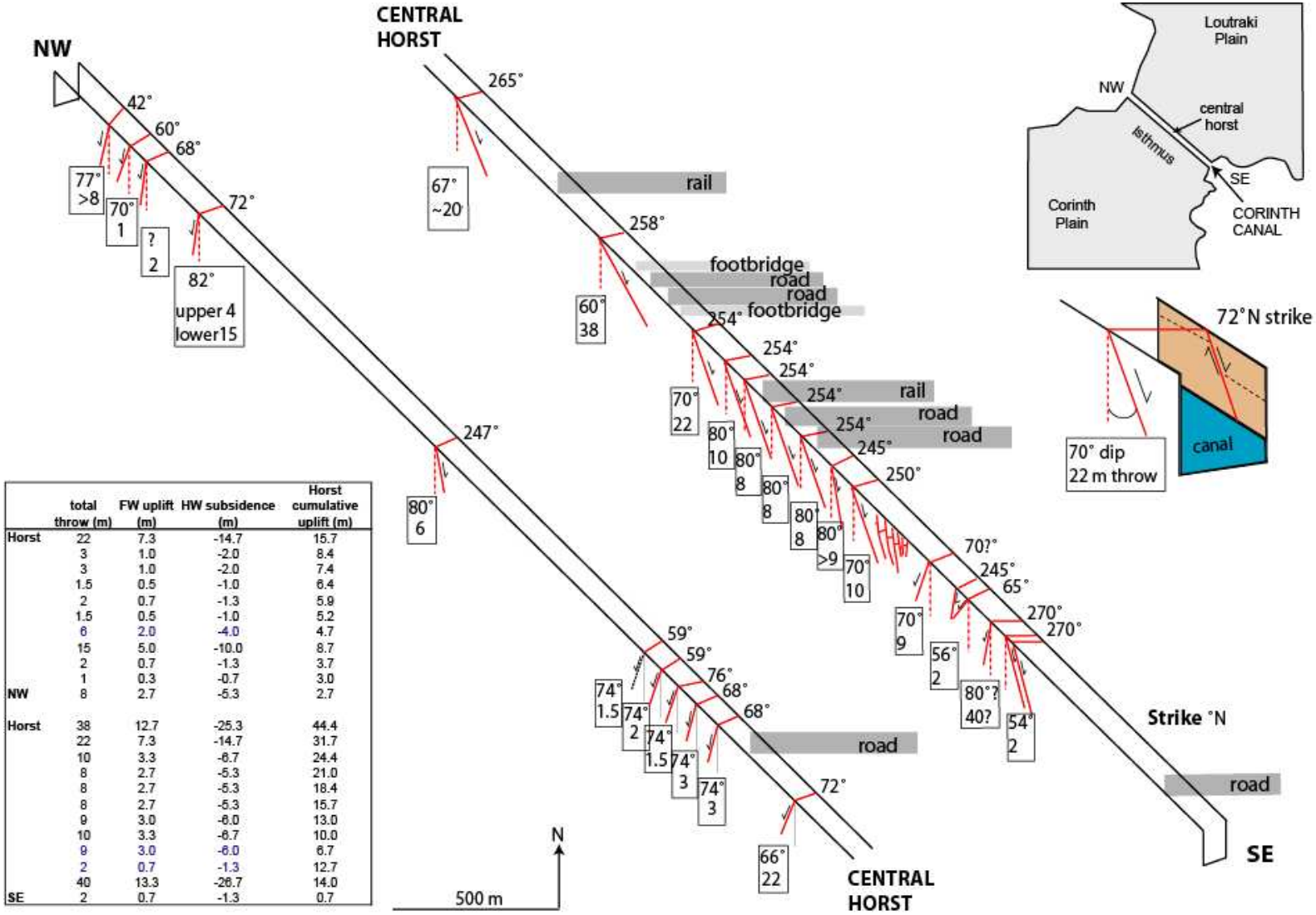
Supplement 2. Contribution of minor faults to uplift of the Isthmus, Lechaion Gulf, Greece.

To determine the contribution by minor faults to uplift of the Isthmus we measured the displacement of each fault exposed in the walls of the Corinth canal, which cuts across the Isthmus, and calculated the cumulative footwall uplift of the central horst (Fig. S2).

The faults dip to the NW and SE away from a central horst, which has an elevation of c. 80 m. To allow for the maximum possible contribution of these minor faults to uplift, we assume that fault activity migrated seawards (Fig. S1) away from the horst. We are unable to accurately determine the partitioning between the footwall and hangingwall of each fault, and use a footwall:hangingwall of 1:2 for high angle faults, after McNeill *et al*. (2005).

The result shows a maximum possible net cumulative uplift of the horst of 15.7 m by faults that are NW of the horst, and 44.4 m on those to the SE. The total possible uplift is thus 60 m. This is a gross estimate and true uplift is expected to be less, as we do not allow for declining uplift with backtilting of each footwall block. However, the 80 m uplift of the horst cannot be explained by maximum uplift value of 60 m, evidence that another tectonic mechanism is required to explain the elevation of the horst. The model that best explains the uplift is the isostatic uplift model of Leeder *et al.* (2003).



	total throw (m)	FW uplift (m)	HW subsidence (m)	Horst cumulative uplift (m)
Horst	22	7.3	-14.7	15.7
	3	1.0	-2.0	8.4
	3	1.0	-2.0	7.4
	1.5	0.5	-1.0	6.4
	2	0.7	-1.3	5.9
	1.5	0.5	-1.0	5.2
	6	2.0	-4.0	4.7
	15	5.0	-10.0	8.7
	2	0.7	-1.3	3.7
	1	0.3	-0.7	3.0
NW	8	2.7	-5.3	2.7
Horst	38	12.7	-25.3	44.4
	22	7.3	-14.7	31.7
	10	3.3	-6.7	24.4
	8	2.7	-5.3	21.0
	8	2.7	-5.3	18.4
	8	2.7	-5.3	15.7
	9	3.0	-6.0	13.0
	10	3.3	-6.7	10.0
	9	3.0	-6.0	6.7
	2	0.7	-1.3	12.7
	40	13.3	-26.7	14.0
SE	2	0.7	-1.3	0.7

Fig. S2. *Schematic of the Corinth canal minor faults, with the setting (tip right) and sketch illustrating the strike, dip and throw measurements (centre right) that are plotted along the length of the canal (main figure). The table inset (bottom lift) calculates the cumulative uplift of the horst on the footwall of each fault*

Leeder, M. R., McNeill, L. C., Collier, R. E. L., Portman, C., Rowe, P. J., Andrews, J. E. & Gawthorpe, R. L. 2003. Corinth rift margin uplift: New evidence from Late Quaternary marine shorelines. *Geophysical Research Letters* **30** 1611-1614

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