A variational model for composition of finitely many strongly elliptic homogenous elastic materials in linear elasticity is proposed and the notion of ‘universal coercivity’ is introduced. The linear problem is then translated to a nonlinear variational problem. Examples and counterexamples for universal coercivity are presented. In particular, the case of two materials are examined in some details. In the second part, recent work with colleagues on image processing and shape analysis will be displayed.