

THE WORLD OF JEAN PAINLEVE

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Spectacle-science-poetry. These, for Jean Painlevé, the French documentary filmmaker, represent the three-fold possibility of the cinema. In giving a short account of his work, John Maddison also quotes from his own translation of Painlevé's prose writing.

Painlevé is a rare figure even in the French cinema. For one thing, he is so many sided. Just over a quarter of a century ago, he presented his first paper to the French Academy of Sciences; he was then twenty-two and a promising research biologist. Two or three years later, he appears in a different role - that of a motor racing champion. About this time, too, in the 1920's, he was frequenting the little avant-garde theatres of Paris, playing small parts. A still photograph from a now forgotten silent film of the period shows him in the striped waistcoat of a French manservant. He is playing the piano while Michel Simon looks on benevolently. In 1928, he produced his first film - it dealt, of all things, with the life cycle of a stickleback. His interest in science - a passionate one - goes back to the closing years of the First World War. Surrounded by the intellectual amenities of life in a highly cultivated Parisian household, he was then a foppish young adolescent, the *coqueluche*, the pet, as he says, of his mother. A year or so before, his father, as Minister of War, had named Philippe Petain to succeed General Navelle. The young Painlevé was not to know that in 1944, the same Philippe Petain, Marshal of France, would sign the order confiscating his *Solutions Francaises*, an intensely patriotic film in which Paul Valery speaks of the grace and strength of the French tradition. Ironically, France was by then well on its way towards liberation. When Paris and most of the country was free, Painlevé was made Director General of the French Film Industry. It was an act of homage - both to his work as a Resistance fighter, hunted by the Gestapo, and to the long series of his films interpreting science and natural history.

These films have reflected his belief in the power of the cinema to express and explore the visible universe.

For him, as for others, the cinema opens new windows. Registering at high speed, the camera reveals a world of movement slowed down to rhythms never before perceptible to human eyes. The gradual cycle of living cell formation, the growth of plants and the leisurely changes in the heavenly bodies, unfold on the screen. Viewpoints hitherto inaccessible bring new facts and forms, new dispositions of life and shade. To watch the phenomenon, to seize with the camera movements of strangeness and significance and to build from these movements, a story and a pattern - that has been Painlevé's special contribution to the cinema. His wit and sensibility have made it a unique one.

Music is an important element in his films and happily he has found musicians aware like himself of the singular excitements of the new medium. With one of them, Maurice Jaubert, he collaborated intimately for many years until Jaubert lost his life in the 1940 retreat across the Meuse. The music for his most characteristic film - *L'Hippocampe - The Sea Horse* - was written by Darius Milhaud. This heraldic-looking beast brings to Painlevé himself the same emotion, he imagines, as to another creature of the sea - the periophthalmus or mud-skipper. This emotion is *surprise*. He has written:

"Without eyelids, without covering fold, the round eyes of these fish express perpetual surprise. How justified is this look of surprise when they encounter the Hippocampi - the

Sea-Horses - with their slow and formal movement, incapable of flight. But then flight would ill-become the dignity of these creatures.

"And what shall the other fish say of these vertical brethren, with their dignified sadness, imprint of ancient gargoyles? What manners they have, too! Not only the female who buries the nipple of her cloaca into the pocket carried by the male, but the male himself. He will fertilise the two hundred eggs she has passed to him, and keep them for weeks, accomplishing as it were the work of placentation, so that the blood of the father nourishes the unborn young. There follows for him a confinement of great suffering, of pained agitation.

"If only it were now all ended... But there is still the damnable gassy secretion from the pocket, going on after the last of the offspring has been expelled. And sometimes the lips of the orifice of the pocket coalesce, the pocket swells and, at last causes the male sea-horse to float upside-down in the water".

But the film *L'Hippocampe* ends on a note of gaiety and contrast. On the screen, behind the marine horses, graceful and deliberate, there appear in miniature the swift moving riders and horses of a human steeplechase.

In 1935, Painlevé together with Commander Le Prieur of the French Navy founded the *Club des Scaphandriers* - the Divers' Club. He and Le Prieur did much to develop underwater cinematography. The techniques evolved by members of the Club had important consequences during the Second World War. For some of his film work, Painlevé has used these diving techniques. More frequently, however, he has made his films in the controlled conditions of the aquarium. But whatever the method employed, it is perhaps in conveying the atmosphere of submarine landscapes and forms that his films have been most memorable. His imagination has been especially touched by the strange habits of the creature to be found there. In the note he has written on *Hyas*, he provides the setting for this film and for many others. He calls it - *La Promenade Au Jardin - The Walk In The Garden*.

"It is holiday. The sun plays on the water. The flowers have spread their petals. The tentacle of each anemone is touched with a tip of poison. Giant clams open beneath the gentle pressure of the waves, and close greedily upon anything that flows between their lips: pretty algae, among others, so tempting that we must catch hold of them.

"All the colours mingle, brought by the sea-urchin and the starfish with their crystal tones of purple and blue against the disc-like membranes of the jelly-fish.

"Who would have thought that these Medusae, piled up at birth like plates one upon the other, would have become so pretty? The Siphonophora floating in their varied colonies, so disagreeable to the touch, innocently display a host of ramifications, burning sharply at the first contact. The sunlight playing on the water exerts a hypnotic charm.

"We fall to sleep in this garden oppressively calm.

"For the starfish, the dinner table is soon laid. He has merely to put out his stomach and engulf his prey. But the scallop, warned by the gradual approach of the starfish's thousand feet, takes to flight, clacking her valves. Everyone is alarmed at this charivari. The sun hides his face. It is raining in the garden".

Painlevé's acute awareness of pictorial values may be seen in the introduction he has written for his film, *Les Oursins - The Sea-Urchins*. He calls it *Promenade en Forêt* - a stroll in the Forest.

"The sea-urchin is a sweetmeat. The gourmet consumes everything, scraping the open shell with his bread; the fastidious diner picks on the sex glands - an iodised kernel. But most surprising is the sea-urchin's carapace. As our thoughts range idly over this crust, we see only an impenetrable forest. Then we notice that the spikes do not serve the creature for his locomotion. This is done by a system of hydraulic feet, extremely specialised. Over the many hundreds of holes in the carapace, there pass tiny flexible threads, ending in suckers. Beneath the carapace, all these hollow threads swell out into ampuls or bulbs, and these ampuls are themselves linked by channels filled with water. As they contract they send water into the elastic threads. The threads stretch forward and the forest is in flower!

"If the suckers at the end of the tiny threads meet an obstacle they cling to it. Then the threads grow shorter again, forcing water back into the ampuls. And the sea-urchin is drawn towards its clinging suckers.

"But let us go deep down into the forest, enlarging its scale as we descend. All around the spikes, now transformed into doric columns, we come upon another, a smaller forest - a plantation of shrubs. These are the pedicellariae, minute organs belonging to the sea-urchin, and formed of his substance, as are his spikes. Each is a chalky stem, ending in three jaws, whose muscles open and close perpetually. Some pedicellariae have long slender and perforated jaws. Others recall serpents' heads, powerful and jointed. And yet others, those for the sea-urchins toilette, are shaped like clover leaves. *They* clean the surface of the animal and the grooves in his spikes. And last of all, there are other pedicellariae, with poison glands, and teeth which inject poison, bevelled like hypodermic needles. Over the whole of the sea-urchin there stretches a carpet of vibratile cilia. Except, that is, at the very end of his spikes - might this be due to wear and tear?"

Painlevé sees in the shapes and behaviour of the creatures he is observing, his own especial analogies and associations. Beneath the microscope, the tail of the common shrimp reveals a series of configurations recalling ancient graffiti, and the cyclops head of *Daphnia*, the water flea, is a tribal mask. Of the microscopic death struggles taking place in pond water he says: "In all these assassinations one is overwhelmed by the supplicating gestures of the victims. The imagination hears their cries". In such films, as *Le Vampir - The Vampire* - legend touches reality, and the terrors of human fantasy are set beside the terrors of creation. But though fancy may roam anthropomorphically, the observation is usually first-hand and precise.

Characteristically, and a little melodramatically, it must be confessed, he imagines, in discussing his film *La Pieuvre (The Octopus)* that this legendary creature is a siren "Madame des Entrientes" - The Lady who Embraces Tightly.

"Draped in her skin with its changing colours, the lady has closed her eyes... Between her heavy lids, sensual and aware, there filters nevertheless a wisp of vision, perpetually alert... For this vulgar mollusc possesses eyelids and can measure her vision, unlike fish with the permanent astonishment of their round, wide-open eyes.

"Better still; the structure of the eye of the octopus reveals the sensitive cells, the cones and fibres, found in the eyes of those superior creatures, the vertebrates. She sees far, she aims well and pffuitt!!! Eight prehensile ropes are hurled as if by the most skilled, the most astute of cowboys.

"How can one resist these interlacings endlessly renewed? Each sucker, and there are hundreds of them, plays its part unfailingly, even if the tentacle be severed. Bound by these cords, his breath crushed from his body, the crab receives a mortal kiss from the mouth of the octopus, who with her terrible parrot beak, crumbles the hardest of carapaces.

"Meanwhile, undisturbed, the machinery of her breathing functions. Water is drawn in by gills and is then thrust out by a central tube, the siphon, pointing forwards. In order to swim, the octopus has only to contract this siphon powerfully. Then she is jet-propelled, but backwards, and in this manner, she may enter the mouth of a conger, beatifically open at an angle of one hundred and twenty degrees... A morsel indeed!... for the octopus is malleable... Her tentacles, the last to enter, hang like moustaches from the jaw of the conger. And, of course, these tentacles, suitably beaten up, are delicious with a dressing of sauce à l'Americaine.

"The moods of the octopus are seen in the changing tints of her emotions. She turns red and black and violet and yellow as each zone of her pigments contract. And experiment shows that she remembers, recognises, adapts herself to society. She will have nothing to do with foul smelling eggs which she rejects violently, turning white with anger".

Although this marine world is his main hunting ground as a film-maker, Painlevé has made many other experiments in the cinema during the last 20 years. In his basement workshop - a sort of 18th century dungeon at the Conservatoire des Arts et Metiers in Paris - one comes upon the evidence of these experiments: the three-dimensional screen - work on it was stopped by the war - and the high speed camera, with which the first time I met him he was attempting to catch a bullet on the wing. He is enamoured of all kinds of optical and other devices, and in 1948 he came to London to achieve, with the help of British colleagues, the linking up for the first time publicly of the microscope with the television cameras at Alexandra Palace.

Science has not been his only interest: in 1936, he began to make *Barbe Bleue* (Blue Beard) a new sort of puppet film entertainment for which Maurice Jaubert wrote the music, and René Bertrand, the sculptor, carved in wood some hundreds of coloured dolls. Recently he has been using the film camera to illustrate a new method of notation for recording the steps on the ballet and other movements of the body. Painlevé has experimented also in interpreting the modern version of the creation story, the story of evolution - he devised the evolutionary spiral for the 1937 Paris Exhibition, a great pictorial display composed of the figures of a thousand animals and plants. In all these attempts at popular education, besides the desire to convey facts, there is also the desire to evoke a mood - to interpret and to create. Writing of his film *Le Voyage Au Ciel* - which is, in effect, a journey through the telescope - he imagines the observer stretched out on the newly mown hay on a starry evening in summer, patiently waiting and gazing upwards, until the moment of escape is achieved.

"Soon a torpor sets you free, the vault of heaven shapes the body to its long curve. Gravity ceases to pull. You are drawn into the boundlessness. The journey begins while the homely crickets play their music of the spheres, rustily turning.

"All now is made simple and explicit: this that was fulness is now void, that that was void is now full. The imponderable ether is a tablet of marble, immediately responsive. Matter is emptiness, a hole.

"But on returning from this adventure, you feel that you have been dreaming. So it is that there are few who will bear witness with you to this same experiment. And yet, as your telescope is directed towards it, you know that the lenses are a threshold over which you may step and set foot on the moon. This is the journey into the sky".

In the fifty years or so of its history, the cinema has been a hurly-burly, with loud and often ribald values. In it, the poet has been a rare figure. Yet it is on this ground that we must go to meet Painlevé.

"Soon" he wrote in 1946 "the cinema will die. Its children will use an electro-magnetic wire instead of celluloid. Their images will appear on the lenticular screens of television in colour. Cathode tubes will replace light sources. Their lenses will be the fields of force. In a word, they will be handsome children. But let us hope that they will not abandon that synthesis of art, science and of poetry which is the true cinema".

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