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Sedimentation processes in the Aral Sea during the last 100 years

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During the time period of the last 100 years the hydrological conditions in the Aral Sea and the influence of the two inflowing rivers Amu Darya and Syr Darya has changed dramatically. Short cores taken 2002 during the field campaign of the INTAS - Aral - 00 - 1030 project „ Holocene climate variability and the evolution of human settlement in the Aral Sea basin“ from three different locations in the Aral Sea were compaired. The hydrological changes in the Aral Sea are very well mirrored by the sediments, especially the influence of the Syr Darya related to the different geographical locations is very remarkable. Moreover, the different evolution of the northern small Aral and the south western basin of the large Aral due to the desiccation are reflected in the sediment sequences of the respective cores. The short cores were dated with ^{210}Pb and ^{137}Cs as time-marker and using the CRS-modell a correlation between depth and age was possible. Changes in the geochemical composition like anoxic bottom water conditions and the increasing salt concentration can now be assigned to certain ages.