Changing social inequality from first farmers to early states in Southeast Asia

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What lies at the root of inequality in human communities? It is a question that has captivated human beings for millennia. Is there a scientific method to find out what makes all the difference?

For SFI External Professor Amy Bogaard, quantitative methods can help us clarify what causes inequality in different historical contexts. In a new study published in the *Proceedings of the National Academy of Sciences*, Bogaard and her colleagues documented the distribution of valuable artifacts across Southeast Asian gravesites over an era that spans from the arrival of farming to the emergence of early states. Using the Gini coefficient to measure the concentration of wealth for each collection of sites, the researchers were able to determine which kinds of historical events caused spikes in inequality. They found, first, that during the Bronze Age, inequality rose when groups of elites held restricted ownership of valuables like copper-based axes and jewelry. They found, second, that the arid climate that prompted a shift to wet-rice farming also gave rise to the first political states, and with them, new inequality.

Ultimately, the research suggests that when we apply quantitative measures like the Gini coefficient to anthropological data we can clarify the causes of inequality that are often left to historical speculation.

More information: Mattia Fochesato et al, Changing social inequality from first farmers to early states in Southeast Asia, *Proceedings of the National Academy of Sciences* (2021). DOI: 10.1073/pnas.2113598118

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