Generative Visual Identities.
New Scenarios in Corporate Identity.

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Introduction

In design processes the use of computer and related tools, as we can define softwares, it is today an extended practice in conceiving and producing forms. Mainly designers, architects, as well as artists, use proprietary softwares (or closed source softwares), that limit the possibilities to the ones provided by package developers. Those limitations have been effectively underlined by the expression "form follows software" [1, 2], which make evidence to the need by the creative world people to experiment all **open source programming codes possibilities**. Reas [3] expressed well this way of thinking: "Proprietary software products are general tools designed for the production of specific types of forms (…) To go beyond these limitations, it is necessary to customize existing applications through programming or to write your own software". A direction that Galanter [4] already summarized therefore: "It was seemingly inevitable that soon after the adoption of the computer by designers as to manual tool for CAD, to there would follow the adoption of genetically inspired algorithms for the creation and selection of variations".

In these words is indicated by the fact a course recorded for about ten years in many areas of design and in particular in **the field of communication design**. And that it is proper to the so-called Generation Y (those born between 1980 and 1996), for which the use of technology is natural if not obvious [5]. The intriguing present scenario sees **graphic designers** using more and more programming in the definition and construction of **visual identity** projects whose results are characterized by variability, flexibility, dynamism and multiplicity of forms. The peculiarity of this phenomenon, besides the use of programming, is the definition of a formal genetic code, a system of basic rules and management of the forms themselves. This premise allows to bind to a similar phenomenon –as we will see in follow– the term of generative design.

The aim of this paper is to argue this recent evolution in the field of **corporate identity** and visual identities and in the wider area of **communication design practices**, by showing a series of case histories as well as presenting the results of some experimental projects.

1. On the definition of Generative Design

The definition of Generative Art by Galanter [4] refers "to any art practice where the artist uses a system, such as a set of natural language rules, a computer program, a

machine, or other procedural invention, which is set into motion with some degree of autonomy contributing to or resulting in a completed work of art". This emphasizes the proactive role of the artist in defining those "evolutionary" rules –as are called by Soddu [6]– or guide-lines that allow the production of multiple solutions consistently to a framework [5]. It is possible to observe this approach in several cases of **Generative Design**. When this approach is applied to a visual identity system, the designer defines a system of rules more or less variable on the basis of parameters that can produce multiple formal variations, not at all predictable. This is consistent to the very first definition given by Soddu on Generative Design "as a morphogenetic process using algorithms structured as not-linear systems for endless unique and un-repeatable results performed by an idea-code, as in Nature" [7, 8].

Again Galanter [9] affirmed, "generative art happens when the artist give some part of control to another system so as the result would differ from an art creation of spontaneous decisions of an artist." In the field of Generative Design, this other system can be represented by programming codes or customized computerized machines. That –according to Manovich [10]– generate multiple formal solutions, to set up automation, repetition, scalability and variation processes. Systems that must be considered like facilitation tools of a creative act, as they allow to spend more time in experimentation, research, production; and the final result can be more satisfying for the designer as well as consistent to the design ambitions and requests [3].

The designer is not anymore just the user of ready-made digital tools, becoming himself programmer of **customized digital toolboxes** by using open source codes like Processing or VVVV. That changes not only the design process but the role of the designer himself. As far as technology support is relevant, technical matters are relegated in the background on behalf of abstraction and data parametrization that means on behalf of a meta-design level. The use of programming in creative and visual communication design processes "empowers the designer, freeing he from the constraints of predefined computational tools, and promoting creative freedom in the construction of visual metaphors" [11]. The designer part becomes the one who defines parameters to generate forms not losing sight of a visual identity system main task that is to identify and to make recognizable an organization [2].

2. Tradition and Innovation in Corporate Identity

In the communication design field, main applications of a generative approach are for information graphics and flexible visual identities. Looking to recent practices we can observe cases of visual identities –that can be defined as fluid [12], dynamic or post-logo– that present a completely opposite approach compared to the traditional production in the field of corporate image. The application and repetition of a logo (the unique sign of identification of an organization) following precise rules is a conventional and traditional practice method. There is now an opposite practice that prefers the use of a more fluid and expressive visual languages "characterized by variability, context-relatedness, processuality, performativity, non-linearity, coherency ..." [13].

An innovative way of thinking and practicing that reflects the evolution of the brand field as in the words of Boylan and Cox, designers at the well-known brand design agency Wolff Olins [14]: "the brand is no longer a single neat and tidy logo that you

stick in the same place every time. Our thinking of brand has moved on. The brand is the platform, the brand is flexible, the brand is a place of exchange, and it is not fixed, so there is not one logo. There is recognisable form and recognisable communication and behaviour, but it's not one type of constrained and fixed thing".

The representation of an organization –as it is with a traditional corporate identity approach– by a series of primary (the logo first among others) and subsidiary elements, whose prescriptive expression is the manual [15, 16-17], is revitalised by the adoption of formal building tools and processes nearer to meta-design matrices. That is a change from closed (e.g. logo-centered) to open systems [18].

The designer can use programming not only in the two or three spatial dimensions, but also in the fourth, the one of time. Time modifies the image's appearing not in a controlled way, but in a programmed way. This approach –not new but actual, considering that already in mid-60s there were cases of flexible visual identities [19]– is closer to divergent thinking that are interested in the production of multiplicity and variety then to the convergent and pragmatic thinking. It is possible to affirm that this is an approach closer to a soft one (as it was for Peter Behrens designing everything for the former AEG) then to an hard one, centered on the manual as a technical and bureaucratic tool [20].

3. Logo-Generators

In consideration of (all of) the above, observing the international practice it is possible to identify some case histories of logos or visual identity systems that match this idea of brand's multidimensionality suggested by Boylan and Cox [14]. The trend is the design of **toolboxes**, called **Logo-Generators**, that allow to manage a finite number or not of a sign variations to use as identification sign. Variations are managed following a strong meta-design approach: the design of the process is preferred allowing control on the whole visual identity. What is relevant in this process is the design of the "control knobs" that generate variety and guarantee the identity permanent elements [18].

Chronologically the logo-generator for the Casa da Musica [21] is one of the very first. It works on six versions of a basic sign, necessarily inspired by the Rem Koolhaas's design of the building, showed from different perspectives. Through the different views of the building, 17 facets are defined – from those a 17-point color-picking mechanism is created as customized software. That allows to select from images the colors of the sign to be used in the various communication matter for particular events or the staff (e.g. business cards). The logo changes in every application and media and the colors change too.

The Casa da Musica organizes and hosts several music events –from jazz to classical, to contemporary styles– for different kinds of audiences. The personality of the organization is not static, nor can be the identity or the image. The software offer an endless variety of solutions both for the audience and for those who have to manage the identity every day.
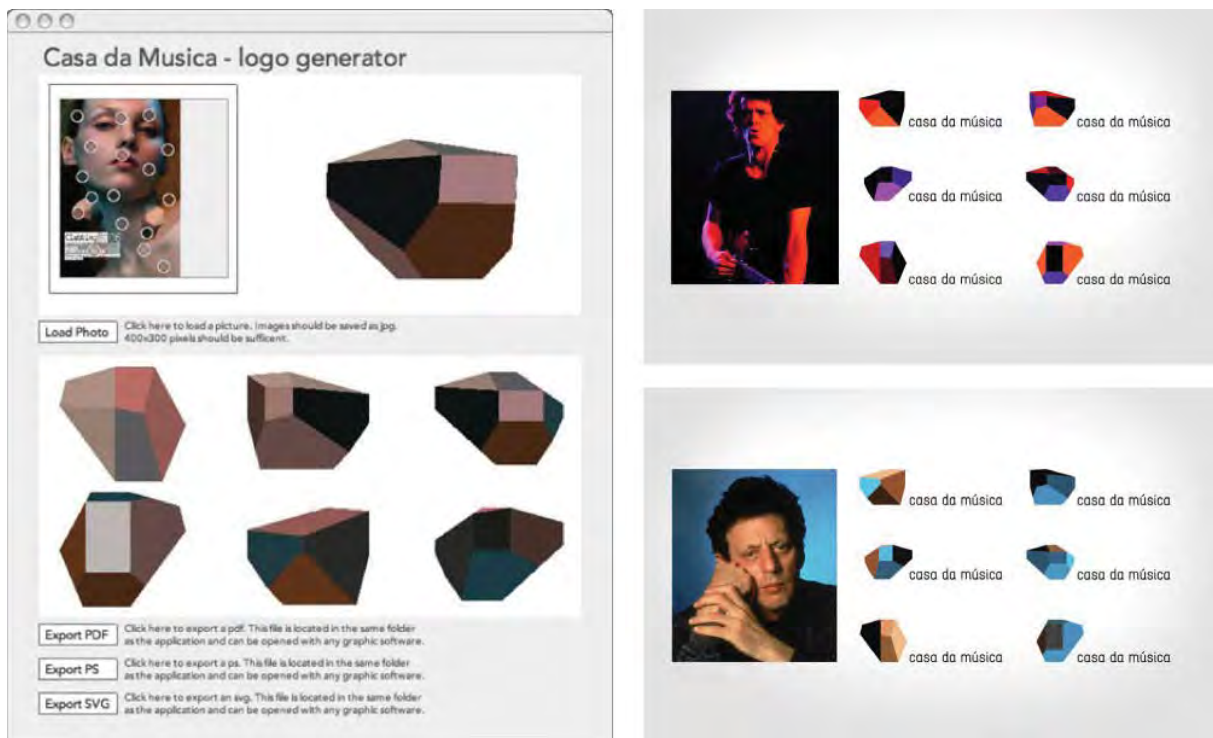
Logo generator –developed using Processing– for the Casa da Musica, Oporto (Portugal), design S. Sagmeister, 2007.

Logo variations for the Nordkyn place brand project by Base Design, Norway, 2009.

Another is the one for the Nordkyn peninsula, not far away from the Arctic Circle, home to two municipalities – Gamvik and Lebesby – in the county of Finnmark, Norway. The two cities have developed a common place branding strategy. Neue Design (2009) based the visual identity on two main ingredients [22]: a payoff, "Where nature rules", and weather statistics from the Norwegian Meteorological Institute. A feed of weather statistics affects the logo to change when the direction of the wind or the temperature changes. On the website, the logo updates every five minutes. A logo generator has been developed where Visit Nordkyn staff can

download the logo to the exact weather conditions of that particular moment. As affirmed by Neue Design [23] "Nordkyn is truly a place where nature rules, even over the visual identity". Because of the random climatic parameters it is not possible to control all shape variations, although the primary one is based on a strict geometric grid. "When the input is generated by live information, the identity reflects the world it is living in and adapts according to its real-time input, it becomes alive" [24].
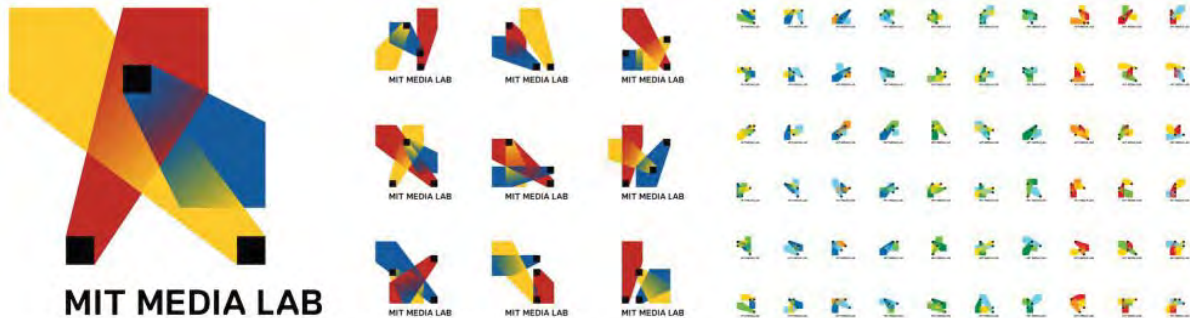
*Logo variations for the Mit Media Lab, design by Thegreeneyl, 2011.*

For sure the algorithm based logo for the Mit Media Lab (Thegreeneyl, 2011) [25] it is one of the most well known. His unique character is reflected in the logo design: each of the three shapes stands for one individual's contribution. The three shapes combined create a new shape, representing the outcome of the research process in a constant redefinition of what media and technology mean today. The algorithm allows to create a unique logo for each faculty, every member of staff and all students. A custom web interface was developed to allow each person at the Media Lab to choose and claim their own individual logo for their business card, letterhead and website as well as a custom-designed animation software which makes it possible to create custom animations for any video content the lab produces [24]. In this case the sign is based on intangible values and variations depend on the people of the staff that generates and use the sign itself.

Index Urbis visual identity designed by FF3300, 2010.

There is still a certain number of cases that can be quoted. To point Italy on a hypothetical design world map it is possible to mention two of these. The first is Index Urbis designed by the Puglia based studio FF3300 (2010) [26] for the Festa dell'Architettura di Roma (the Rome Architecture Festival). A software has been developed to translate in a sign the town complex morphology, to show architectural elements of different ages that coexist in the same spaces, or to visually synthesize Rome's multiplicity and variability. "There is no final result, but just a continuous

sequence of phases" [26]. The sign that changes in every application it is typographic, a variable logotype.
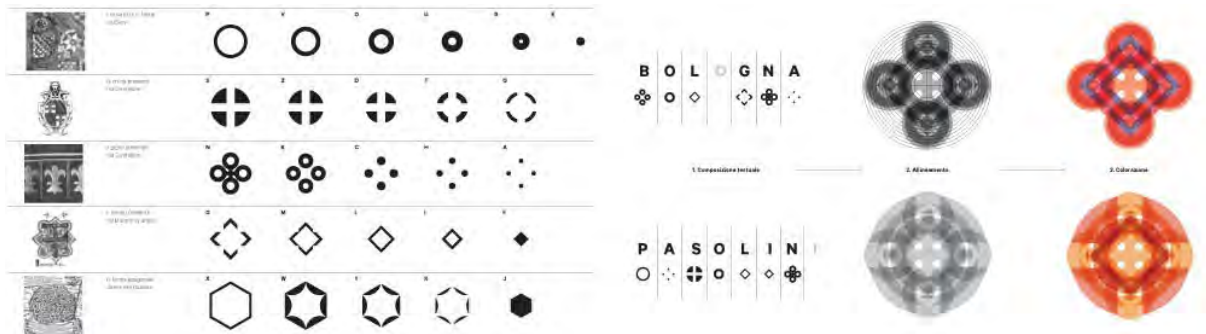
Basic elements of the visual alphabet and set of rules for logo arrangement, "è Bologna" city brand, design Matteo Bartoli and Michele Pastore, 2013.

The other one is very recent city brand for Bologna (2013), designed by Matteo Bartoli and Michele Pastore [27]. The visual system is based on a visual alphabet in which the single letters are replaced by geometric abstract signs inspired to a typical Italian historical imaginary. In this way, the richness of elements and tangible and intangible values –that can be typically referred to an Italian town– are translated. The forms freely take up again some figurative archetypes of the Italian city and more precisely of Bologna [28], such as walls, brick mosaic, the lily and the heraldic cross. Through a customized online software (available at http://ebologna.it/) it is possible for everyone to write what "Bologna is" ("è Bologna"). As the two designers affirmed this is "not just an adaptive and flexible visual system, […] but participatory too" [27].

4. An experimental practice

An annual work –consistent to the professional and experimental design scenario described above– has been launched for the 2013-14 bachelor's Communication Design Studio. The aim was to design visual identity systems for places, organizations and events rendering the richness, the multidimensionality, the multiplicity of the aspects, the eventual context-relatedness. The class has been organized in about fifteen groups, each having a specific subject to work on (e.g. nation branding, sports event, currency system, political party, and so on). First each group has to define the whole concept and the organization of the subject, his aims, his values through targeted research; then to design the visual system, defining appropriate communication channels, tools and applications.
Each group had to develop his project defining parameters and rules of the visual identity variations to be programmed by using the open source code VVVV. It is useful to describe two of those results, in order to demonstrate the richness of this area of design experimentation.

The visual identity for an invented hacker micro-nation located in the Westman Islands –a series of small islands sited south of Iceland–, is mainly based on two elements: the **Vegvisir** (the ancient Icelandic magical stave intended to help the bearer find their way through rough weather) inspired an alphabet; the **glitch** (the bitmap images failure) inspired the graphic elements of coordination.

The Westman Islands nation's brand identity and the flexible nation's flag (right). Design by Mariagloria Posani, Giulia Ponzetta, Emanuele Sciolto, 2014.

The Vegvisir-inspired elements are used to arrange the basic symbol of the nation and to write customized codes to use as customized fiscal codes. A specific **tool-box** has been designed and prototyped to write and print the visual code. The tool-box is composed of an on-screen writer called Muninn and of a printer named Huginn (the two ravens that fly all over the world and bring information to the god Odin).
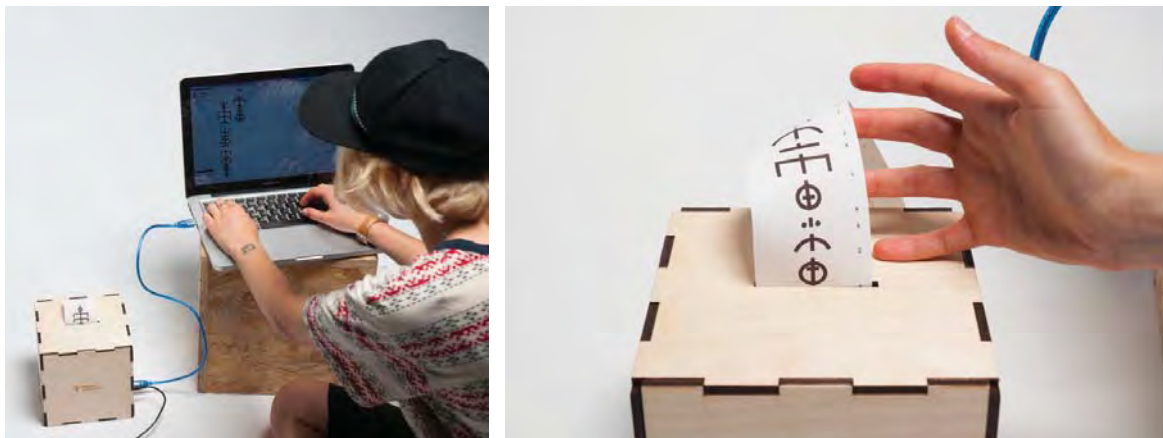
On-screen writer and printer for the Westman Islands nation's brand identity. Design by Mariagloria Posani, 2014.

The glitch inspired elements are used in two ways. First, to arrange the visuals of printed and digital applications. And as a digital nation's flag that is shaped through a particular sound-reactive generator: two central rectangles change on sound volume and tone variations; a series of disturbing pixels increase and arrange themselves following the ground noise. The overall elements give a visual representation of a participatory democracy.

Nyvold logo variations and in use for a display mobile device application. Design by Marco Biasibetti, Mara Cominardi, Sergio Corini, Andrea Croci, 2014.

The other experimental project is the one for an health-care organization that produces drugs inspired to the archaic alchemy. This company is called Nyvold, from the two Icelandic words "ny" and "völd" that stands for "new powers". The logo basic shape refers to the philosopher's stone, and it is designed as a two-dimensional decahedron. Through a customized digital tool-box that converts parameters on body temperature, heartbeat and skin hydration the logo becomes three-dimensional mixing three geometrical shapes and the three basic colors. The logo variations show real-time feeds related to drugs users' physical changes, and it is used as a portable device display infographics. In this way, the logo visualizes temporary contacts between the subject that produces (the organization itself) and the drugs' users (the organization stakeholders).

5. Conclusions

Comparing the practices in visual identities it is possible to observe that until all the '90s there are no significant innovations in the transition from the analog age to the digital one –the "age of transition" as named by Baule [29]–. Today it is possible to notice some changes.

Traditionally, when have to design a logo or a visual identity system, graphic designers reduce contents and values of an organization through signs by using professional tools. In the past those were pencils, photos, scissors and so on, then the very first photo and layout softwares. In both cases results were visual artifacts where it was not possible to observe significant evolution, in terms of visual language, it matters not what tool was used.

Today results can be devices to produce and generate visual artifacts. Graphic designers have to define still the set of rules and a framework to shape a visual identity, but more evidence is to give to the designed tool that manages the shape. The real evolution it is in the use of the digital tools, not anymore in a passive way but in an active way. Graphic designers can build their digital tools basing them on design and esthetic needs. Innovation is in the creative process, instead of in the

final result [4], is in the "way to live our own creativeness" as affirmed precisely by Soddu [6].

In terms of merely formal shape, the use of photo, vector or layout digital editors, has not produced innovative results comparing them to previous ones. Rules and elements of a visual identity are the same: a logo (defined both in black and white and color versions, positive and negative versions), a set of basic colors (most of the times two), a set of basic typography and so on. Visual elements are strictly organized, based on a series of sharp rules of use and combination.

Small changes happen with the use of some transparency effects to suggest links to the digital world by using liquid and immaterial shapes. Another one is the trend of making three-dimensional logos by using shades and gradients –not anymore incisive of what could be obtained in the past by using an airbrush. The designer is creatively and stylistically forced by the digital tools available solutions; tools that simulate and reproduce precisely and limitless analog tools and procedures.

It is then quite evident that what has been described in the previous pages has to be observed more as an innovation in terms of design procedures and processes then of pure formal shapes. Although it is to say that it is possible to observe in most cases a sharp use of simple and clear geometric shapes.

Observing the practice it is possible to notice that a generative oriented approach to visual identity is particularly effective and idiosyncratic to those kind of organizations that need to communicate using different tones of voice turned to different kind of stakeholders and users. Or to represent the multidimensionality of their personality as a value to share (to be intended as a multiplicity of contents and operation). Most of these organizations operate in the fields of cultural or public interest, or manage places or cities.

The use of programming and a generative approach allows to build tools and, once a set of rules is defined, to obtain unexpected results. Donald Schön called this approach as "reflective practice" [30]: that means having in the design practice an experimental approach in the research of procedural and formal solutions. Where experimentation means what Teal Triggs [31] has defined as "a way of trying something out, of playing. It is about innovation, but it is not always formulaic nor is there an established set of rules. Positioned within a more scientific context, experimentation is a process by which a hypothesis is tested under controlled conditions to discover an unknown effect. In both cases, experimentation is a legitimate research method".

Through those considerations emerges that the communication designer (what was the graphic designer of yore) needs a new knowledge that produces a new expertise. A profession, whose prestige has been destabilized by softwares' circulation and easy to use interfaces and functions, that acquires a new knowledge through a methodological and technical cross approach. To do so, the communication designer has to act as an artisan as has been defined by Sennet [32].

6. Acknowkedgements

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