Vernacular urban communication and ephemeral educational materials

the possible link between design and education during the process of literacy development in children

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INTRODUCTION

Primary education in Brazil is the most extensive cycle of basic education and is characterized as a period during which children experience great transformations and discoveries. Throughout these nine years of learning (aged 6 to 14), pupils undergo one of the most important processes in their school lives: literacy development.

Although we would agree that learning to read and write, as well as interpreting assimilated information, is one of the great watersheds of the school period, we also believe that the concept of literacy is much broader than simply reading, writing and understanding a written text. For Bissoli (2006), this process begins at the very start of human life, when children come into contact with a large universe of graphic information, striving to understand it, even before they have become literate. For the author (op. cit.), the effort to assign meanings to visual messages may be considered a form of reading.

In this respect, Bissoli (2006) explains that the literacy process also encompasses understanding non-linguistic codes found in different support materials and that may enhance the learning process of children. This is undertaken by exploring the visual codes arranged in media and artifacts that are part of the visual universe outside the classroom.

By considering that the process of visual assimilation and interpretation occurs more naturally than textual literacy and allows each individual to relate to the image object in a very particular way, we are in agreement with Smith (1999 apud Bissoli, 2006, p. 2) in considering that 'written texts represent only a small part of our daily reading, since not everything we read comes from the language code.' Thus, we understand that maps, clocks, engravings, musical notes and

¹ This and all citations hereafter from Brazilian sources have been translated by the

schematic instructions, for example, may also represent "texts", and make part of people's cultural and daily visual reading repertoire.

According to the educator and intellectual Paulo Freire (1967), a revolutionary in proposing new reflections for the Brazilian educational process, the simple recognition of a local culture enables important experiences involving dialogues between individuals and their sociocultural references. In his work Education: The Practice of Freedom, Freire (1967) argues that humanized education, unlike what he terms as "banking" education, infers the recognition of learners as part of the educational process, producers of their culture and history. This proposal is not restricted to the classroom, but seeks to incorporate, within its methodology, the social relations present in people's everyday lives.

Maciel (2011), in her article entitled The thoughts of Paulo Freire along the trajectory of popular education, complements this question, explaining that the practice of education should not be limited to the institutional walls of schools, but rather, should dialogue with the socio-cultural movements that are part the learner's surroundings. Following the conception of Paulo Freire's theory for the term Popular Education, Maciel (2011) further emphasizes that the intercession between the contents which are compulsory, observed in traditional classrooms, and those that are part of the learner's experiences and identity, should be linked within the process of acquiring knowledge. The rationale is that such a proposal would allow individuals to broaden their understanding of life in society, together with the social roles they occupy within it, thereby favouring the development of critical thinking. Thus, it is understood that Paulo Freire's methodology for literacy, by including the cultural values of a given community in the teaching-learning process, rather than just reading the word itself, enables learners to read the world and recognise their own culture:

In this aspect, the pedagogical proposal of Popular Education repudiates the traditional education of school, i.e., it repudiates the official education of the system, which rigidly maintains a set of disciplined knowledge in decontextualized contents, lifeless and meaningless to the learners, and submitted to an unthinking hierarchy within the organization of school curricula to be deposited (as in banks) into the heads of learners, which Paulo Freire termed banking education (Maciel, 2011, p. 341).

Thus, we encounter in the urban fabric, particularly in big cities, an environment formed by various types of graphic manifestations, rich in colour, shapes,

author, unless otherwise stated.

textures, images and letters of the alphabet, arranged in a variety of visual compositions. Such a scenario – which includes signs, paintings on walls and public highways, commercial signs, mud flaps for trucks, street trader trolleys, billboards, bill posters (known in Brazil as lambe-lambes), amongst others – is described by Hennes and Coutinho (2014) as a library of tactile, visual experiences, democratic, and freely available.

These local graphic manifestations form complex urban information systems, which coexist in a given spatial structure, organized according to a diversity of sociocultural contexts. However, there is one particular type of artifact that, due to its graphic and semantic peculiarities, is rooted and legitimized within the identity of its inhabitants. Here we refer to popular signs, composed of vernacular verbal, pictorial and/or schematic² elements of graphic language (GL), which continue to draw attention due to the iconographic, symbolic wealth of elements (Figure 1).



Figure 1: A cross-section of verbal and pictorial elements from popular signs registered in the city of Recife (PE) (included with the permission of Hennes and Coutinho, 2014).

For Hennes (2012), popular signs may be understood as urban graphic manifestations that retain, within their essence, characteristics that belong to popular culture. They are crafted artisanally, either with intuitive manual processes or through the use of techniques passed down from generation to generation or from master to apprentice.

² The classification of elements of graphic language (GL), proposed by Twyman (1979; 2002).

Although there has been a tendency to replace these popular signs with printed artifacts, current literature on the subject indicates that this practice is still far from becoming extinct. This is due to the democratic character of production, since 'potentially anyone with minimal artistic ability is able to produce them cheaply' (Hennes and Coutinho, 2014, p. 3). For Rodrigues (2014, p. 29), the vernacular characteristic of these signs may be understood as 'that which is quotidian, which belongs to the streets, which is autonomous', and the products that originate are made by non card-carrying designers, since, even with no academic training, they produce communicational artifacts with their own language, improvising solutions in their own habitat.

For the author (Rodrigues, 2014), discussions on the existence of a vernacular design need to become free from certain forms of nit-picking and stick to more relevant aspects on the contemporary understanding of what actually characterizes this field of activity. Thus, Rodrigues states that

Design exists regardless of whether there are professionals who have received academic training or learned the theory and methodology of designing. It exists [...] with the few resources that are within its reach (maintaining the facility of artisanal production economically much more in keeping with its reality), informing, signalling and, most importantly, communicating as they can. When we observe these graphics on signs or other information media, we may state that within their environment or microcosm, they are as or even more efficient than the work of a graduate professional [...] (Rodrigues, 2014, p. 57).

According to research in the field of information design, which have taken these elements as the object of study, authors such as Finizola (2010, 2015) and Hennes (2012) suggest that such inscriptions are an important part of Brazilian material and immaterial popular culture, and are to be most commonly found in cities of the North and Northeast. They permeate the repertoire and the graphic memory of people from all walks of life, because they reflect the soul of the region, with their colours, graphics and discourses. Thus, with regard to their importance as an object of study for the field of design, Finizola (2015) states that

[...] the theme of popular graphics is studied with different approaches: as an aesthetic and typographic object; a communication element of the urban landscape; a representative object of our popular graphic memory; or as a social practice, a living tradition that must be preserved and renewed. (Finizola, 2015, p. 60).

For Rodrigues (2014, p. 105), the act of looking at the world around us from the perspective of discovering new references in everyday elements leads human beings to develop their individual creativity. Consequently, these people tend to 'differentiate themselves from the commonplace promoted by the incessant use of formula-patterns, which become monotonous and repetitive' as opposed to the inexhaustible, dynamic sources of inspiration observed on the streets – marked by spontaneity, humour, religiosity and fun. It therefore makes sense to consider that the elements of vernacular graphics, which are able to situate us in time and space, may also contribute to the generation of multidisciplinary contents by linking the fields of material and immaterial culture, of identity and of the graphic memory of a given community with research involving Design/Education.

LEARNING TO READ AND WRITE AND LITERACY: BROADENING THE MEANINGS IN CONTEMPORANEITY

Although Brazil's National Education Plan (PNE) still includes the term learning to read and write (alfabetização)³ when presenting the educational objectives for the nation's primary schools for the period 2014-2024, the understanding of how this process takes place has nonetheless been widely discussed across the field of education. In the very document itself (PNE 2014-2024), there is an important clarification:

Learning to read and write today may no longer be considered a mechanical (de)codification of letters and syllables; it must be understood in relation to the effective participation of children in the practices of literacy to which they are exposed, both in and out of school. Thus, it is necessary to take the uses and functions of written language based on the production of meaningful activities of reading and writing within the contexts in which children live (PNE 2014-2024, 2014, p. 85-86).

With regard to this aspect, Santi (2014) explains that the new reflections on literacy deal with this process from a cultural viewpoint, in which children begin to master not only reading and writing, but to relate this learning to the social context in which it is inserted. Thus, this new understanding of learning to read and write implies changes in how reading and writing is taught in schools, and the adoption of another term capable of better representing this moment of school life: literacy – the term that we will adopt hereafter.

The author (Santi, 2014) explains that, for an efficient process of literacy, children need to interact with other individuals involved in their daily lives – classmates, teachers, family, etc. – as well as having access to information of different

³ A type of 'alphabetical' learning.

natures capable of producing their own texts and acting autonomously in the activities proposed both in and outside the classroom. As the concepts of literacy are broadened, so the school begins to play an increasingly more important role in this process, requiring the constant renewal of educational practices and teachers trained and engaged with these new ideas.

However, contrary to this expectation, children are still often led towards playing a passive role in the knowledge they are being prepared to receive in the classroom, especially concerning a number of postures that favour the hierarchical relationship between the master and apprentices, wherein there is no space being provided for exchanges of knowledge. For Duarte et al. (2008), until recently it was customary for children to think that 'whatever exists to be known has already been established, as a closed set of items that cannot be modified' (Duarte et al., 2008, p. 5). In this situation, children behaved as mere spectators or mechanical receivers of what the teacher was teaching, especially in literacy practices involving the simple joining together of syllables, or memorizing sounds, deciphering and copying.

In the twenty-first century, witness to so many changes in a diversity of human social relations, this reality is gradually on the change, through initiatives that seek to integrate the quotidian themes of children and cultural references from their places of origin with teaching basic subjects such as Portuguese and Mathematics. One good example of these initiatives has been implemented in the Arraial Novo de Bom Jesus School, located in the metropolitan region of the city of Recife (PE). According to information available on the TV Escola website – the TV channel linked to the Brazilian Ministry of Education –, the cited school is public and, since 2014, has developed a children's literacy project around the construction of the personal, family and community identity of the pupils.

In one report that revolved around the theme of literacy (TV Escola, 2014), educators from the school explained that one of the educational methodologies is based on the selection of thematic connections of cultural references, as a guide for the educational practices on the school timetable. Thus, local personalities, such as Luiz Gonzaga, a well-known musician in North-eastern culture, famous for spreading the rhythms, customs, vocabularies, clothing, scenarios and ways of life of hinterland people, are worked on in the classroom, thereby expanding the local cultural repertoire of the pupils while at the same time contributing to the development of literacy.

While recognizing the fundamental transformations that the field of Basic Education in Brazil experienced between 2002 and 2016 (currently however, in

total disarray⁴), and although research that links design and education has been developed over a long period of time by groups led by Antônio Martiniano Fontoura (in memoriam), Rita Maria Couto, Solange Coutinho, and Silvio Barreto Campello, to name just a few, they have demonstrated that there still exists a vast unexplored territory – especially related to the production of ephemeral teaching materials by primary school teachers –, which is subject to research and development⁵.

THE PRODUCTION OF EDUCATIONAL MATERIALS BY PRIMARY SCHOOL TEACHERS: IMPORTANT TOOLS IN THE PROCESS OF DEVELOPING CHILDREN'S LITERACY

One of the greatest problems related to educational material produced by teachers is the negligence with which this practice has been treated in the field of education. While recognizing the efforts of professionals to conduct their activities with dedication and competence, it is still a considerable challenge for teachers to bring elements into the teaching-learning process from the socio-cultural context of the city or region in which the children live. For Cadena and Coutinho (2015), the lack of discussion on new tools and content results in teachers repeating teaching techniques, often choosing traditional alternatives. Thus, debates on the production of ephemeral educational artifacts are as necessary as they are urgent in that they are brought closer to 'the language and possibilities that pupils experience and demand contemporaneously both in and outside the school experience' (Cadena and Coutinho, 2015, p. 8).

Considering the relevance of the teacher inside the classroom, as the main mediator and link within the teaching-learning process, Cadena and Coutinho (2015), emphasize the importance of introducing the study of graphic language into the formation of educators. For the authors (op. cit.), this is essential content for the formation of professionals, much more in keeping with contemporary

⁴ It is important to explain that since August 2016, Brazil's National Common Curricular Base has been updated, based on proposals that are disconnected from the local reality of schools and the situation of the education system as a whole. According to the document, children must be fully literate by the age of 7, at the end of the second year of primary school, not the third, as stated in the PNE 2014-2024. Such a proposal must still be approved by the National Council for Education Council, and then officialised by MEC.

There are some exceptions such as studies by Cadena (2010); Cadena and Coutinho (2015, 2016); Cadena, Coutinho and Lopes (2010, 2011) amongst very few others.

educational needs and practices, which require the use and creation of complex visual messages from a sociocultural viewpoint. On this aspect, the authors (op. cit.), explain that

Discussion on the production by teachers in terms of using graphic language for educational purposes is also to ensure the importance of the artifacts as active devices and mediators of the teaching/learning process, which may facilitate the understanding of certain issues and also motivate pupils to be more engaged in school activities. This perspective also recognizes the role of teachers as habitual creators of artifacts of a graphic nature and, thus, there is a need for them to study graphic language during their formation (Cadena and Coutinho, 2015, p. 4).

When addressing specific educational practices aimed at children's literacy, it is common to come across ephemeral educational materials produced by teachers themselves, using traditional techniques for teaching the alphabet, with no local or expressive cultural references to the social context of the children. Thus, the elements of graphic language used (verbal, pictorial and schematic) are chosen with no great reflection on their morphological properties and informative character, since these decisions are almost always taken empirically by the educators.

By observing this perspective, it was found that references to foreign mass media are commonly used as didactic content, which from the teacher's viewpoint is considered to be attractive for children. This may be observed the graphic panels entitled Calendar and Language Corner (calendário and cantinho da linguagem) (Figure 2), decorated with Disney characters, made by a primary school teacher at a privately-owned school in the town of Moreno (PE). Although it may be recognised that there is a coherent, pleasant aesthetic sense in the composition of colours and in diagramming the graphic elements, the lack of dialogue and of a local social context in these artifacts fails to expand the image repertoire of children as well as the valorisation of local cultural references as educational content.

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Figure 2: Panels using ephemeral educational materials in the classroom, decorated with Disney characters, in a private school in the town of Moreno (PE). (Source: image taken from the blog Ideia Criativa, included with the permission of Gi Barbosa and Davi Barbosa).

One of the traditional educational materials for children's literacy adopted in Brazilian classrooms is the so-called illustrated alphabet. In this material, the connections between verbal (letters) and pictorial elements (illustrations) almost always occur using references from a relatively unvaried graphic repertoire, with styles of representation that have no clear semantic value and no empirically chosen typographical sources. Moreover, no consideration is given to aspects of specific knowledge such as form, legibility and hierarchy of information.

In the Arraial Novo de Bom Jesus School, Recife (PE), cited above as a good example of an institution that has implemented initiatives aimed at renewing school practices, the illustrated alphabet (Figure 3) is one of the ephemeral educational materials used in the class that stands disconnected with regard to the cultural meanings of the graphic elements used.



Figure 3: The illustrated alphabet, used as a teaching-learning tool for literacy in the Arraial Novo de Bom Jesus School, in Recife (PE). (Image taken from a televised report broadcast by TV Escola in 2014).

In this example, the letters are arranged in two distinct typographic fonts – sans serif (in the upper part) and cursive (in the lower part) – with upper and lower-case characters. Although this diversity is interesting, from the viewpoint of

⁶ The illustrated alphabet, a term used by educators, presents the letters of the alphabet arranged on posters positioned in alphabetical sequence. By the side of each letter, there is an associated figure, the name of which begins with the corresponding letter.

expanding children's typographic repertoire, the composition of the elements on the posters presents several problems: little emphasis is given to the pictorial elements (too small to be observed from a distance), some words appear vertically (making reading difficult since it does not follow a horizontal pattern, from left to right), no characteristics of sociocultural reference are used in the artifacts – neither in the meaning of the elements nor in the style of representations.

Although the illustrated alphabet is widely used in Brazilian schools, because it is simple and objective, the Ministry of Education (MEC) has issued no guidelines or graphic standards regarding the selection of elements, materials, layout and other specifications, such as the minimum/maximum size of posters. Therefore, responsibility falls upon the teachers to physically produce these artifacts themselves, thereby adding to their workload, often already quite high.

From items made available by schools – such as white glue, coloured paper, hydrocolour brushes, rubberized materials (Ethyl-vinyl acetate - E.V.A.), etc. – educators apply creative techniques in combining materials and processes of graphic production (often artisanal), generating a great variety of configurations for these artifacts.

The fact that many have no time available to make ephemeral teaching materials nor even a basic knowledge of diagramming, graphic composition or graphic production, has resulted in the need to search for references, mock-ups and templates, together with other primary school educators, who also have the same demands and, therefore, because of this also have to make similar educational materials. This reiterates the need to include content on information design, especially graphic language, in the formation of teachers, as affirmed by Coutinho (2006, 2008, 2011, 2012) and Coutinho and Lopes (2011), for example.

Therefore, motivated by the shortcomings of their formation courses, plus the need to exchange knowledge on educational practices, associated to a desire to disclose work developed in the classroom, culminated in the appearance of virtual blogs, run by primary school teachers. These web pages are intended to establish a direct dialogue with other educators, as well as to act as a database, in which models of graphic artifacts are available and may be copied or downloaded for printed reproduction. Amongst the blogs encountered during the mapping stage, conducted using the words 'fundamental education blog' and 'models for educational materials', the most outstanding were the Ideia Criativa blog, run by the educators Gi Barbosa and Davi Barbosa, and Meu Cantinho de Ideias (My Corner of Ideas) by the educator Glauce Iraniele.

On both of these virtual pages it is possible to find examples of illustrated alphabets, presented as a reference, which may be copied or reproduced free of charge, such as the Shooting Star Illustrated Alphabet in Figure 4, and the illustrated alphabet in E.V.A, artisanally produced (Figure 5).

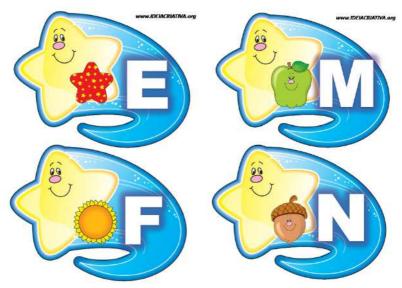


Figure 4: The Shooting Star Illustrated Alphabet, from the Ideia Criativa blog. (Source: image downloaded from the Ideia Criativa blog in 2017, included with the permission of the educators Gi Barbosa e Davi Barbosa).



Figure 5: The illustrated alphabet artisanally made in E.V.A. (Source: image downloaded from the Meu Cantinho de Ideias blog, included with the permission of a teacher from the municipal education system in Teresópolis (RJ), Glauce Iraniele).

In these examples, it is possible to verify the strong compositional consistency of the figures, successfully achieving both a decorative function (in the case

of the shooting star element) and an informative function (in the case of illustrative pictorial elements associated with the alphabetic characters). In addition, the verbal elements appear in just one typographic font style – sans serif – with uppercase letters.

While it may be recognized that the contents are interesting, in that they enable pupils to acquire general and foreign knowledge, the non-inclusion of references and scenes from the day-to-day lives of the pupils is evident from a deficiency perspective. It is therefore not possible to identify the local surrounding socio-cultural context as educational content, which could then have been worked on in the classroom.

In a similar manner to what occurs in the production of educational materials for children's literacy, Guerra and Gusmão (2004) presented a case study, the objective of which was to investigate how environmental education is included during the first years of school. In an article entitled The production of material for instructional activities to include in environmental education in public schools, the researchers (op. cit.) describe their experiences with producing material for instructional activities for public primary school education in João Pessoa (PB). The results demonstrate that the graphic elements present in these materials, which represent certain situations in the educational context, were not part of the quotidian identity and visual repertoire of the pupils. It was observed that the materials contained illustrations of people with physical characteristics different from most North-eastern people (blonde, with blue eyes), who lived in regions where the four seasons are well defined, and children have fun under apple trees (even though this particular fruit tree is more common in cold climates). In another case cited by the authors (op. cit.), the approach to themes related to the teaching of the food chain was often introduced through illustrations of African savannas, in which lions fed on zebras.

These observations provide us with clues as to how actions in the field of Design/Education are still premature regarding learning practices that are capable of effectively introducing Brazilian primary school children to the sociocultural context in which they live. These findings are proven to be of an even greater urgency when it comes to the literacy phase, when students should begin to participate more actively in the life of society.

Also reflecting on these aspects, a study developed by Richard Huerta (2010), a professor in the area of Art Education at the University of Valencia (Spain) and director of the Instituto de Creatividad e Innovaciones Educativas, provides a good example of linking educational content and references from outside the classroom. For Huerta (2010), the study of letters and other graphic elements encountered on the urban landscape enables inquiries into how education professionals may contribute to the creation of educational spaces that aim to

motivate, teach and expand the repertoire of images and socio-cultural aspects of children.

In his article I Like Cities; Do You Like Letters? Introducing Urban Typography in Art Education, Huerta (2010) indicates that big city streets are full of graphic signs, where letters and symbols occupy a central focal point, not only in the sense of what is being announced, but for the graphic form they present. The author (op. cit.) believes that by performing what he calls 'walking as an aesthetic practice', in order to perceive and record the urban environment, we experience an involvement in perception, which may be compared to the experience of visiting a museum. Its premise assumes that a museum is not just a container with pieces of art, protected, institutionalized and geographically localizable – even though virtual galleries may be viewed on the web. It is a place of fun and learning.

By conceiving city streets as a kind of open-air museum, Huerta (2010) proposes to reduce the sociological barriers that often keep traditional museums isolated, which, for the most part, do not allow photography or filming. Thus, for the author (op. cit.), the urban environment has certain advantages, since it reveals a place of great visual and cultural diversity, with no aesthetic restrictions.

In an exercise entitled Landsacpe: letters from the city coordinated by Huerta (2010), 40 undergraduate students from several different courses – mostly unrelated to the arts – were invited to explore and discover the city in which they lived, preferably on foot, seeking to record traces of local identity, peculiarities, weaknesses and innovations. Huerta (2010) commented that placing students into the role of tourists, in the place where they lived, was responsible for revealing a paradox: we often do not perceive the peculiarities of our own habitat.

Thus, Huerta (2010) believes that the sources found in the urban space help us to reinterpret the cultural heritage of the city in which we live, and that the use of typography and figures of local reference allows educators and visual artists to use graphic resources with a much greater linking power than graphic elements without this symbolic load.

With regard to the perceptions of children towards the variety of compositions and graphic elements, one interesting study was conducted by a group of researchers at Oxford University Press, from 1999 to 2005, led by Professor Sue Walker (2005). One of the objectives of the study was to establish the parameters related to the graphic design of children's reading books that could facilitate learning and stimulate children to read. For the investigation, different textual elements and configurations such as typeface, line, letter and word spacing, layout and others, were evaluated and applied in an object of study – in this case, the English children's reading book A Sheepless Night. The versions generated from

this object, containing graphic variants, were tested on primary school pupils, who were just beginning to read, in the city of Reading (UK). The errors children made were categorized, numbered and analysed statistically.

According to Walker (2005), the analysis did not involve numerically significant data, but the recorded comments of pupils during the tests contributed to obtaining important results:

[...] the comments the children made about the typographic variations they saw suggested that typography may have considerable effect on their motivation to choose and engage with a book. It is these comments through which the children discussed their understanding of letterforms and space that provide the main focus of this booklet (Walker, 2005, p. 4).

The pamphlet to which Walker refers (2005) is entitled The songs the letters sing: typography and children's reading (op. cit.) and describes the results obtained in her research. Because it is considered a kind of tutorial, the pamphlet today serves as one of the main support sources for the graphic design of English children's reading books.

Therefore, studies on the elements of the graphic language, applied to the educational context, lead us to believe that children, in the literacy phase, perceive and dialogue with the various visual stimuli, in a particular manner. Even though they are not yet fully able to read and write, these children recognize the morphological differences of the elements and are able to perceive their intrinsic semantic discourses.

INFORMATION DESIGN AND THE CONSTRUCTION OF CHILDREN'S SOCIO-CULTURAL IDENTITY FROM WITHIN EDUCATIONAL PRACTICES OF LITERACY: POTENTIALITIES OBSERVED IN THE POPULAR SIGNS OF RECIFE

Information design, an area intrinsically linked to graphic design, is responsible for investigating the syntactic, semantic and pragmatic aspects of the various information systems available in our environment. According to Simlinger (2007), coordinator of the International Institute for Information Design (IIID), information design is associated with both planning and formatting the content of a message and its definition within the context in which it is presented. Thus, the role of the designer is to propose a dialogue between the informational needs identified in the message and the needs of the user in interpreting them (Simlinger, 2007, p. 8).

Souza et al. (2016), when investigating contemporary epistemological alternatives for information design, believe that the message itself is considered an essential component of its content, since it plays a fundamental role in the communication exchanges between the transmitters and receivers of messages. On this aspect, the authors suggest that form 'should not be understood as a blur of content, but rather as a way of structuring reality, making the designer's activity an active process of forming the world' (Souza et al. 2016, p. 108).

By interfering in the message through its contextualization, planning and organization, the designer not only facilitates the understanding of content, but also acts as a co-author, finding different ways with which to interpret the message, and create fundamental 'new narratives and graphic experiences' in communication with the user (Camargo, 2011, p. 128).

Considering that communication exchanges occur through an understanding of the cultural identities of the individuals and the codes that govern the various intelligible languages, it is possible to affirm that the graphic information aspect in messages may have a significant impact on the way that users understand, assimilate and commit themselves to a given content. With an individual in early life, at the stage of forming their visual repertoire and cultural references, this aspect becomes even more expressive.

Bissoli (2006) mentions that there are several sensorial stimuli that participate in our daily life, and that the very nature of these things – colours, shapes, textures, etc – enable their perception, irrespective of whether they are the result of human intervention or a conscious intention to convey a given message. However, sensory stimuli coming from external cultural environments are perceived differently from those communicational stimuli presented in an educational context, and which need to be decoded and understood through learning.

Souza (2007) explains that until the sixteenth century it was believed that a child's learning and assimilation capacity was equal to that of an adult, except less developed. For this reason, teaching methods applied in the classroom were directed to 'correct the deficiencies or defects of the child' (Souza, 2007, p. 112), through the mere transmission of knowledge.

A child's learning was passive, consisting primarily of memorizing locally organized rules, formulas, procedures, or truths. In this environment, the role of the teacher was to transmit ready-prepared, complete content, so that the use of materials or concrete graphic materials was considered an activity that disturbed the silence or class discipline (Souza, 2007).

Today, the relevance of studies in design in the field of education may be perceived when we understand that they are establishing a new way of looking at the world and thereby directly affecting human relations and their social and

cultural scope. In this regard, several initiatives have emerged, emphasizing that the role of the designer is fundamental in the process of stimulating visual experience, and is able to contribute to the enrichment of the textual, imagery and socio-cultural repertoire of children. Such collaboration is able to bring benefits to learning linked to motivational and cognitive issues, which seek a dialogue between the school and out-of-school environments.

For Harland (2011), graphic design – a field of study belonging to the field of information design – is traditionally associated with the generation of ideas through the study and development of areas of specific knowledge, such as typography, illustration, photography and printing. But while these areas contribute significantly to the practice of graphic design, they do not holistically represent what graphic design is and what graphic designers do. By working on the production and improvement of communication structures, designers decode messages before translating them into words, images and schemas, reinterpreting them, reformulating them, and providing more efficient directions for users, by considering – using a Stuart Hall concept and definitions – "the codes which govern the relationships of translation between" the shared "conceptual maps" and "language systems" of a culture' (Harland, 2011, p. 22).

Investigating the morphological and semantic characteristics of popular signs in the city of Recife, especially the verbal and pictorial elements, Hennes (2012) revealed relevant aspects that make part of the popular graphic universe of the state capital of Pernambuco. From a morphological viewpoint, the most outstanding aspects were: (a) the predominance of signs made without the aid of forms or moulds, emphasizing the original character of the inscriptions painted and decorated by freehand; (b) the possibility of identifying graphic patterns, despite the wide variety of elements, colours, decorations and other visual components; (c) the authorial character of the drawings of letters and figures, based on the creativity and skills of the specialist and non-specialist sign painters; (d) the diversity of pictorial representations – at times with a wealth of details, and at others syntactic and minimalist; (e) the playful and/or comic character of many announcements, made explicit through both verbal and pictorial elements; and (f) the value/semantic references that the graphic compositions may impute to the marketed product or service provided, as shown in the example of the sign for Cia do Guaraná (Figure 6).



Figure 6. A sign for Cia do Guaraná, registered at the market in Casa Amarela, in Recife (PE), in 2011 (included with the permission of Hennes).

From a semantic point of view, Hennes (2012) observed in this composition that the letters seem to be melting under the typical heat of Recife and that the guaraná fruits are performing physical exercises, highlighting the health/fitness characteristics of the product and thereby reinforcing the relation between the meaning of the textual message and the graphic form of the announcement.

All these aspects, investigated and validated by research, lead to associations with other sectors within the local context, such as the irreverence and playfulness present in carnival and folklore, the authenticity of popular language and the formal characteristics present in other artifacts of the material culture, such as the multi-coloured colonial constructions and the originality of the local handicrafts. All these connections contribute to strengthening the cultural identity of Recife and to expanding the visual repertoire of its inhabitants and visitors.

In imagining possible dialogues between the theme of vernacular urban graphic artifacts and the teaching-learning school context, it may be seen that the literacy technique itself, called the illustrated alphabet, mentioned above, could give rise to the use of local graphic references as a manner of representing the letters of the alphabet.

With a brief search through the image database that makes up the research corpus of Letreiros Populares do Recife (The Popular Signs of Recife) (Hennes, 2012), we encounter a series of verbal and pictorial elements in their graphic characteristics (shapes, colours, textures decorations, etc.) (Figures 7 and 8). In the

midst of so many visual and sensorial stimuli, the most outstanding have been included in Figure 7 that only presents pictorial elements, the names of which all begin with the letter "C".



Figure 7. Pictorial elements, taken from photographs of popular signs in the city of Recife, representing the letter "C": coconut (seven different graphic representations); chicken snacks (coxinha) (three different graphic representations); confeito (a local term to describe sweets or candies); chapéu (hat) and colher (spoon); copo (glass) and canudo (straw) (included with the permission of Hennes and Coutinho, 2014).



Figure 8. Verbal elements, taken from photographs of popular signs in Recife (included with the permission of Hennes, 2012).

Thus, adopting the conception of Huerta (2010) and Hennes and Coutinho (2014) regarding the possibilities that the city streets have to offer and which may be observed within the perspective of an open-air museum, the sociological barriers linked to the urban environment could be reduced, since it is a place that presents great visual and cultural diversity, with no aesthetic restrictions.

FINAL CONSIDERATIONS

By linking social sectors considered as priorities in Brazilian actions of teaching, research and extension – Education and Culture –, the present study has touched on both the universe of ephemeral educational materials, essential to teaching-learning practices during the literacy phase, and the study of language in local socio-cultural contexts, taking as a reference the popular signs observed in the city of Recife.

Due to the morphological variety of graphic elements presented and their relevance as important cultural artifacts in the construction and valorisation of a local graphic memory, the proposal of this study has been to examine the new possibilities of inserting elements from the graphic memory of local communities into educational contexts.

Focusing on the process of children's literacy, it is logical to imagine that the insertion of these contents into classroom teaching-learning practices could contribute to the development of children's visual culture, enhancing learning and encouraging children to become engaged in reading and interpreting messages both inside and outside the school, thereby contextualizing them socially and culturally and encouraging the development of critical thinking.

Thus, it is believed that many strategies may be extracted from the imagery and textual elements of the urban fabric, in order to communicate aesthetic and cultural values to children. This is possible inasmuch as we understand that any child that creates some kind of graphic work will need to make decisions on the form of the letters, the type of pictorial representation and the visual composition of that content – even though, since the late twentieth century, children have become familiar with computer keyboards and multifunctional cell phones before beginning to develop their skills with a pencil and paper.

The reflections undertaken in this work have stood alongside some of the initiatives developed in the field of Design/Education, with particular emphasis on production linked to the Design Department of the Universidade Federal de Pernambuco. Amongst the main research groups, we highlight InfoDesign, which presents, as one of its proposals, the investigation of educational practices from the viewpoint of information design, and RIDE – the International Design/Education Network, which addresses the contextualization, planning and production

of graphic interfaces of information, as well as the acquisition of information and formation of teachers and students.

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