## "The Origins of Culture" (with Giacomo Benati)

## Abstract:

Despite the evidence that a "culture of cooperation," which is the implicit reward from cooperating in economic activities, is key, our understanding of its determinants is still limited. We study the possible cooperation between elites unable to commit to direct transfers and, thus, always assure the nonelites' participation in joint investments and nonelites. The elites can, however, enact a more inclusive political process, which entrusts the nonelites with the control over fiscal policies, and the nonelites can commit to future cooperation through cultural accumulation. When the production conditions are adverse but not disastrous, cooperative investments prevail only if the elites grant to the nonelites strong political rights to convince them that a sufficient part of the returns on joint investments will be shared via public good provision and the nonelites reciprocate by accumulating a level of culture assuring their participation despite their limited payoff. When, instead, the investment return is large, the elites can sustain cooperation even if they keep control over fiscal policies, and the nonelites accumulate the cultural level optimal in the absence of commitment issues. Finally, the return on non-investment activities—i.e., risk-sharing prevailing when the investment return is too tiny raises the nonelites' outside option and, in turn, their cultural accumulation. These predictions are consistent with novel data on 44 major Mesopotamian polities observed for each half-century between 3050 and 1750 BCE. Conditional on polity and half-century fixed effects, the diffusion of interest-free loans of agricultural products and irrigation infrastructures is negatively and significantly related to the growing season temperature, whereas the spread of formal merchant institutions is positively and significantly linked to the distance from the trade circuits. Moreover, culture is positively related to the volatility of the growing season temperature. Our results remain robust to considering the inclusiveness of the political process, incidence of internal conflicts, degree of political instability and extent of urbanization.