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BOOK OF ABSTRACTS

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SESSION 1: ENVIRONMENTAL IMPACT OF SUSTAINED HUMAN SETTLEMENTS

S1.1: Long-term development of cultural landscapes in Timor-Leste

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Timor-Leste occupies a key position in the history of human migration and adaptation in South-East Asia, with evidence of cultural continuity, artistic development and maritime connections stretching back tens of thousands of years. Over this time, strong cultural and spiritual links have been forged between people and the rich biodiversity of the Wallacea region, creating distinctive landscapes of high biocultural value. These landscapes are of critical conservation value and rely on particular kinds of human intervention to maintain their cultural and ecological integrity. While Timor-Leste's archaeology is well researched and has yielded valuable information on past interactions between local people, flora and fauna, there is no information about long-term change in the country's landscapes. It is critical to understand these landscapes and safeguard their cultural significance for future generations as Timor-Leste enters an era of rapid development.

This presentation will highlight new research into Timor-Leste's Holocene vegetation and land use, providing insights into ancient human-environment interactions and the creation of ancient cultural landscapes. The presentation will also highlight approaches to engaging local communities in the scientific research process through animations and storytelling.

Keywords: Palaeoecology, Holocene, Timor-Leste

S1.2: Natural conditions of the Urals during the last ten millennia as triggers for the flourishing and fall of ancient societies

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Multicomponent natural environments and the close interdependence of natural components such as climate, water, vegetation, and soils are responsible for ecosystem dynamics over different time periods, as the slightest change in one natural component changes the entire ecosystem. These changes in ecosystems are often considered as the leading triggers of cultural transformations in the pre-industrial era, in addition to socio-economic and political reasons. The transformation of ancient cultures is manifested in the birth, flourishing and fall of a particular culture, as well as in the transformation of one culture into a new one adapted to a new ecosystem.

Issues of cultural transformations in the Ural region of Russia have been a subject of scientific debate for a long time since the Urals have the vivid and complex history of economic development as a meeting point of European and Asian tribes. In addition to the appearance of the first humans in the Urals in the Palaeolithic, there is a great deal of controversy about the cultural changes of societies during the Bronze and Iron Ages, which laid the foundations for the economic, cultural, social, and religious systems characteristic of the region.

To investigate the environmental reasons of cultural transformations in the Urals during the last $\sim 10,000$ years, we collected multiple peat cores from regional oligotrophic bogs and analyzed them using traditional paleoecological methods such as AMS radiocarbon dating, loss-on-ignition, macro-charcoal, pollen, and non-pollen palynomorphs analyses. Here we present the Holocene history of changes in climatic regimes, hydrological conditions, landscapes, and