drag

1. sl. clothes
2. longitudinal retarding force

Turbulence: disruptive, dissipative, creative.

A counterpoint to streamlining.

Advocates defects, disruption and turbulence as perverse yet legitimate creators of aesthetic and functional value; in the context of the symbiotic relationship between mental / social turbulence and creativity / innovation. Resisting the pressures of all-encompassing digital interfaces, 'drag' considers clothing as a physical boundary layer able to disrupt as well as smooth social acceptance.

Turbulence is the most common, most important and yet most complex type of 3d fluid motion and, due to its inherent randomness, very difficult to characterise. It is the antithesis of streamlined flow.

Drag dissipates energy through the formation of vortices i.e. a turbulent wake. This is reduced by streamlining. Counter intuitively, drag can also be reduced by rough surfaces. Inducing a small amount of turbulence can reduce overall drag, as the higher velocity turbulent flow does not fall away from the solid surface as quickly, hence delaying "boundary layer separation". This is the principle behind the dimpling on golf balls and demonstrates a positive application of turbulence.

The project aimed to experimentally develop (via smoke and ink flow visualisation studies performed at Cranfield and Cambridge Universities) the physical phenomena of pressure, disruption and turbulent flow as informative concepts and processes in the creative development of fabric forms and garment construction.

A key design element of the resulting collection is surface disruption; using traditional pressure techniques (pleating) on polyester fleece (combined with laser cutting) to create the illusion of fully-fashioned knitwear, and the use of non-traditional pressure techniques (ultrasonic – compression wave – bonding) to construct garments and create surface effects. As with the title, the viewer's perception is toyed with, inviting a re-evaluation of the use of synthetics: a secondary aspect of the collection being the potential for efficient recycling due to mono-material construction.