"We found that preference for certain foods was informative of the preference of other foods, or that, in other words, the food likings could be combined to assemble a discrete number of ‘food signatures’," said Prof. Luca Pagani, senior author of the study.

Strikingly, these signatures or profiles were not typical of a given village or country. The food signatures hence identified were instead linked with other features of the queried individuals such as age, biological sex and other cultural choices. Nevertheless, some exceptions were represented by certain foods available only in specific countries. Among them, some typical products from regional cuisines stand out, such as the Georgian brined cheese "sulguni" and "kurut", dried yogurt balls from Central Asian nomads.

The amount of dietary information that the researchers could link to the country of origin was as little as 20%, which is big if compared with its genetic counterpart (1%) but still not sufficient to explain the observed patterns, despite the thousands of kilometers separating the investigated individuals.

As differences in genetic makeup and food preference between countries could be translated into "genetic" and "food" distances, these were plotted on a geographic map for comparison with the actual geographic distances between sampling locations. The emerging map showed culture to be only slightly more comparable to geography than genetics for the analyzed groups, consistently with what emerged from the rest of the results.

"No matter where you live or where you were born, it turns out that your choices (at least as far as food consumption is concerned) are more dependent on your sex and age and on other cultural features," concluded Dr. Serena Aneli, the first author of the study.

More information: Serena Aneli et al, Impact of
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the Silk Road, Proceedings of the National
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