READ THE ABSTRACT

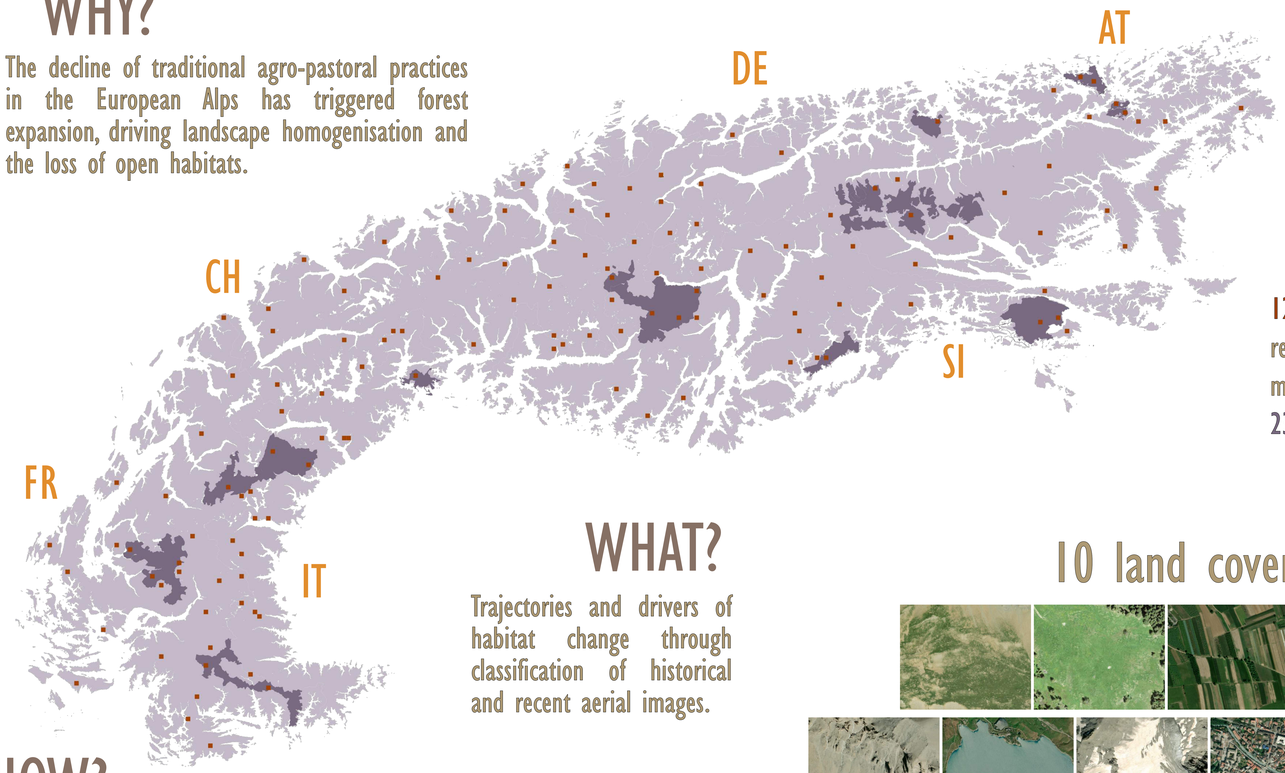
from cultural landscapes to forest expansion: 70 years of habitat change in the European Alps

Simona Cavallo[1], Nicolò Anselmetto[1], Luca Mauri[1], Simone Ferrero[1], Andrea Mainetti[2], Matteo Garbarino[1]

[1] University of Turin, Department of Agricultural, Forest and Food Sciences, Turin, Italy
[2] Biodiversity Service and Scientific Research, Gran Paradiso National Park, Cogne, Italy

WHY?

The decline of traditional agro-pastoral practices in the European Alps has triggered forest expansion, driving landscape homogenisation and the loss of open habitats.



WHERE?

121 landscapes across the Alpine region between 1000 and 3000 m a.s.l. Total area: >1000 km².
23 landscapes in national parks.

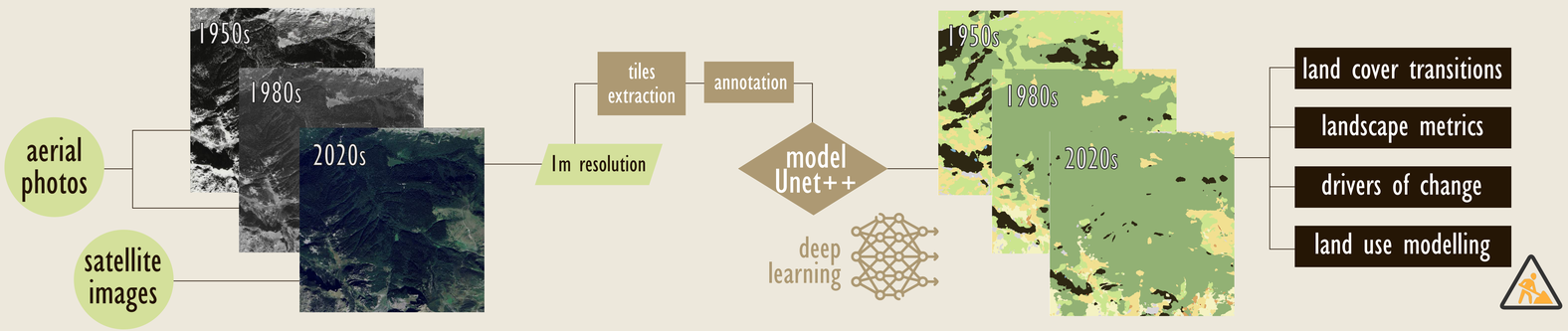
WHAT?

Trajectories and drivers of habitat change through classification of historical and recent aerial images.

10 land cover classes

HOW?

images ..... classification ..... analysis



RESULTS

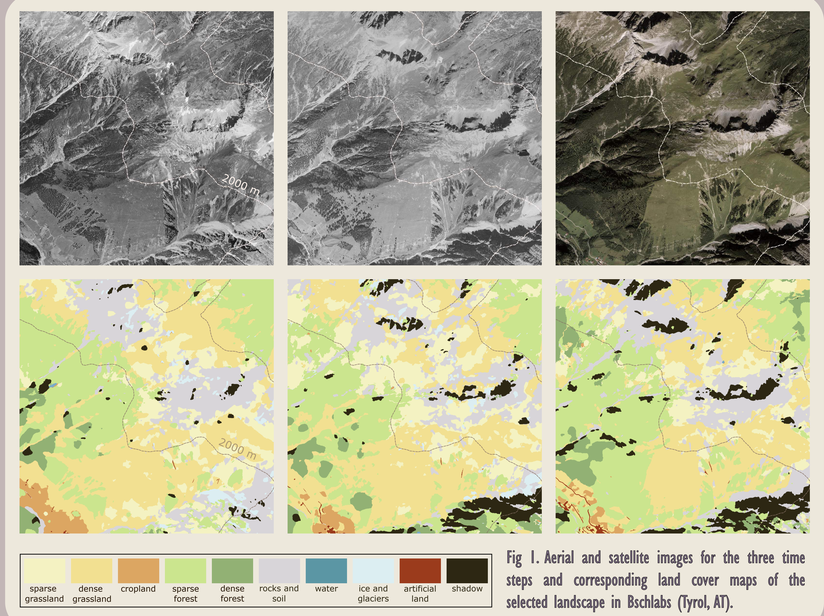


Fig 1. Aerial and satellite images for the three time steps and corresponding land cover maps of the selected landscape in Bschlabs (Tyrol, AT).

forest expansion

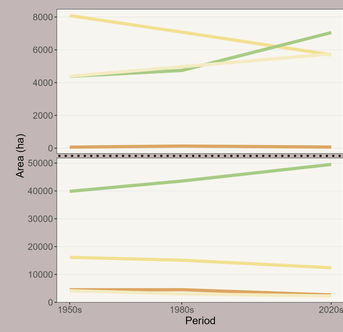


Fig 2. Land cover change over time. Classes: sparse grassland, dense grassland, cropland, forest.

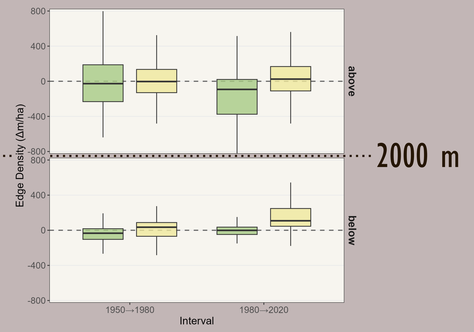


Fig 3. Changes in edge density of forests and grasslands in the 1950-1980 and 1980-2020 periods.

fragmentation of semi-natural habitats

TAKE HOME MESSAGE

Historical aerial images classified with deep learning reveal forest expansion, declining dense grasslands, and increasing sparse grasslands above 2000 m a.s.l. across 121 Alpine landscapes over 70 years.

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