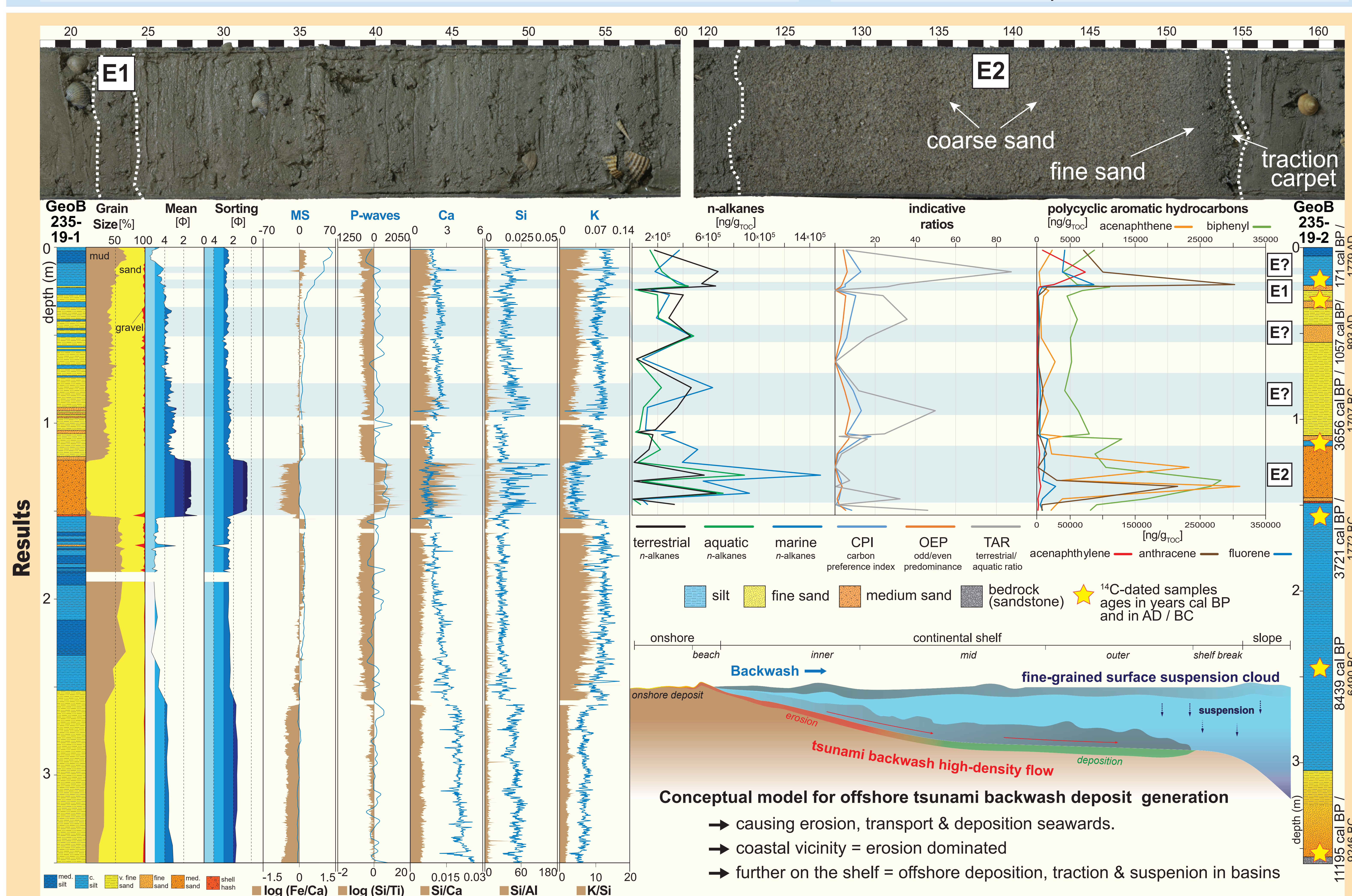
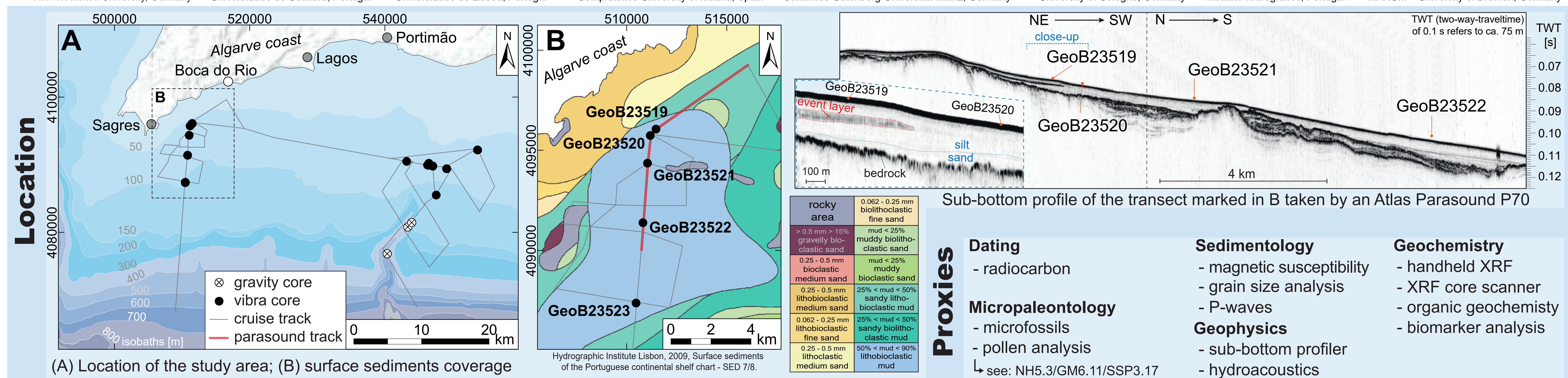




Uncharted archives - imprints of tsunami backwash deposits on the Algarve shelf (Portugal)

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Interpretation		Event 1	Event 2
	Age (¹⁴ C)	between 1057 - 171 cal. BP <i>(described as AD 1755 Lisbon tsunami)</i>	between 3721 - 3656 cal. BP <i>(unknown tsunami)</i>
	Sediment characteristics	3-6 cm thick bioclastic sand/gravel layer sharp upper contact less defined basal contact	ca. 25 cm thick well-sorted sand layer shell debris & inverse gradation traction carpet → bedload transport
	Geochemical signature	post-event environmental changes increase in PAHs terrestrial input (<i>n-alkanes</i>) → backwash effect	increase in Si, Ca/Fe & P-waves decrease in Fe, Br, Ti & MS increase in PAHs terrestrial input (<i>n-alkanes</i>) → backwash effect

Summary

- **Identification of at least two tsunami deposits**
 - AD 1755 Lisbon tsunami
 - yet unknown ca 3700 cal BP (1172-1707 BC) tsunami
 - potential other event between AD1755 & 3700 cal BP
- **High preservation potential in offshore archives**
- **Offshore backwash deposits underestimated**



References

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Corresponding EGU contributions

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