

The epistemic role of intermedial visual artworks: An analysis of the photobooks *Palast der Republik* and *Domesticidades*

Leticia Vitral

Centre for Intermedial and Multimodal Studies
Linnaeus University
351 95 Växjö, Sweden
e-mail: leticiaavital@gmail.com

João Queiroz

Arts and Design Institute
Federal University of Juiz de Fora
36036-330 Juiz de Fora, Brazil
e-mail: queirozj@gmail.com

Abstract: This paper presents, describes and analyses two photobooks: *Palast der Republik* and *Domesticidades*. We claim that, because of their highly iconic features, they can be regarded as epistemic artefacts (models) since they reveal information about their objects, as well as about their own morphological properties. The analysis focuses on (i) the kind of relations the photobooks establish with their respective objects (we claim that it is a mainly-iconic relation) and (ii) on the semiotic couplings that can be found in them – a type of interaction between semiotic resources (such as photographs, maps, written texts, illustrations, among others). We contextualize this analysis in relation to both a semiotic and an intermedial background.

Further, we claim that the epistemic role of such artworks is directly related to their material and structural features that constrain the possibilities of manipulation and reasoning upon them. We conclude by presenting some of the information that was revealed by the manipulation of these photobooks, claiming that the semiotic-artefactual approach to models can be an epistemically interesting conceptual frame to thinking about artistic artefacts.

Key words: intermediality; iconicity; models; epistemic artefacts; photobooks

1. Introduction

The term ‘photobook’ is used to refer to photographic publications in general, regarding a wide range of publishing possibilities. According to Shannon (2010: 55), photobooks are understood as “various publications created in diverse circumstances, from a range of political, social and aesthetic viewpoints, resulting in the misleading homogenization of a vast swathe of published photographic material”. As Parr and Badger (2004: 6) state:

A photobook is a book – with or without text – where the work’s primary message is carried by photographs. It is a book authored by a photographer or by someone editing and sequencing the work of a photographer, or even a number of photographers. It has a specific character, distinct from the photographic print.

According to Parr and Badger (2004: 8), such publications are more ambitious than commonplace books illustrated with photographs. By choosing the word ‘ambitious’ they refer to the existence of several concerns related to the development of an artistic language other than the typical one that connects photographs and books. Thus, such books have a primarily artistic character, whose definition includes more than regular coffee-table books, photographic catalogues or a simple compendium of artistic images. According to Boom and Prins (1989: 12):

A photobook is an autonomous art form, comparable with a piece of sculpture, a play or a film. The photographs lose their own photographic character as things ‘in themselves’ and become parts, translated into printing ink, of a dramatic event called a book.

In this paper, we are going to approach two photobooks as *models* of spatiotemporal processes of modification: (i) *Palast der Republik*, which models the demolition process of the homonymous building in Berlin; and (ii) *Domesticidades*, which models a walk through the interiors of apartments in the Brazilian city of Belo Horizonte. Our aim is to describe and analyse the photobooks as models based on the kind of relations they establish with their objects (we claim that it is a mainly iconic relation) and based on semiotic couplings – a type of interaction between semiotic resources such as photographs, maps, written texts, illustrations, etc., that can be found in both the photobooks, revealing information about (or *modelling*) their objects. We intend to do it by exploring the notions of ‘semiotic coupling’, ‘intermediality’, ‘models’, and ‘iconicity’.

The notion of ‘semiotic coupling’ is in a dialogue with the concept of ‘media combination’ proposed by Rajewsky, in which “two media or medial forms of arti-

culuation are each present in their own materiality and contribute to the constitution and signification of the entire product in their own specific way” (Rajewsky 2005: 52). This idea of an intermedial material articulation, in which several semiotic resources can be found is developed by Wolf (2005) as one of the possible definitions of ‘media’. As he states:

Media [...] are specified principally by the nature of their underlying semiotic systems (involving verbal language, pictorial signs, music, etc., or, in cases of “composite media” such as film, a combination of several semiotic systems), and only in the second place, by technical or institutional channel. (Wolf 2005: 253)

We consider different semiotic resources such as ‘photography’, ‘written text’ and even the ‘layout of the page’ as different media and, by stating the presence of relations between them, the photobooks can thus be approached as an intermedial phenomenon, where it is possible to observe “a crossing of boundaries between media” (Clüver 2011: 8).

Further, when approaching these photobooks as *models*, the traditional, but somehow imprecise definition of icons as signs that share qualitative features with their objects is developed. As it will be shown, the notion of icons as ‘signs of resemblance’ (or ‘similarity’, or ‘likeness’) (W 5: 243, MS[R] 491: 1–2, MS[R] 637: 33–34, EP 2: 460–461, W 5: 379–80) can be troublesome because of the inconsistency and lack of criteria to judge what is similar, and because of the triviality in characterizing icons mainly as similar to their objects. In order to clarify the discussion around the nature of icons, we are going to argue that the main property that defines a sign as iconic is not a resemblance feature, but its potential to reveal information about an object and about itself as a sign.

2. Icons and the notion of ‘resemblance’

In his “most fundamental division of signs” (CP 2.275), Peirce characterized icons, indexes, and symbols as matching, respectively, relations of similarity, contiguity, and law between S and O (sign-object relation) in the triad S-O-I (Sign – Object – Interpretant). As Atkin (2010)¹ states, by defining these classes it was possible to classify signs according to the role their object plays in the meaning process (semiosis), relying on the constraints that the object imposes to the nature of the sign, “no matter whether the object it refers to exists and no matter whether it is interpreted as a sign

¹ Atkin, Albert 2010. Peirce’s theory of signs. In: *The Stanford Encyclopedia of Philosophy*, available at: <<http://plato.stanford.edu/entries/peirce-semiotics/>>. Accessed on 11 December 2014.

or not” (see De Waal 2001: 70). Because S and O share the same qualities, icons are understood as signs that stand for their objects through *similarity* or *resemblance*, no matter if they show a spatiotemporal physical correlation with an existent object or not:

An *Icon* is a sign which refers to the Object that it denotes merely by virtue of characters of its own and which it possesses, just the same, whether any such Object actually exists or not. It is true that unless there really is such an Object, the Icon does not act [as] a sign; but this has nothing to do with its character as a sign. (CP 2.247)

Hence any S that represents its O through an intrinsic property of S (which belongs to S, as related to both the material qualities and structures or to the properties perceived as belonging to S) is an icon of O, and can only be interpreted as an icon of O. Considering the sharing of those qualities in common as resemblance, Peirce defines it as “an identity of characters; and this is to say that the mind gathers the resembling ideas together in one conception” (CP 1.365). But the notion of resemblance (or similarity, or likeness) as the main feature to propose a definition of icons may be troublesome because of some specific internal qualities of the icons themselves, that goes way further of simply possessing features of “looking alike”.

2.1. The problem of resemblance

Starting from the definition given in the previous section, icons are signs that share qualitative features with their objects, which means that they establish a relationship of resemblance (similarity) with the qualities, structures and interpretative effects of the sign. This notion of resemblance, when so applied, can lead to a series of vulnerabilities, such as “trivializing of it to identity; the psychologizing of it to refer to non-objective feelings of resemblance; the lack of criteria for judging two phenomena as similar” (Stjernfelt 2013: 90). The mainstream notion of resemblance as a property from entities that share qualities in common sets aside other modes of relation between S and O that can possess iconic features such as *contrast*, *difference* and even *strangeness*: “for example, if a drunken man is exhibited in order to show, by contrast, the excellence of temperance, this is certainly an icon, but whether it is a likeness or not, it may be doubted” (EP 2: 13).

It can be concluded that it is impossible to define precisely how similar to its object a sign must be in order to work as its icon. Probably the best solution for the problem of defining resemblance lies in another quote from Peirce, as he steps away from describing icons as signs of resemblance and focuses on their own internal qualities:

“[...] for a great distinguishing property of the icon is that by the direct observation of it other truths concerning its objects can be discovered than those which suffice to determine its construction” (CP 2.279). In this passage, we notice that the main property that defines a sign as iconic is not a simple resemblance feature, but its potential to *reveal information*. Therefore, the main property that defines a sign as iconic is not a resemblance feature, but the discovering of new information about the object through the observation and manipulation² of the sign: “This is the distinctive feature and value of iconic representations: a sign resembles its object if, and only if, study of the sign can yield new information about the object” (Hookway 2002: 102). This property is known as the *operational criterion of iconicity* (see Stjernfelt 2007, 2011).

Bearing on this definition, the first point to be regarded here is the fact that the operational criterion of icons and the traditional notions that approach them as signs that hold similarities with their objects are not conflicting. It is rather “(...) an elaboration on the concept of similarity” (Stjernfelt 2007: 78), focusing on its epistemic effects, instead of trying to define what a relation of resemblance between sign and object might be. To approach a relation of resemblance with focus on its epistemic effects makes evident the most important feature of icons. For Peirce (CP 2.279; our emphasis):

Given a conventional or other general sign of an object, to deduce any other truth than that which it explicitly signifies, it is necessary, *in all cases*, to replace that sign by an icon. This capacity of revealing unexpected truth is precisely that wherein the utility of algebraic formulae consists, so that the iconic character is the prevailing one.

The reason for this epistemic property to be directly related to iconicity is clear: iconic signs make their objects “immediately available as they are in themselves” (Ransdell 1983: 72), sharing qualities in common with them by “partaking in the character of the object” (CP 4.531). Icons preserve the structure that embeds the cognitive rules of manipulation that one must perform in order to extract new information from them. Thus, in order for a sign to prove its iconic character, it must be capable of revealing new information about the object by means of its own internal rules. The importance of focusing on the operational criterion of iconicity lies in the fact that it

² The *manipulation* of iconic signs can be understood as an experimental practice of reasoning and a “wide class of thought processes” (Stjernfelt 2007: 15). In the case of photo-books the motor manipulation of the physical material of the book also allows the reader to reveal more information about its object. When the reader passes and reads the pages, s/he is manipulating the book as a sensorial artefact, and by doing so s/he gets in contact with the information presented along the pages.

allows a wide class of entities to be studied as signs that can reveal information – from algebraic formulas to artworks: “The manipulation of an equation or of an algebraic statement is, in this respect, perfectly equal to the manipulation of a picture or a text or any other icon in order to make it reveal some more similarities that immediately observable” (Stjernfelt 2007: 79).

2.2. Models as epistemic artefacts

Among the possible functions of icons, working as a model is one of the most relevant ones (Downes 1992; Frigg 2002; Giere 2004; Frigg, Hartmann 2005; Knuuttila 2005a). The epistemic role of models is constrained by the possibilities of manipulating their material features and, consequently, the reasoning process that can be performed upon them. It contrasts with the notion of models proposed by Giere (2004), which places the constraints in the intentions of the model-maker or the model-user. According to the *epistemic approach to models* (Knuuttila, Voutilainen 2003: 1493; Knuuttila 2005a: 1268; Knuuttila 2005b: 18, 49; Knuuttila, Boon 2011: 310), it is not the intention of the modeller who is constructing and/or manipulating the icon that renders them an epistemic value, but the model’s own qualities and manipulation potentialities.

The crucial feature of this approach is that, instead of trying to define what models are, and what kind of relationship they establish with their objects, it stresses their possible uses, and what kind of effect they produce (Knuuttila, Boon 2011: 310). This approach “[...] pays attention to the diverse tasks of models in science, such as prediction, design of experiments, theory development and scientific understanding” (Knuuttila, Boon, 2011: 316). This artefactual approach to models conceives them as “intentionally constructed and materially embodied things, *epistemic artefacts*, the constraints of which are characteristically turned into affordances for epistemic purposes” (Knuuttila 2005a: 49). The features of these artefacts provide them the necessary material and temporal consistency that allows manipulating them, making them tangible and aiding internal cognitive activities that afford reasoning. This approach allows the study of artefacts other than equations, graphs, maps and other traditional entities that fall under the commonplace definition of models. In order to present how models can work as epistemic artefacts, we are going to present two examples of artefacts that are not usually regarded as models: *photobooks*.

3. Photobooks as models

We approach photobooks as models with epistemic role by focusing on two of their main distinguishable features:

- (i) Their great concern with a *sequential presentation of images*, seeking to achieve a consistent unity instead to simple queue several “single masterpieces” (Shannon, 2010: 56). According to Parr and Badger (2004), photobooks are books whose meaning is created through the presentation of a *series* of photographs.
- (ii) The semiotic coupling between different semiotic resources (photographs, written text, typography, layout, maps, drawings, etc.) that contribute to the creation of a single artistic artefact that can be manipulated according to epistemic purposes.

In order to illustrate our approach, we are going to present two remarkable examples of photobooks that possess the two features presented above: *Palast der Republik* (Rokitta 2013), which models the demolition of the homonymous building in Berlin (Fig. 1), and *Domesticidades* (Marquez, Cançado 2010), which models a walk through the interiors of apartments in the Brazilian city of Belo Horizonte (Fig. 2). Both of them are composed of relations between several semiotic resources: photography, written text, layout of the page, maps, etc. (Figs. 3, 4 and 5). Such relations configure a *semiotic coupling*: a semiotic process where different semiotic resources (with different morphological properties) constrain each other in such a relation where no resource is privileged. By saying that “no resource is privileged” we mean that the relation would produce a different semiotic effect if any of its resources is omitted – or if any other resource is incorporated to the relation, or if it presents any change in its morphological properties. According to Werner Wolf, some scholars apply a similar concept for a given work that shows an intracompositional configuration, where “a direct or indirect participation of more than one medium in the signification and/or structure of a semiotic entity” (Wolf 2005: 253) can be found. Since, as stated in this research, every medium can be considered as an entity where semiotic systems can be found, any change made in a semiotic system can directly affect the signification of the whole.



Figure 1. Cover of the photobook *Palast der Republik* by Christoph Rokitta (2013).

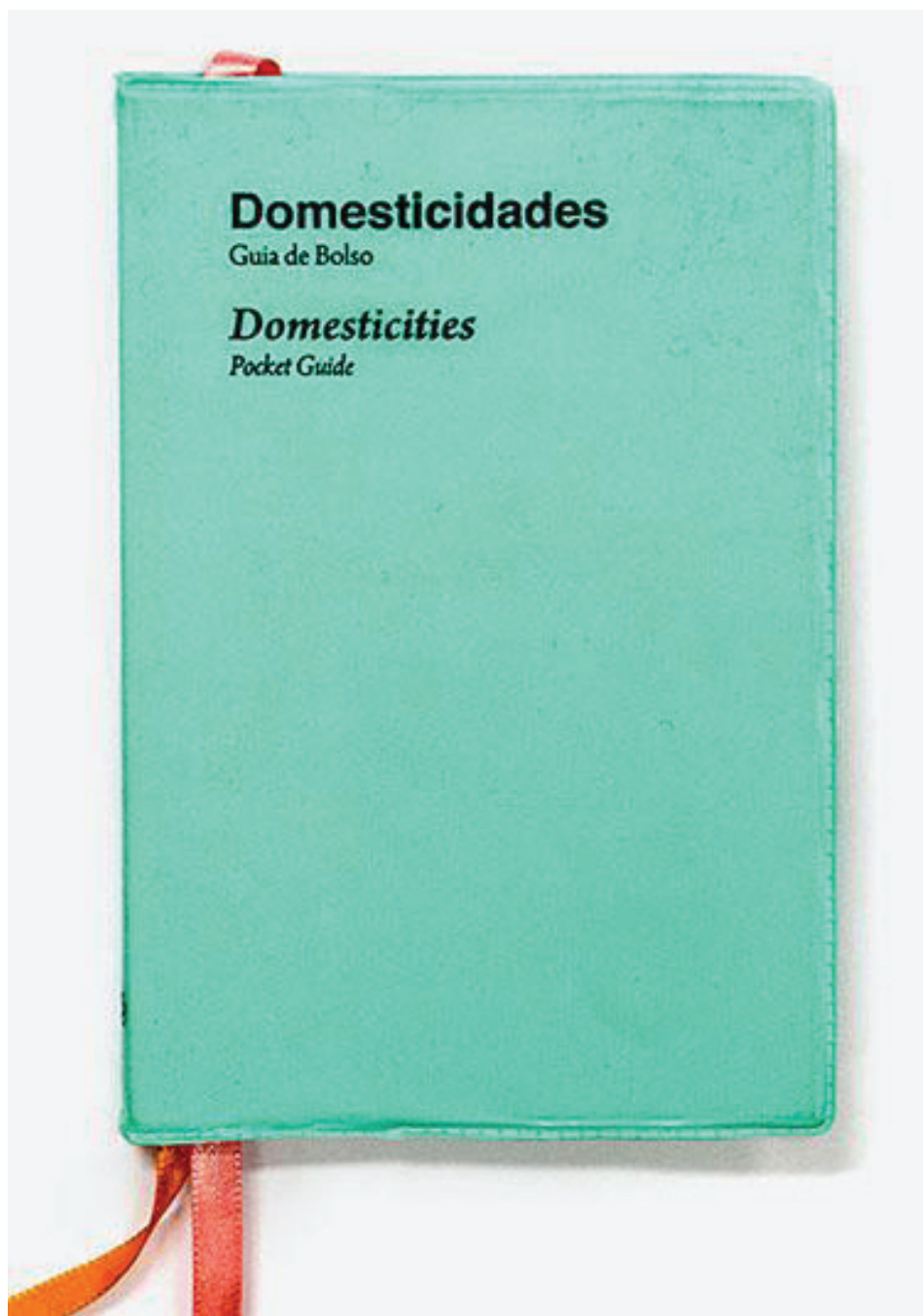


Figure 2. Cover of the photobook *Domesticidades* by Renata Marquez and Wellington Cançado (2010).

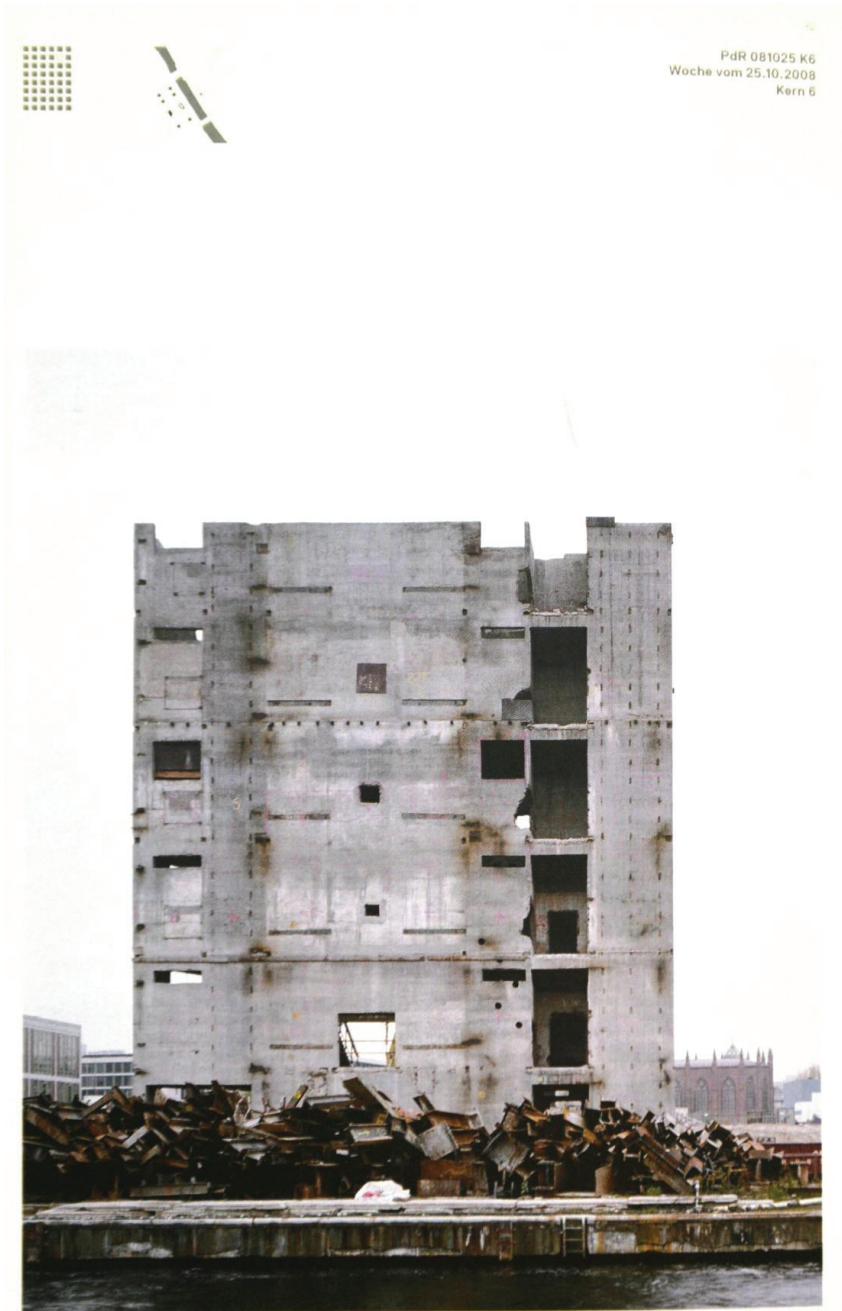


Figure 3. Example of a page in the photobook *Palast der Republik* (Rokitta 2013:32), where a semiotic coupling between a grid, a piece of written text, a floorplan and a photograph can be seen.



Figure 4. Example of page in the photobook *Domesticidades*, where a map can be found (Marquez, Cançado 2010).



Figure 5. Example of a page in the photobook *Domesticidades* (Marquez, Cançado 2010), where a semiotic coupling between a photograph and pieces of written texts can be found. The text on p. 26 of the photobook introduces the self-portrait-themed group.

3.1. An overview of the semiotic resources in the photobook *Palast der Republik*

The photobook, published in Berlin in 2013 in only 100 copies, contains two photographic sequences about the demolition process of the *Palast der Republik* in the German capital. The first sequence models only the spatial aspects of the demolition process. As ‘process’ can be defined as “a coordinated group of changes in the complexion of reality, an organized family of occurrences that are systematically linked to one another either causally or functionally” (Rescher, 1996: 38), a process should not be modelled disregarding its temporal dimensions. Since the first sequence lacks the temporal aspects of the demolition process of the *Palast der Republik* it is not worth analysing as an exemplary model of it. Therefore, it is not going to be further discussed in this paper. The second sequence presented in the book contains 48 photographs divided not only according to the spatial aspects, but also according to the temporal aspects: the last weeks in which the demolition process took place. According to the photographer (Rokitta 2013: 5):

The following second series consists of six images taken in a weekly-rhythmus, that kept hold the actual state of the cores. Over a period of several months, it became a serie [*sic*] that shows how the original presence and massiveness of the cores gave way to an increasing fragility until the last pieces of the Palast finally disappeared.

In this statement, also found in the introduction of the book, the new feature shown in the sequence is notable: the concern with the temporal aspects of the demolition process, making the modelling of the demolition process more semiotically accurate than if it only presented its spatial aspect.

On the first page of the second series we can find a grid where the 48 pictures that constitute the series are distributed (Fig. 6):



Figure 6. Photographic grid with the 48 photos from the second sequence (Rokitta 2013: 21).

Following the grid, as we move from the left to the right, we go from the first two cores (that are presented together in one photograph) to the last two cores (both are also presented together in one photograph) in a total of eight cores. And as we move from the top to the bottom, every line represents a different week (in a total of eight weeks) in which the photographs were taken, from the first week (05/10/2008) to the last week (06/12/2008).

On the next 48 pages the following elements can be found: a photograph (Fig. 7), a diagram of the initial grid (Fig. 8), a floorplan of the demolition site (Fig. 9) and a small piece of written text (Fig. 10) with information about the photograph shown on the respective page (Fig. 3).



Figure 7. Photograph on Page 32 (Rokitta 2013).

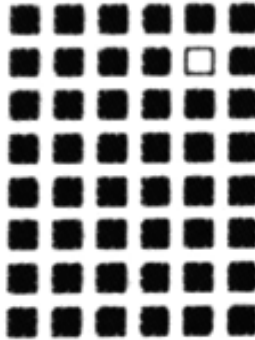


Figure 8. Diagram of the initial grid on Page 32 (Rokitta 2013).



Figure 9. Floorplan of the demolition site on Page 32 (Rokitta 2013).

PdR 081025 K6
Woche vom 25.10.2008
Kern 6

Figure 10. Written text on Page 32 (Rokitta 2013).

It is worth mentioning that the pages (as shown in Fig. 3) are distributed in pairs along double-page spreads, not as if it was a flip book, but in a typical Western codex format. Therefore, each double-page spread contains two of all semiotic resources cited above (for example, one photograph on each page – two photographs on a two-

page spread). The distribution of all the 48 pages follows the structure provided in the photographic grid (Fig. 6), where the photograph in the upper left corner is on the first page of the series (after the one with the initial grid presented solo). It follows the red thick line in the picture below until the last photograph is presented in the last page: the one on the bottom right corner (Fig. 11).

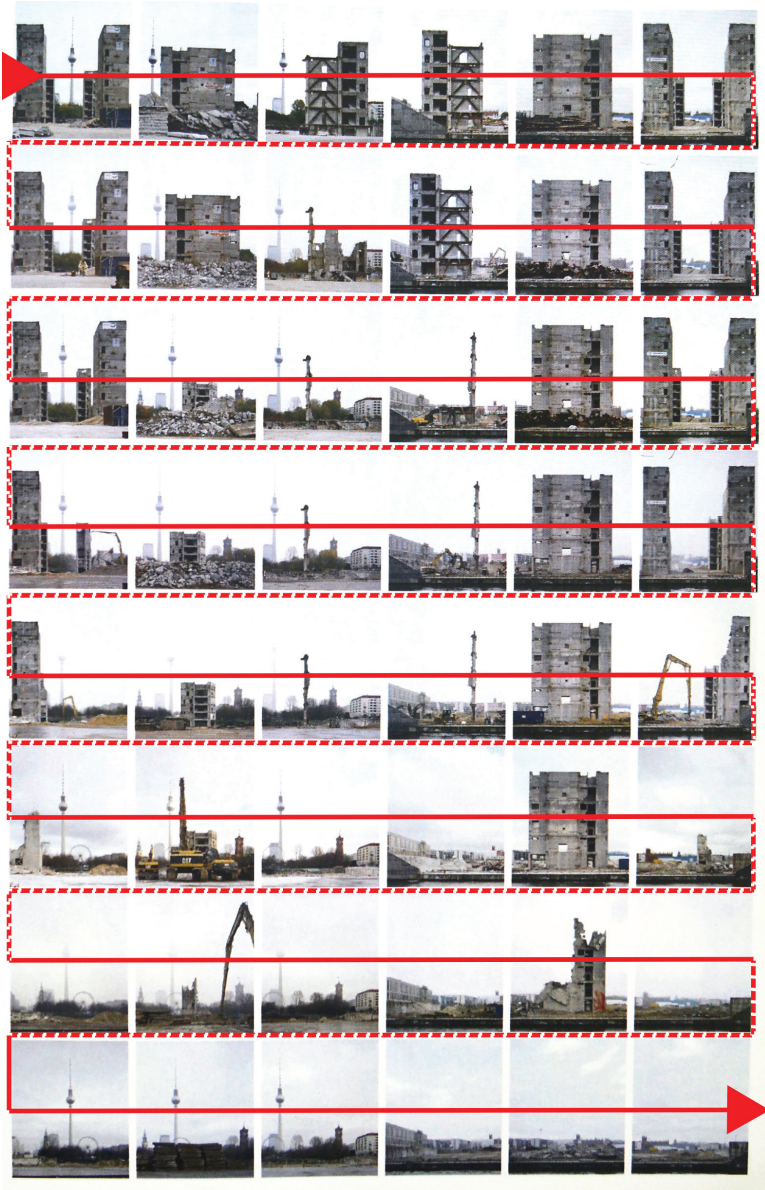


Figure 11. A diagram presenting the order of distribution of the pages in the photobook.

In a schematic manner, the semiotic resources can be presented as following (Table 1), in relation to their (i) semiotic nature; (ii) formal characteristics; and (iii) function in the modelling process:

Table 1. The main characteristics of the semiotic resources in the photobook *Palast der Republik*.

Semiotic resource	Semiotic nature	Formal characteristics	Function in the modelling
Initial grid with 48 photographs	Mainly iconic	The 48 pictures are distributed in lines and columns. The 8 cores of the demolition are distributed in the 6 vertical columns (the 1st and the 2nd cores are presented in the same column, as well as the 7th and 8th cores). Every line represents a different week in which the photographs were taken, from the first (05/12/2008) to the last (06/12/2008).	It is the most explicit reference to the relation between space and time in the development of the demolition process, allowing the reader to have a general overview of the whole documented demolition.
Photographs	Mainly indexical	They are all frontal photographs of the cores, with a highly geometric composition, where no living beings can be found: the only characters in the pictures are the cores and their architectural surroundings, as well as the machines and instruments used in the demolition	They help us focus on the physical changes to which the building was subjected during the demolition process. The photographs, as mainly indexical signs, are characteristically reactive, and this reactive predominance operates as a “trustworthy witness” of the demolition process.
Diagrams of the initial grid	Mainly iconic	Diagrams of the initial grid, composed of 48 squares (each representing a photograph) can be found in the upper outer corner of every page. They highlight in white the squares that represent the photographs presented on the respective pages in relation to their position in the initial grid.	They relate the photograph presented on the respective page to its position in the initial grid. They help us to locate the temporal “position” of the specific photograph in the whole demolition process, as well as inform us which core is in the photograph.

Semiotic resource	Semiotic nature	Formal characteristics	Function in the modelling
Floorplans	Mainly indexical and iconic	Just as in the simplified grid, the core represented in the photograph on the page is highlighted in white while the other cores remain gray.	They situate the photographs of the unrecognizable structures of the <i>Palast der Republik</i> in the place where the building once stood: near the Spree River, allowing us to identify the photographed cores as the cores of the <i>Palast der Republik</i>
Written text	Mainly indexical and symbolic	In the first line of the text, the following structure appear: “PdR year month day Kx” for example “PdR 081025 K3”. The first three letters are the abbreviation of the name of the building (“ <i>Palast der Republik</i> ”); the following numbers refer to the date in which the picture was made (as in the example – 08: year of 2008; 10: month of October; 25: day of the month); and the two last characters inform us the number of the core (‘K’ is the first letter of the German word for ‘core’: <i>Kern</i>). In the example, Core Nr 3 is represented on the page.	It schematically encodes most of the important information about both the spatial and temporal aspects of the demolition

3.2. An overview of the semiotic resources in the photobook *Domesticidades*

The photobook *Domesticidades* was published in 2010 in Belo Horizonte, Brazil, and is a pocket guide with photos from the interiors of some apartments in the city of Belo Horizonte taken from real-estate websites. The authors define the book as: “[...] a portable guide to the city’s inaccessible places, to other’s everyday spaces, to particular forms of living and to anonymous privacy: a navigation manual for expeditions through the space of contemporary domestic life” (Marquez, Cançado 2010: 1).

The photobook contain two maps: the first one (Fig. 12) locates the city of Belo Horizonte on an abstract world map, together with other cities with similar geopolitical characteristics such as Philadelphia or Yekaterinburg: the cities marked by a circle are

the sixth most populous cities of their countries; and the ones marked by squares have the fourth largest contribution to their countries' GDP. The second map (Fig. 13) distributes all the photographs (represented by the number of the page where they can be found) in the city of Belo Horizonte and is introduced as “a navigation manual” (Marquez, Cançado 2010: 11). The photographs are divided into 16 groups (or themes) with titles such as “self-portrait”, “light”, “must-sees”, and “*existenzminimum*”, according to the semantic features of the photographs. Each group is accompanied by a piece of written text introducing the theme and the photographs (see Fig. 5).

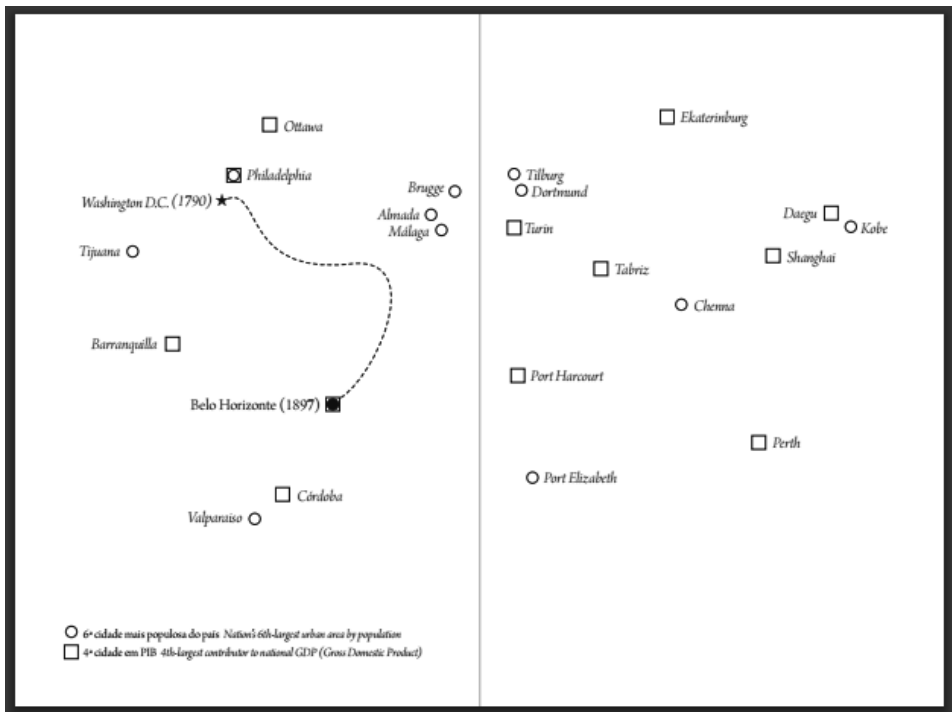


Figure 12. The first map in the photobook *Domesticidades*, relating the city of Belo Horizonte to other cities of the world (Marquez, Cançado 2010: 4–5).

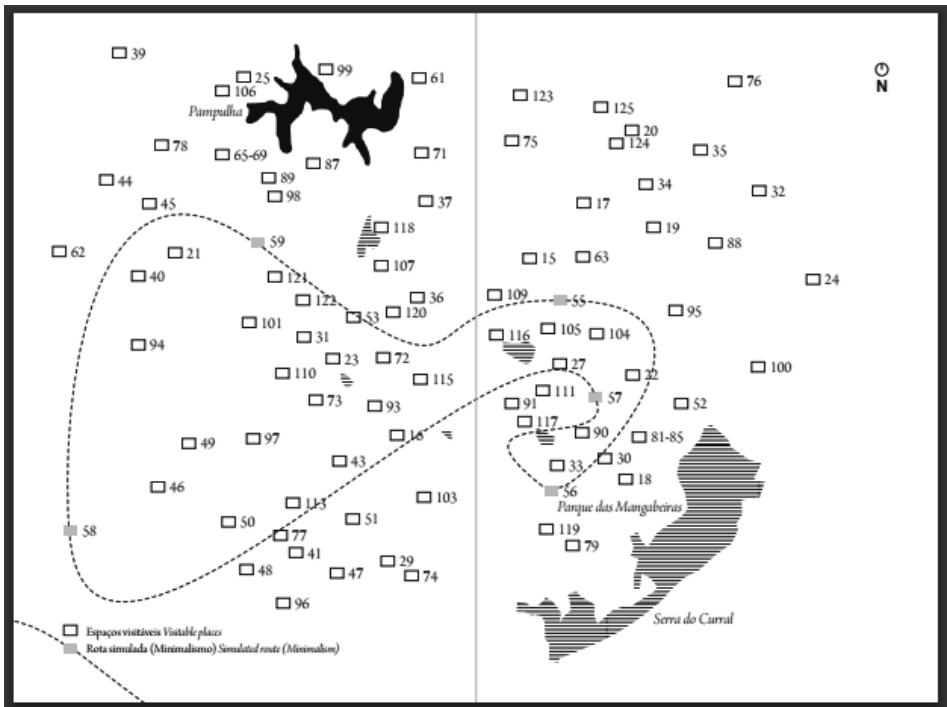


Figure 13. The second map in the photobook *Domesticidades*, locating all the photographs in their real location inside the city of Belo Horizonte (Marquez, Cançado 2010: 12–13).

Just as with the photobook *Palast der Republik*, *Domesticidades* also follows the typical format of a western codex. Following the same table construction presented in the previous section, the semiotic resources of the photobook *Domesticidades* can be presented as follows (Table 2):

Table 2. The main characteristics of the semiotic resources in the photobook *Domesticidades*.

Semiotic resource	Semiotic nature	Formal characteristics	Function in the modelling
First map with the cities around the world	Mainly indexical and iconic	It is an abstract map, with no geographical limits shown. It relates the city of Belo Horizonte with other cities with similar geographical characteristics (such as size, GDP and number of inhabitants).	It is an invitation for readers to take the project further, as it is said in the introduction of the book: “[the book] is a part of a fictitious collection waiting to be completed by other volumes from cities around the world” (Marquez, Caçado 2010: 1).
Second map with the photographs in the city of Belo Horizonte	Mainly indexical and iconic	As the previous map, this one is also an abstract map, with no geographical limits shown, except for Lake Pampulha and the highest hills of the city (such as the Serra do Curral). It presents us the real location of all the photographs that can be found in the book, with their respective page numbers. It also presents a possible route (from the themed group “minimalism”).	It connects and situates the photographs inside the city of Belo Horizonte, allowing the readers to find the locations of the photographs (once anonymously published in real-estate websites) and to construct their own routes.
Written text	Mainly iconic and symbolic	They introduce every themed group of photographs.	They create a subjective description of semantic features that unites all the photographs under the same key word (such as ‘landscape’).
Photographs	Mainly indexical	They are all photographs found in real-estate websites, connected to one another in themed groups. They do not share compositional and technical features, since they were all taken by different anonymous people.	They present us the real places where the readers can perform walks in the city of Belo Horizonte, according to the thematic routes.

3.3. The relation between the material features and the epistemic properties in the photobooks *Palast der Republik* and *Domesticidades*

Both photobooks are constructed not only by mainly iconic signs (such as the grid in *Palast der Republik*), but also by signs that are mainly indexical (the photographs in both photobooks) and signs with a clear mixed character (the maps and the written

texts in both the photobooks).³ Other main features that contribute to their epistemic role are the symbolic rules and conventions that guide our manipulation of this specific system of representation. As mentioned above, both books have the typical form of a Western codex, “a set of handwritten, printed, illustrated or in other ways inscribed sheets, fastened together by one side” (Cardoso 2014: 139). What is central about this point is how these material features affect the meaning process (Moeglin-Delcroix 2012) since, as was stated in Section 2.2, they are *epistemic artefacts*, whose material and temporal consistency allows their manipulation. For example, it is not possible to see all the pages of the books at once. The pages are presented in an ordered sequence that can only be read forwards or backwards: consequently, the demolition process of the *Palast der Republik* and the walk-through *Belo Horizonte* can only be accelerated or reversed, and experienced forwards or backwards. Although one can experiment with the book by passing the pages while ignoring its normative order, one does it deliberately: he/she knows that he/she is manipulating the book in a non-usual and, in some specific cases, even wrong way. According to Moeglin-Delcroix (2012: 58–59):

The book has an ordered sequence of pages. Such a characteristic implies two things: [first,] the spatial unit of the page or of the double spread simultaneously viewed, and [second,] the length of time where this space itself is understood and located, which means that the page has not the autonomy of a painting.

This passage also points at another material characteristic of the Western codex format that influences the manipulation of the book: the space of the pages. The conventions regarding the localization of elements inside the borders of the pages constrain our reading and consequently connect all the resources that are to be found on one page – or on one double-spread of pages. Because of this convention, we know that the resources from a given page are all related to the same spatial-temporal object: the signification is constructed through the relations that are mentally established between the semiotic resources on the pages.

4. Final comments

The semiotic-artefactual approach of models consists in the description and analysis of models by means of their material features – more specifically, their semiotic couplings. This approach provides what can be considered an unusual conceptual frame for thinking about artistic artefacts: we address artworks as artefacts that constrain the

³ According to Peircean mature classification of signs, Dicot Symbols and Rhematic Symbols (see Queiroz *et al.* 2013).

agents who are manipulating them. This constraining aids agents in making claims and creating hypotheses about not only about the phenomena which they are modelling (O), but also about the artworks' own morphological properties (S).

As was shown in Section 3, by manipulating the photobooks information was revealed about:

- the semiotic resources that constitute them (the photographs, the written texts, etc);
- the semiotic nature of each semiotic resource (mainly iconic, mainly indexical or mixed-character);
- the formal characteristics of each semiotic resource (for example, the abstract map in the photobook *Domesticidades*, that relates the city of Belo Horizonte to other cities in the world, that possess similar geopolitical characteristics);
- the function of each semiotic resource in the modelling process (for example, the written text in the photobook *Palast der Republik*, whose function is to encode all the relevant information about both the spatial and the temporal aspects of the demolition process);
- the kind of relation that the semiotic resources establish with one another (namely, semiotic coupling);
- the object that each photobook is modelling (the demolition of the Palast der Republik, and the walk through the interiors of apartments in Belo Horizonte);
- the rules and conventions that guide our manipulation of the photobooks (for example, the impossibility of seeing all the pages of a codex at once).

All these features are responsible for producing an aesthetic effect that differentiates photobooks from regular books with pictures – as discussed in the introduction of this paper.

In both cases presented here, the objects are either inaccessible or somehow difficult to reach: the *Palast der Republik* was demolished, and does not exist as a building anymore, and the interior of the apartments cannot be easily reached since they are private property. The only possible way of obtaining information about them is through representations, in which iconic aspects must be accessed through material artefacts such as the photobooks presented here.

The photobook *Palast der Republik* works as a model of the demolition process and presents us in a very explicit manner the scale of this endeavour, as well as the effort put on materially erasing the most significant building of the German Democratic Republic (possibly, a metaphor for the process of erasing the memories and symbols it carried with itself). The photobook reveals, by presenting a methodical “step-by-step” of the demolition, the extent of the process and the persistence of the ruins of the building. The photobook *Domesticidades* models a guided walk through Belo Horizonte, presenting us the rich diversity of vernacular architecture and interior decoration on the Brazilian city. Through the analysis of the pictures and their

position in the city map it is possible to deduct information about the social situation of the inhabitants of the apartment/neighbourhood: their average income (based on the furniture, the decoration and the size of the apartment), the number of children, or if there is a couple in the house. In one of the thematic groups (titled “Travelling 1”) it is even possible to learn how long it takes to complete a full walk inside the apartment itself, since the photographs show the time they were taken.

So, by understanding artworks as models, and by describing and analysing them based on their semiotic-artefactual properties (mainly, on their semiotic couplings) it is possible to address the epistemic role of artworks as a potential consequence of the artwork’s material properties. Those properties constrain the manipulation of the artefact and, consequently, its potentials to reveal information about itself and its object.

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Эпистемическая роль интермедиальных визуальных произведений искусства: анализ фотокниг «Palast der Republik» и «Domesticidades»

В статье анализируются две фотокниги – «Palast der Republik» и «Domesticidades». Утверждается, что благодаря своей крайней иконичности можно их считать эпистемическими артефактами (моделями), так как через них можно получить информацию как об изображаемых объектах, так и о морфологических свойствах самих книг. Анализ фокусируется на (1) соотношении между фото и изображаемым на нем объектом

(это отношение преимущественно иконическое) и (2) семиотических связях – одном из типов взаимоотношений между семиотическими ресурсами (фото, картинка, письменные тексты, иллюстрации и т.п.). Анализ контекстуализирован как по отношению к семиотическому, так и интермедийному фону.

Далее утверждается, что эпистемическая роль подобных произведений искусства напрямую связана с их материальными и структурными свойствами, которые ограничивают возможность манипулировать ими и дискутировать о них. В то же время представленный тут семиотический подход к подобным моделям может стать многообещающей концептуальной рамкой для размышлений о художественных артефактах.

Intermediaalsete visuaalsete kunstiteoste episteemiline roll: fotoraamatute “Palast der Republik” ja “Domesticidades” analüüs

Artiklis tutvustatakse, kirjeldatakse ja analüüsitakse kahte fotoraamatut “Palast der Republik” ja “Domesticidades”. Väidame, et oma äärmiselt ikooniliste joonte tõttu võib neid pidada episteemilisteks artefaktideks (mudeliteks), sest neist saab teavet nii nende objektide kui ka nende eneste morfoloogiliste omaduste kohta. Analüüsis keskendutakse (i) suhtele, mida fotoraamatud oma vastavate objektidega kehtestavad (väidame, et tegu on peamiselt ikoonilise suhtega), ja (ii) semiootilisele paardumisele, mida neis võib leida – semiootiliste ressursside (nagu fotod, kaardid, kirjalikud tekstid, illustratsioonid, jne) üht tüüpi vastastiktoimele. Kontekstualiseerime analüüsi nii semiootilise kui ka intermediaalse tausta suhtes.

Edasi väidame, et selliste kunstiteoste episteemiline roll on otseselt seotud nende materiaalsete ja struktuuriliste omadustega, mis piiravad võimalusi neid manipuleerida ja nende üle arutleda. Kokkuvõtteks esitame informatsiooni, mis ilmnes nende fotoraamatutega manipuleerides, väites, et semiootilis-artefaktuaalsed lähenemised mudelitele võivad olla episteemiliselt huvitavaks kontseptuaalseks raamistuseks kunstiliste artefaktide üle mõtlemisele.