The notions of congruence heredity were recently introduced by Pálfy and Hegedűs. A congruence lattice $L$ of a finite algebra $A$ is hereditary if every $0 - 1$ sublattice of $L$ is the congruence lattice of an algebra with the same universe as $A$. $L$ is power-hereditary if every $0 - 1$ sublattice of $L^n$ is the congruence lattice of an algebra on the universe of $A^n$ for all $n$.

We will survey some recent results on algebras with semilattice operations and congruence heredity. (Received September 28, 2005)