

# A semiotic conceptualization of media systems for design teaching

Una conceptualización semiótica de los sistemas de medios de comunicación para la enseñanza del Diseño

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## Abstract

The article presents an initial conceptualization of visual and media systems from a semiotic perspective. It reviews current notions of media systems in graphic design, and explains a semiotic approach based on the concepts “syntagm”, “paradigm” and “code”. The goal is to address the formal and content characteristics of individual media, while also observing the relationships and logic that group, regulate and coordinate them into a system. The applications of this conceptualization for the design of visual systems are discussed primarily in the context of teaching (e.g., in design workshops), but also in disciplinary and theoretical reflection and professional practice. Finally, the paper describes the scope and contributions of this conceptualization for the development of interpretative, analytical and argumentative skills among designers.

**Keywords:** media systems, visual systems, semiotics, theory

## Resumen

*Este trabajo presenta una primera propuesta de conceptualización para sistemas visuales y de medios de comunicación desde una perspectiva semiótica. En una primera parte se revisan nociones actuales de los sistemas de medios en el Diseño Gráfico, para después presentar una conceptualización semiótica a partir de los conceptos sintagma, paradigma y código. El objetivo es abordar las características formales y de contenido de medios individuales, pero a la vez hacer visibles las relaciones y la lógica que, como parte de un sistema, los agrupan, regulan y coordinan. La propuesta se discute en el contexto de su aplicación en la enseñanza, por ejemplo, en talleres de diseño, y para su uso no solamente en las áreas teórico-disciplinarias, sino también en la práctica profesional. Finalmente, se describen alcances y aportaciones de la propuesta para la formación de capacidades interpretativas, analíticas y argumentativas en el diseño.*

**Palabras clave:** sistemas de medios, sistemas visuales, semiótica, teoría

## ◆ Introduction

**W**isual communication projects often require planning and designing series of interrelated media. An advertising campaign, for example, may involve the development of several individual media with different contents, functions, modalities, formats, sizes or compositions, which, nevertheless, work as a coordinated and synergic whole. These media groups, sometimes referred to as "graphic systems" or simply "media systems" in professional jargon, can have different degrees of complexity and vary considerably in the way they relate to each other. Despite their enormous relevance in professional practice and in the teaching of design and communication, there are few academic efforts to theorize about them. For this reason, teaching about the design and analysis of media systems is often done on the basis of best practice cases or examples. These activities are usually based on concepts that allow differentiating between formal and content aspects, or making general observations, e.g., on the construction of unity and variety in the system. Even though they are widely used in professional language and can be of practical use, these notions do not always have a theoretical robustness that contributes, for example, to articulate reflection and criticism in design, to promote the development of theory, or to connect with theoretical knowledge from other disciplines. Additionally, phenomena such as media convergence or transmediality have increased the urgency of this theorization work, but at the same time have increased its complexity, since they also require to provide concepts, which are plastic enough to address the great diversity of existing media, platforms and communication modalities. How can media systems be conceptualized beyond the dichotomies unity/variety or variables/constants? How can the explicit characteristics (formal and content) of each individual medium be addressed, but at the same time make visible the relationships and the logic that groups, regulates and coordinates them? Is it possible to develop an approach that allows transcending the productive and descriptive work, and encourage the development of professional interpretative and analytical skills, as well as the use of specialized language among students? This paper is a first effort to understand media systems from an applied semiotics perspective, applying theoretical concepts not only in the disciplinary theoretical discourse, but also in teaching and professional practice. In

the first section we review current notions of media systems in graphic design and related disciplines, and in the following section we explain the concepts "syntagm", "paradigm" and "code", which will support the semiotic approach to media systems. The resulting conceptualization is discussed in the third section and illustrated through examples. Finally, in the fourth section we discuss the scope and limitations of the proposal and outline potential contributions to practice, teaching and research, particularly for the development of interpretative, analytical and argumentative skills in designers

❖ **Teaching media systems: between everyday and theoretical concepts**

Designing visual and/or media systems is an essential assignment in professional training. Design products that require the production of individual but interrelated elements are varied: advertising campaigns, product branding, editorial media, digital application design, are just a few examples. One way of describing sets of media is through the term "system", which indicates that media grouped in this way are interrelated and fulfill functions both individually and as a whole. Often, graphic systems are classified according to the complexity degree shown in the relationships between the media belonging to the system, so it is common to find distinctions such as "simple system" and "complex system". This conceptualization, which is based on the colloquial use of the concepts "system" and "complexity",<sup>1</sup> has been coupled in practice to the notion of a formal "unity/variety" of these media, which is achieved through a balance between "variable/constant" visual elements.

Due to the high level of difficulty involved in creating media systems, these kinds of projects are usually carried out at an advanced stage in the design professional training, once students have acquired the foundations of visual language. Despite being an essential learning experience for design professionals, this topic is rarely addressed in the disciplinary literature. Typically, books on design fundamentals, contain sections on the use of form, color, composition, and typography (See e.g. (Ambrose & Harris, 2006; Poulin, 2018)). However, there is still a need for literature that explains how to articulate principles, concepts or tools with the fundamental elements of visual language in order to develop projects that, due to their high complexity, require the development of numerous interrelated visual products.

Authors such as Josef Müller-Brockman, Wucius Wong, Kimberly Elam and Ellen Lupton, whose texts already belong to the basic literature for graphic design, deal (in addition to the fundamentals of visual language mentioned above) with principles that are necessary for the design of

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<sup>1</sup> These terms have been theorized in computer science, mathematics, sociology, among other disciplines, and in some cases have been taken up by some authors in relation to design. However, it is important to clarify that in this part, we refer to their colloquial use.

visual and media systems. Müller-Brockman discusses, for example, the function of grids for the construction of regularity and variation (1996). So does Elam, who proposes to see grids as systems of elements organization that allow formal variety, in particular, variety in typographic composition. Wong, on the other hand, explicitly discusses principles such as repetition, modularity and anomaly focusing mainly on form generation and alteration (2008).

Lupton & Phillips explain modularity, regularity and arbitrariness in design by presenting applications of these principles in real projects (2015). The design of graphic systems is also addressed in literature about brand identity for organizations. Dabner advocates for a balanced design that allows variation in each medium without losing system consistency, because it is through consistency that the visual identity of a client is built and strengthened (2018). However, the topic of visual systems is not exclusive to these fields of design; a visual system can be found expressed in editorial design (e.g., in serial publications), or in the area of interface or application design. These authors show how the development of graphic systems allows to streamline processes, scale design projects, and respond to contextual changes by giving room to new design variations while maintaining a stable and coherent overall design.

Specific literature on visual systems is rare, but existent. Cecilia Mazzeo is the author of one of the few, but most comprehensive texts on this topic. In her book *Diseño y sistemas. Sobre la punta del iceberg (Design and systems. On the tip of the iceberg)*, Mazzeo takes Bertalanffy's definition of a system as a starting point, and observes the interaction between various components to form a whole. She proposes several dimensions to understand the characteristics of a system. Based on Morin, she distinguishes several types of systems according to their level of complexity (simple and complex) and the degree of equilibrium or interaction with their context (open or closed). According to the origin of its formal expression, she also distinguishes between morphological systems (those governed by formal variations) and conceptual systems (those governed by a concept associated with the formal expression of the system) (Mazzeo, 2017).

The system notions found in the existing literature (with the exception of Mazzeo) are mostly rooted in everyday language, and therefore have limitations for the teaching-learning process. The first is that these conceptions make visible the visual elements used in communication (typography, color, texture, composition, among others) and attribute them a role (variable or constant), but they do not allow us to explain the logic that articulates these elements, which is essential for the construction and use of a visual system. Thus, it is possible, for example, to identify that in an advertising campaign the ads have backgrounds that change color and conclude that the background is a variable element, but this does not necessarily allow us to observe the rules that determine the color choice.

The second limitation is that the literature discussed here approaches the construction of systems from a formal perspective. Although it provides a great amount of resources to experiment with shapes, grids, color and textures, other aspects, such as discourse and meaning, are left out of the reflection on visual systems. If we return to the example of the advertising campaign: a perspective focused on formal variation allows developing countless of alternatives in texture and color for an ad background, but does not necessarily include a reflection about the suitability of these alternatives within a communicative process that involves signs interpretation.

### ❖ A semiotic approach to visual systems

Communication that takes place through the media, involves the use of numerous and diverse signs: linguistic, visual, acoustic, architectural, filmic, among others. Saussure called "sign" to an indissoluble unity of two components: a signifier (sensory image) and a signified (concept or mental image evoked by the signifier) (1994, p. 93). Thus, a sign arises when an interpreter attributes meaning to a sensory image. In everyday life, particularly in communicative processes, semiosis involves the interpretation of a great diversity of signs that produce meaning(s) from their relation to each other.

However, in everyday and professional life we rarely interpret signs in isolation. For example, in the media, we usually encounter numerous signs, which, organized and structured, interact with each other to produce meaning. In order to understand these interactions, the concepts of syntagm, paradigm and code are explained in the following part. They serve as a foundation for, on the one hand, approaching group of signs and, on the other hand, for approaching media systems from semiotics. The purpose is to model graphic design products with their help, improving our understanding of systems, facilitating our learning and reflective design practice. We do not seek at this point to carry out a theoretical discussion of these concepts (for this purpose it is possible to review, e.g. Nöth (1990) or the *Encyclopedic Dictionary of Semiotics*, (2010)), but to show their plasticity and usefulness for visual work. In short, we are looking for theory that can improve design practice.

#### **Syntagm**

A syntagm can be defined as "two or more lexical units linked consecutively to produce meaning" (Martin & Ringham, 2000, p. 128). The order in which these units are strung together responds to rules or conventions characteristic of a syntagm. The sentence shown below (See Image 1), would constitute a syntagm, since it presents a chain or sequence of linguistic signs (in this case, words) that follow a grammatical order. The signs can be interpreted not only individually, but also in relation to other signs in the chain. Image 2 shows another example of a linguistic syntagm, which shows the name of an educational program.

This	person	studies	graphic	design
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Image 1. Example of a linguistic syntagm - Sentence

Bachelor	in	graphic	design
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Image 2. Example of a linguistic syntagm - Name

Martin & Ringham's definition of language as a sign system essentially describes a linguistic syntagm. Although language is undoubtedly a key element in visual media, this definition has limitations, since media texts often show other non-linguistic sign systems, which have syntagms that are not composed entirely of lexical units, and are not necessarily organized through consecutivity. We elaborate on this point from the following example.

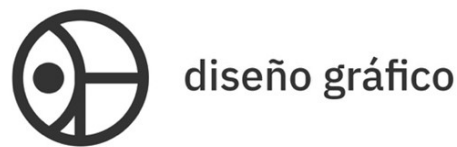


Image 3. Identity image for the UASLP's Graphic Design undergraduate program. Source: Information and Communication Department, Habitat Faculty, UASLP.

Image 3 is composed of interrelated units, which have a structure and an order that allow them to be identified as a syntagm (in everyday language we could describe this syntagm as a logo). However, the signs that make up this syntagm are not only lexical units, but also other visual signs (e.g. lines, color, shapes). These signs are not necessarily organized sequentially: the color, circumference, circle and lines appear simultaneously. Similarly, in audiovisual media, we can find both signs that are presented consecutively (e.g. words in a dialogue) and signs that can appear simultaneously to other signs (e.g. words in a dialogue accompanied by a melody (which in turn can be considered a syntagm of musical signs)).

Syntagms can be formed of signs, but also of other syntagms. The syntagm in Image 1 contains two syntagms: a) the text "diseño gráfico" (graphic design), which constitutes a linguistic syntagm formed of two lexical units (See Image 4); and b) the circular pictogram on the left (See Image 5), composed of an abstraction of a human figure (S1), a circumference (S2) and the dark gray color of the elements (S3).

The human figure can in turn be considered a syntagm that contains a curved line (S1), a line at an angle of 90 degrees (S2), as well as a circle (S3) (See Image 6).

## diseño gráfico

Image 4. Linguistic syntagm. Adaptation from the original. Source: Information and Communication Department, Habitat Faculty, UASLP.



Image 5. Signs and syntagms. Adaptation from the original. Source: Information and Communication Department, Habitat Faculty, UASLP.



Image 4. Signs in a syntagm. Adaptation from the original. Source: Information and Communication Department, Habitat Faculty, UASLP.

Semiotically, media can be highly complex, because the texts they produce involve the interaction of numerous signs and syntagms that can appear sequentially, simultaneously or in nested form. In this sense, one could think of the amount of signs and syntagms present in a feature film, and the interpretative work required to read a text in which images, music, dialogue and lighting are organized through shots, scenes, sequences, montage, among others, generating in this process meanings and readings by an audience. Similarly, designing a visual system (See Image 7 and Image 8) implies on the one hand to build and organize numerous syntagms at two levels: the level of individual media and the system level. On the other hand it also implies developing the rules and conventions that govern the system.

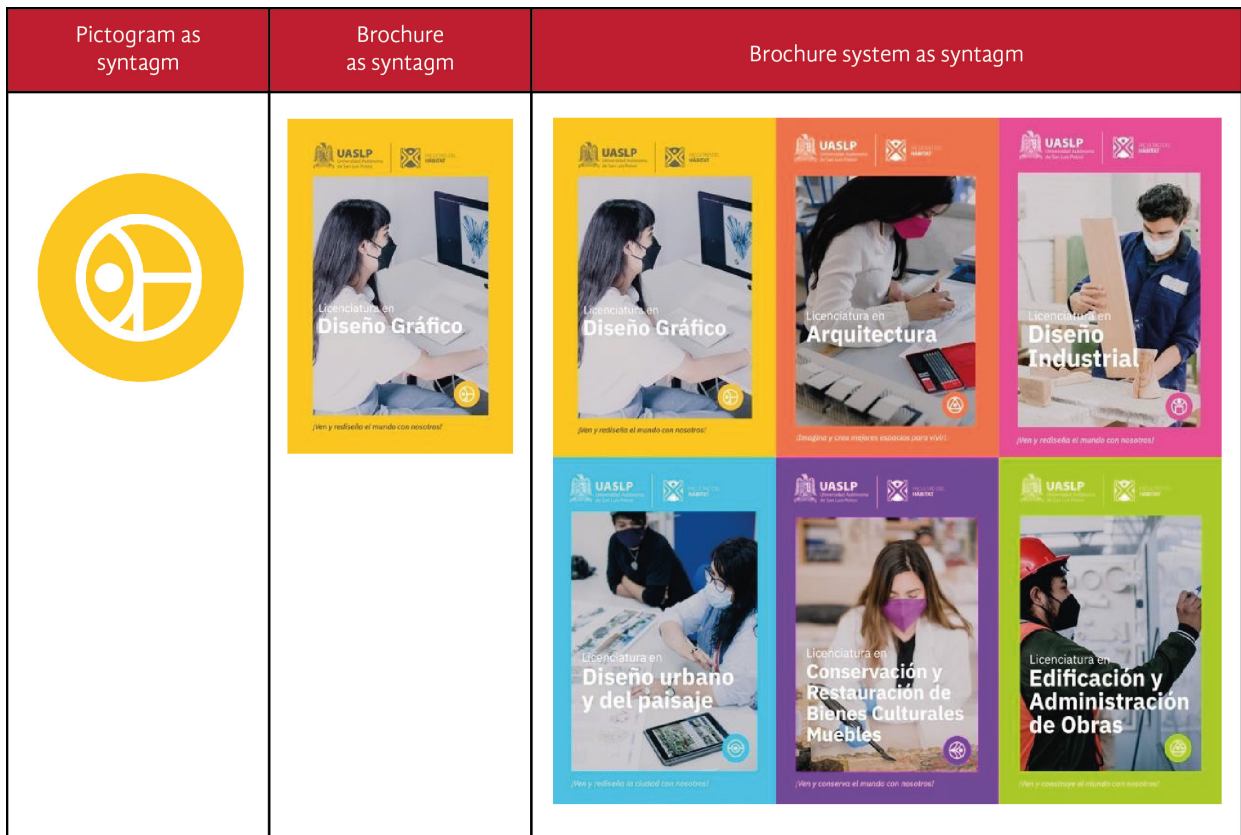


Image 7. Examples of syntagms.

Source: Information and Communication Department, Habitat Faculty, UASLP



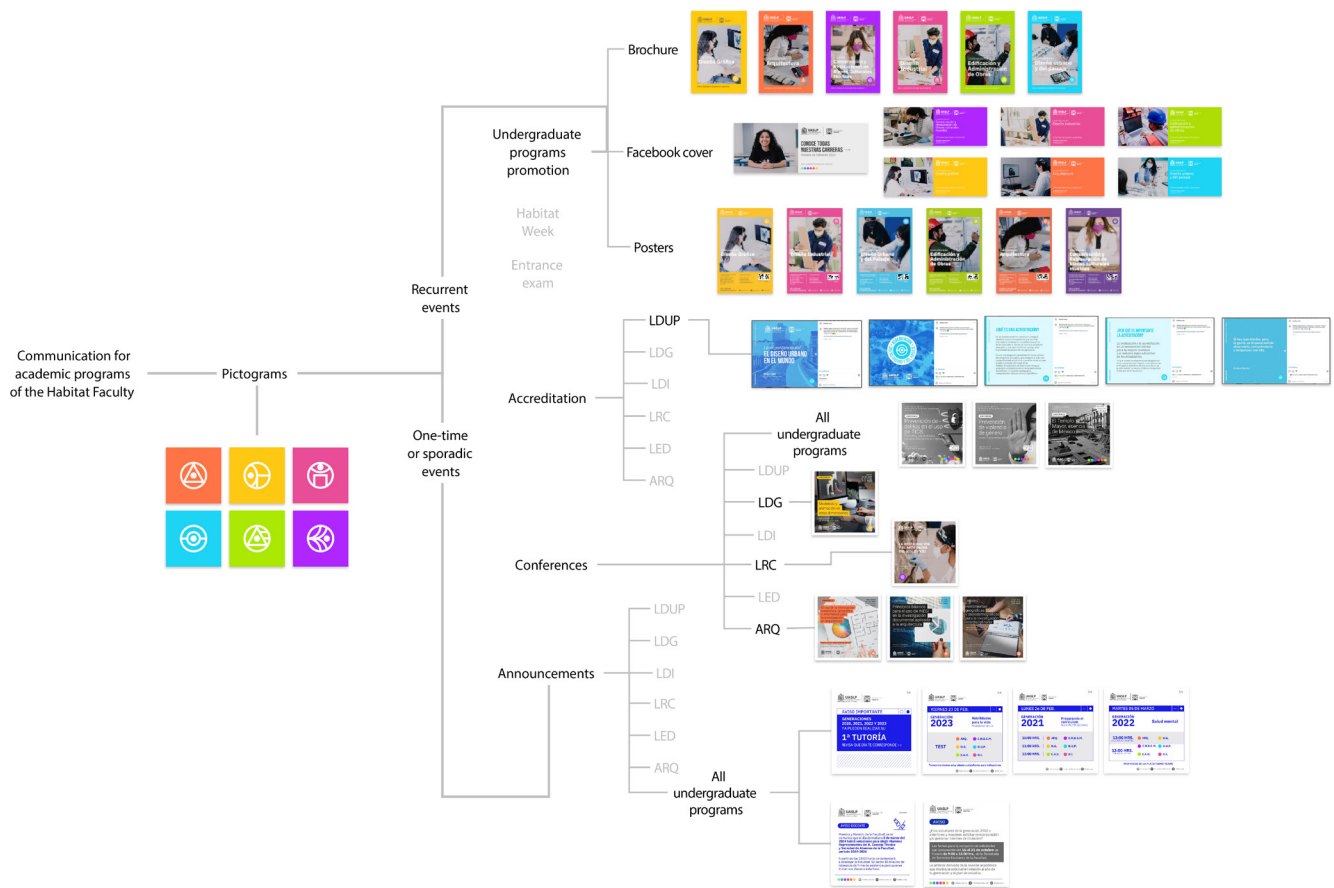


Image 8. Extract of a visual complex system.

Source: Information and Communication Department, Habitat Faculty, UASLP. LDUP (Licenciatura en Diseño Urbano y del Paisaje / Urban and landscape design program); LDG (Licenciatura en Diseño Gráfico / Graphic design program); LDI (Licenciatura en Diseño Industrial / Industrial design program); LRC (Licenciatura en Conservación y Restauración de Bienes Culturales Muebles / Conservation and restoration of movable cultural heritage program); LED (Licenciatura en Edificación y Administración de Obras / Edification and Construction Management program); ARQ (Licenciatura en Arquitectura / Architecture program)

As mentioned previously, syntagms comprise groups of signs that are not positioned arbitrarily: the relationship and location of signs within a syntagmatic chain follows an order. In the following sentence (see Image 1), the order of the signs "La" (The), "persona" (person), "estudió" (studied), "diseño" (design), "gráfico" (graphic) responds to a grammatical order that is characteristic of a sentence in Spanish; Subject, verb and predicate. The linguistic signs could be positioned differently: "La diseño estudió gráfico persona" (The design studied graphic person), or "estudió persona la gráfico diseño" (studied person the graphic design). In this case they would not be recognized as a sen-

tence. Perhaps we could interpret them as another familiar syntagm, such as a list of words, but it would not be identified as the syntagm "sentence". The following example allows us to see that each of the words that make up the syntagm belong to a grammatical category:

Article	Subject	Verb	Subject	Subject
La	persona	estudió	diseño	gráfico

Image 9. Example of a linguistic syntagm in Spanish.

Similarly, the pictogram discussed above presupposes the appearance of certain types of signs, which have a certain organization:



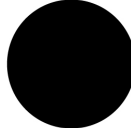

Pictogram	Image	Surrounding shape	Color	Name
				diseño gráfico

Image 10. Example of a visual syntagm.

Source: Information and Communication Department, Habitat Faculty, UASLP.

If we take a more complex syntagm as a reference, for example, the cover of a brochure, it is possible to identify the following signs and syntagms:

Cover	Background	Logotypes	Title	Pictogram	Image	Slogan
			Licenciatura en Diseño Gráfico			¡Ven y rediseña el mundo con nosotros!

Image 11. Brochure cover as a syntagm.

Source: Information and Communication Department, Habitat Faculty, UASLP.

This example brings us to an important aspect about syntagms, which can also be defined as "a combination of the chosen signs" that produce meaning (Watson & Hill, 2012). The notion that a syntagm involves a "choice" is an element of utmost importance, because it reveals the

existence of "possibilities", "alternatives" to the signs that are part of a syntagmatic chain. Media systems can be seen as syntagms, which contain syntagmatic chains that have certain recurrent characteristics. To understand what governs and regulates this recurrence, in other words, what determines the appearance or absence of certain elements in a syntagmatic chain, it is necessary to discuss the concept of paradigm and, then, of code.

**Paradigm**

A paradigm comprises "a group of sentential units susceptible to occupy the same place, or replace each other, in a syntagmatic chain" (Martin & Ringham, 2000, p. 98). At the paradigmatic level it is possible to look again at the example of a syntagm shown above, discover its components and develop examples of alternative signs:

Article	Subject	Verb	Subject	Subject
La	persona	estudió	diseño	gráfico
El	joven	aprendió	diseño	urbano
Las	estudiantes	eligieron	ingeniería	industrial

If the graphic design pictogram is taken as a syntagmatic chain, it is possible to make variations in correspondence with the original order and organization of the signs (See Image 12):

Pictogram	Shaptte	Surrounding shape	Color

Image 12. Pictogram system.

Source: Information and Communication Department, Habitat Faculty, UASLP.

From this syntagm, which is formed by an abstract form, an envelope and a solid color, numerous variations can be made, which could include, for example, any abstract form or any existing color. At this point it is important to note that both the alteration of these paradigmatic elements and the order of the elements of the syntagmatic chain alter its interpretation (See Image 13).



Image 13. Alterations at syntagmatic and paradigmatic level. Adaptation from the original.

Source: Information and Communication Department, Habitat Faculty, UASLP.

An exercise of syntagmatic and paradigmatic analysis allows us to observe how the system is constituted, but also how choosing (or not choosing) signs influences signification. However, at this point it should be clear that not all aspects of a system can be explained through these concepts. If we ask, why is there no brown icon in the sign system? why are all the surrounding shapes circular?, it becomes clear that there is an underlying logic that determines color palette, compositions and envelope shapes, among other things. The conventions that govern the way the system is constituted are discussed in the following section.

### **Code**

A code is "a set of rules that make it possible to produce or decipher signs or sets of signs" (Klinkenberg, 2006, p. 56. Author's translation). Codes, framed in communication processes, play an important role in the interpretation of a message, so that the knowledge of the code by those who participate in the communication is essential for the understanding of the message (Martin & Ringham, 2000). Thus, Klinkenberg states on the one hand that "it is not possible to interpret a sign without a code" and on the other hand, that "the sign is a trace of the code" (Klinkenberg, 2006, p. 45. Author's translation).

Chandler groups codes into three major groups: social codes, textual codes, and interpretive codes (Chandler, 2022). In the first group are conventions that govern how we communicate and behave (e.g., use of language, manners or etiquette); the second group includes textual conventions (e.g., aesthetic or media genres); in the third group are codes that regulate our interpretation of reality (e.g., perception, theories, ideologies). Codes are not isolated, we commonly experience them simultaneously. When watching a film such as *Metropolis* (Lang, 1927), we interpret social codes of the characters (e.g. their manners or body language) but also textual codes of the film: it is possible to distinguish that the film is a fictional text, and perhaps even possible to identify that it is a science fiction film with *art deco* stylistic features. Likewise, an interpretative code based on the Mertonian theory of the science ethos encourages a reading centered on Rotwang's representation and the ethical dimensions of his actions as a scientist.

The development of a media system, whether simple or complex, requires generating a series of interrelated syntagms that offer alternatives at the paradigmatic level. Paradigmatic choices are regulated by the operation of various codes, among which are those created specifically for the system. For the analysis of visual systems, textual codes are of particular interest, since this type of codes constitute systems of conventions that govern paradigmatic variations in the media. Returning to the example of Image 12, we can assume an analytical role and note that in view of the great diversity of color alternatives that pictograms can have: 1) there is one color for each pictogram (colors do not repeat); 2) colors belong to a palette that shares the same levels of

brightness and saturation. The first point may be the result of an effort to achieve a clear distinction between the pictograms, and with it, of the educational programs they represent. The second point may be due to a criterion of significance, seeking to express liveliness, joy, actuality.

From this (and from the general observation of the complex system) we can deduce a first convention of the system: that each educational program of the Habitat Faculty has a pictogram and a color that represents it. A second convention would be that all media that can be directly attributed to an educational program must have a pictogram and a color. We could proceed in this way, making explicit the conventions governing the paradigmatic choices of the different syntagmatic chains (e.g. describing the rules of brochures or conference announcements). If we are in a producer role (i.e. designing media articulated in a system), we generate codes, in which as Bignell says, "signs are organised into groups" (Bignell, 2002, p. 10). This reduces the range of design possibilities for each medium. In this case, we refer to the creation of *exprofeso* codes and of a localized range, which allow us to interpret a set of media according to different functions, discourses, formal characteristics, among others. In a system, it is then a matter of understanding the relationship between its "minimal units and the rules for their combination" (Nöth, 1990, p. 209). Making visible the conventions that govern the configuration of syntagms makes it possible to find discrepancies (for example of formal discrepancies) and to make adjustments to improve their consistency.

Codes can have different degrees of complexity or visibility. A code that regulates a system of pictograms on a map for a museum may have a lower level of complexity than the social codes that govern our manners. Likewise, as Klinkenberg mentions, not all codes are obvious or explicit. Some codes have become so normalized as to be virtually imperceptible. Chandler, for example, shows the (sometimes invisible) codes of looking (2022). Because of the large number of codes prevalent in our daily lives, Berger states that culture can be understood as "a collection of codes that tell us what to eat, how to dress and how to relate to others" (Berger, 2010, p. 23).

Here it is important to take a moment to reflect on implicit codes that may be inadvertently reproduced through a system, particularly those that have to do with the reproduction of gender roles or conditions of vulnerable groups. When reviewing or analyzing a system, a professional designer must be able to recognize when design decisions do not only obey formal criteria, but normalized codes that may contribute to reproduce inequality or the symbolic exclusion of people through the media. For this reason, it is of great importance to learn that this type of work requires at all times a critical perspective, not only towards formal discrepancies in the arrangement of the system, but also towards the meanings that are evoked in audiences through the system, its media and the social discourses with which they are connected.

Codes can be made explicit and even documented. *The Manual de Urbanidad y Buenas Maneras (Manual of Courtesy and Good Manners)* (Carreño, 1979), popularly known as *Manual de Carreño* (Carreño's manual), for example, is a document that brings together numerous conventions of social behavior, ranging from how to conduct oneself at home to how to behave in public (here it is advisable, as mentioned above, to make a critical reading of these conventions). This example makes evident two further characteristics of codes that derive from their use in context: 1) conventions can be valid in specific contexts (Klinkenberg, 2006, p. 46); 2) conventions can lose their validity (Nöth, 1990). An example in the field of design are identity manuals, which constitute spaces, in which codes regulating the appropriate use of brand identity, materialize. In them, the conventions governing design decisions, and seeking to generate specific meanings, crystallize. In both examples, codes regulating behavior or design have a specific scope. For example, there are social codes that apply to behavior in public, but not necessarily to private space. Similarly, it is not expected that those of us who work in an organization that has a standardized brand identity, adopt those norms in our personal communication, but it is desirable when it comes to official institutional communication. Finally, it is necessary to recognize that these conventions are neither permanent nor immutable. A good part of the social conventions registered as "good manners" in *Carreño's Manual* have become obsolete and the same can happen when an institution decides to make changes in the institutional communication guidelines, declaring certain conventions obsolete and replacing them with others.

◆ **Understanding to create:  
a reflective approach to the  
design of visual systems**

One of the major difficulties faced by design students when designing a visual media system -particularly when dealing with complex systems- is to recognize that the major task in these kinds of projects is not to design large numbers of media, but to develop a set of conventions (codes and sub-codes) that define the design of media grouped according to specific criteria (e.g. communicative goal or function, discourse, media type, among others). Thinking in terms of a system implies establishing, following and varying rules, rather than designing a series of visual products. In this sense, a designer "controls and manipulates the system itself, rather than the final outcome" (Lupton & Phillips, 2015). It is the development of these rules, which allows for numerous and diverse applications over time.

However, developing these groups of conventions is not easy if the conceptual framework employed does not make them explicit. As we mentioned at the beginning, the mere identification of variables and constants does not make explicit the rule that restricts/allows considering formal and content alternatives to a medium, in other words, the choice of signs in a syntagm. In this context it is imperative to link design practice with theory that guides decision making, and that allows

on the one hand to understand the functioning of an existing system (e.g. to analyze best practice cases, or to test a project in process) and on the other hand to create, modify or adjust a system. Likewise, it is important not only to list elements belonging to the system, but also to reflect on the codes that govern it, and especially on how this influences the signification of the system and its elements. One way to do this is through guiding questions that trigger a detailed observation of a system, making explicit its organization and conventions, for example:

Table 1. Analysis concept and guiding questions

Analysis concept	Question
Syntagm	<ul style="list-style-type: none"> <li>• Which syntagms constitute the system, its subsystems and media? What meanings do they intend to convey?</li> <li>• What is the syntagmatic structure of the media that make up the visual system? How are syntagms ordered and organized?</li> <li>• How does the sign organization influence the interpretation of the syntagms?</li> <li>• What signs make up the syntagm and which meanings can be attributed to it?</li> <li>• Are there recurrent syntagms? Which are they? How can they be interpreted and what function do they have in the system?</li> </ul>
Paradigm	<ul style="list-style-type: none"> <li>• Which paradigms make up the core syntagms of the system?</li> <li>• What alternative signs could be part of the syntagm, and how would they impact the construction of the system and its interpretation?</li> <li>• Are there absences of signs or syntagms that are conspicuous and could alter the meaning?</li> </ul>
Code	<ul style="list-style-type: none"> <li>• What codes can you identify in the system?</li> <li>• What conventions and rules are specific to the system and necessary for its understanding?</li> <li>• Do you observe stylistic codes operating in the system?</li> <li>• Is it possible to identify normalized social codes that influence the meanings conveyed by the media that are part of the system?</li> <li>• How could you make the codes explicit so that someone else could proceed with the design without your help?</li> </ul>

**Conclusions**

We have sought to model media systems from semiotic concepts in an effort to go beyond testing the elasticity of a theory. The goal is to contribute to a different design practice, one that can be based not only on the formal construction of a system, but also takes into account the communicative and meaning processes in which it is circumscribed. In terms of teaching and learning processes, the goal is to transcend design as an activity centered on "doing", combining theory with practice,



so that creation goes hand in hand with reflection and analysis, carrying out analytical work that nurtures the production processes.

The application of semiotic concepts to visual systems makes it possible to visualize and verbalize the conventions underlying a system. It also makes it possible to reconceptualize the design of visual systems, so that it does not focus on the design of a large number of products, but on the rules that allow their creation. An advantage of this first outline for approaching system design is that it allows connecting the study of media and systems to other semiotic concepts and principles according to the needs of the project. However, for its application in design workshops, or in other theoretical-practical learning spaces, it is important that students have a basic knowledge of semiotics, so that the concepts serve as tools rather than obstacles to the understanding of visual systems. The greatest challenge is the interweaving of theoretical knowledge with the professional practice of design, so that it is possible to move from the description and mechanical construction of systems, to the foundation of design decisions, both formal and communicative, from an analytical and critical perspective. 📍

## 📍 References

- Ambrose, G., & Harris, P. (2006). *The Fundamentals of Typography* (AVA Publishing). AVA Publishing.
- Berger, A. (2010). *The Objects of Affection: Semiotics and Consumer Culture*. Springer.
- Bignell, J. (2002). *Media semiotics: An introduction*.
- Carreño, M. A. (1979). *Manual de urbanidad y buenas maneras*. Editora Nacional.
- Chandler, D. (2022). *Semiotics: The Basics* (Edición: 4). Routledge.
- Dabner, D. (2018). *Diseño gráfico. Fundamentos y prácticas*.
- Encyclopedic Dictionary of Semiotics. (2010). In T. A. Sebeok, P. Bouissac, U. Eco, J. Pelc, R. Possner, A. Rey, & A. Schukmann (Eds.), *Tome 1 A - M: Vol. Tome 1 A-M*. De Gruyter Mouton. <https://doi.org/10.1515/9783112322123>
- Klinkenberg, J.-M. (2006). *Manual de semiótica general*. U. Jorge Tadeo Lozano.
- Lang, F. (Director). (1927). *Metropolis*. [https://archive.org/details/Metropolis1927\\_201312](https://archive.org/details/Metropolis1927_201312)
- Lupton, E., & Phillips, J. C. (2015). *Graphic Design: The New Basics*.
- Martin, B., & Ringham, F. (2000). *Dictionary of Semiotics* (1a ed.). Bloomsbury.

Mazzeo, C. (2017). *Diseño y Sistema. Bajo la punta del iceberg*. Infinito.

Müller-Brockmann, J. (1996). *Grid Systems in Graphic Design: A Visual Communication Manual for Graphic Designers, Typographers and Three Dimensional Designers*.

Nöth, W. (1990). *Handbook of Semiotics* (New Ed edition). Indiana University Press.

Poulin, R. (2018). *Design School: Layout: A Practical Guide for Students and Designers*.

Saussure, F. D. (1994). *Curso de Linguística General*. Losada.

Watson, J., & Hill, A. (2012). *Dictionary of Media and Communication Studies*.

Wong, W. (2008). *Fundamentos del diseño*.

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