The driving question behind this poster presentation is: how might a similarity matrix of the kind generated from a recorded performance inform musical analysis? The similarity matrix, as designed by Sinisa Pajevic, is a flexible tool that can indicate similarities by overall harmonic profile, pitch-class (mod 12), transposition (Tn) or inversion (TnI). Color-coding permits various similarity relations to be indicated on one matrix. The similarity matrix integrates structural pitch relations with aspects of performance that do not normally enter into music analytic deliberations. The similarity matrix represents factors that are significant for the coherence of a compositional form and structure, but also factors that are significant for understanding the coherence of an interpretation. In the similarity matrix, these become intertwined. In light of the amount of music (computer, electro-acoustic, etc.) that does not use conventional music notation, the similarity matrix can objectify an overall formal impression of a composition at one level, while permitting comparisons between any moment in a composition and any other moment in the composition. This poster will provide opportunity for leisurely study of the matrices and opportunities to follow performances via Quicktime movies with the similarity matrix in order to observe what musical relations it can represent.