

Itamaraty Palace in Brasília, Brazil: an analysis in the light¹ of visual language syntax

O Palácio Itamaraty em Brasília: uma análise a partir da sintaxe da linguagem visual

Palacio de Itamaraty en Brasilia, Brasil: un análisis a la luz de la sintaxis del lenguaje visual

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¹ This text has been translated from Portuguese to English by Annabella Blyth.

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Abstract

The Itamaraty Palace, headquarters of the Ministry of Foreign Affairs, is considered as one of Brazilian architect Oscar Niemeyer's referential works and it is a highlight at the Ministries Esplanade in Brasília, Brazil's Federal District. The aim of this study is to analyze the building in the light of the visual syntax tools. The analysis is based on the visual attributes and composition rules described by Professor Donis A. Dondis in her book *A Primer of Visual Literacy* and seeks to fulfil the lack of a document expressing the architect's intention. The object of study is analyzed on three scales: the urban context, the composition of volumes of the ministries' buildings complex, and the scale of the building, in this specific case the palace. The purpose is to complement recent research on the Itamaraty Palace and provide elements for new hypothesis about this object.

Keywords: Itamaraty Palace, Visual language syntax, Modern architecture, Brasília.

Resumo

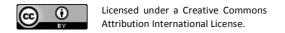
O Palácio Itamaraty, sede do Ministério das Relações Exteriores, é considerado uma das obras referenciais do arquiteto Oscar Niemeyer e é um dos edifícios de destaque na Esplanada dos Ministérios em Brasília. Este trabalho tem por objetivo analisar o edifício à luz das ferramentas da sintaxe visual. A análise se fundamenta nos atributos visuais e regras de composição descritos pela professora Donis A. Dondis em seu livro Sintaxe da linguagem visual e busca suprir a ausência de um memorial descritivo que explicite as intenções do arquiteto. O objeto de estudo é analisado em três escalas: no contexto urbano, na composição dos volumes do complexo do ministério e na escala do edifício, neste caso, o palácio. Espera-se com isso complementar as recentes pesquisas sobre o Palácio Itamaraty e dar subsídios a novas hipóteses sobre este objeto.

Palavras-Chave: Palácio Itamaraty, Sintaxe da linguagem visual, Arquitetura moderna, Brasília

Resumen

El Palacio de Itamaraty, sede del Ministerio de Relaciones Exteriores, es considerado una de las obras referenciales del arquitecto brasileño Oscar Niemeyer y es un punto culminante en la Explanada de los Ministerios en Brasilia, Distrito Federal de Brasil. El objetivo de este estudio es analizar el edificio a la luz de las herramientas de sintaxis visual. El análisis se basa en los atributos visuales y las reglas de composición descritas por el profesor Donis A. Dondis en su libro Sintaxis del lenguaje visual y busca suplir la falta de un documento que exprese la intención del arquitecto. El objeto de estudio se analiza en tres escalas: el contexto urbano, la composición de volúmenes del conjunto de edificios de los ministerios y la escala del edificio, en este caso concreto el palacio. El propósito es complementar las investigaciones recientes sobre el Palacio de Itamaraty y aportar elementos para nuevas hipótesis sobre este objeto.

Palabras clave: Palacio de Itamaraty, Sintaxis del lenguaje visual, Arquitectura moderna, Brasilia



To perceive, simply and immediately, architecture as such is an operation that requires high training; and it means to feel its action upon us as mass, line, plan, color, space.

Mario Pedrosa

1. Introduction

In the ensemble of architectural monuments displayed along the Monumental Axis of Brasília, the highlights are the headquarters of the Republic's three branches, located at the beginning of the Ministries Esplanade, among which stand out the Palace of Justice and the Itamaraty Palace. This paper focuses on the Itamaraty Palace, the representative headquarters of the Ministry of Foreign Affairs. This study is comprised in a broader ongoing research, conducted at doctorate level, on the complex of the Ministry of Foreign Affairs.²

The Itamaraty Palace (Figure 1) differs from the other buildings at the Monumental Axis of Brasília designed by Oscar Niemeyer, which are characterized by the adoption of uncommon shapes and are spectacular in their structure, especially the columns or secondary elements, such as the ramp and the parlatorium (speaker's platform to address the public) of the presidential Palace of Planalto or the concrete cascades of the Palace of Justice. The Itamaraty Palace has no extra elements or variations in the rhythm of the façades, which are all equal and characterized by classical round arches. The annex building functions as a background, without prominence in the composition, as occurs with the towers of the Congress building. There are no volumetric surprises. At first, the ensemble of the Ministry of Foreign Affairs seems to stand out for its sobriety rather than for invention.

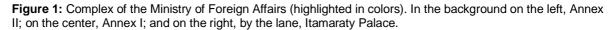




Photo by the author

This paper draws on readings and analysis proposed by Professor Maria Angela Dias in the discipline Structural Morphologic Categories: Geometric Attributes of the Shape of Places, Proarq /UFRJ.

Oscar Niemeyer (1907-2012) did not leave his written intention for this project, which he usually provided for his most significant works, having them published on the journal led by him, named *Módulo* (Module). Built after Brasília's official opening, the Itamaraty Palace does not appear in his early statements about the country's capital works. The only piece of writing about the project that we could find in our research was a short paragraph handwritten over a study drawing that explains the strategy for the distribution of working spaces, toilet facilities and support areas³. As we know, Niemeyer's explanatory texts were part of his working method. In his own words, "when the drawings and sections are ready, I begin to write the explanatory text. It is my proof of the nines, because if I do not find arguments to explain the project, I will revise it, of course, because something important is missing there" (NIEMEYER, 1980, p. 89). Years after the inauguration of the building, in one of the few references he made to Itamaraty Palace, Niemeyer (2000, p. 41) describes it as "this elegant and repeated architecture that is around. Easy to be made and accepted by the vast majority".

However, in historiography this is not the place reserved to the building. Architect Olavo Redig de Campos (1968, p. 20), a collaborator in the project, considered the Itamaraty to be "Oscar Niemeyer's best work". Yves Bruand (1981, p. 198) identifies a change in Niemeyer's vocabulary with the surpassing "of the psychological stage of absolute reaction against any historical reminder" and adds that "there seems to be a unanimous agreement about the aesthetical success of the Palace of the Arches". On the 10th anniversary of Brasília, in the commemorative edition of the journal *Acrópole* (Acropolis), Cláudio Gomes (1970, p. 29) agrees that the "Palace of the Arches by Niemeyer resulted in the most refined building of the Monumental Axis". David Underwood (2002, p. 42) gives a superficial treatment to the building, probably for not adhering to the thesis of a "modernism of free shapes" but reaffirms Bruand's observation and sees in the classical vocabulary of the arches a dignification of the ministry's functions, making them "stand out in Brasília's hierarchy of shapes".

Recent research have sought to supersede the analyses of the built work, by drawing on more rigorous studies of the project's development process. Eduardo Pierrotti Rossetti and Graça Ramos (2017) point out the importance of collaborators for the successful enterprise and underline the participation of Redig de Campos, Itamaraty's internal architect; Milton Ramos, the construction firm's architect; and ambassador Wladimir Murtinho, for his acknowledged general coordination. Following this trajectory, our research has demonstrated that the architecture of Itamaraty Palace was not as easy to be developed as stated by Niemeyer. From the first sketch in 1959 to its final version in 1965, eight distinct versions have been identified, with some unfolding variations, totalizing twelve different schemes⁵.

According to the above-mentioned analyses, the position of prominence gained by Itamaraty Palace in Niemeyer's architecture of palaces is achieved mostly due to the accuracy in the project's elaboration, the quality of the execution, the client's performance during the process, and the institution's tradition, which most likely played a role in the decision-making of the project.

The inscription is on a tracing-paper drawing kept in the archives of architect Milton Ramos and reads: "the basic concern is to maintain in the project a flexibility criteria allowing it to be updated according to working necessities. This naturally requires a simpler solution, placing toilet facilities, related etc., in such a way as not to create obstacles to necessary modifications, modifications that the country makes us consider [illegible] and repeated, according to personal viewpoints." (NIEMEYER, n.d.)

⁴ Before being officially named Itamaraty Palace, inherited from the former headquarters of the Ministry of Foreign Affairs in the former capital Rio de Janeiro, the building was known as the Palace of the Arches.

BRANDÃO, Claudio Roberto Comas. *O Palácio Itamaraty em Brasília: reflexões sobre a concepção arquitetônica*. Dissertação de mestrado. Rio de Janeiro: UFRJ, 2019.

The proposal of this study differs slightly from others. It is a purely visual analysis of the building on various scales. Regarding this type of analysis, let us remember the importance of visuality for Oscar Niemeyer. In his other projects' written intentions, besides explaining the functional solutions, adequacy to the terrain and construction technology, the architect often demonstrated the desired visual effects by means of sketches (Figure 2). The mastery of shapes shown by Niemeyer certainly came from his solid academic education and lengthy professional practice, but this would not have sufficed without a thorough dedication to the elaboration of projects. This dedication has been verified in the project documentation found in research on some of his works, as well as in the architect's written intentions already mentioned. The architect has also produced several texts with a didactic character. In A Imaginação na Arquitetura (NIEMEYER, 1959) (The Imagination in Architecture, free translation), for example, Niemeyer describes how he explores the effect of parallax produced by the distance of the columns in relation to the building's body. In the text Espaço Arquitetura (NIEMEYER, 1978) (Architectural Space, free translation), which is part of a series named Problemas da Arquitetura (Problems of Architecture, free translation), published in Módulo between 1978 and 1980 and compiled in the book Como se Faz Arquitetura (NIEMEYER, 1986) (How to Make Architecture, free translation), Niemeyer explains the strategy of 'spatial contrast' for the exaltation of greatness, luminosity and colorfulness in a setting. In these texts, Niemeyer gives preference to a "simple and didactic" language and rejects "the digressions of philosophy and intellectual gymnastics" (NIEMEYER, 1978, p. 54).

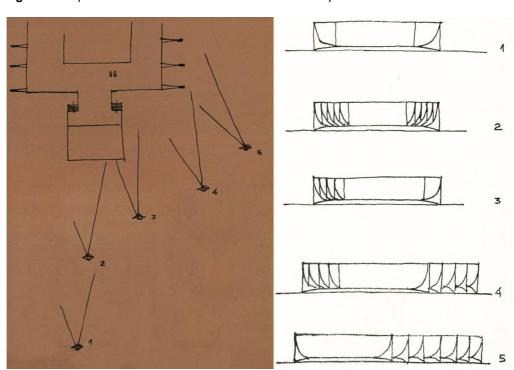
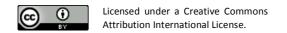


Figure 2: Sequence of views of the Palace of the Federal Supreme Court in Brasília

Source: (NIEMEYER, 1959, p. 10-11)

Perhaps this aspect of didacticism and directness of Oscar Niemeyer does not correspond to the image created of him, especially in the last phase of his career. The figure of the romantic genius, many times reverberated by superficial criticism to his works, but also sustained by the architect who seemed to

Parallax is the phenomenon of apparent change in the position of objects in relation to the background that occurs when moving the viewpoint. Peter Collins defends that the increasing exploration of this visual phenomenon as from the mid-18th century was only possible with the development of construction techniques in steel and reinforced concrete and that this had a crucial importance in the surge of new concepts of space applied in modern architecture. Cf. COLLINS, Peter. Los ideales de la arquitectura moderna; su evolución (1750-1950). Barcelona: Gustavo Gili, 5. ed., 1998.



design without effort, sometimes while dreaming, is the idea that was formed in the popular imagery. In his latest textual production, the poetic language – with a powerful imagery strength, and perhaps this is the reason why – theoretically unpretentious, take the place of objectivity found in his previous texts. The fragment of an interview published in 1975 in Módulo: "It is not the right angle that attracts me, nor the straight, hard, inflexible line created by man. What attracts me is the free and sensual curve, the curve I find on the mountains of my country, on the sinuous course of its rivers, on the waves of the sea, on the body of the favorite woman" (NIEMEYER, 1975, p. 43) became his trademark. Miguel Alves Pereira (1997, p. 124) states that "this fragment of interview became in the following years Oscar's most cited and recited text, which he himself repeated to exhaustion". In a certain way, this research seeks to demystify this image of the architect, not in the sense of undoing the image of the genius but to make it richer and more complex.

1.1. The adopted method of analysis and its limitations

The syntax of visual language makes the relationship between image and language. According to the encyclopedia, syntax "is the part of grammar that studies the arrangement of words in a sentence and of sentences in a discourse, including the logical relationship, among the multiple possible arrangements to convey a complete and comprehensible meaning". Images are guided by construction rules and in the same way as natural languages, or mathematics or programming languages, they have the power to communicate, to inform. In order to understand this vocabulary it is necessary to know its elements and composition rules. Professor Donis A. Dondis (1997) seeks to systematize these compositive rules in her book *A Primer of Visual Literacy*, used in this study to fundament our analyses.

One limitation in applying the concepts proposed by Dondis is that their elaboration is based on observing two-dimensional images. For the perception of architectural space, though, it is necessary to consider not only the action over our senses of lines, planes, and masses, as in a photograph, but also the varied effects produced on the viewer by movement. Therefore, we have elected the tools that are most adequate for the verification in architecture and have sought to describe as much as possible the perception of space from multiple viewpoints. The adopted concepts, which will be explained bellow, are: repose and stress; leveling and sharpening; contrast and harmony.

To contradict our proposal, it can be argued that our analysis is not viable due to the subjective character of these concepts. In fact, the level of subjectivity of the aesthetical judgement, certainly superior to the objective evaluation of technical aspects, tends to be refuted. It is possible that this barrier results from the fact that visual literacy, differently from other types of language, like writing, mathematics, and even programming, is not usually taught. Not disregarding the complexity of architecture, it is necessary to consider that the lack of knowledge about this type of vocabulary tends to valorize intuition, individual talent and ingeniousness, and this may be frustrating for a large number of architecture students. According to Dondis (1997, p. 17), "much of visual communication was left to chance and intuition".

2. Some fundaments of visual composition

There is visual syntax. There are guidelines for constructing compositions. There are basic elements that can be learned and understood by all students of the visual media, artists or nonartists alike, and that, along with manipulative techniques, can be used to create clear visual messages. Knowledge of all these factors can lead to clearer comprehension of visual messages. (DONDIS, 1997, p. 18)

Source: Wikipedia: https://pt.wikipedia.org/wiki/Sintaxe access on 04 Jan 2020.

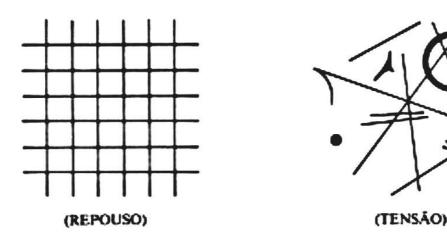
Dondis (1997, p. 23) lists the following elements: dot, line, shape, direction, tone, color, texture, proportion, dimension and motion that are part of the "toolbox" of any visual composition. The manner of composing these elements is based on compositive fundaments. We will use some of these fundaments to describe our object of study.

2.1. Repose and stress

Equilibrium is the human tendency to organize vision from two main axes: a vertical axis, perpendicular to the force of gravity, and a horizontal axis, parallel to the horizon, therefore in balance. According to Dondis (1997, p. 32), equilibrium is the "most important psychological as well as physical influence on human perception, [...] man's firmest and strongest visual reference, both his conscious and unconscious basis for making visual judgements".

The last statement is particularly important because it explains that the effect of equilibrium can be conscious, easily identifiable in balanced shapes, when the sense of equilibrium is explicit; or unconscious, when we seek equilibrium in unbalanced shapes. Even in these cases – where there is difficulty in relating the shape to the vertical and horizontal axes – there is an instinctive search for visual equilibrium. Therefore, we can affirm that from the constant search of equilibrium we identify two perceptive polarities: repose and stress. Repose requires less perceptive efforts; whereas stress, by requiring a constant response from the viewer, has greater attractive power (Figure 3). Even in unbalanced compositions, or under stress, it is possible to identify some equilibrium, which is different from compositions that are disordered to the point of inhibiting the identification of a shape.

Figure 3: Repose and stress



Source: (DONDIS, 1997, p.35)

2.2. Leveling and sharpening

The antithesis leveling/sharpening, used by psychologists, is related to the notion of repose and stress. According to Dondis (1997, p. 113), "sharpening can be equivalent to contrast and levelling can be associated with harmony". We can translate the concept of sharpening as a certain surprise when viewing an object or image. For example, a door that is placed away from the symmetry axis in a regular façade or an object with a different color next to a sequence of equal objects produce the sharpening effect. Sharpening is the concept that expresses the unexpectedness of an object. In the

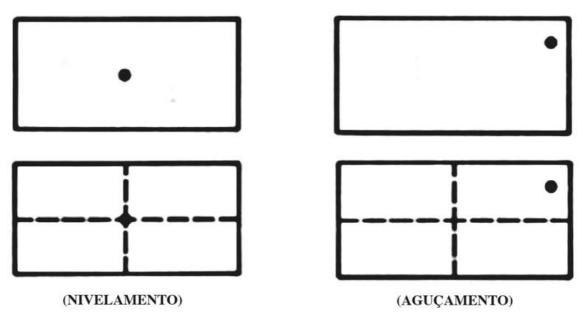
same way as in the case of stress, we are attracted by shapes that require a cognitive response to such unexpectedness. Sharpening is particularly visible in deviations inserted in regular shapes, such as a dot placed away from the center.

The origin of the sharpening effect in perception is unconscious. The reaction to a strange noise or an unexpected movement captured by vision is a necessary instinct to escape from dangerous situations or to capture a quarry, for instance. When surpassing this instinctive reaction, we are rewarded with a sensation of pleasure. This helps to explain why children like to scare others or the passion of some people for extreme activities. In the field of arts, sharpening explains the pleasurable sensation that some music compositions provoke, like in João Gilberto's⁸ songs, when he deliberately creates a lack of compass between the vocal and the guitar beat, and then synchronizes again.

Sharpening in visual language puts us in constant attention, it makes a shape, a picture, an object, a building, stand out among others. Sharpening and stress may convey passion, rage, energy, joy; but when in excess, it is tiring.

Leveling, on its turn, is the absence of stress. Stable, balanced shapes convey tranquility, require little energy from the viewer. Stability allows us to rest the sight and dedicate our energy to other actions. By not causing surprise, however, stable shapes may go unnoticed because they tend to harmonize with the environment. Stable shapes in architecture convey daily life, neutrality, predictability (Figure 4).

Figure 4: Leveling and sharpening



Source: (DONDIS, 1997, p.35)

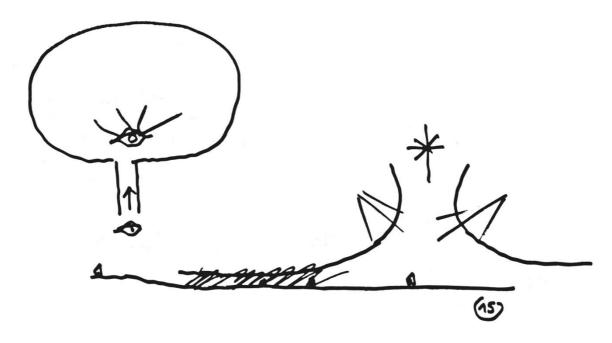
2.3. Contrast and harmony

The strategy to highlight the difference between leveling and sharpening, between repose and stress, is contrast, and it is often explored in various fields of art. In music, for example, with sudden changes in rhythm; in painting, exploring diagonal lines in contrast with orthogonal borders; or in dance, highlighting in the group one or more dancers who perform different movements.

⁸ João Gilberto (1931-2019) was a Brazilian songwriter, acoustic guitar player and singer who stood out in the musical scene from the late 1950s onwards for having created a new guitar beat for Samba that became known as Bossa Nova. One of the features of his music is the rupture of the regular cadence of samba that he obtained from having voice and guitar in different compasses, which required total mastery of rhythm and vocal techniques.

In architecture one can obtain contrast by receding the alignment of a building in relation to its neighbors, or differentiating it by shape, color or height. In the project of Brasília Cathedral, for example, Niemeyer (1978, p. 56) explains that "if the architect wishes to provide greater impressiveness to the inner volume, one of the solutions is the spatial contrast, i.e., designing a narrower access so that the visitor – by contrast – will have the impression of the desired expanse" (Figure 5). However, in the same way as with sharpening and stress, contrast in excess may cause anesthesia and when adequately dosed it can be an efficient strategy to draw the viewer's attention.

Figure 5: The use of contrast in Brasília Cathedral



Source: (NIEMEYER, 1978, p.57)

3. Analysis of the Itamaraty Palace

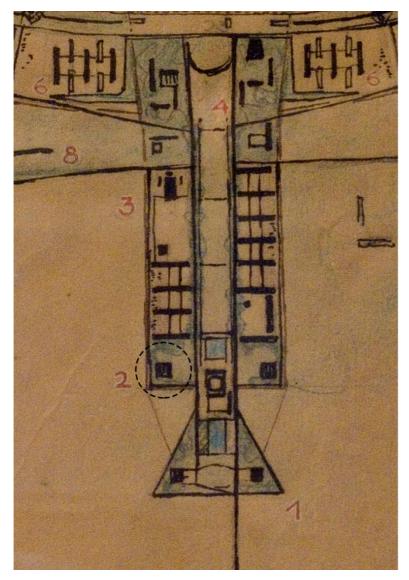
The Itamaraty Palace is the representative headquarters of the Ministry of Foreign Affairs in Brasília and belongs to a complex of three buildings, interconnected by passages, designed by Oscar Niemeyer in different phases. The Palace and the first Annex, meant for the administrative function, were designed and constructed in the first phase, from 1959 to 1970, and will be the objects of this analysis. The second Annex, meant for the Ministry's communication services, was designed as from 1974 and was inaugurated in 1986.

3.1. The Itamaraty Palace and Lucio Costa's original project

Along this Esplanade – the British call it a Mall – an extensive lawn meant for pedestrians, parades and marches, were placed the Ministries and agencies. The Foreign Affairs and the Justice buildings occupying the inferior corners, contiguous to the Congress and with a suitable framing. (COSTA, 1995, p. 289)

Our analysis begins with the insertion of the building in the urban scale. Located at the head of the Ministries Esplanade, the Itamaraty Palace and the Palace of Justice make the transition between the sequence of standardized blocks of the Ministries and the *Praça dos Três Poderes* (the plaza of the three branches of government), the apex of the Monumental Axis of Brasília (Figure 6).

Figure 6: Part of Lucio Costa's Pilot Plan showing the Monumental Axis, with Itamaraty Palace highlighted by the author.



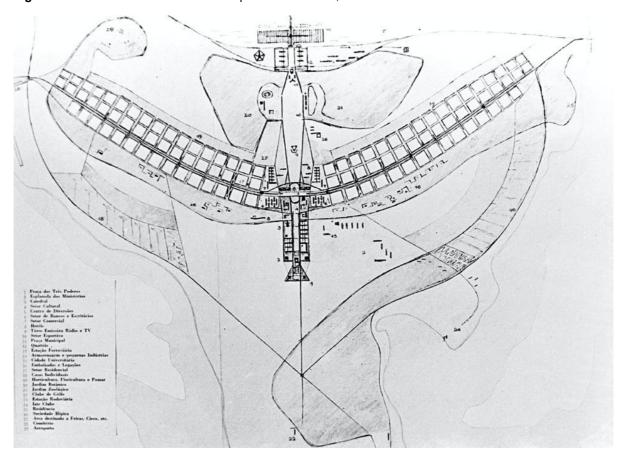
Legenda:

- 1. Praça do Três Poderes
- 2. Esplanada dos Ministérios
- 3. Catedral
- Setor Cultural
- 5. Centro de Diversões
- 6. Setor de Bancos e Escritórios
- 7. Setor Comercial
- 8. Hotéis

Source: Casa de Lucio Costa Archive with highlight made by the author.

On the Brasília Pilot Plan by Lucio Costa (1902-1998), the Monumental Axis, which comprises the Ministries Esplanade and *Praça dos Três Poderes*, is intersected by the Residential Axis, which is longer and curved in order to adequate to the terrain. This shape of a cross, stable and symmetric, enables the plan's easy apprehension among not only urban planning professionals but also the general public, and it can become memorized in the popular imagination (Figure 7).

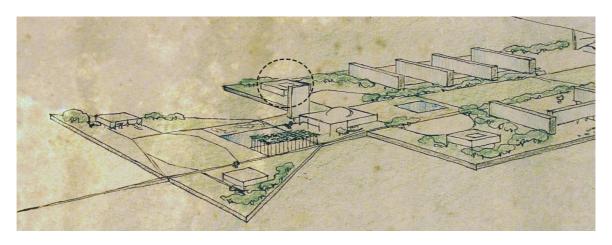
Figure 7: The Pilot Plan of Brazil's new capital - Lucio Costa, 1957.



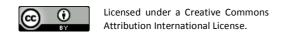
Source: Federal District Public Archive

With a closer observation of the original drawing by Lucio Costa, we notice that the arrangement of the ministries and palaces along the Monumental Axis is not totally symmetric. Lucio Costa breaks the symmetry by creating a plaza for the military ministries and differentiating the sequence of blocks, with one side longer than the other. In this version, the ministries of Justice and Foreign Affairs have the same shape and are symmetrically distanced from the axis and the neighboring blocks. The Palace of Congress, in Costa's conception, would have only one dome for the plenary hall, visually standing on a horizontal platform, and one tower moved away southwardly from the symmetry axis (Figure 8).

Figure 8: Monumental Axis perspective by Lucio Costa - 1957, with Itamaraty Palace highlighted by the author



Source: Casa de Lucio Costa Archive



The buildings on the Ministries Esplanade can be classified in three types: temples, palaces, and offices, each having its own particularity in terms of shape and placement. The Cathedral, or temple, has more exuberant shapes and a privileged position in the composition, with a wide space reserved for its construction. The same happens with the palaces that are also placed in an outstanding position but with soberer shapes. The ministries occupy office blocks that are standardized and with no individual character but in the ensemble there is the force of repetition and equal distance. The ministries of Foreign Affairs and Justice are seen as special due to their importance in the Republic and therefore they occupy palaces.

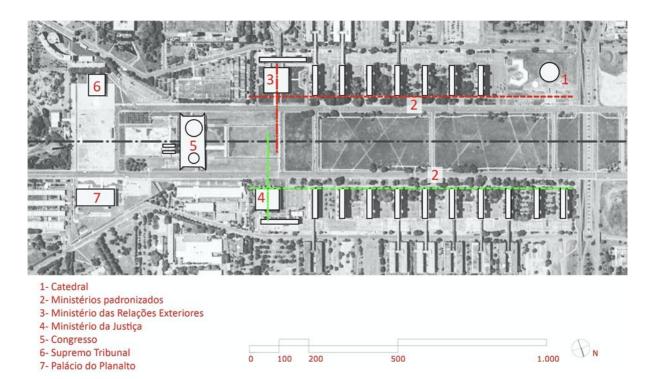
In an analysis of the composition from the Cathedral towards *Praça dos Três Poderes*, we observe some strategies adopted to valorize the palaces. The first one is the recede of the palaces' façades in relation to the alignment of the office buildings; the second is the change in rhythm, with the increase of space between the blocks; and the change in shape and size. This volumetric and spatial contrast provides a sense of monumentality to the palaces, though not being imposed by their size.

The Cathedral, the Congress' tower and the military ministries break the symmetry of the ensemble. The Congress' tower, placed on the opposite side of the "U" shape blocks of the military ministries, balances the composition. These small variations on either sides of the axis produce the sharpening effect and require from the receiver of the visual message a certain effort to reorganize the image into a unity, which Gestalt theory defines as *Prägnanz*. We can conclude that, by denying the absolute and ideal symmetry, the arrangement of volumes along the Monumental Axis invites us to participate and evaluate the composition. Based on the strength of the symmetric composition, Lucio Costa introduces some surprises and confirms that "the power of the predictable pales before the power of surprise", according to Dondis (1997, p. 37).

3.1. The final arrangement of the Ministries Esplanade

With the palaces' projects development, the original composition proposed by Lucio Costa was altered. The central lawn of the Mall was widened from 180 m to 200 m to be suited to the new design of the Palace of Congress' platform (MACEDO e SILVA, 2010). The sequence of standardized ministries was made more symmetric and repetitive; the plaza between the military ministries disappeared and the building became parallel to the others. The asymmetry of the sequence of ministries was maintained, longer on one side, as well as the outstanding position of the Cathedral and the Justice and Itamaraty palaces. In the case of the two latter, the recede in relation to the alignment was virtually nullified, and the increase on the scale reduced the contrasting effect (Figure 9).

Figure 9: Ministries Esplanade and Praça dos Três Poderes



Drawing by the Author over Google Maps base

Moreover, in another change in Lucio Costa's original plan, the Justice and Itamaraty palaces are no longer positioned in absolute symmetry in relation to the main axis. The Palace of Justice follows the alignment of the other ministries and is placed nearer to the Palace of Congress, whereas the Itamaraty Palace is aligned with the other ministerial blocks, has an 8 meters recede. Also, the shapes are not identical, given that the Itamaraty Palace is characterized for having identical arches around the four façades, while the Palace of Justice has all four façades different from each other, with the main one characterized by semi-arches and water cascades falling from concrete elements fixed on the intercolumns. The dimensions are similar but not identical. The Itamaraty Palace has a square floor plan of 86 m x 86 m and the Justice Palace has a rectangular floor plan of 75 m x 84.70 m. Both have an approximate height of 14 m. Still, the two buildings are perceived as a pair within the ensemble, partly due to their placement, but also due to the similarity of volumes and materiality.

A similar solution occurs at *Praça dos Três Poderes*, between the palaces of Planalto and Justice. In both buildings a similar column design is adopted, with the same materiality, but at Planalto the columns are placed on the Northern and Southern façades, and at Justice on the Eastern and Western façades. Another important change in relation to Lucio Costa's design is seen at the Palace of Congress, which received two domes and two towers, instead of one each, to comply with the requirement of separation of the two Houses. The Senate dome is turned downward, and the House of Representatives is turned upward and it is larger. To balance the composition, Niemeyer shifts the towers in the direction of the smaller dome. This play between levelling and sharpening that is present both in the original proposal by Lucio Costa and in the changes made by Oscar Niemeyer demonstrates the mastering and sensibility of both architects when dealing with shapes, providing vitality and movement to the composition, without losing the sense of order and ensemble.

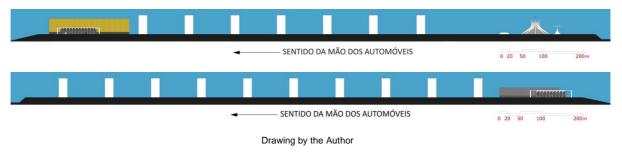
Up to now we have based our analysis on two-dimension images, but it is crucial to confirm these effects from the viewer's perspective, preferably when moving. It is important to underline that movement gains special significance in modern architecture, as mentioned by Mario Pedrosa in the text that complements the epigraph of this paper:

In view of many factors, extremely complex, of sensible, technical, cultural, historical orders, none of those elements [mass, line, color, space] exert, today, in our time, greater fascination on us than space. [...] And how do we perceive it? Standing still in front of a façade? Of course not. We perceive it [architecture] when moving, from multiple angles. (PEDROSA, 1981, p. 279)

And, in fact, in Brasília, differently from most traditional cities, this new spatial conception is taken to the extreme. There we can circulate virtually around any building in the central area of the city, but it is important to consider that this movement is not always made on foot, but also in an automobile.

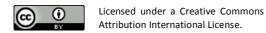
Therefore, treating the Monumental Axis as an ideal line may be delusive. It is also necessary to consider the viewer's perspective from the traffic lanes, which are 100 meters away from this axis. When moving west-east by automobile, in the direction of *Praça dos Três Poderes*, we see on the right hand side the Brasília Cathedral, seven ministerial blocks that look alike and are equally distanced, and the Itamaraty Palace, in this sequence. When arriving at the edge of the flat area near the Congress an incline leads to *Praça dos Três Poderes*, situated circa 10 m lower. In the opposite direction, we go up the ramp that leads to the flat area of the Esplanade and see, firstly, the Palace of Justice and, secondly, the row of 10 standardized ministerial blocks. (Figures 10 e 11)

Figures 10 and 11: View of buildings from the Monumental Axis (above the South view and below the North view).



Therefore, the ideal, centralized view of the Ministries Esplanade is not at all common and it occurs basically in two situations: from the Bus Station Platform or from the TV Tower, both located on the west side of the Ministries Esplanade and on a higher level. However, usually the visual apprehension of the ensemble occurs when going along the Esplanade, away from the symmetry axis, on the traffic lanes and sidewalks. In order to go along the esplanade over its ideal axis, it would have to be on foot, going through the central lawn but this is not a very pleasurable walk.

We can state, thus, that there is a hierarchy among the buildings arranged on either side of the axis, according to the traffic direction and the automobile rider's view. Some name it side A and side B of the Esplanade. The buildings at the southern side of the axis have greater prominence because they correspond to the preferential view of the composition, which starts at the Bus Station and culminates at the towers of the Palace of Congress. On this side there are: the Cathedral, 7 blocks of buildings and finally the Itamaraty Palace. The sequence on the northern side of the Esplanade, on its turn, is less dramatic because it starts with the most important building, which is the Palace of Justice, followed by the monotonous row of standardized ministries. And if on the "Mall of the British" there would also be the left-hand traffic, would the buildings have been designed the same way?

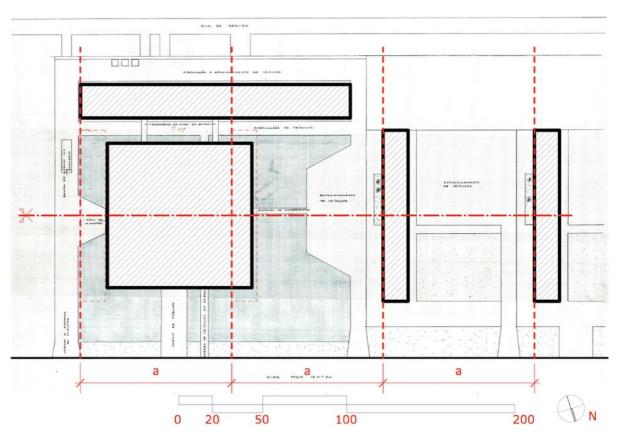


3.2. The composition on the plot

Behind the Itamaraty Palace, looking from the Monumental Axis, there is the administrative block or Annex I, perpendicular to the other ministries. The façade looking at the Axis is covered with vertical metallic brise-soleils in yellow color and functions as a background to the Palace. The two buildings are connected by passageways located on the second level. Behind Annex I, on a lowered plot located at the other side of the service lane, there is Annex II, which was designed later. Though connected to Annex I by an elevated walkway, the second annex is hardly seen as part of the complex, except on aerial images or in internal walking. Therefore, we have focused the analysis on the composition of the Palace and Annex I.

The Palace's location does not follow the rigorous distancing of 75.6 m found between the other ministerial blocks. The building is approximately 80 m away from the nearest ministerial block. However, the rhythm is recovered on the eastern extremity of Annex I (Figure 12). This rhythm recovery leads us to think again of the analogy we made with João Gilberto's music, master of the lack of compass between the vocal and the guitar beat.

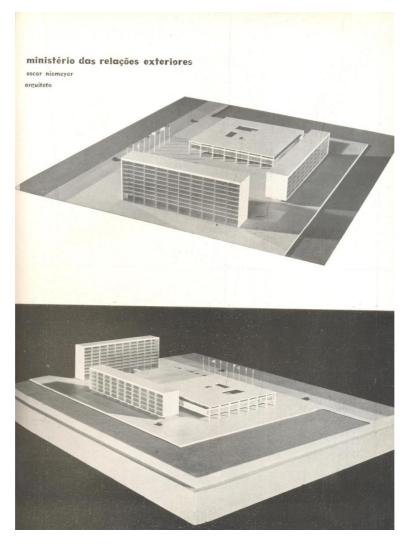
Figure 12: Location of the Ministry of Foreign Affairs



Drawing by the Author over base of the Federal District Public Archive

The asymmetry of the Palace in relation to the Annex, on its turn, is originated in previous versions of the project, when there was the intention to create a plaza between the Palace, the Annex and the Ministry of Health, as observed on the photograph of a reduced model published in 1959 in the journal Brasília (Figure 13). With the project's progress, the Palace became nearer to the Ministry of Health and for security reasons the idea of the plaza was definitely excluded with the creation of the reflecting pool.

Figure 13: Second version of the Ministry of Foreign Affairs project, Oscar Niemeyer, 1959.



Source: Brasília: revista da Companhia Urbanizadora da Nova Capital do Brasil : Ano 3, n. 30 (jun. 1959). p. 15.

However, even with the disappearance of the plaza and the nearing of the Ministry of Health, the building was not centralized on the plot. This "air" kept in relation to the adjoining block and the broad area of the reflecting pool resulting in this space denotes the architect's intention to elect a preferential viewpoint at the northeastern corner of the plot (Figure 14).

Figure 14: View of the ensemble from the Northeastern corner of the plot

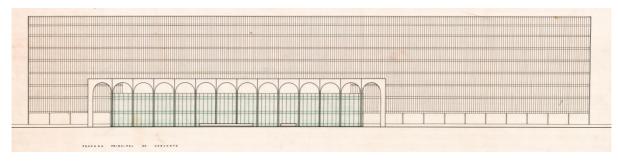


Source: Google Street View

3.3. The composition of the Palace's façades

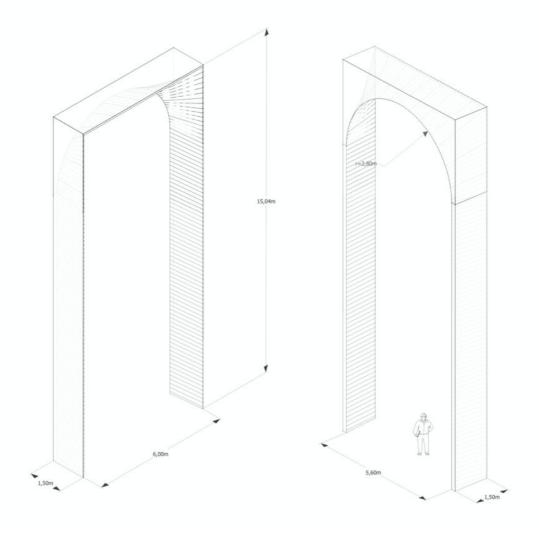
The main entrance to the Itamaraty Palace is through a 30 meters-long ramp that starts at the automobile lane and leads the visitor under the arches into the building, a glass box receded in relation to the apparent concrete arcades. The structure of the arcades is symmetric on the two axis and the four façades are virtually identical. The 86 meters width are subdivided in 14 splayed arches of complex surface, with an interaxis of 6 m, departing from the reflecting pool and raising 14 m from the water surface. The arches impose a regular rhythm to the façades and the corner pillars are set at a 45° angle to maintain the regularity of the four façades (Figure 15). The surface of the arches' intrados results from the concordance of the curved shape in the inner plane of the arcade with the rectangular shape in the external plane (Figure 16).

Figure 15: Main façade of the ensemble



Source: Federal District Public Archive

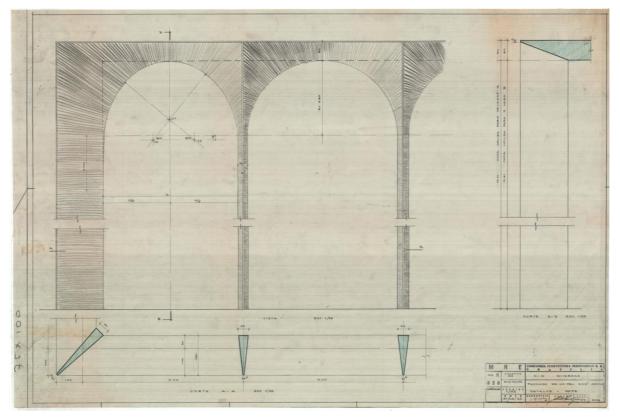
Figure 16: Three-dimensional geometric scheme of the central arches



Drawing by the Author

The curves of the arches at the extremities have unleveled springing points (Figure 17). This visual correction was applied by Milton Ramos after he observed, while drawing the façades on expanded scale, that the extremity pillars gave the sensation of opening upwards, as stated by the architect (RAMOS, 1996). This visual correction technique, known as entasis and found since ancient times, as in Greek classic architecture, consists of inclining the column at the extremities to provide the viewer an impression of verticality. To be assured of the final effect of the curve and study the execution of the mold, Ramos built a life-size prototype of part of the arcade (Figure 18).

Figure 17: Detail of the arches with visual correction applied to the arch at the extremity.



Source: Federal District Public Archive

Figure 18: Prototype of the arches on scale 1:1



Photo: Milton Ramos

Inside the peristyle structure is sheltered the tinted glass case that is the actual body of the building. The glass encasement is receded from the internal plane of the arcades and detached from the ceiling, hence giving the impression that the roof is sustained only by the arcades, with no contact with the main body. To emphasize this effect, the internal pillars that are inside the glass case and sustain the roof are receded and covered with wood, giving them the character of a panel, rather than that of a structural element.

The hierarchy of the palace's façades is defined by the relationship with the main street, the asymmetric placing of the building on the reflecting pool, the position of the annex volume that creates a relationship figure–background, and the sculpture *Meteor* by Bruno Giorgi (Figure 19) that is positioned laterally to the main access ramp, emphasizing the sharpening effect on the asymmetry between the blocks.

Figure 19: Main façade of the Palace with the sculpture *Meteor* by Bruno Giorgi.

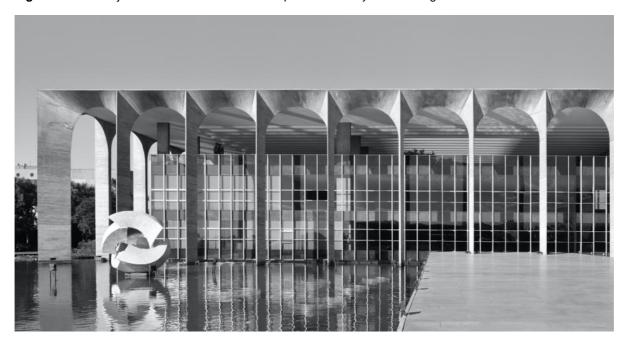
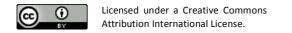


Photo by the Author

4. Final considerations

Drawing on the fundaments of the visual language syntax exposed by Donis A. Dondis, in this paper we have analyzed some of the visual aspects of the Itamaraty Palace in Brasília. From observing the building in the urban context and its relationship with the other buildings, we also analyzed the composition strategies for the buildings of the Ministry of Foreign Affairs complex on the plot and the façades of the Itamaraty Palace. It would be interesting to confront these outcomes with an analysis of the experience inside the building, but we understand that for this purpose it would be important to adopt other investigation methods, since in this case other senses besides vision are strongly concomitant.

We could observe in the various scales of the analysis that the volumetric composition of the Monumental Axis has the symmetric ordering as a reference. However, the rhythm breaks, misalignments, and changes of pattern produce perceptual sharpening, hence making the composition seem richer and more interesting. These strategies of contrast and sharpening are carefully measured in order not to diminish the orderly sight of the ensemble nor the apprehension of the totality. We would like to emphasize that to verify the reasons of the "aesthetical success" of the Itamaraty Palace it is important to observe the building in the urban context in relation to viewer's trajectory. We realized that the highlighting of the Palace in the composition results from the contrast in relation to the other ministries' buildings, but also from its privileged position in the sequence of the viewer's sight in the Monumental Axis' composition, which departs from the Bus Station Platform towards the *Praça dos Três Poderes*. We also noticed that these composition strategies invite the viewer to establish relationships, make comparisons or at least express a preference for one or another palace. We agree with Lucio Costa's statement in the Pilot Plan that "despite the original spontaneity, it [the idea of the project] was intensely reflected on and resolved" (COSTA, 1995, p. 283).



5. Acknowledgments

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6. References

BRANDÃO, Claudio Roberto Comas. **O Palácio Itamaraty em Brasília: reflexões sobre a concepção arquitetônica**. Dissertação de mestrado. Rio de Janeiro: UFRJ, 2019.

BRUAND, Yves. Arquitetura contemporânea no Brasil. São Paulo: Perspectiva: 1981.

CAMPOS, Olavo Redig de. O Palácio dos Arcos. **Arquitetura**: revista do Instituto de Arquitetos do Brasil, Rio de Janeiro, n. 76, p. 19-23, out. 1968.

COLLINS, Peter. Los ideales de la arquitectura moderna; su evolución (1750-1950). Barcelona: Gustavo Gili, 5. ed., 1998.

COSTA, Lúcio. Lúcio Costa: Registro de uma vivência. São Paulo: Empresa das Artes, 1995.

DI MARI, Anthony; YOO, Nora. **Operative design**: a catalogue of spatial verbs. Amsterdam: BIS Publ., 2012.

DONDIS, A Donis. Sintaxe da linguagem visual. São Paulo: Martins Fontes, 2. ed., 1997.

GOMES, Cláudio. O eixo monumental. Acrópole, São Paulo, nos. 375/376, p. 29, jul./ago. 1970.

MACEDO, Danilo Matoso; SILVA, Elcio Gomes. **Brasilia, the Palace of Congress and their urban changes**. DOCOMOMO Journal, v. 43, p. 60-65, 2010.

NIEMEYER, Oscar. Como se faz arquitetura. Petrópolis: Vozes, 1986.

NIEMEYER, Oscar. Meu sósia e eu. Rio de Janeiro: Revan, 1992.

NIEMEYER, Oscar. Minha arquitetura. Rio de Janeiro: Revan, 2000.

NIEMEYER, Oscar. A imaginação na arquitetura. Kímdulo, Rio de Janeiro, n. 15, p. 6-15, out. 1959.

NIEMEYER, Oscar. Espaço arquitetural. Kíndulo, Rio de Janeiro, n. 50, p. 54-61, ago./set. 1978.

NIEMEYER, Oscar. Método de trabalho. Módulo, Rio de Janeiro, n. 58, p. 86-89, abril 1980.

NIEMEYER, Oscar. Trecho de entrevista. Módulo, Rio de Janeiro, n. 50, p. 43, dez. 1975.

PEDROSA, Mario. Dos murais de Portinari aos espaços de Brasília. São Paulo: Perspectiva, 1981.

PEREIRA, Miguel Alves. Arquitetura, texto e contexto. Brasília: Editora UnB, 1997.

PEVSNER, Nikolaus; FLEMING, John; HONOUR, Hugh. **Dizionario di architettura**. Tradução: Renato Pedio. Turim: Einaudi, 1981.

RAMOS, Milton. **Memória do Arquiteto de Brasília - Milton Ramos**. Produção do Instituto de Arquitetos do Brasil - Departamento do Distrito Federal, 1 DVD (ca. 80min). Brasília: IAB-DF, 1996.

ROSSETTI, Eduardo Pierrotti; RAMOS, Graça. **Palácio Itamaraty**: a arquitetura da diplomacia. Brasília: ITS, 2017.

UNDERWOOD, David. Oscar Niemeyer e o modernismo de formas livres no Brasil. São Paulo: Cosac Naify, 2002, p. 92.

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