Marchenko internal multiple attenuation

I will include Marchenko methods in my future course Advanced Seismic Acquisition and Processing. Marine surface multiples can be suppressed well, but internal multiples are extremely difficult to attenuate. But it can still be attempted using Marchenko methods. Of the various approaches, the conventional Marchenko method redatums sources and receivers to the top of the target zone in such a way that all overburden multiples present in the target zone are removed. This is done by combining the Green's function and focusing functions. The focusing functions not only injects the source but also additional events that annihilate the multiples generated in the overburden. Based on a smooth macro model, the Green's and focusing functions can be iteratively obtained and the resulting target zone will be free of overburden multiples. New research concentrates on applying this to land data, where multiples are abundantly present in areas of shallow high velocity carbonate layers. My aim is to make participants aware of this new opportunity to improve subsurface images.