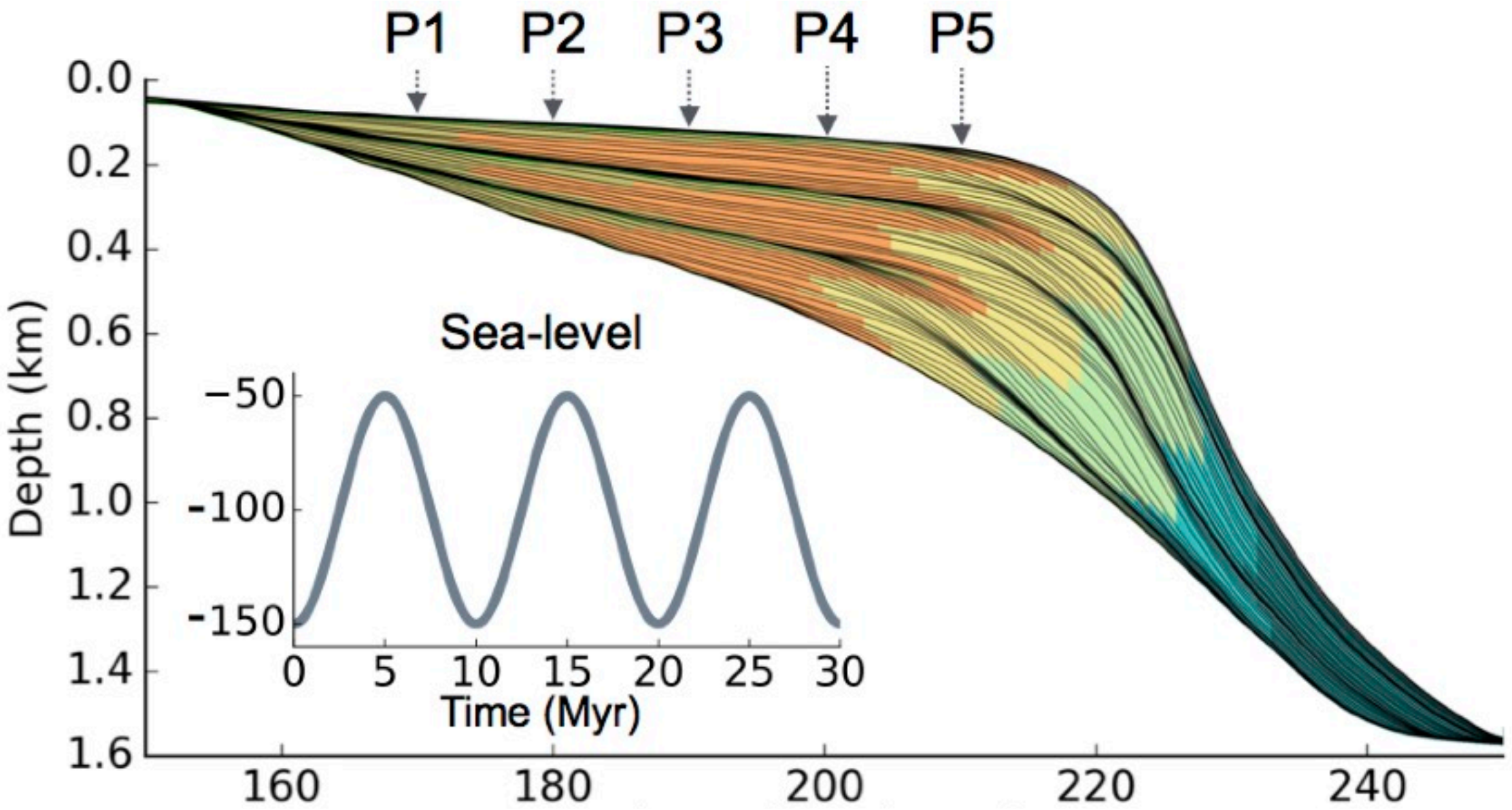
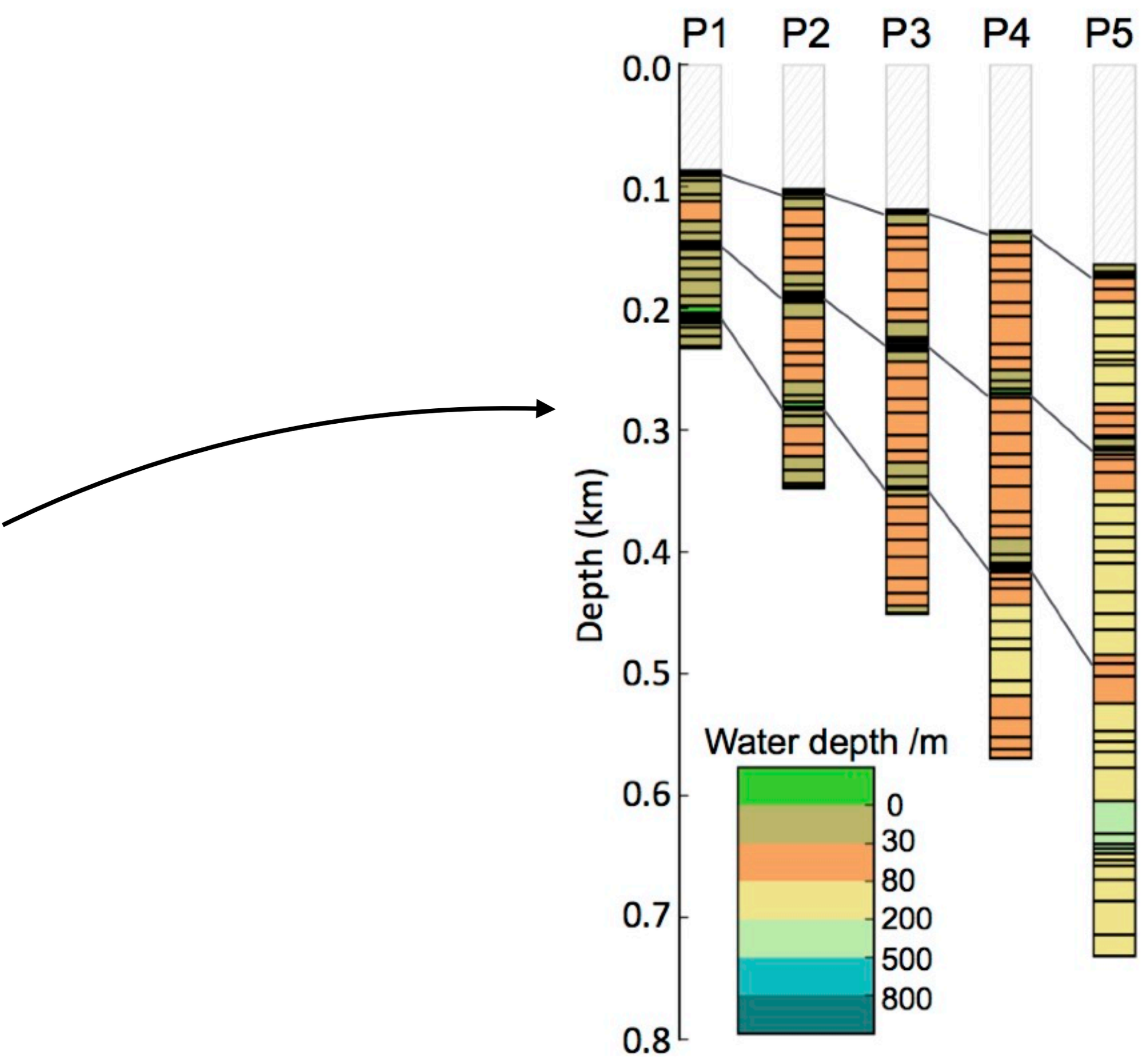
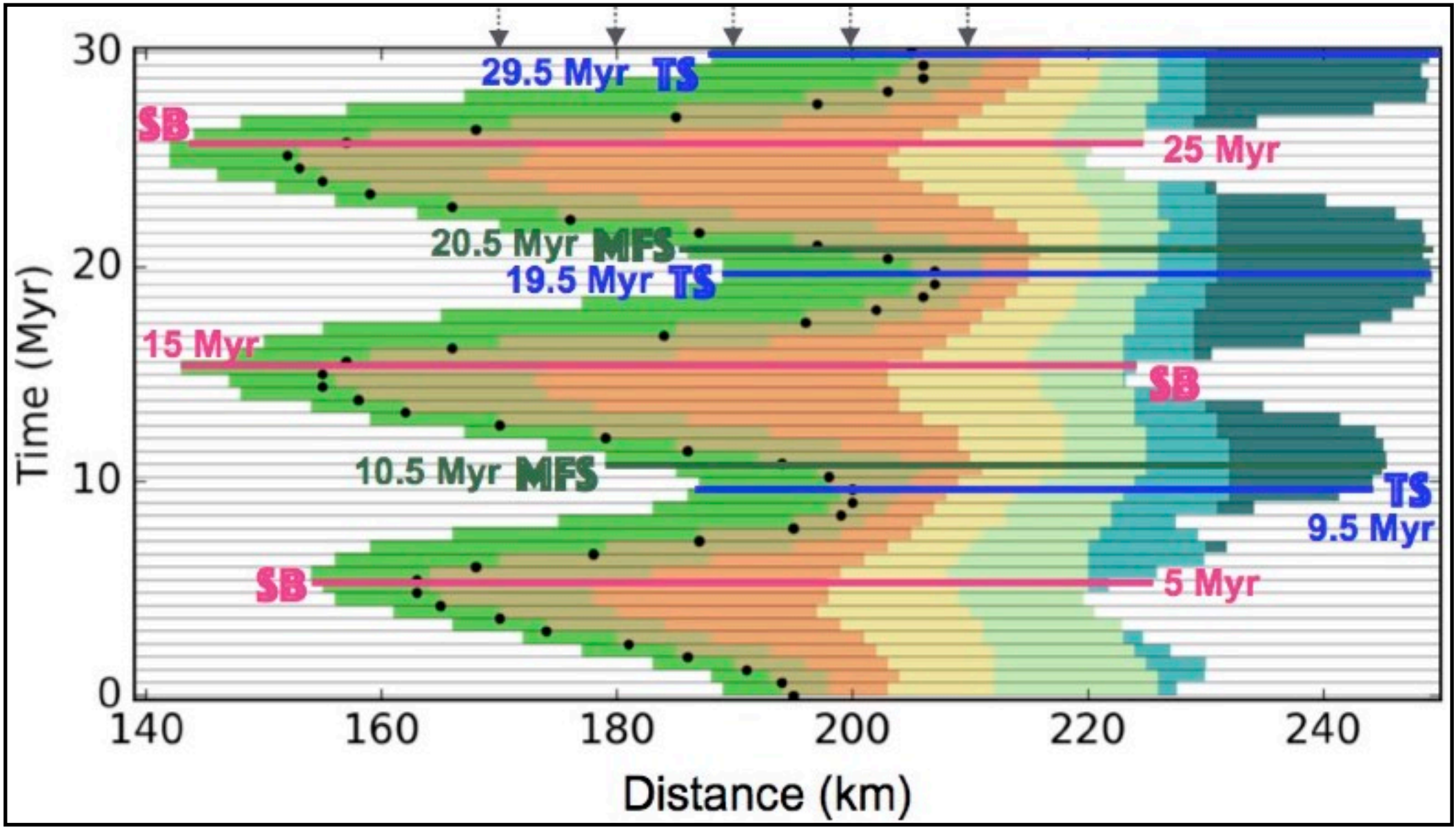
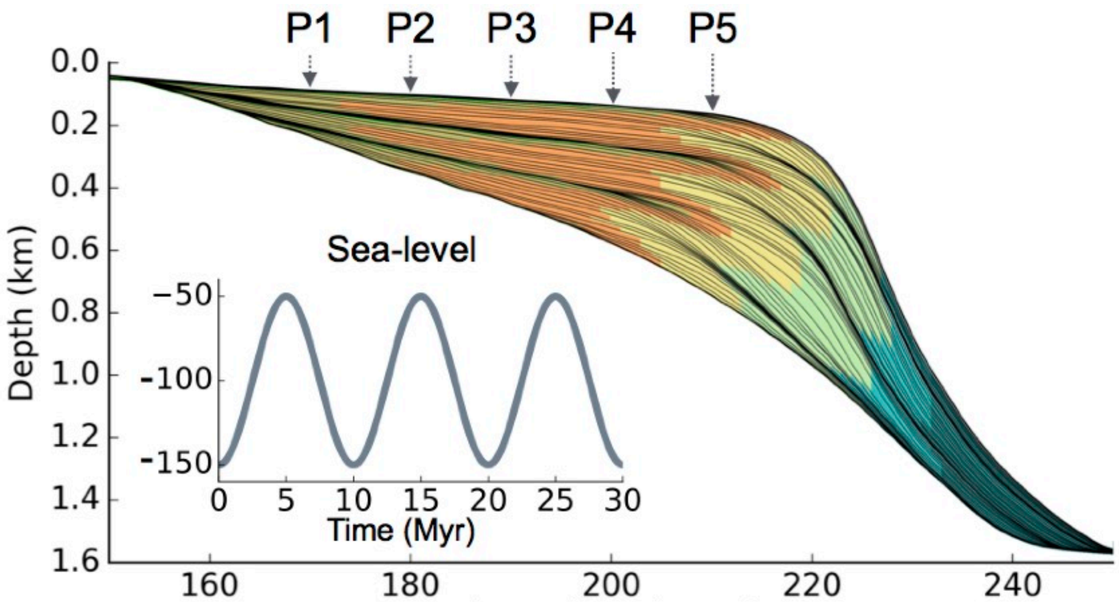
Synthetic wells & Wheeler diagram

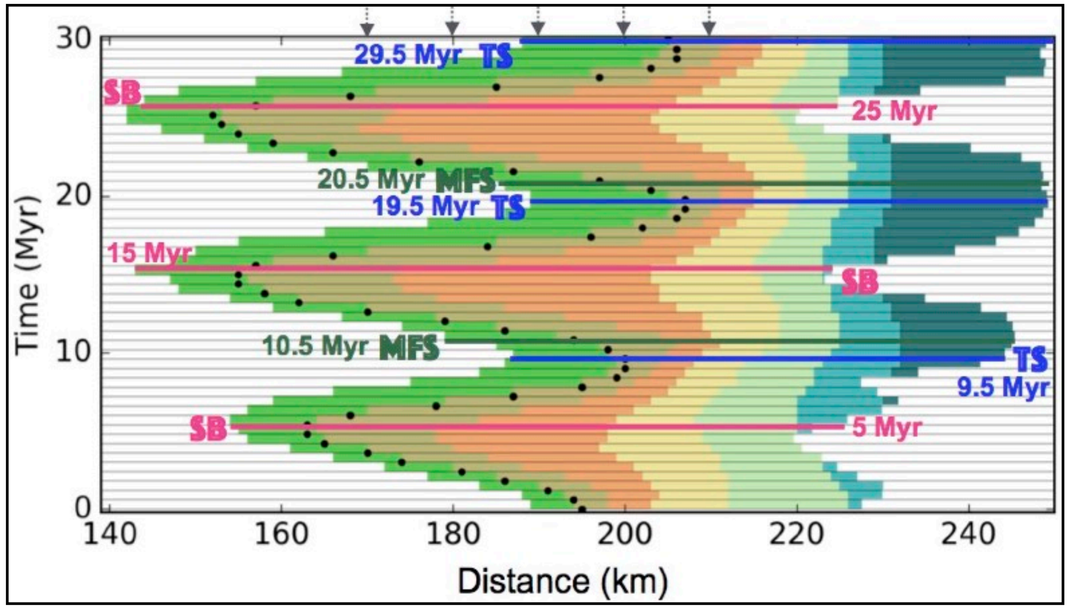

P1
P2
P3
P4
P5
Depth (km)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
160
180
200
220
240
Sea-level
−50
-100
-150
0
5
10
15
20
25
30
Time (Myr)


P1
P2
P3
P4
P5
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
Depth (km)
Water depth /m
0
30
80
200
500
800


29.5 Myr TS
SB
25 Myr
20.5 Myr MFS
19.5 Myr TS
15 Myr
SB
10.5 Myr MFS
TS
9.5 Myr
SB
5 Myr
Time (Myr)
Distance (km)
0
10
20
30
140
160
180
200
220
240

Synthetic wells & Wheeler diagram





Influence of dynamic topography

Investigate the influence of +/- dynamic topography on landscape evolution, the reorganisation of drainage systems, & sedimentation on continental margins.

Model Geometry		
Elevation (m)	Mountain	(200, 800)
	Plain	(0, 200)
	Contin. shelf	(-200, 0)
	Contin. slope	(-1000, -200)
	Basin floor	-1000
Width (km)	Mountain	100
	Plain	100
	Contin. shelf	100
	Contin. slope	30
	Basin floor	20
Modelling Parameters		
Grid resolution	701 x 701	
Grid spacing	1.0 km	
Time-step	10000 year	
Model run time	20 Myr	
Surface Process Parameters		
Erodibility coefficient (Kf)	1.0 x 10-7	
Diffusion coefficient (Kd)	Aerial	0.002
	Marine	0.005
Slope exponent (n)	1	
Drainage area exponent (m)	0.5