The ten papers included in this volume, with the exception of that of Hanebuth et al. were all presented at the 32nd International Geological Congress held in Florence, Italy during August 20–28, 2004. These nine papers were from the two topical symposia; the Carbonate Shelves Symposium (one) and the Sea-level Changes Symposium (eight). The latter symposium was organized with the support of the Commission on Coastal and Marine Processes, International Union for Quaternary Research and International Geological Correlation Programme Project 464 ‘Continental shelves during the last glacial cycle’. Papers from two sessions were included: Session T34.01 Sea level during the last interglacial, co-convened by F. Antonioli and K. Lambeck, and Session T34.02 Sea-level change since the last glacial maximum, co-convened by W. Yim and T. Hanebuth. It was through discussions in Florence between Antonioli and Yim that a decision was made to publish selected papers in a special issue of Quaternary International. A broad range of topics on Quaternary sea-level changes from the last interglacial to the present is covered by the papers.

The paper by Antonioli et al. demonstrates differential uplift around Sicily Island in southern Italy by using the elevation of the MIS 5.5 shoreline terrace. Although the whole of Sicily is affected by uplift, the authors identified a higher uplift rate in the eastern part in comparison to the other parts.

Antonioli, Ferranti and Kershaw examine the origin for double MIS 5.5 and Holocene marine notches in the coastline of Italy. Based on their assessment on glacial isostatic adjustment, they argued that the notches were both formed during a single highstand with the morphology accounted for by isostatic motion and tidal erosion.

Ferranti et al. have examined the tectonic implications of the elevation of the MIS 5.5. highstand in 246 sites along the coast of Italy. Sea-level indicators were used to show elevation differences ranging from +175 to −125 m relative to the present sea level. The differences found are accounted for by regional differences in tectonics and volcanoism.

Yim et al. present a postglacial sea-level record for the siliciclastic-dominated northern South China Sea continental shelf between Hong Kong and Dongsha, through the study of cores and grab samples. They identify seven sedimentary facies spanning a period from the last glacial maximum onwards. Pre-8200 calendar yr BP radiocarbon ages are found to be minimum ages which may be attributed to large variations of atmospheric $\Delta^{14}$C during the postglacial period, with greenhouse gases released from the sub-aerially exposed continental shelf probably accounting for a significant proportion.

The Quaternary shoreline displacements in Liguria (north Italy) are still poorly known. The paper by Federici and Pappalardo completely revises and interprets the literature on this topic, according to modern criteria of marker evaluation. Among the sites showing geomorphological evidence of MIS 5 present in Liguria, three were considered with terraces displaying inner margins at 28 m a.s.l, dated MIS 5.5 through OSL analyses.

The paper by Collins et al. provides a high precision record of mid-late Holocene sea-level changes from coral pavements in the Houtman Abrolhos Islands, Western Australia. A mid-Holocene highstand close to 7000 U/Th years is recognized, followed by sea-level decline linearly as the carbonate platform prograded leewards.

Usćinowicz presents a relative sea-level curve for the southern Baltic, based on numerous radiocarbon dates on samples from various terrestrial and marine sediments, collected at sites located in the Polish part of the southern Baltic and adjacent coastal areas. The curve reveals a relative sea-level history that is unusually complex, and that reveals the influence of not only isostatic and eustatic changes, but also the effects of changing ice-margins during deglaciation.

The paper by Dumas et al. provides new investigations and new U-series dates in Haiti (north-western Peninsula), documenting evidence of two highstands during MIS 5.5 at 130 and 118 ka. They confirm the age of terraces assigned to MIS 5.3 (107 ka) and MIS 5.1 (82 ka) sea level peaks, respectively, but also detect a second MIS 5.1 high sea level at 76.6 ka.

MIS 3 sea levels are discussed by Hanebuth et al. They provide a new record from the Red River Delta (Vietnam) and review the existing onshore and offshore data from the Southeast Asia region. A discrepancy in depth of some 50 m between sea-level data from proximal and distal locations has been found. This observation leads to...
two competitive conclusions: either a highly differential rebound mechanism has affected the region or a general error has to be assumed for all radiocarbon dates from onshore settings.

The final paper by Schmidt-Thome et al. examines the implementation of a Decision Support Frame on climate change impacts in the Baltic Sea. Because of relative uplift and subsidence within the region, the effective sea-level rise is lower in the northern part than in the southern part. The Stockholm area is unaffected by sea-level rise but by the changing flood pattern due to the increase in river runoff, while the Gdansk area is affected by subsidence and sea-level rise. Consequently, considerations on coastal protection and groundwater supply are needed in the Gdansk area.

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QUATERNARY SEA-LEVEL CHANGES:
CONTRIBUTIONS FROM THE 32ND IGC

Editorial
Quaternary sea-level changes: Contributions from the 32nd IGC
W.W.-S. Yim, F. Antonioli, T.J.J. Hanebuth and J. Shaw

Elevation of the last interglacial highstand in Sicily (Italy): A benchmark of coastal tectonics

A glacial isostatic adjustment origin for double MIS 5.5 and Holocene marine notches in the coastline of Italy
F. Antonioli, L. Ferrari and S. Kershaw

Markers of the last interglacial sea-level high stand along the coast of Italy: Tectonic implications
L. Ferrari, F. Antonioli, B. Blum, A. Amarosi, G. Dui Pria, G. Mastronutti, C. Monaco, P. Orrù,
M. Pappalardo, U. Radtke, P. Renda, P. Romano, P. Sanna and V. Verrihiti

Postglacial sea-level changes in the northern South China Sea continental shelf: Evidence for a post-8200 calendar yr BP meltwater pulse
W.W.-S. Yim, G. Huang, M.B. Fontugne, R.E. Hale, M. Paterson, P.A. Pirazzoli and W.N. Ridley Thomas

Evidence of Marine Isotope Stage 5.5 highstand in Liguria (Italy) and its tectonic significance
P.R. Federici and M. Pappalardo

A high-precision record of mid-Holocene sea-level events from emergent coral pavements in the Houtman Abrolhos Islands, southwest Australia
L.R. Collins, L.-X. Zhao and H. Freeman

A relative sea-level curve for the Polish Southern Baltic Sea
S. Uścinowicz

Record of MIS 5 sea-level highstands based on U/Th dated coral terraces of Haiti
R. Dumas, C.T. Huang and J. Raffs

Sea levels during late marine isotope stage 3 (or older) reported from the Red River delta (northern Vietnam)
and adjacent regions
T.J.J. Hanebuth, Y. Saito, S. Tanabe, Q.L. Vu and Q.T. Ngo

A decision support frame for climate change impacts on sea level and river runoff: Case studies of the Stockholm and Oderman areas in the Baltic Sea region
P. Schmidt-Thomé, M. Vehkamäki and M. Staudt

Conference Report