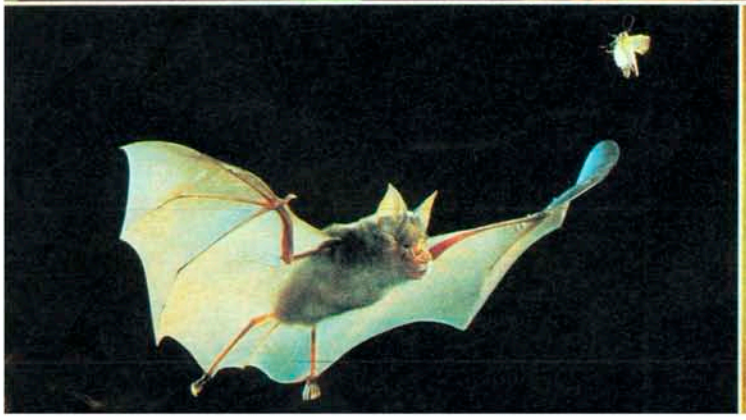
SUNDAY EXPRESS
magazine
10 OCTOBER 1982

Incautious fly makes an unhappy landing on a Venus Fly Trap. This is the moment before the trap snaps shut



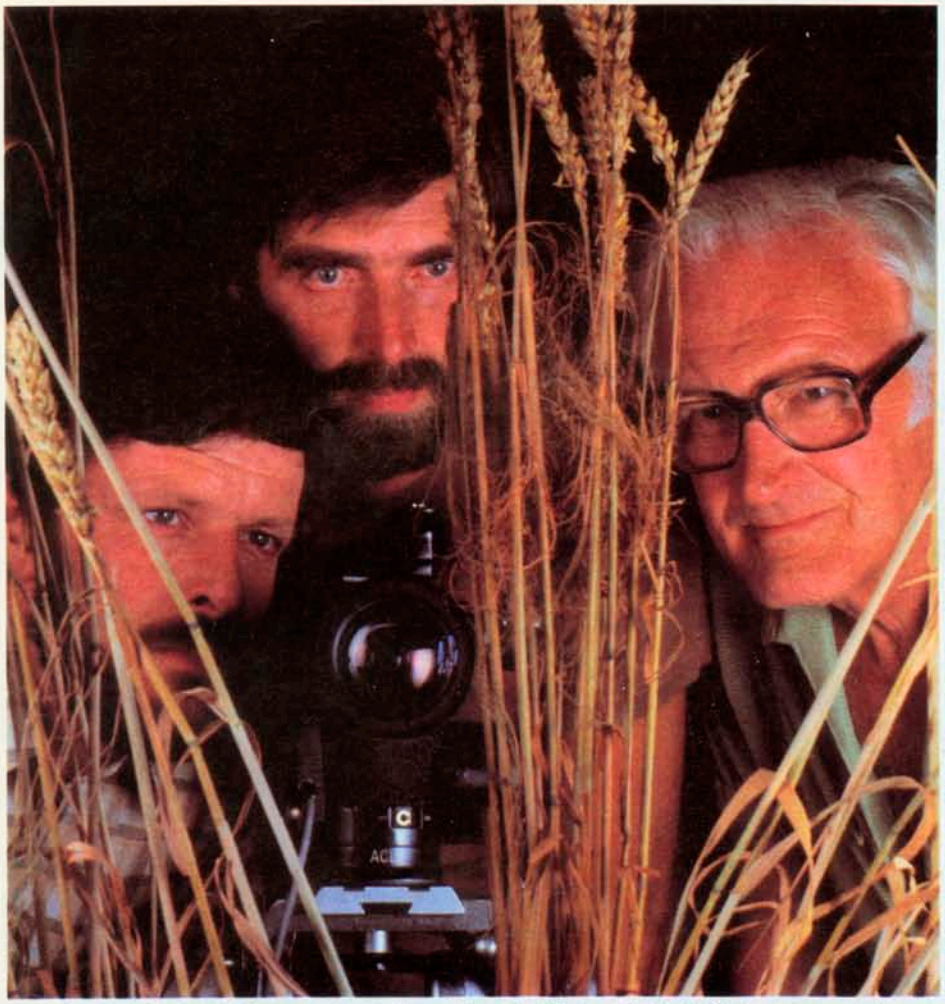
THE MEN WHO CAN PHOTOGRAPH ANYTHING

The diminutive dramas of nature take outsize skills to capture on film. Only wizards can bring you close-ups like these to your sitting room screen. Robert K. G. Temple goes to see the innovators

From left below: Greater Horseshoe bat in hot pursuit of moth. Harvest mouse climbs a grain stalk. Cicada emerges from chrysalis. Birth of a jellyfish

Leopard frog caught tiptoe on water as it leaps between two elements

PHOTOGRAPHS BY SEAN MORRIS, G. I. BERNARD, PETER FARES, STEPHEN DALTON (OXFORD SCIENTIFIC FILMS)



Three of a kind: Dr Gerald Thompson (right), his son David (middle) and Dr David Shale setting up a shot

No-one is actually in charge but there are seven principals. They amble about in shorts chuckling. Along with their mugs of coffee they are inclined to carry human skeletons or poisonous spiders. "We all have a warped sense of humour here," says one. But their work is no joke. Oxford Scientific Films, as this company of brilliant individualists call themselves, are known less for their name than for what they produce — which is admired by every watcher of TV nature programmes, or even of commercials and science fiction movies. Christopher Parsons, head of the BBC's rival Natural History Unit, calls the group "surely the most technically advanced biological film unit in the world".

Based a few miles north of Oxford, the enterprise got its start when a group of academics from the university joined forces 15 years ago. But they have long ceased to be just the company that brought you the pike eating the stickleback, or the birth of a jellyfish. Their team is now responsible for special effects in films like *Superman*, *Alien* and *Flash Gordon*. It was also involved in producing the Cadbury's commercial where the camera descends into the groove of a bar of choclate and runs along it as in a canyon. Another current commercial of theirs is the old Esso service station that is wrecked and replaced by a new one within seconds. Several months of time-lapse photography went into that one.

In their world, the OSF team are known as the men who can film anything. There seems to be no limit to their technical ingenuity. This is largely due to the abilities of their genius-in-residence, Peter Parks. Even at OSF, where brilliance is taken for granted, everybody is in awe of Parks. Aged 40, he is the inventor of the optical bench, and a pioneer of snorkel periscope photography. He designs and invents lenses, tubes, arrays, cranes, gyroscopic combinations and tracking equipment. He is an innovator in the Victorian art of "dark-field illumination" for filming purposes. "Artist for his own designs, he was once the chief natural history illustrator for the *Illustrated London News*. Now he is writing a novel, and is planning a film epic which would have a budget of several million pounds. This year, Parks won a "technical Oscar" in Hollywood — he is entirely self taught in cinematography.

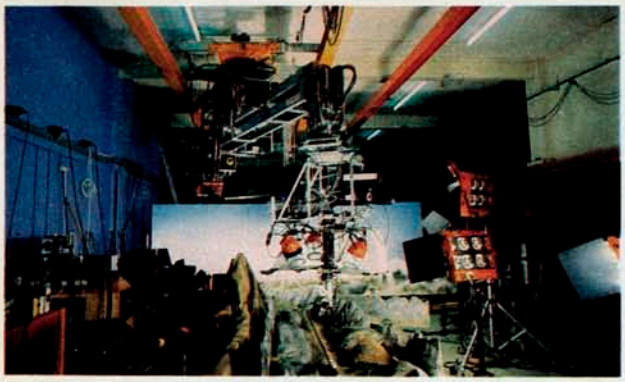
They have the technique to film a speck of dust on a man's fingernail in the foreground, a crowd of 10,000 people in perfect focus in the background, and a loping dinosaur in between

The senior figure at OSF is the genial, perpetually amused Gerald Thompson. Although he will retire this year, he will remain an active consultant. He can hardly do anything else—OSF's buildings ☛

PHOTOGRAPHS BY M. F. L. FOGDEN, G. L. BERNARD, J. A. L. COOKE, P. W. WARD (O.S.F.)

KIM SAYER

Threat display by Green Horsewhip snake of Costa Rican rain forest. Right from top: Ladybird mimic. Tree frog in Trinidad. Ogre-faced spider with beetle prey. Brown pelican shoal jumping in Mexico



Special apparatus for close-ups: galactoscope and cosmoscope

24 ☚ are at the bottom of his garden! Thompson was a lecturer in the Department of Forestry at Oxford when he became interested in studying the behaviour of wood-boring wasps which were attacking trees. He needed to film them to do so, and one of the technical problems he solved in the 1960s was how to pour vast amounts of light on to miniature creatures during filming without burning them to a crisp. He put globes full of water in front of his lightbulbs to concentrate the light, and special heat-absorbing glass filters to keep his subjects cool.

A few years later Peter Parks, a young zoologist, made his first films under the stairs in Oxford University's zoology department. He says that sometimes he would be interrupted during a crucial sequence by someone's foot coming towards his face, since the stairs were not encased. It was inevitable that Thompson and Parks get together, and they did. From 1967, when seven of them went off to Jamaica to see if they could get along together on a filming expedition, the OSF team have bumbled along in each other's company quite merrily. "We have never quarrelled," says one.

Though they take their decisions collectively, their business affairs are kept on an even keel by the company secretary Terry Downer, who is also a director. The nearest thing to a manager is Sean Morris, another former Oxford zoologist. He is a restless workaholic with a flair for business decision-making, who tackles everything with the same intensity he once put into being a member of the Oxford rowing crew. The most ambitious in-house natural history production OSF has done was Morris's *Sexual Encounters of the Floral Kind*, which took him seven years.

Morris and Thompson spent several weeks trying to film the insect pollination of the rare bucket orchid of Costa Rica. This orchid grows about 30ft up in jungle trees. Morris says climbing up to them meant clambering through countless nasties — snakes, spiders, etc. — and being bitten endlessly. All of the OSF team are incredibly hardy—as they need to be. They tend to suffer dysentery for the entire time they film in most of their exotic locations around the world. One of their assistants was bitten by a poisonous Panamanian spider related to the black widow while the *Daily Express* was covering them, and no one seemed particularly alarmed. The young fellow reported feeling weak at the knees and dizzy, but Thompson remarked amiably: "It's probably the fear". And he was right.

At 6ft 5in and 6ft 6in, Thompson and Dr John Cooke, a leading arachnologist (spider expert), are the jolly giants of OSF. They chuckle the most and seem the least perturbable. Cooke bears a scar on his arm from an experiment he performed with a Mexican red-kneed tarantula. He was studying the clouds of barbed hairs which New World tarantulas spray on to their foes and his account was the first modern scientific study of the phenomenon. He knew the tarantula hairs caused the mucous membranes to swell up, resulting in death for small animals and weeks of intense suffering in humans. But he needed to see what effect they had on flesh. So he provoked a tarantula to spray hairs into his arm, which swelled up the size of a tennis ball. He also arranged to have another scientist cut a chunk out of his arm for investigation.

Gerald Thompson, when he hears Cooke explain his scar, likes to pull up his shirt and show a chest scar, and ask what creature you think was responsible for it. When the baffled listener gives up, Thompson says, "It was a Yakoub." It takes a while to realise that "Yakoub" is not a wild animal but the name of a leading open-heart surgeon. ☛ 31

Dr John Cooke provoked a tarantula to spray hairs into his arm, which swelled up the size of a tennis ball, and arranged for another scientist to cut a chunk out of his arm for investigation under a microscope

27 ☚ All the OSF team seem to share this penchant for elaborate twisted jokes.

Sometimes romance blossoms. Thompson's son, David Thompson, the leading OSF cameraman, met an attractive local girl for five hours on an expedition to Costa Rica. She couldn't speak a word of English nor he a word of Spanish. He came home, learnt Spanish, wrote to her, went back to have another look just to be sure, and married her. Now she lives in Oxfordshire. When the first snow fell after her coming to England, she ran outside with excitement in the morning in her nightdress, exclaiming over the beauty of the snow, which she had never seen. Her excitement was not so different from that of which all of the OSF team seem to be capable when seeing things for the first time in nature. Many of the things they film were previously unknown to scientists. As recently as July, Peter Parks filmed in Bermuda a hitherto unheard of method of capturing sea anemones by sea slugs. Every time these scientists turn around, they seem to find something new, like the first sight of snow.

Until now, OSF has been privately owned by its directors. But Anglia Television is buying a 30 per cent shareholding, after years of purchasing from OSF programmes for its Survival series. This has advantages to both sides. It will not hinder the freewheeling creativity of OSF, which has been the key to its unique success. Offers from several other sources to buy a controlling interest in the company have repeatedly been refused. OSF wants to originate most of its own productions in the future, and a series of six hour-long programmes is under way, with one in the can already about life forms at the interface of the ocean and the air. This was made in Bermuda and at the Great Barrier Reef. During the filming Peter Parks was hit full force by a giant manta ray, and on another occasion was nearly lost at sea. All in a day's work!

At the moment, OSF are filming the entire process of formation of an apple: from fertilization of the blossom, to the ripening of the fruit on the tree, which they will eventually be able to show on film in a matter of two or three minutes.

A library of still photographs, amounting to about 150,000 colour slides, is based at OSF. Publishers from all over the world consult this unique collection, which is so superbly mounted and catalogued that a picture of any natural history subject imaginable can be obtained within seconds. The entire collection may be scanned in a single afternoon because of the display facilities.

A more recent side of OSF is its production company for futuristic television commercials. Ian Moar is the director who presides over this enterprise. He is the only one of them who has always worn a tie, the others point out, as if he were a suitable subject for a natural history film. He has as good a sense of fun as the rest, but when high-powered business clients turn up, he does get nervous about their being met by a dozen of the staff playing badminton with one hand and eating marmite sandwiches with the other in front of the entrance. "If businessmen see everybody here wandering around in their shorts, they may think we aren't serious about making commercials," he frets. But there seems to be no shortage of work. And Peter Parks, shorts or no shorts, still has his Oscar to flash to clients instead of a necktie. No one could ever get the OSF gang to "go straight".

Whether it is flying like Superman over the skyscrapers of New York City, and looking through windows a fraction of an inch high, or simply shooting their pet toad Fats Domino eating a worm, OSF can film it. Some of their techniques are so far ahead of any competitors in the world that if exploited to full advantage, they could revolutionize cinematography. Peter Parks has developed a new technique to film in three focal planes simultaneously, monitor them as he does so, and record them on film at once. No more blue lines are needed around film heroes leaping into the mouths of dragons or falling from spaceships. The old travelling matte special effects process by which this has been done until now is obsolescent. Parks has the technique to film a speck of dust on a man's fingernail in the foreground, a crowd of 10,000 people in perfect focus in the background, and a loping dinosaur in between — and have the film ready for screening the next morning.

SEAN MORRIS

All the OSF team are incredibly hardy. They tend to suffer dysentery most of the time they film in their exotic locations around the world. Being bitten and chewed does not deter them