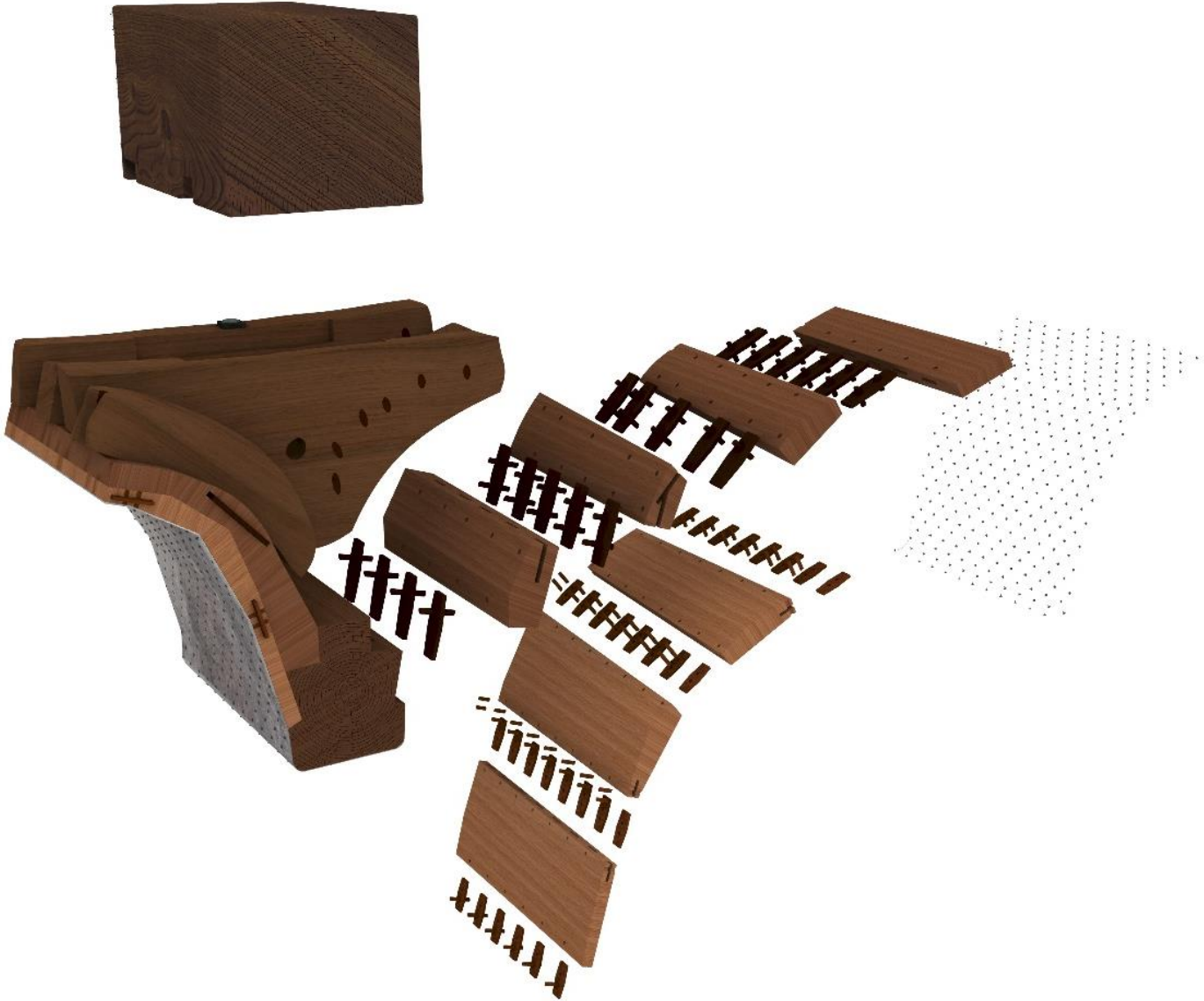
Reconstruction



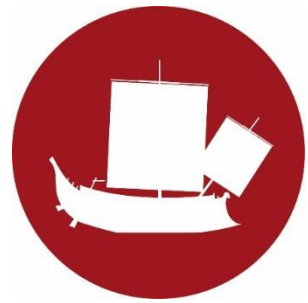
The Madrague de Giens A photogrammetry from the past



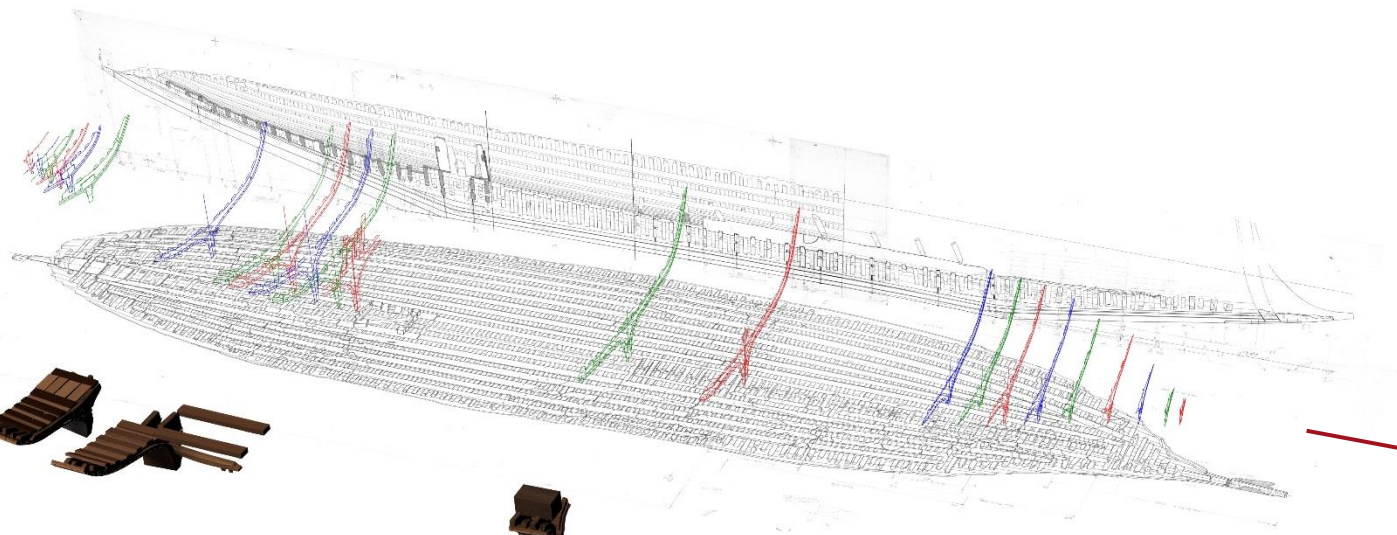
Reconstruction



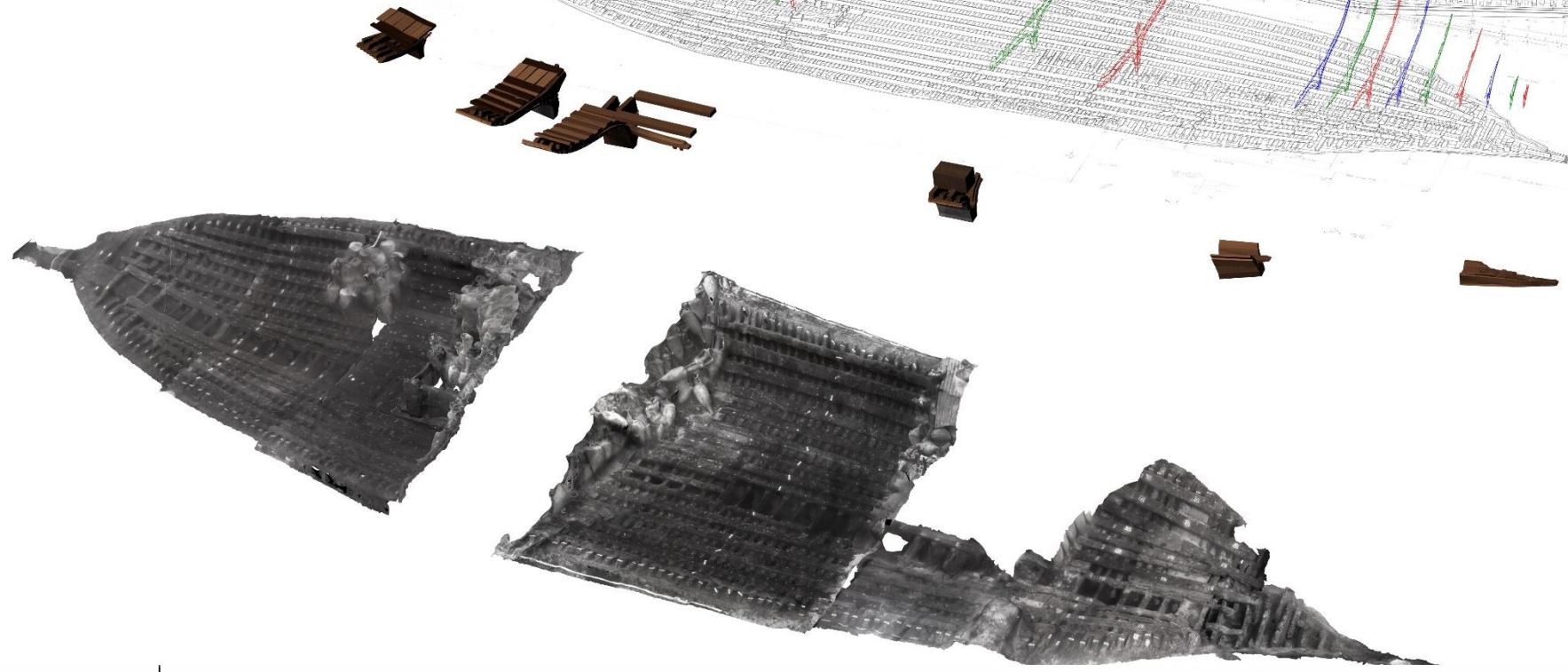
The Madrague de Giens A photogrammetry from the past



Reconstruction



Original 2D documentation

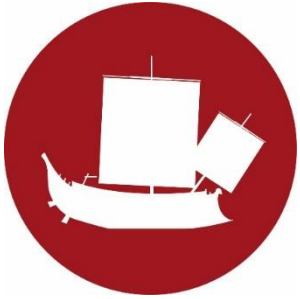


3D of samples

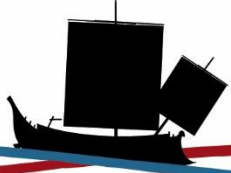
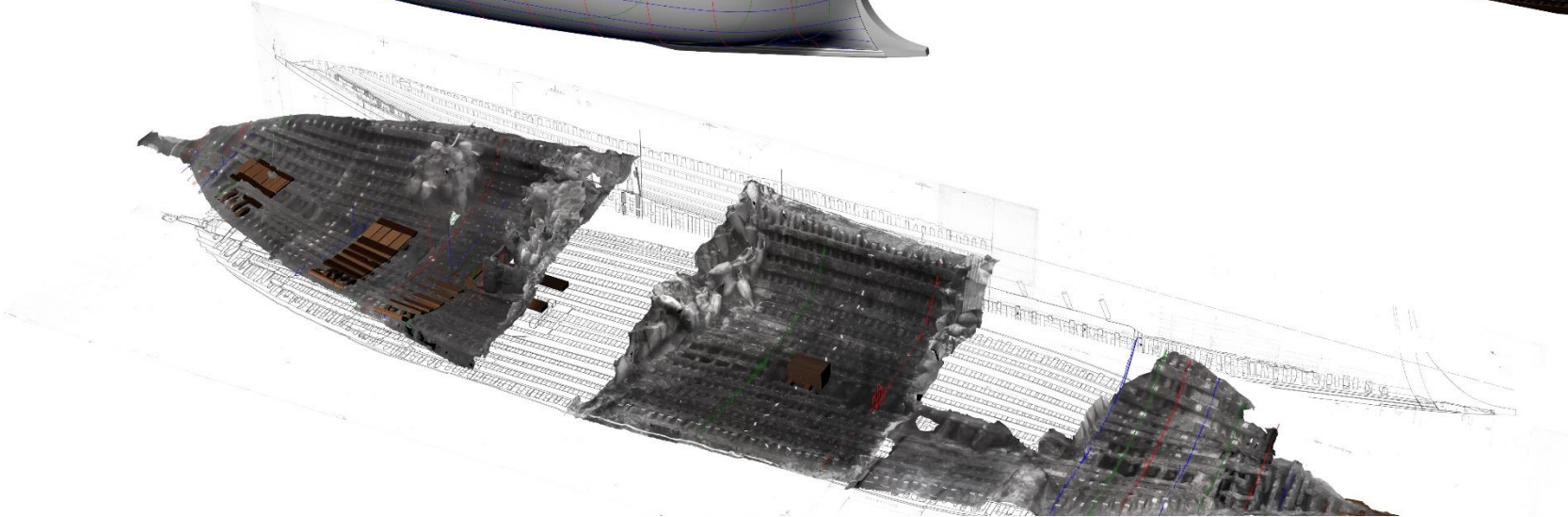
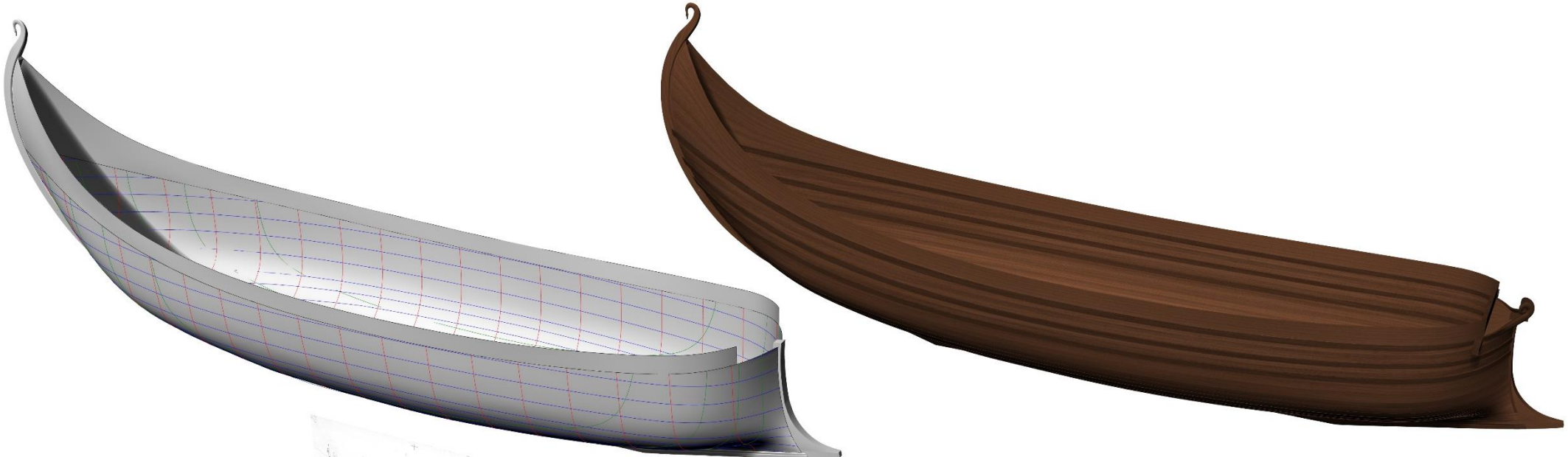
2021 Photogrammetry



The Madrague de Giens A photogrammetry from the past



Reconstruction





In the Memory of our
Predecessors:

Patrice Pomey
1943 - 2021



Antoinette Hesnard
1948 - 2018

And the indefectible and
precious support of
Prf. André Tchernia



The Madrague de Giens ship

A photogrammetry from the past:
completing the study of an exceptional roman wreck



Laetitia Cavassa
Pierre Poveda
Vincent Dumas
Ninon Basuau
&
Philippe Soubias

Vendredi 3 juillet
A 8^h30

Arrivée d'Honor Frost dans la soirée.
La plus belle photo d'archéologie sous

Honor Frost arriving at La Madrague de Giens Camp Site
the 3rd July 1975



With the support of the
White Levy Program
for
Archaeological
Publications

