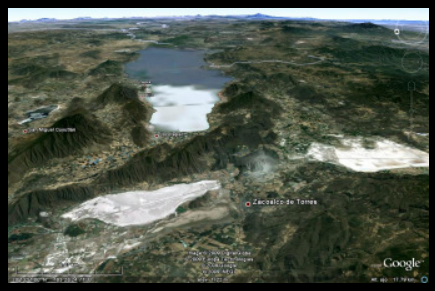
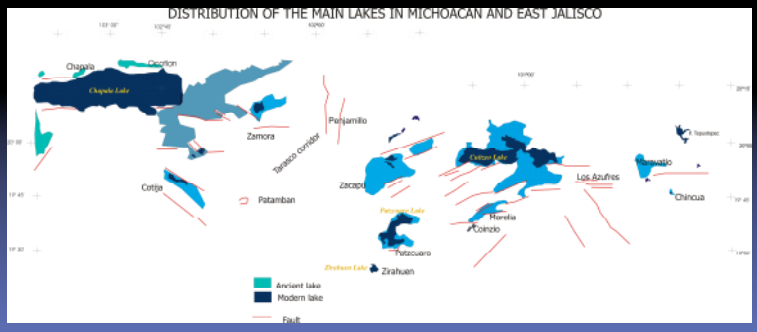


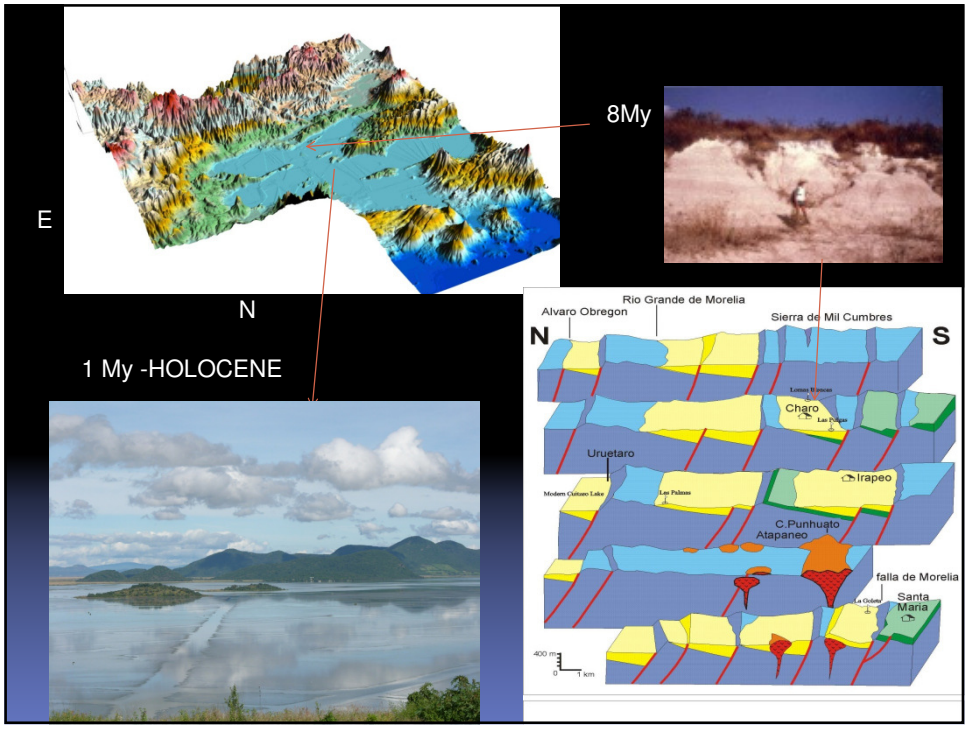


Israde et al. 2010

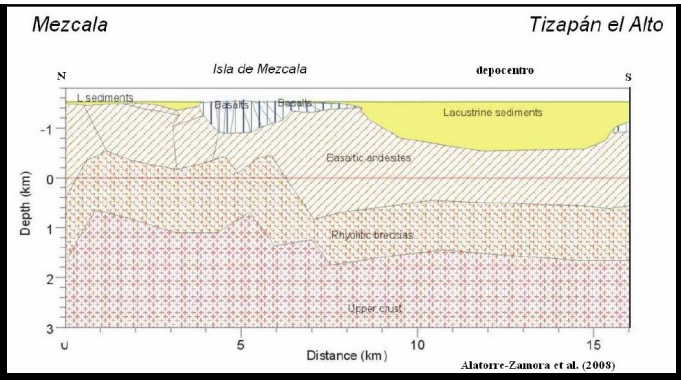
provide a uniquely long continental record of change and allow us to explore climatic forcings and teleconnections over a full glacial cycle

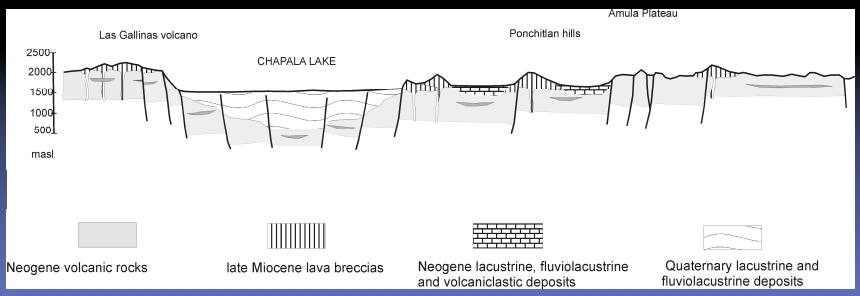
understand the interactions of different elements of the earth system in the past and for identifying potential areas of vulnerability to future climate change.

to climate modellers as modelling the climate of the NAT


E
N
8My
1 My -HOLOCENE
Rio Grande de Morelia
Alvaro Obregon
Sierra de Mil Cumbres
N
S
Charo
Uruetaro
Irapeo
C.Punhuato
Atapaneo
falla de Morelia
Santa
Maria

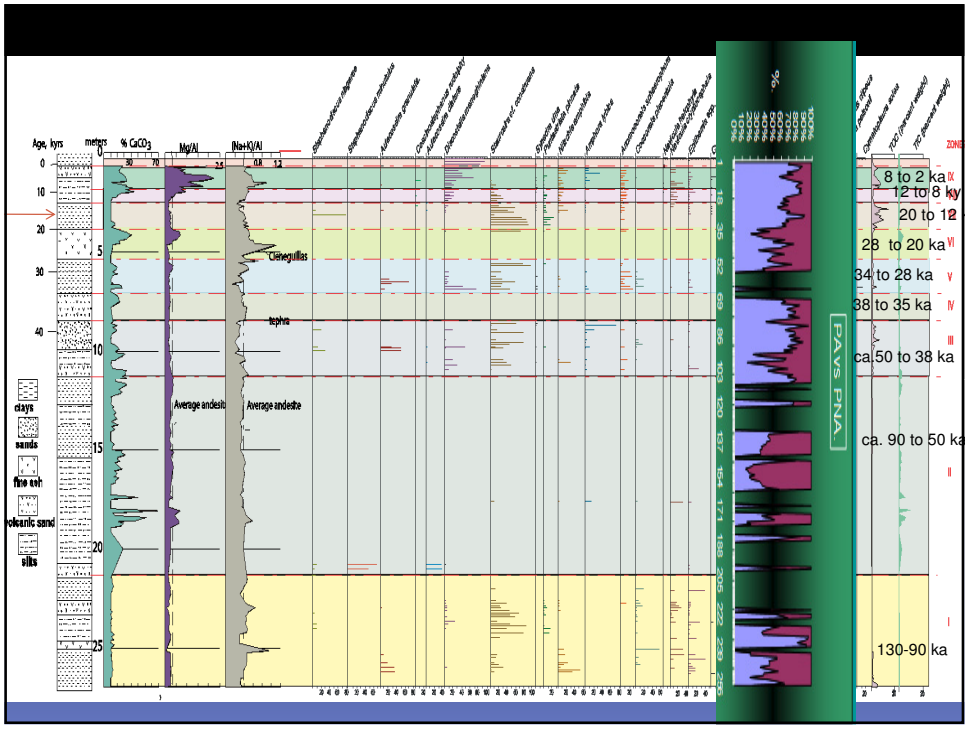

humid
18,520 c14
Arid 20- 30 ka
Late
Holocene
arid


Mezcala
Tizapán el Alto
Isla de Mezcala
depocentro
N
S
L sediments
Basalts
Basalts
Lacustrine sediments
Basaltic andesites
Rhyolitic breccias
Upper crust
Depth (km)
-1
0
1
2
3
0
5
10
15
Distance (km)
Alatorre-Zamora et al. (2008)


Las Gallinas volcano
CHAPALA LAKE
Ponchitlan hills
Amula Plateau
2500
2000
1500
1000
500
masl
Neogene volcanic rocks
late Miocene lava breccias
Neogene lacustrine, fluviolacustrine and volcaniclastic deposits
Quaternary lacustrine and fluviolacustrine deposits


GUANAJUATO
La Piedad
Lago de Chapala
Sahuayo
Core 2
Chapala
Zamora
Core 3
Rincon
Parangueo
Burandiro
Guitzeo
Lago de Cuitzeo
Maravatio
Los Azufres
Ciudad Hidalgo
Core 1
Cuitzeo
MORELIA
Drill
Site
Zacapu
Uruapan
Zitacuaro
20 km
Apatzingan
ESTADO DE MEXICO
N
SIERRA DE COALCOMAN
GUERRERO
Lázaro Cárdenas
Four long cores in Mexico


CUI 05-I, Tr 1



Montecarlo Hotel
1999.

understand the interactions of different elements of the earth system in the past and for identifying potential areas of vulnerability to future climate change.

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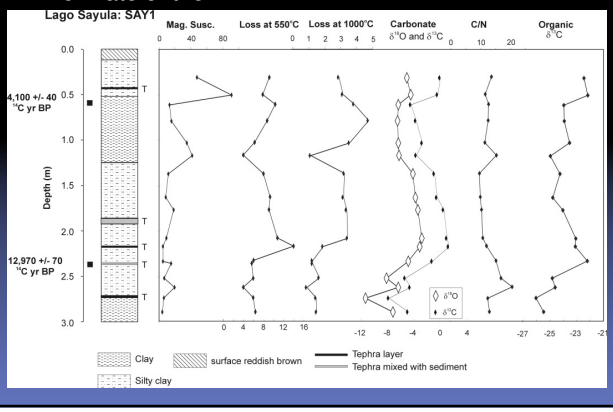

FINAL REMARKS CUITZEO AND CHAPALA SAYULA REGION

Use isotopic, geochemical and palaeoecological methods, combined with a range of dating techniques, we identified the timing and magnitude of periods of high and low lake levels over glacial interglacial, stadial-interstadial cycles.

recent desiccation of the basin is consistent with past low lake level episodes, or is a unique event which can be attributed to human activity

Relatively fresh and large lake conditions between 23 and 45 ky indicate that this area was cold and wet

Between 20 to 23 ky , a very shallow lake was resulted from dry climates during last glacial Maximum
between 14 and 20 ky the lake became fresh and deepening

Toward the middle Holocene the central mexican lakes lakes became shallow, saline more associated to humen ainteractions