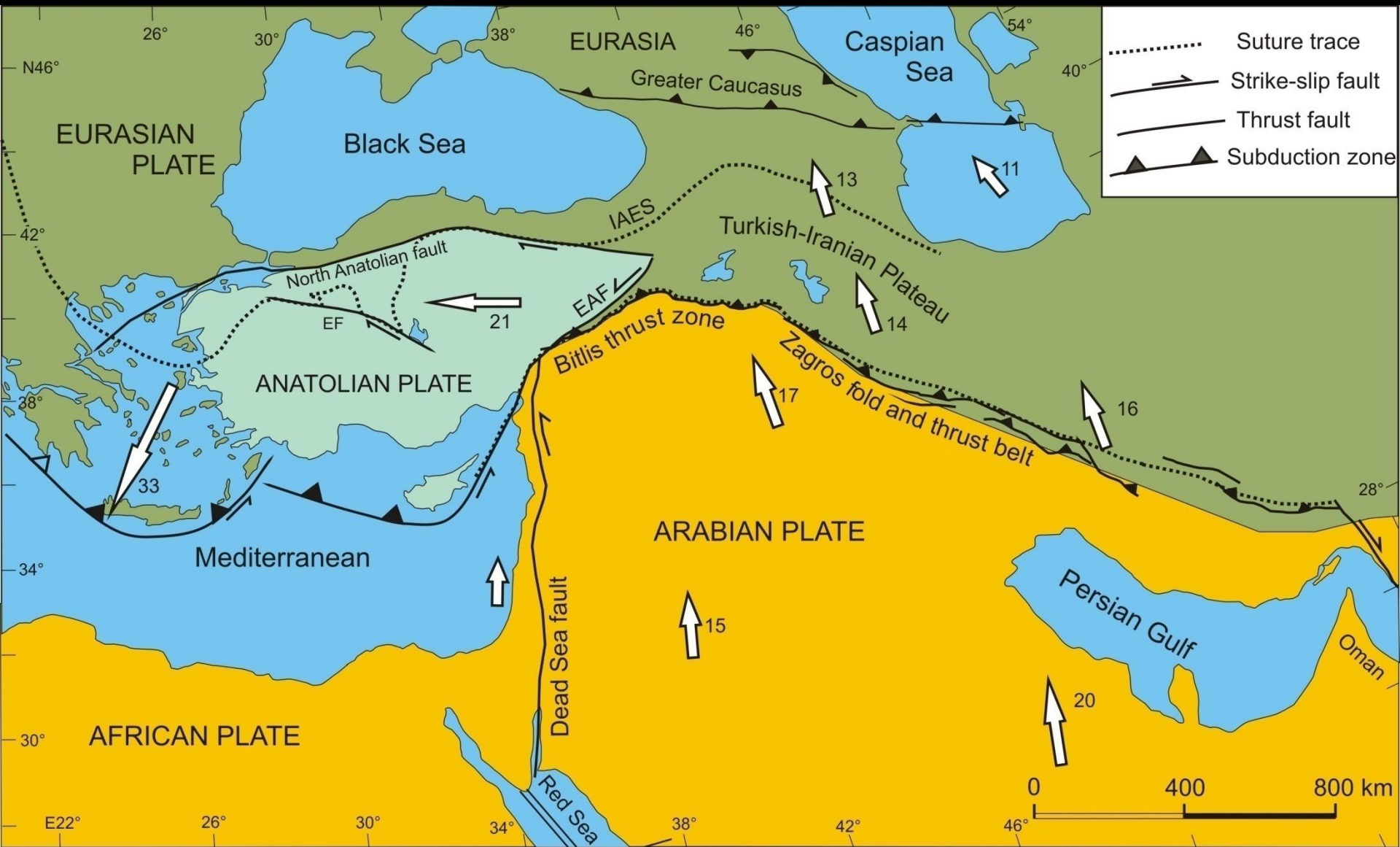
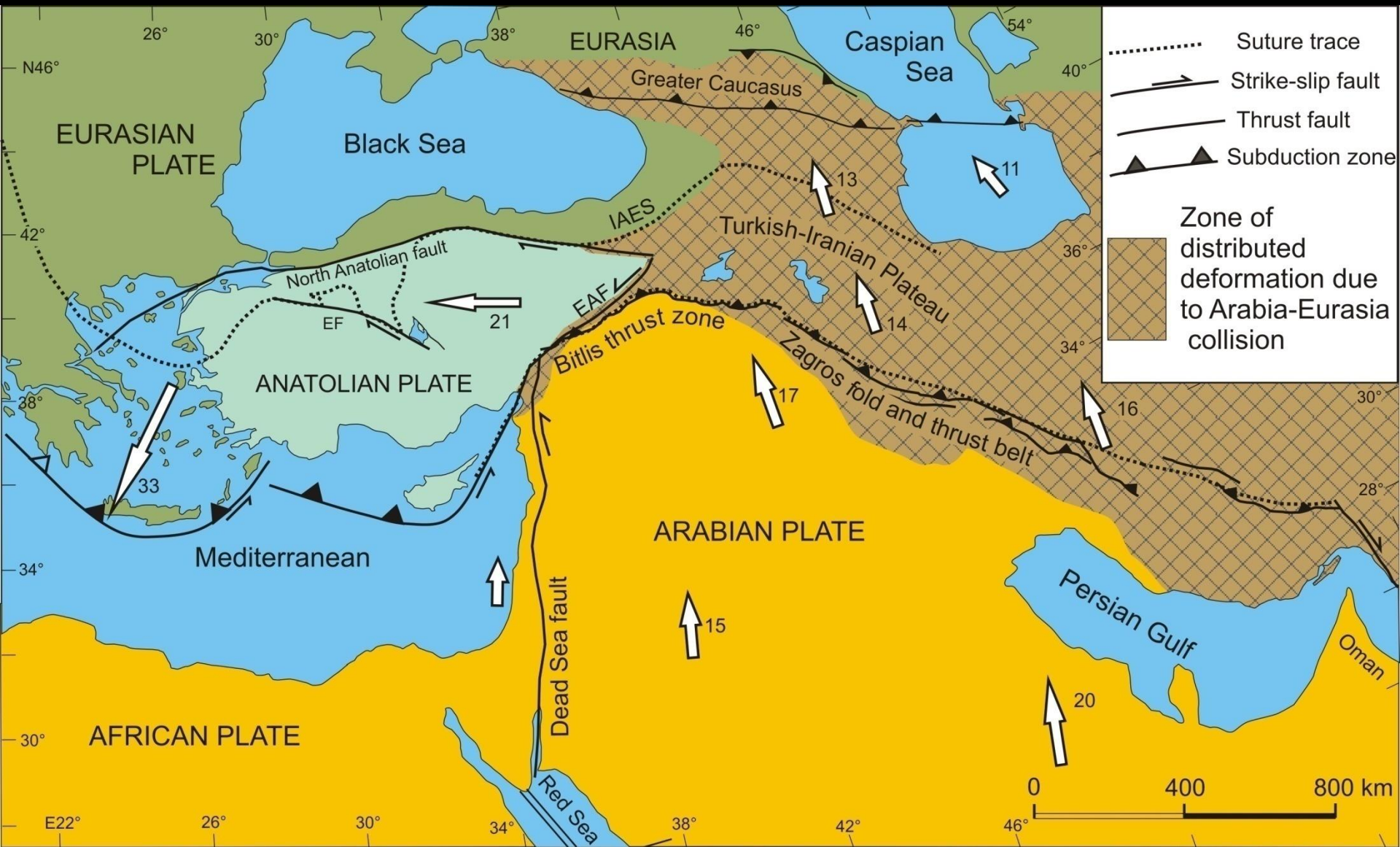
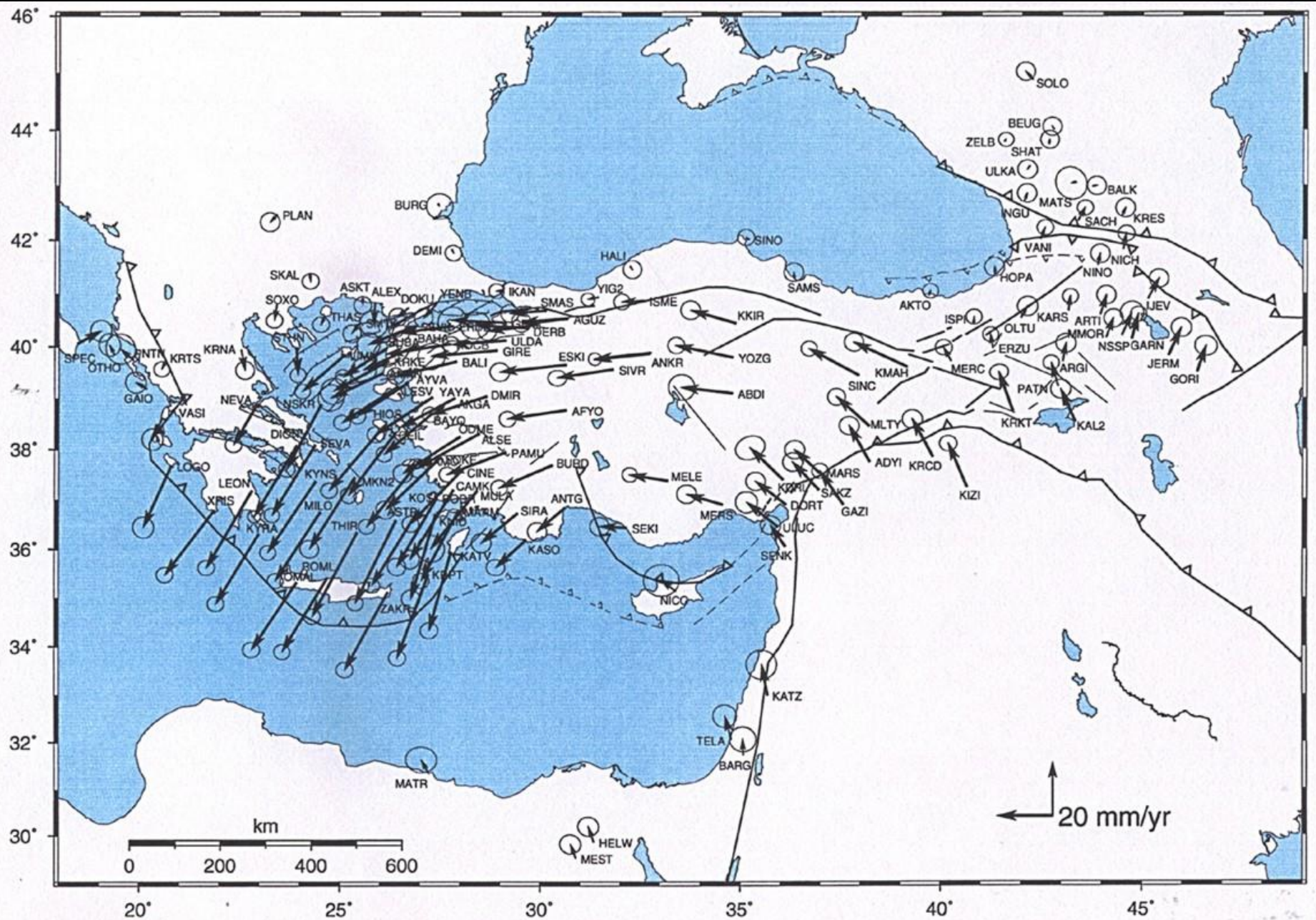
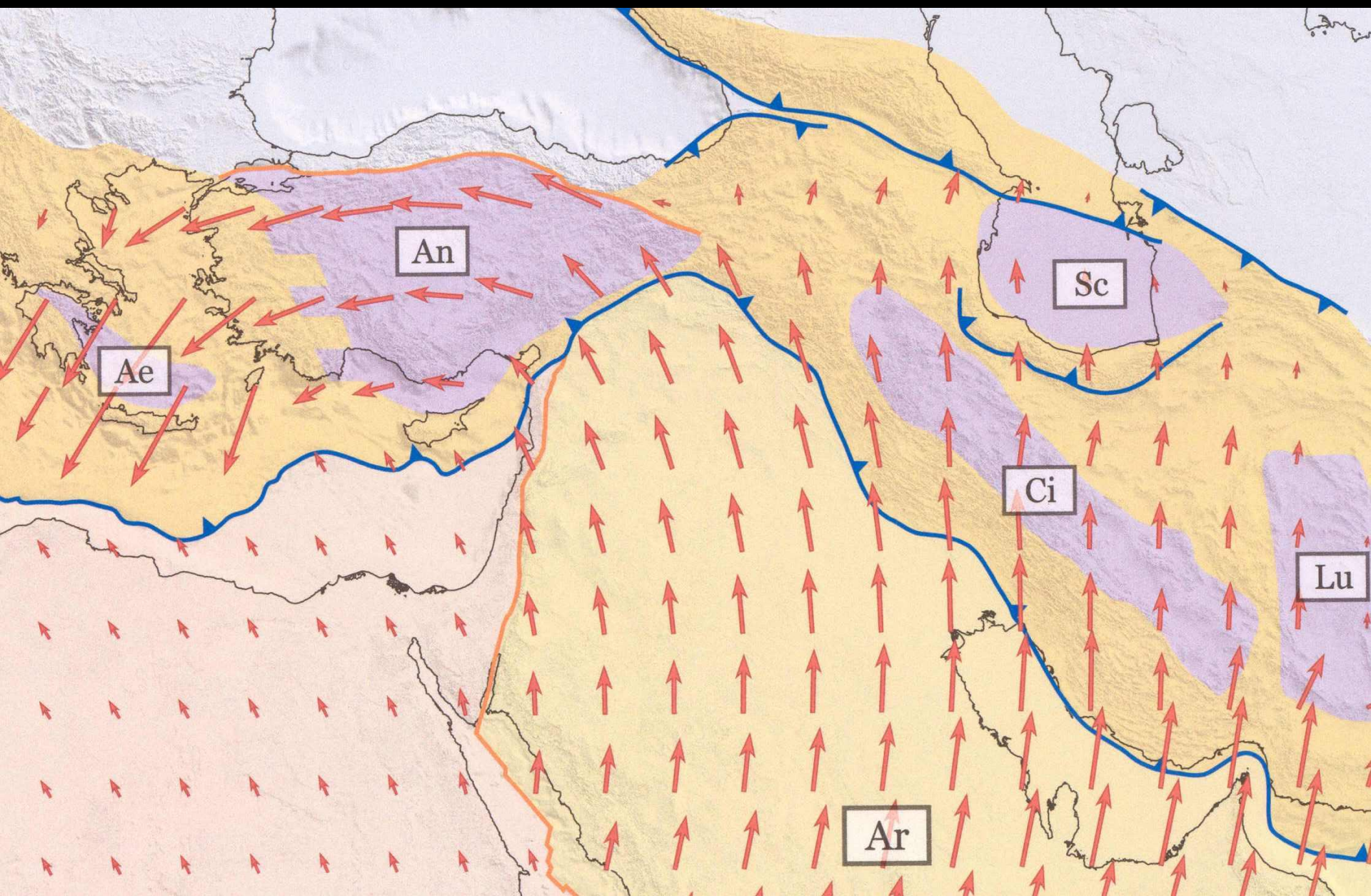


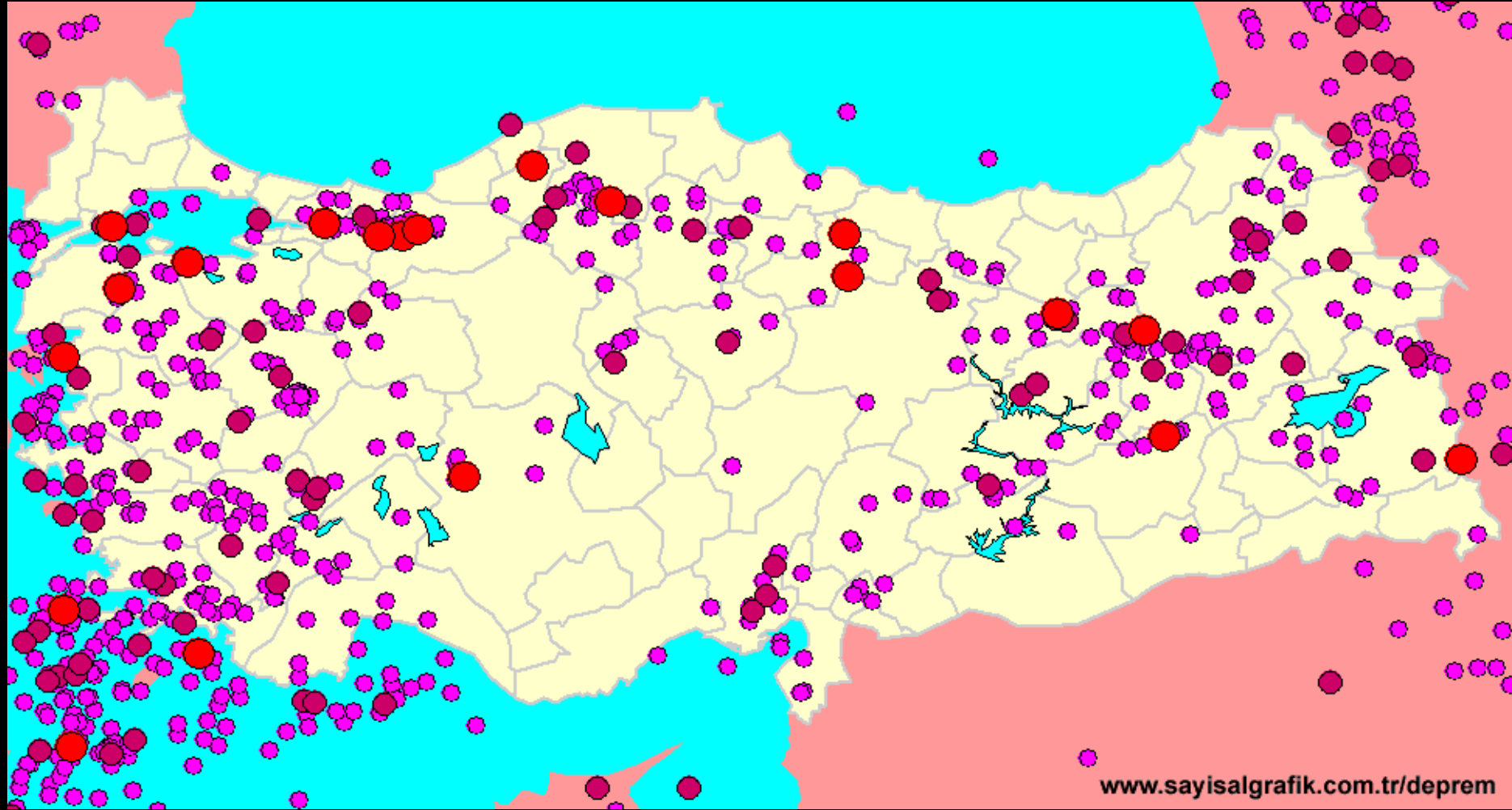
Türkiye'ye neotektonik ve Marmara Denizi











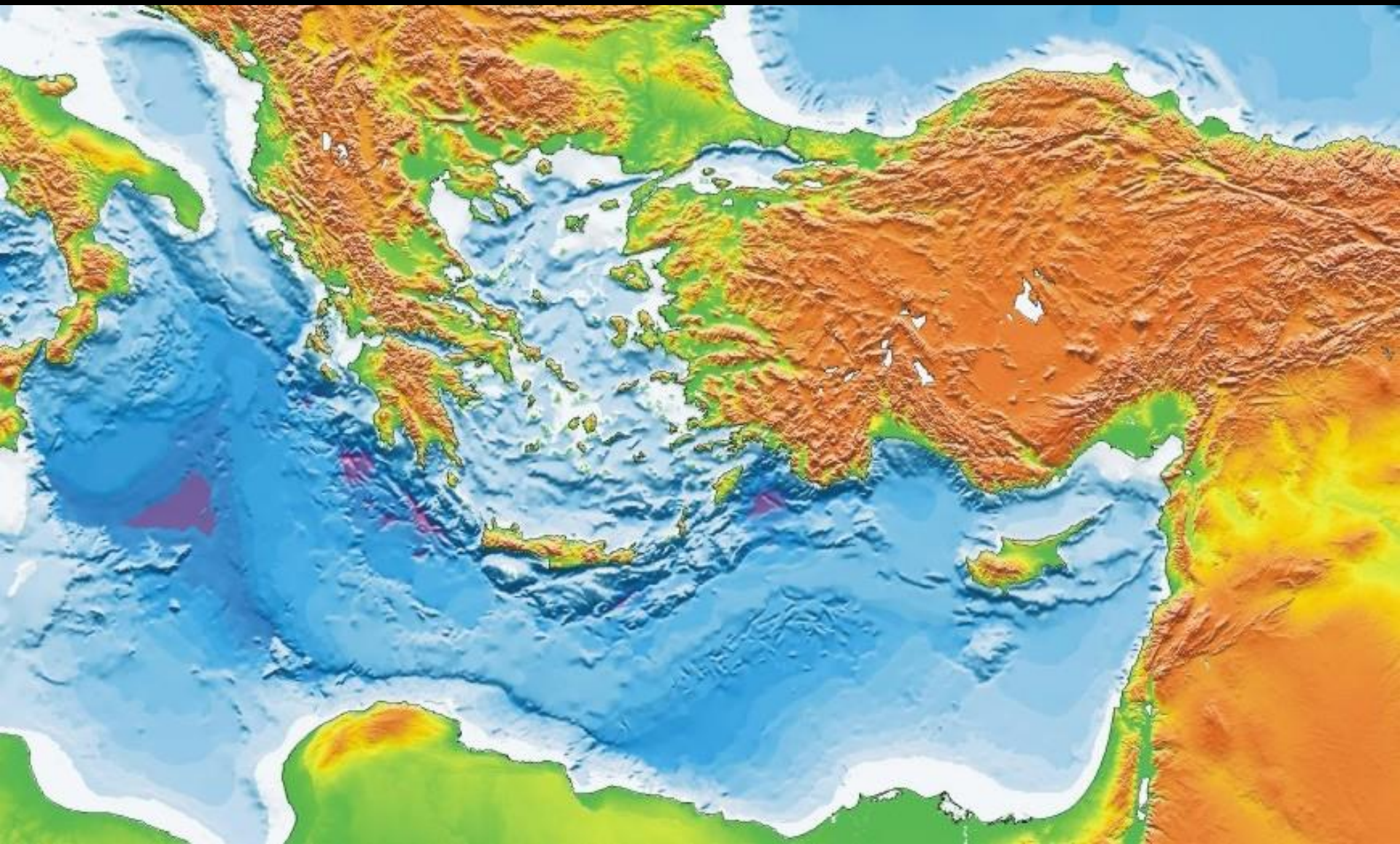




Image NASA
Image © 2007 DigitalGlobe
Image © 2007 TerraMetrics

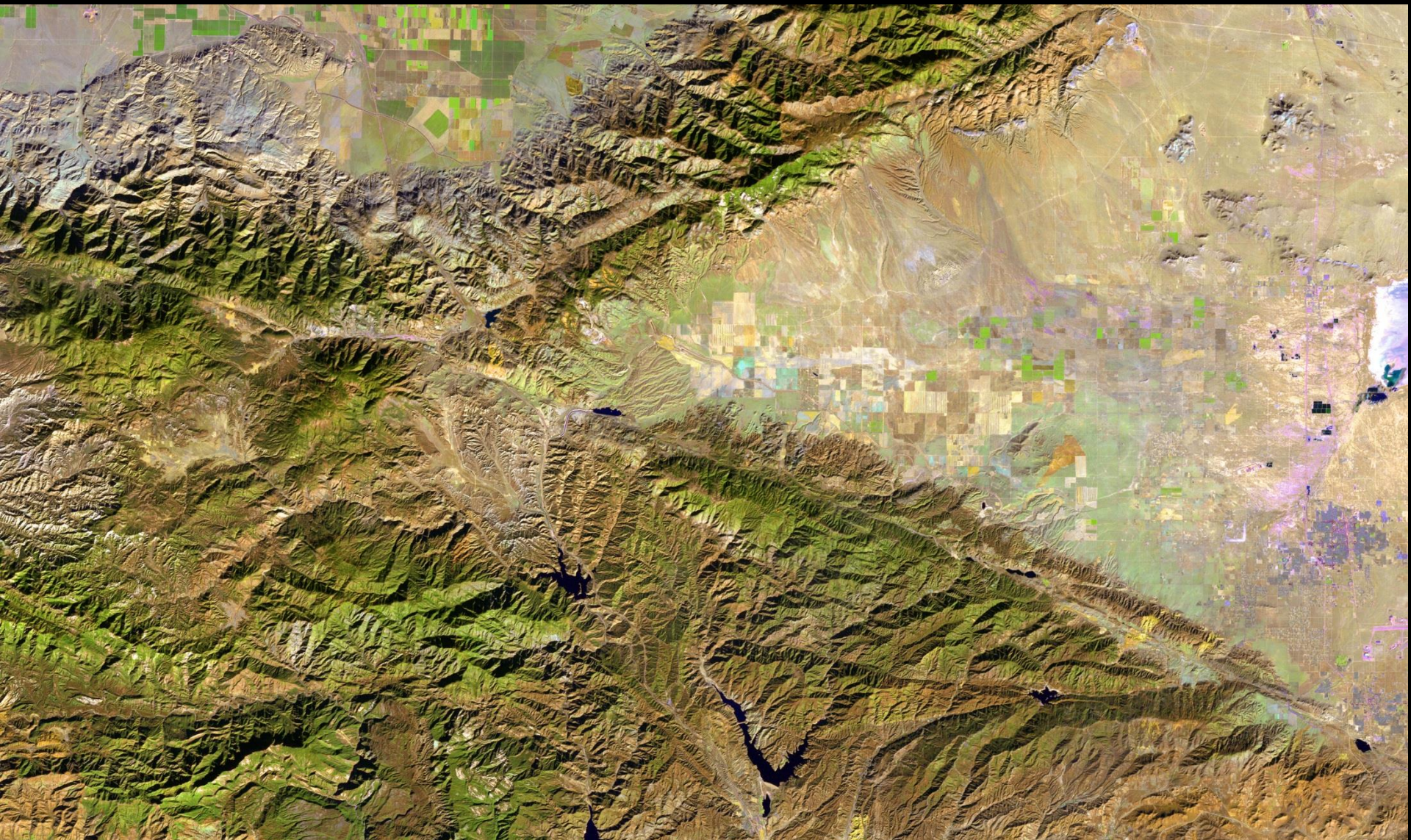
©2007 Google™

Pointer 40°40'15.77" N 27°04'42.53" E

Streaming ||||| 100%

Eye alt 40.84 km

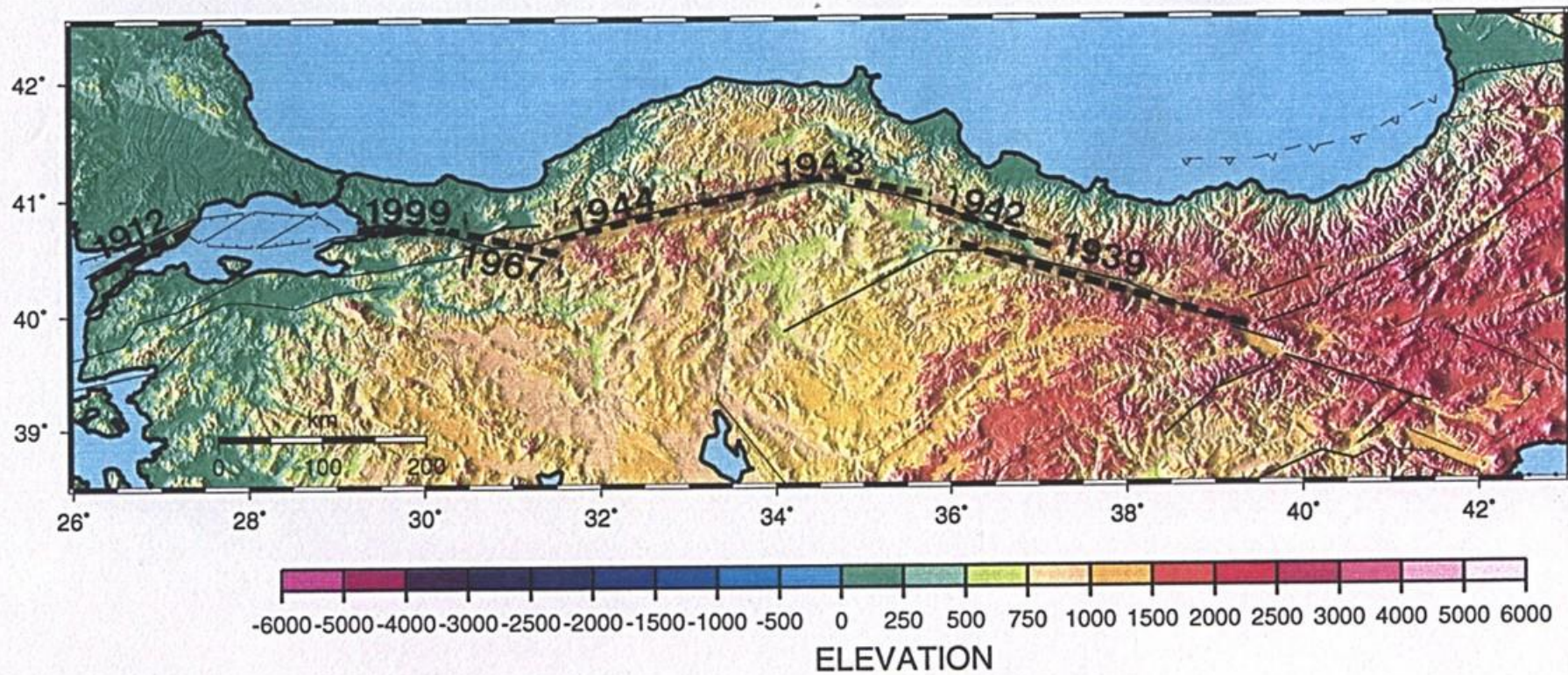


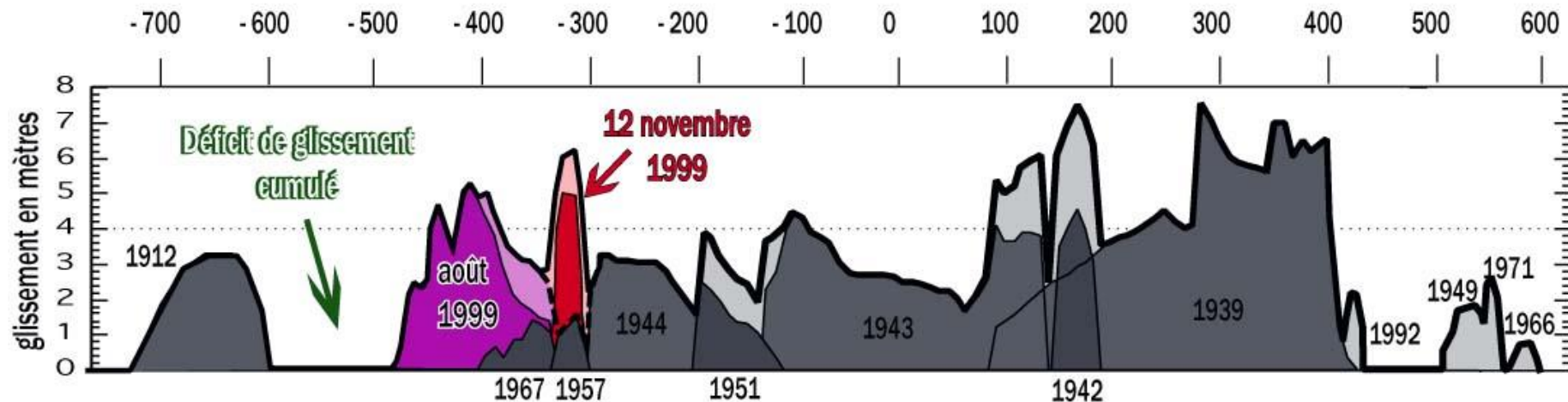










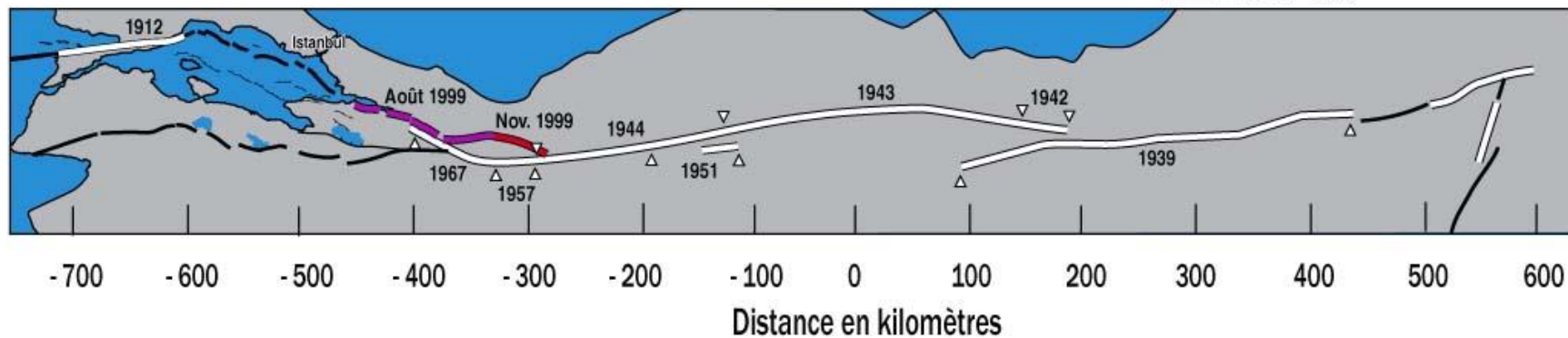


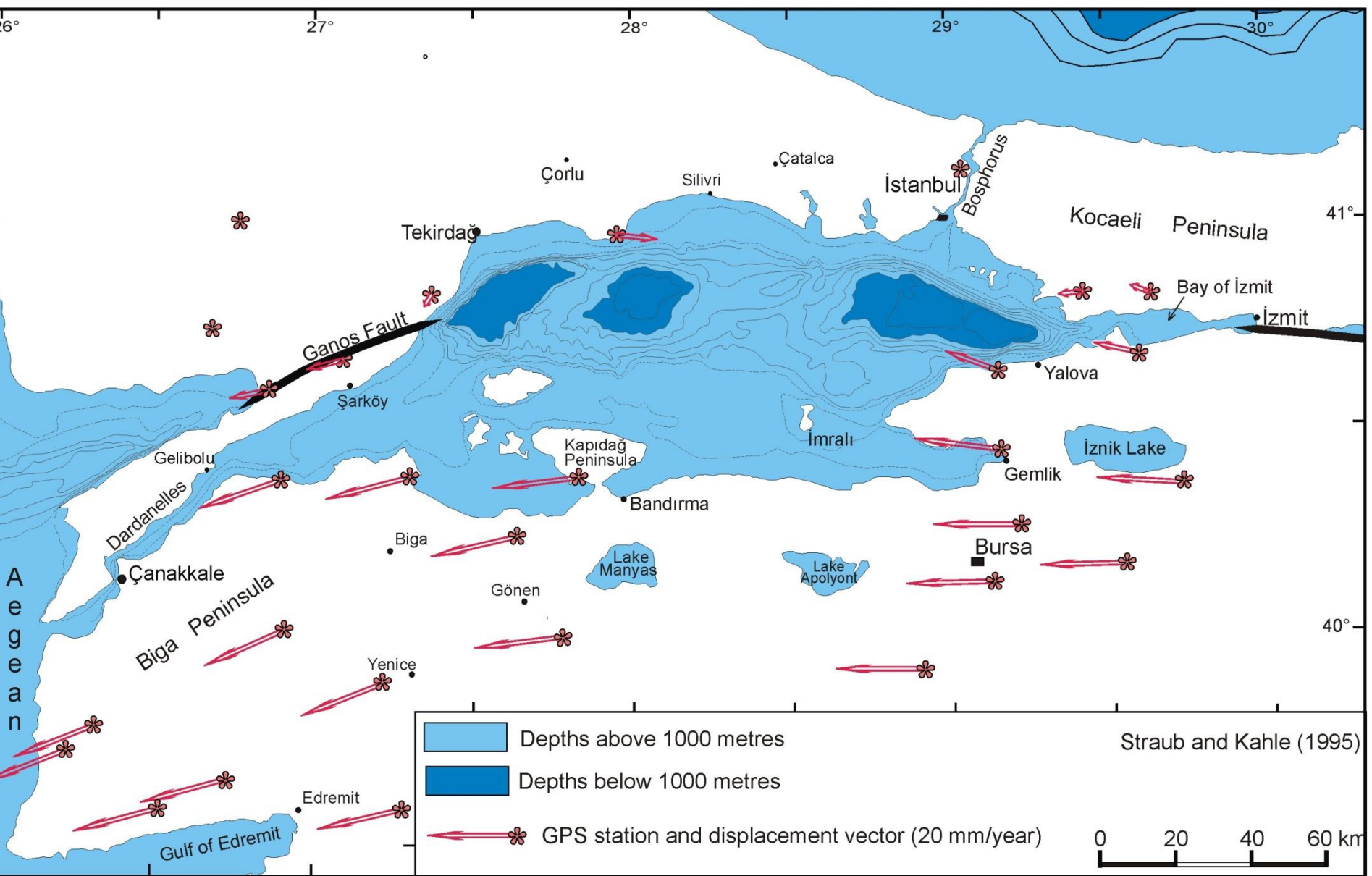
— Pas de ruptures ce siècle

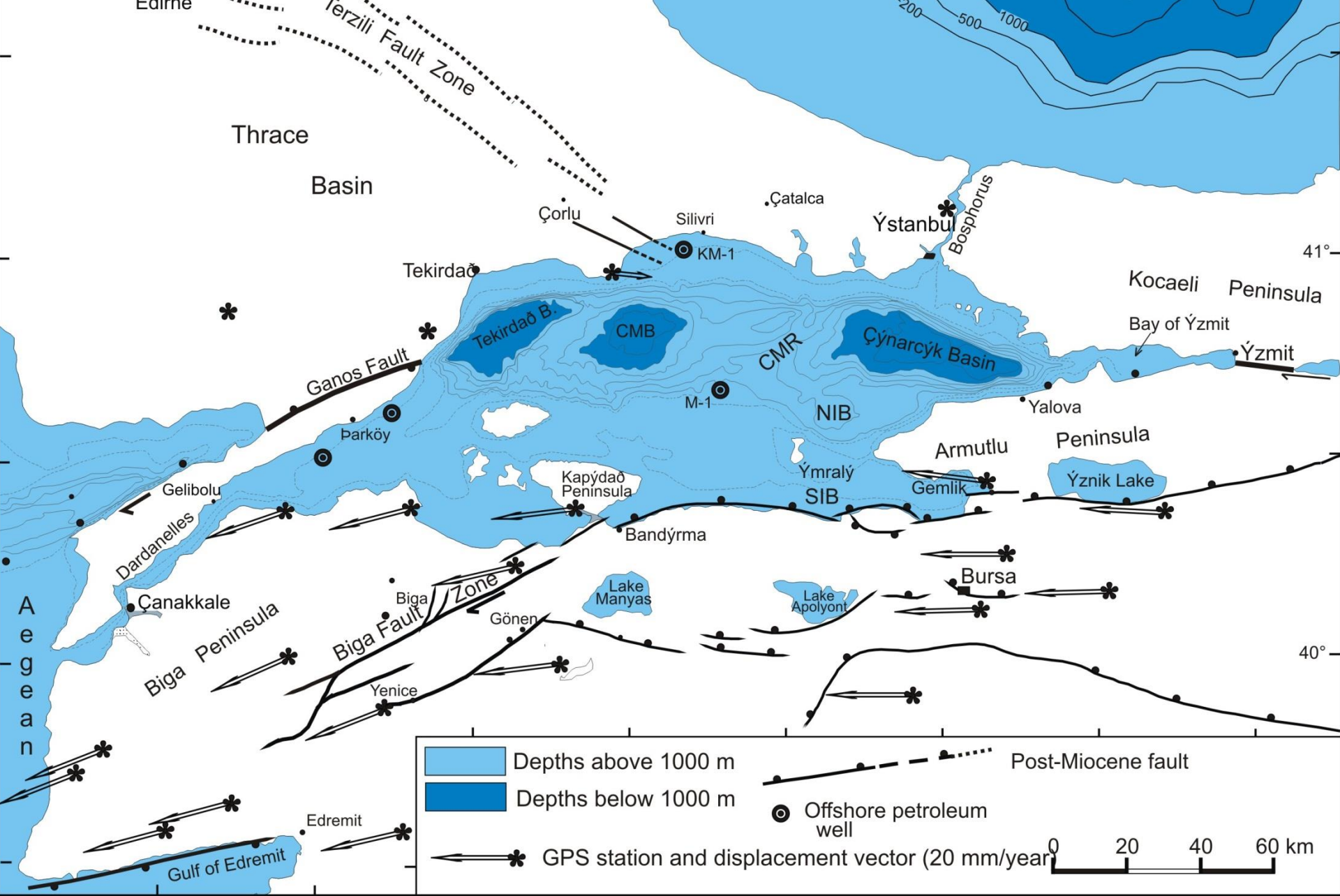
— séquence 1900-1998

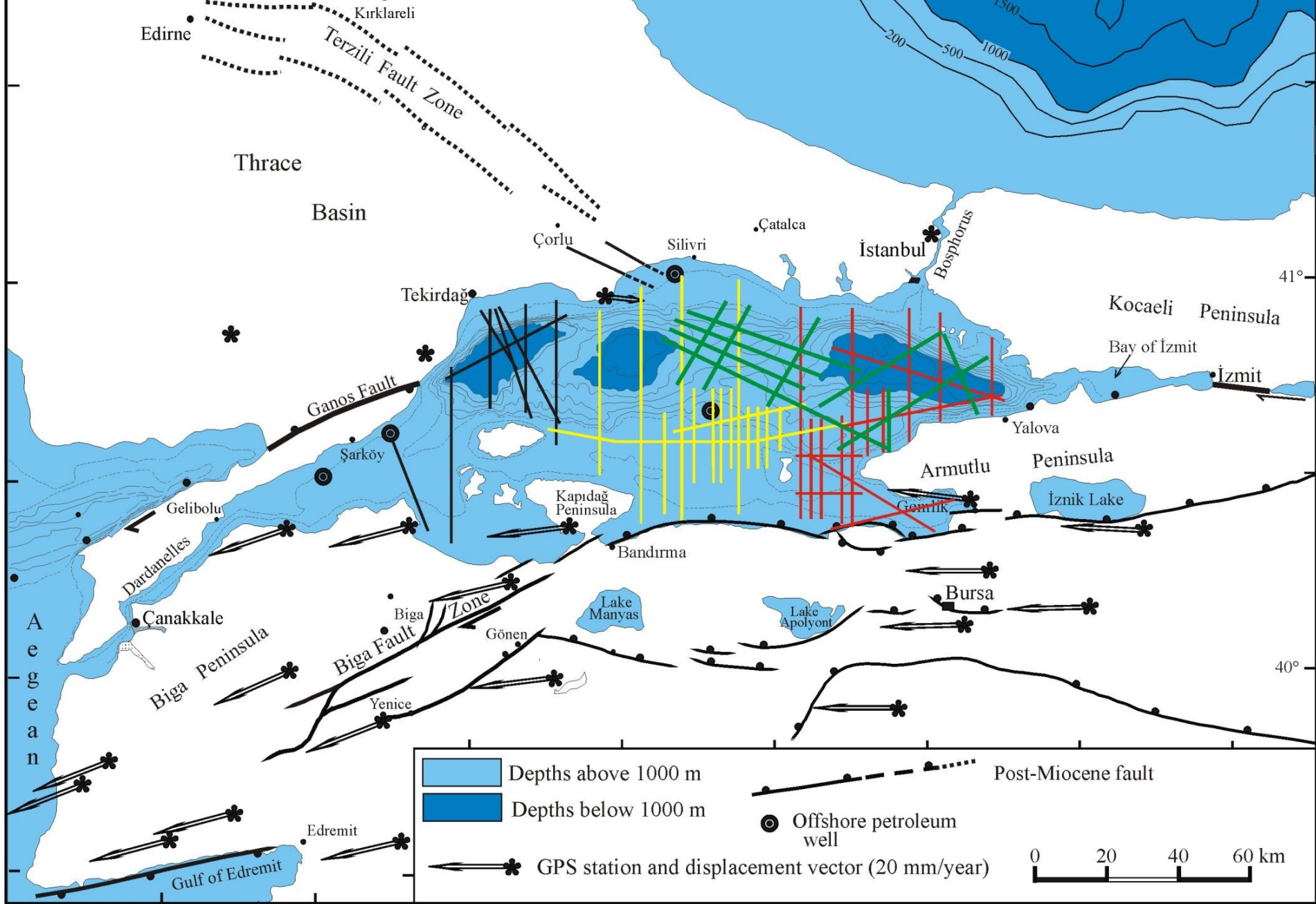
— 17 08 1999

— 12 11 1999









Survey vessel



Source



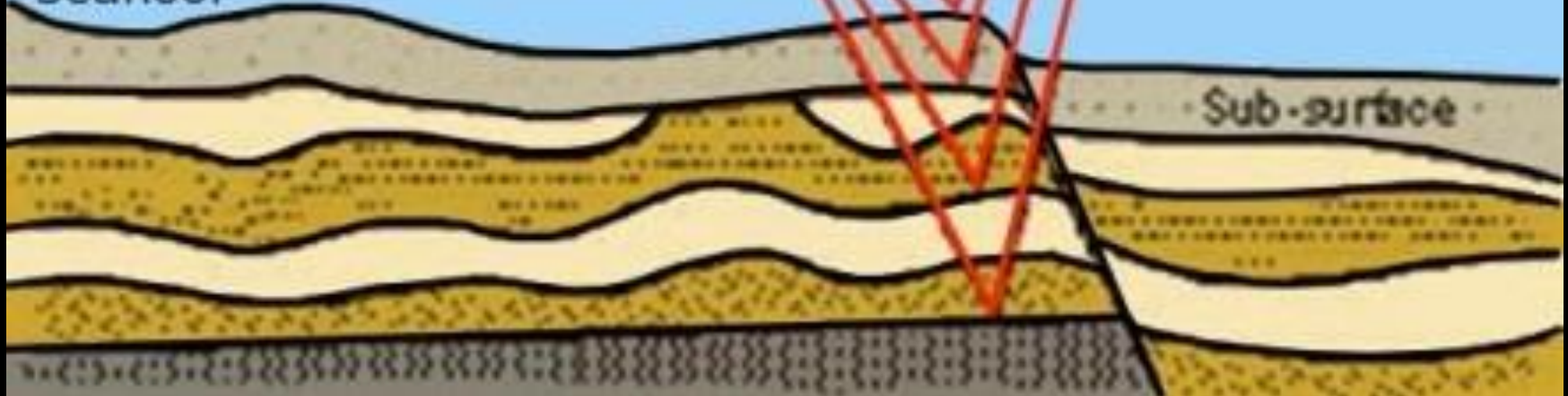
Receiver

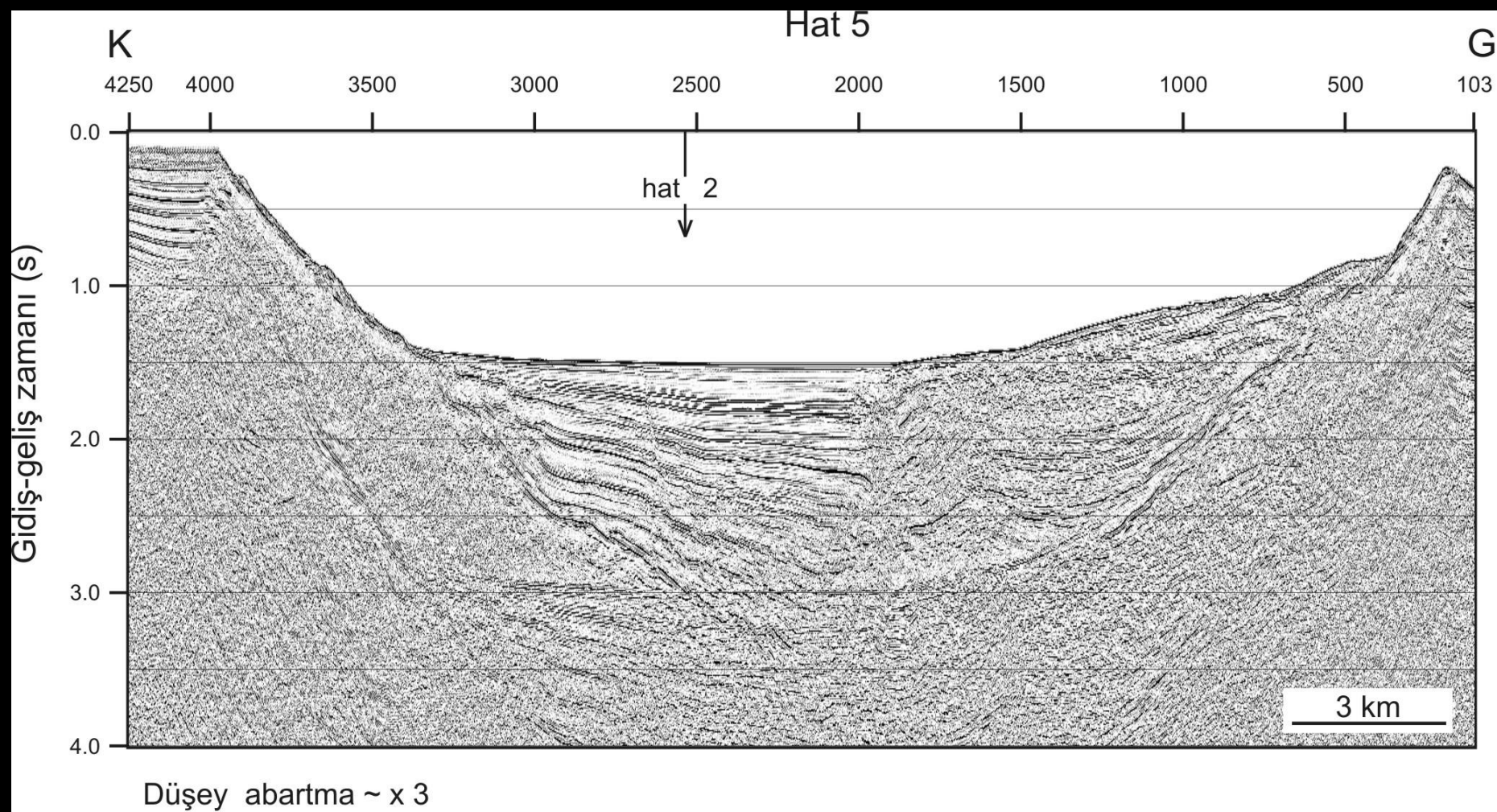


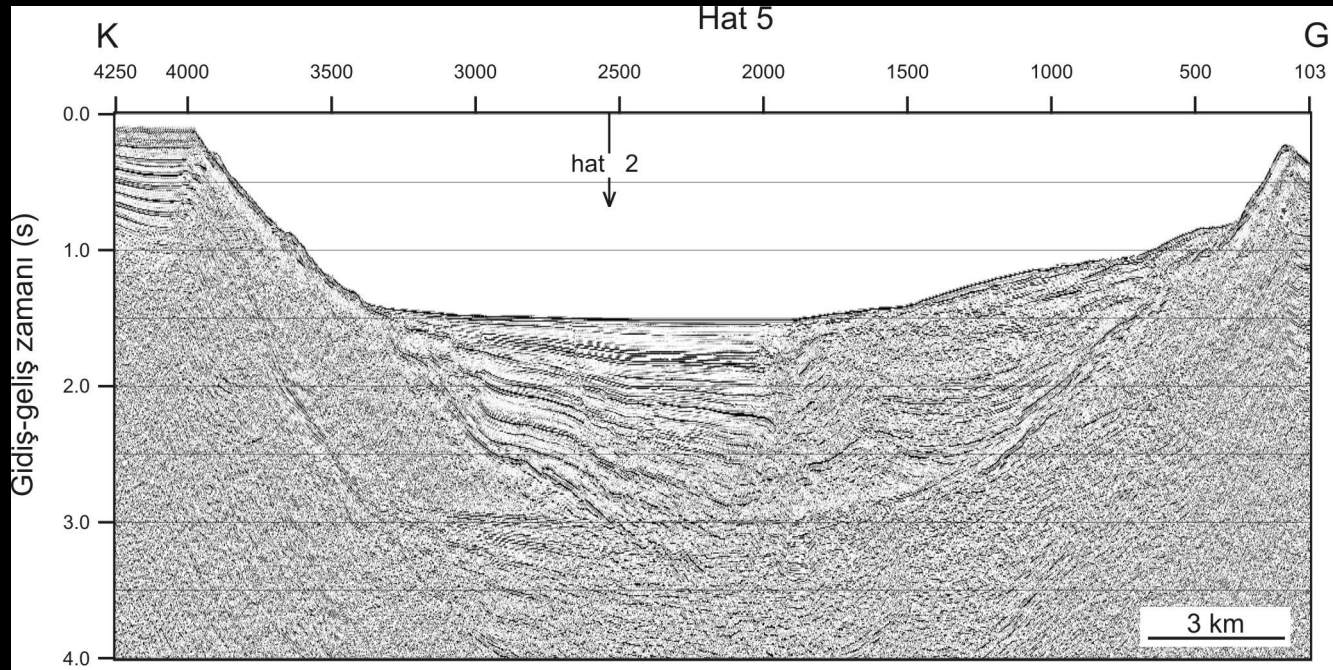
Acoustic wave paths

Seafloor

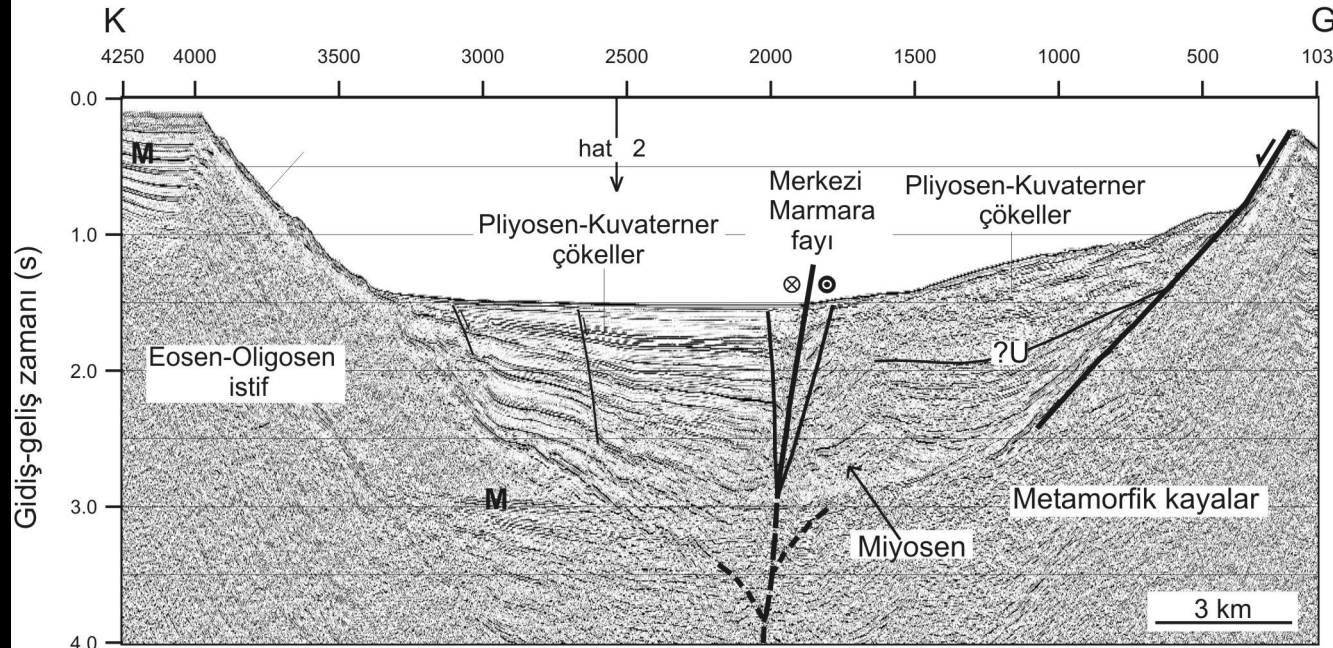
Sub-surface

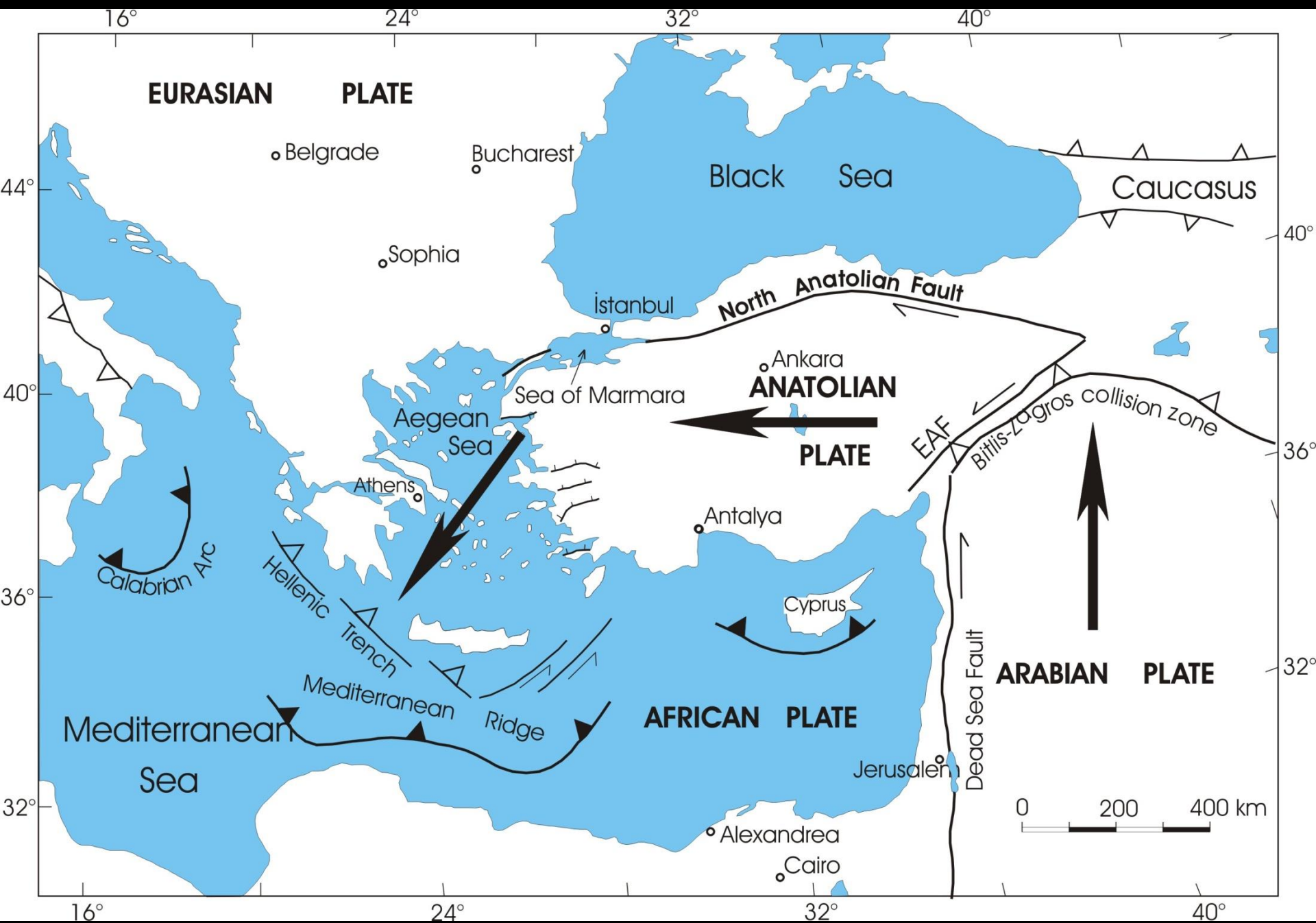


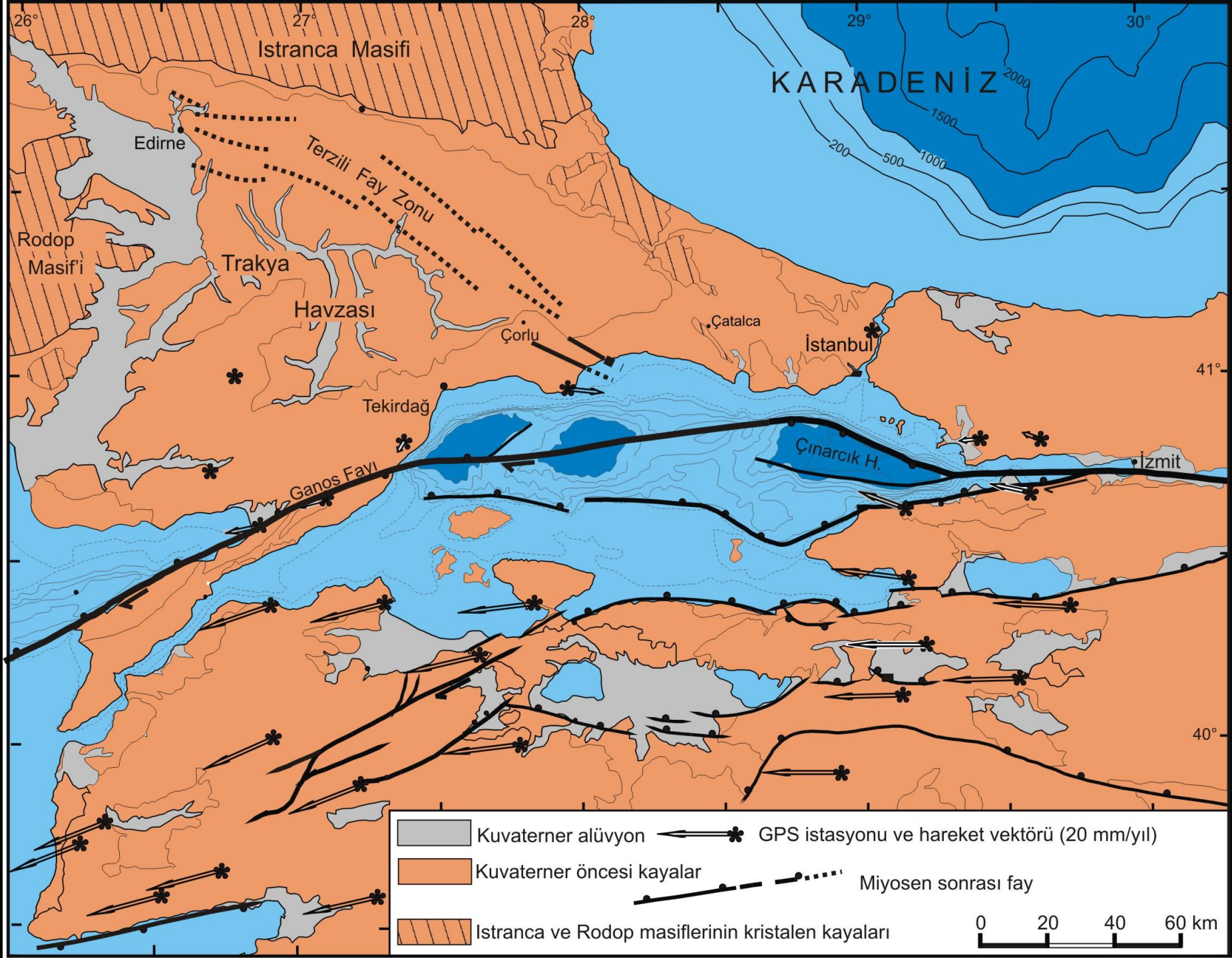


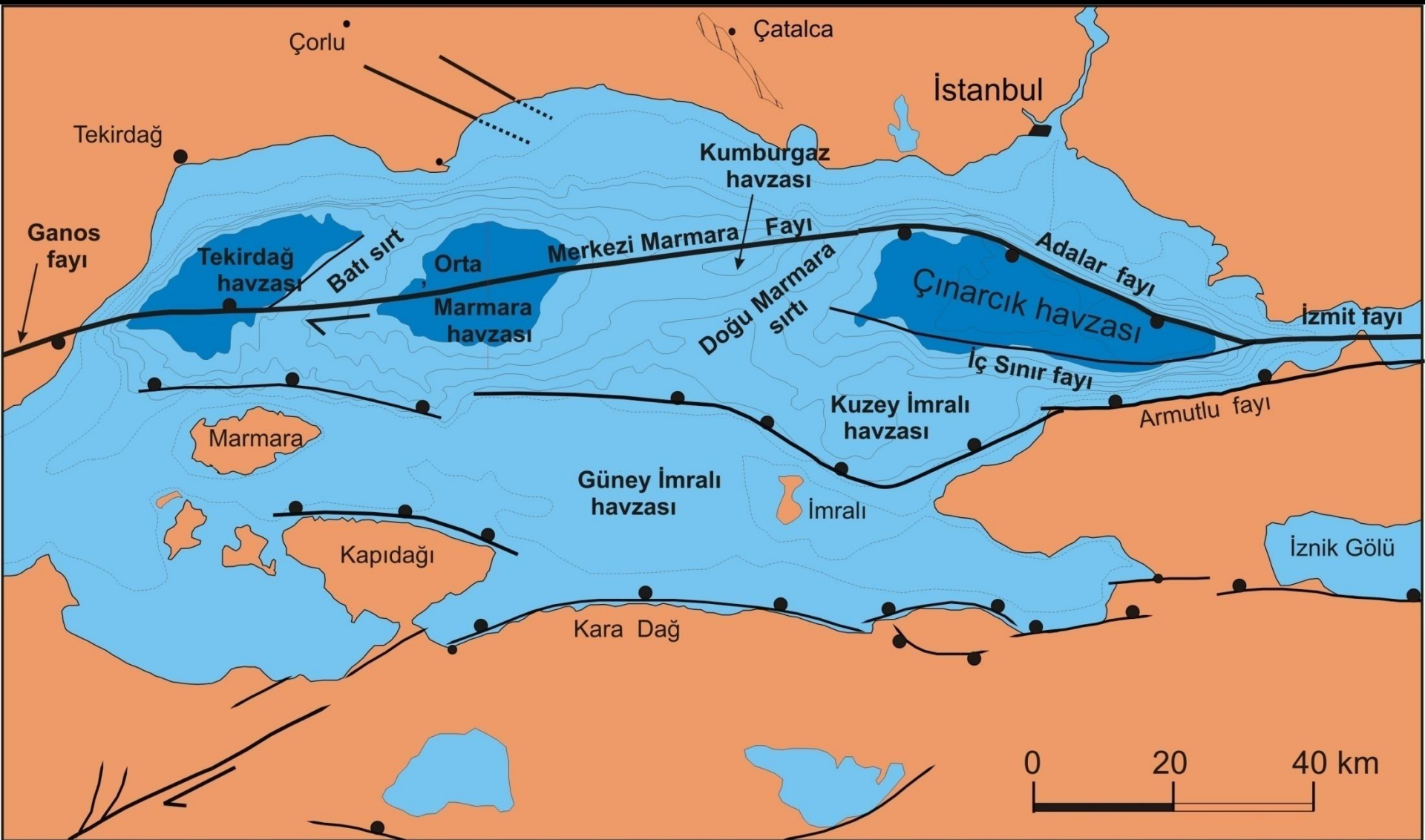


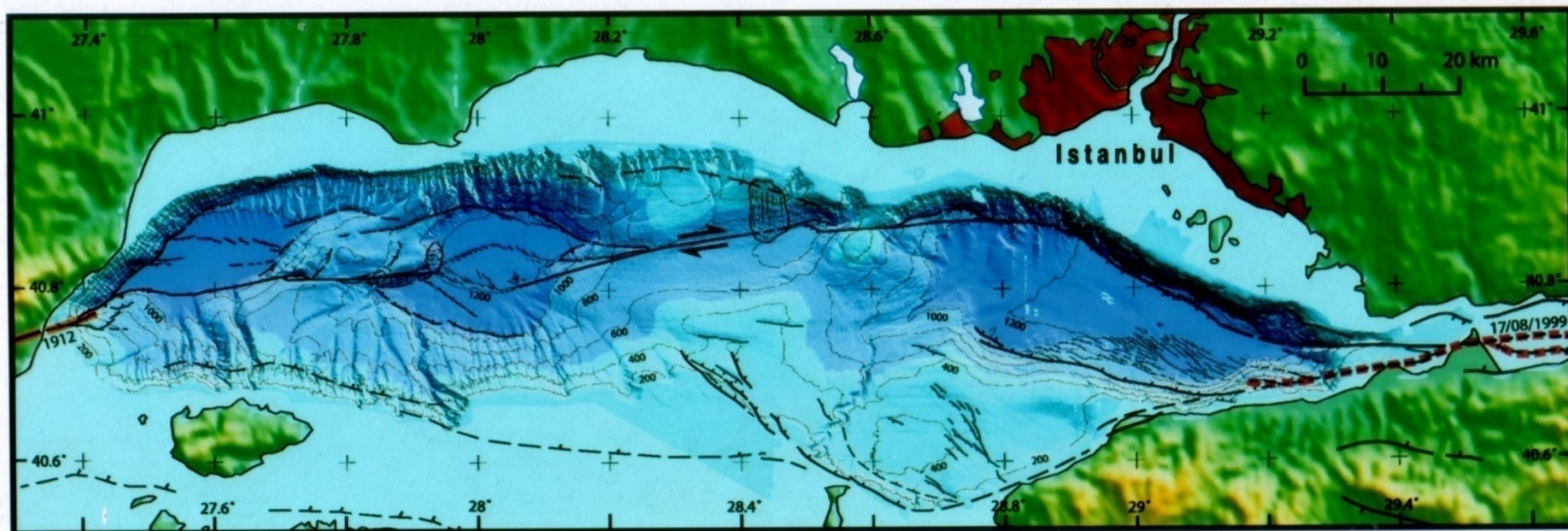
Düşey abartma ~ x 3











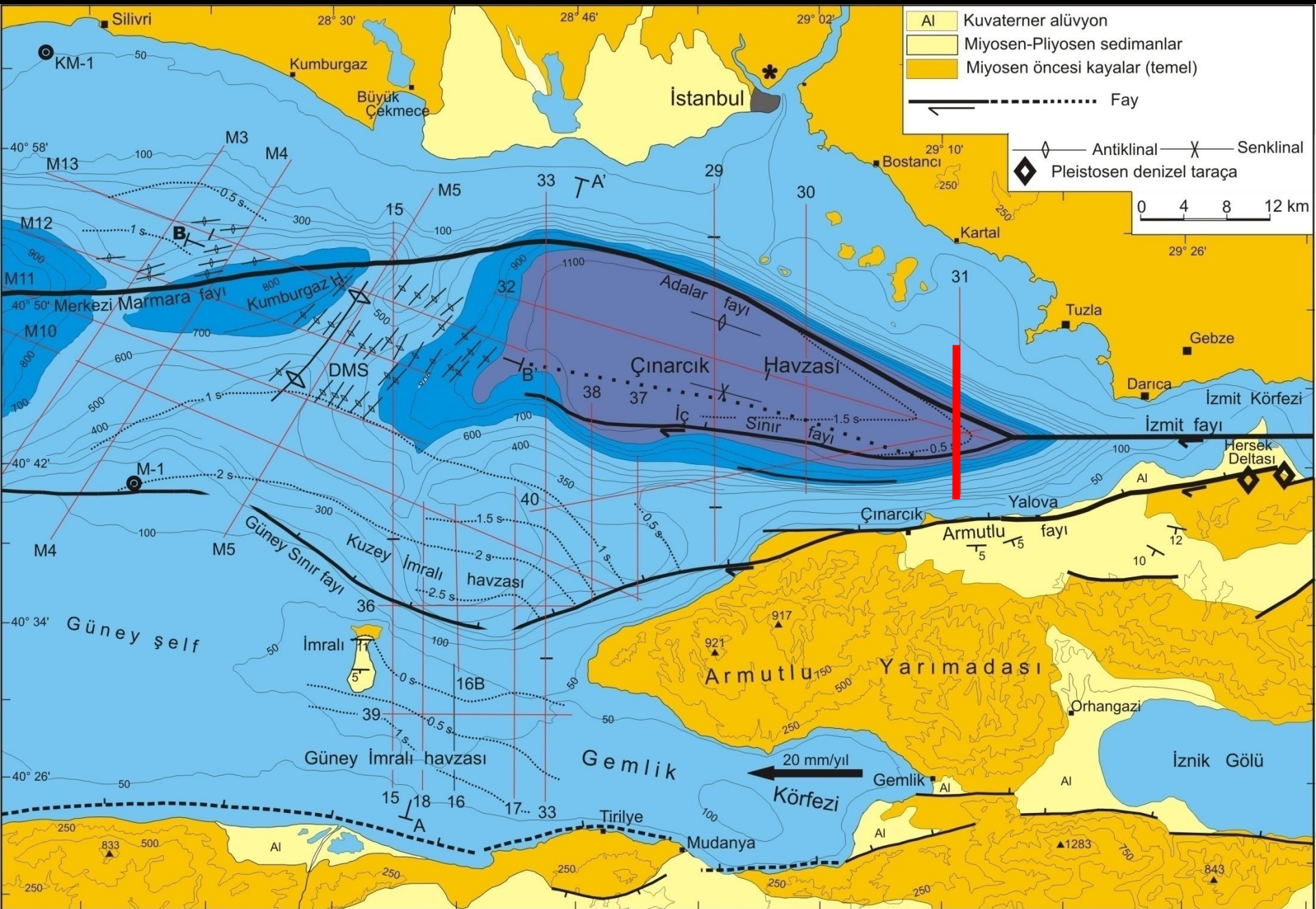
Faults

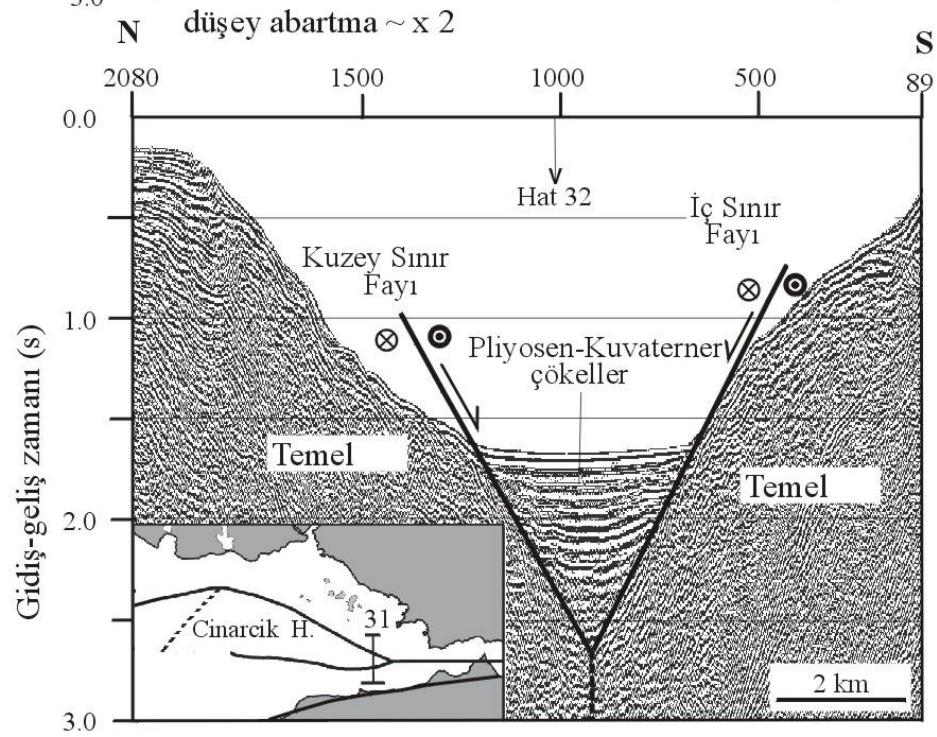
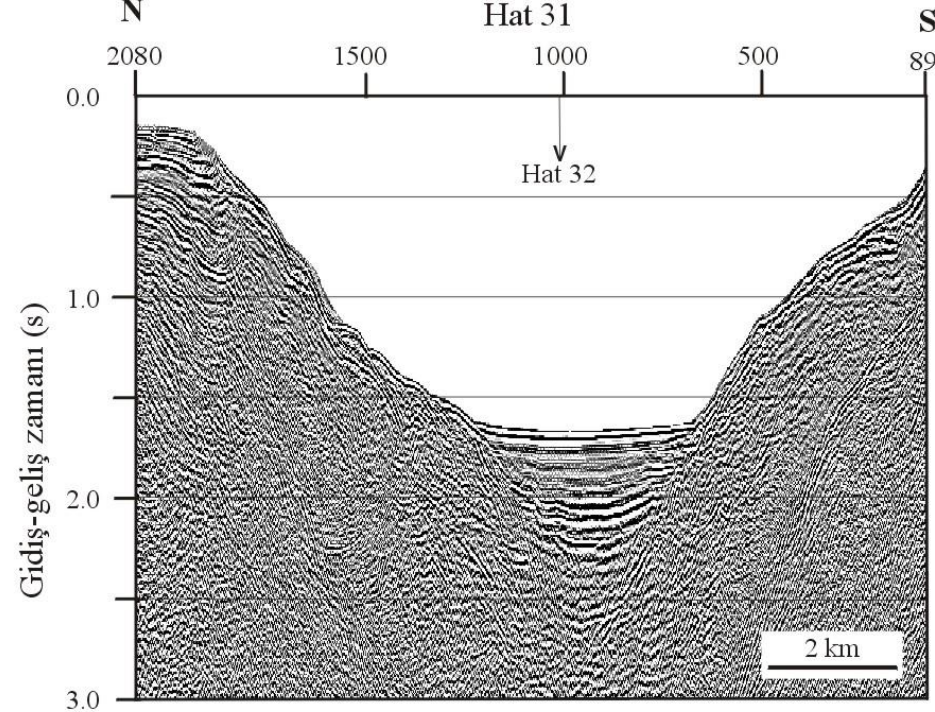
- thrust
- strike slip
- normal

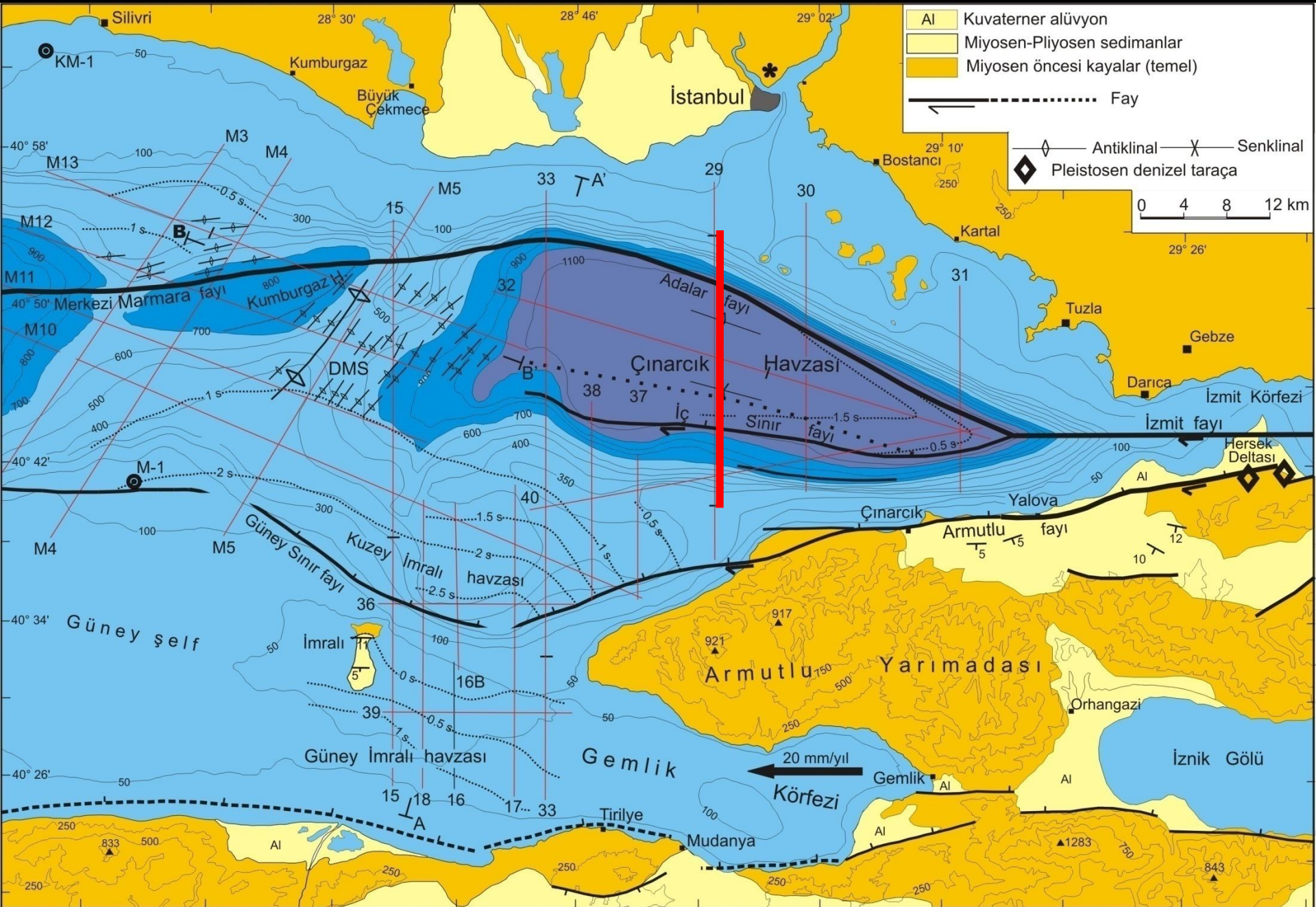
Earthquake rupture ends

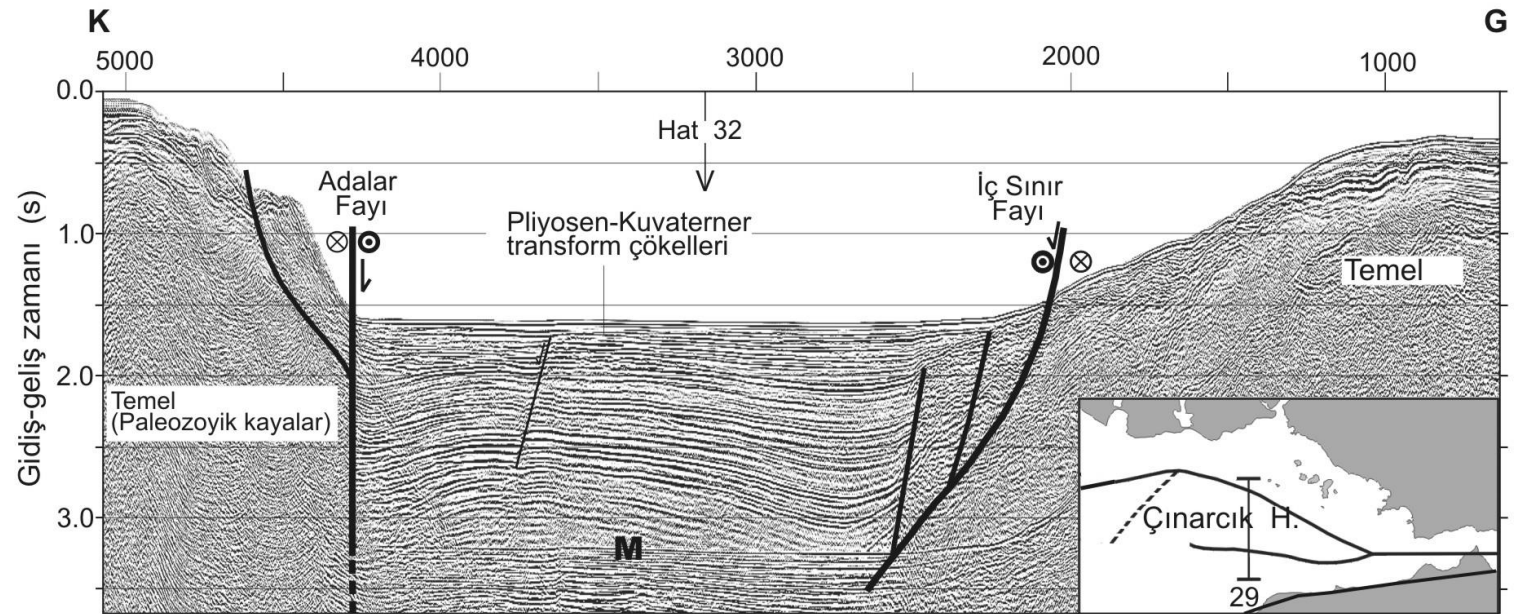
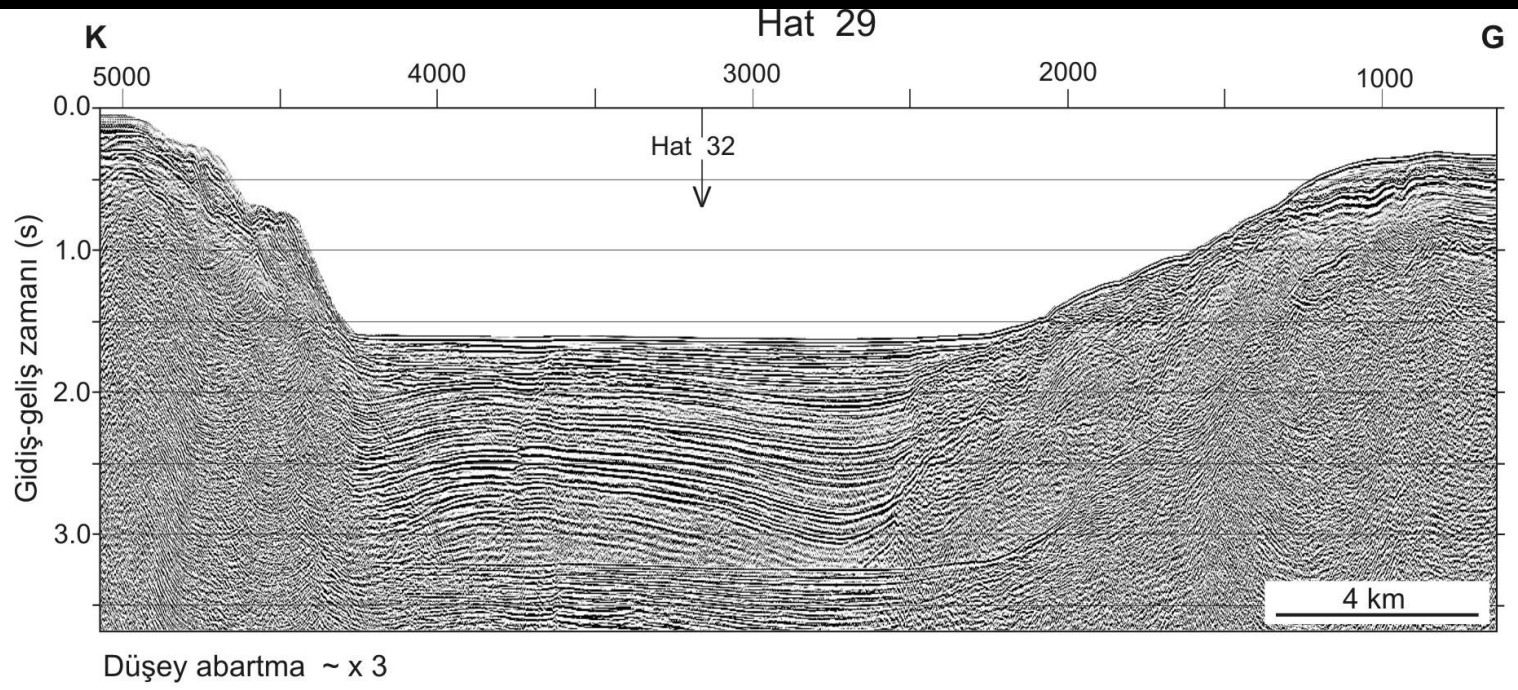
- 1912
- 17/08/1999

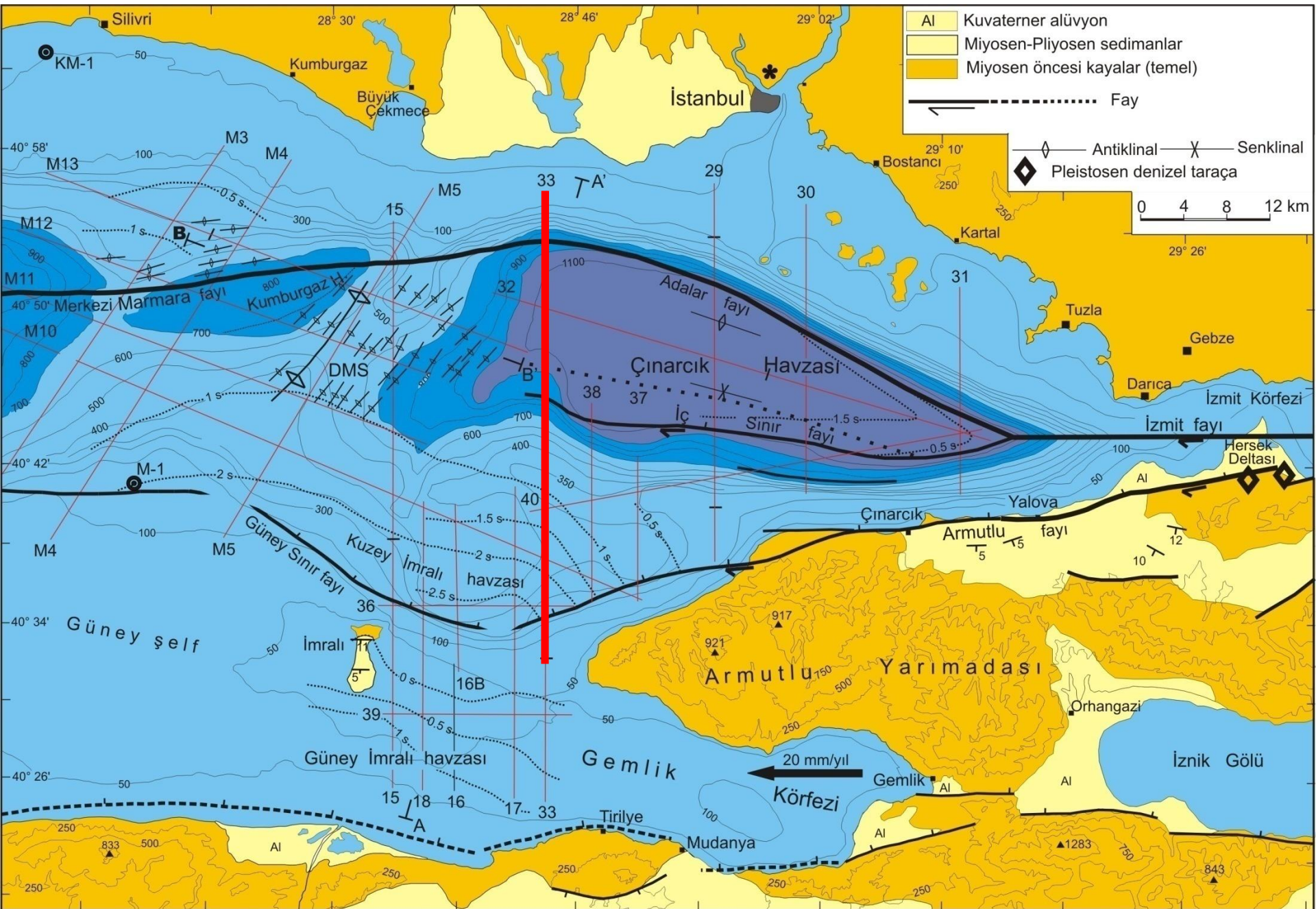
landslide

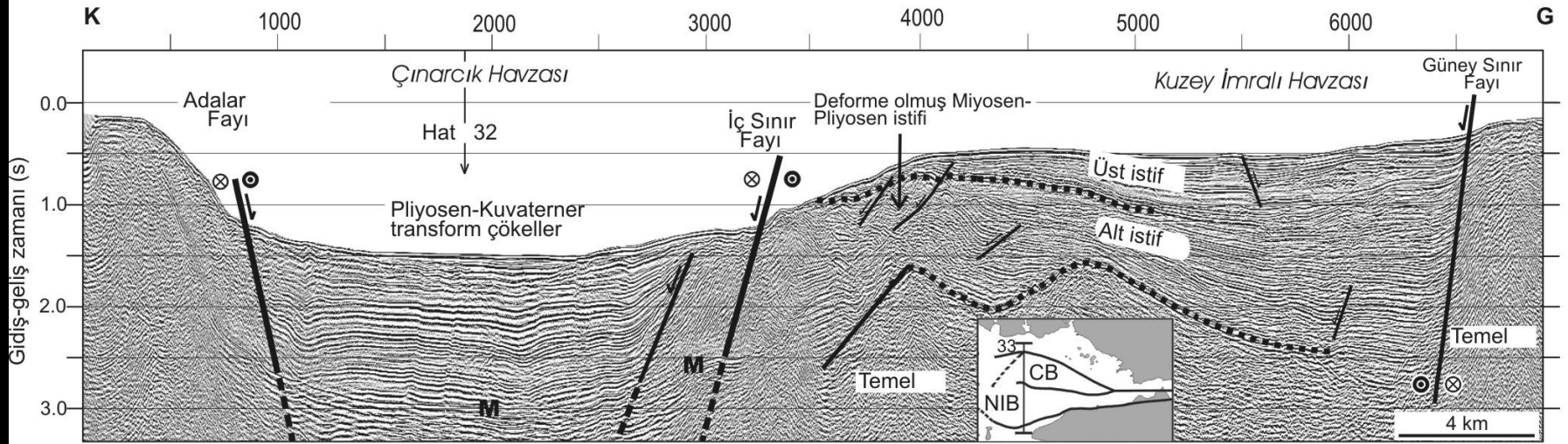
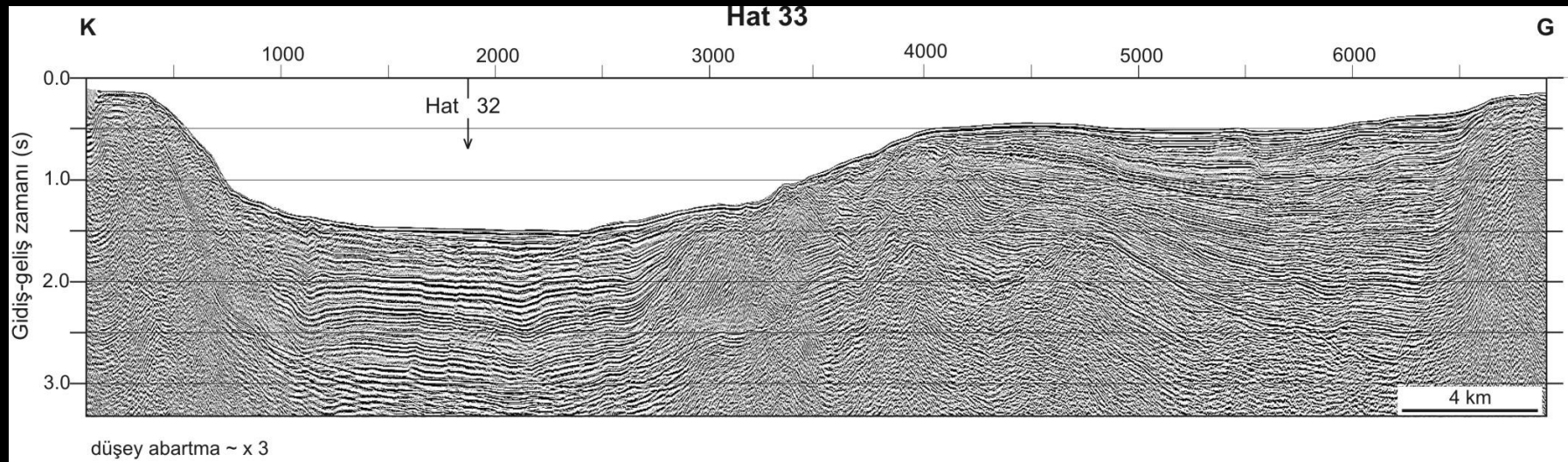


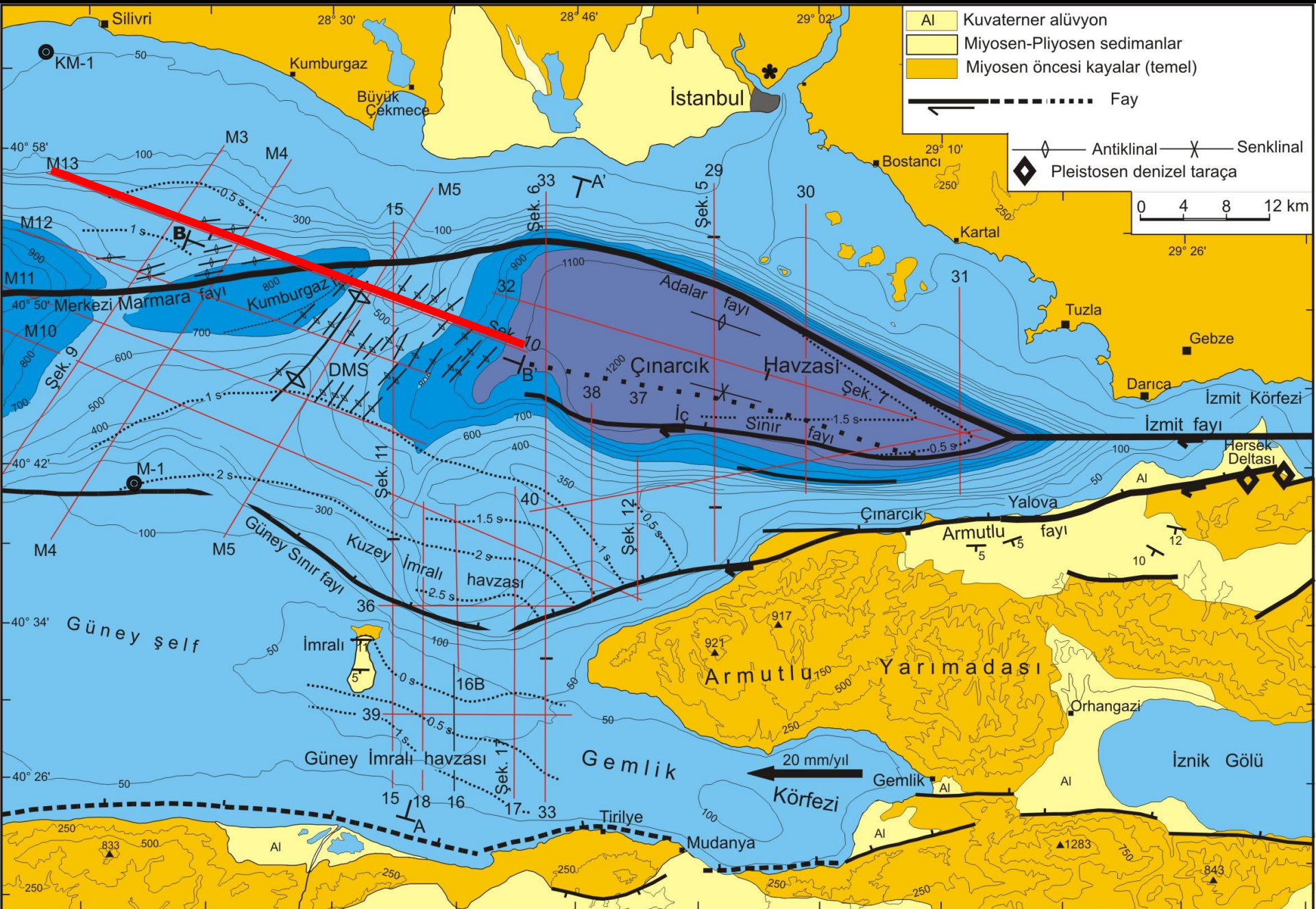


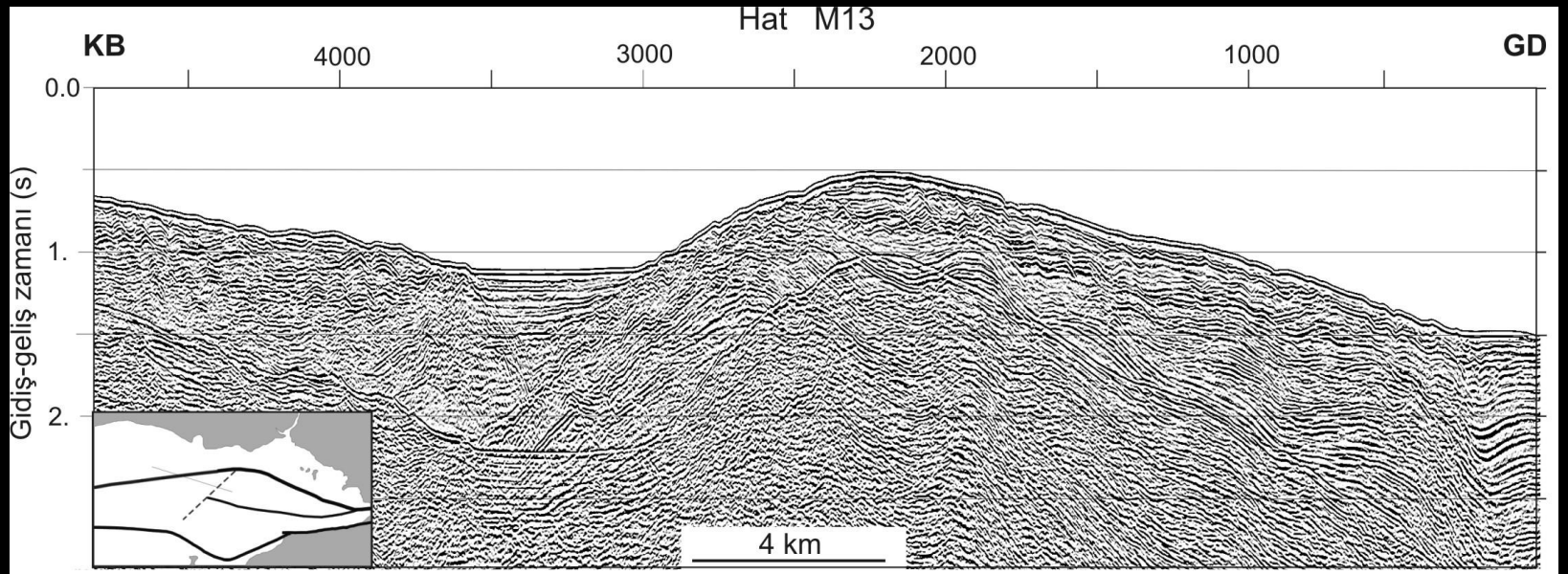




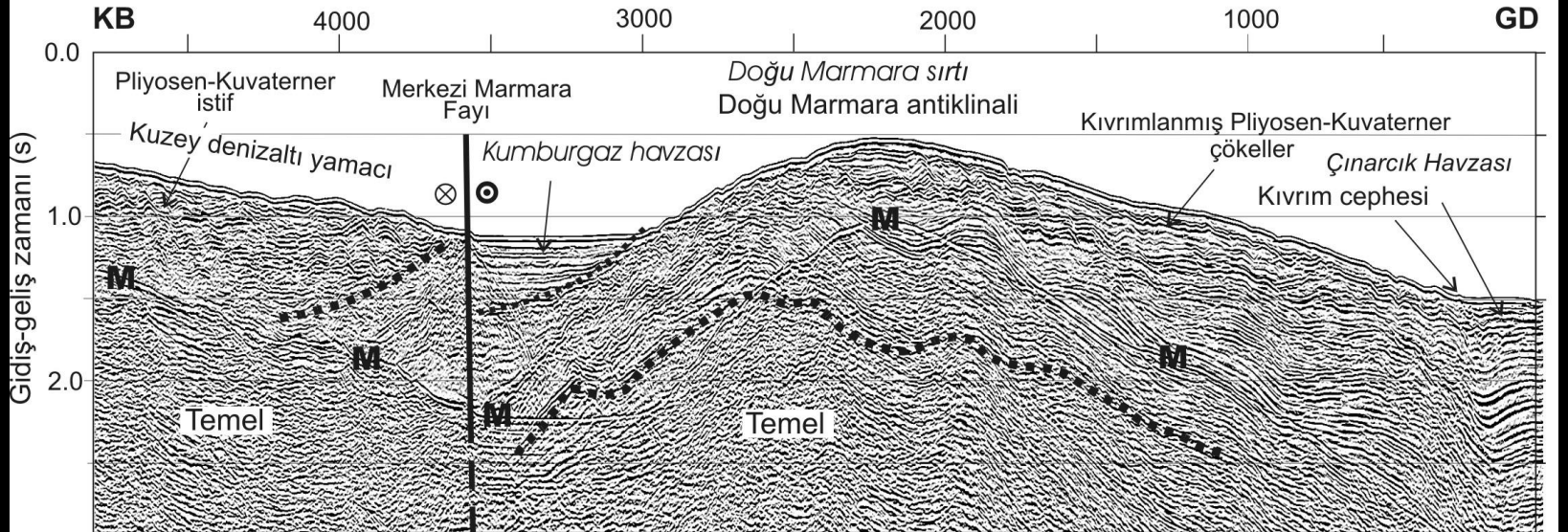


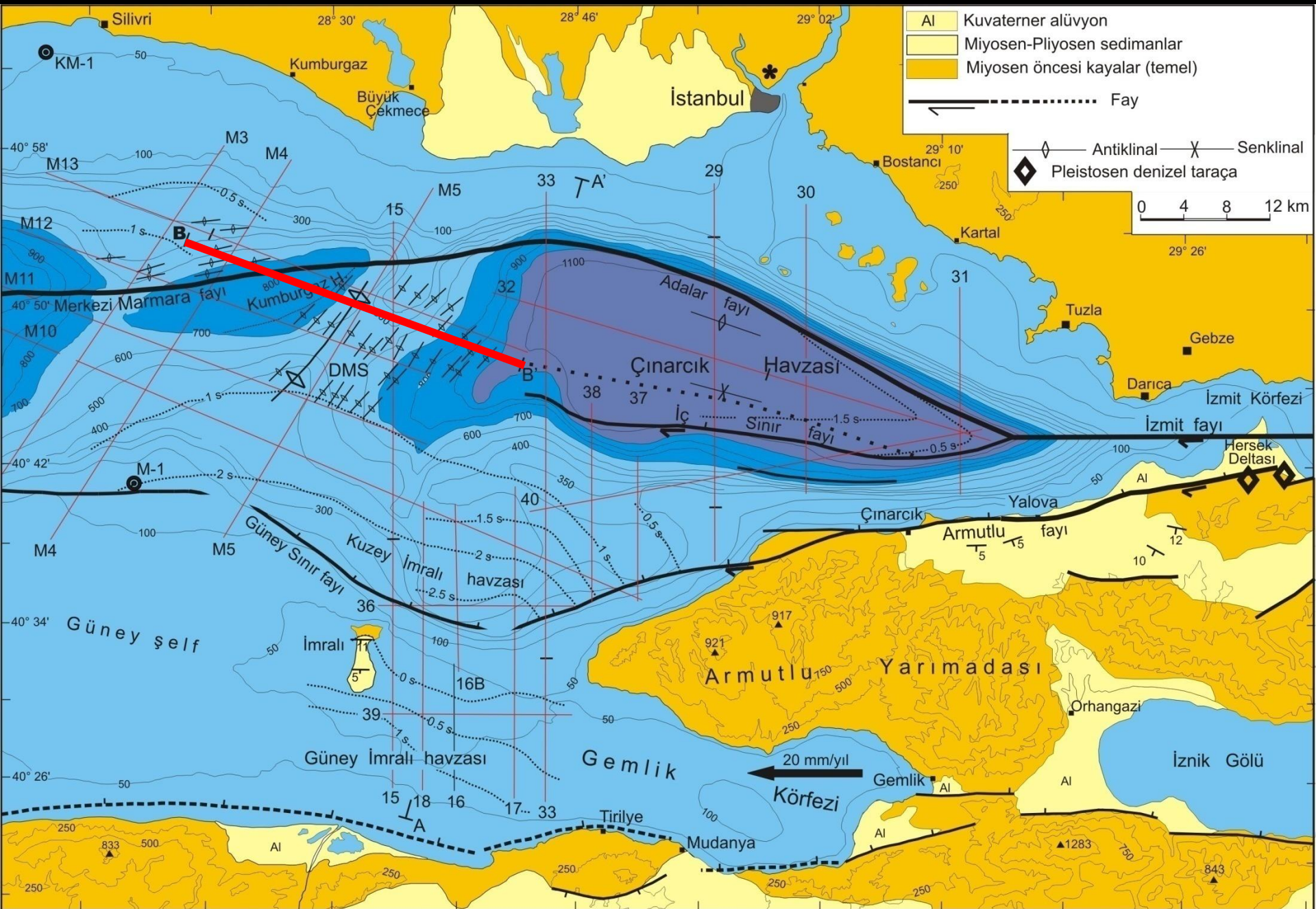


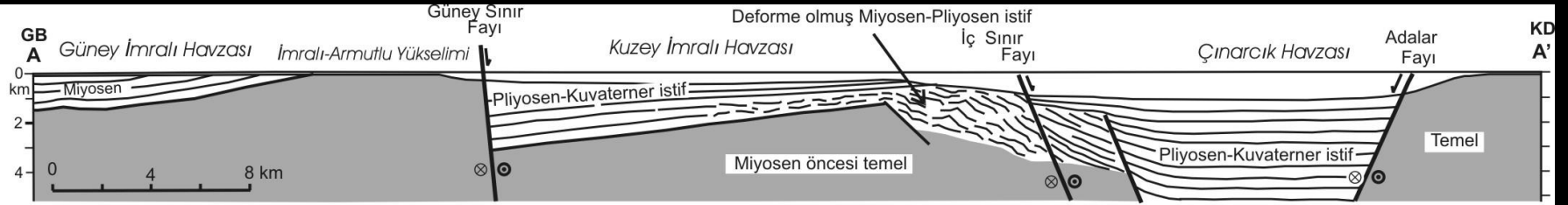




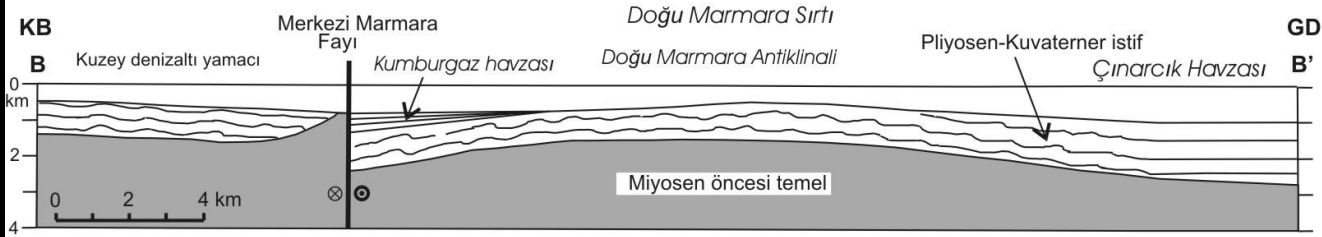
düşey abartma ~ x 3



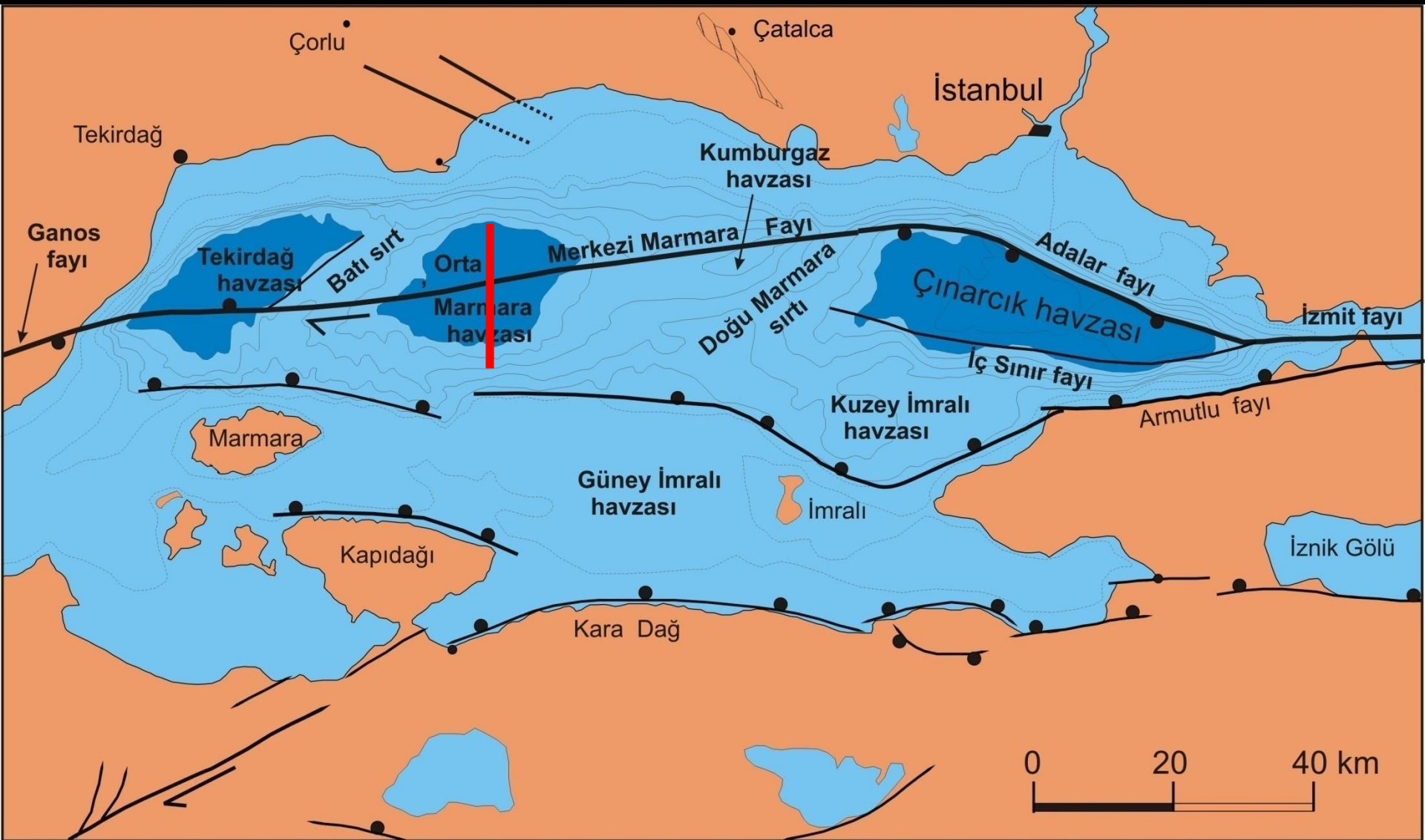




(a)



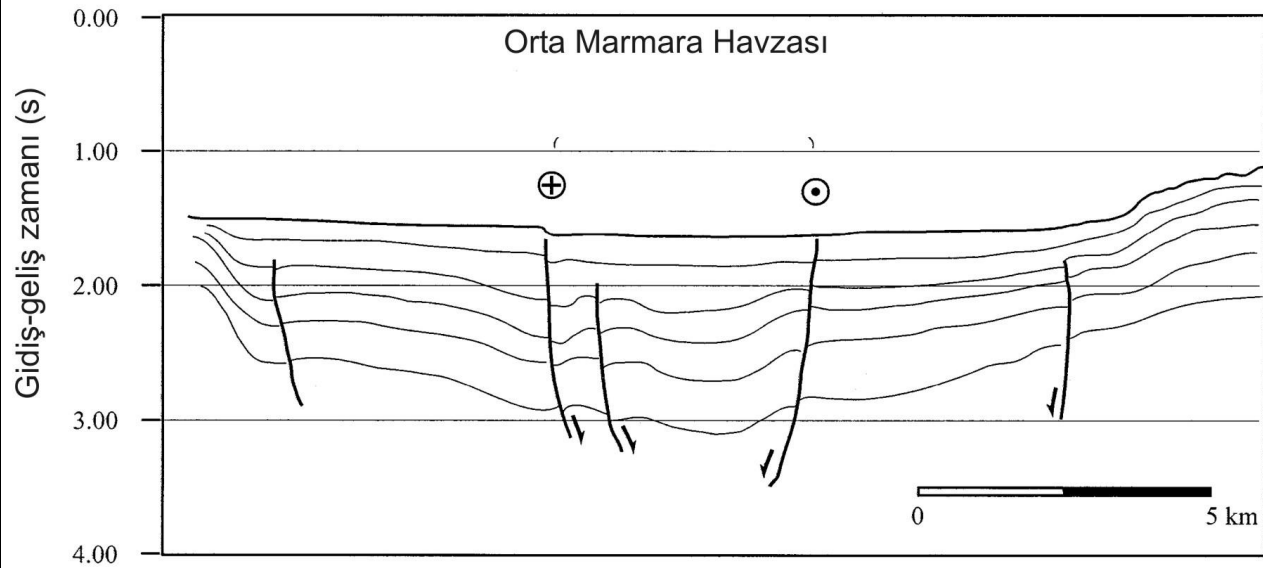
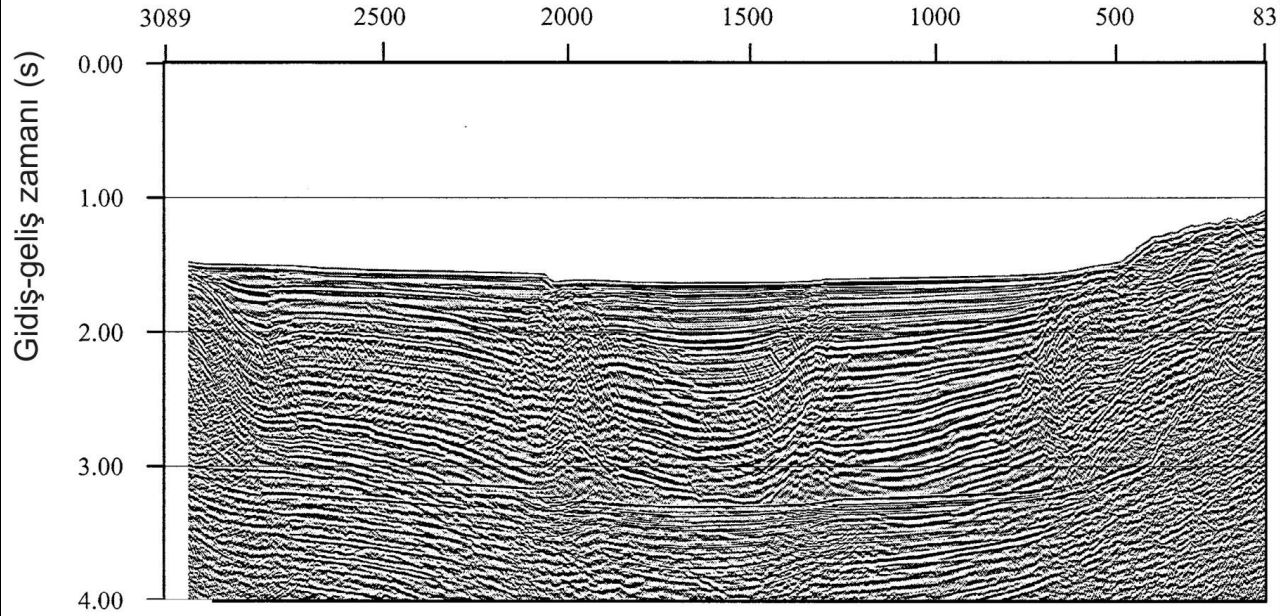
(b)

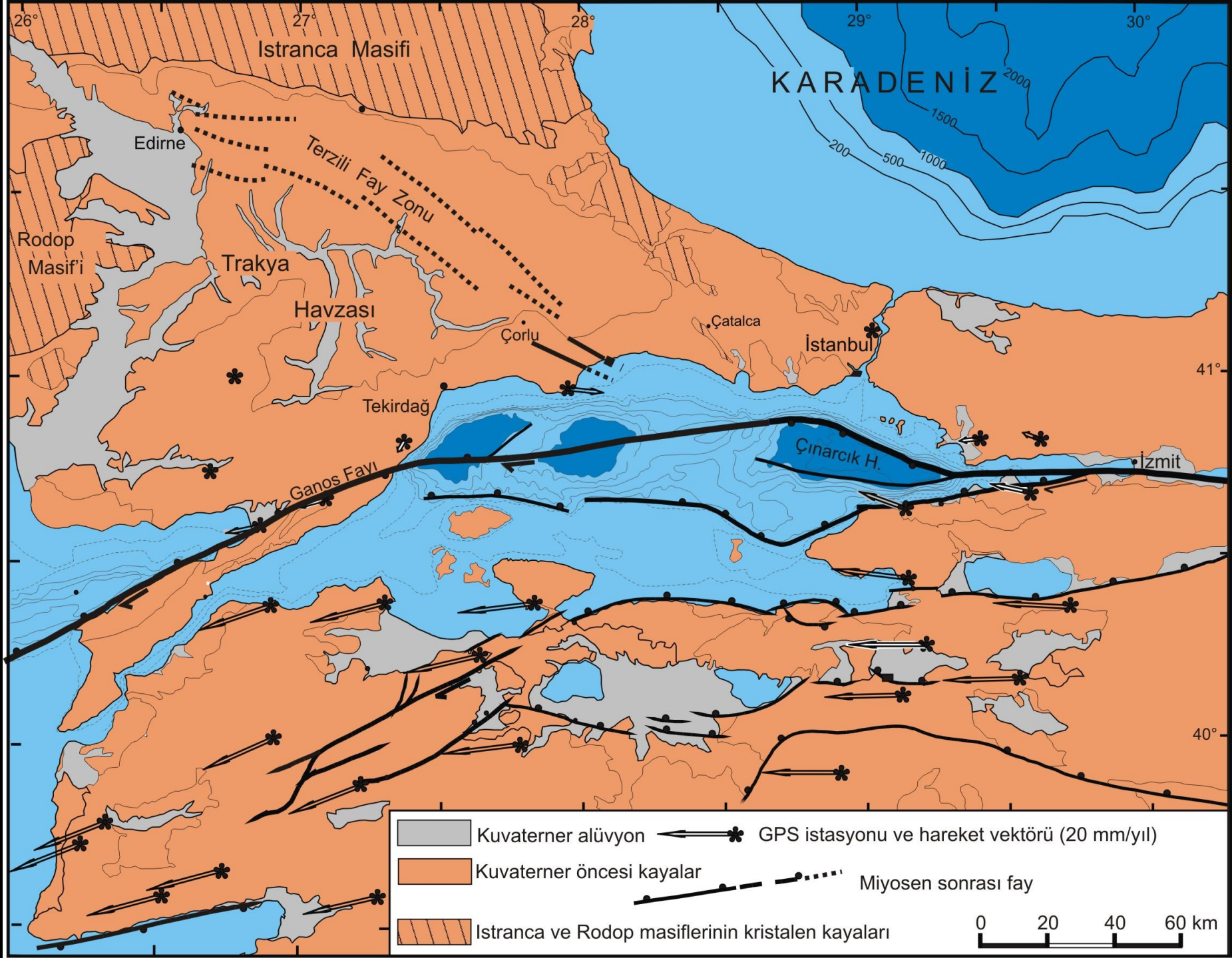


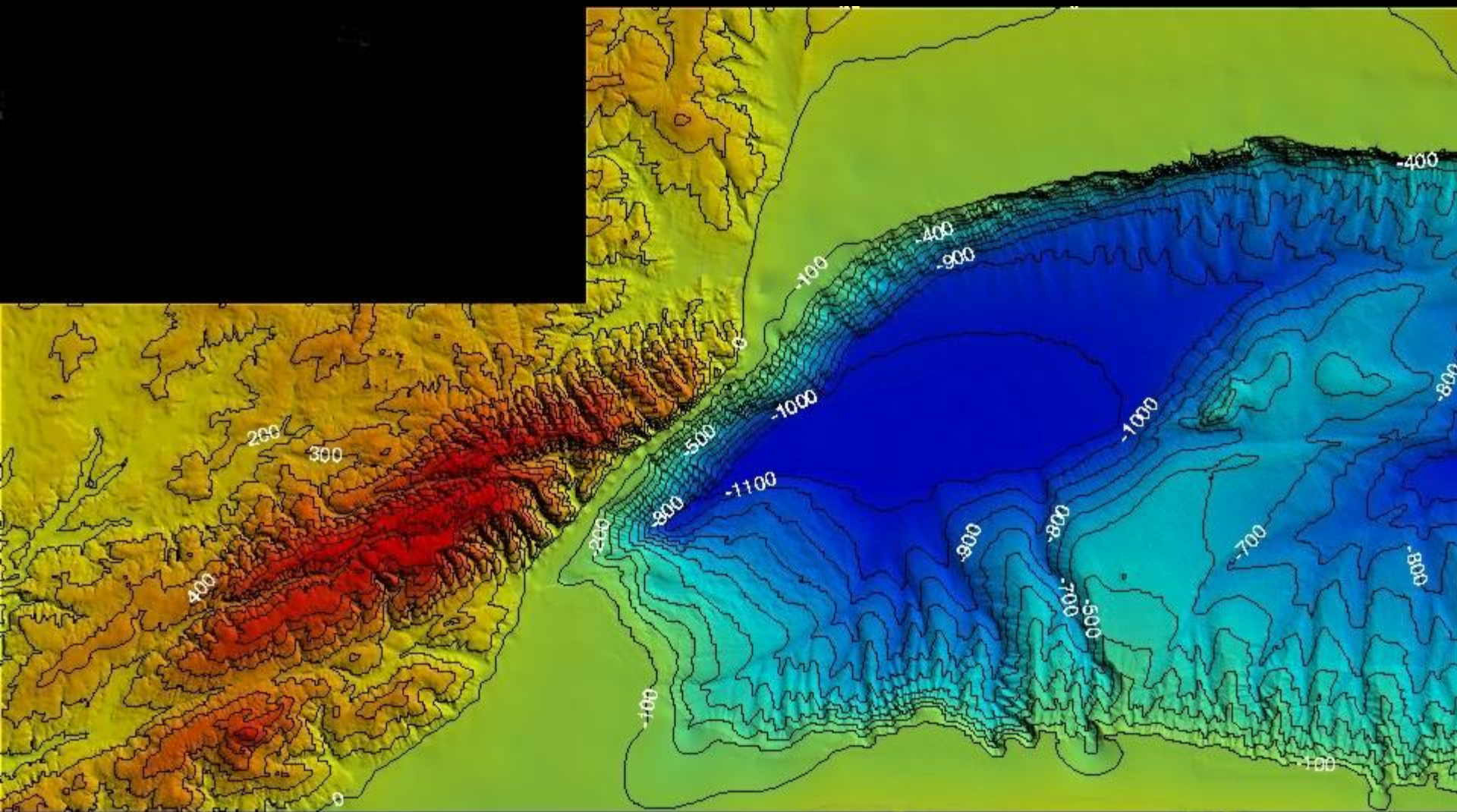
G

Hat DMS 02

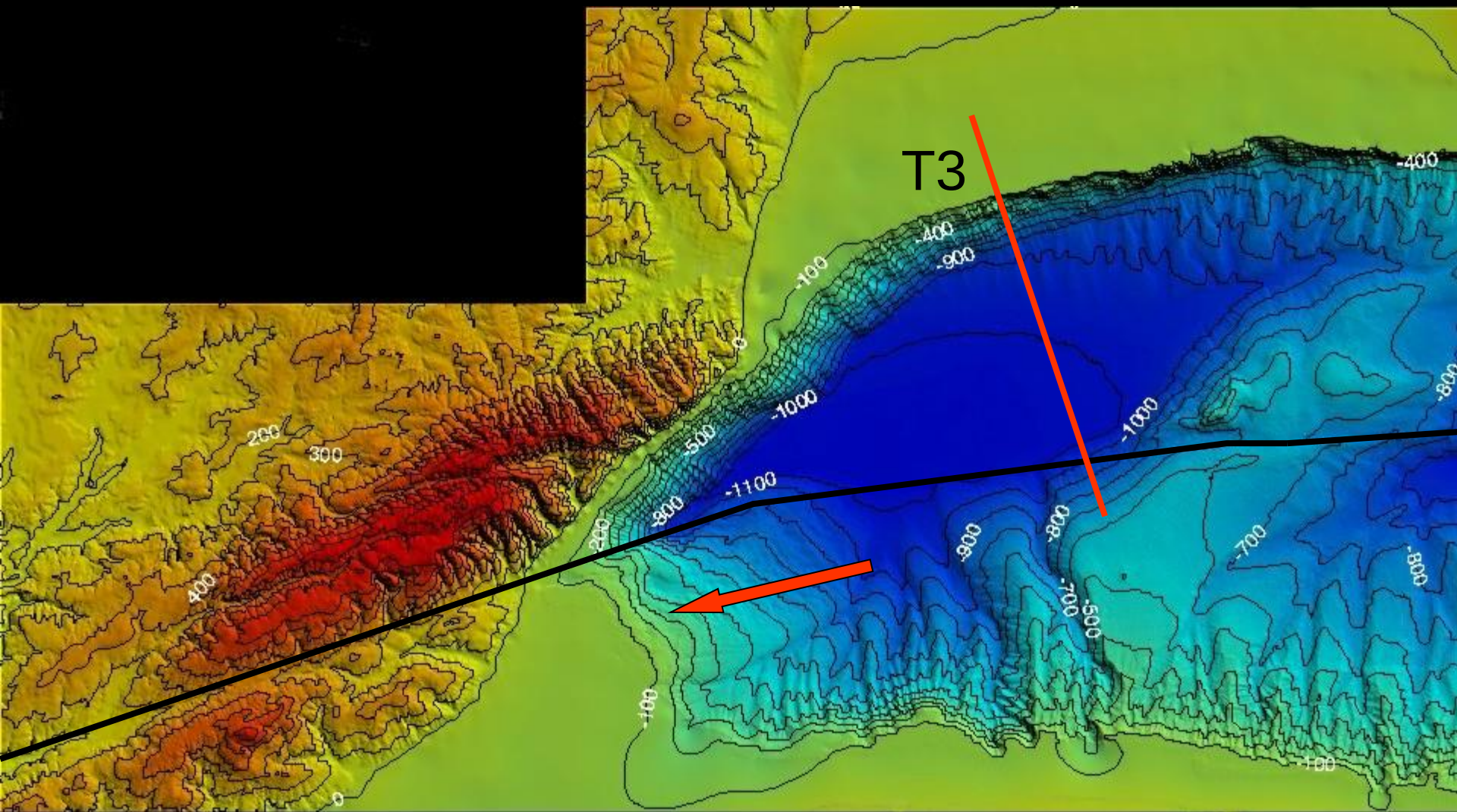
K

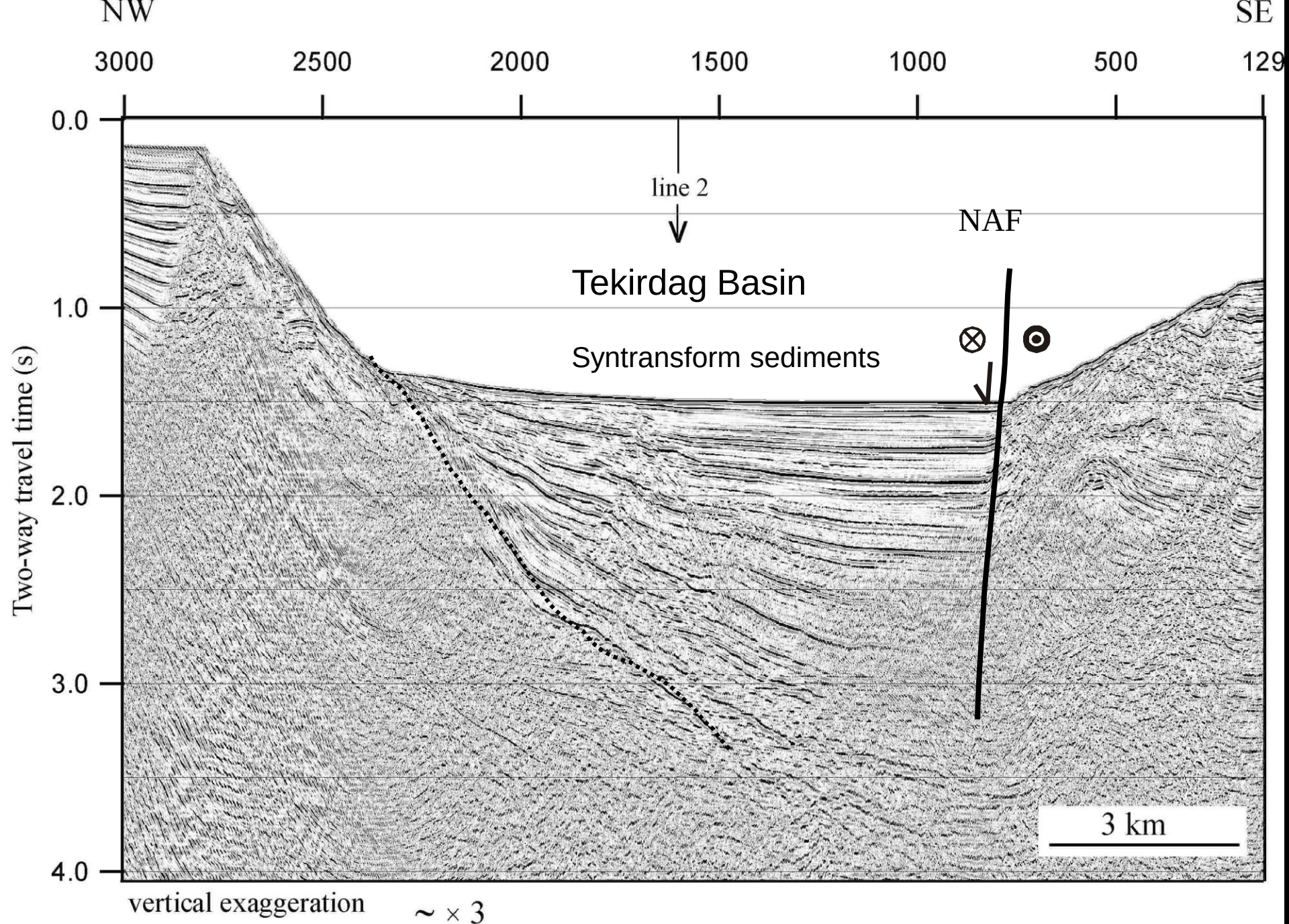




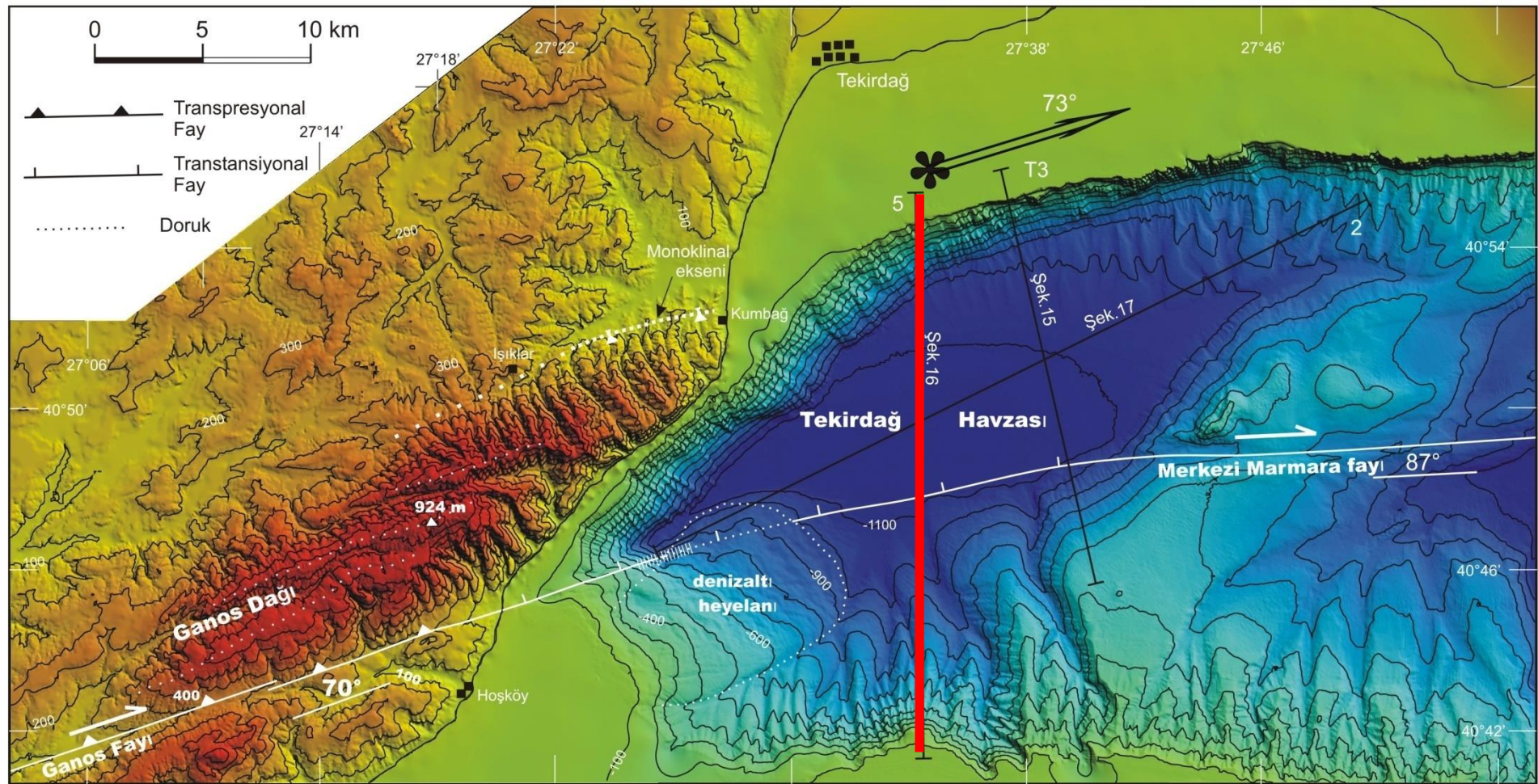


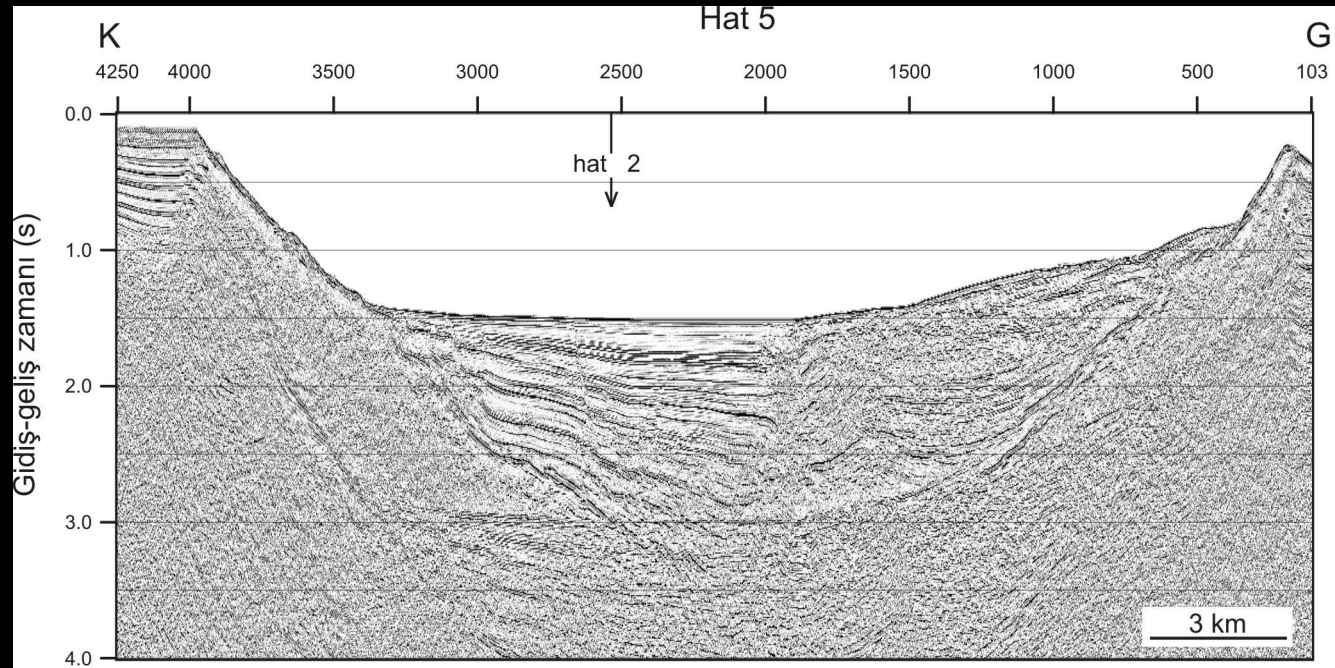




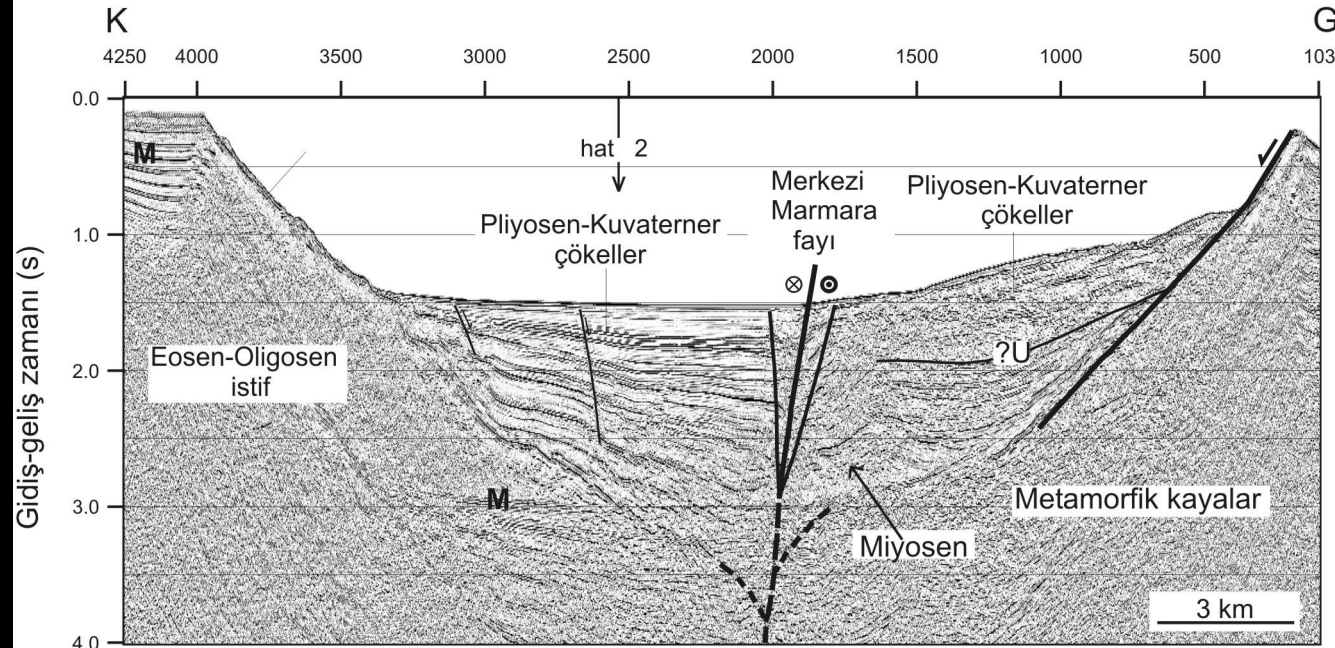


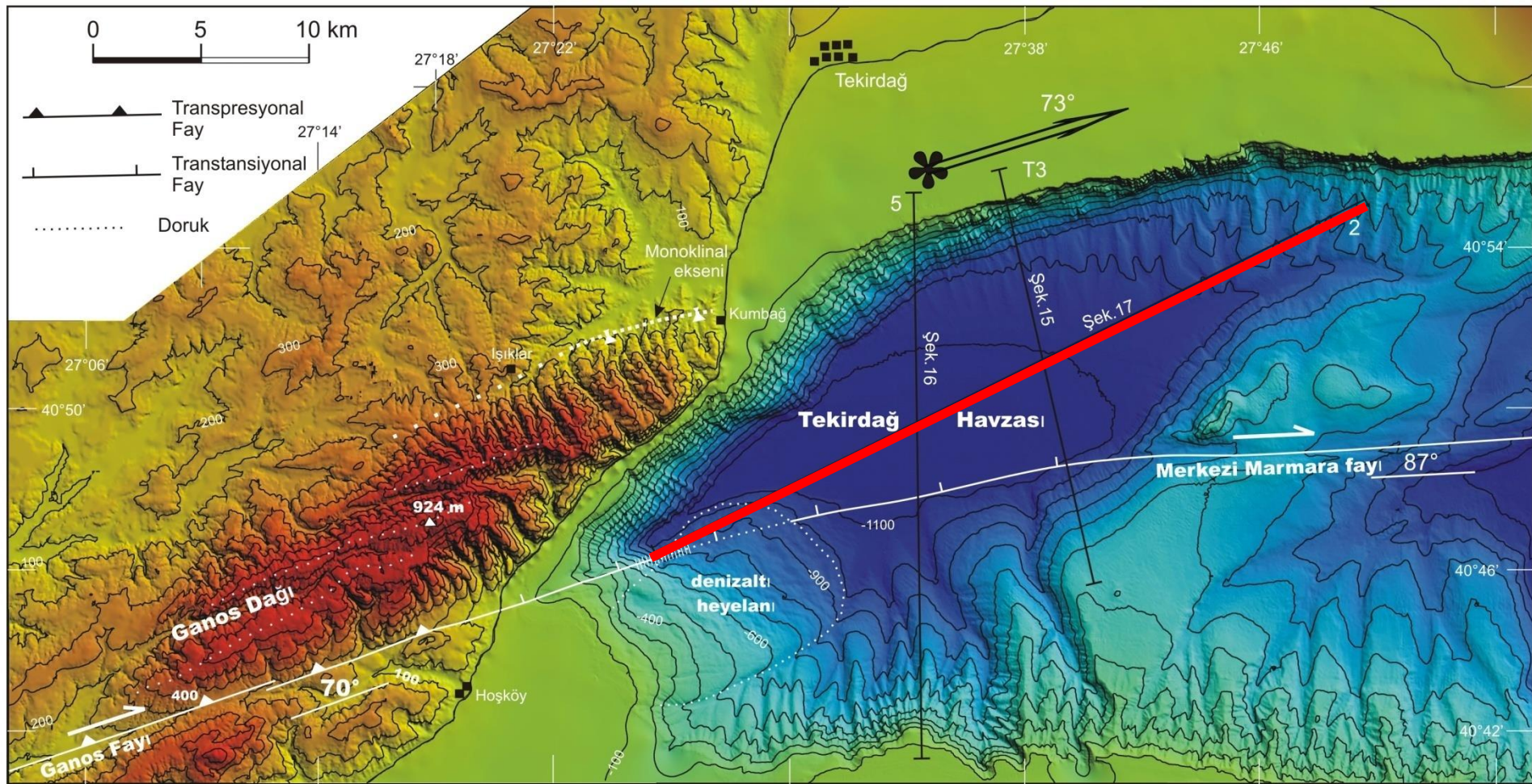
Uninterpreted time-migrated seismic reflection section of line T3 (Okay et al., 1999).

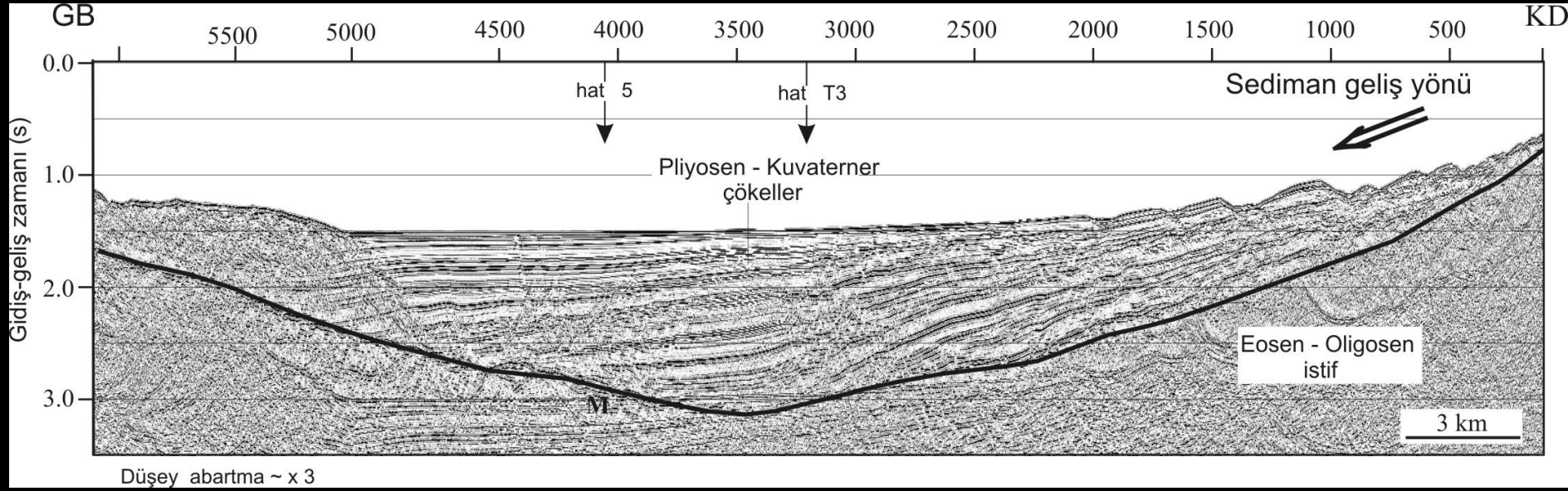


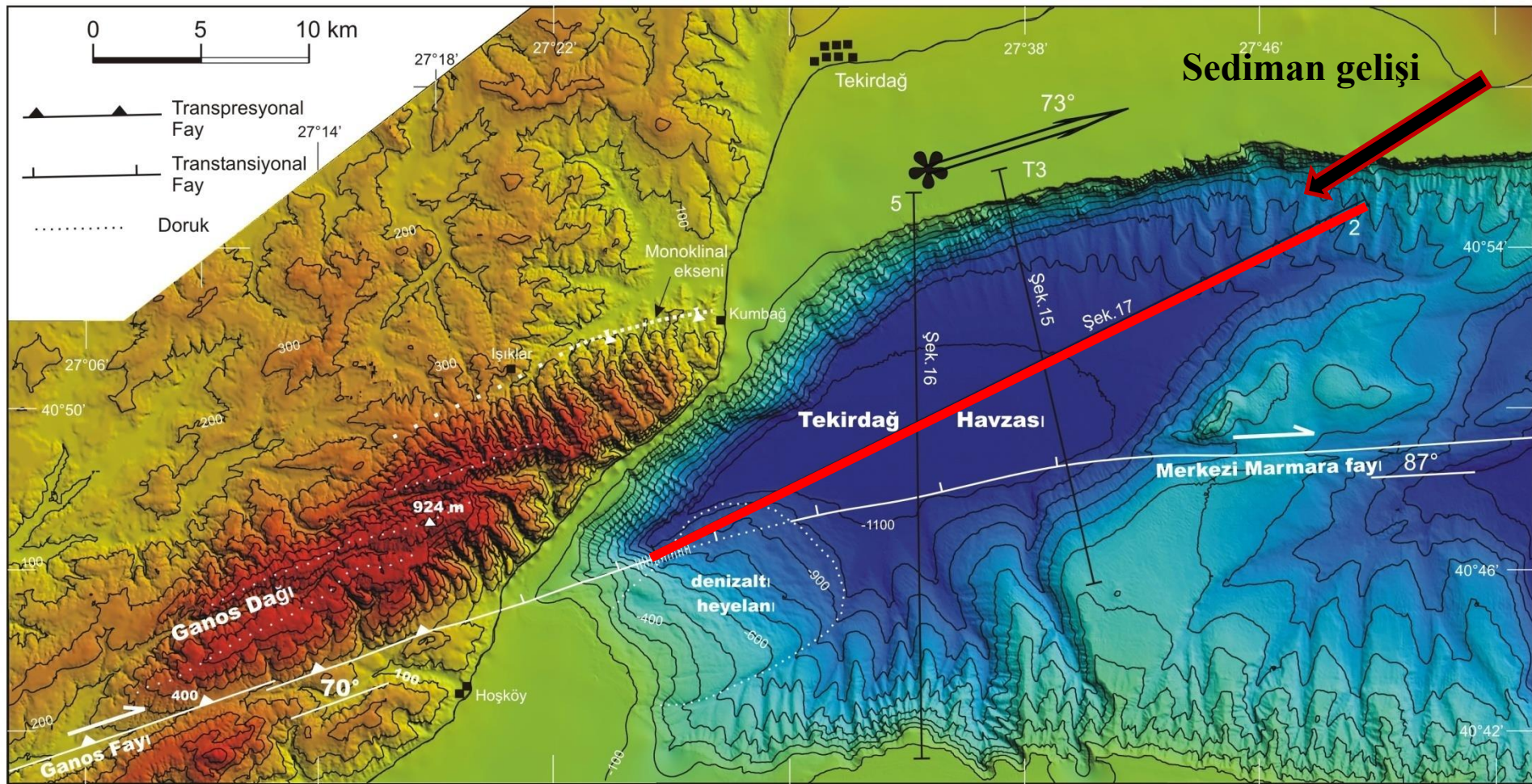


Düşey abartma ~ x 3



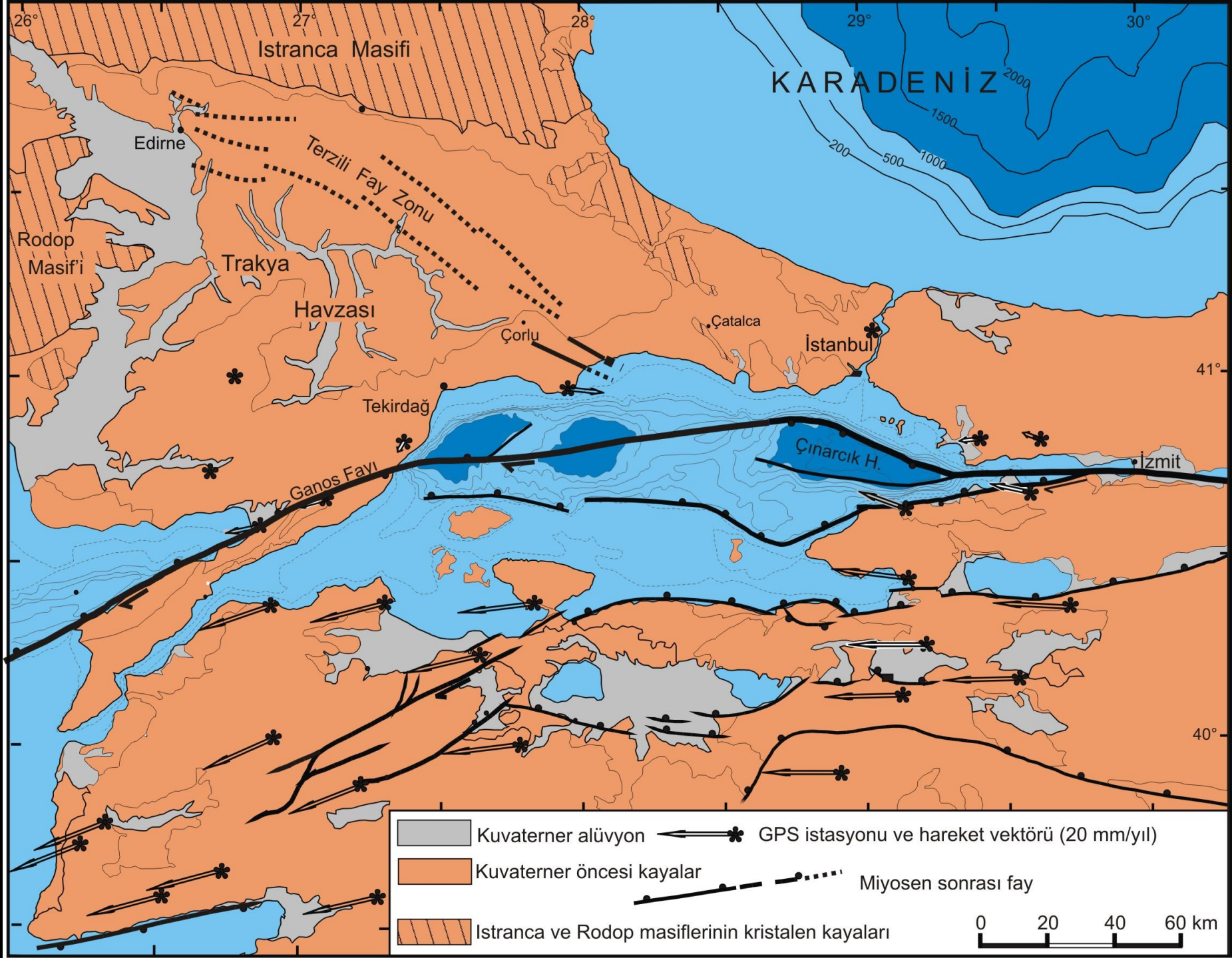


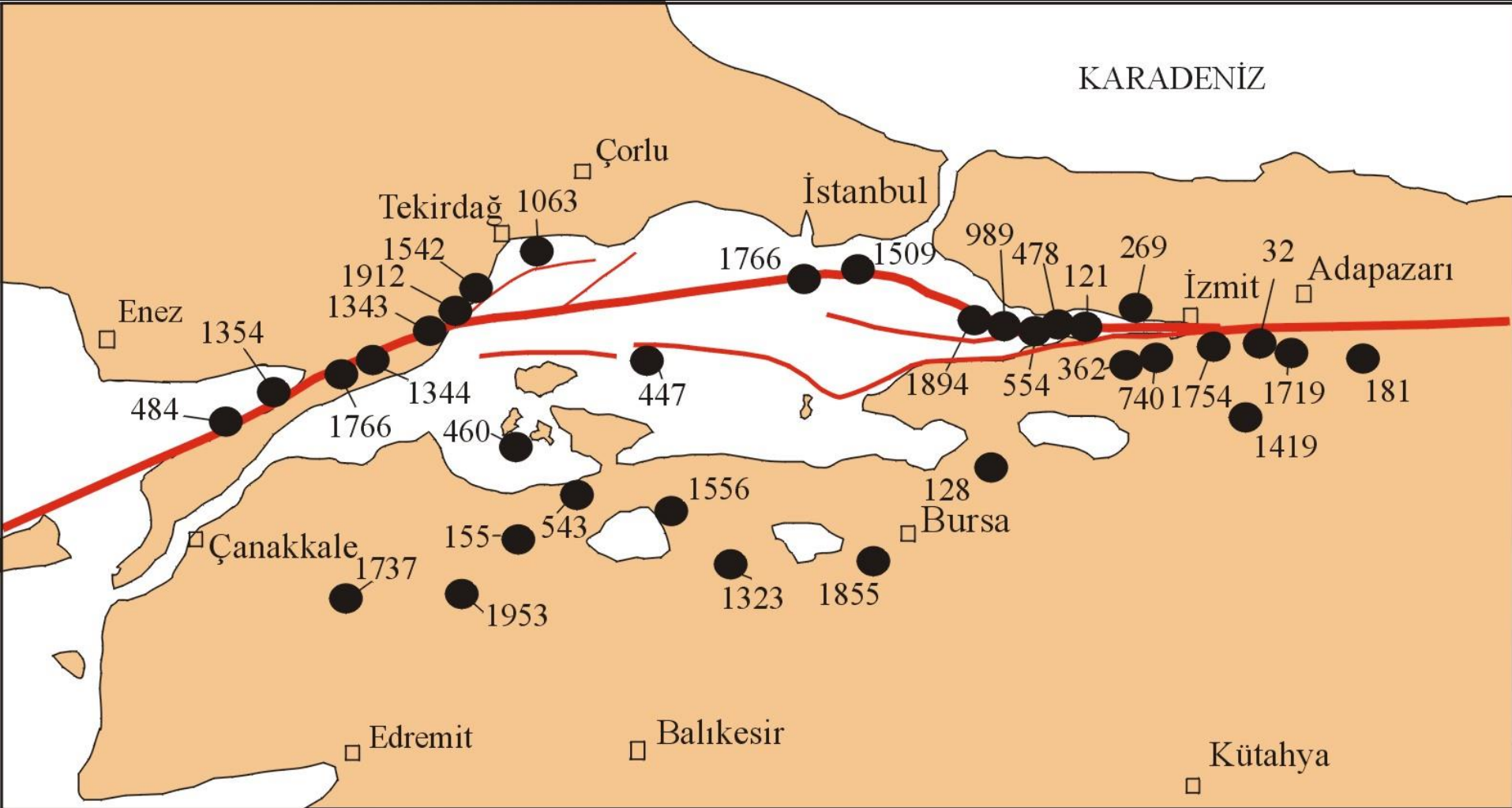






**Geçmişte Meriç Nehri, Ergene vasıtası ile
Marmara Denizi'ne akıyordu!**





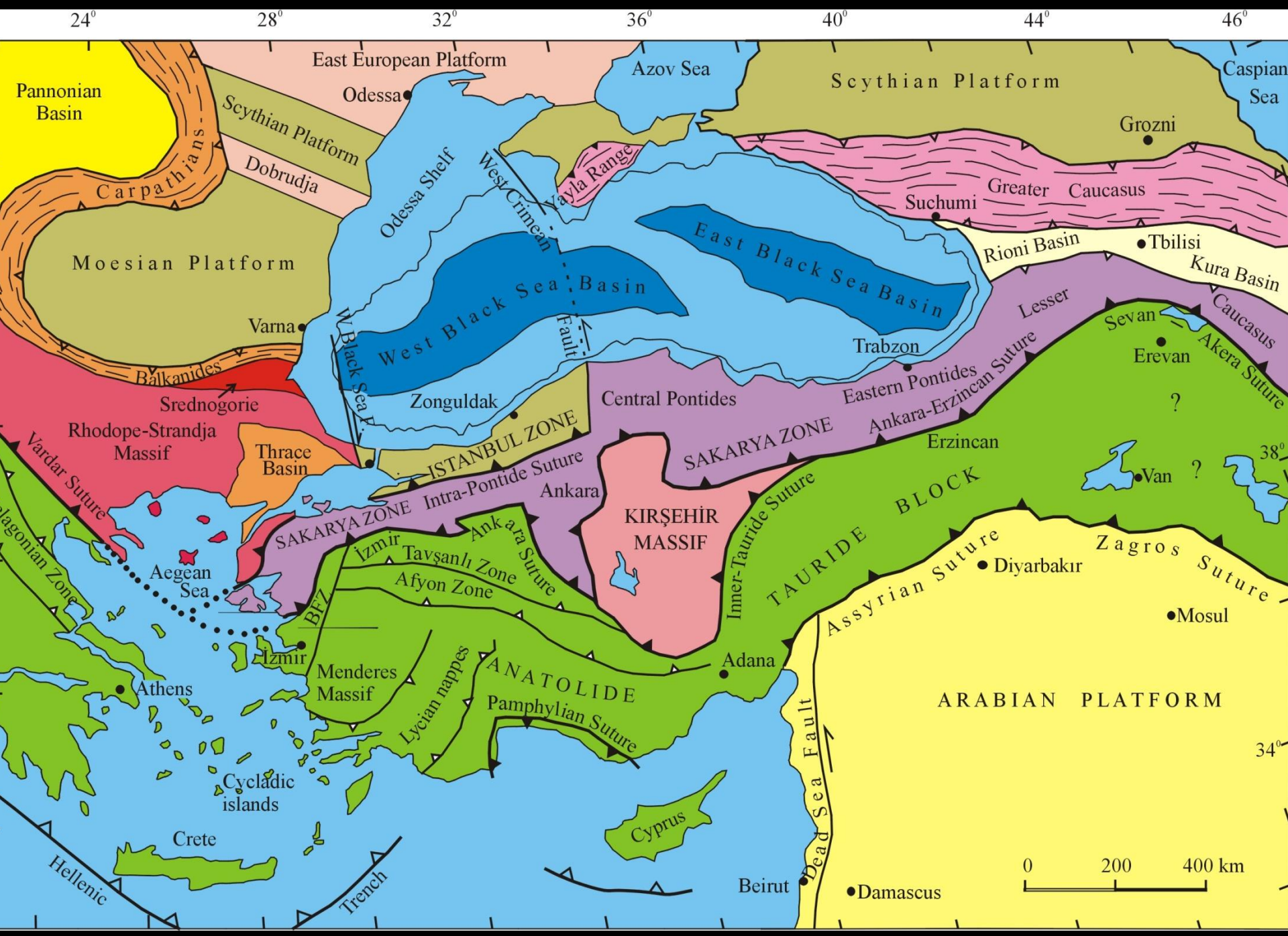
Deprem hasarını etkileyen faktörler:

- 1. Deprem büyüklüğü**
- 2. Yapının sağlamlığı**
- 3. Kırılan faya olan mesafe**
- 4. Zemin koşulları**

Türkiye'yi çevreleyen denizler

Aral I. Okay

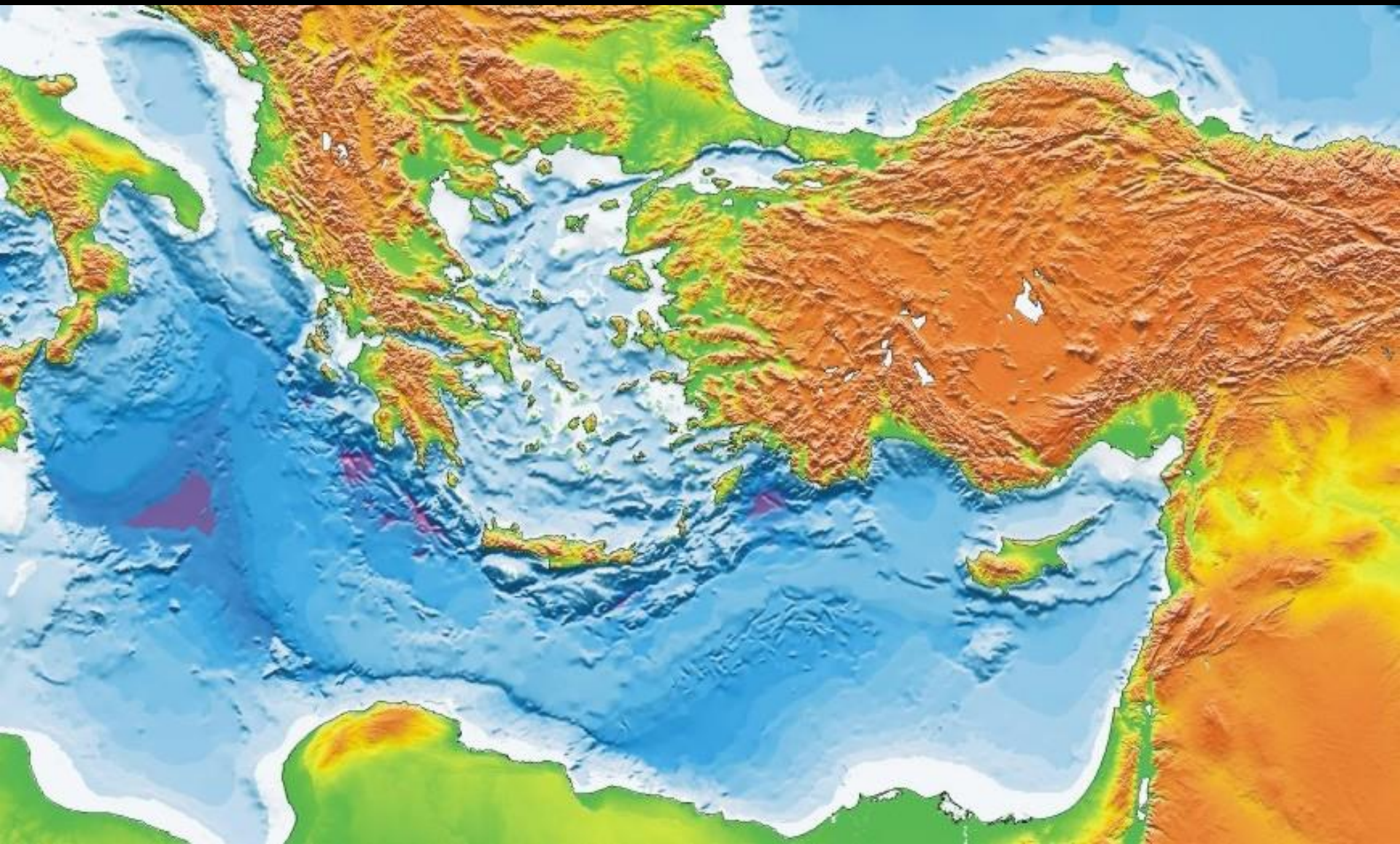
İstanbul Teknik Üniversitesi

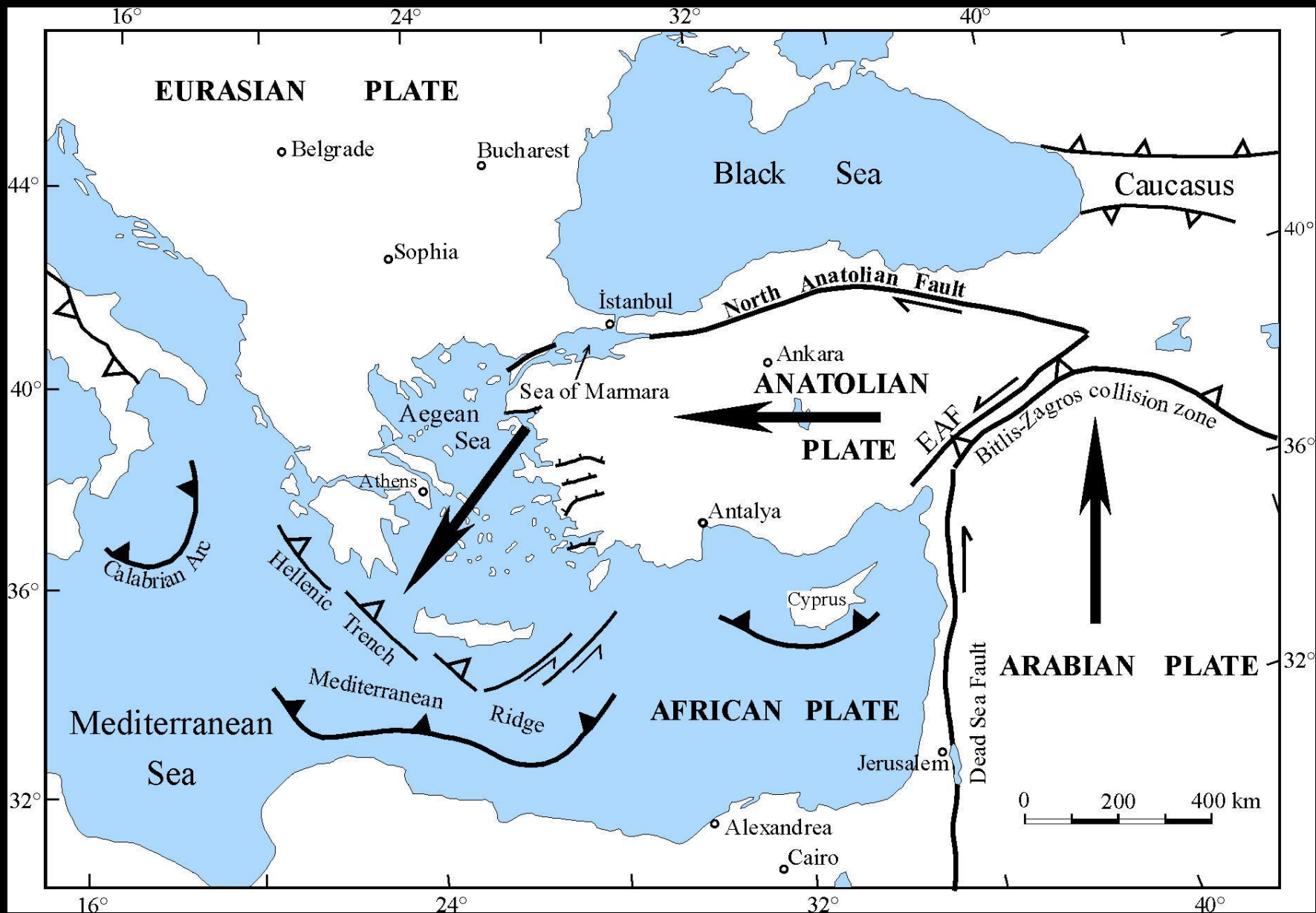


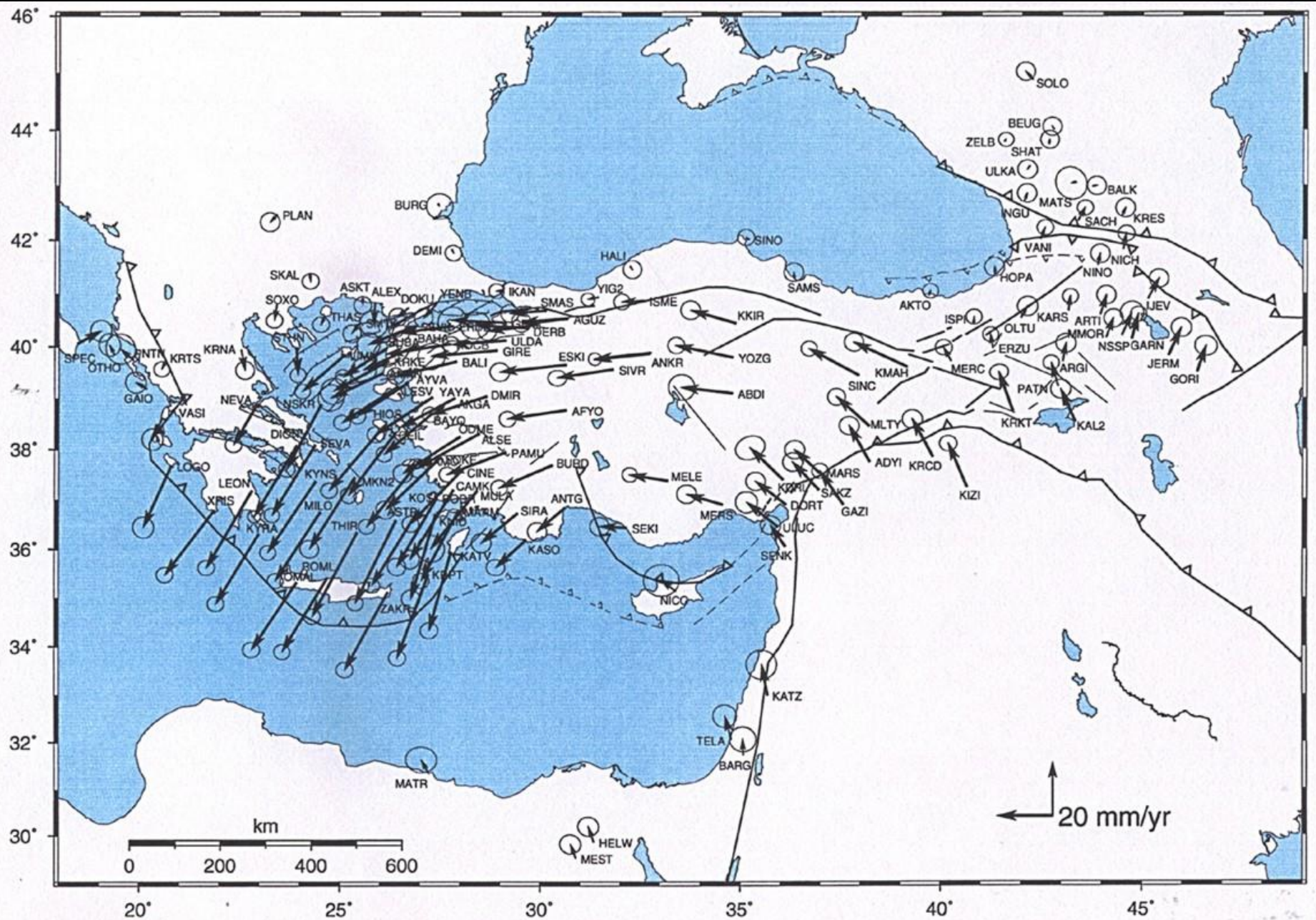
Dođu Akdeniz ve Kıbrıs

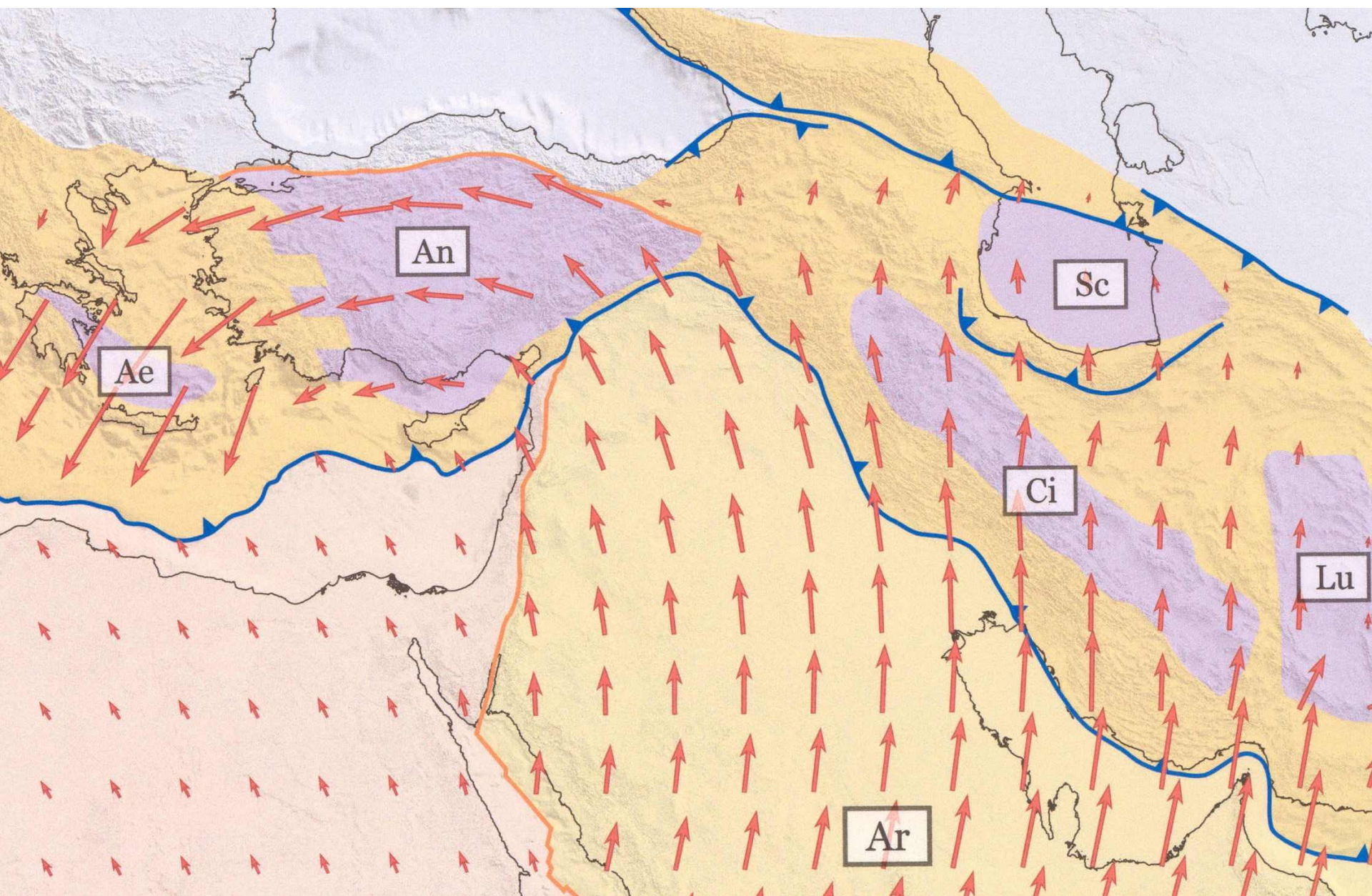
Aral I. Okay

İstanbul Teknik Üniversitesi





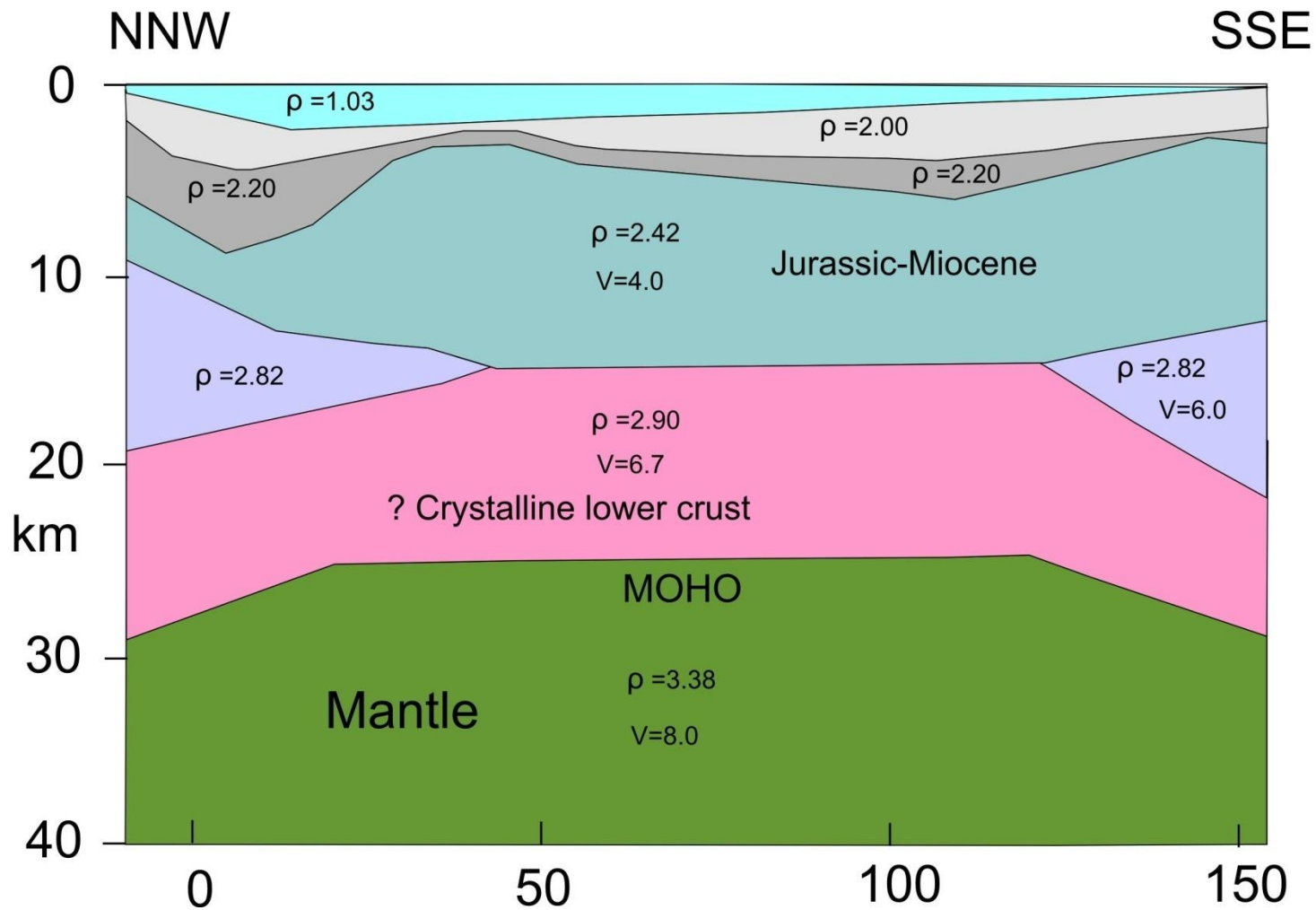




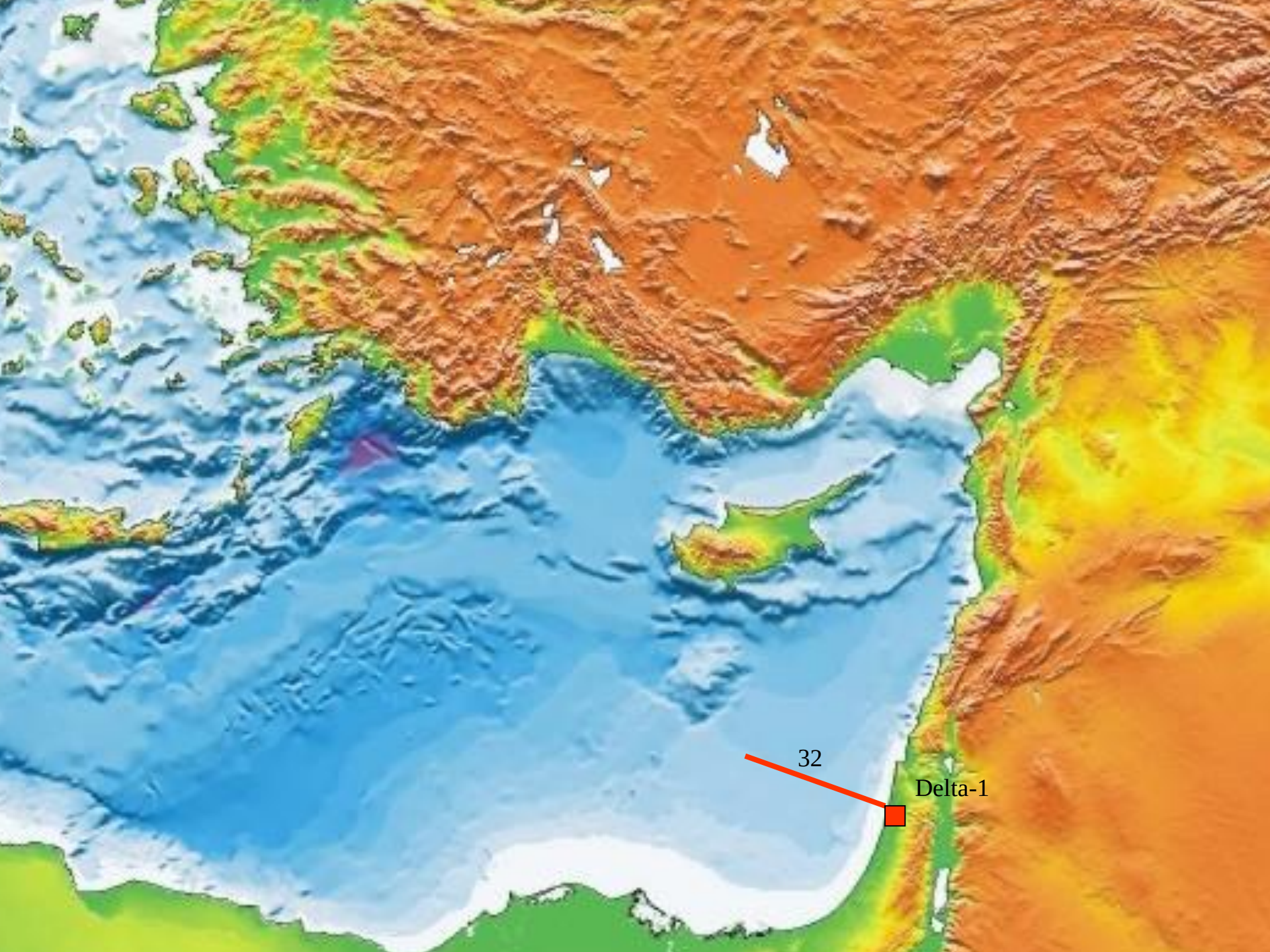


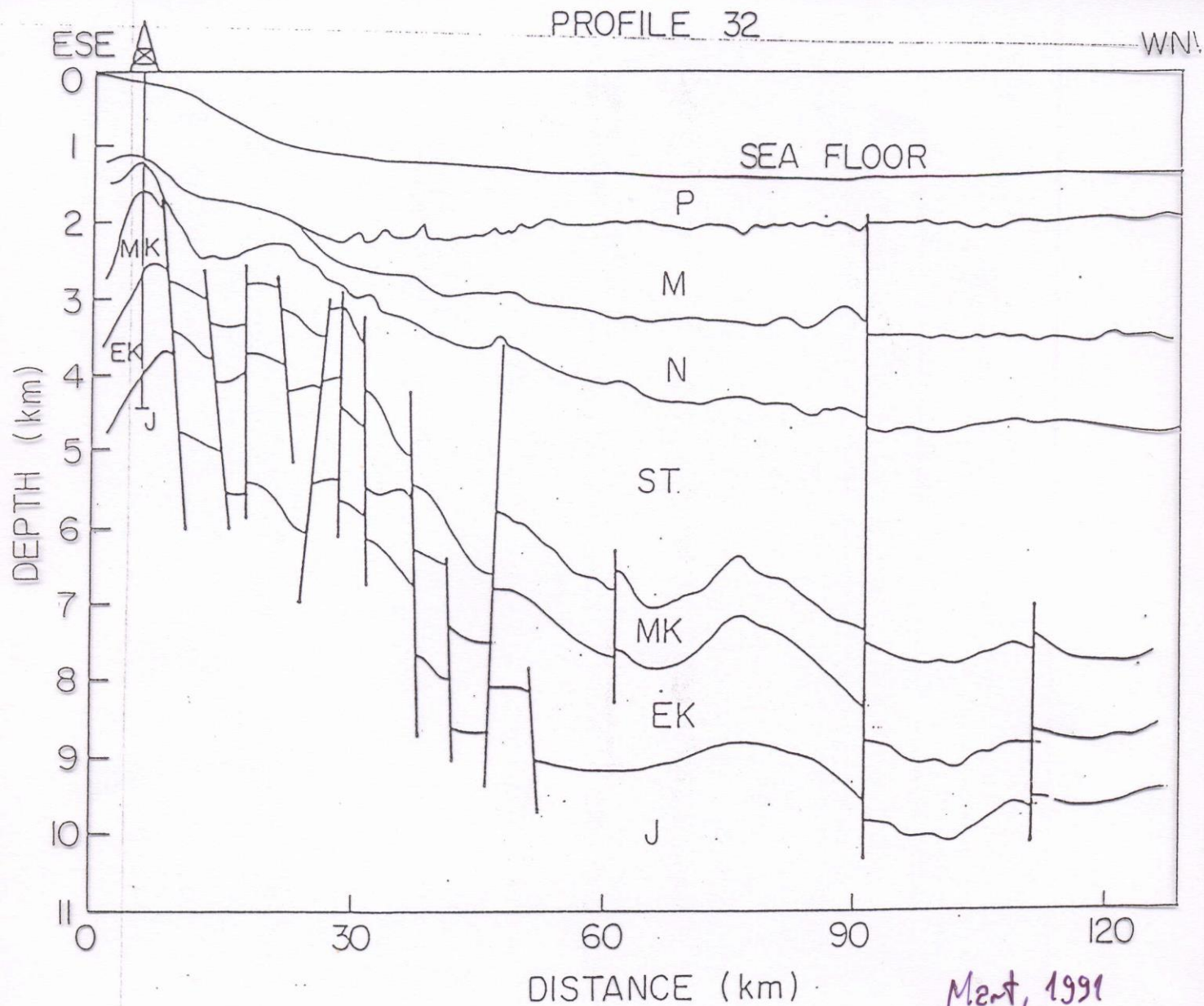
Herodot
Düzlüğü

Levant
Havzası



Makris et al. (1983)

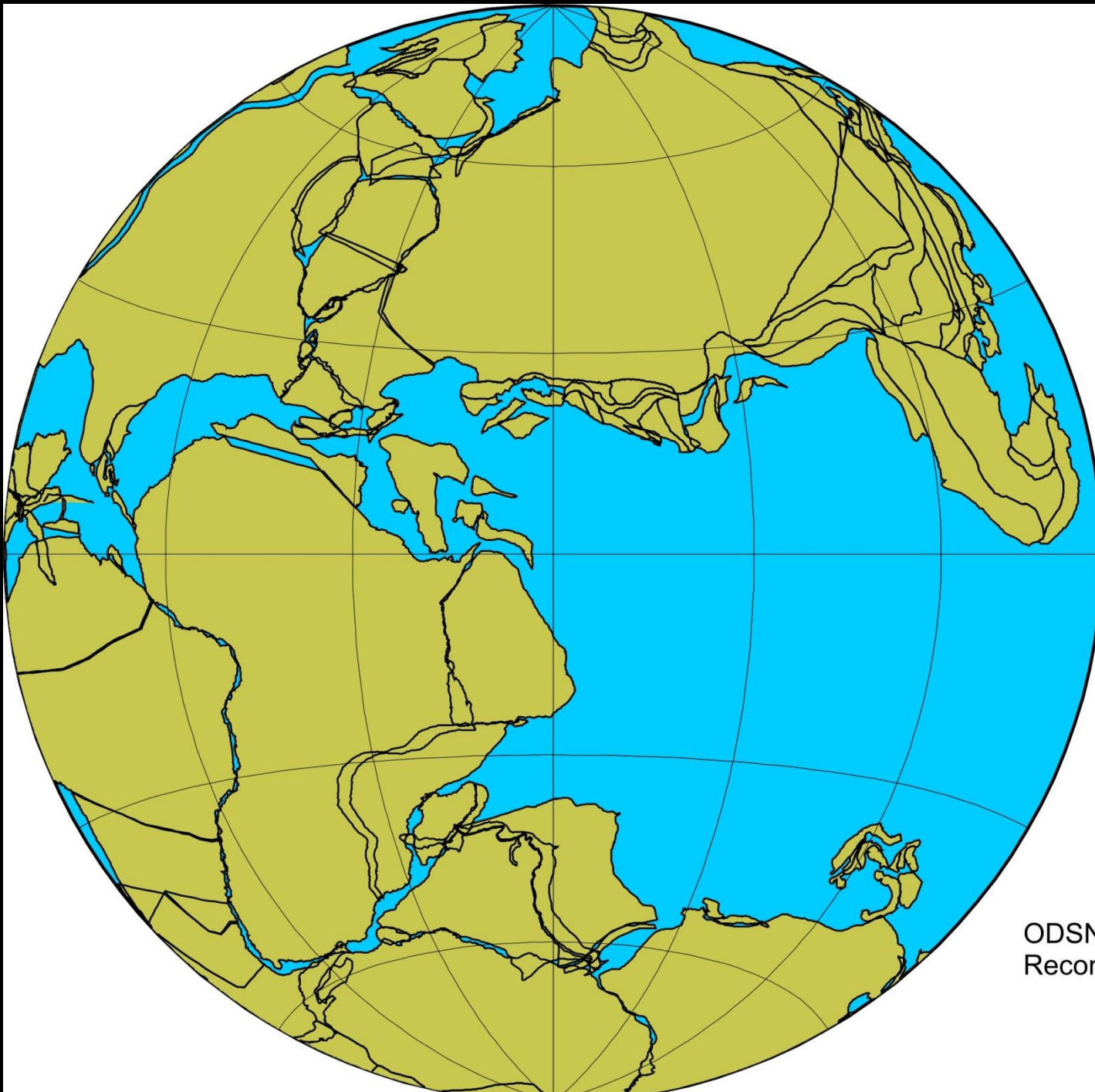




Levant havzası ince bir kıtasal veya okyanusal bir kabuğa sahip:

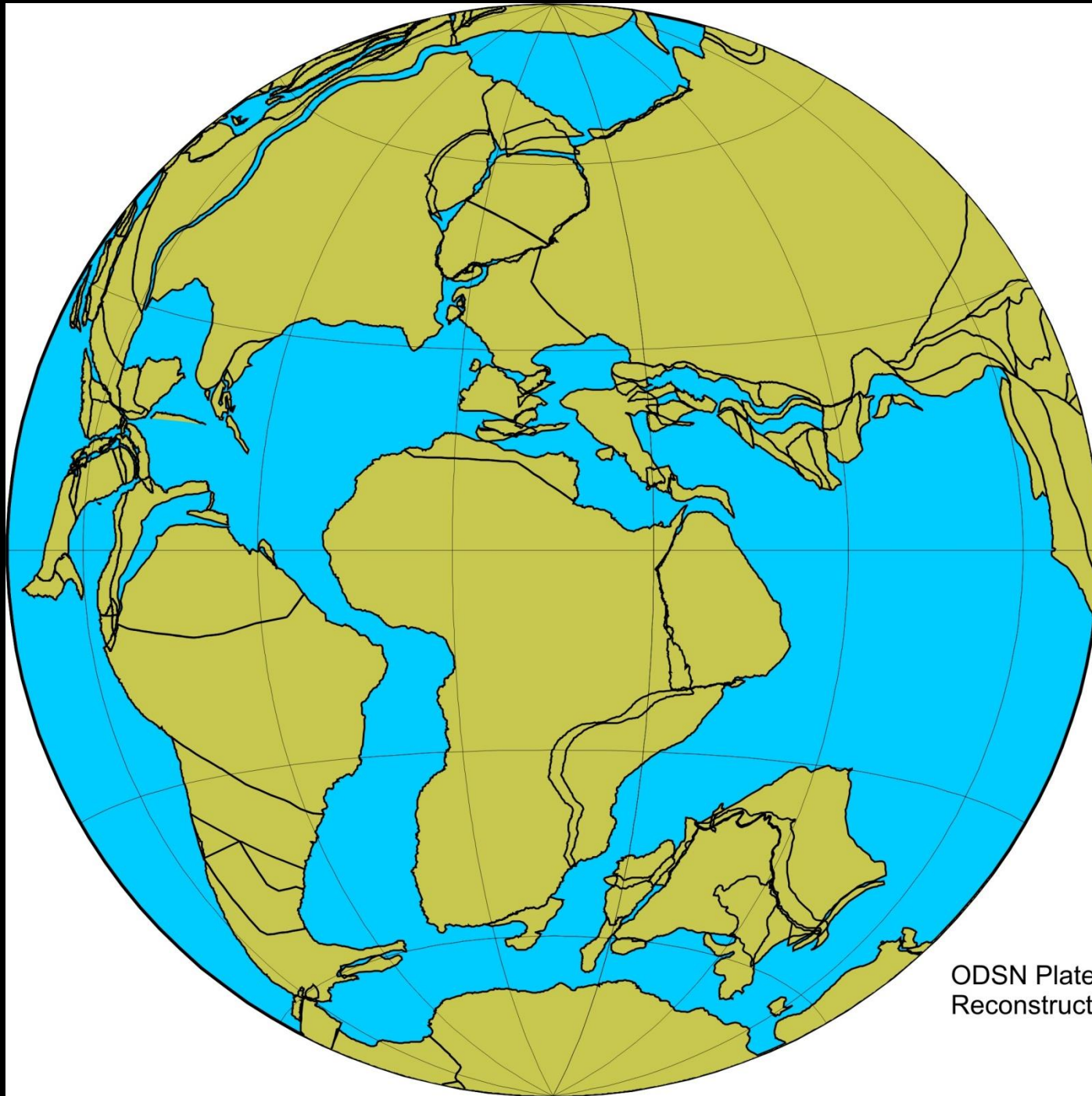
1. 1500-2000 m su derinliği
2. Sismik refraksiyon verileri
3. Levant kıta kenarı eski bir pasif kıta kenarı özelliği göstermesi

Levant havzası Triyas-Jura yaşında Neo-Tetis okyanusunun kalıntısı olabilir



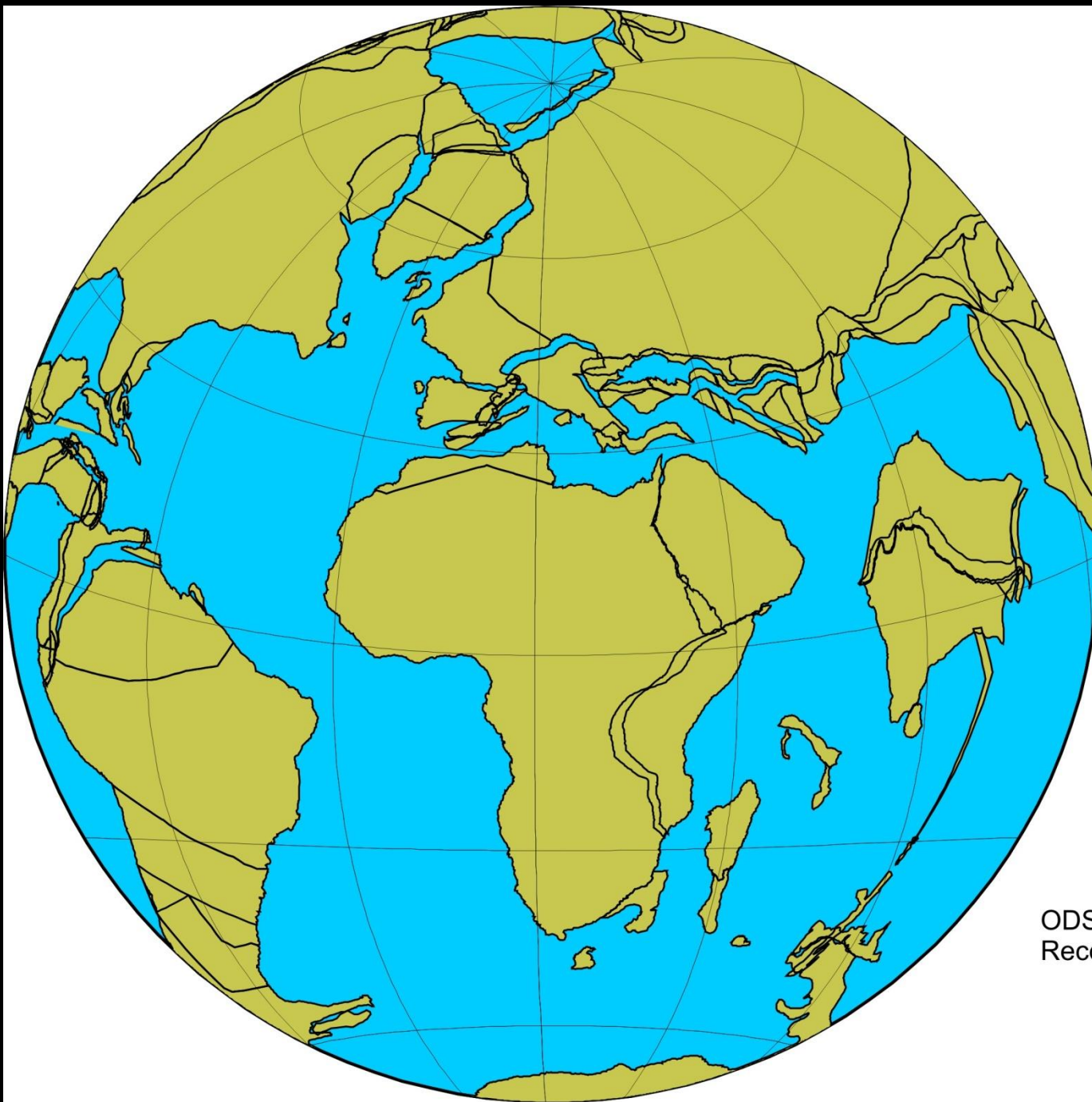
150 Ma
Latest Jurassic

ODSN Plate Tectonic
Reconstruction Service



**100 Ma
Early Cretaceous
(Albian)**

ODSN Plate Tectonic
Reconstruction Service



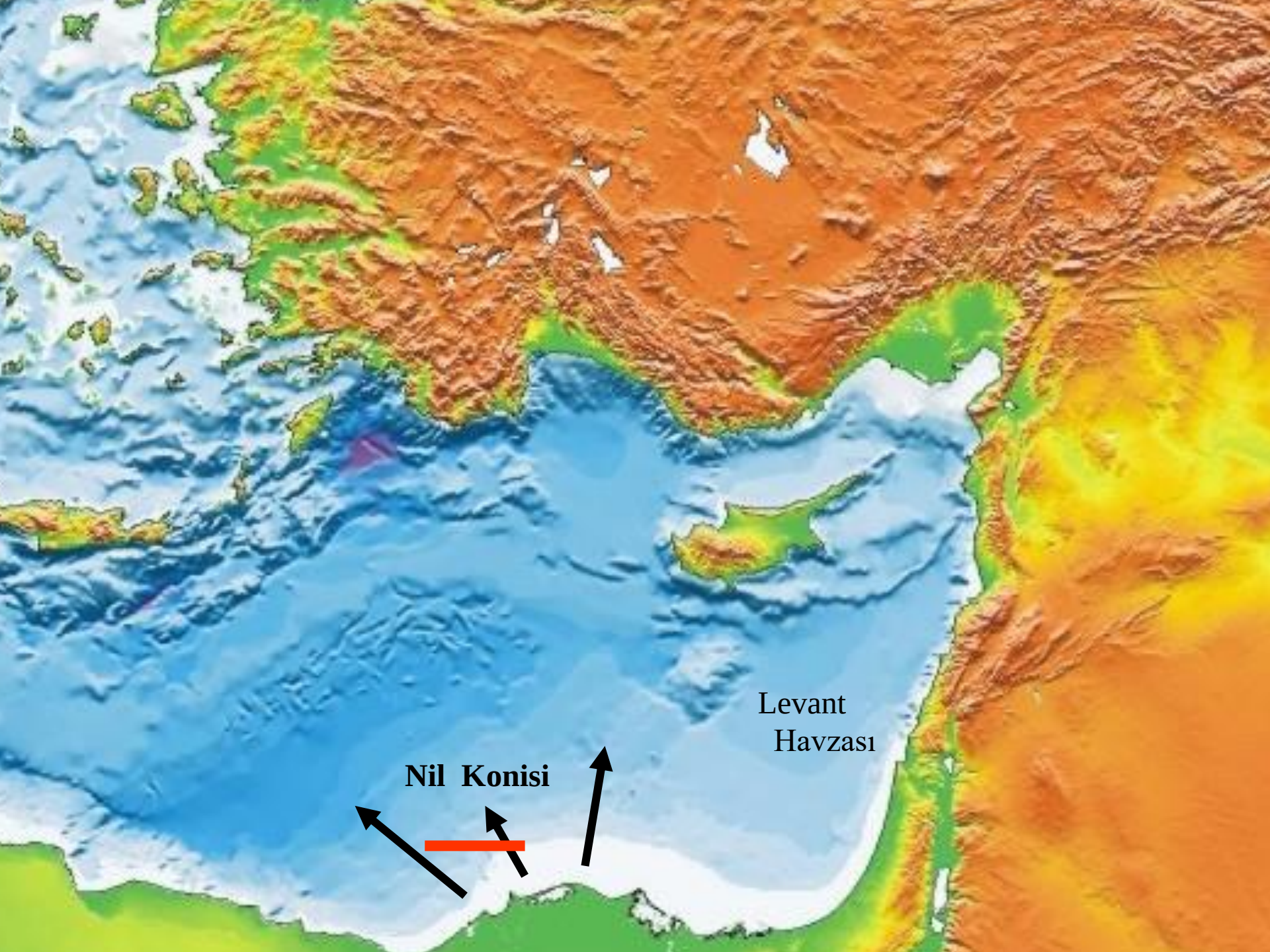
**50 Ma
Eocene**

ODSN Plate Tectonic
Reconstruction Service



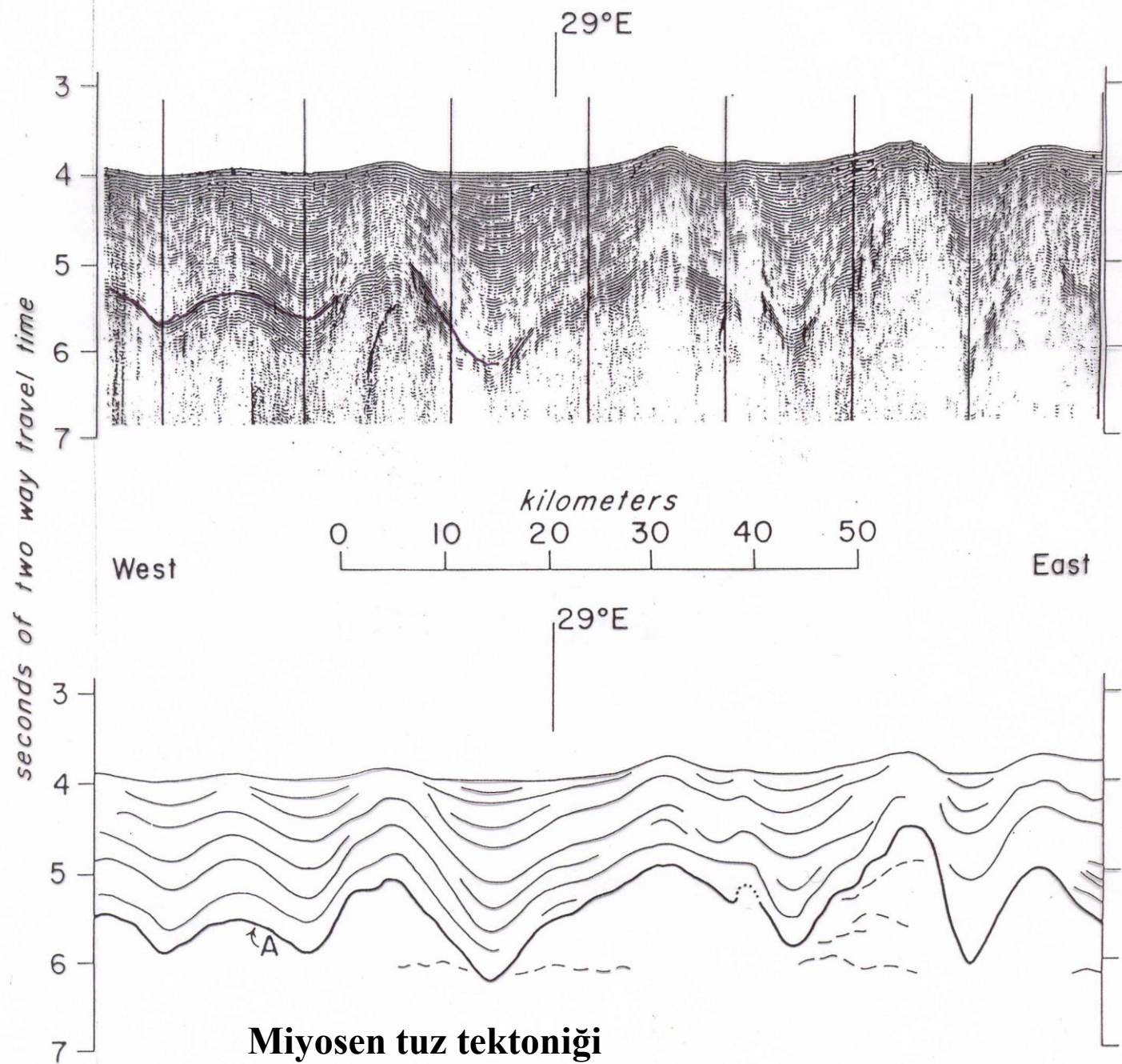
**25 Ma
Oligocene**

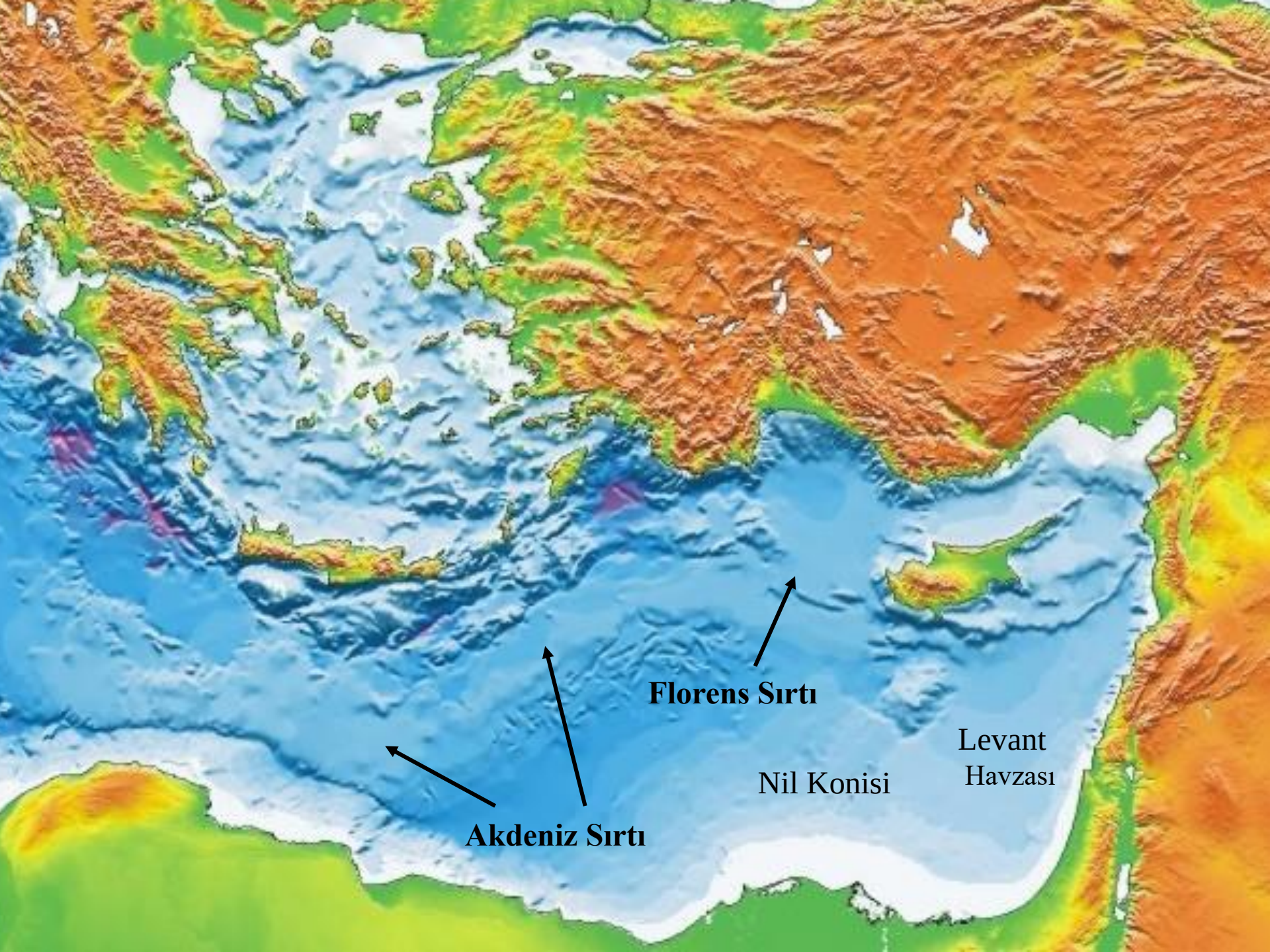
ODSN Plate Tectonic
Reconstruction Service



Levant
Havzası

Nil Konisi



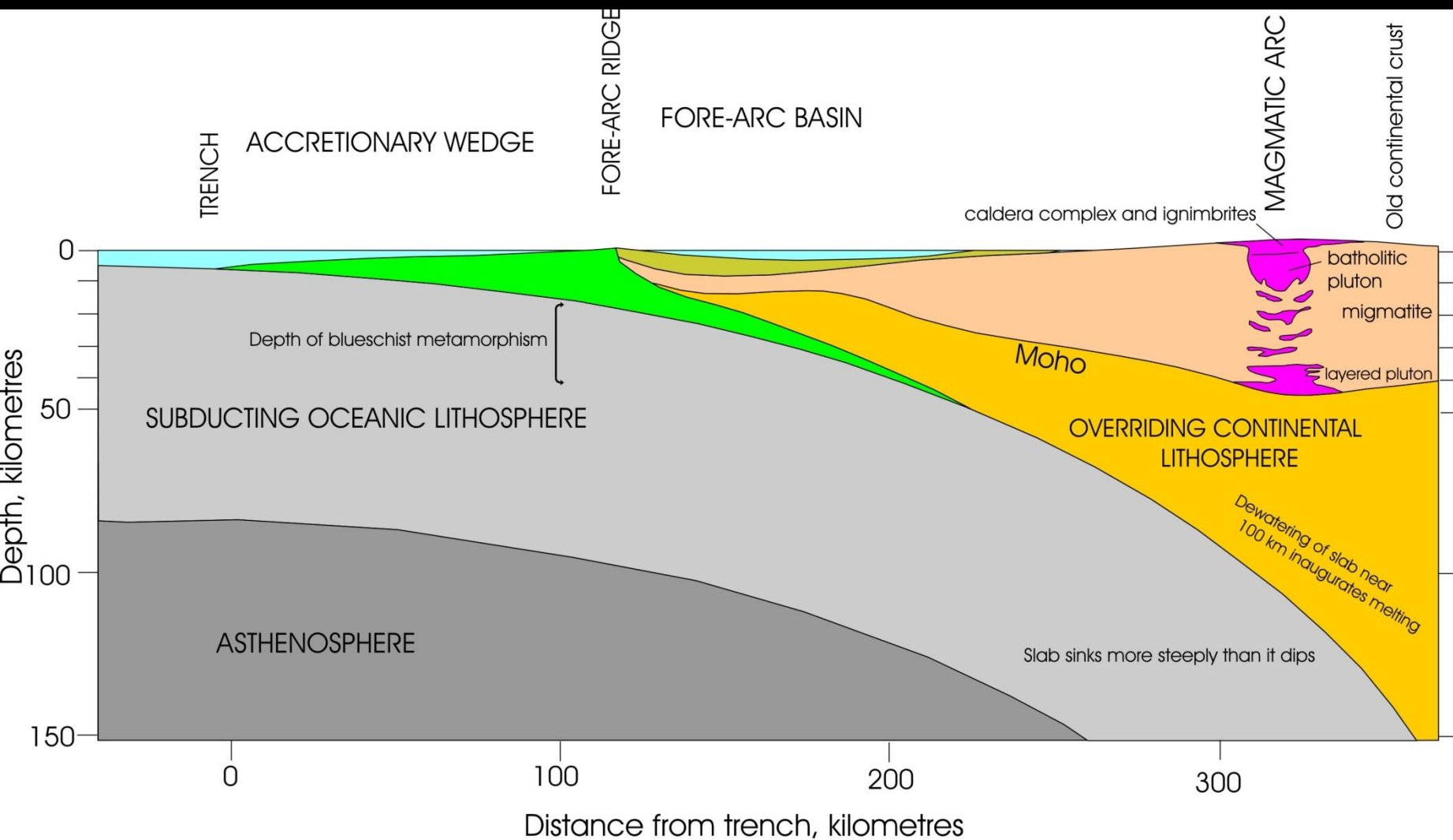


Florens Sırtı

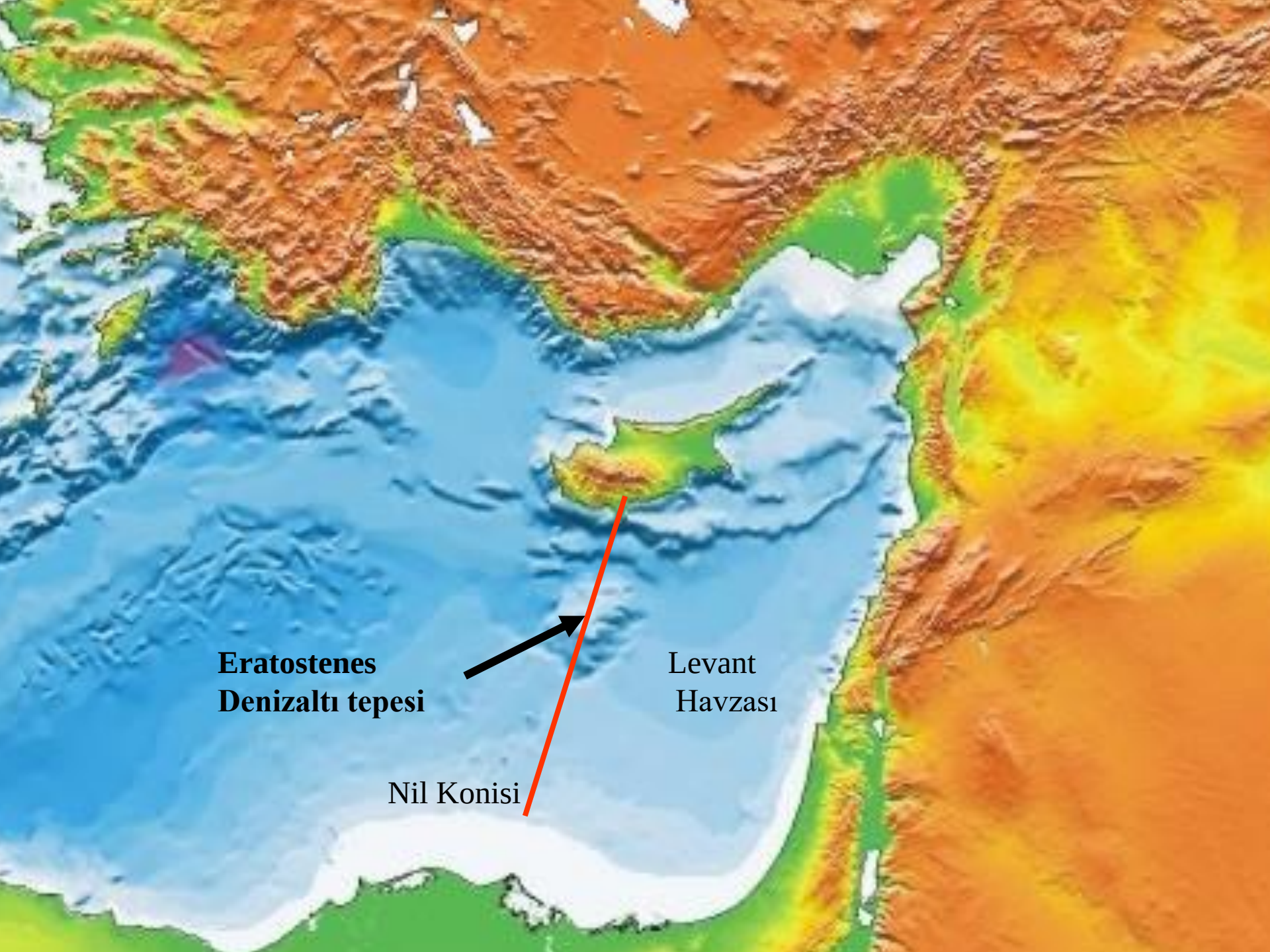
Nil Konisi

Levant
Havzası

Akdeniz Sırtı



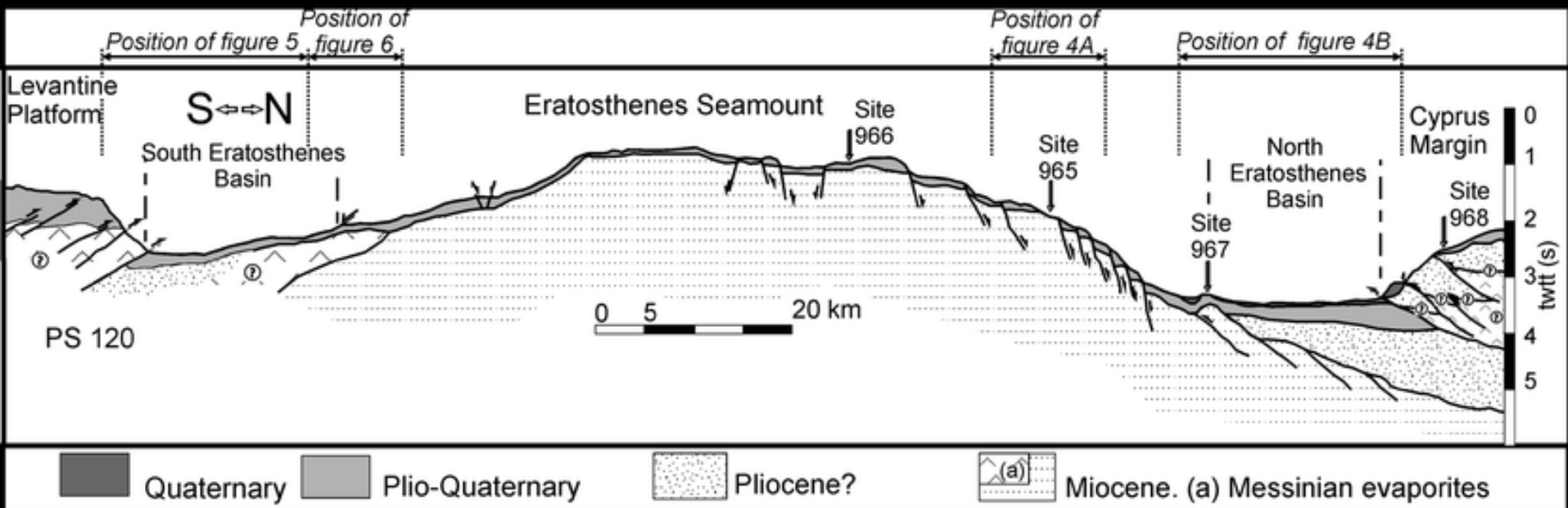
Section across a continental-margin subduction zone (Hamilton, 1988)

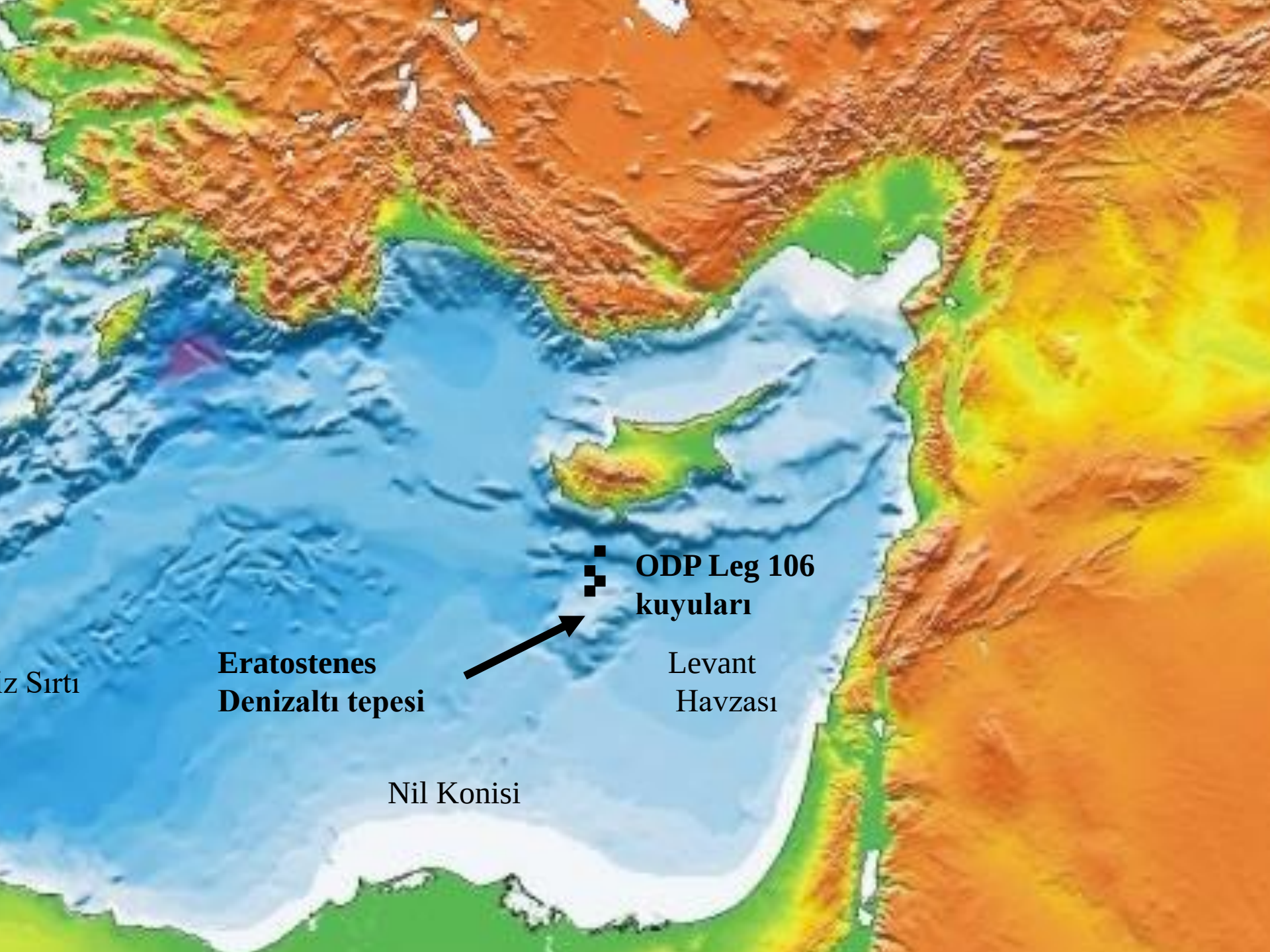


**Eratosthenes
Denizaltı tepesi**

Levant
Havzası

Nil Konisi





z Sırtı

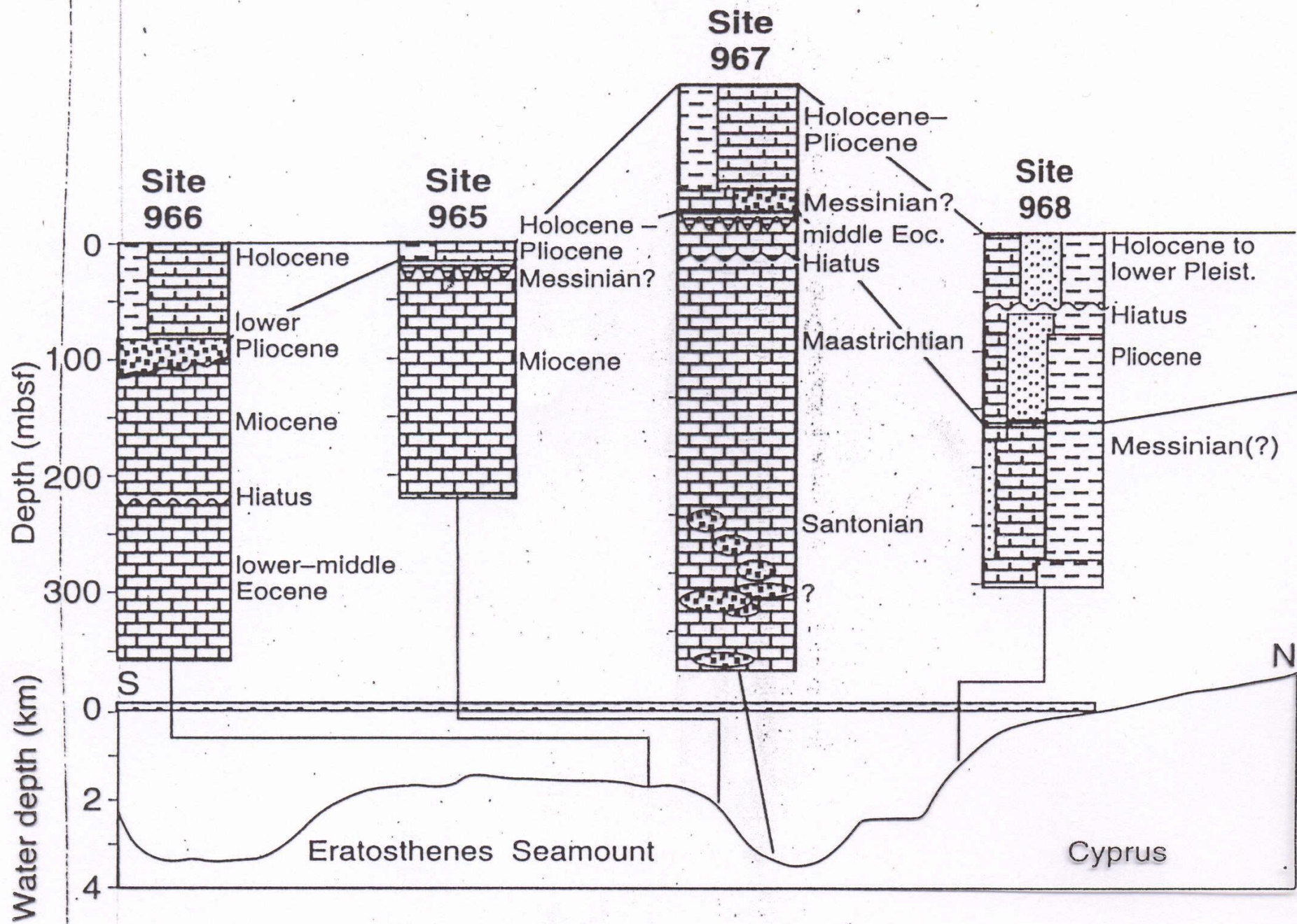
**Eratostenes
Denizaltı tepesi**

Nil Konisi



**ODP Leg 106
kuyuları**

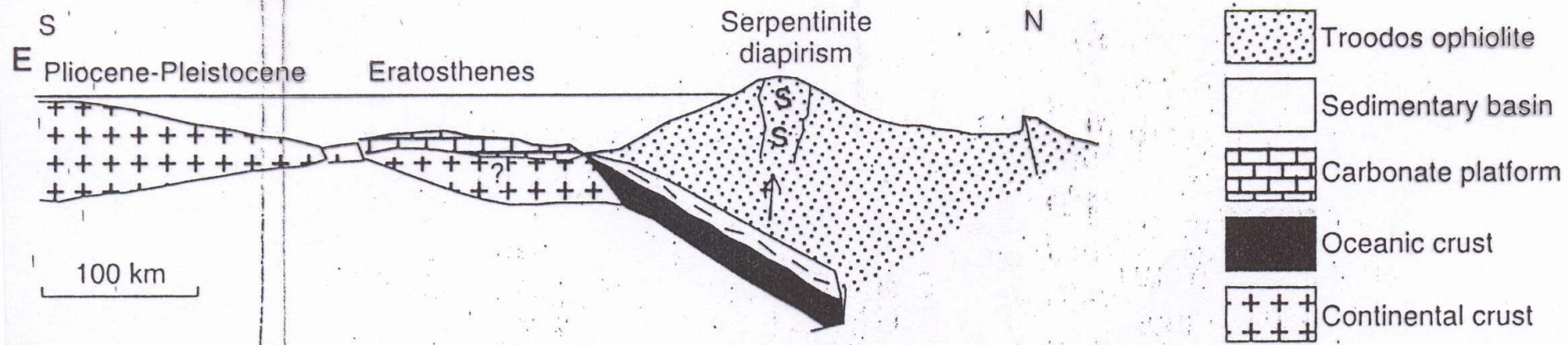
Levant
Havzası

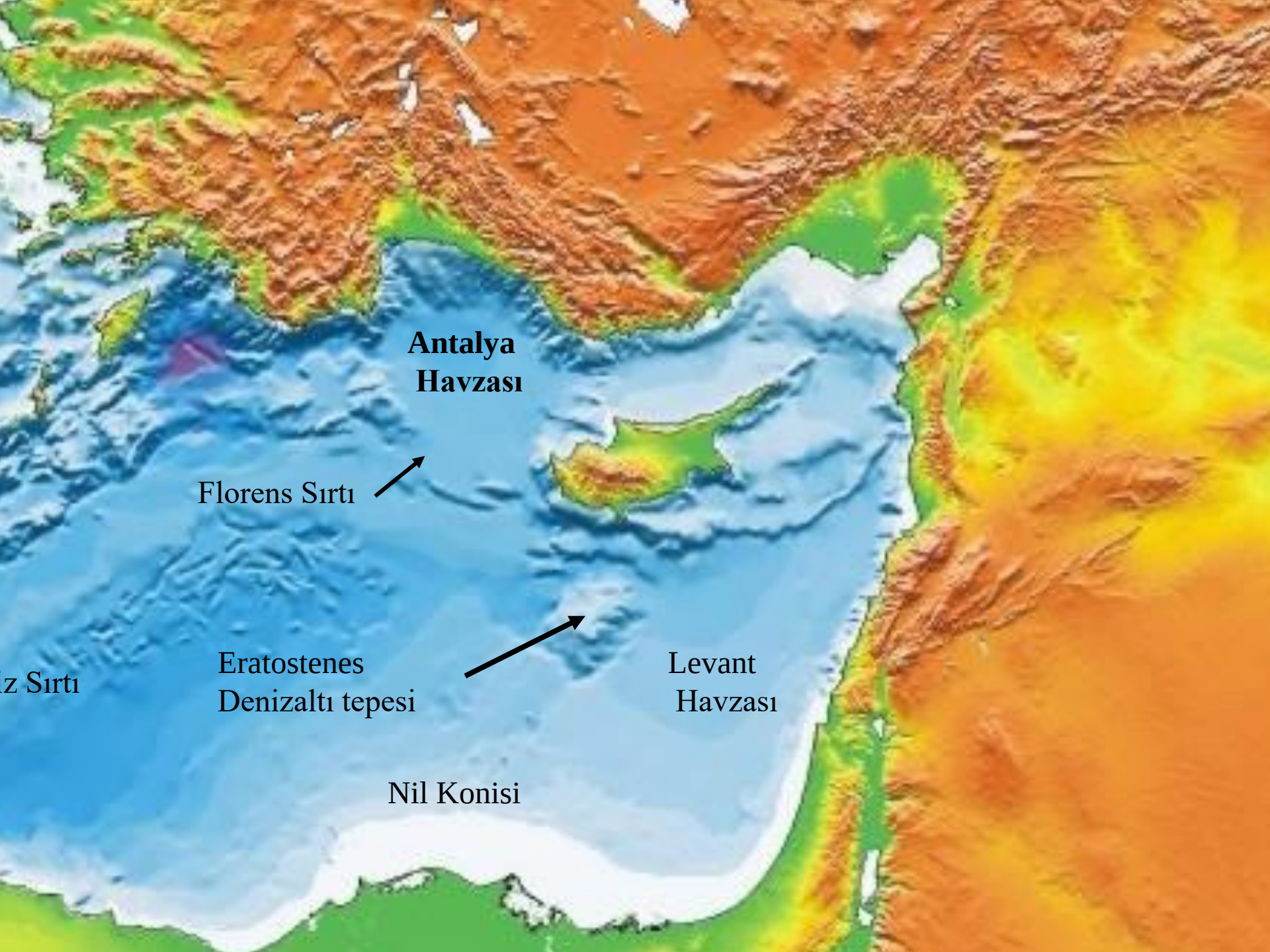


Eratostenes denizaltı tepesi:

Kıbrıs ile çarpışan bir kıta parçasığı

Kıbrıs'ın Miyosen'de yükselmesi
muhtemelen bu çarpışmaya bağlı





**Antalya
Havzası**

Florens Sirtı

Eratostenes
Denizaltı tepesi

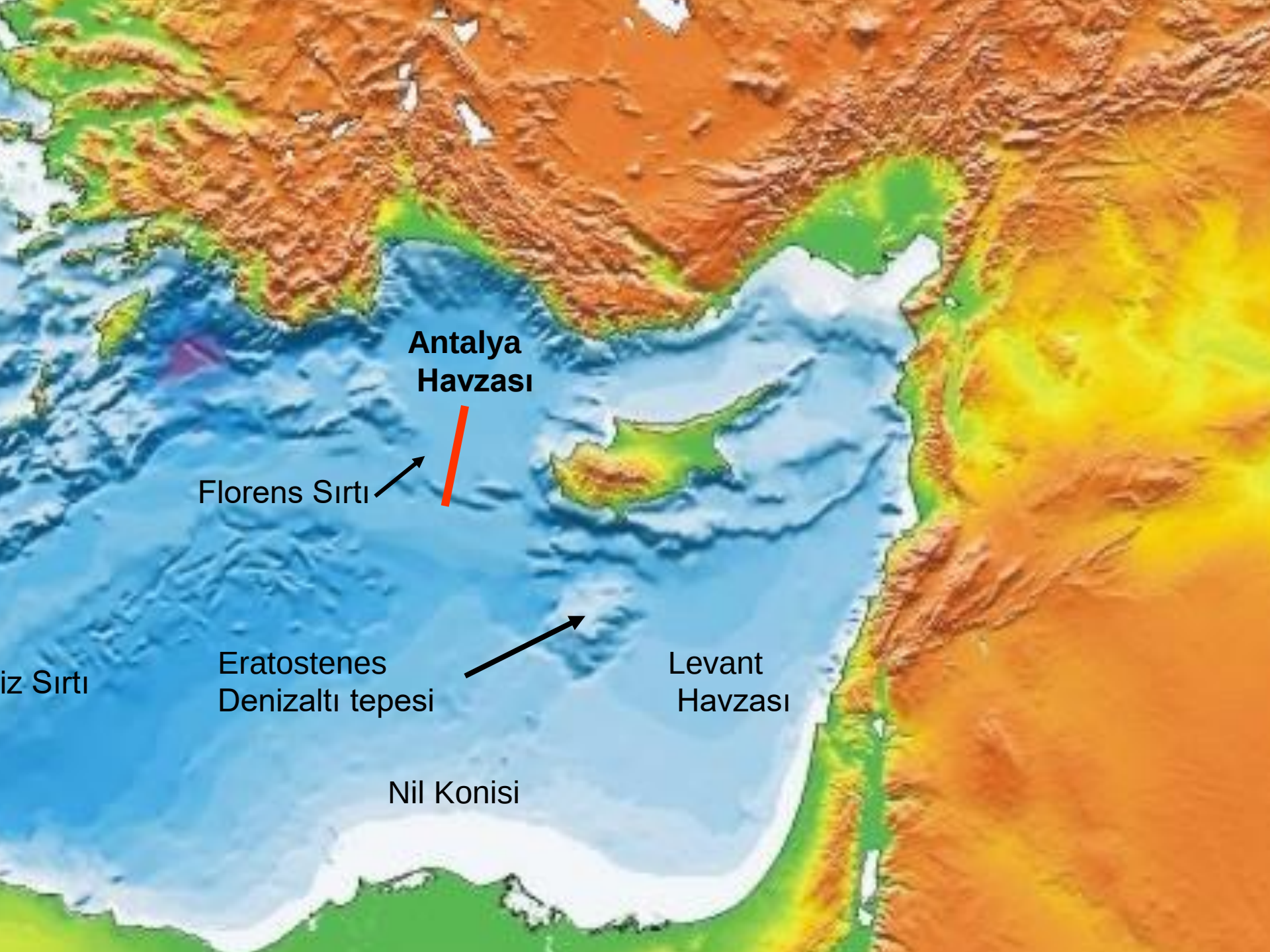
Levant
Havzası

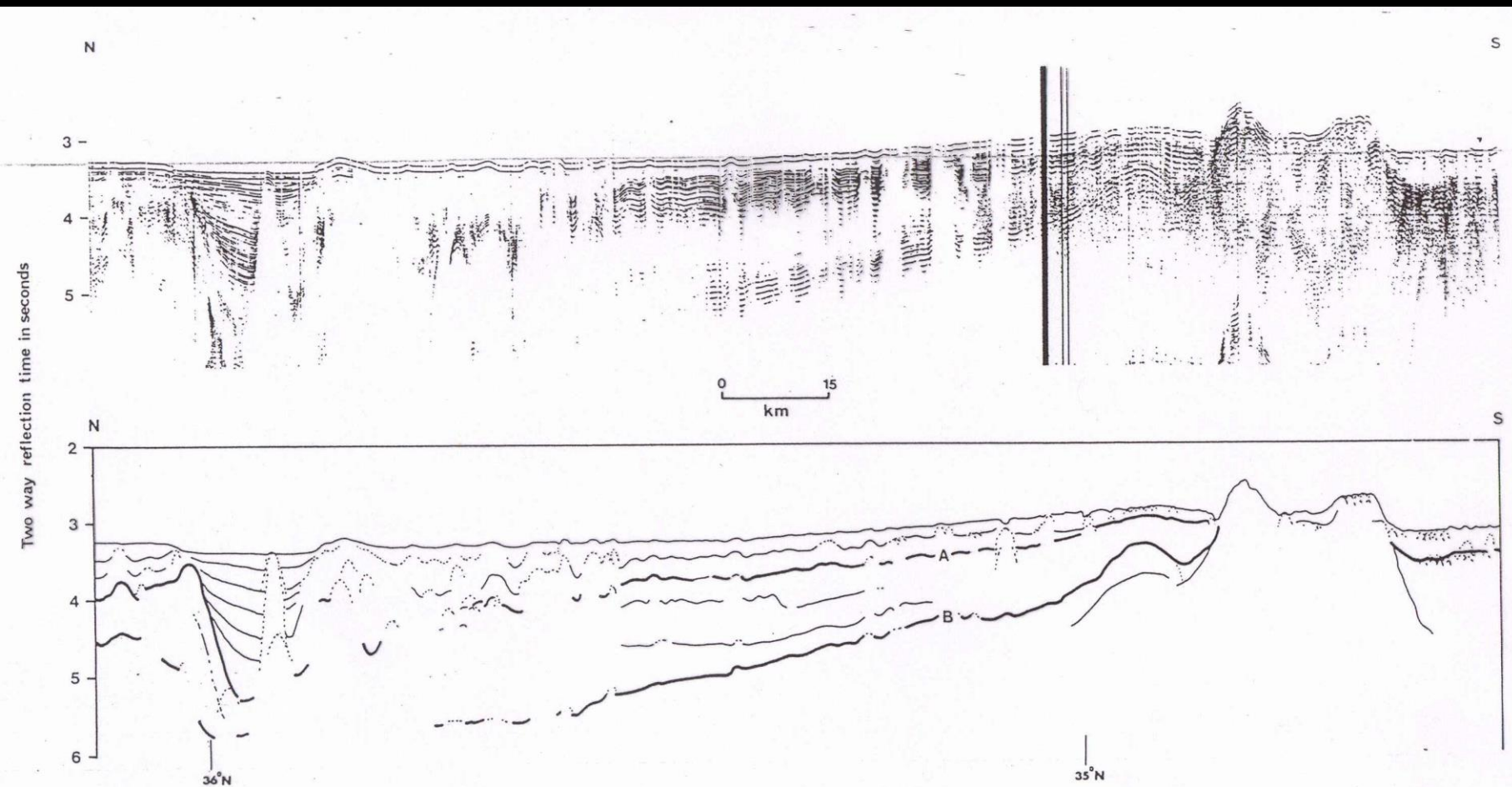
Nil Konisi

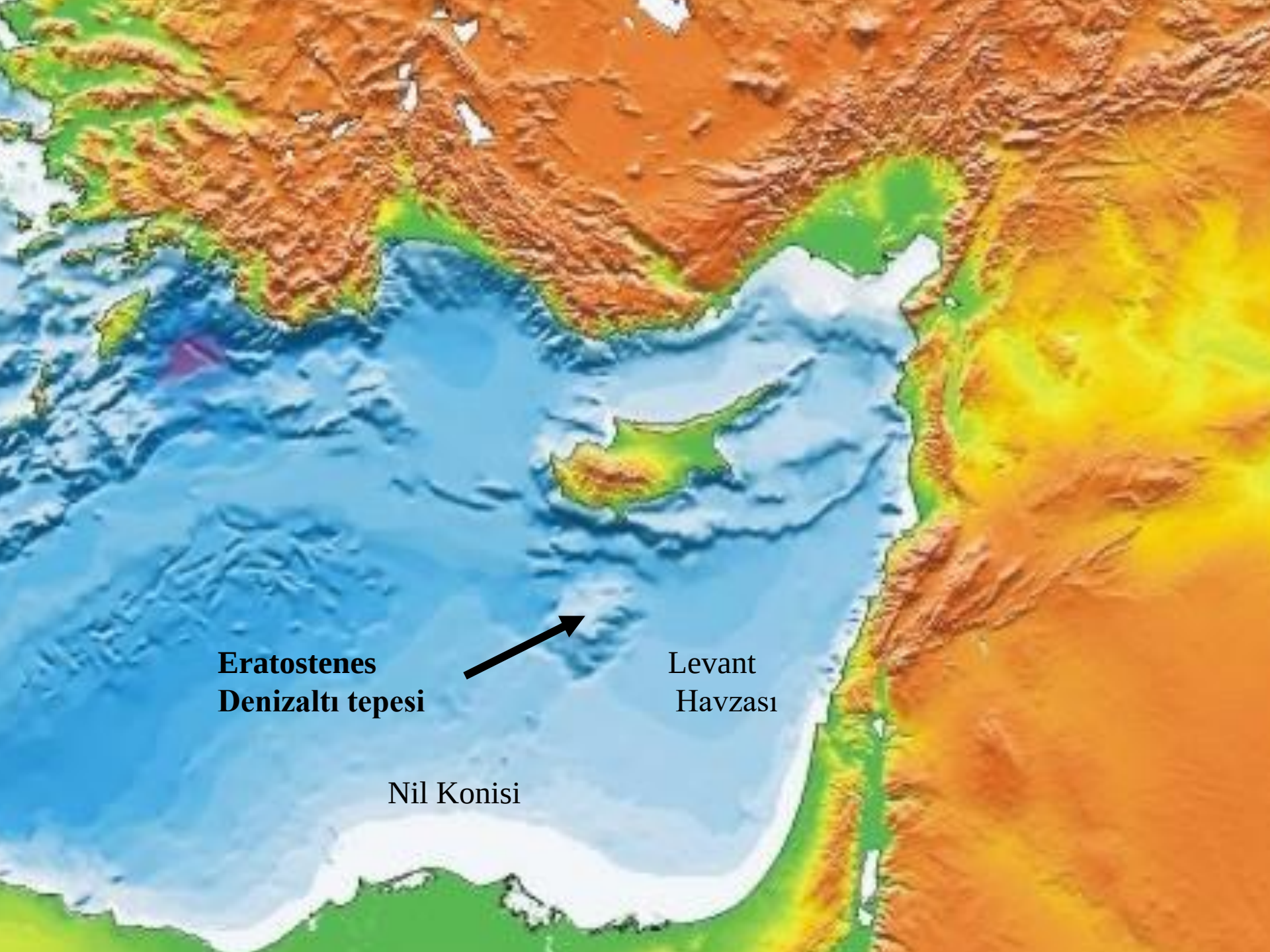
z Sirtı

Antalya Havzası:

Florens Sirtı arkasında kuzeye eğilmiş
“yay-önü” havza







**Eratosthenes
Denizaltı tepesi**

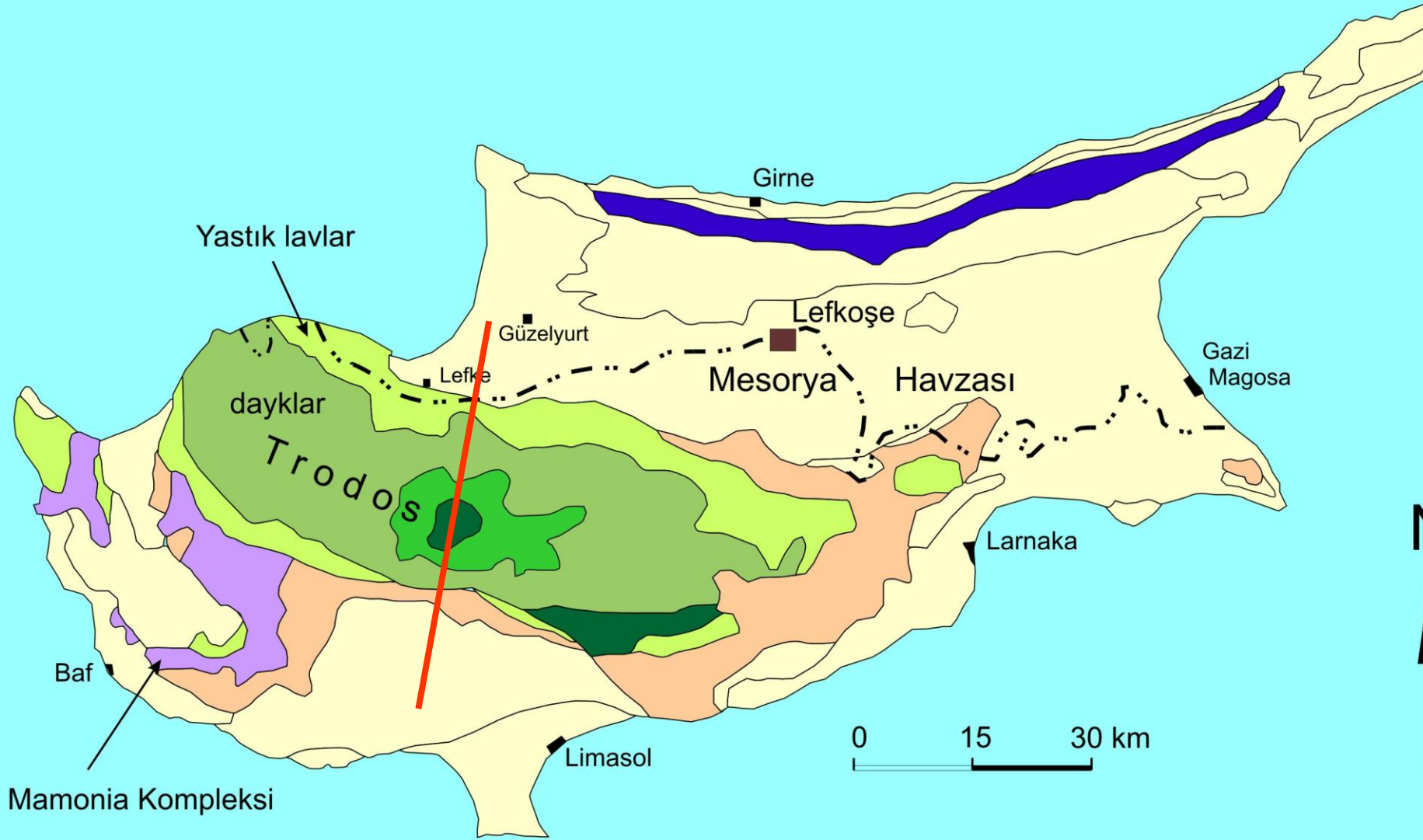
Levant
Havzası

Nil Konisi



Kıbrıs'ın üç önemli tektonik birimi:

1. Trodos ofiyoliti ve ilişkili birimler
2. Mesorya havzası
3. Beşparmak Dağları



Troodos ofiyoliti

Olimpos dađı

G

K

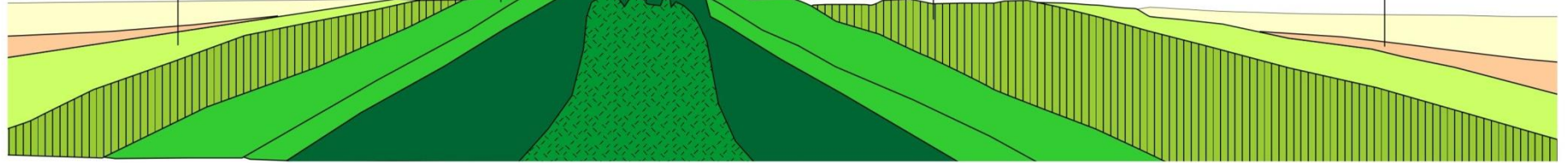
yastık lavlar

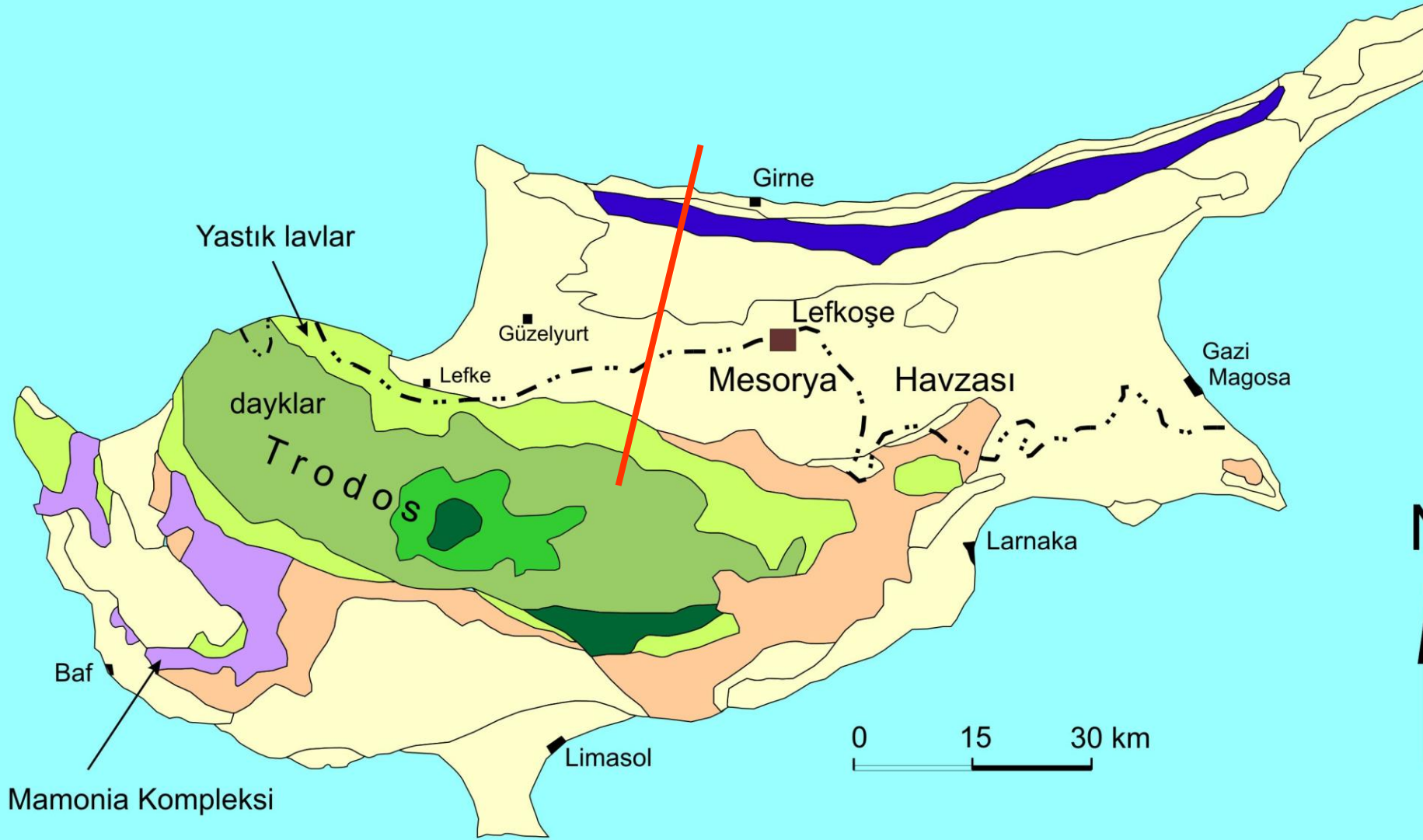
gabro

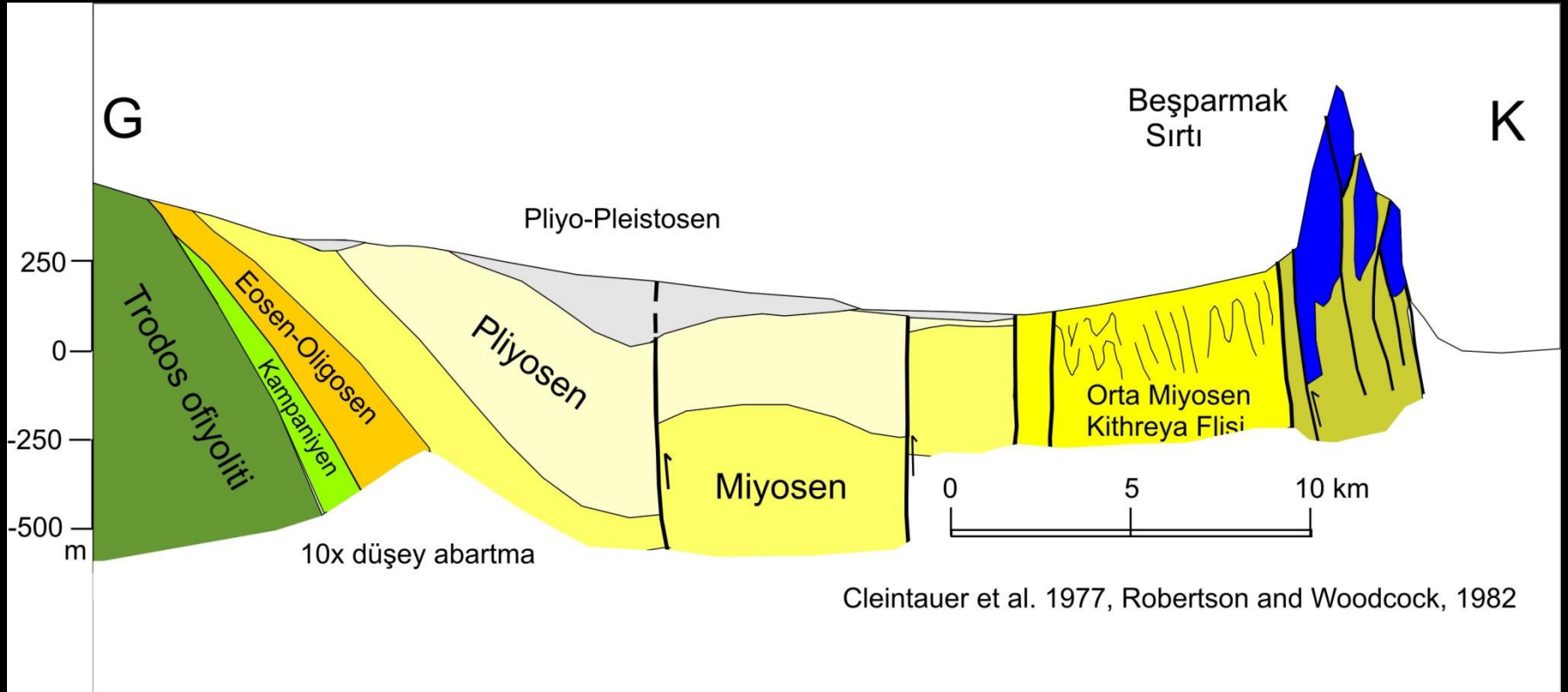
peridotit

dayklar

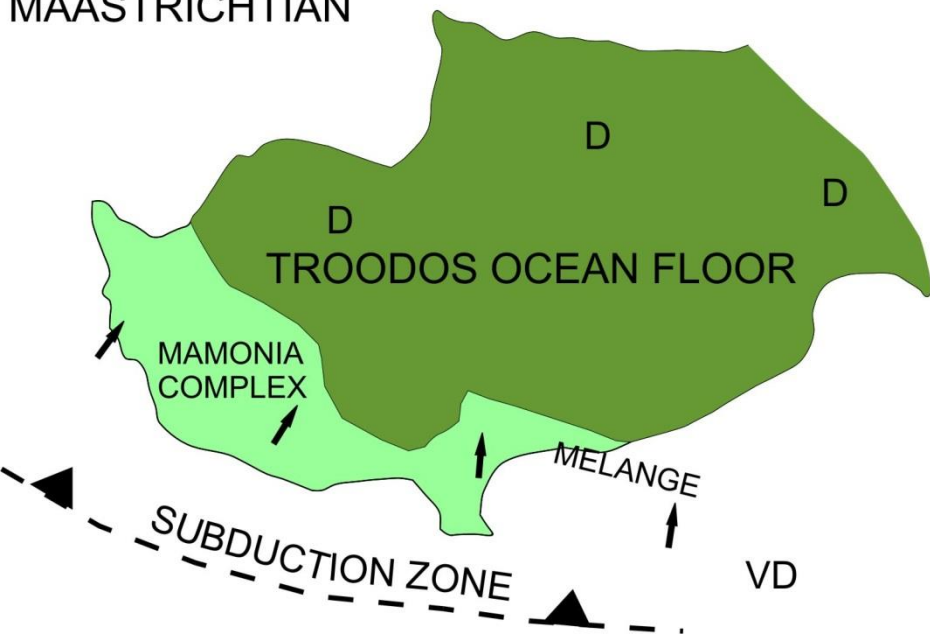
Senoniyen-Miyosen
sedimanları



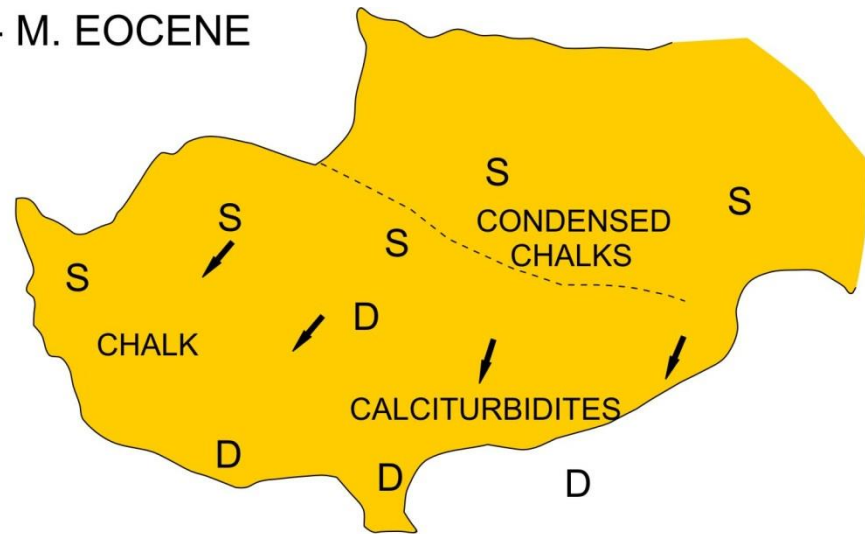




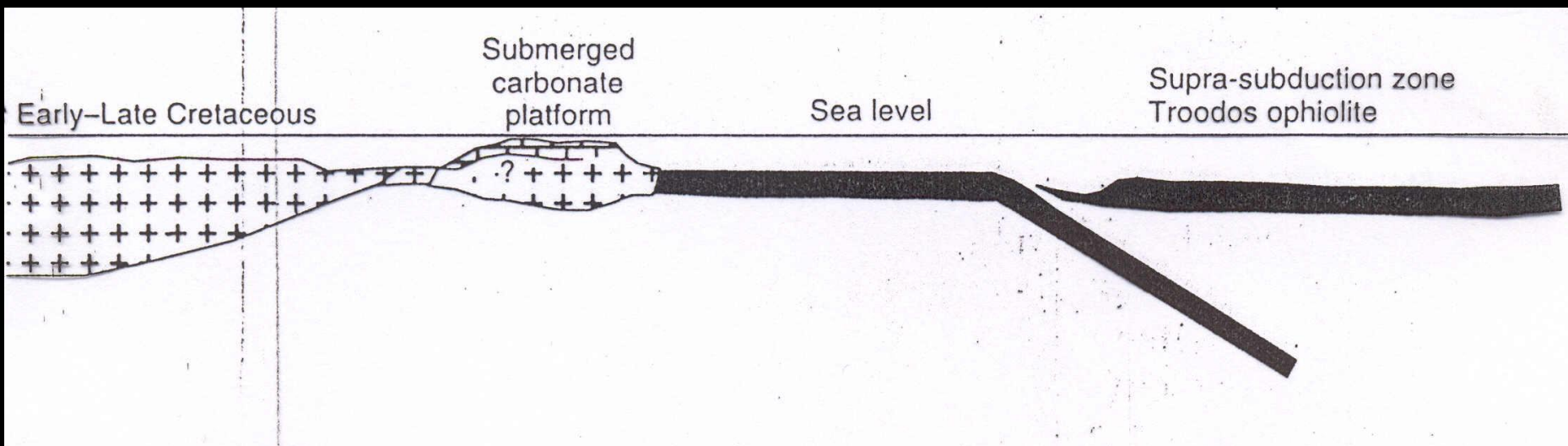
MAASTRICHTIAN



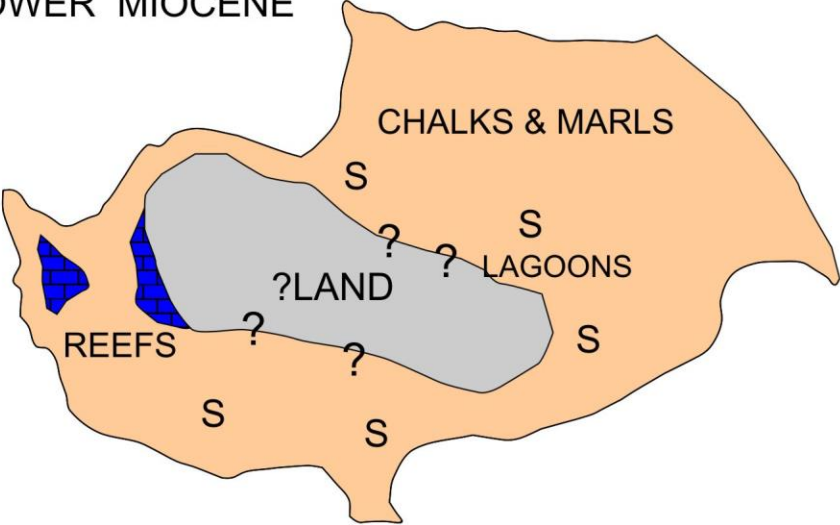
L. - M. EOCENE



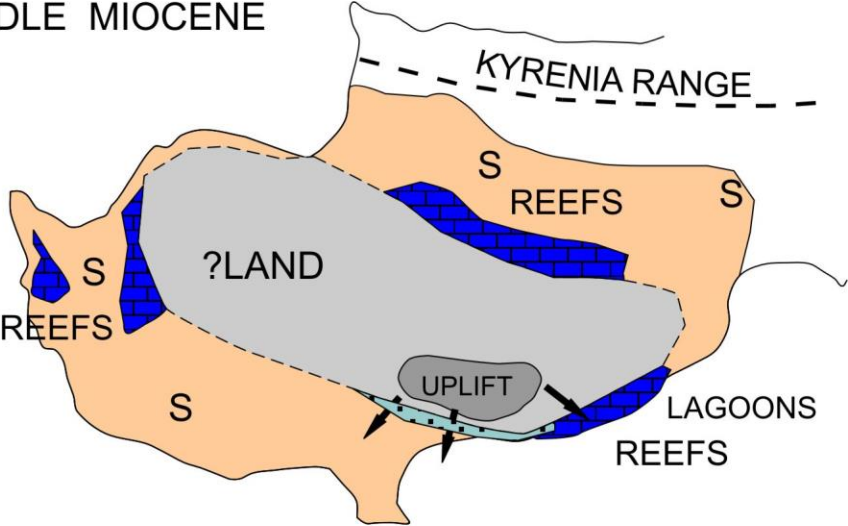
Robertson 1977



LOWER MIOCENE

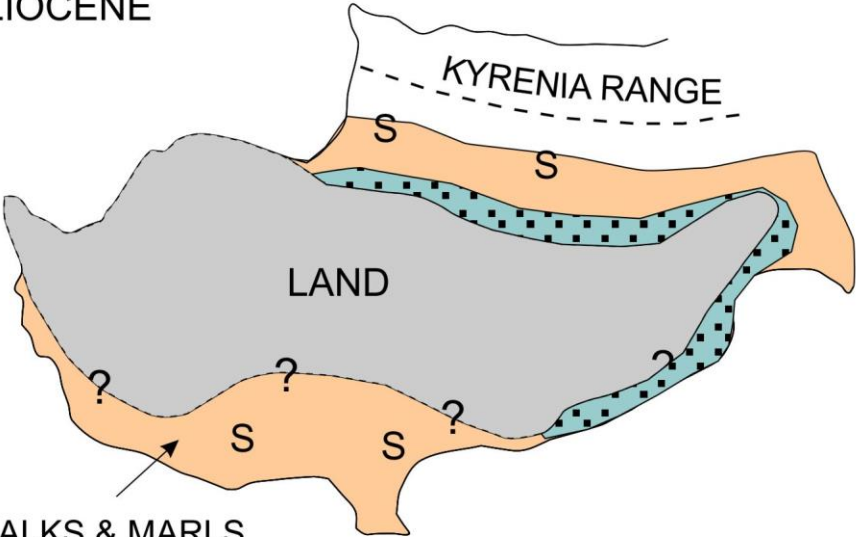


MIDDLE MIOCENE

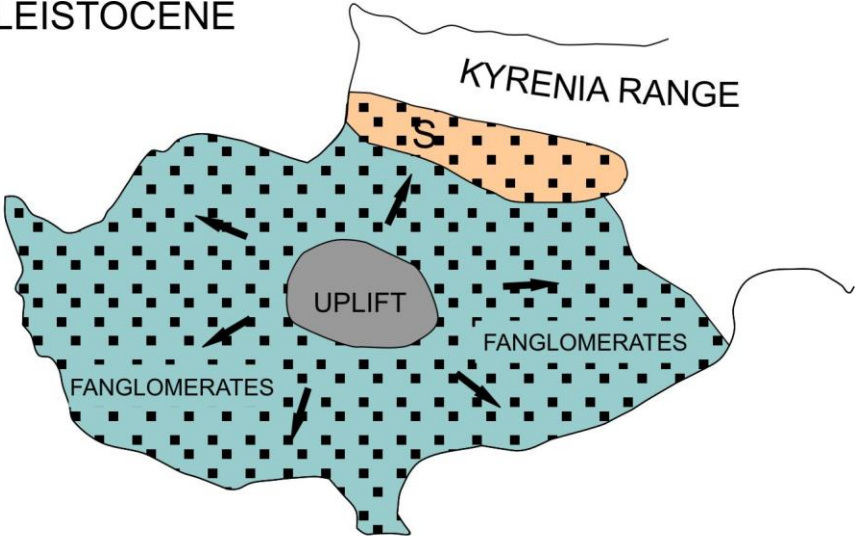


Robertson 1977

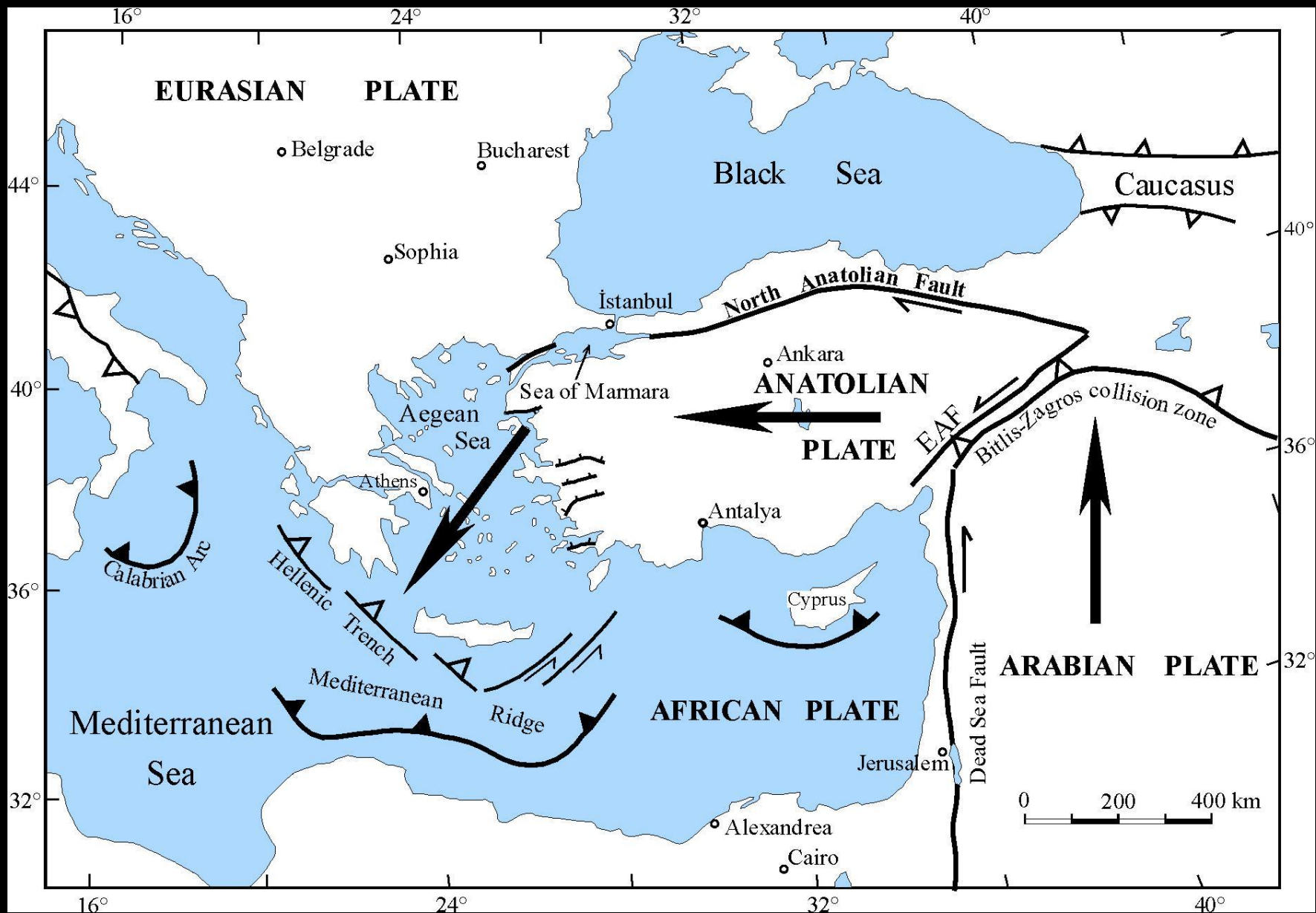
PLIOCENE



PLEISTOCENE



Robertson 1977



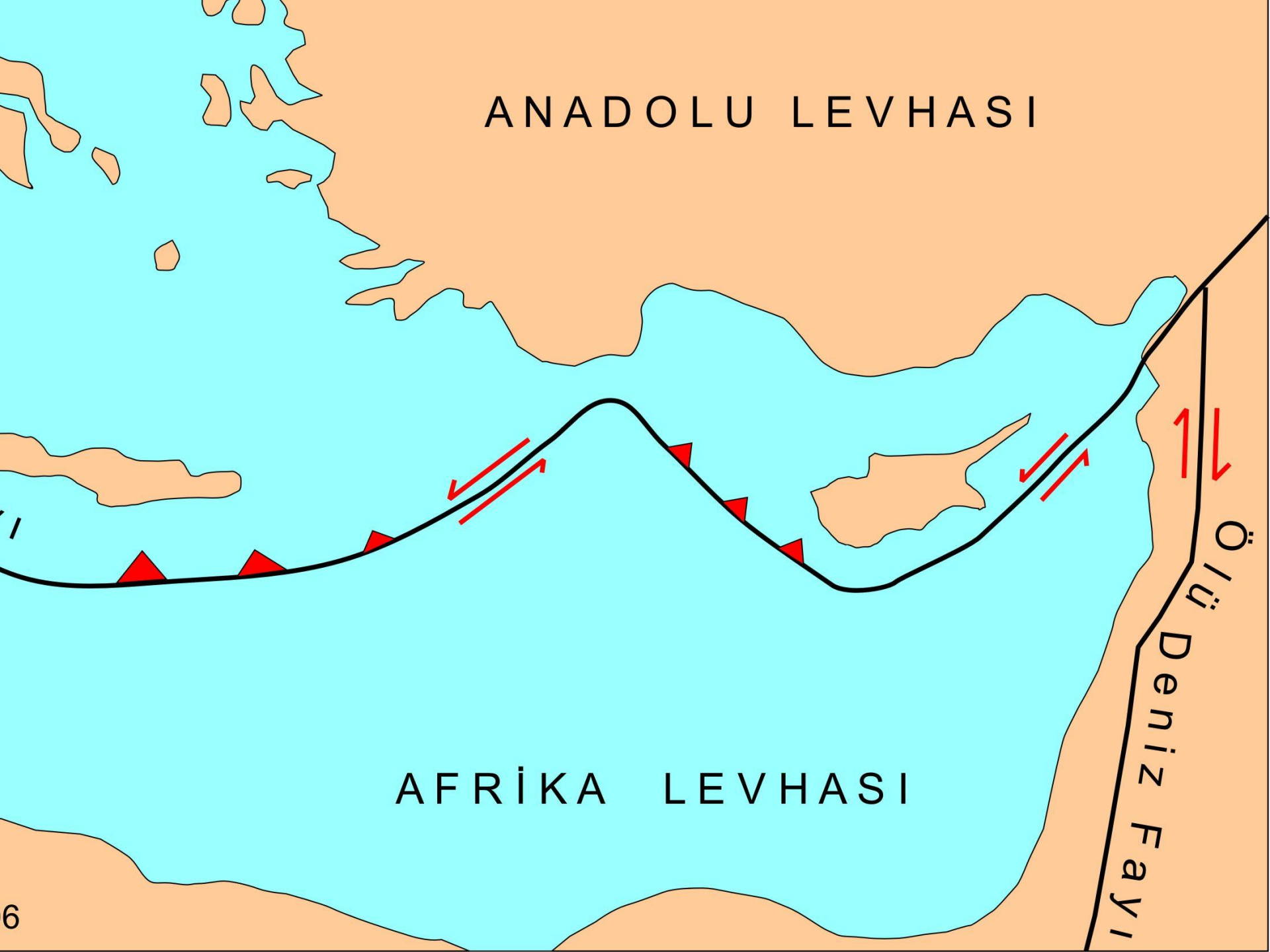
Sonuçlar:

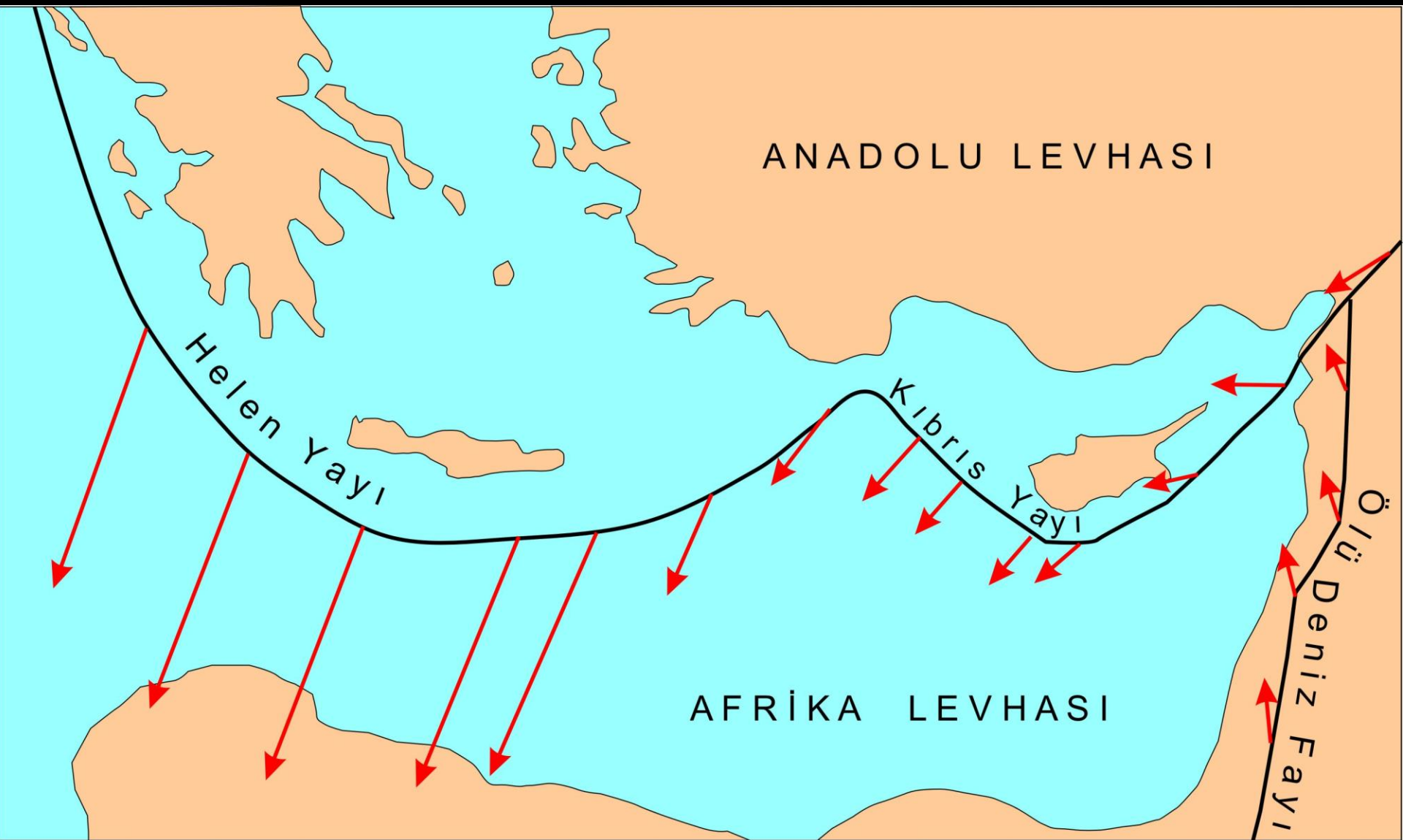
1. Doğu Akdeniz'in güneyinde yer alan Levant ve Heradot havzalarının altında muhtemelen okyanusal bir kabuk yer alır.
2. Doğu Akdeniz okyanusal litosferi Triyas veya Jura yaştadır ve Neo-Tetis okyanusunun bir parçasını oluşturur.
3. Doğu Akdeniz Sırtı, Doğu Akdeniz okyanusal litosferinin kuzeye doğru yitilmesi sürecinde oluşmuş devhasal bir eklenir prizmadır.
4. Kıbrıs'ta Beşparmak Dağları Toroslar'ın güney ucunu, Mesaorya Havzası bir “yay-önü” havzayı, Trodos ise Kretase yaşta bir Tetis ofiyolitini temsil eder.
5. Kıbrıs, Anadolu ile Afrika levha sınırının hemen kuzeyinde Anadolu levhası içinde yer alır. Levha sınırı transform ve dalma-batma tipindedir.
6. Kıbrıs güneyde Eratostenes denizaltı adası ile çarpışmaktadır.

ANADOLU LEVHASI

AFRİKA LEVHASI

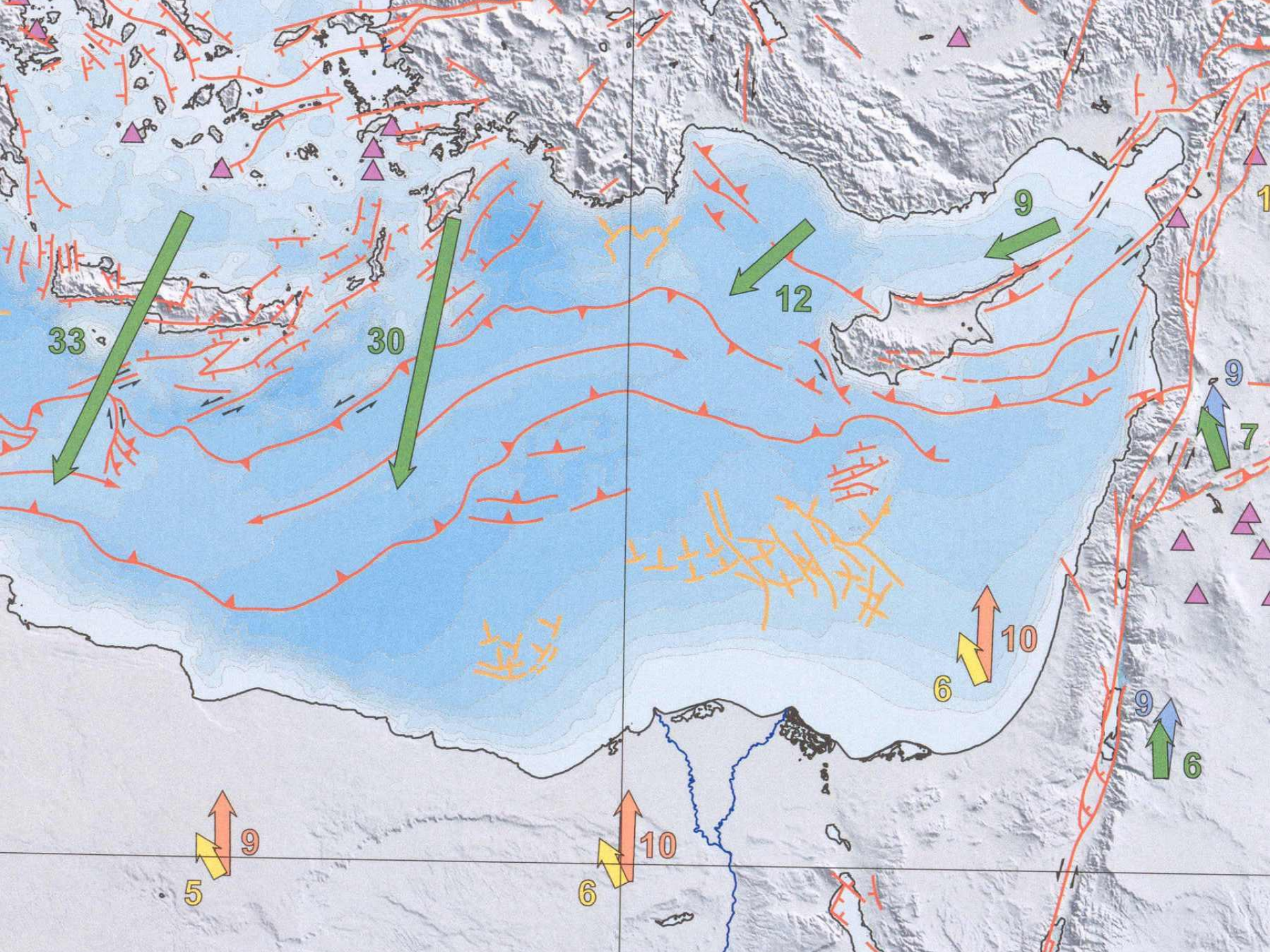
Ölü Deniz Fayı

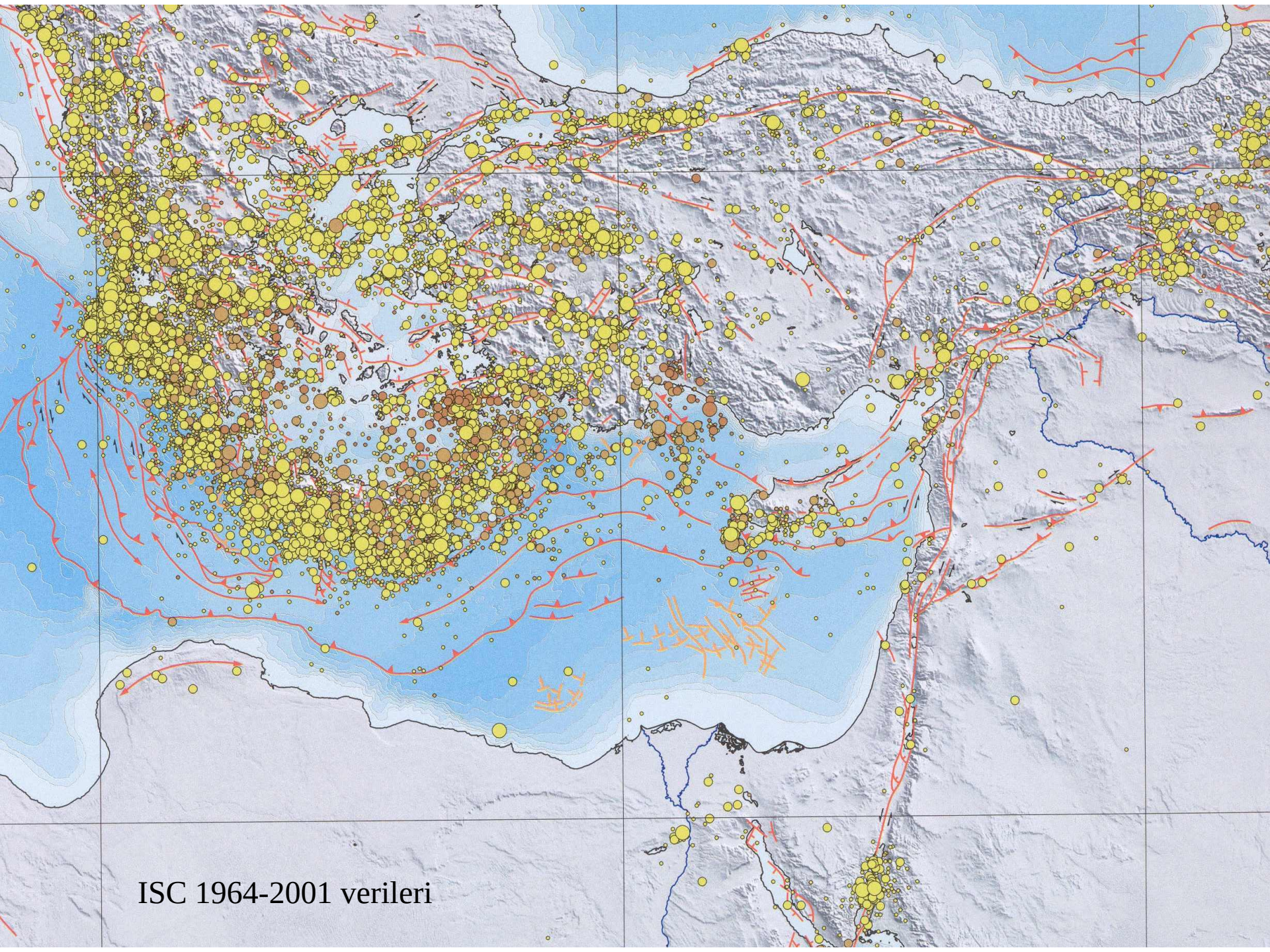




20 mm/y

Wdowinski et al. 2006





ISC 1964-2001 verileri

