

FILM REVIEWS

HOMO CYBERNETICUS

2001—A Space Odyssey

Directed by Stanley Kubrick. At the Casino Cinerama, London.

FILM makers learn at an early age that dramatic form requires a beginning, a middle and an end. Mr Kubrick in his Cinerama "Space Odyssey 2001" has gone one better; he has provided a beginning, a middle and infinity. For good measure he has also provided a prologue—a prehistoric tableau-vivant in four scenes—in which two familial tribes of Olduvai Man fighting the elements and themselves, discover, the morning after the fight before, a mysterious slab—a symbol of alien intelligence. Simultaneously, while grubbing about in a pile of dried bones, one of them deduces that a femur could make a weapon, and as the victorious exploiter of this technological gap throws his club into the air, the scene dissolves to a space ship in the year 2001.

Now Mr Kubrick is nothing if not a stickler for detail—indeed, many will remember that it was partly this that made the impact of his brilliant film "Dr Strangelove". The human conquest of the safety mechanisms which brought about the dropping of the H-bomb, the details of the scene in the control rooms, all these recall the obsession with the details of his creations that make "2001" such compulsive watching. Those who remember Mr Kubrick's earlier films will also recall the balletic quality which pervades his work. The bomber and the tanker in mid-air copulation to the tune of "Try a Little Tenderness"; the hydrogen holocaust to the tune of "We'll Meet Again"—these were brilliant highlights of "Dr Strangelove".

In "2001" to the accompaniment of the "Blue Danube" the first section of the film takes us on a space journey by Pan American shuttle to space station 5, the "Orbiting Hilton" circling the Earth. After a brief stay to examine the delights of weightlessness, off again to the Moon, where mankind has again discovered a slab.

Section two concerns the 18-month voyage to Jupiter in search of the source of slabs. The crew consists of two astronauts awake, three in hibernation and Hal 90, a talking computer. Hal 90 feels (with some justification) that his human companions are too inferior to be entrusted with the search for the Golden Fleece of alien intelligence. He begins to act strangely and, as the crew plot to repair him, he inveigles them outside the ship, kills off the sleepers and one crewman and it is only by desperate efforts that the survivor gets back into the space ship, enters the computer's memory bank and, by taking out circuits, performs an electronic leucotomy. As Hal 90 regresses into the womb of the assembly line, his last conscious memory is his ability to sing "Daisy, Daisy".

And so with the score humans one, computer four, sequence three begins. The space craft arrives in the neighbourhood of Jupiter and the surviving member leaves it to explore. Lo and behold! He finds a slab floating in space which accelerates him into "Symbolsville", through polarization, solarization and all the tricks in special effects crew's book. Fifteen minutes of psychedelic cinerama to the accompaniment of Richard Strauss's "Thus Spake Zarathustra" and then the moment of

truth: the death and rebirth of the astronaut (the apotheosis of humanity?) in a Louis Quinze drawing room.

The pictures are a feast for the eye. Indeed, the whole business of celestial mechanics gives full opportunity for Mr Kubrick to pile detail on detail. He shows us the accuracy of the perspective of the landing on the Moon; the slow clumsiness of operating in a space suit; the endless computer displays; the hazards of weightlessness; the technology of lunar travel. It is undoubtedly the closest that most of us will get to space without suffering directly the claustrophobia of a space ship or the agoraphobia of disorientation among the stars.

It is on human terms that the film begins to fail. The style of acting can only be described as twenty-first century "method", a mumbled underplaying to emphasize homo cyberneticus's matter of fact acceptance of his mechanical miracles. Fortunately, out of two hours and twenty minutes' film there is only thirty minutes' stilted dialogue to mar the sheer visual entertainment.

At the end of the scripting session before Mr Kubrick began his odyssey at Elstree Studios, one wonders if he recalled the very apposite quote from Robert Browning used on the National Academy of Science IGY Space Poster

"O that a man's reach should exceed his grasp
or what's a heaven for"

After three years' labour pains Mr Kubrick may have exceeded his grasp, but he has found an entertaining use for heaven!

AUBREY E. SINGER

OBITUARIES

Dr D. Tilles

DR DAVID TILLES, a geophysicist and associate professor in the department of oceanography, Oregon State University, was killed by a falling boulder on the Oregon beach on March 30. He was 34 years old.

Tilles was born at Berkeley, California, and attended the California Institute of Technology from 1950 to 1952. He received his bachelor's degree in 1954 at the University of California, at Berkeley, and his doctorate in 1959. He was with the Smithsonian Astrophysical Observatory at Cambridge, Massachusetts, and the Harvard College Observatory from 1960 to 1967, before going to Oregon.

Some of Tilles's earliest work involved a study of stable silicon isotope ratios in tektites, using isotope dilution and mass spectrometry. Other problems such as the diffusion of tritium in meteoritic alpha and gamma iron also attracted his attention. He developed a hypothesis for a possible mechanism for accumulation of noble gases in the Earth's atmosphere, and suggested a mechanism whereby the solar wind bombardment of extra terrestrial dust may be responsible for noble gas accumulation. He also suggested experimental tests of this hypothesis.

While at the Smithsonian Observatory and the Harvard College Observatory, Tilles undertook some difficult measurements of the excess argon-36 and argon-38 in magnetic concentrates of Pacific sediments and in dense concentrates of selected Greenland dust. These measurements were directed towards a test of the expected concentrations of solar flare ions implanted in interplanetary dust.

Experiments and ideas of extra terrestrial influx mechanisms finally resulted in an authoritative review article on "Influx Measurements of Extra Terrestrial Materials" (*Science*, 159, 936; 1968) written with Dr D. W. Parkin. Tilles's extra terrestrial studies have provided some very important background information which will be a springboard for future space research.