



Italian Geological Maps – More than a colored picture

Using geological maps to support better policies for society



PANEL 3B

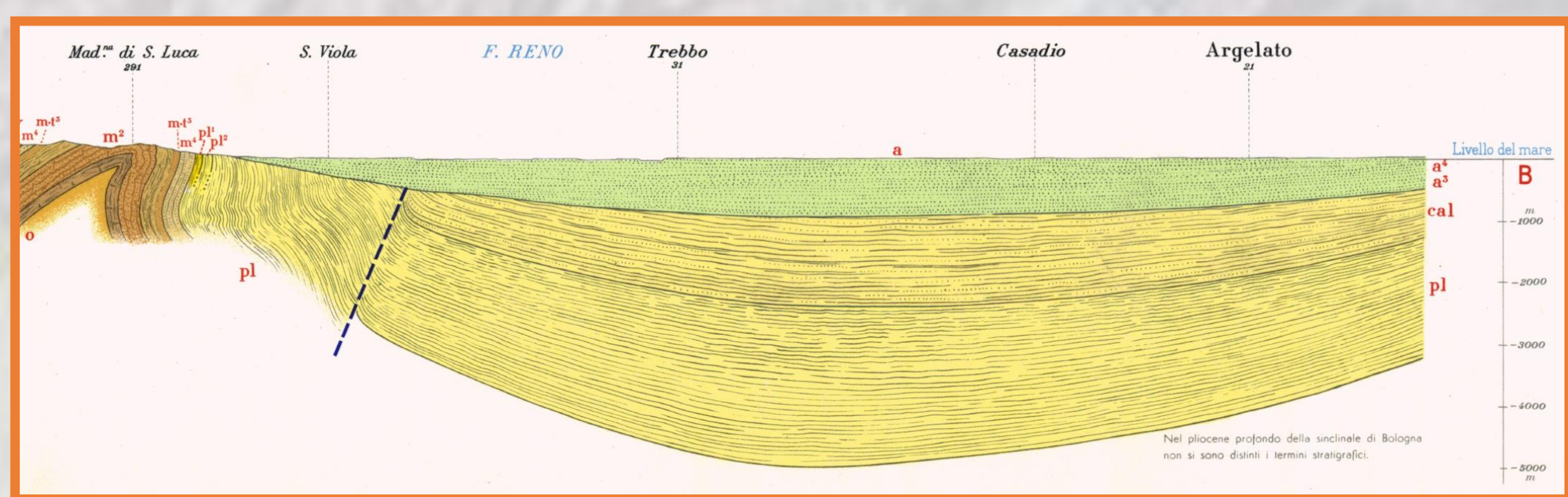
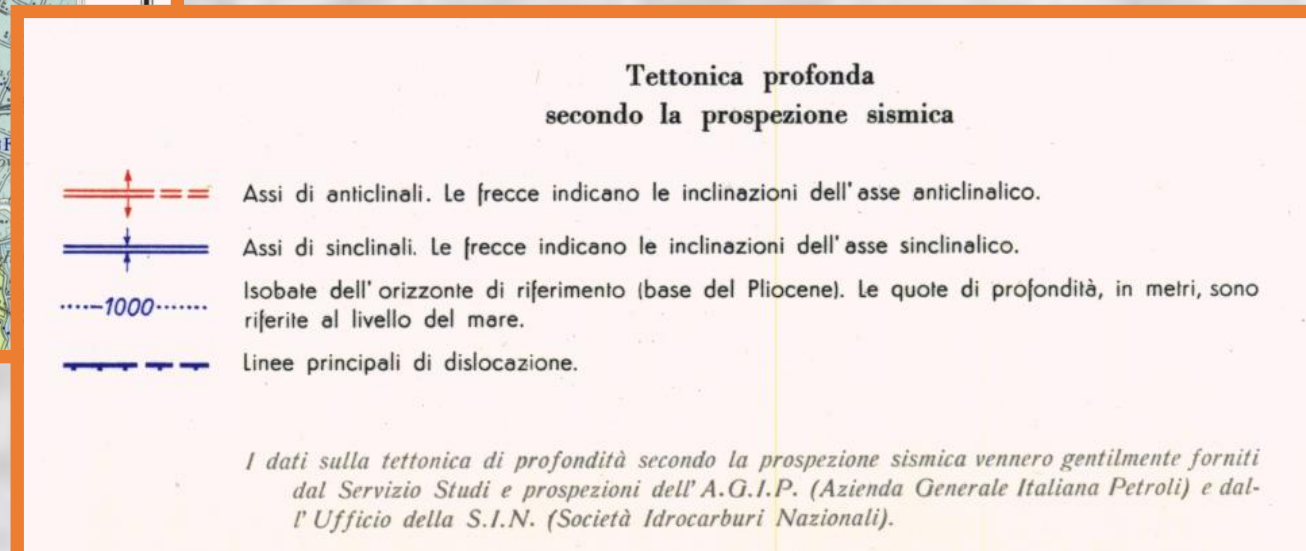
Po Plain

The official geological maps



The new series (II edition, 1963) of the Geological Map of Italy (1:100,000) introduced greater differentiation of the Quaternary units based on age, lithology, morphology, and sedimentation environment. Also, the plain areas were eventually marked by structural elements based on data from Oil & Gas exploration activities.

These data supported the imagery of subsurface structures.

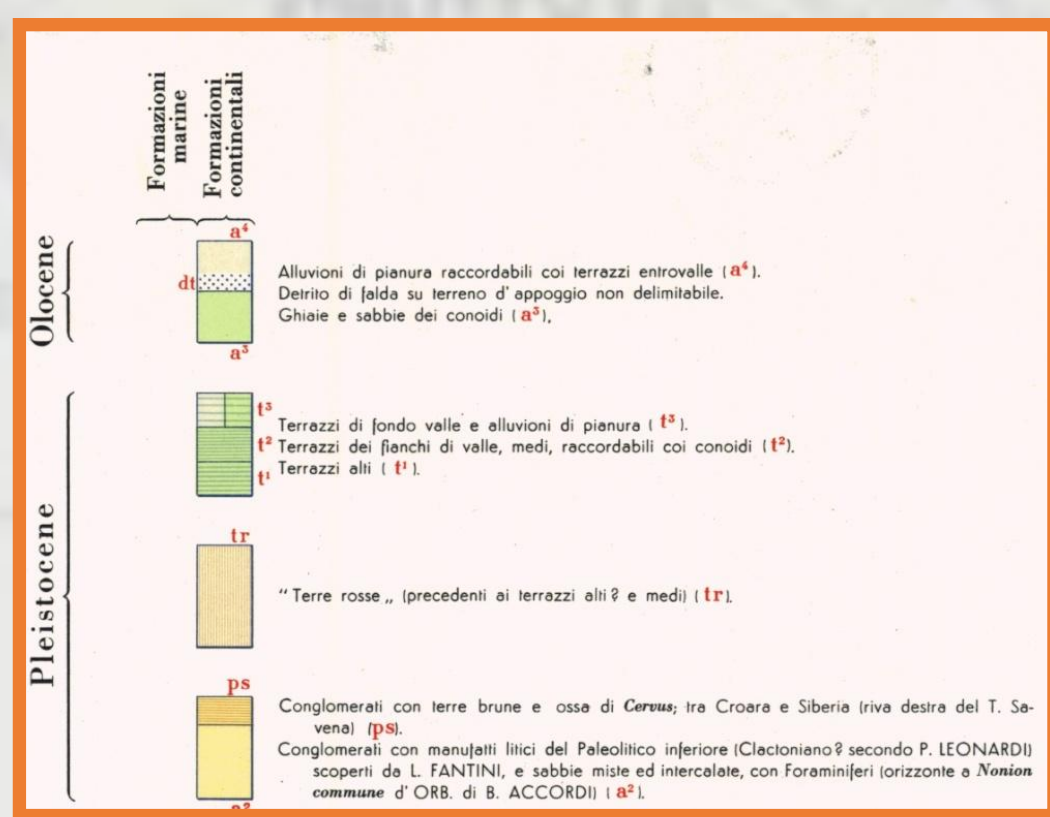
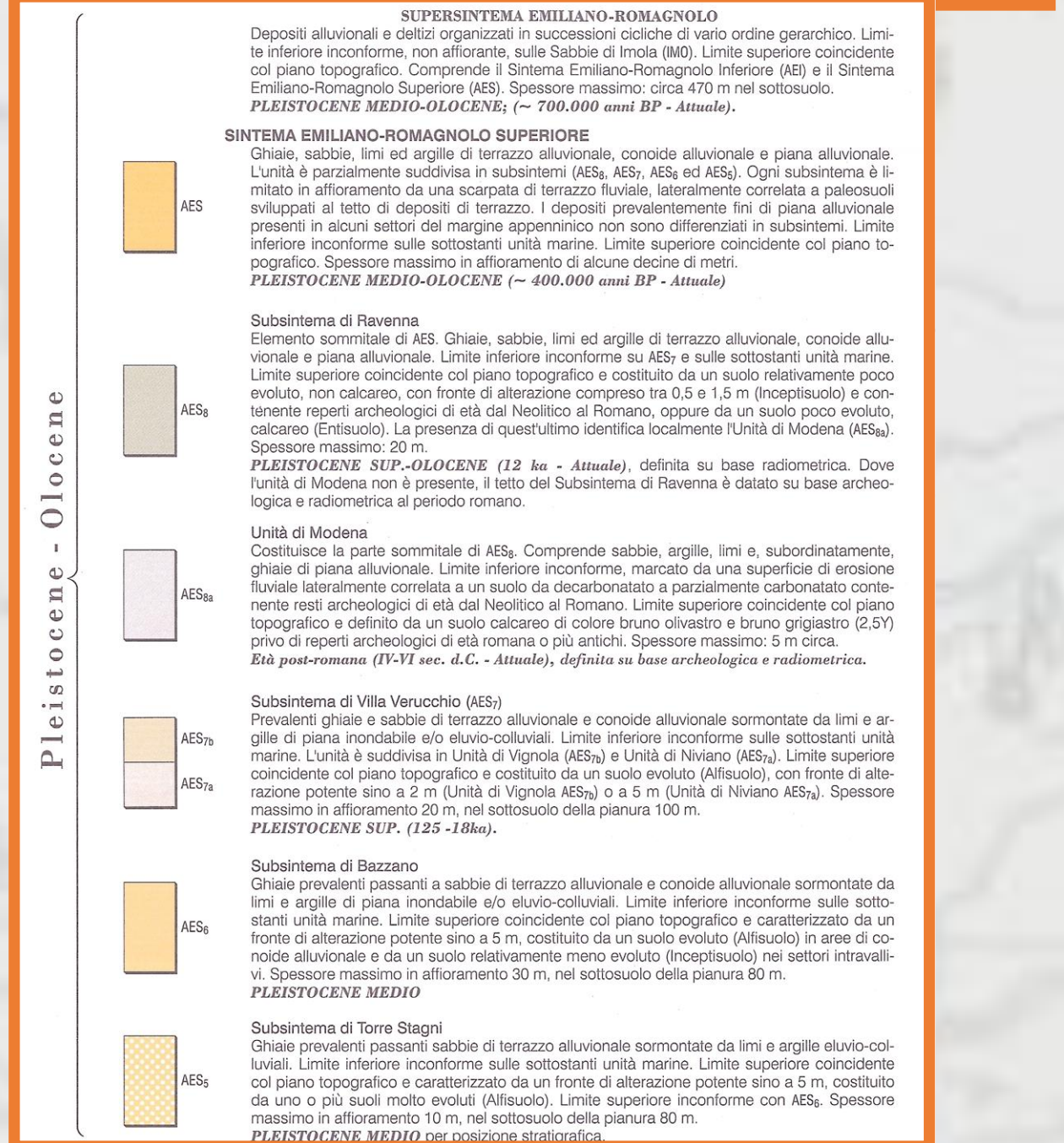
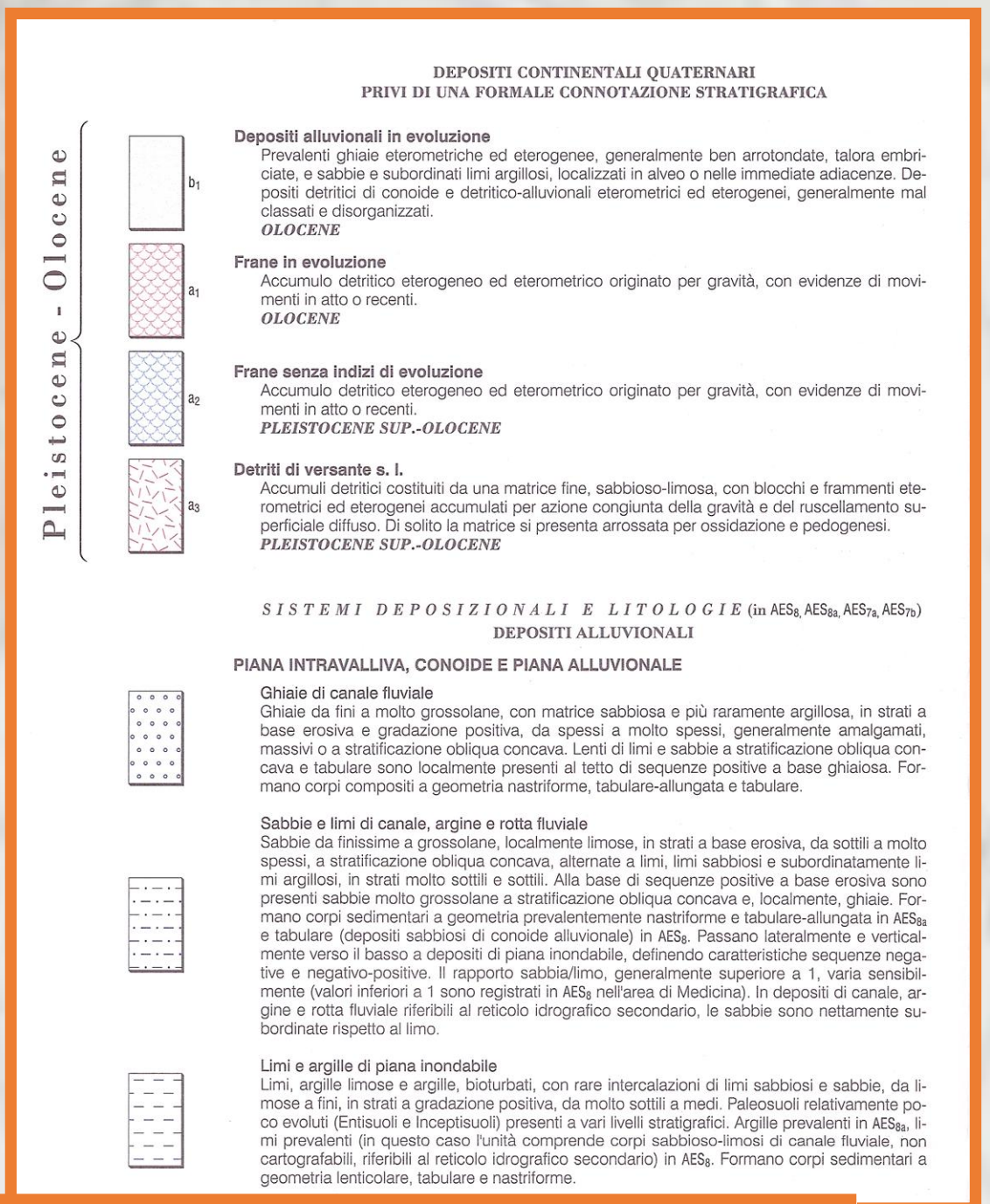
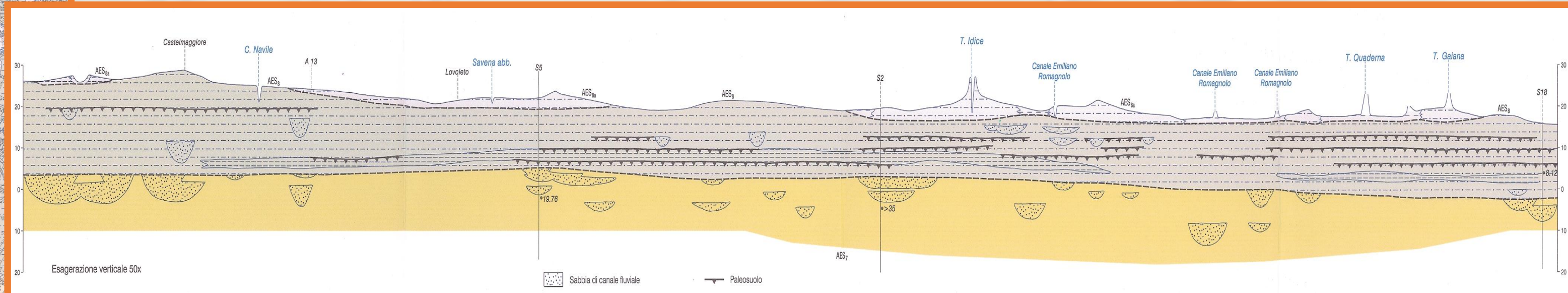


Main points:

- 1) better characterization of Quaternary deposits
- 2) introduction of subsurface structural elements
- 3) realization of geological cross sections in flat areas

Starting with the Geological Map of Italy at 1:50,000 scale (e.g. Sheet 221 “Bologna”, 2009) the Quaternary deposits have been subdivided according to the concept of UBSU - Unconformity Bounded Stratigraphic Unit.

The legend also includes the description of depositional systems and lithologies (with pattern on the color of the corresponding UBSU). Vertically-exaggerated geological cross sections based on boreholes and geotechnical investigations (penetration test) show in detail the subsurface architecture.



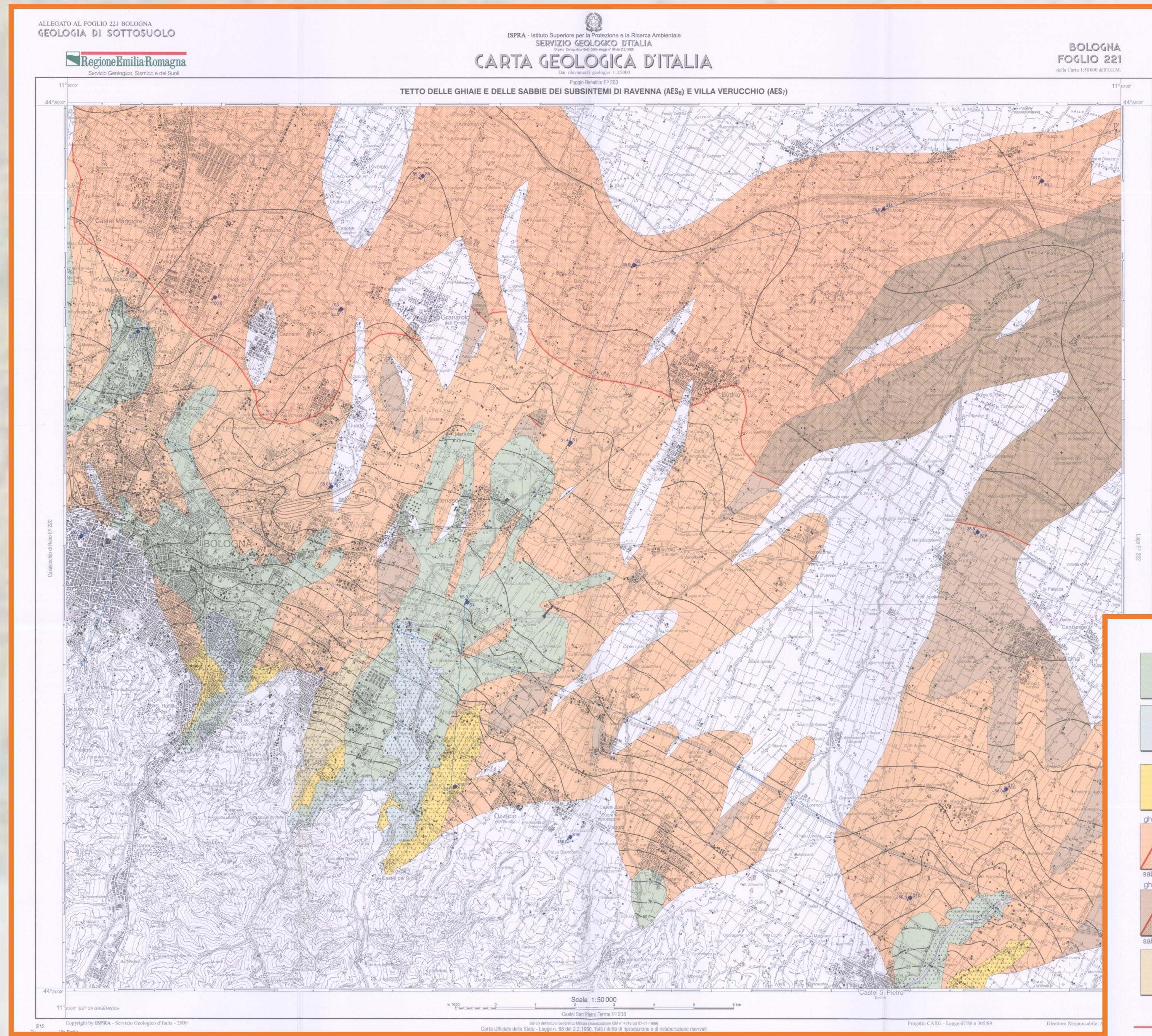
1892

1932

1963

2009

Changes in the Legend of geological maps



Main points:

- 1) shallow geological cross sections, mainly based on boreholes, geotechnical investigations and geophysical data, describe the geometries and the lateral variations of alluvial deposits;
- 2) subsurface geological sheets coupled the “traditional” geological maps;
- 3) several analyses supported the characterization of very recent geological events.

