## Ancient Mayan city discovered beneath Guatemala rainforest

Findings suggest formation of 'state-level kingdom' over 2,000 years ago in now 'inhospitable' area



Courtesy The Independent

Scientists have uncovered a massive 2,000-year-old <u>Mayan</u> site hidden underneath a Guatemala rainforest, an advance that has revealed interesting new details about the ancient civilisation. The long-lost site encompassed a web of nearly 1,000 urban settlements interconnected by 160km (100 miles) of causeways across an area of about 1,700 square km (650 square miles), according to the research published recently in the journal <u>Ancient Mesoamerica</u>.

Researchers, including those from Universidad de San Carlos in <u>Guatemala</u>, unveiled the site using a method that is increasingly being used in recent studies about lost civilisations hidden in dense tropical rain forests. They carried out an aerial survey with Lidar technology in which laser light is bounced off surfaces to map them based on the time it takes the pulses to return to a receiver.

Lidar has been particularly useful in uncovering evidence of lost ancient settlements in the rainforests of Guatemala's Mirador-Calakmul Karst Basin by penetrating through the region's thick tree canopy.

"This study uses airborne Lidar data to demonstrate how complex societies organised their infrastructure to reflect their socio-economic organisation and political power," scientists wrote in the study.

While previous studies suggested <u>early Mesoamerican settlements</u> were likely sparsely populated, the new findings revealed the opposite – that these settlements were densely packed. The Lidar survey also revealed that the ancient Mayans constructed large reservoir systems for water collection and rainwater management in the area. Several other hidden sites, massive platforms and pyramid constructions were also found in the surveyed region. Scientists also pointed out that some settlements had ball courts. Previous research indicated these were used by the ancient people for playing native sports.

Some of the uncovered sites may have served as hubs for politics, work and recreation as well. Based on the analysis, many of the settlements point to a "<u>political/social/</u> <u>geographical relationship</u>" with other nearby settlements. The relationships likely resulted in the region's consolidation into "at least 417 ancient cities, towns, and villages with identifiable site boundaries".

The findings of ancient causeway networks, ballcourts and reservoirs suggested a vast amounts of labour and resources were involved in the area, "amassed by a presumably centralised organisation and administration," said scientists.

They suspect the formation of a <u>"state-level kingdom"</u> at an area which today would be considered "inhospitable for demographic and architectural expansion".