

# The Search for Genghis Khan: Using Modern Tools to Hunt for an Ancient Past

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The story of Genghis Khan has been spliced together from a collection of secondary text sources until now. It is understood that throughout his rule he united a kingdom of warring tribes, introduced an alphabet and central currency, and conquered the majority of the known world -- his influence stretching from Poland to Japan. Yet the mystery surrounding his death and burial during the summer of 1227 persists.

The Valley of the Khans Project aims to shed light on that mystery via a noninvasive archaeological search for the tomb of Genghis Khan. Applying modern technologies ranging from satellite and aerial remote sensing, to human computation, computer vision, and non-destructive geophysical surveying Lin hopes to "find the needle in the haystack without touching a single blade of grass". Field expeditions to Mongolia have utilized GIS technologies to define the landscape and create a baseline of information of a region deemed "forbidden" for nearly 800 years. Public participation of massive scale visual analytics of Ikonos satellite imagery and aerial photography is helping identify anomalies in the expansive, uninhabited wilderness. Through this combination of 3D Digital exploration with technologies such as Calit2's the "StarCAVE" and high tech field expeditions, the project aims to contribute to the knowledge of Genghis Khan's final resting place, which today remains undiscovered -- a time capsule from an era destined to help shape the modern world .





As a Powell Lee Fellow, Albert Yu-Min Lin's doctoral work at UC San Diego in Materials Science has been featured in publications including the New York Times, on television networks such as the Discovery Channel, the History Channel (Modern Marvels) and Animal Planet (Chasing Nature), as well as a dozen academic journal publications and one review paper recognized as the highest downloaded work in Material Science for several months. Yet even before completing his Ph.D., Lin felt drawn by the intersection of science and the humanities, recognizing the value of technology to anthropology, archaeology and exploration.

Having spent eight summers trekking solo to destinations including Mongolia, Pakistan, Cambodia, Vietnam, Laos and northern and western edges China and Tibet, Lin felt compelled to dedicate his life to the developing world and the preservation of cultural heritage. He initiated, developed, and now leads the Valley of the Khans Project as a Research Scientist in the Center of Interdisciplinary Science for Art, Architecture and Archaeology at UC San Diego's Calt2. Lin has conducted several expeditions to Mongolia with support from the Waitt Inst. for Discovery and National Geographic and the GeoEye Foundation, the latest earned him recognition as National Geographic's "Adventurers of the Year".