Abstract: Recently, a significant progress has been made towards a reformulation of the general theory of, both, equilibrium transport and non-equilibrium phenomena which appears to be particularly well suited for describing strongly correlated many-body systems governed by inelastic scattering between their constituents. Such analyses seek to establish some new and often unexpected relations between the seemingly independent thermodynamic and transport coefficients, alongside their universal bounds. The corresponding mathematical framework which is often referred to as 'holographic' exposes the intrinsically geometric nature of certain physical observables as well as their formal similarities with the various gravitational and hydrodynamic phenomena. In this talk, we ascertain the possible origins of such emergent 'geometrization' of the many-body dynamics, alongside its resemblance to and differences from the naive adaptations of the 'bona fide' string-theoretical holography. In the latter, the corresponding techniques have been opportunistically applied to a large variety of condensed matter systems, such as quantum-critical spin liquids, itinerant (anti)ferromagnets, quantum nematics, multichannel Kondo problem, Mott transitions, Hall effect, graphene, Dirac/Weyl semimetals, etc. We review this body of the earlier work, focusing on those situations where some of the holographic predictions might indeed be right (albeit, for a potentially wrong reason).