Seismic data and earthquake seismology: a comparison

Conventional (Geology 101) earthquake seismogram:
Record of arrival of various types of waves of energy, with waves generated by earthquakes

Arrival of S wave
Arrival of P wave
Arrival of Rayleigh Wave or Love Wave

Earlier
Time (seconds)
Later

Similarities:
Time records of arrival of waves.

Differences in seismic sections:
Vertical time axis.
Multiple records for multiple locations.
Positive reflections darkened/blued (in American style).
Artificial energy source with controlled time of release.
(Commonly) only P waves.
Arriving energy has been reflected.
Vertical trace consists of multiple responses to multiple reflected waves;
Trace commonly if not inevitably consists of partially superposed responses.