
A AMAZÔNIA COMO UMA ARENA DE BAIXO CUSTO NO JOGO DE PODER DA GUERRA FRIA? O CASO DO PROJETO DOS GRANDES LAGOS AMAZÔNICOS (1964-1968)

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ABSTRACT: The article examines an underexplored episode of the Brazilian history in the context of the Cold War: the role of the Hudson Institute in South America and the proposal to create a large lacustrine system in the Amazon domains. From the analysis of official documents and literary registers, some of them little-known from the public, we attempted to identify the existence of a relationship between the aforementioned project and the Cold War systemic agenda and, also, the role of Brazil in this paradigmatic moment of the contemporary history. Evidences did not allow us to point out a clear connection between the Amazon Great Lakes Project and the dynamics of the United States-Soviet Union political disputes, even though they have shown that such an enterprise, if carried out, could make the Hylea a low-cost arena for the achievement of U.S. interests in the Cold War's game of power.

Keywords: Hylean Amazon, Brazil, Hudson Institute, Cold War, United States.

RESUMO: O presente artigo analisa um episódio pouco explorado da História brasileira no contexto da Guerra Fria: a atuação do Instituto Hudson na América do Sul e a proposta de criação de um grande sistema lacustre na região. A partir da análise de resíduos documentais e literários pouco conhecidos do público, buscou-se identificar as relações do citado projeto com a agenda sistêmica bipolar e o papel

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do Brasil neste momento paradigmático da História contemporânea. As evidências apresentadas não permitiram concluir haver uma clara relação entre o Projeto dos Grandes Lagos Amazônicos e as dinâmicas da Guerra Fria, muito embora tenham demonstrado que tal empreendimento, se levado à cabo, poderia fazer da Hileia uma arena de baixo custo para a defesa dos interesses dos EUA no jogo de poder da Guerra Fria.

**Palavras-chave:** Hileia, Brasil, Instituto Hudson, Guerra Fria, Estados Unidos.
1. Introduction

In 1835, after visiting the United States, Alexis-Charles-Henri Clérel, Viscount de Tocqueville, foreseeing what the future would reserve for America and Russia\(^1\), wrote that “there are now on Earth two great peoples who, from different points, seem to move toward the same goal: they are the Russians and the Anglo-Americans [...] each of them marked by the desire of heaven to change the destinies of half the globe” (TOCQUEVILLE, 1969; p.26).

Like a prophecy, these words came true and more than a century later, it was this scenario envisioned by Tocqueville that framed the construction of an unprecedented world order in the twentieth century, marked by political and ideological struggle between two superpowers for the maintenance and expansion of their areas of influence. This replaced for more than four decades, the traditional (but outworn) European state system and its multipolar balance of power. In sum, it was the harbinger of the Cold War, according to GADDIS (2006) an extension of the Second World War waged at different levels, in many ways, and in multiple places for a very long time.

Despite the undeniable tension around the possibility of one of the superpowers undertaking the feared first strike\(^2\), the outstanding feature of this period was that nuclear terror has, paradoxically, acted as a guarantor of peace and stability by ratifying a balance based on the deterrence capacity of Americans and Soviets. Regardless of the risks involved, both of them kept seeking all over the world - using here the typology adopted by STRANGE (1988, p.24-5) - the increase

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\(^1\) The acronym Union of Soviet Socialist Republics (USSR) was used to designate the group formed by its constituent republics from December 30, 1922 to December 26, 1991, when the country was officially dissolved.

\(^2\) The balance of terror did not require parity, but the capacity to respond to the first strike of a nuclear enemy (counterforces strategy). So, if successful, the first strike initiative would decide the war. But if not, it would be, theoretically, an action of unpredictable consequences.
of their relational and/or structural power\(^3\). Accordingly, during the Cold War, such spaces - among them Latin America - were considered 'low cost arenas' where the superpowers' rivalry and the concomitant defense of their vital interests presented lower odds of resulting in a nuclear confrontation (CASTRO SANTOS, 2004; p.118).

Concomitantly, in this world of dialectical contours, International Relations (IR) experienced a period of profound structural rearrangement due - amongst other issues – to the emergence of new actors in the scène mondiale as a result of the process of decolonization in Asia and Africa\(^4\). Along with other countries, this handful of brand new States, mostly gathered under the sobriquet of Third World\(^5\), remained economically vulnerable despite becoming politically independent.

Although these countries emerged in a context characterized by the rigid polarization of the Cold War, this rising world order gave little or no attention to their immediate interests and needs. Thus, most of these countries began to call for the construction of a 'third way' of development - an autonomous pathway not aligned (at least not automatically) to the superpowers - based on an original platform capable of contemplating the growing demands stemming from the new reality of the international system and ratifying the anticolonial struggle.

This group’s first political initiative aiming at reaffirming its anti-imperialist posture and a position equidistant from the US and the USSR was the Bandung Conference, held in Indonesia in April 1955. It was based on the proposal of

\(^3\) According to Susan Strange, relational power is understood as the ability held by some actors to constrain others to act in accordance with their interests by having at their disposal coercive resources. In turn, in structural power, as important as the amount of power resources, is the ability of these actors to shape the structures (including values and norms) of international decision-making processes and, accordingly, the international agenda. These concepts portray not only the weight of the military component as a constraining factor, but also of non-tangible variables such as ideological beliefs, thus, depicting well the power disputes' modus operandi established during the Cold War.

\(^4\) Beginning in 1946, with the Philippines, the post-World War II decolonization process reached its apex with the independence of the Portuguese colonies in Africa, completed in the mid-1970s with Guinea Bissau (1974), Sao Tome and Principe (1975), Cape Verde (1975), Angola (1975) and Mozambique (1975).

\(^5\) Currently in disuse, the term 'Third World' - coined by the French historian Alfred Sauvy - was firstly used in 1952, in an article published in L’Observateur, to originally designate the group of countries neutral or not aligned to the two Cold War's blocs of power.
replacing the East-West ideological conception with a North-South one by putting the industrialized countries of the North and the raw materials exporting countries of the South on opposite sides.⁶

Given the aforementioned facts and the premise that the foreign policy of a country is generally conditioned by a continuous interaction between internal and external factors (PUTNAM, 1988), we shall take into consideration that for a more accurate interpretation of variables capable of shaping international relations, two distinct but complementary dimensions stand out namely: the nature of the world order in a given moment and the modalities of state insertion in the resulting system's dynamics.

So, considering, as our starting point, the empirical validity of the cited context, we seek to examine the controversial case of the Amazonian Great Lakes' Project. Headed by the Hudson Institute (HI), it was formally presented to the international community at the first Latin American Development Conference, held in October 16th-19th, 1964, and was based on the proposal of creating a colossal lake system in South America by merging the Andean-Amazon main waterways towards La Plata Basin in the Southern Cone of the subcontinent, making it fully navigable:

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⁶ It should be noted that Third World ideologies were sometimes vague and ambiguous. The Bandung Conference, in fact, brought together countries clearly aligned with USSR (China and North Vietnam) and with the United States (Japan and South Vietnam) creating, thus, deep political and ideological differences among the participants. About Bandung, the historian Paul Johnson stated that ‘this was still a time of innocence, in which it was confidently believed that the abstract power of numbers, and more, of words, would transform the world’ (JOHNSON, 1983; p.477).
From then on, the first pages of an underexplored chapter of the Brazilian and South American foreign policy's history were written. While commonly relegated to footnotes, it should not be regarded as a marginal or second order event. In contrast we intend to examine this episode from the US perspective of the so-called Hylean Amazon⁷- a huge space situated within the domains of the great Amazon River Basin - as a 'low cost arena' in the logic of International Relations in that moment of the Cold War's history and, secondly, the Brazilian reactions to the resulting events.

⁷ The Hylean Amazon is the name given by the German naturalist, Alexander von Humboldt (1769-1859), to the great humid equatorial forest located from the Andes, through the Amazon valley, to the Guianas.
The period 1964-1968 was chosen to include: 1) the attempt to deploy the Amazonian Great Lakes' Project and 2) to related US-Brazilian relations. Thus, from this ontological exercise we intend to: 1) determine how some Brazilian foreign policy decisions were taken in relation to the "Hudson Episode"; 2) identify some possible explanatory elements of these decisions' domestic and external conditionings to 3) point out if the Cold War's dynamics were a determining variable in this process or only a framework for a scenario developed outside the dispute for areas of influence in this game of power and 4) link that history with what today are still unsustainable infrastructure projects in the Brazilian Amazon.

2. Unveiling the Amazon: the Genesis' last page to be written

Euclides da Cunha (1866-1909) was a historian, engineer and simultaneously one of the most outstanding contemporary Brazilian writers. Returning from a year-long border demarcation mission after navigating 6,400 km of treacherous waters of the Purus River - one of the largest of the Amazon Basin - he was deeply impressed by the vastness and complexity of that fantastic landscape. He characterized it as being “the Genesis' last page to be written”, “an infinite which must be dosed”, expressions that remained for the years to come as an accurate depiction of that challenging environment.

Located in the north-central portion of South America, the Amazon region occupies around 7.800,000 km² (≈ 3.011,580 mi²), encompassing territories of Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana, Suriname and French Guiana (French overseas territory) which correspond to 40% of South America’s area. Keeping about 1/3 of all the planet’s genetic stock, the Amazon biome stands out as the world’s largest biodiversity reserve (SILVA, 2005, p.67-69).^8

^8 With approximately 4,196,943 km² (1,620,439 mi²), the Amazon rainforest is the largest Brazilian biome, occupying 49.29% of the national territory according to official data from governmental agencies (Source: http://www.ibge.gov.br/home/presidencia/noticias/noticia_visualiza.php?id_noticia=169).
With almost seven million square kilometers from its sources, in the Peruvian Andes, to its mouth in the Atlantic Ocean, the Amazon River Basin also stands out for its grandeur, as shown in figure 2. Representing almost 20% of the world’s river water, with 25,000 km (≈15,534 mi) of navigable rivers and an exceptional hydraulic potential (BECKER, 2004; p.43; ANA, 2007; p.26-60), its geopolitical strategic importance for the economic and social development of all the Amazon countries makes the Amazon a high priority in the South American international relations (PROCÓPIO, 2007; p.272-73):

Fig. 2: The Brazilian Amazon and the Amazon River Basin
Therefore, could the Hylean Amazon be considered a key issue on the Cold War’s dynamics and an impending strategic spot at that moment? If so, what might have been the Hudson Institute’s role in this matter? And how did the Brazilian authorities deal with this unconventional situation? These are some questions we will try to answer as we examine a possible causal relation between the Amazonian Great Lakes’ Project and the United States’ interests in the scope of the Cold War scenario.

3. Hudson Institute (HI) and the South American Great Lakes Project

The Hudson Institute (HI) was created in 1961 in Croton-on-Hudson, New York, by Herman Kahn - mathematician, physicist and prominent nuclear strategist - who became famous for ‘On Thermonuclear War’ (1960), one of the first studies to systematically analyze the likely effects of a nuclear war and the available options to deal with the possible outcomes in such a scenario.

Taking advantage of this meteoric international projection, Kahn, “the atom’s number-one thinker” (CABRAL, 1968; p.150), with the aid of Max Singer and Oscar Ruebhausen, laid the foundations of the HI, originally thought to be a research organization for the promotion of interdisciplinary studies on US security and defense including their intersection with international relations, economics, culture and science and technology. In Khan’s words, the Hudson Institute’s mission was to “to think about the future in unconventional ways, which generated several noteworthy accomplishments and reports”.  

In Brazil the HI gained major notoriety in the 1960s when Herman Kahn and Robert Panero - HI representative assigned for Colombia and Brazil - made public a

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9 Source: http://www.hudson.org/learn/index.cfm?fuseaction=history. Currently, its research agenda covers a wide range of issues: energy, culture and society, democracy, Chinese-Russian relations, Latin America, Middle East, European Union, Eastern Europe, environment, trade policies, diplomacy, religion, human rights, amongst others.
project that, at least, could be defined as simply colossal, but which was carefully presented to the audience, without pomp, as a “catalyzing agent of the economic and social development of South America” (PANERO, 1968; p.44). The core of the project was creating several artificial lakes capable of providing conditions of continuous navigability practically all over South American waterway extension, as well as some other secondary benefits.10

In order to justify the project's ambitions and the way it would be run in the Amazon Basin domains, PANERO and KAHN (1968; p.56) developed a broad but notably simple-minded typology to which different regions and countries were allocated. Thus, according to their degree of relative socioeconomic development, these spaces should be allocated into three categories: A, B or C.

In short, in category "A", benefited by high investment rates, there were some urban and industrialized regions and cities with commercial companies and specialized workers, and an expanding and sophisticated dominant class, the so-called "intellectual technicians." The cities of São Paulo and Rio de Janeiro, in Brazil, and Buenos Aires, in Argentina, were included in this category.

The "B" category, composed by ascending societies with a strong agricultural base, was essentially made up of marginalized rural communities attracted by the dream of a better life and the benefits of modernity, by migrating toward great industrial centers. Most of the Brazilian northeast region was included in this grouping.

Finally, in category "C" there were those economically underexplored areas with little investment in infrastructure and in which the development, when it

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10 In 1952, Brazil and United States celebrated a military agreement aimed at, amongst other provisions, fostering cooperation for drawing up aeronautical maps of the Brazilian territory. Notwithstanding the presence of a restrictive clause prohibiting any kind of transferring of the material obtained to other countries, individuals or companies (art.7, §2), the US government provided the HI with the resulting inventory revealing the location and extent of likely mineral deposits in the Amazon, a fact confirmed by one of the engineers involved in the project, which suggests a close connection between the Hudson Institute - despite its private nature - and Washington. All the information collected, as expected, was widely used in the elaboration of the Great Lakes project (CABRAL, 1968; p.152; CARVALHO, 2001; p.254).
happened, tended to be very limited and restrictive. Population in these areas was often scarce. Given the local government and private initiative's lack of interest, their communities' lifestyle was predominantly subsistence.

According to the evaluation of PANERO and KAHN (1968; p.58-9) almost $\frac{4}{5}$ of South America were allocated in category "C" and was mostly constituted by the Amazon Basin and surrounding areas. They also pointed out that although 'unexplored, economically uninhabited, unused and actually ignored' (PANERO and KAHN, 1968; p.59), the Amazon Basin had enormous potential for development; the Great Lakes project could be the instrument needed for connecting the main industrial centers of South America to the Amazonian producers of raw materials.

Claiming that “one of the South America's greatest dreams has been to merge its main rivers through canals” (PANERO, 1968; p.35), the project, as proposed, would have allowed connecting the Brazilian cities of Belem (Pará state) and Manaus (Amazon state) and several Andean countries to Buenos Aires, in Argentina (as shown in figure 1). In addition, according to Panero, this artificial system of lakes while combining the two most important South American watersheds - could also provide a large number of additional benefits capable of stimulating local economic development, such as electricity production and access to the Amazon's topographically higher spots (rich in iron ore, tin, manganese and gold).

The project's shortcomings - derived mainly from the use of inaccurate data that, amongst other issues, ignored the presence of natural topographical obstacles capable of restraining its fully achievement\(^\text{11}\) - did not prevent the HI staff from broadly propagating what was originally supposed to be the six or seven great lakes: instruments to turn the world's largest river basin into a kind of Amazonian inner sea, as described below (PANERO, 1968; p.36-44):

(01) **The Chocó project**: taking advantage of the predominantly flat topography of the Chocó region, in northeastern Colombia, this broad project envisaged - in

\(^\text{11}\) For example, the absence of any reference to the existing waterfalls along Negro and Madeira-Mamoré rivers, in Brazil, that would make navigation a technical setback hardly surmountable.
addition to instituting a system of inland waterways - a 402.5 km passage between the Atlantic and Pacific Oceans and the construction of a hydroelectric plant with 2,000,000 kW of initial installed capacity. An area of eight thousand km$^2$ would be flooded to create new lakes planned to have an estimated surface of forty thousand km$^2$ (essentially equal to the area of the Netherlands). According to a HI technical report, one of the most interesting features of the Chocó project was that the lakes would be in areas of low economic value and demographic density$^{12}$;

(02) **The Caquetá project**: this project was designed to create, by damming the Caquetá River (a Colombian tributary of the Amazon) basin, an artificial lake with an estimated length ranging from 100 to 300 km ($\approx$62 to 186 mi), depending on the height of the dam (10 or 30 meters). Besides connecting three distinct zones - the forest, flatlands and the mountain slopes - it would complement the Chocó project by providing the necessary elements to make an interoceanic corridor feasible as well as hydroelectric exploitation, and the creation of an inland waterway system;

(03) **The Pimichim project**: was aimed to create a lake with an approximately length of 200 km ($\approx$124 mi) in the Pimichim region - on the Colombian border with Venezuela - from the damming of the Atabapo and Guainia rivers. According to the arguments presented, the navigation resulting from such a lake would be an excellent alternative to the Casiquiare Canal, a natural communication waterway already existing between the Amazon and the Orinoco Basins, favoring, then, besides Venezuela and Colombia, Brazil;

(04) **The Peruvian Amazon Project**: In Peru, where some of the most important Amazon Basin's rivers are born, there are waterways that permanently run through flooded and flat areas, especially in those regions where altitudes are less than 2,000 meters above sea level. Another large lake would be created by opening the highlands of the unexplored eastern regions of Peru toward Brazil. Another

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$^{12}$ Hudson Institute Project 735-RR, August 1st, 1966.
alternative would be artificial lake along the Napo River, on the Peruvian border with Ecuador, offering similar conditions for the development of artificial waterways;

(05) **The Bolivian East project**: The landlocked condition of Bolivia had led the country to persistently seek, since the end of the Pacific War (1879-1883)\(^1\), an exit to the sea. The Hudson Institute proposed to create artificial lakes that, if carried out, would provide Bolivia with the long-awaited connection to the ocean. That would be achieved by damming some of the main rivers located in the Andean east, such as Madre de Dios and Beni, linking, as a result, Bolivia to Peru and, accordingly, to the Pacific Ocean;\(^2\)

(06) **The Great Amazonian Lake project**: To highlight the greatness of the Amazon Basin, not just its old and well-known problems, but also its presumed development potential, HI presented a project for the construction of a dam on the north bank of the Amazon River, near to Monte Alegre city (in Pará state, Brazil), where it would then be dammed to an average height of thirty meters above the low level of its waters.\(^3\) By predicting the inundation of an astonishing estimated area of 400,000

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\(^1\) When Chile overcame the alliance formed by Bolivia and Peru in the so-called Pacific War (1879-1883) - triggered by disagreements over the rising taxes imposed to the Chilean companies that exploited the salt peter mines of the Bolivian coast - Santiago did not hesitate to annex strategic territories of the defeated coalition, including the Bolivian exit to the sea by subtracting the province of Antofagasta, an issue that remains a political-diplomatic quarrel more than a century after the end of this that is considered the second largest armed confrontation occurred in South America, only surpassed by the Paraguay War (1864-1870).

\(^2\) This proposal, in a first glance, sounds senseless as the Andes would still block the way to the sea. However, providing a more feasible explanation on how to overcome such obstacles seemed not to be an issue to be taken into consideration despite the noticeable project’s technical shortcomings. Another possibility would be to dam the Mamoré and Guaporé Rivers, on the Brazilian-Bolivian border, for being suitable waterways for the construction of low dams, which would allow the creation of a large lake connecting the basins of the aforementioned rivers, consequently, providing Bolivia with an inland shore.

\(^3\) A gravimetric study (a set of methods and techniques used in the examination and measurement of the gravitational field) of the Amazon Basin held by Petrobrás (a Brazilian multinational corporation in the fuel industry created in 1953 and headquartered at Rio de Janeiro) to evaluate the magnitude of such enterprise in the middle Amazon revealed, in its most pessimistic prognosis, that roughly 40% of Manaus city would be flooded while the city of Itacoatiara would disappear. At the intermediate level, above 40 meters, between 5% and 10% of Manaus, Itacoatiara and Manacapuru would be submerged. Therefore, for LOPES (1968; p.78), in the last instance, the degree of flooding would depend on a detailed comparative study of, on one hand, the advantages of obtaining hundreds of kilometers of permanent waterways plus thousands of Kilowatts of hydroelectric energy, and, on the other hand, the disadvantages of losing almost entire cities flooded, in order to verify if, in fact, the execution of this project would provide the alleged transformation of the economic and social infrastructure of the Amazon region.
km² (≏154,441 mi²), the resulting lake - or "inland sea" (the term that best describes it) - would connect Brazil, Venezuela, Colombia, Peru and Bolivia to Paraguay and Argentina, in the southern cone of South America, an audacious goal as it was the most challenging of all the proposals of artificial lakes. The navigation distances would be reduced; many of the fast tributaries of the Amazon River would be merged into a single watercourse allowing, thus, the access to the Brazilian hinterland by large freighters; the entire region of the Amazonian delta would become a suitable and fertile area for agriculture; there would be a significant reduction in the amount of sediment dumped in the Atlantic Ocean and also a promising hydroelectric potential to be explored. PANERO (1968; p. 43) asserted that the advantages to be obtained by the countries directly involved in the project (of flooding a significant portion of the Amazon) would compensate the costs of its execution in the proportion of 20 to 01.

Summing up, Panero asserted that more than any other development alternative, the Great Lakes project - in addition to the primary purpose of opening a continuous waterway of continental dimensions - would stimulate 1) trade between the industrial complexes of Buenos Aires (Argentina), Montevideo (Uruguay) and São Paulo (Brazil) and the producers of raw materials from Venezuela, Colombia, Ecuador, Peru and Bolivia; 2) the development of new large-scale productive activities in the fields of energy and logging; 3) the massive occupation of the

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16 The project was initially presented to Roberto de Oliveira Campos (the then Brazilian Minister of Planning) in Washington, on February 8th, 1967, and one month later, on March 8th, 1967, in Rio de Janeiro, Brazil, to a group of technicians and experts from various agencies and ministries interested in the issue's upshot.

17 It is worth mentioning that those sediments are important to flood plain agriculture and floodplain forests and their support of fisheries; also, they would significantly shorten the lifespan of many of the dams.

18 If the Amazon were dammed as planned, thirty meters above its regular level, the envisaged hydroelectric potential would be something around 100,000 MW, equivalent to 1/4 of the installed capacity of the United States at that moment.

19 As to the estimates on the expenditures necessary for the creation of the Amazonian Lake, they were not precise. In a first assessment, Robert Panero projected costs ranging from $50 million to $200 million. In a second evaluation, this amount skyrocketed to US$ 1.5 billion (CABRAL, 1968; p.150), and no mention was made about possible sponsors.
previously inaccessible surrounding areas around these flourishing trade centers and mineral exploration spots, until then, labeled as inaccessible areas.

Nevertheless, Panero himself acknowledged that there were multiple topographical variations in the Amazon region capable of going undetected (due to the density and height of the vegetation), that could be a serious technical obstacle. Consequently, uncertainty and imprecision were setbacks quite present in the Great Lakes project, especially in the case of the Amazonian Lake and it is highly unlikely that it would withstand modern rigorous environmental and social analysis. Nonetheless, the likely consequences of such projects have led to heated discussions, especially in Brazil, and have provoked many complaints from the political, diplomatic and military echelons, some of them analyzed hereinafter.

4. Quo Vadis, Amazon? Repercussions of the Amazonian Lake project

It was unclear at that moment the precise connection between the primary purpose of HI - US security - and the creation of an integrated system of lakes in South America. As a result, in the heat of discussions that took place about the motivations that would have led the Hudson Institute to advance this Herculean structural intervention in the Amazon Basin, words such as those uttered by the Prussian statesman Otto von Bismarck that “natural resources in the hands of nations that do not want or cannot exploit them, cease to constitute assets and become threats to those who possess them” resonated, for many, with remarkable sharpness.

While many doubts about the real intentions of the HI remained, it was natural to suspect that the Great Lakes project was somehow associated with US interests. At least this was the perception expressed by important Brazilian political leaderships such as Osório Nunes and Cosme Ferreira Filho, influential
“Amazonianists”; Hermano Alves and Gastone Righi, deputies from MDB Party\textsuperscript{20}; Bernardo Cabral, leader of MDB in the legislative lower house (Chamber of Deputies); and Arthur Cezar Ferreira Reis, the then governor of the Amazon state.

If carried out under the exclusive guidance of the United States or of international organizations, it was feared that the successful accomplishment of the Great lakes project could assume supranational features. According to REIS (1968, pp. 15-16), the suspicious interest of the Hudson Institute in the Amazon Basin was an impending threat, cause for concern and, therefore, it was up to Brazil to take effective and urgent actions to integrate as soon as possible the vast Amazonian area to its development efforts (LOVEJOY, 1973), even as part of the country’s security policy if necessary.\textsuperscript{21}

According to REIS (1968; p.14), the Amazon Basin would have a great role to play in the Brazilian intentions to rise as a regional power. As he pointed out, available data depicted the Amazon and its basin as a 'spatial availability, area of incomparable natural resources necessary to the industrial parks the country has been setting up in the interest of its prosperity and security'. In the same direction, in a conference entitled 'The Conquest and Development of the Amazon', the words uttered by the then Brazilian Minister of Interior, Gen. Albuquerque Lima, ratified the main points raised by Arthur Cezar Ferreira Reis. For him, security policy and development strategy were close related issues and, in this regard, Albuquerque Lima asserted that:

\textsuperscript{20} From 1965 to 1979, under the military regime, all existing political parties in Brazil were abolished and a legally enforced two party system was established, with supporters of the regime gathered under the National Renewal Alliance Party (in Portuguese: Aliança Renovadora Nacional - ARENA) umbrella, and the official opposition making up the Brazilian Democratic Movement (in Portuguese: Movimento Democrático Brasileiro - MDB Party). In 1979, although in a very limited way, the military government allowed the formation of new parties and both, MDB and ARENA, were dissolved as a result of the new Political Parties Law.

\textsuperscript{21} With the lakes project being seriously considered, there was a worrisome concern about a possible creation of a supranational management structure encompassing, besides the Amazon countries, the United States, an attempt already tried by UNESCO (United Nations Educational, Scientific and Cultural Organization) and some countries in 1948 by proposing the establishment of the so-called International Institute of the Hylean Amazon (IIHA) (CABRAL, 1968, p.154).
The Government is obliged to consider as highly priority the subject of the effective occupation of the Amazon's empty spaces; that no plan of occupation will be valid if not decisively supported by the Armed Forces together that, in turn, must understand that it is all about an operation of economic and social interest, in accordance to the concepts of development. The depletion of the Amazon (...) in fact implies in jeopardizing the national security, since the outcomes of such hazard would affect the Brazilian Federation itself by increasingly instigating international greed for such an immense and vital area (quoted in RBPI, 1968; p.106).

Signaling to which direction the perceptions of the main national policy and decision-makers were prone, the Army Minister, Gen. Aurelio de Lyra Tavares, in a press conference on October 20th, 1967, declared that 'the nations of the continent are all committed, jointly, in a developmental racing as part of a wise security policy'. This would be the core guideline drawn up by President Costa e Silva for the Brazilian specific case (RBPI, 1968; p.109)²², a strategy in which the (re)formulation of the development and security policies for the Amazon Basin arguably stood out as one of the priority goals.

In addition to revealing the relationship between development and security as the orientation of the Brazilian policy at that time - in the evaluation of CABRAL (1968; p.149; 160) the various speeches uttered by the Ministers of Costa e Silva were uniform in affirming that in the pursuit of these joint objectives the Amazon Lake project would have no participation. This led him to suppose that the initiative of the HI was taken without the Brazilian government's consent.

This inference was confirmed by tidings such as the one published by the 'Jornal do Comércio de Recife', December 22th, 1968 issue, asserting that 'Army

²² The Costa e Silva Administration's (1967-1969) foreign policy entitled 'Diplomacy of Prosperity' was based on the conviction that development was a responsibility to be carried out using domestic instruments. However, this policy also recognized the strategic importance of the external sector, especially as a source of financial aid and technical cooperation. Another relevant point is that the automatic alignment with United States in foreign affairs - a striking feature of his predecessor, President Castelo Branco - was no longer the guiding vector of the Brazilian foreign policy that, gradually, got closer to developing countries by moving away from the East-West dialectical principles toward the North-South ideological axis which, in turn, generated many disagreements with Washington.
investigates who allowed the Hudson Institute to plan the Amazonian Lake," a project so immense that, according to the front-page headline of "Correio Braziliense' - September 6th, 1967 issue - would permanently change the features of the Amazon and South America.

These public leaderships' complaints promptly made themselves heard. As soon as he was warned of the blatant manifestations contrary to the HI's actions in the Brazilian Amazon Basin, Robert Panero, apprehensive about the Amazon Lake project and with it the whole South American complex of lakes being seriously threatened, immediately traveled from the United States to Brazil to personally follow up the matter. It should be noted that these contending declarations also provoked the response of those in Brazil who expressed sympathy for the project, amongst them Felisberto Camargo, former director of the Instituto Agronômico do Norte (North Agronomic Institute) and one of those supporting voices with whom the HI maintained close relations.

In one of his most controversial statements, Felisberto Camargo labeled as 'stupidity' the intention of the Minister of Interior, Gen. Albuquerque Lima, to occupy the region with the armed forces. He also pointed out that what reassured them (Felisberto Camargo and Robert Panero) was that “fortunately there were men in the Navy with much better credentials than in the Army, which would allow the Amazonian Lake project to succeed despite the difficulties” (CABRAL, 1968, p.152).

The aforementioned project also found support in the Brazilian Congress, even if a minority. One of his supporters, Deputy Nosser Almeida (ARENA) - although without addressing any specific issues related to the project and using a more

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23 The Institute was founded in 1939 and transformed in 1962 into the Institute of Agricultural Research and Experimentation of the North (IPEAN). In 1976, it was renamed to Agricultural Research Center of the Humid Tropics (CPATU) and, later, to Center for Agroforestry Research in the Eastern Amazon. The agronomist Felisberto Camargo, its first director, defended the drainage of the Amazon's waters to the Great Lake of Monte Alegre through artificial canals in order to ensure that the sediments transported in suspension by the river were deposited at that location, thus creating a soil of exceptional fertility.
moderate tone in his speech - did not hesitate to defend it in the parliamentary session of June 14, 1968:

 [...] the project of the Hudson Institute, aiming at establishing a lake in the Amazonian territory, has gained a controversial feature and the most conflicting points of view are being raised on the theme, which is, in fact, of interest to the country's key stakeholders. I realize, however, that there is sectarianism in the way the issue is being conducted. It is a problem that cannot be analyzed in emotional circumstances. As representative Congressman of the Brazilian state of Acre - the region that has been considered for the formation of this 'small sea' - I understand that the issue deserves the most serene examination. There is, in the quarrel, duplicity of aspects. If the lake is expected to occupy a vital area in which the sociologist could raise the thesis that the sacrifice of considerable area would constitute a gesture of inattention to the fatalism of human proliferation, considering the expansion of the already densely populated centers concentrated in some stretches of the territory, then the providence would be inadvisable. If the construction of such lake consolidates the national unity by facilitating or creating an efficient system of communications in the Hylean Amazon, including a more rational colonization of this great region without it being characterized as an outrage to Brazil's vital space, then the initiative is welcome. We cannot, in fact, succumb to the passions of radical groups. If there are unconfessable foreign interests, we must oppose them. But we cannot blindly turn against our American brothers, labeling them as eternal saboteurs of our greatness, or simply responsible for eventual frustrations or failures of our history. Let us remember that we are part of the continent, and that the defensive system of the Atlantic Basin encompasses our homeland. Laws and treaties have inserted us into the Western group, and impose on us a behavior of fidelity to democratic sentiments. With the Brazilian sovereignty sheltered, I cannot fail to meet the imperatives inherent to the survival of Western dignity. Into the National Security Council lies the permanent responsibility for surveilling our geographical integrity. We cannot also underestimate that the Hudson Institute - being a scientific entity run by a Brazilian, Professor Felisberto Camargo - does not want the alienation of our country.24

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Nosser Almeida’s words sought to counterbalance the impact caused by the pronouncement of another prominent antagonist to the project, Deputy Bernardo Cabral, who, in an emblematic speech delivered at the National Congress on February 12, 1968, endorsed the opposition arguments by denouncing the Hudson Institute’s alleged intentions and requesting the opening of a Parliamentary Commission of Inquiry to investigate it.25

Some other issues capable of impacting the national interest that were to some extent linked to the project were also addressed by Cabral such as the purchase of huge portions of land in that region by Americans26 and the alleged complacency demonstrated by members of the Brazilian government who, as highlighted by Arthur Reis, ironically had national security as their ideological pillar. Notably targeting those policymakers who somehow sympathized with these foreign intrusions into the Amazonian domains, Reis' criticisms were harsh, many times with a passionate tone as follows:

[...] There are over here the so-called pragmatists, the realists, who could instead be called the sold ones, the rented ones, those who let themselves be corrupted. They are, thanks God, in scarce numbers, but unfortunately endowed with financial resources for the propagation of a false science, or of a cynical proposition of distorted ideas or facts, insulting, thus, people who truly live the national


26 On the acquisition of Amazonian lands, the most notable action was carried out in 1967 by the American industrialist Daniel Keith Ludwig, at that time one of world’s five richest men. He bought an area located between the Peru, Jarí and Amazonas rivers and there began to explore - in what was then considered the largest private property on the planet - the production of cellulose and electricity and, to a lesser extent, the rhiziculture, cattle raising and the extraction of bauxite in the Trombetas river valley. To give life to the so-called 'Jarí Project', Ludwig moved to the region no less than three thousand men, from 23 different nationalities, at an estimated cost of US$ 269 million. Often accused of building an enclave in the Amazon and also claiming that the government did not authorize him to construct a hydroelectric plant in his own lands, Ludwig ended up his enterprise by selling it in 1982 to a group of Brazilian companies. Actually, in the final report of the Parliamentary Inquiry Committee set up in the Chamber of Deputies in 1968 to deliberate on the sale of land to foreigners, the rapporteur, Deputy Haroldo Veloso, concluded that around the Amazon region a belt of American properties was dangerously taking shape by 'reaching mainly areas of economic importance, including mineral deposits unknown to the Brazilian authorities, which could give room for a colonization plan guided by a foreign power' (Source: Correio da Manhã, 31 August 1968).
problems by desiring solutions that really serve to Brazil, and not the interests of those who sold themselves to countries in whose dirty dishes they eat daily, false Brazilians, even though having ascended to ministerial positions or heading posts of responsibility in the government (REIS, 1968; p.13).

Regarding the core issue itself, in one of his most incisive considerations CABRAL (1968, p.157-8) rejects the main justifications raised by the HI in defense of the Amazonian Lake. Contrary to Panero and Kahn's predictions, he first argues that the area to be flooded would be transformed into a huge demographic void. As a basis for his assertion, he cites that the directly impacted cities in the Brazilian states of Amazonas and Pará corresponded to more of the half-populated regions of the Western Amazon. Therefore, in this respect, Cabral claimed the assumptions of the HI were totally unfounded.

Moreover, complementing this argument, Cabral pointed out that the HI at no time considered the immense costs involved in transporting the displaced populations - especially the indigenous communities - and accordingly the huge indemnities to be paid, a situation whose execution would greatly exceed the value of the project itself. And who would pay for it? A group of investors? The United States? In the words of CABRAL (1968, p. 151), in face of so many doubts, “who would bring to the mind of each one that, beyond of what could be supposed, there would not be a situation of dependence rapidly taking shape?”

Another controversial point was the flooding of the area in which the then world’s largest rock salt deposit was located - about 750 km (≈ 466 mi) of length by 200 km (≈ 124 mi) of width with an estimated production of around 10 trillion tons of salt and derivatives. As compensation for the resulting losses, Felisberto Camargo, openly acting as HI spokesperson, cited the potential energy to be generated, about 70 million kW.27 Cabral refuted this latter argument stating that the region - because

27 Also, according to CAMARGO (1968; p.93-4), these rock salt deposits were the geological evidence that the Amazon Basin once was an inland sea and, therefore, the Amazonian lake project would be nothing more than the reconstruction of this very old ‘Amazon Sea’ of 20 million years ago (flooded with ocean water from the
of its well-known characteristics (low population, industrial and agricultural concentration) - would not be able to absorb such a large amount of energy. In addition, it would be equally impracticable, for instance, to build an extensive network of transmission lines of more than 5000 km of length (∈ 3106.8 mi) needed to deliver the projected energy production to the major urban-industrial centers of the country such as São Paulo and Rio de Janeiro. Therefore, concluded Cabral, in economic terms the proposal was unfeasible.

In addition to the cited opposition, mainly headed by some Congressmen (especially the MDB Party) and the armed forces (despite the suspicions raised after the controversial statements of Felisberto Camargo about the sympathy for the project by some sectors of the Navy), there is the role played by another key actor in this episode: the Brazilian Ministry of Foreign Affairs, popularly known as Itamaraty.

Undeniably a protagonist voice in the efforts to restrain the project, Itamaraty sent, on September 15th, 1967, three diplomats to HI headquarters to gather information in order to get a more accurate assessment on the South American Great lakes' implications to the national interests. From this endeavor resulted a detailed report that was urgently addressed to the Brazilian President with several cautionary suggestions - some of them hereafter analyzed - based on the inconsistencies identified in the aforementioned project (CABRAL, 1968; p.149-50).

28 First of all, the report makes a series of general considerations about the Hudson Institute, drawing special attention to a relevant fact already mentioned here: its close connection with the US government, an observation stemming from the

Caribbean Sea). And, with it, new cities would also be raised, paving brand-new ways for unprecedented strategic trade routes.

28 Almost a year after the diplomatic mission, the Brazilian newspaper 'Correio da Manhã' published in its July 14th, 1968 issue, the full report under the title 'The Truth about the Hudson Institute', being it also reproduced in the Brazilian Journal of International Policy (RBPI), issue 41/42, Mar./Jun. 1968, p.138-147. It is worth mentioning that the names of the three diplomats assigned to the mission were not revealed in the document.
evidence that more than 85% of its budget came from official agencies, especially from the Department of Defense. Hence the question raised by the investigative commission: what would have led the HI to guide its actions toward an effective occupation of the Amazon region?

One of the considered hypotheses in response to such query was that, in the logic of the Cold War’s dispute, the US strategic-military concern with an integrated regional system of access to Panama and the west coast of South America could be solved with the creation of waterways that would lead to the Amazon Basin through the Negro and the Orinoco rivers (Brazilian Journal of International Policy - RBPI, 1968; p.140). And, in pursuit of this purpose, the United States would not be alone. As for the scenario projected for the Andean Amazon, the document highlighted Colombia, Peru and Bolivia as clearly prone to the idea, having even constituted national committees to appreciate the benefits of the projects for their respective territories, with at first glance, many attractions in comparison to just a few drawbacks.

Amongst them, Colombia demonstrated the greatest interest. This ambitious ploy represented the opportunity to move into its territory part of the maritime traffic then conducted exclusively through the Panama Canal. Consequently, Bogota supported the preliminary surveys in the Chocó region to verify its feasibility as a proper space for a waterway. Considering this situation, the diplomatic mission warned that an Itamaraty absence at this first stage of the project would be tantamount to allowing other governments - such as Colombia and Peru, or the more general concerns of the US security agenda - to dangerously jeopardize the Brazilian interests. On the other hand, they also pointed out that the project could offer the benefit of awakening South America to the navigational potential of the Amazon Basin.

Thus, some emergency measures to be taken by Brazil were suggested such as: a) conducting a detailed investigation over the connections between HI and Washington, especially with the Department of State and Defense; b) mapping the
contacts made by HI with the governments of Colombia, Peru, Ecuador and Bolivia; 
c) defining a development agenda encompassing the Amazon Basin from the 
perspective of the Brazilian interests; and d) assignment of specialized technicians 
to keep under observation the work developed by HI (RBPI, 1968; p.141).

Finally, the last part of the report gave special attention to the Great 
Amazonian Lake’s project for being the one that would affect Brazil the most. In 
short, it concluded that this project would be a great inconvenience, stating that “what 
was truly behind this proposition was a barely disguised intention of internationalizing 
the Amazon” (RBPI, 1968, p.147). Therefore, in the midst of all these controversies 
around the project, prevailed the overall argument defended by the opposition group 
in which the territorial integrity was presented as a referent object threatened by the 
tention of establishing an integrated system of great lakes in South America where 
the Amazonian lake was supposed to be its most important pillar.

As a result, in 1968 the Brazilian War College (ESG - Escola Superior de 
Guerra) published a special report establishing the guidelines of a security policy for 
the Amazon region including improvements in matters of transport and 
communications aiming, amongst other objectives, the development of population 
groupings living in transboundary areas thus reinforcing the interrelationship 
between security and development. Still in this regard, the report proposed 
alternatives to: a) the implementation of the so-called 'Amazon Operation' to update 
and give new priorities for development and occupation programs of the Amazonian 
territory; b) the creation of ‘free trade zones’ (zonas francas) in the region aimed at 
stimulating its industrialization; and c) the regulation of tax exemptions and other 
incentives to foster the development of the Amazon.

The Organizing Committee of the Amazonian Energy Studies was 
established to supervise research regarding the development of the Amazon Basin's 
hydroelectric potential. With all these measures in progress, any possibility of

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29 Hudson Institute Project III-788/3RR.
creating an Amazonian Lake became unfeasible and, consequently, the Great Lakes project as well.

Last but not least, one last intriguing issue: is the Great Lakes Project just a memory that lies buried in the past? As noted, the Amazon Lakes Project stimulated the Brazilian military to recognize the importance of exerting presence within the Amazon of Brazil. One product of that was the Trans-Amazonica highway system and another was the extensive number of hydro-electric projects some of which have been built and some of which are still just planned. The massive impact of conventionally planned highways through spontaneous colonization has been a major factor in deforestation. The hydroelectric projects, e.g. on the Madeira, block sediment flows from the Andes to Amazon floodplains and the course of many migratory catfish species (the life spans of which take them from the estuary to the headwaters and back). It is clear that these are basically projects planned half a century ago which need to be reformulated to respect the modern understanding of the importance of the environment.

5. Conclusions

The Amazonian Great Lakes Project, at a first glance, seems to be something more present in the memory records of those who, to some extent, participated in its unfolding than a fully palpable event. The remaining narratives about the Hudson Institute and the aforementioned project are scattered in a very few articles, reports and literary registries, most of them of limited access. In addition, the HI no longer offers to the public such documents, although the Institute remains active as an important think tank.

Therefore, the inferences hereinafter presented are not purely objective constructions, based on tangible facts but, rather, assumptions drawn on conjectures, sometimes deduced with a degree of subjectivity greater than what is commonly seen and expected in the process of scientific evaluation. However,
Despite the risks inherent to this epistemological exercise - such as the construction of overly teleological arguments by relating a fact to its final cause - this was necessary due to the scarcity of sources capable of allowing the achievement of definitive conclusions. These brief methodological caveats aside, let's return to our main research question: was the Amazon a low-cost arena for the United States in the Cold War's game of power?

Firstly, regarding the variables and dynamics observed at the systemic level of analysis, although the facts presented suggesting the existence of some connections between the Hudson Institute and the US security agenda, the attained inferences were not clear enough as to the extent and limits of such interrelationship.

Equally tenuous is the evidence connecting the Great Lakes Project to the core of the struggle between the two superpowers, even though in terms of logistics and access to natural resources such enterprise could make the Hylean Amazon a relatively low-cost arena for the achievement of US interests, but not as a primary outcome stemming from the Cold War's dynamics. Yet, this is an inference that requires more evidences in order to be confirmed.

The analysis of the domestic scenario also points out some variables that help us to understand the unwind of the episode. The military regime (1964-85), over two decades, demonstrated clearly discernible cleavages regarding Brazil's standpoints on the Cold War and, accordingly, as to the country's role in the then global systemic agenda. Notably the main timeline within the selected period for this study, the Costa e Silva Administration (1967-9), witnessed the birth of the Amazonian Lakes' proposal in a moment when the special alliance with the United States - so vivid in the administration of his predecessor, President Castelo Branco (1964-7) - ceased to be the core axis of the Brazilian foreign policy.

As a result, the aforementioned alignment was gradually replaced by new political alliances supposedly capable of allowing Brazil to better stimulate its development, thus reinforcing the perception that there was an increasing divergence between some key national interests and the US foreign policy goals.
other words, by relegating the ideological frontiers of the East-West dichotomy to a secondary level, Brazil moved toward the Bandung' premises, an alternative way notably marked by a profound change of political direction that leads us to inquire whether the outcome of the Amazonian Lakes’ project could have been different if special relations with the U.S. were kept as a priority.

In face of the facts - factual or conjectural - as to the “Hudson episode”, the arguments presented revealed that Brazil acted as the main voice of opposition to the proposed project (despite important domestic actors supporting it) whilst Colombia, Peru and Bolivia, on the contrary, in general demonstrated sympathy for the idea since, once accomplished, it would offer them many benefits in comparison to the possible setbacks. Finally, the Brazilian position prevailed with the Parliament (especially the MDB Party), the Armed Forces, the Ministry of the Interior and the Ministry of Foreign Affairs acting as the main protagonists in the episode.

At the same time, in this context, security related issues came to be seen as something inseparable from the national development project in a complex equation that had as one of its key elements the reaffirmation of sovereignty not only in the Brazilian Amazon but in the Hylea as a whole - this strategic space historically marked by sparse and irregular contacts between neighbors. However, all of these actions happened without an irrefutable connection to the Cold War's dynamics despite some facts suggesting the existence of such bonds.

Finally, while this may seem to be just political history, the influence of the Amazon Lakes project lives on the environmental impact of Amazon infrastructure projects which derive from this era. They merit review and revision in the light of present day understanding of environmental challenges in the Amazon.

References


