

REFRACTION SEISMIC INVESTIGATION IN KLAZOMENAI AS A CONTRIBUTION TO THE RESEARCH OF HOLOCENE COASTAL DEVELOPMENT IN WESTERN TURKEY

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In the summers of 1998 and 1999 a field study was carried out in the historical bay of Klazomenai (western Turkey), using refraction seismic methods. The goal was of historical coastline changes. The study entailed an interdisciplinary cooperation between geologists and archeologists. Sedimentological drilling studies and moving source profiling investigations were carried out additional to improve the interpretation of seismic profiles. The whole seismic investigations needed the use of horizontally polarised shear waves (SH-waves). Holocene interfaces could be resolved in water saturated sediments. Especially interesting here is mapping transition zones, which separates marine from terrestrial sediments.