* Review

**Humberto Mauro - health filmmaker**

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The filmography of Brazilian film maker Humberto Mauro is extensive. It includes thirteen fiction movies, one short movie and twelve feature films, besides 357 documentaries directed by him at the National Institute of Educational Movies (INCE), about geography, physics, literature, arts, civic dates, sciences, folklore, among other subjects. Most of the films directed by him at INCE (97) had health as theme, and there are only 35 left, which will be commented in here. By the end of this text, the existent films will be listed, divided into four categories (institutional films, scientific diffusion, rural education and teaching and research).

The existent films, even when dealing with arid subjects, presented the cinematographic quality of Humberto Mauro. Those films and the ones which weren't found or no longer exist, were divided into four categories for research purposes, from visualization and information of the existent technical files and the historical moments during which they have been filmed.

There were institutional films (32 of which there are only ten left) that advertised the actions from the formerly called Ministry of Education and Health (MES), which INCE was subordinated to, a function which would be an attribution of the Department of Press and Advertising (DIP). However, Minister Gustavo Capanema opted for the work of Humberto Mauro. By their mediation, MES showed to the general audiences and professionals in the field, their action and mainly the innovations promoted by it.

The films featured, for example, the manufacturing of yellow fever vaccine by the Rockfeller Foundation, which operated at the Oswaldo Cruz Institute campus (IOC); the water supplying in Rio de Janeiro, since the National Council of Waters and Electrical Energy (CNAEE) was dependent from MES; IOC itself (Oswaldo Cruz Institute) was the focus of three documentaries, from which only one remains; some hospitals and, among them, the Curupaity Hospital, Santa Casa de Santos; among the twelve national services, created in 1941, were featured: the National Service of Yellow Fever; the National Service of Tuberculosis and National Service of Leper; ampoules factories, drug factories, such as penicillin and the acting of the Prophylatic Products Service.

The scientific diffusion films (nine from which only four remain) were destined to the general public. This was possible to notice, not only by the INCE acting proposals, but also by being filmed in 35mm to be exhibited in movie theaters. They had as content: human body muscles, food, pediatrics, oxygen and ophthalmic industry. They passed scientific and technological information, using a simple and accessible language.
The rural education films (six from which only five remain) were filmed on the 50’s, for the National Campaign of Rural Education (CNER), in co-production with the United States Agency for International Development (USAID). As its name reveals, they were destined to people from rural areas and their education, having health care as main focus: a healthy feeding, consumption of drinking water, the use of sanitary sewers and building houses to avoid the presence of insects, such as the "barbeiro", transmitter of Chagas Disease. The Minas Gerais rural area, the location of these films, inspired Humberto Mauro to produce, at the same period and on the same scenarios, his famous series *Brasilianas*.

The films considered as teaching and research (50 from which only 16 remain) were special for putting together these two acting areas of the Ministry of Education and Health.

Since the beginning, INCE, directed by Edgard Roquette-Pinto, a physician, hygienist and educator, member and leader of the eugenist movement, besides being a strong nationalist, gave special highlight to the production of health films. His ideas and plans induced the diffusion of scientific discoveries through the INCE productions, such as the one by Evandro Chagas about human American visceral leishmaniosis; Carlos Chagas Filho about the *poraquê* (Amazon electric eel which causes cramping) and biophysics; the sterilization techniques on surgical centers, based on Pasteur, and created by Maurício Gudin. Gynecologist and cytopathologist Orlando Baiocchi was a consultant about women’s health.

Surgeries and treatments were also themes, and on their technical files there was a note about indication of use: superior education.

Researches about scorpionism by Otávio de Magalhães and ophidism by Vital Brasil were disseminated by documentaries.

The new equipment used on the health field, such as Manuel de Abreu’s collective fluorography, filmed in 1939, the year his invention gained his name - abreugraphy - on the I Brazilian Congress about Tuberculosis and the electronic microscope are some of the examples of topics featured on this category.

The target audience was, with no doubt, professionals and students from the health superior education.

Several scientists, who acted as college professors on health field and that are shown as INCE consultants, belonged to the IOC board of researchers. Among them, we can mention: Antônio Cardoso Fontes, Carlos Chagas Filho, Evandro Chagas, Miguel Osório de Almeida, Oscar d’Utra e Silva, Otávio de Magalhães and Maurício Gudin, consultant of seven documentaries about surgery and aseptic surgery.

Among the 35 health films still in existence, 16 are about teaching and research. They were, most of them, silent movies, allowing the masters and researches to perform speeches during
their exhibition, serving as illustration for conferences in national and international meetings, besides acting as educational element on university classes.

The sanitary movement echoes, initiated on the first century years by Oswaldo Cruz, added to hygienism and eugenism also had reflexes on the production of educational films and INCE research.

About the Vargas Era, the country entered in several world movements and they were reflect on the construction of the INCE production model. Among these movements there was Welfare State, which would help Brazil to establish as a nation; the educational movement from Escola Nova, which had as basis the John Dewey designations and that inspired the Pioneer's Movement in Brazil, under the leadership of Francisco Campos and Anísio Teixeira, privileging the reformation of superior education and betting on cinema as educational tool.

It also exerted a strong influence in Brazil, changing the medical education occurring on the United States and entitled as Flexner Reformation. It professed the teaching of biologic subjects and laboratory practices, establishing the scientificity of medicine.

From the Brazilian mission to the United States, under the leadership of Oswaldo Aranha, in the beginning of 1939 and after the end of the Second World War, there was a notorious north-American influence on Brazil's health field. The preventive and social medicine programs started to prevail, sponsored by north-American agencies. In special, the Rockfeller Foundation, which financed teaching and research in Brazil, and that acted directly on public health actions, providing scholarships for the formation of professor and medical field professionals, in north-American universities.

With scientific discoveries, at the end of the XIX century and beginning of the XX century, about the causes and biologic agents of diseases, by microbiology and bacteriology, medicine and public health started to adopt biologic measures to combat epidemics and endemics. The advances on the health field had expression on the therapeutic measures and prevention of contagious diseases, sanitation, adequate nutrition, asepsis on surgical procedures and immunization against epidemic diseases.

New technologies for diagnostic and treatment of diseases valued medical specializations. A hospital equipped with modern appliances started to be considered as a privileged academic space.

The regulation of the professional exercise by doctors in 1932, contributed for the need of updating these professionals concerning this scientific and technological development.

For all that have been said, teaching and medical actions, plus the new technologies, represented by new diagnostic and therapy instruments, many of them created by Brazilian professionals, were themes of the INCE teaching and research films.

Closing this picture, there was, from the government, the intention to create a national culture and the purpose of building a nation based on the idea of state building, from pure science and applied science. This was particularly reflected on the health field through disciplines, methodology of teaching and research, the effective participation of the universities scholastic boards, during the 1930s. These scientific advances were translated as economic and political development, and also as elements that viabilized democracy and social transformations.
A marking example of Brazil's affirmation as a scientifically developed country, was its participation on the New York World Fair of 1939, which exhibited for a whole year the most modern technologies and research results that contributed for the improvement of life quality and, at the same time, were samples of the progress. On this Fair, Brazil had a stand, built by Lucio Costa and Oscar Niemeyer, which was considered the second most beautiful stand among all stands from sixty foreign nations and international organizations and 33 American states, losing only to Sweden. On the opening of the Brazilian stand, there was the performance of singer Carnem Miranda, still little known in the US. On the Fair opening, the speech given by Franklin Roosevelt, US President, was broadcasted on the television commercial network, unveiling this form of communication on that country.

INCE presented, at the Brazilian stand, twelve health films, directed by Humberto Mauro. Half of them were about scientific advances occurred in Brazil, presenting health research results. One of them was about the aseptic room created by Dr. Gudin, another about the physiology research developed by Miguel Osório de Almeida, and three more about the researches by Evandro Chagas about leishmaniosis, trypanosomiasis and rural endemics, all IOC researchers. There was also a film concerning IOC as an institution. This was the image of Brazil as a Nation, showing not only the importance of its science to the world, but also the advance on filming techniques.

Humberto Mauro liked to shoot more in black and white because it gave a better "relief feeling when the scene was lightened correctly". He had a preference for silent movies. He used incidental music, particularly erudite and Brazilian, as in the case of the works of his friend Heitor Villa Lobos. He filmed more in 16mm, although he used a 35mm film. The duration of his documentaries was, mostly, between 2 to 19 minutes. He has worked with several photographers, among them two of his children, but he preferred to have the double function of directing and photographing, like he did in most of his teaching and research films.

He liked to use exposure meter and a tripod, although he used "camera on hand" in one of the shootings about Oswaldo Cruz Institute. His framings were symmetrical and harmonic, seeming to be inspired by art deco and marajoara art, very popular on Brazilian culture at that time. His images followed a geometry, using a lot a scenario with a diagonal image, breaking a possible monotony.

The micro-cinematography was used by Humberto Mauro with property and opportunity. The use of didactic-imagetct resources such as animation, graphics and drawings besides the films themselves, gave these films the true meaning of educational cinema. The innovating operatory techniques were registered by Humberto Mauro. Clear images, adequate camera positioning, photography of each stage of the surgical procedure, gave the impression that, after watching them, the surgeon would be apt to use the same procedure securely. There was no improvisation, nor a simple scientific illustration. There was a concern to present what was considered the best in science and movies.

The influence of Roquette-Pinto, a man of vision, pioneer on the use of several technologies, was behind these productions. The choice of Humberto Mauro himself to direct these films is proof of the search for quality.
The production of Humberto Mauro has a distinguished place on the Brazilian filmography. His work is genuine, unique and poetic. His health films, produced at INCE, preserve these values, besides being a document about Brazil’s health.

He became famous for associating the action of filming to a waterfall, and the water was always present in seven health films from INCE still remaining.

Glauber Rocha affirmed that Humberto Mauro was the father of Brazilian movie.

Titles and year of production of the health films, directed by Humberto Mauro, that still remain:

a) Institutional Films

1. *Febre amarela – Preparação da vacina pela Fundação Rockefeller* – 1938
2. *Instituto Oswaldo Cruz – Rio de Janeiro* – 1938
7. *Combate à lepra no Brasil – Serviço Nacional da Lepra* – 1945
8. *Assistência Hospitalar no Estado de São Paulo* – 1946
9. *Indústria farmacêutica no Brasil* – 1948

b) Scientific Diffusion Films

1. *Os músculos superficiais do corpo humano* – 1936
2. *Os músculos superficiais do homem* – 1936 (16mm)

c) Rural Education Films

1. *Higiene rural – fossa seca* - 1954
2. *A captação da água* – 1954
3. *O preparo e conservação de alimentos* – 1955
4. *Construções rurais – fabricação de tijolos e telhas* – 1956

d) Teaching and Research Films

1. *Preparo da vacina contra a raiva* – 1936
3. *Método operatório do Dr. Gudin* – 1938
5. *Fluorografia coletiva – método do Dr. Manuel Abreu* – 1939
7. *Leishmaniose visceral americana* – 1939
8. *O puraquê* – 1939
9. *Técnica de autópsia em anatomia patológica* – 1940
10. *Sífilis vascular e nervosa* – 1942
11. Coração físico de Ostwald – 1942
12. Miocárdio em cultura – potenciais de ação – 1942
13. Convulsoterapia elétrica – 1943
15. A cirurgia dos seios da face – 1952
16. Sistematização de colpomicroscopia – 1953

To watch or obtain copies of the films, look for:
CTAv/SAV/MinC – Setor de Pesquisa
Tel: (21) 2580-3775
Avenida Brasil, 2482 – Benfica
20930-040 – Rio de Janeiro – RJ
pesquisa.ctav@cultura.gov.br