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Aditya Kumar Nagrath* (adnagrath@du.edu), University of Denver, Department of Mathematics, 2199 S. University Blvd., Denver, CO 80208. *A Priestley Style Duality for Meet Semi Lattices.*

In the 1970's, Priestley introduced her now-famous duality between bounded distributive lattices and certain partially ordered compact Hausdorff spaces, now known as Priestley spaces. In this duality, the lattice can be recovered from its Priestley space by passing to the clopen down-sets. We establish a similar duality by changing focus from the lattice of clopen down-sets to the meet-semilattice of convex clopen subsets. On one side of the duality we identify a suitable category of bounded meet semilattices having natural properties, and on the other we identify a class of compact Hausdorff spaces equipped with a ternary betweenness relation having natural properties. We discuss several consequences of this duality. (Received September 20, 2007)