Lagrange obtained the equations of fluid dynamics by starting with Newton’s equations for a collection of point-particles and carrying out a simple coarse-graining. From the modern point of view, a point-particle is a unitary irreducible representation of a group which is the Poincare group times the internal symmetry group (which may be Abelian or nonabelian). We will describe how one can formulate fluid dynamics from this point of view. Since symmetry is foundational in this approach, it provides a natural framework for relativistic magnetohydrodynamics (with magnetic moment and spin-orbit interactions), nonabelian magnetohydrodynamics (with transport of nonabelian charges), and anomalous effects in fluid dynamics such as the chiral magnetic and chiral vorticity effects.