Antony Gormley’s retrospective at the Royal Academy ends in a moment of blissful release. After tottering through low, pitch-black metal tunnels and chambers, you emerge into a gallery filled with cool sea air and a briny tang. The floor of the final beaux-arts room is submerged beneath earth and seawater. This is Host, a work he’s created a number of times over the past three decades, nodding to primordial creation, the ocean that life originally crawled from and the squidy stuff with which artists fashioned the first figures. Here, in the bastion of civilisation that is the Royal Academy, it also becomes a tacit doomy statement about climate change. It’s the beginning and the end. That’s one of the things about Gormley’s art: it goes for big statements, while being so open-ended that it can change with context, adapting to its viewers’ concerns.

This is a seriously handsome show with plenty of crowd-wowing art that aims to put “the visitor centre stage”, yet also underlines his project’s sticking points. In a recent interview, he bemoaned art’s waning ability to speak truth to power. Here, he reaches for the epic to tackle the Enlightenment dream of human progress that birthed the Royal Academy. It begins with an iron baby that he describes as a “bomb”, ripe with destructive potential but vulnerable, on the grand courtyard’s
paving, framed by neoclassical walls and parked cars. No chronological retrospective, the exhibition evolves in beats, small to big, simple to spectacularly complex. Drawings track his lifelong interest in bodies and space, with a recurring solitary figure, either against the open landscape or framed by doorways, the womb, the tomb.

It’s not until over halfway through that you’ll find work that is, for most people, recognisably Gormley. The familiar iron figures based on casts of his own body fill a room, standing upright not only on the floor, but projecting from the walls and the ceiling. These are the same metal men that perched on rooftops during his show at the Hayward Gallery in 2007, and that stare out to sea on Crosby beach. Expressionless as the sphinx, they are clearly shells: it’s the world within that counts.

Gormley has spoken about closing his eyes to experience infinite space, and he’s a student of the Buddhist meditation, Vipassana, which means to see things as they really are. This is one of his driving ideas – skewing our assumptions about the bodies and world that encloses us – and he performs some dazzling feats of engineering to achieve it. His iron men defy the laws of physics. New installations include a complicated hanging cloud of steel lines and 8km of coiled aluminium tube, sprung outwards to fill an entire room. (Our recent model of the expanding universe, a 20th-century game-changer, is discussed in the show’s catalogue.) You must pick your way around it to reach a lonely figure, head bent as if lost in thought and conjured from a lattice work of steel pins that confuse surface and substance, inner and outer.
Faceless or expressionless, Gormley's figures may be, but their blankness is also an invitation to identify, appealing to our own experiences of the body, inner life and mortality. It's partly his work's obliging flexibility, with its all-creeds mix of humanism, spiritualism and science, which has made Gormley the go-to guy for public art. The Angel of the North is a national icon, while his body casts, found on beaches, buildings and mountains across the world, are hard to avoid.

Yet it strikes me, seeing his sculptures rub up against one of the Enlightenment's most rarefied institutions, how pseudo-democratic these monuments are. Gormley is a white, male, Cambridge-educated son of a pharmaceuticals magnate. This wouldn't make the blindest bit of difference to his work were it not for the fact that, in using his own body, he unavoidably presents himself as an everyhuman to whom we are all asked, impossibly, to relate. Furthermore, he leaves representations of this privileged white guy around a world dominated by privileged white guys. This is a one-size-fits-all universalism that is as problematic as it always has been.

The show builds towards those dark metal tunnels, which you must stumble around as you grope towards the light. It's the birth canal, death’s wipe-out, history’s terrors, a black hole and the path to illumination all at once. While only the bravest, least claustrophobic might dare enter, the risk ultimately proves false. It turns out there's something in here for everyone, and that's a problem. Gormley's musings about bodies and being are too unfocused, and ultimately too polite, to land the political punches they attempt. Where's the tension? Where's the real debate?

At Royal Academy, London, 21 September-3 December.