## Supplementary information

## **Spatial dimensions increase the effect of cultural drift** Joaquim Pérez-Losada and Joaquim Fort

To check the consistency of the results, all simulations and Fig. 3b ( $N_s = 5$  settlements/node) were repeated with  $N_s = 10$ , 20 and 40 settlements/node. In Figures S1-S3, a gradual reduction of cultural diversity  $t_F$  as a function of distance from the origin of the LBK expansion is obtained, similarly to Fig. 3b. We observe that, for increasing values of the number of settlements per node  $N_s$ , the mean value of the cultural diversity  $t_F$  at end of the population range (node 520, distance 1000 km) slightly increases, i.e. the total reduction in  $t_F$  across the spatial range is smaller, and the effect of spatial drift is less important, as expected. However, the changes are very small, so the conclusions in the main text are the same.





