

THE PALEOCLIMATE OF JORDAN DURING THE LAST GLACIAL MAXIMUM

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The Jordan Valley was occupied during the uppermost Pleistocene (65-12ka) by two closed lakes: the Lisan Lake (and hence the Lisan Formation, 65-15ka) and the Damya Lake (Damya Formation, 15-12ka). The Lisan Formation in the central Jordan Valley is mainly made of laminated sediments and capped by a conspicuous white cliff containing abundant gypsum lamina and is overlain by the evaporite-free Damya Formation. The white cliff sediments (22-15ka), thus, represents the driest period of the Lisan-Damya times and corresponds to the last glacial maximum (LGM) world wide. This cold, dry period ended by the demise of the Lisan Lake. This paleoclimatic trend of the study area is rather similar to the paleoclimate of the monsoon-affected North African Sahara, Arabia, and SE Asia where the cold climate is associated with drier, low precipitation, and expansion of desert conditions. We thus, believe that there is a good possibility for the southerly monsoon rains to have reached the southern Levant.