Land seismic data processing with preservation of the true amplitude ratios

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One of the important elements of the seismostratigraphy interpretation of the seismic data is the use of different characteristic properties, derived from seismic motions and learning change of amplitudes in various offset (AVO analysis).
The reliability of these properties are directly related to the ratio signal/noise of data.
The first step to improve this ratio is the use of different procedures for suppression of interfering waves and noise, as: reverberation, surface waves, waves of air blasts, harmonic noise, noise from vehicles , industrial noise.
Important procedures in processing are preserved true amplitudes with correction for spherical divergence and surface consistent amplitude correction. Correction of spherical divergence remove the effect of absorption of seismic energy from the geological environment. The amplitudes generally decrease proportionally with increasing radius of seismic wave propagation in depth as well as offset.
Surface consistent amplitude correction is a modern iterative procedure calculating the correction coefficients, by four factor analysis, preserving their true ratio for different components, as: source, receiver, offset and common depth point.
Show examples of applying of these procedures on real seismic data to obtain seismic section with preservation of the true amplitude ratios.