

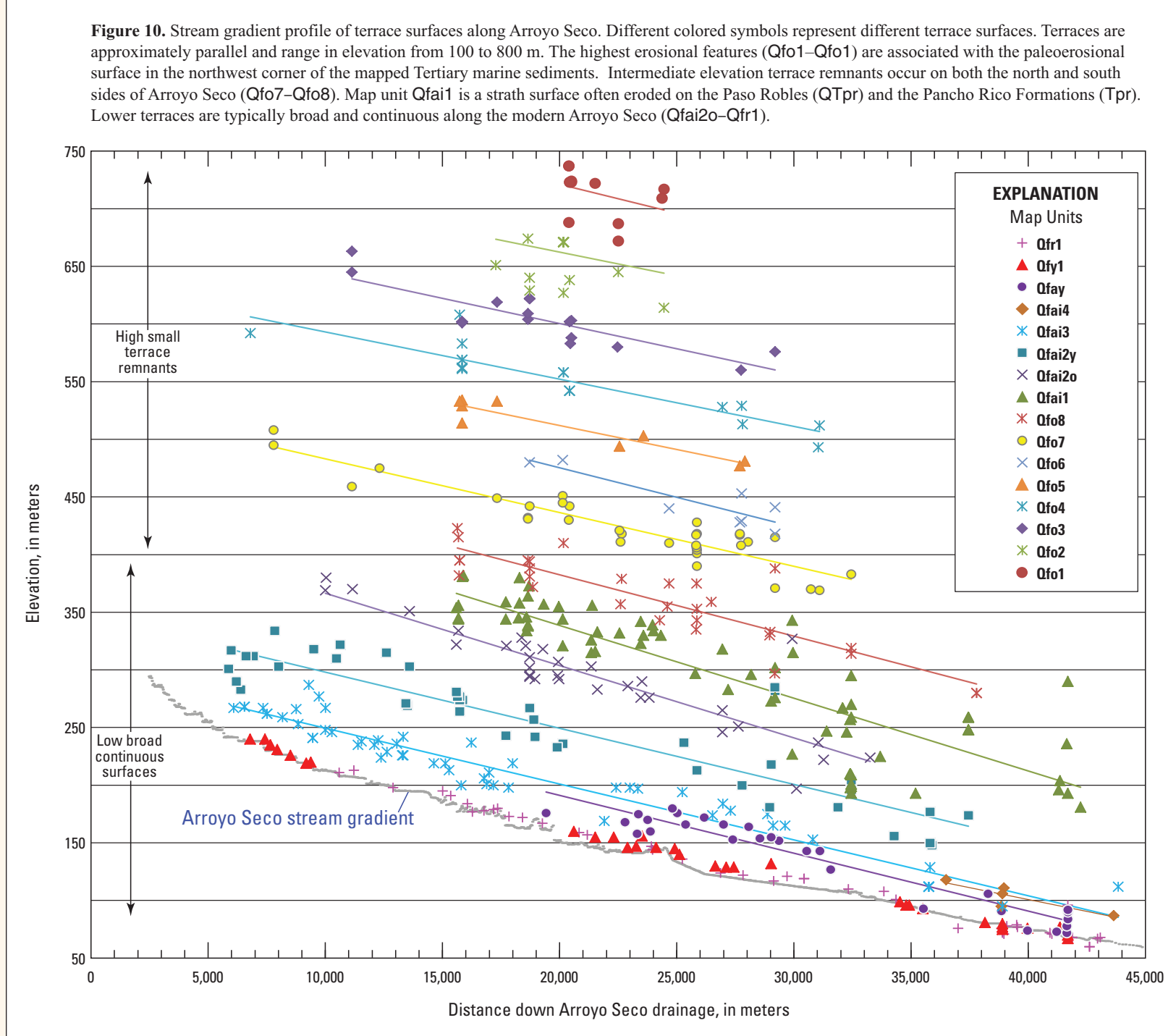


Figure 11. This is a view looking upstream of Arroyo Seco where it is confined in a narrow canyon (see map for photographic viewpoint). Resistant basement bedrock (MfPub) prevents a broad alluvial floodplain from forming. Downstream, less resistant Tertiary marine sediments are eroded by the Arroyo Seco and the sequence of strath terraces is preserved.



Figure 12. Small terrace trends are preserved in the narrow Arroyo Seco canyon (see map for location of photographic viewpoint). These small terraces record where the Arroyo Seco floodplain once eroded the undifferentiated basement rocks (MfPub). White dashes locate the terrace surface and yellow dashes locate the top of bedrock. Gravel are about 1 meter thick.

LIST OF MAP UNITS

- Qc10 Cut bank (latest Holocene)
- Qc9 Fluvial and minor collan deposits (latest Holocene)
- Qc8 Fluvial deposits (latest Holocene)
- Qc7 Fluvial deposits (late Holocene)
- Qc6 Fluvial deposits (late Holocene)
- Qc5 Fluvial deposits (late Holocene)
- Qc4 Fluvial and alluvial deposits (middle to early Holocene)
- Qc3 Fluvial and alluvial deposits (latest late Pleistocene)
- Qc2 Fluvial and alluvial deposits (latest late Pleistocene)
- Qc1 Fluvial deposits (late Holocene)
- Qc0 Fluvial and alluvial deposits (middle to early Holocene)
- Qc1 Fluvial and alluvial deposits (latest late Pleistocene)
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- Qc99 Fluvial and alluvial deposits (latest late Pleistocene)
- Qc100 Fluvial and alluvial deposits (latest late Pleistocene)

SOIL TYPES

[Soil types were identified using the soil map of Monterey County (Cook, 1978), in digital format (U.S. Department of Agriculture [USDA], 2009)]

- Arroyo Seco gravelly sandy loam, Elder sandy loam
- Chamie loam
- Chualar loam
- Fluents stony
- Lockwood loam
- Metz loamy sand, Moncho silty loam, Pico sandy loam
- Placencia sandy loam
- Psammets, Fluvents
- Rincon clay loam
- Tajunga sand

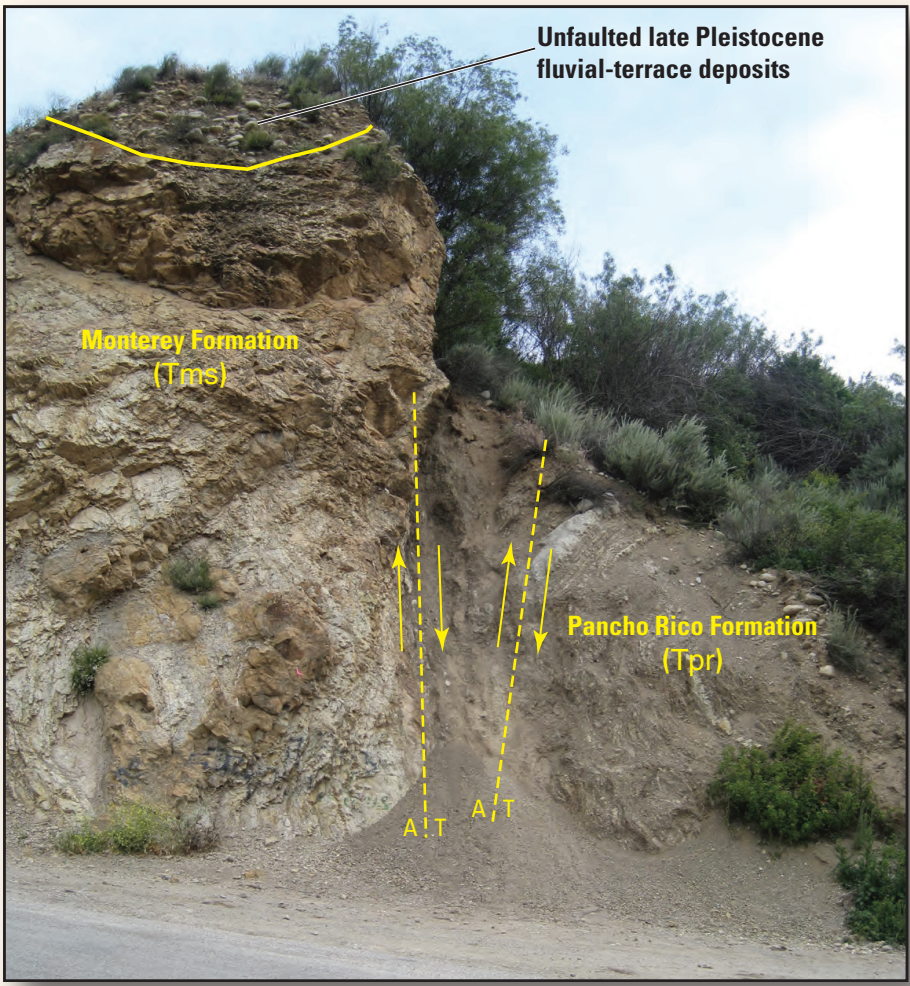


Figure 13. This fault exposure is preserved in the road cut on the north side of the bridge that crosses the mouth of Arroyo Seco (see map for location of photographic viewpoint). The Reliz fault, exposed in a road cut in Arroyo Seco, has a dominant reverse dip-slip movement. Sheared rock and gouge separate the Pancho Rico Formation from the Monterey Formation. In the photograph, "A" indicates strike-slip movement away from the viewer and "T" indicates strike-slip movement toward the viewer. At this location, the Pleistocene fluvial-terrace gravels appear preserved above the Monterey Shale and downlope above the Pancho Rico Formation.

CORRELATION OF MAP UNITS

[Angled boxes represent estimated range of age uncertainty; Holocene and Pleistocene subdivisions and boundary ages are from Gibbard and others, 2010, p. 99]

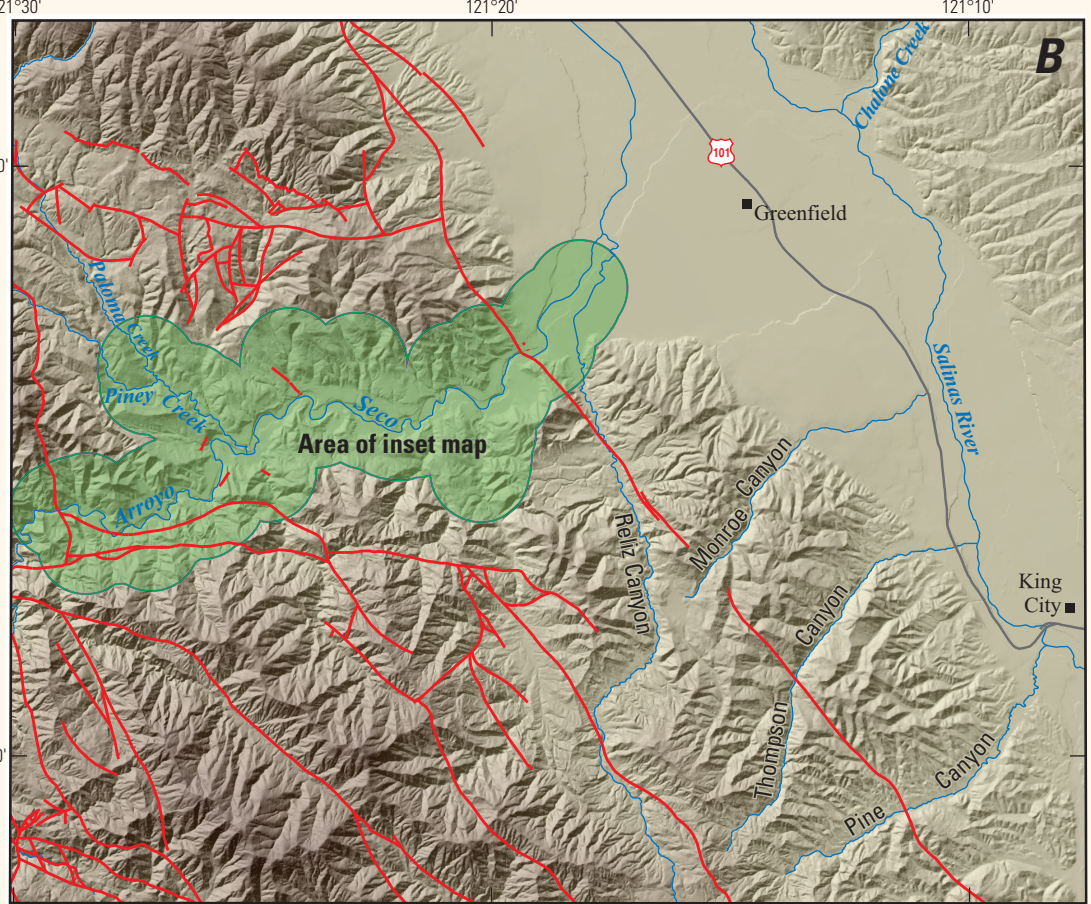
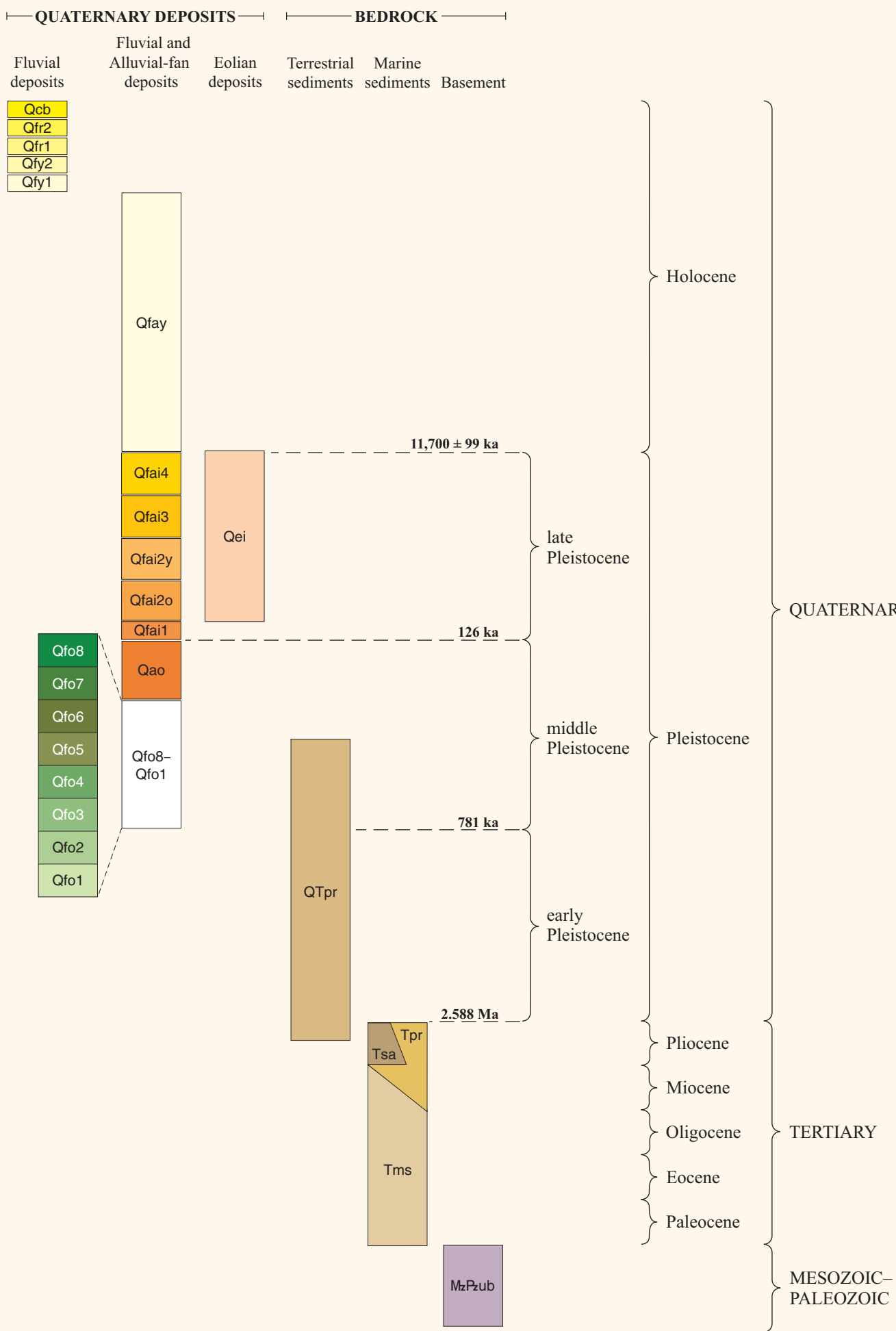


Figure 14. Location of inset map showing Arroyo Seco and the Quaternary terraces.

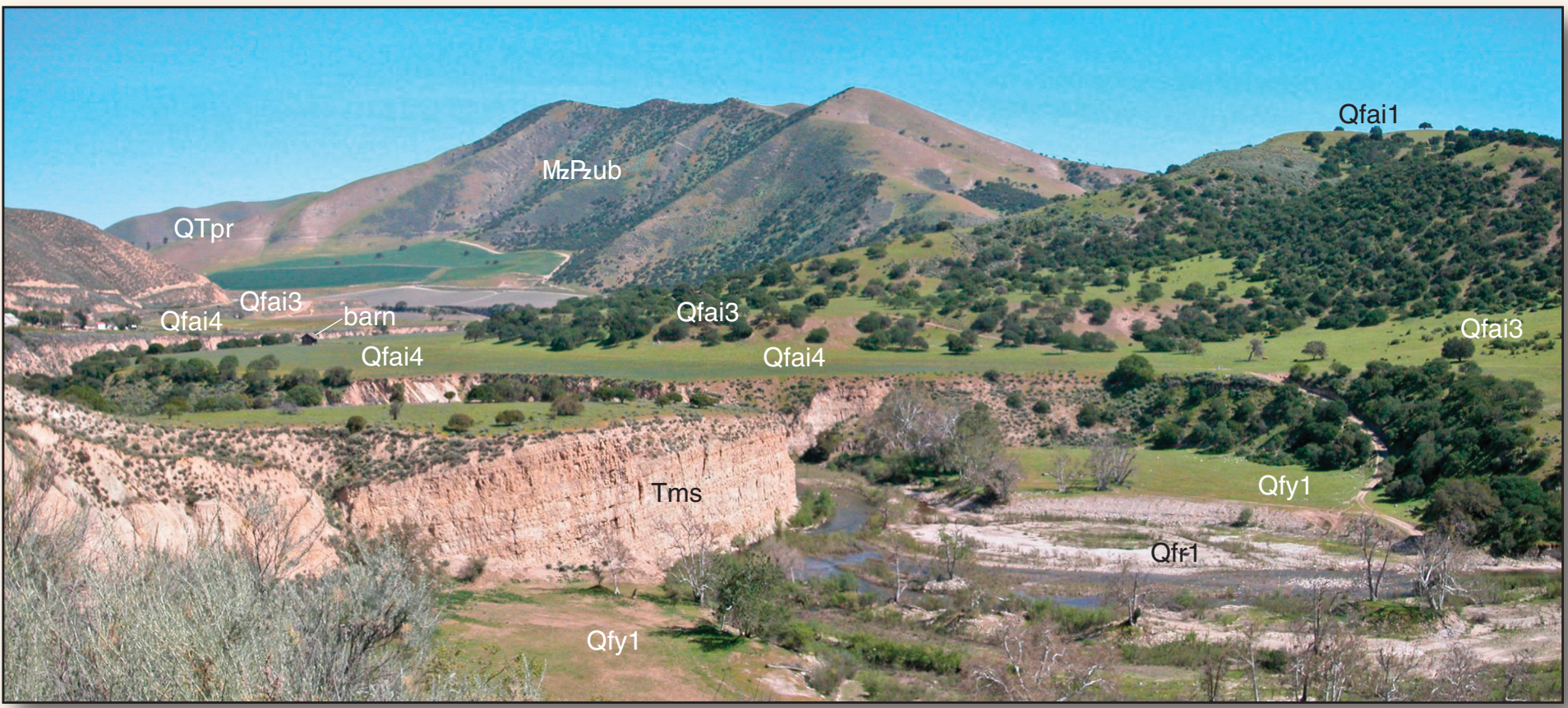


Figure 15. Photograph looking downstream at a well-preserved sequence of late Pleistocene and inset Holocene strath terraces (see map for location of photographic viewpoint). When Arroyo Seco has eroded Tertiary marine sediments, primarily Monterey shale, a broad valley has formed. Each terrace records a floodplain eroded into the bedrock and is capped by rounded gravel derived from the more resistant basement rocks (MfPub) upstream. Photograph by Tony Garcia, California Polytechnic University, San Luis Obispo, 2012.

Quaternary Geologic Map of the North-Central Part of the Salinas River Valley and Arroyo Seco, Monterey County, California
Inset map of Arroyo Seco and Quaternary Terraces

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2014

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