

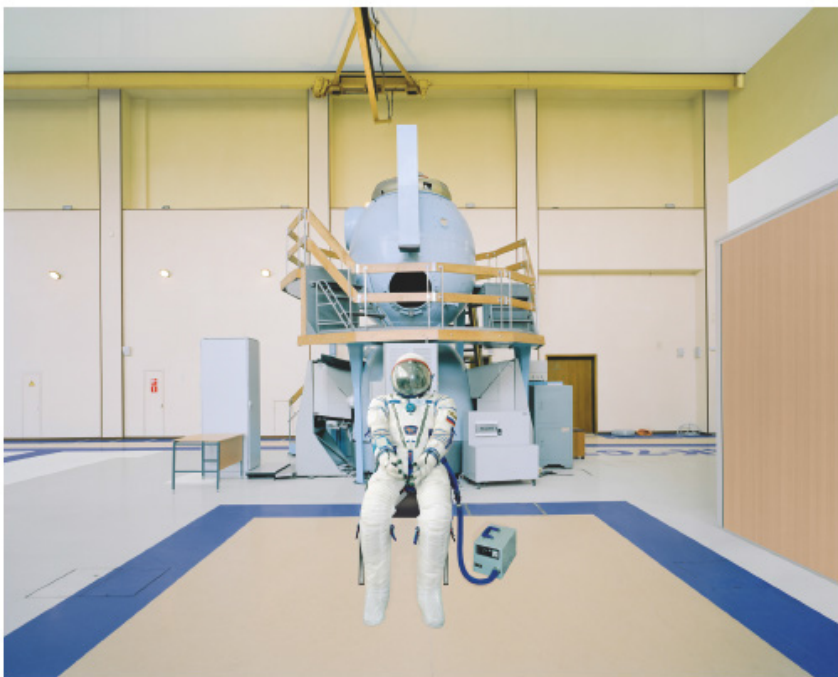


THE S5 BUILDING AT THE GUIANA SPACE CENTRE – EUROPE'S SPACEPORT IN KOUROU, FRENCH GUIANA – IS USED FOR THE FINAL PREPARATIONS FOR SATELLITE LAUNCHES. HERE, THE SPACECRAFT FUELLING BAY IN THE PAYLOAD COMPLEX, STARK WITH GYMNASIUM-STYLE MARKINGS ON THE FLOOR, IS RENDERED TRANQUIL THANKS TO MARTINS'S LENGTHY EXPOSURE TIME

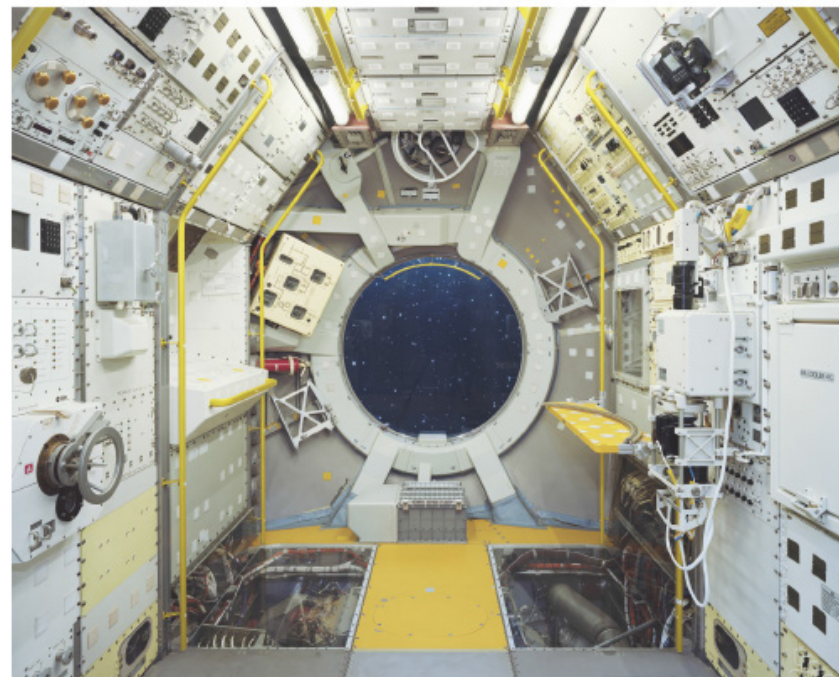
LIGHT TRIP FANTASTIC

WE FORM OUR CONCEPTION OF THE UNIVERSE FROM RAYS BEAMING VAST DISTANCES, SO IT IS SOMEHOW APT THAT PHOTOGRAPHER EDGAR MARTINS SHOULD CAPTURE THE INNER WORKINGS OF THE EUROPEAN SPACE AGENCY – ITS MODULES, FUELLING BAYS AND LAUNCHERS – IN EERIE LONG EXPOSURES. AT FACILITIES FROM RUSSIA TO FRENCH GUIANA, STEPHEN PATIENCE LAUNCHES HIMSELF ON AN ODYSSEY

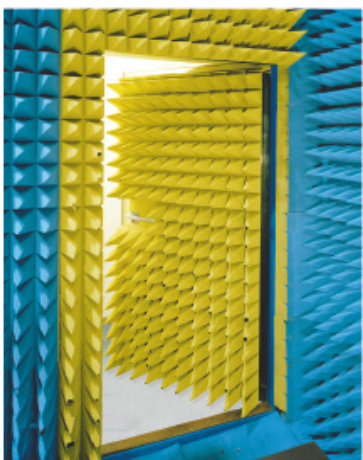




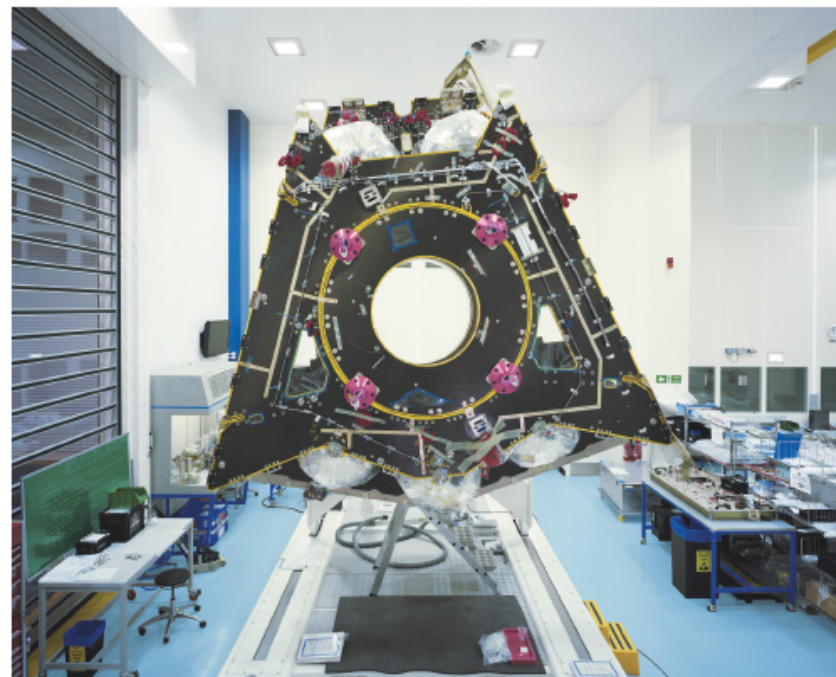
AT THE YURI GAGARIN COSMONAUT TRAINING CENTRE IN RUSSIA'S STAR CITY, A PRESSURE SUIT SITS IN FRONT OF A SOYUZ-TMA TRAINING MODULE, USED TO PREPARE COSMONAUTS FOR TRAVEL TO THE INTERNATIONAL SPACE STATION. HUMAN FIGURES ARE RARE IN MARTIN'S WORK - THIS SUIT IS, HOWEVER, UNOCCUPIED



HISTORIC SPACE HARDWARE: SPACELAB - THE REUSABLE LABORATORY MODULE EMPLOYED ON 22 ORBITAL MISSIONS DURING THE 1980s AND 1990s - NOW LIES DECOMMISSIONED, ON PERMANENT DISPLAY IN THE VISITORS' CENTRE OF THE AIRBUS DEFENCE & SPACE FACILITY IN BREMEN, NORTH-WESTERN GERMANY



TOP: LIKE HI-TECH LEGO, THE MOBILE GANTRY FOR THE VEGA LAUNCHER AT THE GUIANA SPACE CENTRE BECOMES ALMOST ABSTRACT WHEN SHOT FROM BELOW.
LEFT: FUTURISTIC SOUNDPROOFING COVERS THE ENTRANCE TO THE COMPACT PAYLOAD TEST RANGE, USED FOR TESTING ANTENNAE, AT THE EUROPEAN SPACE RESEARCH & TECHNOLOGY CENTRE IN NOORDWIJK, A TOWN IN THE NETHERLANDS



TOP: THE MERCURY TRANSFER MODULE – THE PROPULSION VEHICLE FOR BEPI-COLOMBO, THE ESA'S FIRST MISSION TO MERCURY, DUE TO LAUNCH IN 2017 – DURING ITS INTEGRATION PHASE AT THE AIRBUS AIT CENTRE IN STEVENAGE.
RIGHT: DALEK-STYLE BUMPS AT THE ENTRANCE TO THE CLEANROOM IN THE CENTRE OF COMPETENCE SOLAR ARRAYS AT THE AIRBUS FACILITY IN OTTOBRUNN





TRAVEL IS, in a sense, inseparable from our conception of outer space. To be specific, travelling light. Our view of the heavens is brought to us by rays of light hurtling through space at 670 million miles an hour, so that when we look at the celestial bodies we see them not as they are now, but as they were whenever those rays set out on their journey. Thus the entire night sky is like a vast collage of planets, stars and galaxies from different points in history. We see the moon as it was a little over one second ago, and the tiny speck of Jupiter with a delay of some three quarters of an hour. Meanwhile, glittering Deneb in the constellation of Cygnus is still back in the era of Socrates. And some of these beams of light, after travelling for billions upon billions of miles, pass through the lens of a camera and become immortalised as photographs.

Fittingly for a medium dependent on light, photography is intertwined with the history of space exploration. Think of that portrait of Buzz Aldrin on the lunar surface; the eerie stone face on Mars shot by the Viking mission; the 'Pale Blue Dot' picture sent back by the Voyager probe from the periphery of the solar system, in which our entire planet is reduced to a single azure pixel. It might even be said – with apologies to Van Gogh, Holst, Asimov et al – that photography is the art form most fitted to a meditation on space travel. So when the European Space Agency agreed for the first time to collaborate on an art project, it felt natural that the artist in question was the photographer Edgar Martins.

'I'm not really a child of the space race,' says the Portuguese-born 38-year-old, whose revolutionary father moved the family to Macau in 1977. 'But as a European growing up in communist China it always captured my imagination – the resonance of infinity, the unknown, on culture.' Certainly, space has been a recurring theme in his photography. *The Accidental Theorist* (2007) depicts Portuguese beaches that evoke lunar landscapes. For the 2008 series of photographs titled *The Inequalities in the Motion of the Stars*, the dust and detritus that accumulated on sheets of sticky paper left exposed for weeks on end become transformed into starscapes.

Martins's work with the ESA – which boasts the rather Hirstian title *The Rehearsal of Space and the Poetic Impossibility to Manage the Infinite* – is a series of almost abstract shots of astronauts' equipment and the interiors of space facilities, one of a trilogy of projects depicting industrial spaces that has most recently seen him go behind the scenes at the BMW car plant in Bavaria. Martins himself had to travel extensively (albeit on a terrestrial scale), taking in research stations, astronaut training centres and laborato-

ries as far afield as Kazakhstan and French Guiana (locations close to the equator are favoured for rocket launches, as they allow the Earth's rotation to be harnessed for additional velocity).

For an organisation dedicated to departures – from the Earth's gravitational pull, from the confines of prior scientific thought – this was a new one. The European Space Agency hadn't engaged with the art world before. It certainly hadn't contemplated recruiting an official 'artist in residence', as Nasa did when it commissioned a multimedia performance piece from the avant-gardist Laurie Anderson in 2003. Anderson's artwork, *The End of the Moon* – which reportedly cost \$20,000 across two years – led to a minor political ruckus in the United States, with a Republican congressman successfully legislating to prohibit federal funds from being used for such purposes ever again. Politicians looking to be outraged need not worry in this case, however – Martins was independently funded, by various cultural agencies. All the same, the agency granted him a level of access that was quite unprecedented in its 40-year history. 'Their only contact with photographers up until then had been with journalists, for press launches,' says Martins.

Not all of the photographs in the series can be immediately apprehended; at first glance viewers are forced to work out for themselves exactly what it is they are looking at. Appropriately, given the lack of gravity in outer space, it is difficult to ascertain which direction is up – rooms are defined by sharp mirror symmetry, with fixtures on every available surface; others become almost abstract in their geometry. In the case of the launch gantry for the Vega rocket in French Guiana, elements of vivid yellow and rich snooker-table green lend the functional apparatus an unexpected Op Art exuberance. The sense of stillness and the regularity of the composition bring to mind Stanley Kubrick's 2001: *A Space Odyssey*. But these are not science-fiction images. They are clinical, in the sense that an ageing piece of machinery in a hospital wing is clinical, but never sterile or stylised like the set designs of a space opera. The aerospace industry, along with the military, are the ultimate exponents of 'form follows function'.

And what of the ESA's employees? The astronauts, the scientists, the engineers? Martins rarely features human beings in his pictures (the spacesuited cosmonaut who sits jauntily beside a Soyuz capsule is in fact an empty husk). Partly this is a function of the photographer's technical approach – he shoots using large-format 8 x 10in film with very long exposures (anything up to three quarters of an hour), meaning that anybody who strayed into shot would appear as a comet-like streak. Martins is adept at persuading his collaborators to accommodate his needs – indeed, for his latest series, the BMW production line itself was paused while he worked, an unheard-of event in automotive-manufacturing circles. With humans absent, such lengthy exposures create a sense of eerie stillness, compressing the passage of 45 minutes into a single moment. Why, if you were a beam of light, in that time you could have travelled as far as the moons of Jupiter ■

For more information on Edgar Martins, visit edgarmartins.com. Both the ESA and BMW series are published by The Moth House (themothhouse.com)

THIS PAGE: IN A EUROPEAN LIVERY OF BLUE AND GOLD, AN ARIANE 5 EGA THRUST FRAME – WHICH CONNECTS THE BOOSTERS TO THE MAIN ROCKET – STANDS IN THE CLEANROOM AT THE AIRBUS DEFENCE & SPACE FACILITY IN BREMEN, OPPOSITE: HAND STRAPS FOR WEIGHTLESS COSMONAUTS COVER EVERY SURFACE OF THE ZVEZDA MODULE, A SIMULATION OF THE RUSSIAN SEGMENT OF THE INTERNATIONAL SPACE STATION, IN THE YURI GAGARIN COSMONAUT TRAINING CENTRE



COURTESY: REMARKS/ARTIST, GSA, BSA, INTI AND THE MOOTH HOUSE