

# 4D- IMADAS with 3D Mapping of Kyoto-Angkor (Khmer) Capitals

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## SUMMARY

Kyoto Heian Capital plans, established in 794 A.D. were well documented by historians and excavated by archaeologists for many decades, with historical maps of several eras. Reconstructed capital plans are now being transformed into World geodetic datum system, using 3D-CAD approaches. Modern trigonometric and plane table surveying for mapping were applied in 1890s, 1910s and 1930s for urban planning. The first stage of Japanese cadastral mapping with cadastral books were organized in Tokyo, Osaka and Kyoto cities in 1912 by prefectural and city administrations. We have created 3D-diorama of Kyoto city in 1946, using aerial photogrammetry - bundle adjustment and stereo matching in ortho photo - mosaicked image production. Angkor dynasty, established in 802 A.D. is now being reconstructed on CAD-Globe with old maps and aerial photos, using Infrastructure Modeling, and we are to apply 3D city modeling of Kyoto city and Angkor Empire in 4D-Image Map Archive Designed Area Studies (4D-IMADAS) for restoration of Angkor area and 3D cadastral survey of Kyoto- Heian capital as Historical/Archaeological Reality.

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