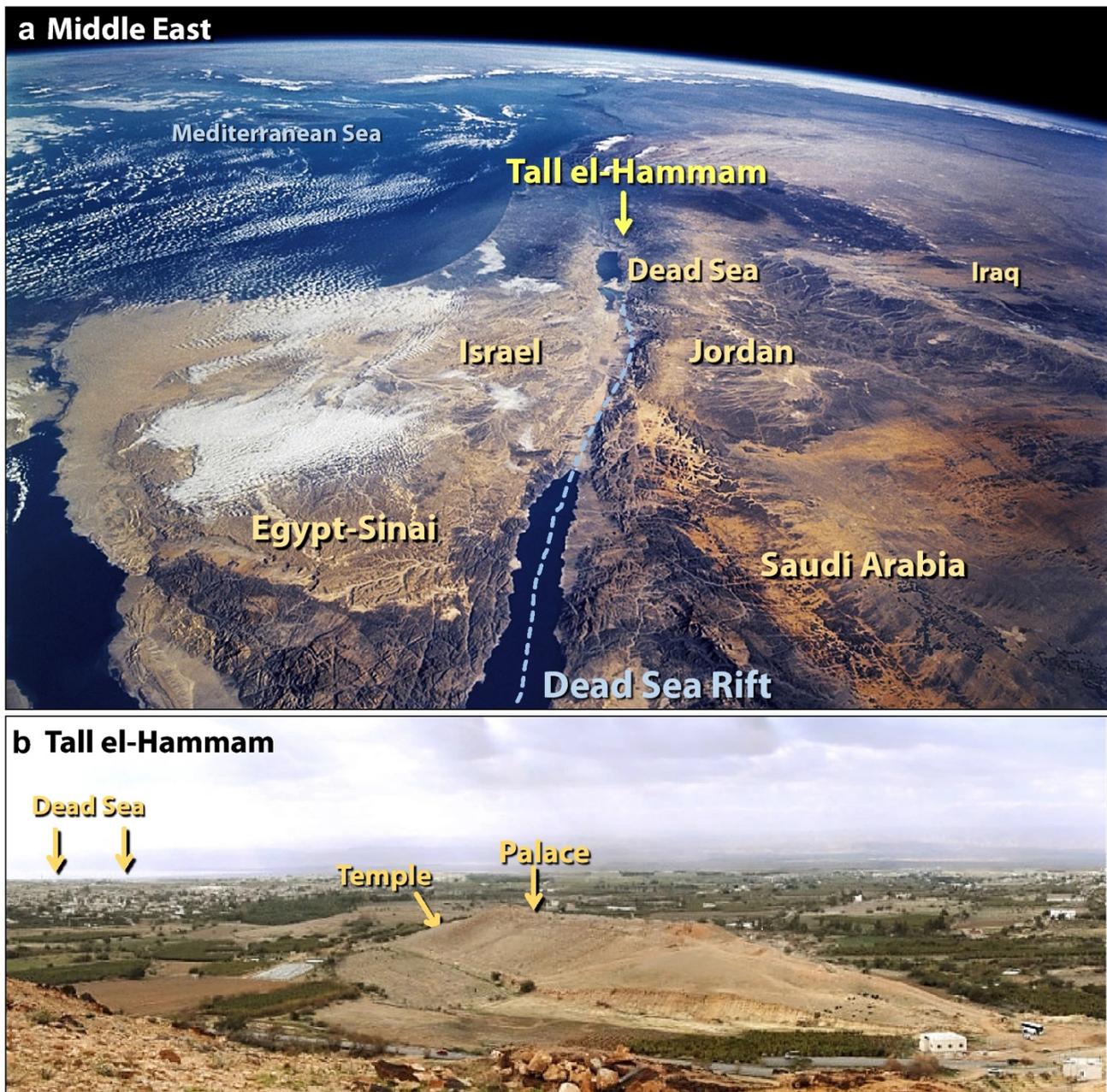


Graphics from  
“A Tunguska sized Airburst destroyed Tall el-Hammam,  
a Middle Bronze Age city in the Jordan Valley near the Dead Sea.”  
*Nature Scientific Reports*, September 20, 2021  
<https://www.nature.com/articles/s41598-021-97778-3>



### Location of Tall el-Hammam (TeH)

(a) Photo of the southern Levant, looking north, showing the Dead Sea, the site location (TeH), and nearby countries. The Dead Sea Rift, the fault line marking a major tectonic plate boundary, runs through the area.

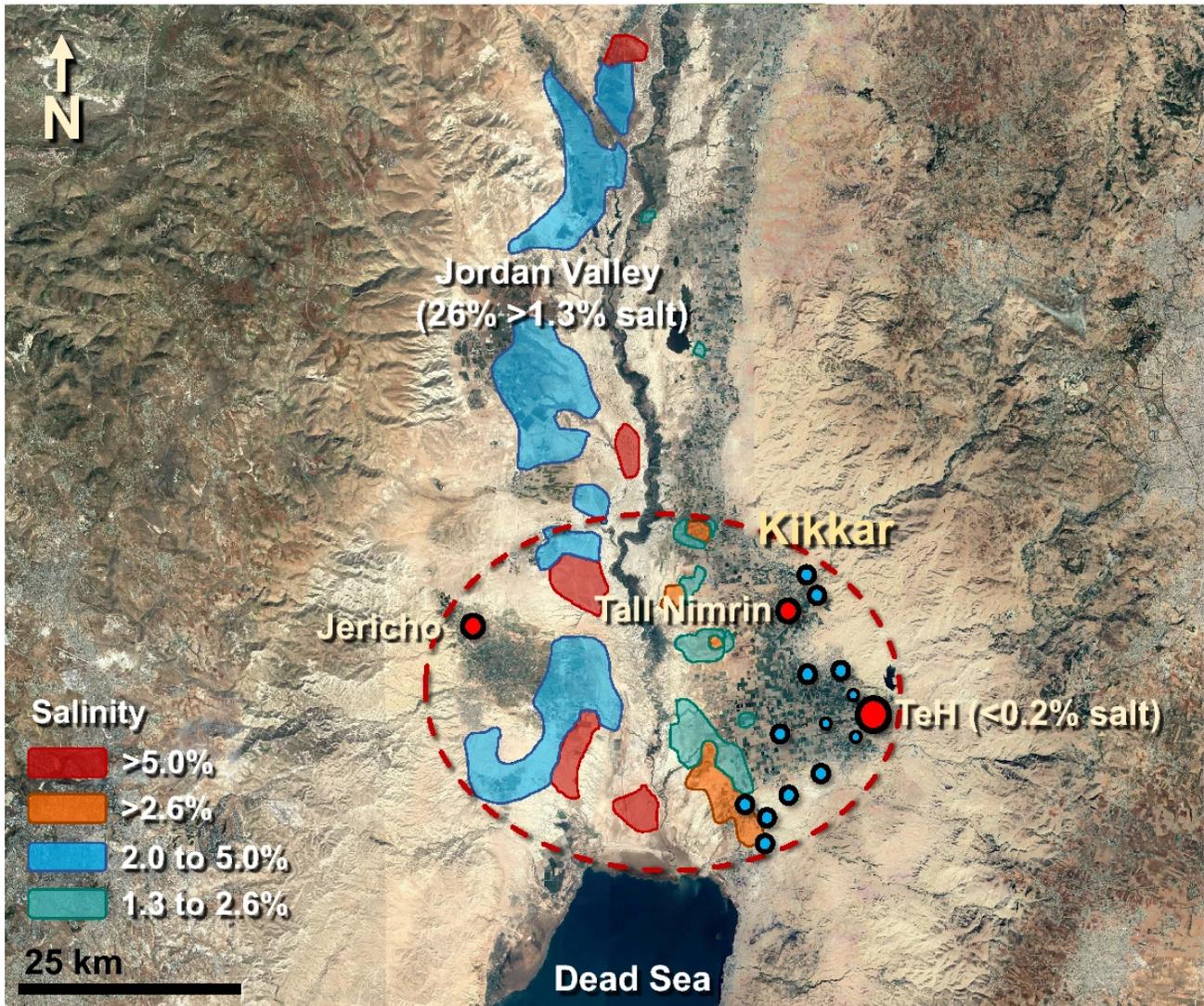
(b) West-southwest-facing view of the upper tall showing locations of the palace and temple behind the curve of the upper tall. The Dead Sea is in the background to the left.



**Catastrophic leveling of the palace at Tall el-Hammam (TeH)**

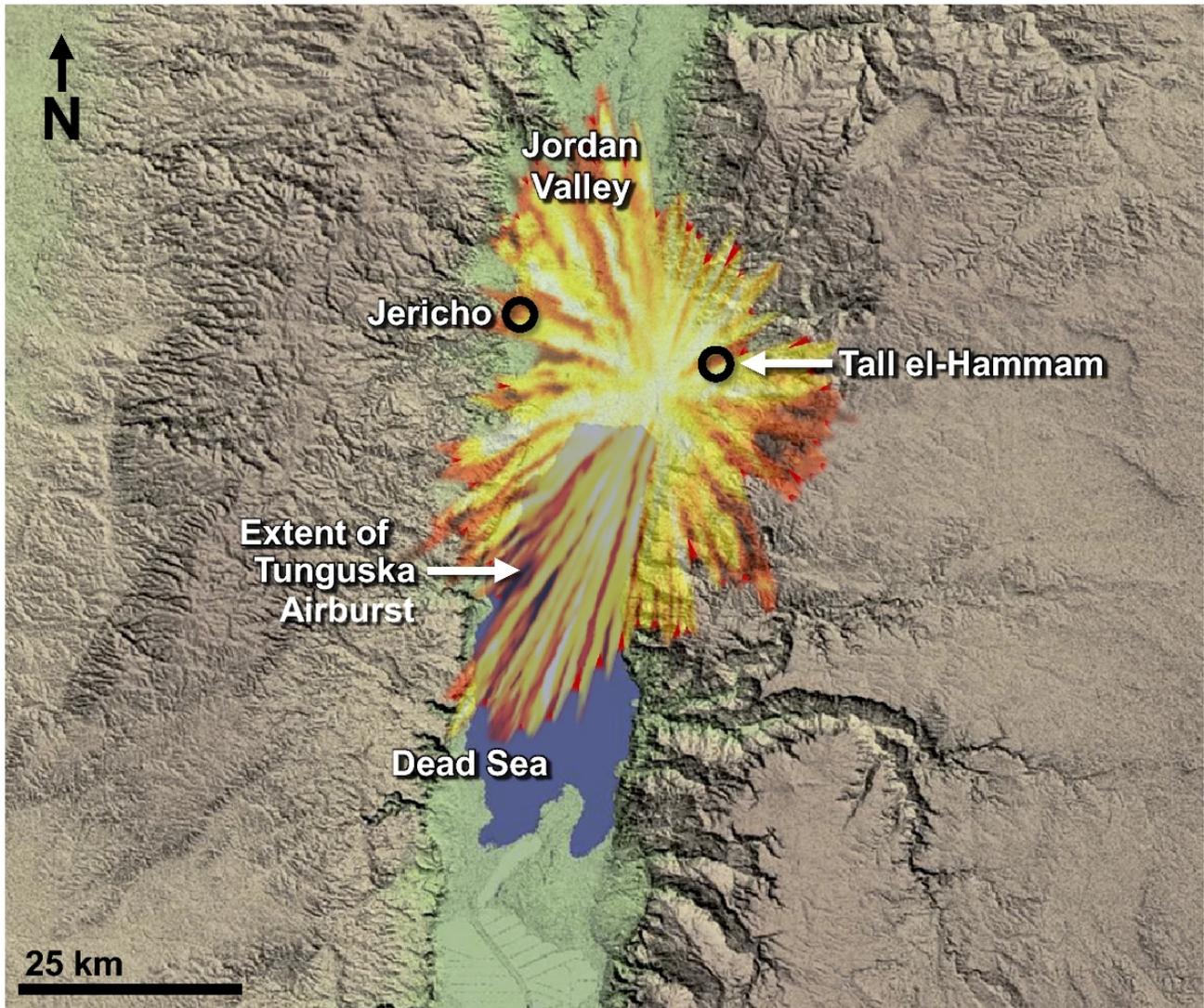
(a) Artist's evidence-based reconstruction of the 4-to-5-story palace that was ~ 52 m long and 27 m wide before its destruction.

(b) Artist’s evidence-based reconstruction of palace site on upper tall, along with modern excavation. “MB II” marks the top of 1650-BCE Middle Bronze rubble. Note that the field around the excavation is essentially flat, unlike the view in panel ‘a’. Originally, parts of the 4-story palace were ~ 12 + m tall, but afterward, only a few courses of mudbricks remain on stone foundations, labeled as “wall remnants”. Part of the foundation of the massive wall around the palace is at the bottom. Debris from between sheared walls has been removed by excavation. A comparison of panel ‘a’ to panel ‘b’ shows that millions of mudbricks from the upper parts of the palace and other buildings are missing.



### Salt and the 16 Cities of the Plain

Covering ~ 26% of the southern Jordan Valley, the colorized areas mark modern-day salinity concentrations of  $\geq 1.3\%$ , considered lethal for many domestic food crops. Tall el-Hammam (largest red dot) was the principal city in the area; Tall Nimrin was the next largest with smaller towns in blue. The dashed red oval indicates the extent of the Kikkar, known as the “disk of the Jordan”. All 16 major settled sites and > 100 villages in the southern Jordan Valley appear to have been abandoned at ~ 1650 BCE (3600 cal BP). Jericho was minimally resettled ~ 300 years after the destruction event. Tall Nimrin was resettled ~ 500 years later, and TeH was reoccupied ~ 600 years later.



**The extent of the cosmic airburst at Tunguska, Siberia (1908), superimposed on the Dead Sea area.**

The Tunguska blast was ~ 75 km wide N–S, affecting 2200 km<sup>2</sup>. This accurately scaled image shows that a cosmic airburst similar in energy to the one at Tunguska could cover a large segment of the Dead Sea and the Jordan Valley. Note that this overlay is for comparison only; the location, orientation, direction of travel, entry direction and size of the proposed TeH impact is unknown.

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