Figure captions to figures placed into the Electronic archive – Development history of the foreland plate trapped between two converging orogens; Kura Valley, Georgia, case study

Electronic archive Tab. 1. Correlation of Eastern Paratehtys and Tethys Stratigraphies for Neogene-Quaternary (Saintot *et al*., 1998).

Electronic archive Fig. 1. (a) Lithostratigraphic chart of the Adjara-Trialet Zone (Nikishin *et al*., 2001). **(b)** Lithostratigraphic chart of the Greater Caucasus (Nikishin *et al*., 2001). **(c)** Lithostratigraphic chart of the Eastern Pontides (Nikishin *et al*., 2001).

Electronic archive Fig. 2. (a) Middle Eocene-Lower Miocene sediments accreted in the frontal portion of the Trialet Zone of the Lesser Caucasus orogenic system in contact with Middle Sarmatian-Pontian sediments accreted in the frontal portion of the Greater Caucasus orogenic system at Mtskheta (photo courtesy of Reggie Spiller, 2004). **(b)** Meso-scale NW-SE striking dextral strike-slip faults at the outcrop with Akchagylian-Apcheronian sediments in the Basin Edge W area (see **Figs 3** and **4** for area location).

Electronic archive Fig. 3. (a) Lower hemisphere Schmidt's projection of poles to stylolites from the Maeotian-Pontian formation at outcrop M26. Stylolites are measured from solution pit holes at opposite ends of carbonate pebbles of the conglomerates and gravels with sandy matrix. **(b)** Outcrop of the Maeotian-Pontian sediments at location M13 containing NW-dipping hydraulic fracture, which is filled by fibrous gypsum, with several episodes of opening indicating cycles of pore pressure buildup followed by failure. **(c)** Outcrop of the Maeotian-Pontian sediments at location M143 containing striated surface of the local thrust fault.

Electronic archive Fig. 4. (a) Reflection seismic section with its location on the geological map and surface data plotted on the topographic profile (Glonti, 2007). The section is also located in **Fig. 4**. Q – Quaternary strata, Ak – Akchagylian strata, Ap – Apcheronian strata, S3 – upper Sarmatian strata, S2 – middle Sarmatian strata, Maykop – Oligocene-Lower Miocene Maykop Formation. **(b)** Dip domain analysis done along reflection seismic section B (Glonti, 2007). See **Fig. 4** for profile location. J2 – Middle Jurassic limestone. See (a) for remaining stratigraphic labels.

Electronic archive Fig. 5. M039 outcrop with erosional unconformity younger than thin-skin structural architecture and older than overlying Akchagylian – Apcheronian - Quaternary sediments. M-P – Maeotian-Pontian strata, Ak – Akchagylian strata.

Electronic archive Fig. 6. (a) Surface heat flow contour map of the study area and its surroundings. Data are taken from the database maintained by the International Heat Flow Commission. (b)-(f) Depth distribution of earthquake hypocenters in swaths, going from W to E, documenting E-ward colder foreland plate, as indicated by progressively increasing bottom depth of hypocenters. Focal mechanisms are taken from the Harvard Centroid Moment Tensor catalogue (McClusky et al., 2000) determined for earthquakes with magnitudes larger than 5.

Electronic archive Fig. 7. Pre-existing normal fault pattern in the Taribani area interpreted from the 3D seismic volume, compared to the aerial view of a similar pattern from southern Utah (photo taken from McClay *et al*., 2002).

Electronic archive Fig. 8. Simplified map of the Apulian Plate between the two converging orogenic systems; Apennines and Dinarides combined with Albano-Hellenides with focus on main tectonic units. Note that tectonic division is made only for the onshore region.

Electronic archive Fig. 9. Simplified profile through the Apulian Plate between the two converging orogenic systems; Apennines and Dinarides combined with Albano-Hellenides showing the main tectonic units (modified from Collaku and Deville, 1998).

Electronic archive Fig. 10. Simplified lithostratigraphic chart of the Ionian Zone (modified from Collaku and Deville, 1998).