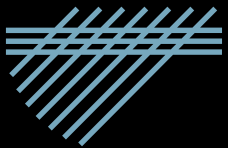


Demetrios Athanasoulis  
Hellenic Ministry of Culture  
Ephorate of Antiquities of  
the Cyclades

**Delos:**  
a UNESCO site  
threatened by the  
climate change

Εφορεία  
Αρχαιοτήτων  
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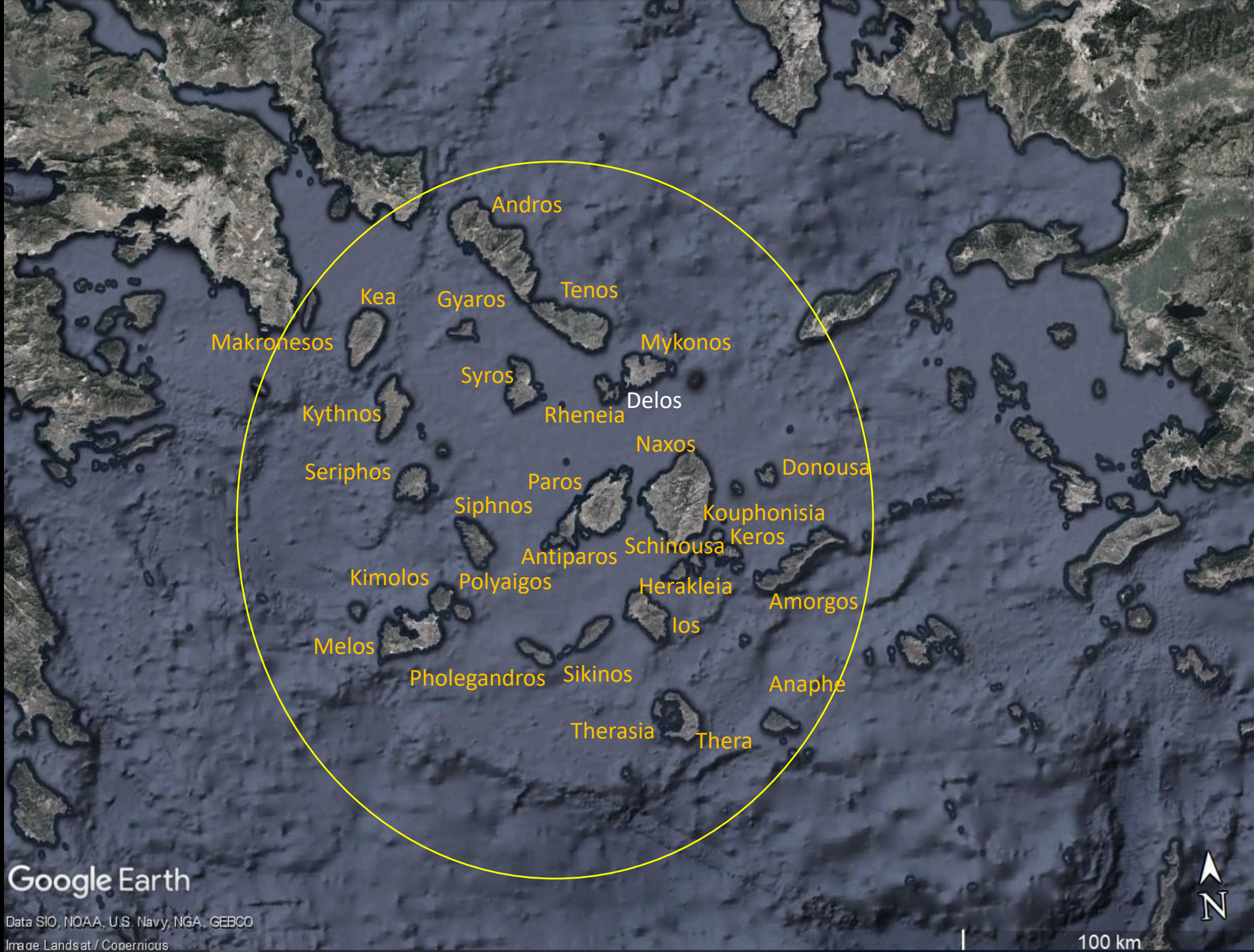


Ephorate of  
Antiquities  
of Cyclades



# Cyclades

Critical factor for the plans for preservation & management of the cultural heritage: the insular nature of the region (Insularity)

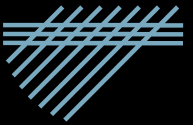


Google Earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image Landsat / Copernicus

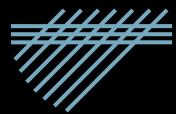
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Ephorate of  
Antiquities  
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100 km

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Ephorate of  
Antiquities  
of Cyclades

IOS



KEA

MELOS



SERIPHOS

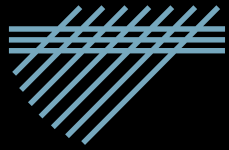


## Kea, ancient tower restoration



Sikinos,  
Monument of  
Episkopi

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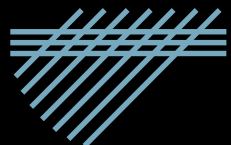


Ephorate of  
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Santorini,  
Museum of  
Prehistoric Thera,  
Exhibition of  
Prehistoric Wall  
Paintings from  
Akrotiri

Εφορεία  
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Ephorate of  
Antiquities  
of Cyclades



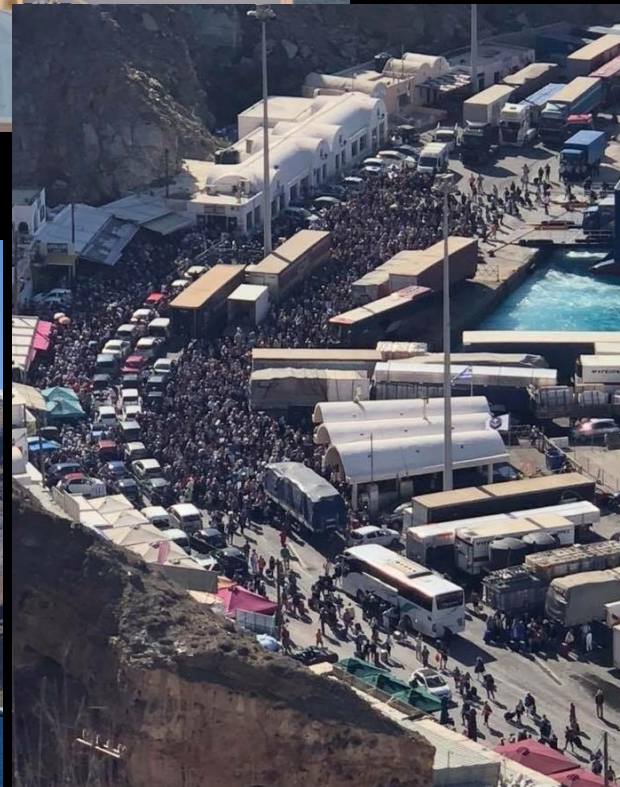
Εφορεία  
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Ephorate of  
Antiquities  
of Cyclades



tourist overdevelopment



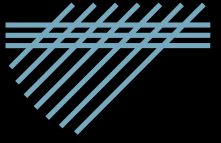


## Delos: a UNESCO archaeological site





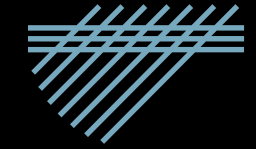
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Ephorate of  
Antiquities  
of Cyclades

Delos





Delos



Εφορεία  
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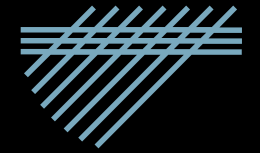
Ephorate of  
Antiquities  
of Cyclades

Delos





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Ephorate of  
Antiquities  
of Cyclades



Delos 1873-2023,  
150 years of  
excavations



Delos

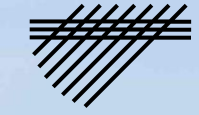


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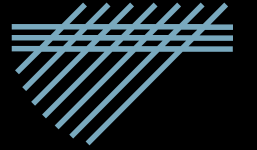
Ephorate of  
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Ephorate of  
Antiquities  
of Cyclades

Delos



Delos,  
Consolidation and  
restoration works

before



after



Υποστύλωση



Αποκατάσταση



Συμπλήρωση



Αποκατάσταση



BEFORE



AFTER





Delos,  
The archaic lions of Naxos

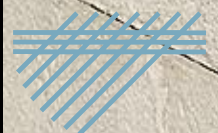


Venice, Arsenale

Delos,  
The archaic lions of Naxos

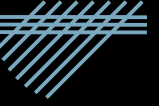
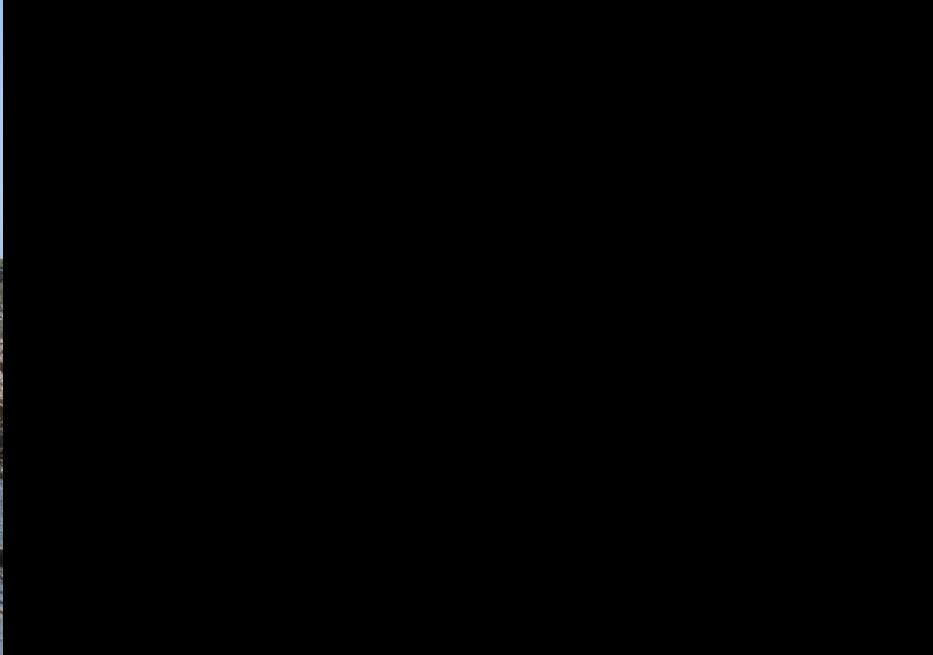


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Ephorate of  
Antiquities  
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Delos, collapses of walls



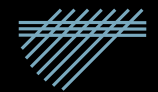


Delos: increase in the level of the aquifer

Delos: increase in the level  
of the aquifer



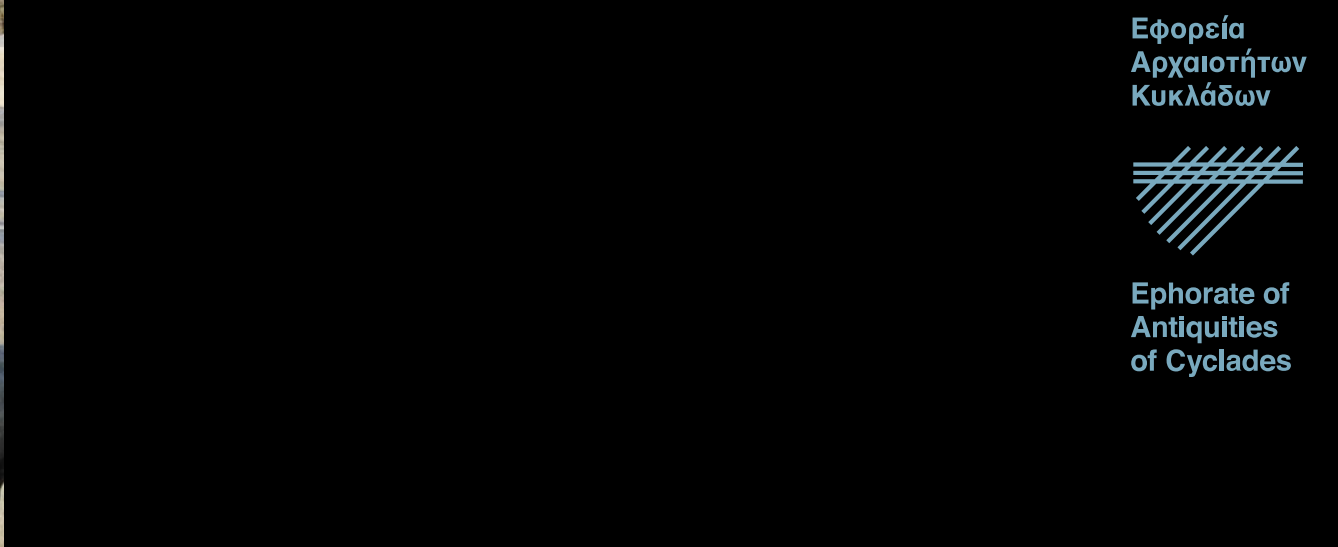
Εφορεία  
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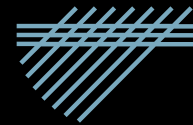
Ephorate of  
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of Cyclades



Delos: Agora of Theophrastos  
The rise of the sea level

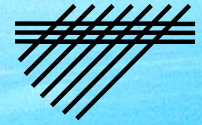






Delos: rise of the sea level

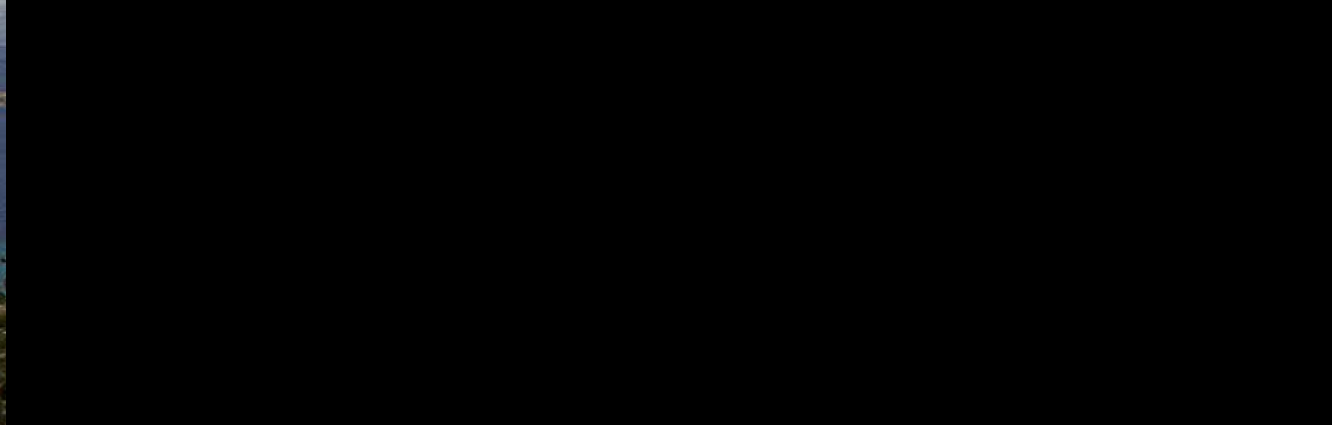




Naxos: the ruins of the ancient  
city submerged into the sea

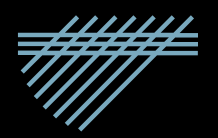


Keros - Daskalio

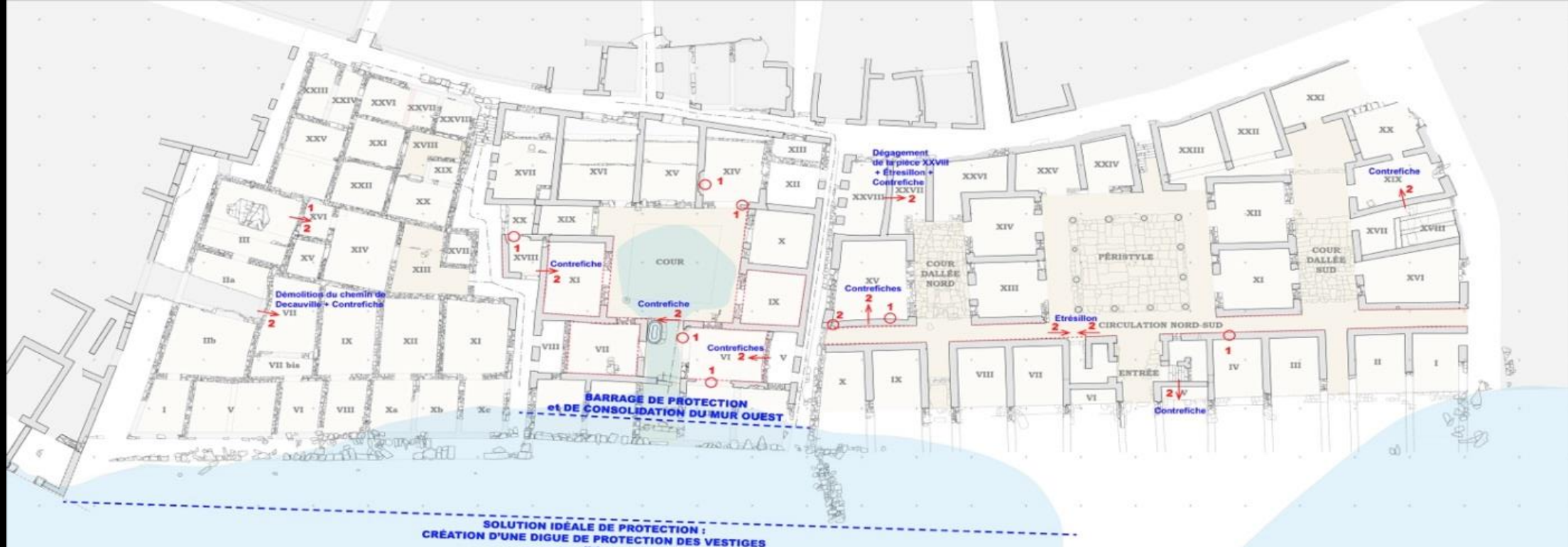
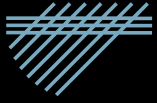


Kythnos

Εφορεία  
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Ephorate of  
Antiquities  
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**SOLUTION IDEALE DE PROTECTION :**  
**CRÉATION D'UNE DIGUE DE PROTECTION DES VESTIGES**  
conditions :  
- nettoyage du rivage,  
- enregistrement de toutes les données archéologiques  
description, photos, relevé, déplacement des blocs significatifs (colonnes...)  
- construction d'un enrochement par empilement de blocs de gneiss

10 20 30 40 50 m

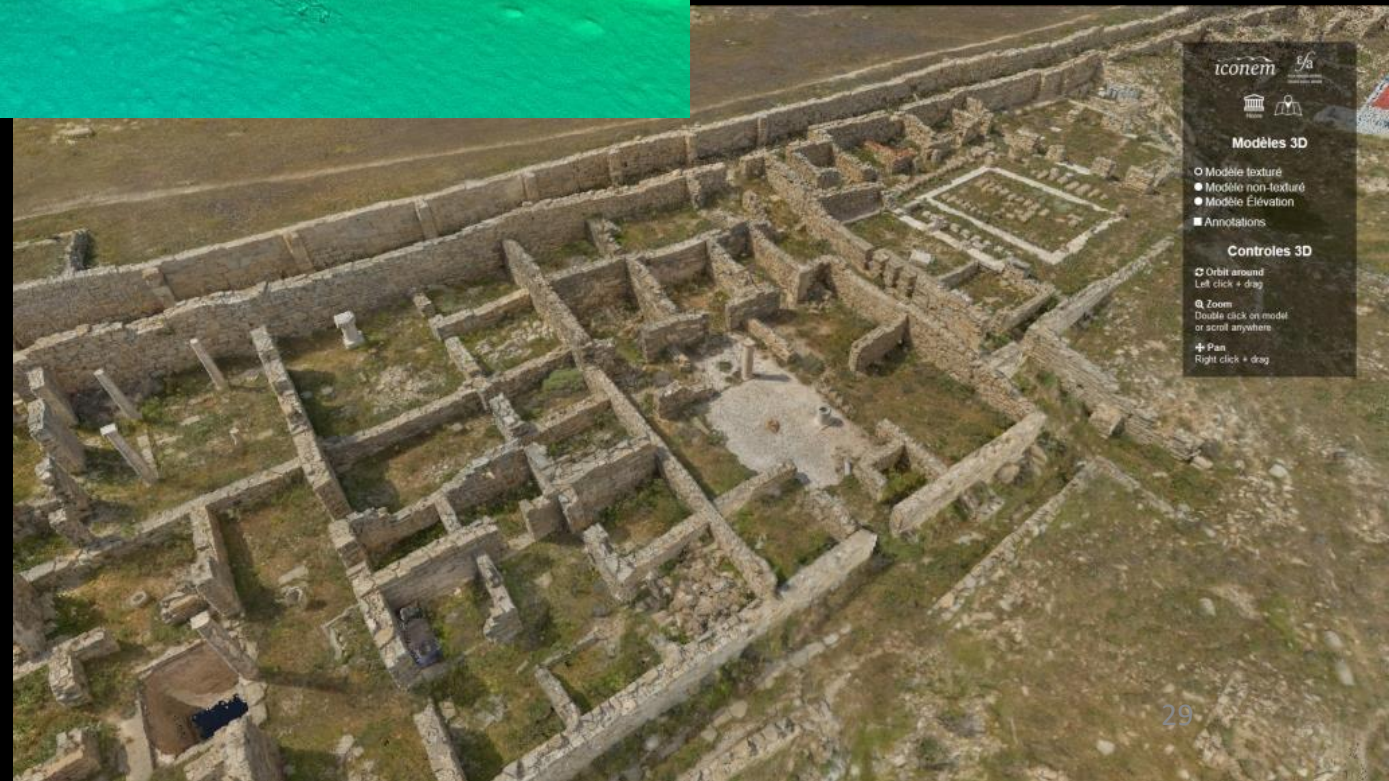
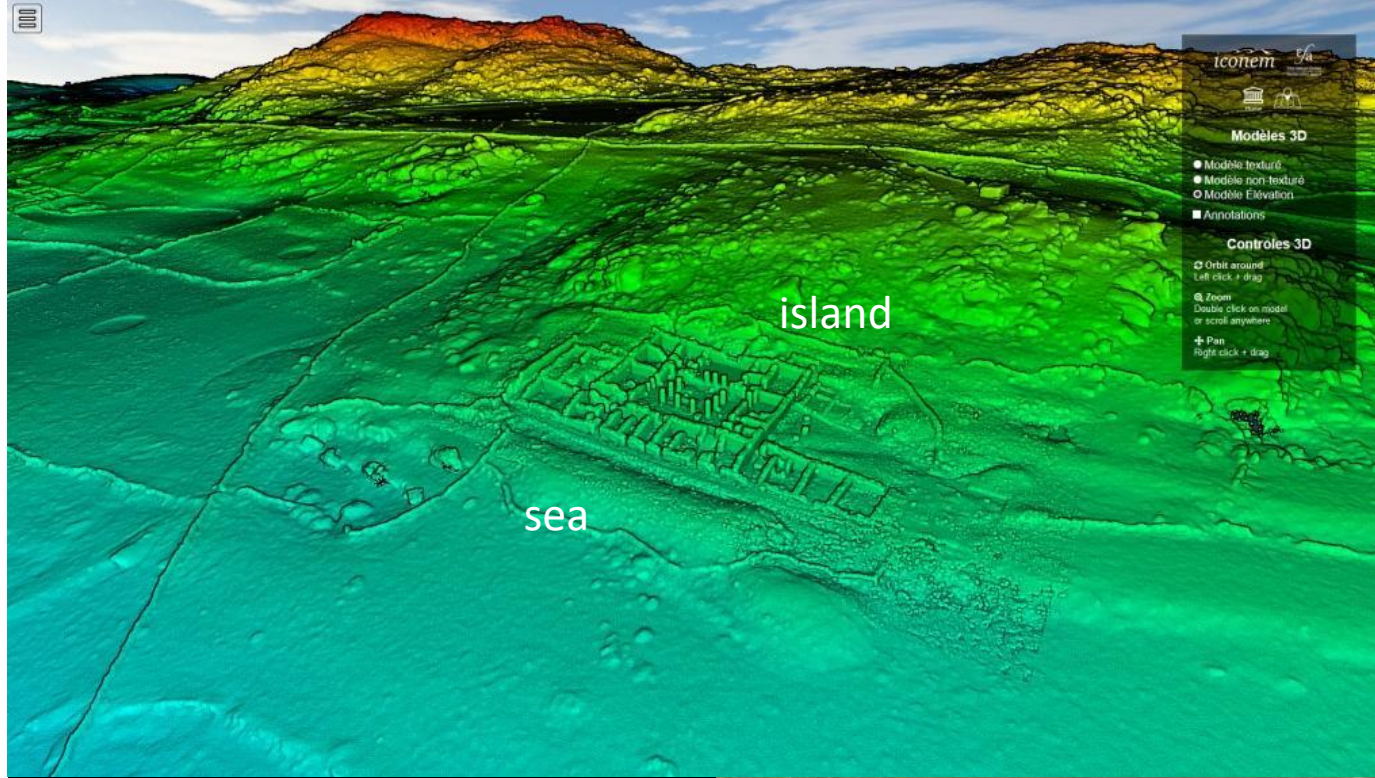
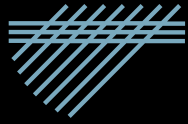
**REPÉRAGE DES PRINCIPALES DÉGRADATIONS ET MESURES DE PROTECTION ET DE CONSOLIDATION PROVISOIRE**

- BARRAGE LIMITE OUEST DU MAGASIN À LA BAIGNOIRE :  
L : 26 m / Ep. 2 m / H : 1 à 1,5 m / Volume : 50 m<sup>3</sup> de blocs
- 1 : MURS ou PAREMENTS EFFONDRES (consolidations)
- 2 : RENFLEMENT DU MUR (étais à réaliser) flèche de direction du renflement
- 3 : BASES DES MURS ENDOMMAGÉES
- BLEU : MESURES DE CONSOLIDATION PROVISOIRE
- SURFACE À REMPLIR : 1000 m<sup>2</sup> environ



Delos: a joint project of the Ephorate of Antiquities of the Cyclades and the French School at Athens

potential solutions: protection barriers and dams



sea level rise



1905



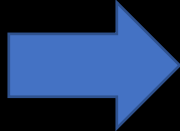
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Ephorate of  
Antiquities  
of Cyclades

2015





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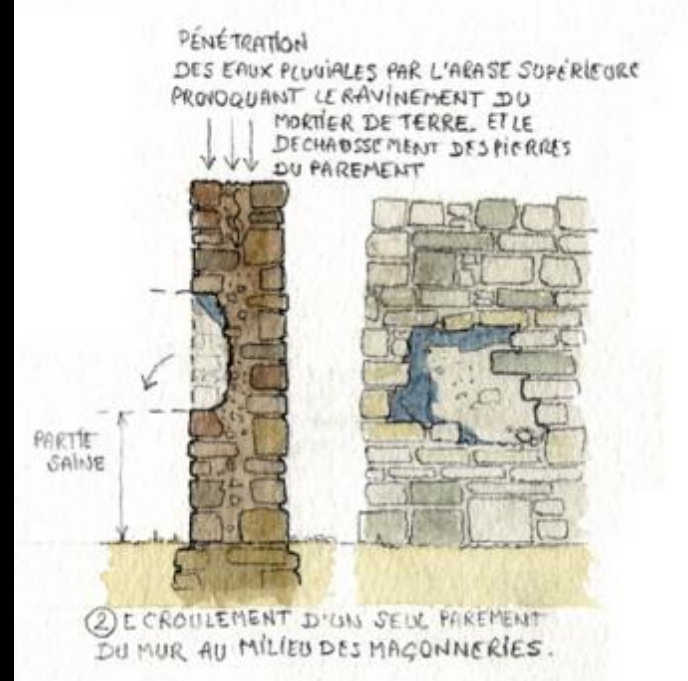


Ephorate of  
Antiquities  
of Cyclades

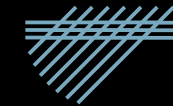
Rapid deterioration of  
the structures



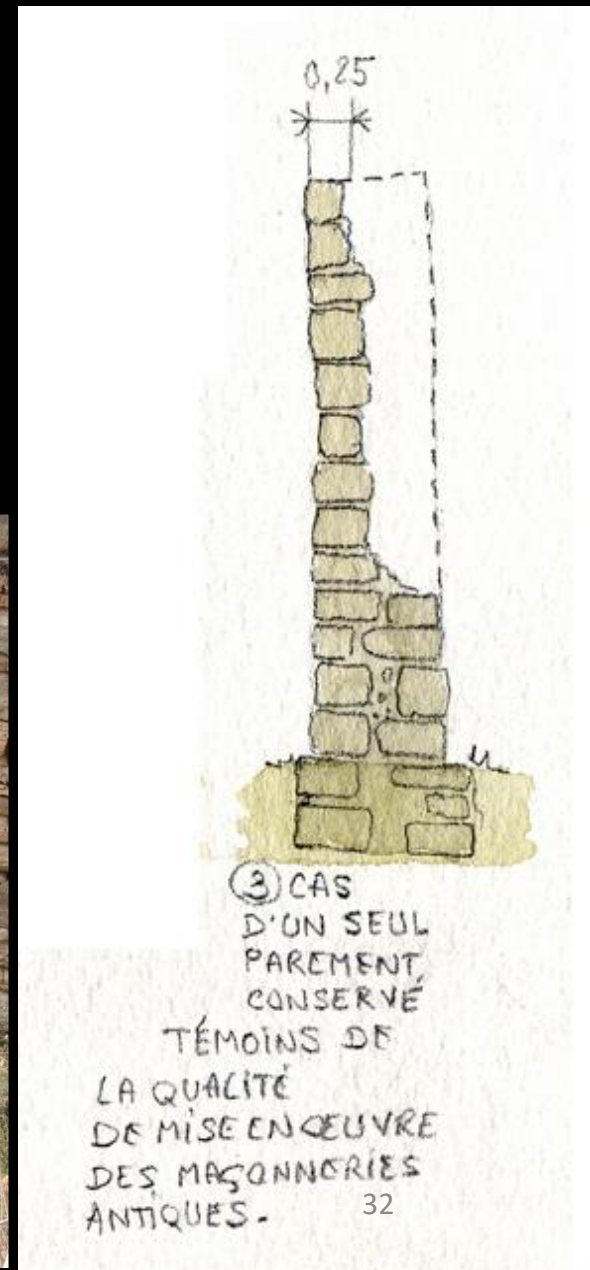
Delos: deterioration of the walls



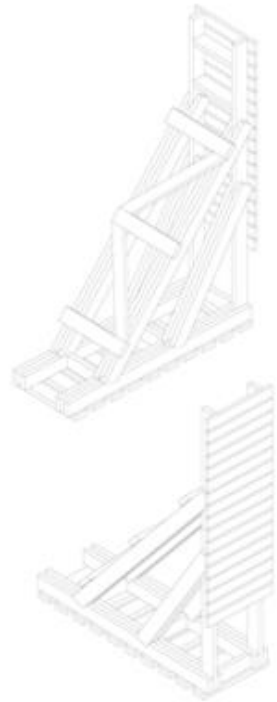
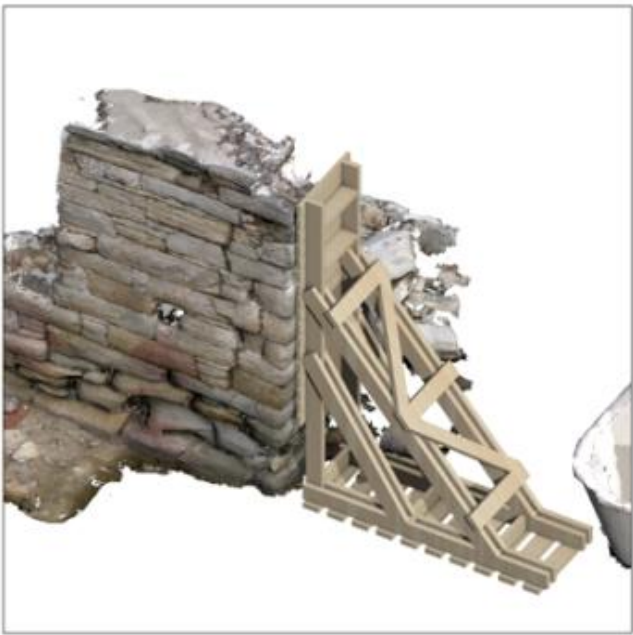
Εφορεία  
Αρχαιοτήτων  
Κυκλάδων



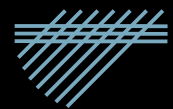
Ephorate of  
Antiquities  
of Cyclades







Εφορεία  
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Ephorate of  
Antiquities  
of Cyclades

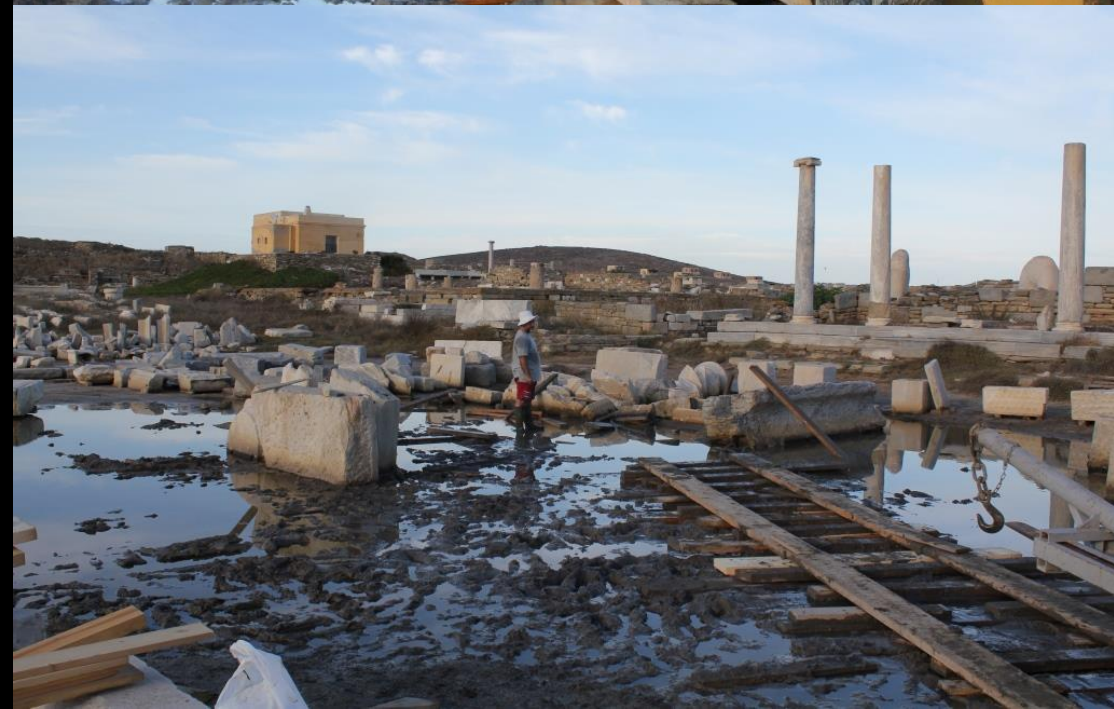


Consolidation & restoration of  
the walls

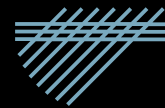




Relocation of ancient marbles because of the rise of the sea level



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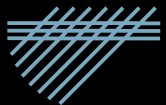
Ephorate of  
Antiquities  
of Cyclades



Construction of elevated platforms



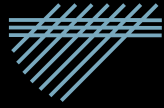
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Ephorate of  
Antiquities  
of Cyclades



Εφορεία  
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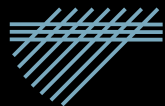


Ephorate of  
Antiquities  
of Cyclades

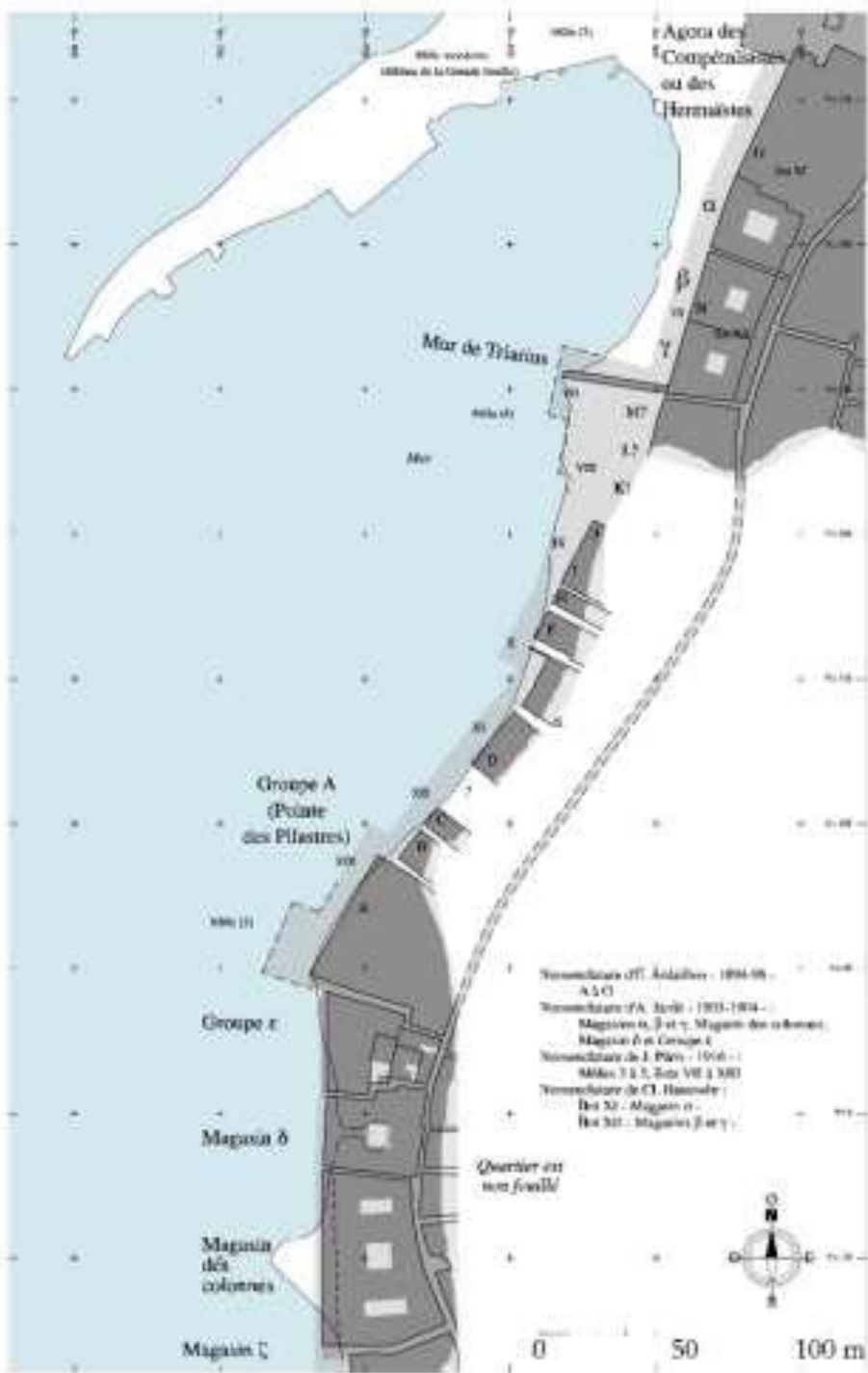
# Placement of architectural members on elevated platforms



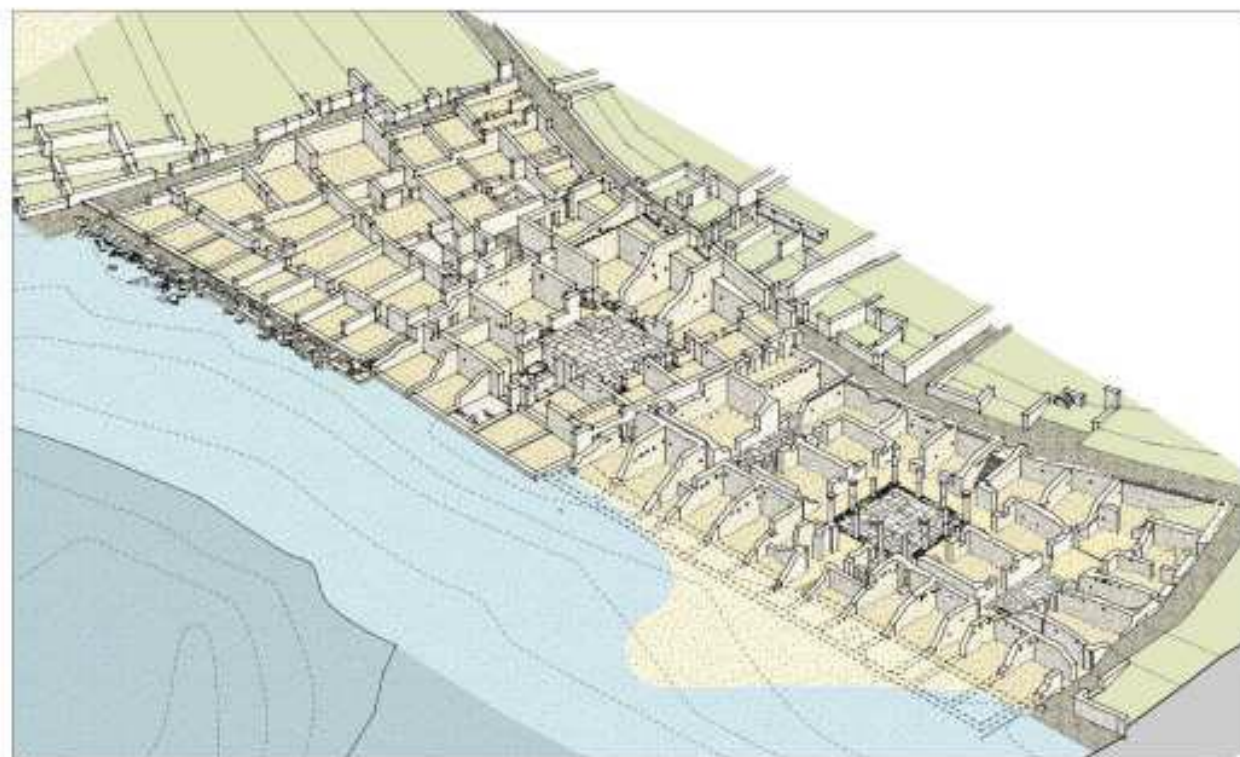
Εφορεία  
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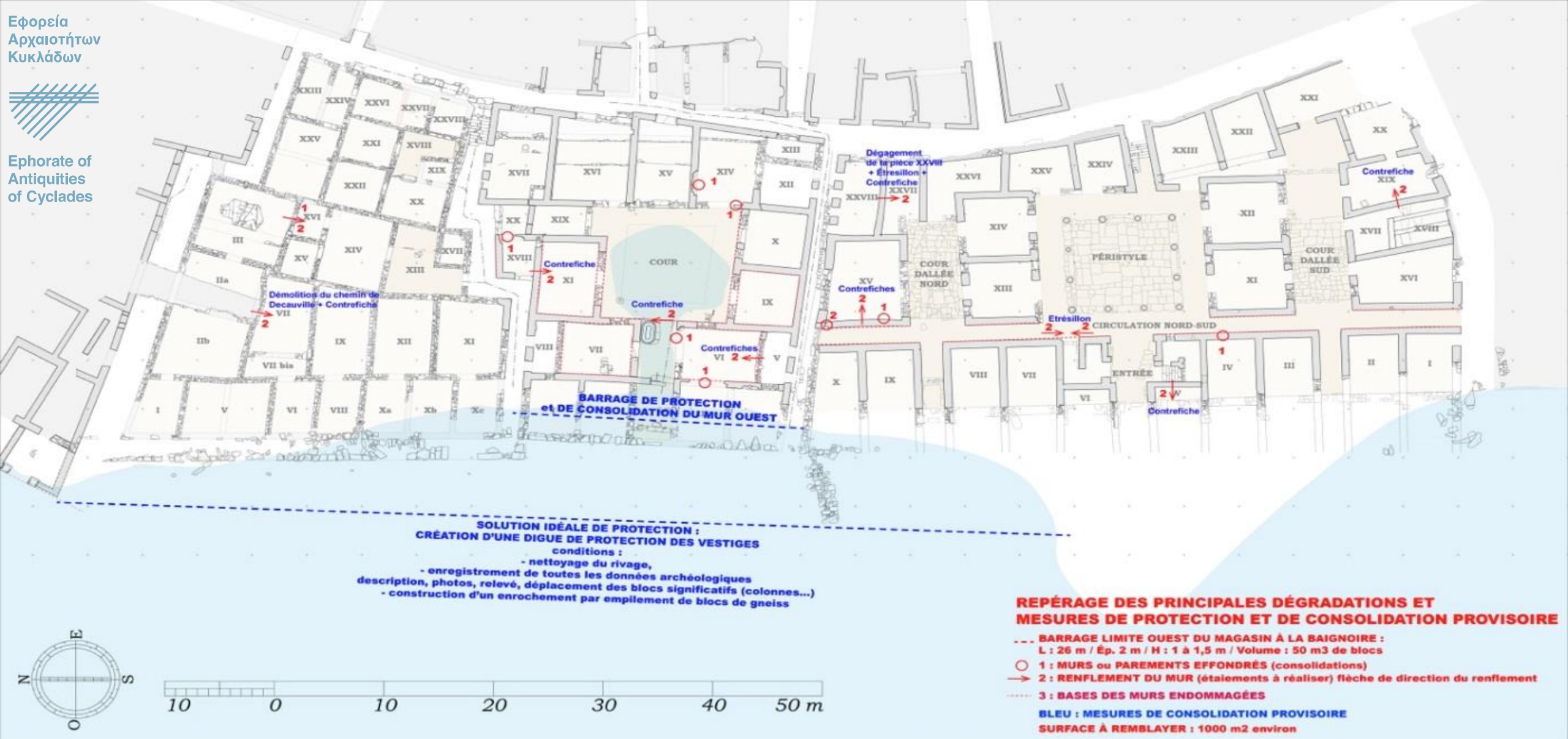
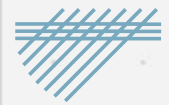
Ephorate of  
Antiquities  
of Cyclades



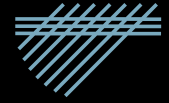
Delos:  
the west  
coast and  
the  
commercial  
buildings of  
the ancient  
harbour  
partially  
submerged  
into the  
sea



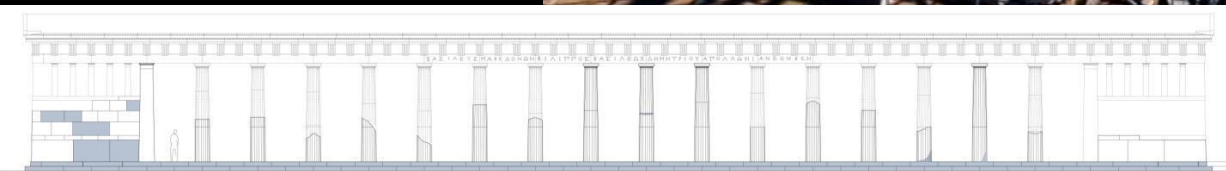
État actuel des vestiges des trois îlots, 1/1000.



Delos: potential solutions, protection barriers and dams



Restoration of the  
portico of Philip V





Restoration of Menodoros monument





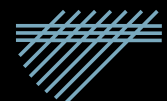
Restoration of the  
portico of Philip V



# Restoration of the House of the Diadoumenos

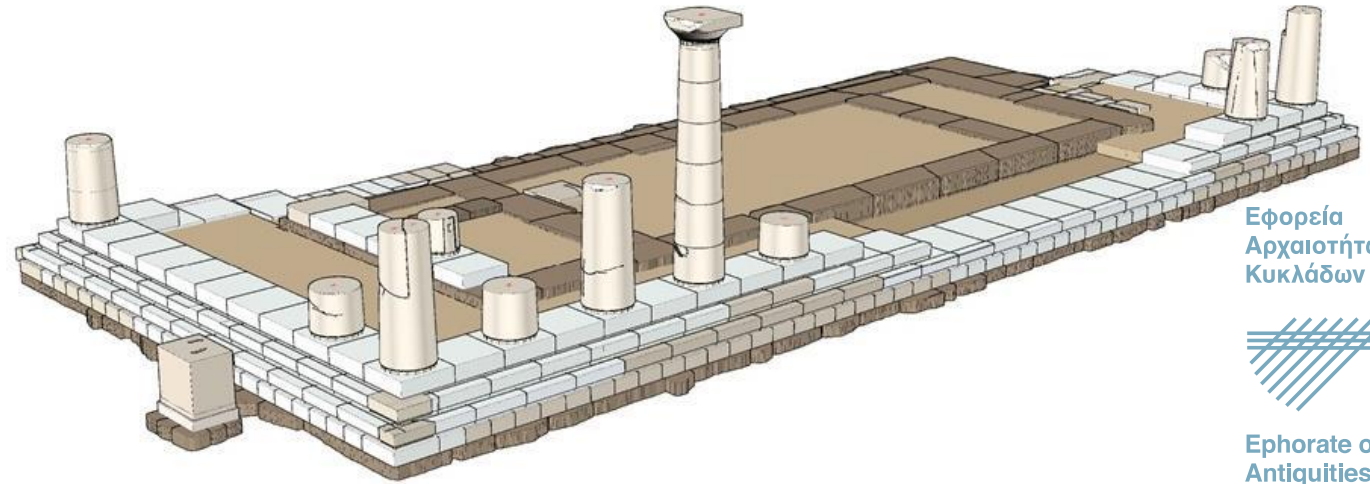
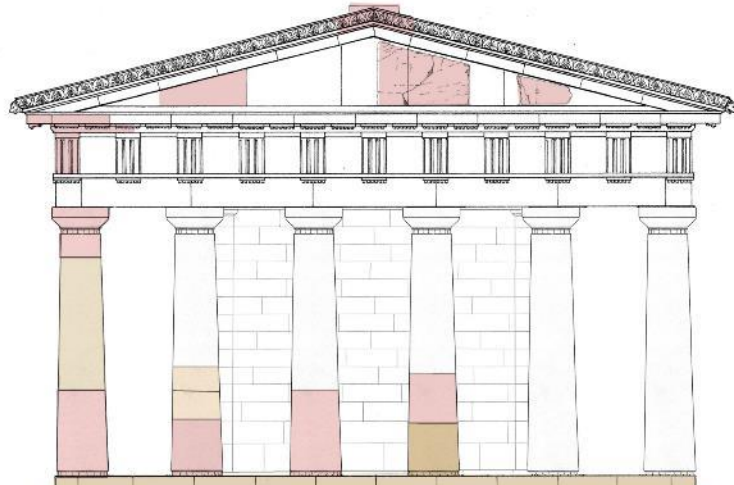


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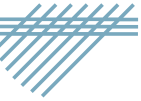


Ephorate of  
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of Cyclades

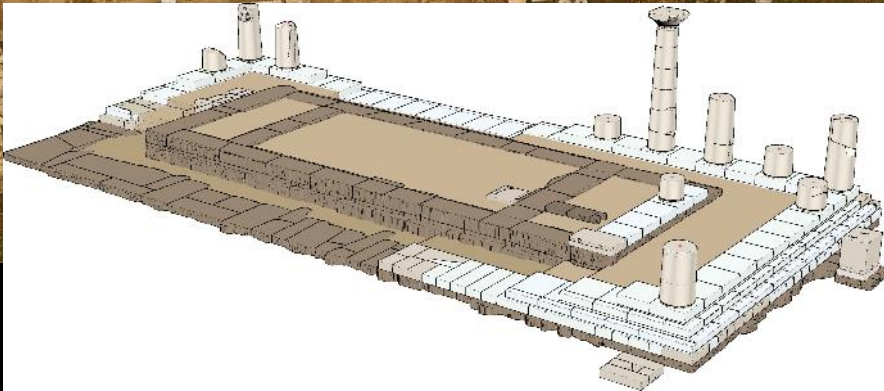
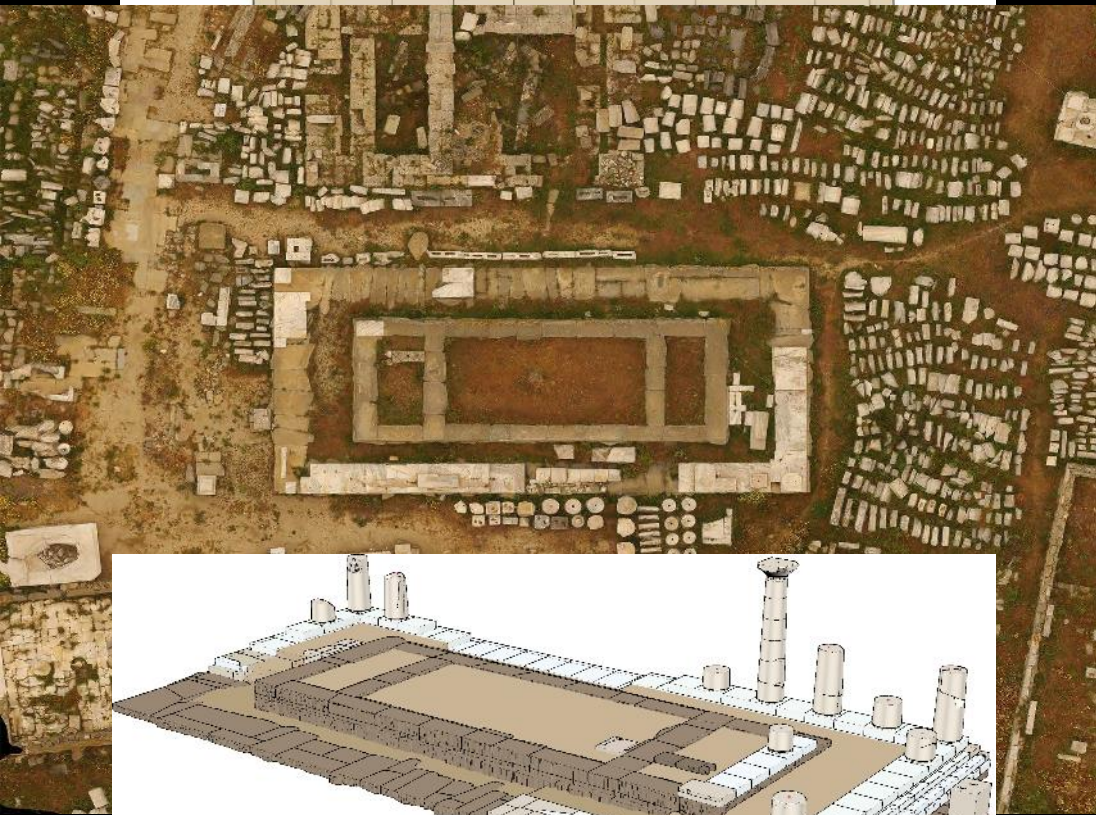
# Delos, the anastylosis of the Apollo's Temple

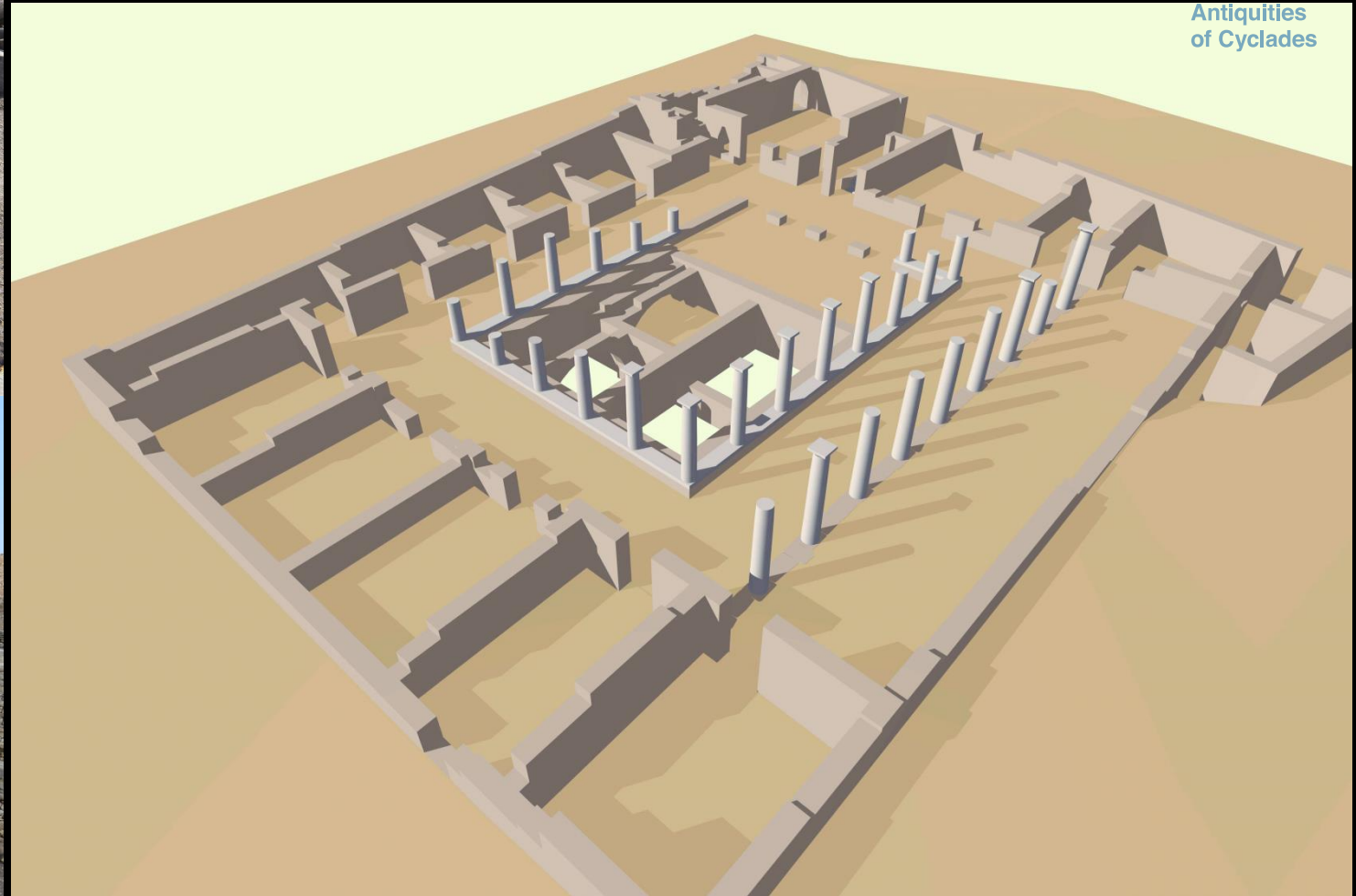


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Ephorate of  
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The anastylosis of the Granite Palestra