



HAL
open science

International Science, Brazil and Diplomacy in Unesco (1946-1950)

Patrick Petitjean, Heloisa Maria Bertol Domingues

► **To cite this version:**

Patrick Petitjean, Heloisa Maria Bertol Domingues. International Science, Brazil and Diplomacy in Unesco (1946-1950). *Science, Technology & Society. An International Journal Devoted to the Developing World*, 2004, 9 (1), pp.29-50. halshs-00114995

HAL Id: halshs-00114995

<https://shs.hal.science/halshs-00114995>

Submitted on 20 Nov 2006

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

A paraître dans *Science, Technology and Society. An International Journal Devoted to the Developing World* Vol.9, n°1, Jan.-Jun. 2004, Oxford U.P., New Delhi

International Science, Brazil and the Diplomacy in Unesco (1946-1950)

Heloisa Maria Bertol Domingues (MAST/MCT, Rio de Janeiro, Brazil)

Patrick Petitjean (REHSEIS- CNRS and Université Paris 7, Paris, France)

Résumé

Au sortir de la seconde guerre mondiale, de nombreuses initiatives pour la coopération scientifique internationale ont été prises à travers l'ONU : création d'une division des sciences à l'Unesco, projets de laboratoires internationaux, soutien aux unions scientifiques, créations d'offices régionaux pour la coopération scientifique dans des pays du Sud. Il s'agissait en même temps de développer la science internationale et de faire contribuer cette coopération au maintien de la paix internationale.

Des scientifiques "engagés" comme Henri Laugier à l'ONU et Joseph Needham à l'Unesco ont tenté de faire vivre dans cette nouvelle coopération scientifique les idées issues des mouvements "science et société" des années 1930 et 40. Le développement de la science internationale devait d'abord servir des applications sociales : santé, alimentation, niveau de vie, éducation... Au début des années 1950, la guerre froide allait réduire considérablement la portée de ces projets.

Le travail présenté ici analyse la globalité et la cohérence des objectifs poursuivis dans ces initiatives d'organismes internationaux et situe la spécificité des perspectives défendues par Paulo Carneiro comme scientifique et représentant du Gouvernement brésilien à l'Unesco, à travers notamment son projet d'un Institut International de l'Hyléa Amazonienne.

Abstract

At the end of World War II, numerous initiatives for international scientific cooperation were undertaken by the UNO: the creation of a science division in Unesco, projects of international laboratories, support to the scientific unions, creation of scientific cooperation field offices in Southern countries. The development of international science and the contribution of scientific cooperation in maintaining peace were seen as one and only goal.

Committed scientists, such as Henri Laugier in UNO and Joseph Needham in Unesco, tried to give life to ideas developed by the 'science and society' movements, in the 1930s and 40s, through a new form of scientific cooperation. The development of international science, before anything else, was to meet social needs: health, food, standards of living, education. In the beginning of the 1950s, the Cold War reduced the international support given to these projects considerably.

The work here presented analyzes the global coherence of the goals pursued by these international bodies. It focuses on the specific perspectives defended by Paulo Carneiro, as a scientist and as the representative of the Brazilian Government in Unesco, mainly through his project of an International Institute of the Hylean Amazon

At the end of World War II, a question puzzled scientists throughout the world: what kind of scientific research remained legitimate after the War, and to what extent was it of any help to maintain peace? The social function of science was then a forefront issue.

Even before the end of the international conflict, the different existent international forums had begun to discuss the social and international function of science. Such discussions took place particularly during the conferences in San Francisco (May 1945), when UNO was created, and in London (November 1945), when Unesco was established with an “S” in its name, thereby emphasizing the stress put on science. The foundation of international research laboratories was put on international agendas, both by UNO – through its Economical and Social Council (ECOSOC) – and Unesco. Article 55 of its Charter gives UNO the mission to “promote higher standards of living, full employment, and conditions of economic and social progress and development; solutions of international economic, social, health, and related problems; and international cultural and educational cooperation”.¹ For the capitalist world, the rise of unemployment was a general threat, which might lead to a social crisis and to the expansion of Soviet communism. European and American governments found their inspiration in the New Deal and in Keynes to prevent the risk of social and economical crises.

Unesco also established among its guiding principles the support to new international institutions for education and science. With its first program (1947), Unesco decided, "in cooperation with other institutions and non-governmental organizations, to coordinate all the efforts to launch a vigorous world campaign to reconstruct education, science and culture". The aim of this campaign was to mobilize resources, infrastructures and services for areas devastated by the war². But the ambition of Unesco went beyond this reconstruction; its horizon was the entire world. For instance, the Division of Natural Sciences established some Scientific Cooperation Field Offices (SCFO) in several parts of the world (China, India, Latin America and the Middle East), far from war-devastated Europe.

However, the projects of creating new international institutions between 1946 and 1949 were hindered by the political bipolarization that prevailed in the world. The mechanisms of the Cold War prevented the implementation of such international projects and turned them into political weapons against the “other side”. After 1950, strategic imperatives and national security interests came to the foreground.

It is important to recall some historical milestones of this period: - in November 1945, the USSR refused to participate in Unesco; - on March 5th, 1946, Churchill delivered his famous speech in Fulton about the "iron curtain"; - between 1947 and 1949, Europe was hit by cold winters and by a galloping economical crisis, leading to the establishment of the Marshall Plan. During the same short period, India and Indonesia became independent countries, NATO was established, the Soviet A-bomb exploded (September 1949), Berlin was divided into blocks, the Democratic Republic of Germany was created and communist governments were established in Eastern Europe, revolution was victorious in China, and so on. The obstacles proved innumerable to establishing international institutions devoted to the promotion of peace and of mutual understanding, even in the field of science.

So deep became the gap between the blocks that the Congress of Intellectuals for Peace and Science, held in Wroclaw³ (August 1948), became the landmark of an irreversible bipolarization at the cultural

¹ www.un.org/aboutun/charter

² Unesco/Prog/1/1947 (rev.), May 3, 1947. 1st part, page 1 (Unesco archives, Paris)

³ Wroclaw is also known as Breslau

level. With this conference, the USSR wanted to establish a second Unesco, more universal and more autonomous in its relation with governments, in which the intellectuals themselves would play the leading part. But the Soviet sectarian attitude was rejected by the intellectual “milieu”. Sartre was called a hyena. Huxley, General Director of Unesco, who participated only as a private individual, left the meeting before its end. No dialogue was possible. There was a double failure: of the Soviets in trying to set up a new body as an alternative to Unesco, and of Unesco in trying to be genuinely universal. The alliances formed during the War and the pre-War “popular fronts”⁴ definitively expired. For the USSR, Unesco had become an instrument of US imperialism.

On the other side of the Atlantic Ocean, the countries of South America integrated that process in their own manner. Brazil was attending the Unesco meetings ever since its preparation period, and appointed the biochemist, Paulo Estevam de Berredo Carneiro, as its diplomatic representative. Paulo Carneiro had spent several years in the French intellectual “milieu”⁵. He shared the orientation given to the international organization by its first leaders who professed the same humanistic positivism and evolutionism as guiding ideologies. The core of their thinking was a conception of science as politically neutral and universal, with the power to bring improvements to a war-devastated world, to fight such threats as hunger, demographic explosion, dissemination of diseases and desertification. When Unesco was definitively established in the end of 1946, Paulo Carneiro was elected to its Executive Council, adding this position to his function of Brazilian representative⁶.

Initiatives to the establishment of universal science

Both UNO and Unesco took numerous initiatives for the internationalization of science in the immediate post-war period:

- 1 Unesco not only included an “S” in its acronym, but established specific sections for natural and social sciences. The Division of Exact and Natural Sciences was one of the first sections to be set up, with Joseph Needham as its first director. The other Unesco priorities were Culture, Education, and Reconstruction. The goal of an international organization of science benefited from political recognition and financial resources, to an unprecedented level compared with the League of Nations. Its creation is the landmark of a rupture in international scientific cooperation, between the pre-war “laissez faire” and a new voluntarist policy conducted from an internationalist point of view. When Needham took charge of the new Science Division, everything was still to be done. There was no precedent of a generalist organization devoted to international scientific cooperation. He had to elaborate a new doctrine, to constitute a multinational team of scientists. He had to oppose the French traditional doctrine, according to which science was an abstract intellectual activity separated from its social and economical function; that was how scientific cooperation had been conducted by the French-dominated “International Institute for Intellectual Cooperation”

⁴ Popular Fronts were alliances of political parties or intellectuals, covering a broad social and ideological spectrum: socialism, communism, liberalism...

⁵ Paulo Estevão Berredo Carneiro was a chemist engineer, he graduated at Escola Politécnica, in Rio de Janeiro and, in 1924, as a fellow, went to Paris, where he did his thesis at Sorbonne with Gabriel Bertrand (1927-1931). His work was on capheine in guaraná - a typical fruit of Amazon. After this, in Rio, he worked on curare: a poison employed by indians. He was Secretary of Agriculture in the State of Pernambuco, where he founded a reserch institute in agriculture. Later he returned to Paris. During the occupation he was arrested. At the end of the war, he chose the diplomacy and began to work in the project of Unesco in Paris.

⁶ Representative of Brazil since August 1948 (Brasil – Ministerio das Relações exteriores, Departamento de Administração, Divisão de Pessoal, Anuario 1960 e 1961). Elected to the Unesco Executive Committee by the first General Conference (Paris, November 1946). More about Paulo Carneiro and the French Brazilian intellectual atmosphere in the 1930s in Petitjean (2001). More about Paulo Carneiro, Unesco and science in Carneiro (1951) and Carneiro (1970).

before the war. On the contrary, Needham refused to separate science and its applications⁷. Moreover, for Needham, the utility of an international organization for science was mostly grounded in countries remote from industrially developed zones. The more remote you are from the main scientific centers, the more you need scientific cooperation. International science does not have the same meaning if you are in the “Bright zone” or in the periphery. The “laissez faire” might solve a lot of problems for scientific cooperation, but only regarding Western demands. An international organization of science is an absolute necessity for the less-advanced countries and for the war-devastated zones.⁸ Unesco had to help first those who needed help, and scientists from the “Bright Zone” did not need significant support: such was the “periphery principle” Needham tried to promote within the Science Division operations. The Science Division was the first to develop operational projects, and it benefited from the most important part of Unesco's budget in its first years. The International Council of the Scientific Unions (ICSU) was also one of its main beneficiaries.

- 2 In UNO, a special commission (UNAEC) was established for Atomic Energy as soon as the first General Assembly (January 1946). UNAEC was supposed to deal with the secrecy of nuclear research, the interdiction to build new atomic weapons, and the peaceful applications of the atom. The Cold War shortly paralyzed UNAEC.
- 3 Simultaneously but separately, in June 1946, ECOSOC and Unesco proposed to examine and to initiate the establishment of international research laboratories under the sponsorship of UNO. Henri Laugier (ECOSOC) and Joseph Needham (Unesco) were the main promoters of this program. For them, the priority was to establish these laboratories outside of the developed zones of Europe and North America, in order to reach a fairer division of scientific research among the countries. Those laboratories were to develop scientific programs that could not be undertaken by a single country, mainly in scientific fields dealing with the most important needs of the peoples (health, agriculture), or for which an international dimension was a necessity (astronomy, or meteorology). Until 1950, ECOSOC and Unesco didn't succeed in designing a workable project, despite the number of meetings and conferences. UN research laboratories were then abandoned as the main form of scientific cooperation projects.
- 4 The US Government proposed during the 3rd session of ECOSOC (September 1946) to organize a "Scientific Conference for the Conservation and Use of Resources" (UNSCCUR). During the war, difficulties had been experienced in obtaining raw materials or natural resources. For the US Government, this conference was to take the restrictive form of a meetings of specialists exchanging information and was not to go as far as to propose recommendations and policies for the governments. The UNSCCUR was finally held in 1949, with the support of Unesco.
- 5 In Mexico (2nd General Conference, 1947), Unesco created a “Committee for the Popularization of Science and its Social Implications”, under the presidency of Joseph Needham, head of the Division of Natural Sciences. This committee met twice, in UNO (New York) and Unesco (Paris) headquarters and released various documents. Its main result was the creation of the journal “Impact of Science on Society”, which still exists.
- 6 According to a French proposal, Unesco decided (Mexico 1947) to establish an International Union for the Protection of Nature (IUPN). The founding conference was held in Fontainebleau (September 1948). The IUPN still exists.
- 7 Soon after the War, ICSU (International Committee of Scientific Unions) restored its Committee on “Science and Social Relations” which had been established before the war. The Committee circulated among the scientific community a questionnaire about "the importance of science and scientific cooperation for peace". 70 scientists answered this questionnaire. Most of them were closely related to international institutions. In a way, the result reflected

⁷ Needham (1949), 1949, p.21 (revised Boyle Conference, 1948). See also : Unesco/Prep. Com./Nat. Sci. Com./12, July 1946 “Tasks and Functions of the Science Division” (Unesco Archives, Paris).

⁸ Needham (1949). The words “Bright Zone” and “periphery principle” are Needham's.

such a position: scientific work was supposed to favor internationalism; the general opinion was that all people should have access to scientific progress; science could control the growth of population, develop natural resources and bring welfare to everybody.

- 8 Unesco created four "Scientific Cooperation Field Offices". The first office was founded in Rio de Janeiro, Brazil, in June 1947, and soon transferred to Manaus. In the end of 1948, it moved to Montevideo, Uruguay. The others were created in Egypt, India and China.
- 9 ECOSOC established (1948) an Economical Commission for Latin America (CEPAL), following a suggestion of the members of the Economical and Social Pan American Council.
- 10 By ratifying the Unesco Constitution document (adopted in London, November 1945), all countries were committing to establish "National Commissions for Education, Science and Culture", whose objectives were to gain a more direct participation of intellectuals, scientists, educators and their associations in the life and activities of Unesco, avoiding absolute control by their governments. Actually, governmental bodies ruled most of the National Commissions. In Brazil, Itamaraty⁹ created the Brazilian Institute of Education, Science and Culture (IBECC) and, in order to reinforce its links with the Executive Power, a Commission of International Organisms (COI) was also created inside the administration.

In fact, during this postwar period, the social and international implications of science were broadly discussed. Scientists from different countries and research fields gathered in various international agencies and debated with politicians about the international organization of science, not from a national point of view, but from a global perspective and, as it was said, seeking "humanity's general progress". All countries were involved in this debate, and their integration within international science was a clear issue of this process.

At the end of the war, international scientific cooperation was recognized as an important political and economical commitment for the international bodies to be established. The system of UNO, and that of the specialized agencies, was defined in the conference in San Francisco in 1945. This system had several components related to science:

- The Economical and Social Council of UNO - ECOSOC - for scientific policies and their relations with social and economical issues;
- Unesco, for science in general, including some applications, and its relations with culture and education, also for science as a support for Peace;
- Specialized agencies in health, agriculture and food, like FAO (Food and Agriculture Organization) and WHO (World Health Organization), for the practical applications of science in these fields.

A new form of scientific cooperation was being established in the world. Until then, this cooperation had taken place either within professional scientific Unions, or in big interdisciplinary associations devoted to the Advancement of Science. In both cases, science and politics were completely separate activities¹⁰. The demands of the postwar period transformed science into a political instrument; more than ever, scientists were called to cope with the social implications of science.

The International Institute for Hylean Amazon (IIHA)

The IIHA has been proposed by Paulo Carneiro to Unesco in May 1946, then selected by the first General Conference in December, and put among the four all-Unesco major initiatives in April 1947. At first, Carneiro's proposal had a limited scope: an international support to Museu Goeldi in Belem,

⁹ Itamaraty is the usual name given to the Brazilian "State department" or "Foreign Office", from the Palace name in which the Ministry was located (in Rio de Janeiro)

¹⁰ See Domingues (2001)

to save its precious botanical, zoological and ethnological collections and to develop natural sciences in the Amazon region, through the cooperation of all the countries of this geographical zone. This project was soon enlarged by Unesco to an international institute for natural sciences in the Amazon region, this institute being the prefiguration of other tropical institutes elsewhere.

Before the war, there has been no such attempt to create an international laboratory. The IIHA was then a first “experiment”, and even the first concrete traduction of Needham’s conceptions, that is the priority to scientific development beyond Europe.

The first scientific and diplomatic conference to settle up the IIHA took place in Belem (August 1947). This meeting transformed the Unesco project. The economical development of the Amazon region became a major concern for the proposed IIHA, though it still co-existed with a basic research program.

The Belem conference took place when Unesco was preparing the Mexico General Conference and was under strong pressure by United States and United Kingdom to reduce its programs and expenses. Huxley, Needham and Carneiro feared a complete Unesco withdrawal from the IIHA project. The lack of practical commitments in Belem final conclusions was an handicap. Finally, a compromise was defined in Mexico: the priority for IIHA was lowered, Unesco will directly fund some surveys, and a new meeting was to be called in Iquitos to establish the juridical basis for the IIHA.

In Iquitos (may 1948), a provisional council was established, Heloisa Alberto Torres took the head of IIHA and Manaus gained the central office. Two surveys were undertaken: the first one in the Hualaga Valley (Peru) for natural sciences and anthropology; the second one in Gurupa (State of Para, Brazil) for anthropology. After that, the IIHA got paralyzed.

Unesco began to change its policy for scientific co-operation, in particular when Auger took Needham’s succession in mid-1948. The IIHA encountered numerous juridical and political difficulties, and Unesco progressively withdrew from it. The Amazon region was considered by Brazilian elites as an economical and political “frontier”, a source for profits more than a source for scientific results. Even if the IIHA has been initially proposed by a Brazilian scientist, the nationalist reaction was important, and the institute was presented as an attempt to internationalize the Amazon region. A fierce debate developed in 1948-1950 against the so-called Unesco colonialism. In practice, international science happened to be contradictory with the national economical exploitation of the Amazonian resources.

Brazil never ratified the founding convention, Unesco abandoned the idea of an international institute, the provisional IIHA vanished, and, instead, the Brazilian Government established a national Institute for scientific research in the Amazon region.

Brazil, Unesco and universal sciences

In Brazil, Unesco established the first Field Scientific Cooperation Office for Latin America, with the agreement of IBECC. It operated in a state institution, the National Museum of Rio de Janeiro. The reason Unesco chose Brazil was to back up its main international scientific project, the International Institute of Hylean Amazon (IIHA). After a few months, the Office was transferred to Manaus, where IIHA was located.

In order to develop this international cooperation, Brazil was one of the first countries to ratify the Unesco Charter and to fulfill its obligation to establish a National Commission for Unesco. This was accomplished by the Ordinance-law (n°9290 of May 24) for the ratification and by the Ordinance-law n°9355 for the creation of IBECC, in June 13th of the same year. IBECC took over Unesco's idea to "organize the intellectual infrastructure of modern civilization in its universality", an ambitious objective. When Unesco launched the campaign for these international institutes, it tried to give an 'ecumenical' meaning to intellectual cooperation, embracing the multiple and complex cultural

problems of the world as a whole¹¹.

The IBECC was officially to manage Unesco projects in Brazil, as well as to obtain Unesco support for its own projects in the fields of Education, Science and Culture. Unesco had to be convinced of their utility, but IBECC was lacking efficiency. In October 1947, Paulo Carneiro wrote to the General Secretary of IBECC, asking him to reinforce the IBECC administrative infrastructure: he called for the appointment of an employee to organize and summon the meetings, to keep the correspondence with Unesco up to date, etc. Without strong, organized and permanent links between Itamaraty and Unesco, it would be hard for Unesco to support Brazilian projects. "Unesco is counting on it to apply its programs in Brazil, and without its support, it will be a failure"¹². Paulo Carneiro was as attentive to the interests of Unesco in Brazil, as to the benefits Brazil could gain from those international links at that time.

The National "Commissions for Education, Science and Culture", in countries such as Brazil, were an attempt to reach "Peace through cultural exchanges", to which Unesco was dedicated. They worked not only to eliminate war factors, but also serious threats of social disturbances; natural sciences were not then the sole recipients of Unesco support, so were education and social sciences. The latter would be in charge of ecology, of urbanization, of the study of national and international tensions. Such tensions were understood as consequences of the misunderstandings arising from the diversity of orientations and cultural differences¹³.

Paulo Carneiro proved very efficient in keeping alive the bonds of Brazil with Unesco. This is illustrated by the fact that he was maintained for so many years as the Brazilian representative in this institution. In 1948, when speaking on behalf of Unesco, he said that the financial contribution of Brazil to Unesco and its counterparts, would only be justified "in the light of the services that we can receive from Unesco and of the support that we can provide"¹⁴ to it. IBECC was the connecting element for that double goal. Paulo Carneiro shared the idealistic and functionalist principles that governed Unesco in the immediate postwar period¹⁵.

In the same way, Paulo Carneiro also identified himself with the internationalism that was supposed to govern the relations between peaceful countries, when he presented to Unesco the IIHA project. He was recognized as its main supporter. He participated in countless institutional meetings to popularize it. In those meetings, he emphasized that Unesco should act to coordinate scientific research and information at an international level. This was particularly true for scientific research in the Amazonian region, where a long experience of scientific surveying already demonstrated how fruitful the cooperation of zoologists, botanists, geologists, doctors, biologists, anthropologists or geographers of the several countries involved in the area had been. Individually or through governmental institutions, they had been able to contribute to the recovery of the vast wild area of seven million squared kilometers, according to the IBECC report for 1947-48¹⁶.

In its internationalist vision, Unesco, such as ECOSOC, aims to attack what was considered

¹¹ Correio do IBECC, Unesco, Rio de Janeiro (Biblioteca do IBECC, Palacio do Itamaraty)

¹² Paulo Carneiro to the General Secretary of IBECC, October 8, 1947. Memorandos 1942-1949 (Arquivo Itamaraty)

¹³ Relatorios do Presidente do IBECC, Boletim do IBECC, n°1 (1947, p.155) and n°2 (1948, p.7-17) (Biblioteca do IBECC, Palacio Itamaraty)

¹⁴ Paulo Carneiro to the General Secretary of IBECC, Memorandos 1942-1949 (Arquivo Itamaraty)

¹⁵ Functionalism is a name given to a pacifist doctrine that was developed in the end of the XIXth Century. According to it, the best way to fight against wars and nationalism is to multiply transnational organizations in all fields. National borders would then fade away. When WWII came to an end, this doctrine became popular again, mainly in the USA. Science and scientists played a key role in this doctrine: science was considered as universal by nature, and subsequently scientists would be the best internationalists, and considered themselves as actually being perfect internationalists. See Schroeder-Gudehus (1975) for an historical presentation of functionalism.

¹⁶ Atas da reuniao do IBECC, May 1947 (Levi Carneiro, President of IBECC, organized this meeting where Paulo Carneiro presented his IIHA project to many Brazilian intellectuals).

“underdevelopment”. Its objective was to remove the obstacles to the “development”, that was understood as a general development of the capitalist world. The *Jornal do Comércio* of Rio de Janeiro in February 3rd, 1947, opened the front page with a notice of ECOSOC fourth conference, taken place in Lake Success, EUA, saying that the participation of countries like Brazil, in a international capitalist economy, will become relevant in a way that its natural resources would have a best use. ECOSOC would have right to make economic projects and to begin its execution in these countries, told the newspaper. The Brazilian delegation agreed with these aims of ECOSOC and confirmed that the role of such plans was to integrate the project of national development into the international framework. ECOSOC would integrate at the international level the economical and social projects of other agencies acting in the country, since the general objective was the “general development of the world”.

Also in August 1947, a Pan American Conference for regional security took place in Rio de Janeiro (Petrópolis). The meeting was initiated by the Pan-American Union and was attended by Truman, then US President. This conference was to be the Southern counterpart of the European and North American NATO pact¹⁷. No doubt, such a Westernized Pan Americanism thwarted the internationalism of other institutions, such as UNO or Unesco, which were trying to prevent a complete global bipolarization. However, from the Northern point of view, many Latin American countries were seen as underdeveloped, and suspected of nationalism. Paulo Carneiro emerged in this context using all his diplomacy.

Diplomacy, Politics and the Internationalization of Science.

In November 1948, the 3rd Unesco General Conference took place in Beirut. To succeed Julian Huxley, Jaime Torres Bodet, a Mexican writer and diplomat, was elected General Director, defeating the Brazilian candidates Miguel Osório de Almeida and Paulo Carneiro, both known as “internationalists”, and therefore, opposed to the bipolarization of the world, and rather hostile to the “Americanization” of Brazil.

The Itamaraty was responsible for the diplomatic campaigns for the internal elections in UNO, as well as in Unesco: which country would win the executive positions in these international agencies? The competition was harsh between the various governments. In 1947, Brazil entered the election process to be one of the countries represented in ECOSOC. Itamaraty wrote to various foreign embassies, asking for the support of their country. Although many unofficial responses had been positive, no written commitment had been requested... and so the suspense lasted till the last minute. Brazil lost the contest that year¹⁸.

In the same way, in the middle of 1948, Paulo Carneiro began to campaign for the position of General Director of Unesco through letters from Itamaraty to several foreign embassies in Brazil. Itamaraty sent a note to the Latin American countries to remind some of them of the reciprocal support that they had received, in precedent competitions, from the Brazilian representation. Their support was asked for the Brazilians who were competing for the 1948 contest, Miguel Osório de Almeida and Paulo Carneiro. Some countries failed to answer, which generated some protest from Brazil¹⁹. In July 1948, the Unesco Executive Council made a first selection of 3 names, among 21 candidates: Jaime Torres Bodet (who had the support of all Latin American countries, except Brazil), Ramaswan Mudaliar (an Indian diplomat leaning towards the United States) and Sir Ronald W. Walker (Australian); both Brazilians were discarded. The choice was to be ratified by the General Conference, and other candidates were authorized to join the competition. Itamaraty removed then the candidacy of Miguel Osório de Almeida, trying - without any success - to revive Paulo Carneiro's. The Executive Council,

¹⁷ *Jornal do Comercio*, 30/7/1947.

¹⁸ Memorandos 1942-1949 (Arquivo Itamaraty)

¹⁹ November 1948. Correspondencia 1947-48 (Arquivo Itamaraty)

which took place immediately before the Beirut conference, selected a single name, Jaime Torres Bodet. The plenary assembly ratified this choice almost unanimously.

In a letter to Itamaraty, Paulo Carneiro related the conditions of this electoral competition in Beirut for the position of General Director of Unesco²⁰. This document illustrates the political game prevailing inside Unesco. Paulo Carneiro insinuated that Unesco was confronted with a deep contradiction: it had rapidly acquired considerable importance at international level, due, perhaps, to the influence it had on the elite and the masses of several countries; but, in spite of this, inside Unesco itself, the political divergences remained stronger than the international vocation and made it impossible to overcome national interests, or the interests of the political blocks in competition. According to him, none of the UNO specialized agencies aroused such a great interest as Unesco in the US State Department, in the British Foreign Office or the French Quai d'Orsay. The game played during the new General Director's election, he wrote, was "exclusively of political character, and the consideration of the competing personalities always remained a background issue". According again to Paulo Carneiro, Torres Bodet was chosen because of the support of the "block of Hispanic American countries" that imposed his name thanks to the number of them in Unesco, as in other international agencies. "Such a proof of prestige and influence", wrote Paulo Carneiro, "dragged along first the Arabic states, later the great powers, and will certainly have repercussions in Latin American politics, and even perhaps in international politics"²¹.

Deprived of the support of the neighboring countries for the position of Unesco General Director, Paulo Carneiro refused to be President of the Executive Council: - one Latin American with an executive position in the institution seeming to be enough, and he indicated S. Radakrishnan from India instead²².

Such were Paulo Carneiro's diplomatic principles, which are well reminded by Torres Bodet in his memoirs. Paulo Carneiro, even after losing the contest with Torres Bodet, never stopped to support the General Director's initiatives, when he considered they were important to implement Unesco projects. In several passages of his memoirs, Jaime Torres Bodet recalls the favorable attitudes of Paulo Carneiro towards his proposals. One example was when Torres Bodet criticized the weakness of the state members' reactions in relation to the central decisions of Unesco²³.

Paulo Carneiro always demonstrated a coherency between his ideas and the priority given to the humanist mission of Unesco, which he had to defend strongly against the political or ideological divergences. This was his position in criticizing the political character of Unesco elections, when he and Torres Bodet ran concurrently for the position of General Director.

When arguing for the IIHA, Paulo Carneiro also fought for a "less politicized" and "more humanist" Unesco, less dependent of diplomatic intrigues, and much more based on direct relations between scientists. However, Paulo Carneiro did not succeed with the IIHA project; he did not prevent the political and economical issues from prevailing over the scientific or social ones. He was conscious of his failure, and this might be the reason why he did not oppose the transfer of Latin American FSCO from Manaus to Montevideo (end of 1948), a transfer that symbolized the dead end that the IIHA had come into.

Latin Americanization of science

The first Latin American Scientific Conference was held in Montevideo in September 1948,

²⁰ Paulo Carneiro to Raul Fernandes, Minister of Foreign Affairs. Paris, 26/1/49 (Unesco/97, Arquivo Itamaraty)

²¹ Idem

²² Paulo Carneiro to Raul Fernandes, 26/1/49, formerly quoted.

²³ Torres Bodet (1981), vol.2, p.72.

summoned by Unesco. Oscar Secco Ellauri, from Uruguay, was the President of Honor of the conference. During the official opening session, he pointed out that, with such a conference, a new meeting place was created for Latin American countries, for the progress of science and culture; and, through it, it would be possible to organize scientific work, scientific cooperation, and its coordination, in this order. He opened the meeting with the refutation of the widespread idea that science was responsible for the misfortunes of the world, because a correctly used science was the future of the young nations of Latin America. "The universal advancement of science is sometimes put at the service of evil and of destruction, but the future of science is not in its abuses and in bringing chaos; science is only in its beginnings, and its dawn is under the sign of hope"²⁴. In that conference, the following Latin American countries were represented: Brazil, Ecuador, Colombia, Venezuela, El Salvador, Dominican Republic, Cuba, Argentina, Bolivia, alongside with Uruguay, together with representatives of the Pan American Union, the Smithsonian Institution, the Rockefeller Foundation, and Unesco.

The conference discussions were basically focused on the organization of scientific activities. The scientists attending the conference formed several sub-committees: bibliography, organization of symposia, research grants for scientists and students, implantation of a full-time regime of researchers, Latin American FSCO. The discussions showed that the core of their preoccupations was the best means for scientific development in their countries. In the same way, they concluded the conference in establishing some general guidelines: to meet the need to distribute scientific information through bibliographical means; to give impulse and support to the existing institutions and to develop new ones, mainly in biology, but also in physics and in soil chemistry; to coordinate such researches and institutions through national associations; to promote associations for the advancement of science where they did not yet exist; to establish links with international agencies, such as the International Council of Scientific Unions or the World Federation of Scientific Workers; further more, to create national agencies for the funding of scientific research, following what was being established by the State of São Paulo, where a fixed proportion of the State income was dedicated to scientific research.

During this conference, the participants demonstrated their preference for the development of scientific relations through scientific institutions rather than through political state agencies. In Brazil, IBECC was perceived as an institution too dependent from Itamaraty, and therefore not suited to relations between scientists. In the new SCFO in Montevideo, Unesco would locally organize the general coordination of the cooperation activities and their viability. Its influence would then cover Latin American countries and favor the development of direct relations between national, official and private bodies, as well as between scientists, who would be the main actors of these relations. Besides, during the Montevideo conference, the subcommittees recognized the importance of the International Institute of Hylean Amazon, which would have to maintain relations with the new SCFO, while respecting the autonomy of both institutions.

The participants in the Montevideo conference were also very concerned about the new social and international function of science. This was the reason for proposing to create or to develop national associations for the advancement of science. The initial proposal came from Maurício de Rocha e Silva, a Brazilian delegate. These societies would help Unesco to be aware of the local events more important for the progress of science and for scientific education in those countries²⁵.

Such societies already existed, mainly in the United States, in the United Kingdom and in France, since the end of the 19th century. In the 1930s, they were the most advanced organizations in the

²⁴ Latin American Conference for the Development and the Organization of Science (LACDOS), Montevideo. Proceedings of the 1st session, Unesco/DEO/CO 21, 6/9/1948 (Unesco Archives, Paris).

²⁵ Minutes of the meeting, op. cit., p.19.

reflection about the social and international function of science²⁶. They had led campaigns for the promotion of scientific research, its funding and its organization, as well as for the popularization of science. Their action contributed to the establishment of Unesco.

The Brazilian Society for the Progress of Science (SBPC) was founded in 1949, with branches all over the country. The possibility to affiliate officially to Unesco, as well as to ICSU, was introduced in its statutes. From the beginning, SBPC was very favorable to Unesco and to its programs for international scientific cooperation. The first volumes of "Science and Culture" (the journal of SBPC) gave a lot of information about Unesco and its regional scientific office in Montevideo. SBPC opened its second annual meeting (November 1950) with a conference on Unesco. It also established direct relations with Angel Establier, head of Unesco regional office. SBPC and Establier were criticized for that by IBECC²⁷. The cause of this disagreement was the possibility subsequently given to Unesco to have direct links with Brazilian scientists, without any control of the official diplomats. In that period, the definition of Unesco was still "hybrid": as stated by the Charter, Unesco was an intergovernmental body, but its Executive Council was, theoretically, composed of intellectuals, acting as private persons and not as representatives of their governments; NGOs also had some kind of official role. The US delegations wanted to suppress this ambiguity, and to transform Unesco into a mere intergovernmental organization, which was finally ratified by the General Conference in Montevideo (1954). One can see how fundamental this issue was and it has taken many years to reach a definitive decision. Scientists were looking for direct links with Unesco, without State interference, and felt it could be a protection against "politicization".

United Nations Research Laboratories: a dead end

Actually, at the end of the war, the model for international scientific cooperation, proposed by Joseph Needham, Henri Laugier, and other scientists, articulated social and purely scientific aims. They considered science as "politically neutral", and, therefore, scientists as being in the best position to overcome cultural differences and national barriers²⁸. For them, scientists were spontaneously internationalists and, paradoxically, it would be possible to rely on their scientific neutrality to meet social or political objectives in the best way, as, for instance, to give higher priority to international scientific programs for the "Third World" (as it was later called). It was the idea of an international community above all national particularity, a kind of universal Republic of Science.

Needham especially thought that it was possible to rely on international organizations, or even intergovernmental such as Unesco, to overcome each government's limits and to establish direct relations between scientists, without depending on diplomatic schemes. He did get as far as to propose an "international" scientific passport, equivalent to the diplomatic passport, allowing scientists to travel freely in all countries.

Needham and Laugier made various proposals, all characteristic of such conceptions. This was particularly the case for the attempts to establish international scientific laboratories, such as the IIHA. When Joseph Needham delivered his first report to the preparatory commission of Unesco (May 1946), he emphasized the importance of new international research laboratories to develop scientific cooperation, recognizing this idea was not, at first, his own. The idea had arisen from Brazilian, Mexican, French and North American delegates (Paulo Carneiro in particular). It had been

²⁶ See Kuznick (1987) for the American Association for the Advancement of Science (AAAS); See Weart (1980) for the French AAS; and MacLeod/Collins (1981) or MacGucken (1984) for the British AAS.

²⁷ Registro de correspondencia do Presidente Levi Carneiro (expedida), vol.3, 1950, letter n°612 to Establier, 23/02/1950 – letter n° 613 to Torres-Bodet, 24/02/1950. See also the report of the President of IBECC for 1949/1950, Boletim do IBECC, n. 33, 1952 (Biblioteca do IBECC, palacio Itamaraty, Rio de Janeiro).

²⁸ See the previous note on functionalism.

argued "with a surprising strength", according to Needham himself.

Six scientific fields were then proposed. The first proposal was Paulo Carneiro's IIHA in the name of Brazil. The French delegation proposed a "center for computing and applied mathematics", which was later strongly supported by the USA. The other proposals were: - "Institutes for nutrition", to cope with the question of hunger (proposed by France, Brazil and the USA); - "institutes for parasitology and immunology" (proposed by Mexico, France and Brazil); - "astronomical observatories" (proposed by the USA); - and "meteorological laboratories" (proposed by the USA)²⁹.

Some weeks before the Unesco 1st General Conference (Paris, November 1946) which ratified Needham's program for international scientific cooperation, the ECOSOC 3rd session (Lake Success, September 1946) endorsed a French proposal to examine the possibility of founding international research laboratories under UN patronage. Scientific institutions, scientists, national scientific bodies, Unesco itself, were to be consulted on this prospect³⁰. But the ECOSOC 7th session (Lake Success, July 1948) was unsatisfied with the reports, and called for more expertise.

Unesco was unable to bring any of the proposed projects to a successful conclusion. Some got started, as IIHA, but rapidly became a failure because of the political situation. IIHA was an emblematic Unesco project, the main priority for 1947 in the field of science. Its failure left bitter memories in Unesco, as much as in Brazil. Unesco was accused of colonialism, even for a proposal of Brazilian origin, and even though the project didn't obtain any support from colonial countries such as France and the UK. The US Government also opposed the project at the 2nd General Conference (Mexico), even though American scientists did support it. From the 1950s, Unesco considered the IIHA as the model of what should be avoided. Paulo Carneiro, although he did not officially abandon his project, moved towards other cultural activities with Unesco.

Among all the proposals, only one came out successfully, though with many difficulties: the Computer Center. In coherence with his prioritizing the Third World, Needham proposed to establish this center in Asia (China or India). For him, the Asian mathematicians and physicists were very competent, and they needed such a laboratory. Its establishment would have been a legitimate compensation given to Asia, in regards with the unnecessary destruction of the Japanese synchrotron, at the end of WWII, by the US Air Force. The US delegation opposed Needham and, when he left his position in 1948, Asia was rapidly forgotten. The USA forced the proposed center to be moved to a "small" European country, and finally to Rome, Italy. There have been many other difficulties in the outcome of the computation center and it was not inaugurated until the 1960s.

The final expertise about the feasibility of UN research laboratories (as asked by the ECOSOC 7th session) took place in August 1949, when UNO and Unesco sponsored a meeting of scientists to discuss the opportunity of such a program, and to select the priorities for such laboratories³¹. The main participants were Joseph Needham, Miguel Ozório de Almeida, Claude Lévi-Strauss, and the American astronomer Harlow Shapley, with Pierre Auger (Needham's successor as the head of the Science Division) from Unesco and Henri Laugier from ECOSOC (UNO). Where should such laboratories be established? This has been one of the main controversies between the experts. Miguel Ozório, Laugier and Needham favored countries outside of Europe, in opposition to Lévi-Strauss and Shapley who denied any other criteria than purely scientific ones. Three priorities came out of this meeting: the computer center, a brain institute, and an institute on social sciences. IIHA was also

²⁹ Unesco/Prep. Com./Nat. Sci. Com./12, July 1946 "Tasks and functions of the science division". Unesco Archives (Paris).

³⁰ French resolution for the 3rd session: E/147 (September 1946). Needham's report to Laugier (Unesco contribution): Unesco / Nat. Sci. / 24/1947. Laugier included many individual (among whom Einstein's) and institutional scientific contributions in the report E/620 to the Ecosoc 7th session (July 1948). All in Unesco archives (Paris), boxes "UN Labs".

³¹ Minutes of the expert meetings: E/Conf/PC/SR1 to SR11. Final report: E/1694 and E/1694Add. All in Unesco archives (Paris), boxes "UN Labs".

considered as a laboratory that fitted the experts' priorities, but it was not included in the list, being already in operation. The social sciences institute was a proposal of American psychologists, strongly supported by Shapley: such an institute was eligible to receive money in the framework of Truman's "Point 4", a reason why Lévi-Strauss fought against it. Some other institutes were selected as second priorities: a cancer institute, an institute for arid zones, a meteorological institute and astronomical observatories.

During the 11th session of ECOSOC (August 1950), the British, American and Soviet delegates opposed the report issued after the experts meeting. The idea of UN research laboratories was abandoned and the case left to Unesco, which was itself reluctant after the failure of IHA³². No systematic program was undertaken for international laboratories. Moreover, the only two projects successfully concluded in the 1950s were inside, and not outside, Europe: the international computation center (Rome) and a regional center for nuclear physics in Geneva.

Conclusion

To what extent did the initial failure of Unesco's research laboratories result from the dichotomy between political and scientific internationalism? Paulo Carneiro, as well as other Brazilian delegates, approved the policies undertaken by Needham and Huxley in Unesco and by Henri Laugier in ECOSOC. Many reasons might explain their failure:

- The political context of this period did not favor international cooperation, even in sciences. There was no transition between WWII and the Cold War, and the increasing bipolarization led to a complete domination of the USA upon UNO and Unesco. The financial crisis in Europe and the ideological mistrust of the US State Department towards European intellectuals led to the shortening of Unesco budgets, and to the abandonment of several projects. Unesco remained weak and experimental for many years.
- The scientific community itself had contradictory positions. Liberal scientists (many of them from UK) resisted Needham's voluntarist ideas opposed to scientific "laissez-faire" and privileged ICSU over Unesco as the support for scientific cooperation, including potential international laboratories. They were reluctant to establish new laboratories beyond Europe, and favored the existing scientific centers in the North. The UK even opposed at first the creation of a regional center in Europe for nuclear research (CERN), typical of the "high-flown and crazy ideas, which emanate from Unesco"³³. Nevertheless, it was far away from the "periphery principle" of Needham.
- Needham also had his own contradictions about Eurocentrism and his "periphery principle". Eurocentrism is nowadays frequently considered as part of the conventional model of a "neutral-valued science", independent from cultural contexts. But, when Needham headed Unesco, the neutrality of science was unquestioned, the only question being how to spread the science produced in Western scientific centers to other countries, following what was called the "diffusionist model". In that period, this model hindered the understanding of the inevitable articulation of local, regional and national agendas with international programs significantly. It was thus difficult for Needham and other progressive scientists to admit the specific characteristics of the regional and national levels.
- The main reason might be the emergence of a new general conception of the international

³² Reports E/1694 (19/5/1950) and E/1699 (24/5/1950). Ecosoc 11th session: E/SR.410 (14/8/50), E/SR.411 (14/8/1950). Ecosoc Archives, UNO, Geneva.

³³ According to Skinner, a British physicist quoted by Margaret Gowing, "Independence and Deterrence. Britain and Atomic Energy, 1945-52", 2 volumes, 1974, Macmillan. note 3, volume 2, p.227.

function of science with the famous “Point 4” of Truman’s speech in January 1949³⁴. It led to a new general economy for scientific cooperation that was far from Needham’s and Laugier’s goals. “Point 4” was the origin of the whole Technical Assistance scheme, through which scientific research, economic development and political issues were closely intertwined for the defense of the “Free World” against communism. Truman’s projects suited best the aspirations of the political and economical élites. It opened up to them the possibility of reaching the US standards of living by following a development model in which science is subordinated to the economical system. In a way, Truman’s “Point 4” was the matrix of the “underdevelopment” concept and of the development theories. Science was then deprived of its emancipating dimension and reduced to a mere technical tool for economical development. Thanks to science, it was possible to develop a country without confrontations. In the 1950s, with the Cold War, such ideas became dominant in the international scientific cooperation.

In the 1950s and 1960s, Paulo Carneiro remained one of the main Unesco leaders, but, in this context, re-oriented his commitment from scientific cooperation to educational projects for Asian and Oriental countries, and to safeguarding the cultural patrimony of humankind. He retained his ideas about scientific neutrality. He believed that the practice of science should be above any political and ideological disputes, as most of scientists did when they developed new associations for the advancement of science.

Bibliographical references

Boletim do IBECC, n°1 (1947), n°2 (1948) and n°3 (1952)

CARNEIRO, Paulo Estevam de Berredo (1951): O Instituto Internacional da Hileia Amazonica. Razoes e objetivos da sua criação. S.l., s.d.

CARNEIRO, Paulo Estevam de Berredo (1970): Vers un nouvel humanisme, Paris, Seghers.

Correio do IBECC, 1982-1987. Rio de Janeiro, Unesco/Instituto Brasileiro de Educação, Ciência e Cultura.

DOMINGUES, Heloisa M. Bertol (2001): La cooperacion científica internacional. La Unesco en Brasil a fines de los años cuarenta. Anais do Seminario Taller Partenariado Cientifico Norte Sur y Sur-Sur, Cartagena, Colômbia, nov. 2001.

DOMINGUES, Heloisa M. Bertol & PETITJEAN, Patrick (2001): "A Unesco, O Instituto Internacional da Hileia Amazonica e a antropologia no final dos anos 40" in Priscilla Falhauber e Peter Mann de Toledo (ed.), Conhecimento e Fronteira: Historia da Ciencia na Amazonia. Belém, Museu Paraense Emilio Goeldi, pp.83-109.

GEMELLI, Giuliana (2001): American Foundations and large-scale research: construction and transfer of knowledge. Bologna, CLUEB.

KUZNICK, Peter J. (1987): Beyond the Laboratory. Scientists as Political Activists in the 1930s America. The University of Chicago Press.

MACGUCKEN, William (1984): Scientists, Society and State. The Social Relations of Science Movement in Great Britain, 1931-1947. Ohio State University Press, Columbus.

MACLEOD, Roy & COLLINS, Peter (eds) (1981): The Parliament of Science. Northwood, Sciences Reviews.

³⁴ See Rist (1996) about “Point 4”

NEEDHAM, Joseph (1949): Science and International Relations, Blackwell Scientific Publications, Oxford (revised Boyle Conference, 1948).

PETITJEAN, Patrick & DOMINGUES, Heloisa M. Bertol (2000): "A Redescoberta da Amazonia num Projeto da Unesco" in Estudos Historicos, vol.14, n°26, 2000, pp.265-292.

PETITJEAN, Patrick (1999): "Needham, Anglo-French Civilities and Ecumenical Science", in S. Irfan Habib & Dhruv Raina (eds), Situating the History of Science. Dialogues with Joseph Needham, Oxford University Press, 1999, New Delhi, pp.152-197.

PETITJEAN, Patrick (2001): "Miguel, Paul, Henri et les autres", in Videira, Antonio Augusto Passos & Salinas, Silvio R. A. (orgs), A Cultura da Fisica: contribucoes em homenagem a Amelia Imperio Hamburger, Editora Livraria da USP, Sao Paulo.

Relatórios do IBECC, 1947, 1948. Rio de Janeiro, Instituto Brasileiro de Educação, Ciência e Cultura, Itamaraty/Unesco.

RIST, Gilbert (1996): Le Développement. Histoire d'une croyance occidentale, Paris, Presses des Sciences Po.

SCHROEDER-GUDEHUS, Brigitte (1975): Les Scientifiques et la paix. Montreal, Presses Universitaires de Montreal.

TORRES BODET, Jaime (1981): Memorias, 2 vols., México, Editorial Porrúa.

WEART, Spencer R. (1980): La Grande aventure des savants atomistes français. Les savants au pouvoir. Paris, Fayard.