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DEVELOPING METHODS OF RESILIENCE FOR DESIGN PRACTICE

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A supportive document submitted in partial fulfilment of the requirements of the University of Northumbria at Newcastle for the degree of Professional Doctorate

Research undertaken in Northumbria Department of Design

Volume 1 of 2. Supportive Document June 2013
Declaration

I declare that the work contained in this Supportive Document has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others.

Any ethical clearance for the research presented in this Supportive Document has been approved. Approval has been sought and granted by the Faculty Ethics Committee on October 1, 2013.

Word count of the Supportive Document is 23,626.

Name: María de Mater O’Neill

Signature: [Signature]

Date: June 25, 2013
ABSTRACT

It was noted by the researcher that living and working in Puerto Rico, in what are politically and socio-economically difficult and sometimes threatening conditions, at the time of this programme of research, there was something to be learnt from those designers who exhibited resilience to stressful events. Therefore, the specific purpose of this practice-led programme of research was to understand designers’ decision-making processes when under political and socio-economic stressors and question how they can make strategically successful decisions that enable them to thrive. The first objective was to identify and define resilient strategic thinking. To do this, the researcher reflected upon her own thinking and practices as an art director and design educator suffering the adversities of political and socio-economic disintegration in her own context. This self-reflective process revealed her use of a number of coping tools, which became the set of Real-Time Response Planning (RTRP) tools for managing adversity. The second tool’s objective was to explore the possibility of teaching strategic application of the RTRP tools to other designers who were also experiencing their own stressors. In review of designers’ engagement with these tools, the third objective was to develop an effective graphic articulation of the RTRP toolbox. This enabled the fourth objective, which was to measure the effectiveness of the RTRP toolbox in guiding designers towards radical resilience, towards bouncing forward as a more adaptive response to adverse conditions.
The research was begun using the Reflective Practice and Action Research approach; however, critical review of its appropriateness within this social-political context of design practice moved the researcher to apply the Systematization of Experience method. A Systematization workshop was conducted applying Participatory Action Research and Participatory Design to the creation of the RTRP toolbox paper prototype, as a vehicle for observing the application of the RTRP tools during design practices. This programme of research found that the RTRP tools were able to positively support thriving and resilience as defined by the Resilience Theory. The toolbox successfully supported the teaching of resilience behaviours at a personal and local level, enabling the development of positive coping strategies in real-time, and informed the planning of longer-term strategies for similar adversities in the future.

The current global economic crisis has left many designers with insecure futures, yet there is an expectation that they will carry on efficiently to maintain their livelihoods and lifestyles in the face of daily adversity. These RTRP tools offer designers a means of managing these experiences and help them see opportunities.
Acknowledgements

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RELATIONSHIP OF THE DOCTORAL REQUIREMENTS

Supportive Document Volume 1 of 2.

Portfolio of Evidence, Volume 2 of 2.

DVD
The aim of the researcher’s Supportive Document is to provide a guide for the evidence presented in the Professional Portfolio. The researcher suggests that the reader use this volume as a primary document. Both documents are intensively cross-referenced. Research is not linear. As in the Professional Portfolio, the Supportive Document describes the errors and wanderings of a practice-based research process as part of a contextual and open approach. The layout design of both volumes aims to give the intertextual threads a coherent non linear reading as an attempt to articulate the research process. The reader is expected to alternate between the volumes in order to understand the motivations, methodologies and findings.
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EXECUTIVE SUMMARY

The researcher found herself unable to explain successfully her “know-how” on design practice in the Caribbean context to others not familiar with it. Although skeptical, the researcher used this as the initial point of inquiry for her doctoral studies. The researcher found herself attributing her resiliency to the use of eight methods to manage adversity in her design practice while at the same time questioning if these tools of her systematic design procedure really existed.

The researcher identified the Resilience Theory, which explains how certain individuals thrive or resist succumbing to the impact of stressors. Then she applied it to her tools — her resilience “know-how” or Real-Time Response Planning (RTRP), in her design practice.

Her initial research methods, Action Research (AR) and Reflective Practice (RP), allowed important findings, but their use were unable to prevent her from succumbing (fail to resist her stressors). These methods did not give the researcher the skills to change her context when she became aware of her stressors. However, the tools gave her the resources to change to more effective methods and therefore to thrive. Structured interviews concerning design procedure were done with other designers locally and in Argentina. During this period the tools became a toolbox, a metaphor for a resilience system-thinking mindset. A new tool emerged: Script was used to avoid burnout and blockages of effective decision-making, when high-level stress is experienced.
The researcher had the insight that the way to conduct her inquiry and to design the RTRP toolbox needed to be coherent (that her values, beliefs and actions should not contradict each other). Then she located an appropriate research method for her context, the Systematization of Experience, a collective reflective methodology used in Latin America. Because Systematization is a contextually driven method that includes a political framework, it helped the researcher to thrive, since she perceived her stressors to be political. The researcher appropriated this methodology to make it design-relevant.

The researcher’s inquiry changed to an open transdisciplinary research consisting of a Systematization workshop that used Participatory Design (PD) and Participatory Action Research (PAR) approaches. In the Systematization workshop, participants (designers, a psychologist, students and an urban planner) designed a paper prototype of the RTRP toolbox. This process also allowed the users to further apply the tools. The RTRP model became explicit, allowing the researcher to articulate her resilience methodology (her “know-how”).
User testing and peer reviews were used after the Systematization workshop to make comparison between the working prototype with IDEO’s Social Impact Guide. Findings indicate that the tools were used with different order and priorities by each user; that the tools enabled different levels of learning and interaction; that users had different ways to use them, for example, using the tools names to describe a particular / different situations; that the tools encouraged self-mentoring (a learned resourcefulness resilience factor); and that the Intertextuality tool was a key component to thriving. The RTRP process was refined, adjusted and articulated more effectively. This experience led the researcher to identify resilience models in other fields (healthcare and disaster management) that can be used by practitioners under stressful situations.
The researcher concluded that her RTRP model is **unique** in that it is **designer-centred**, as opposed to user-centred, helping designers to deal with stressors that are sources of professional and personal adversity. **Findings:** Using the RTRP model can build real-time resilient strategies in real-world situations; the model helps designers develop skills that enable them to adapt quickly in a shifting environment through case-based self-learning. It also promotes collaboration (the strength of situated contexts using the *Anchored* tool), so that it can be used as a reflective higher-order thinking and learning tool. Presently the RTRP is being actively used by the researcher in a tacit mode as well as in explicit manner when strategic planning involves others in her design team.
1.1 How It Started: The Context, Resilient under Adversity

In the initial stages of preparing a research proposal for doctoral studies, the researcher found herself unsuccessfully trying to explain to her tutors the reasons behind her decision-making in her design practice. The reasons were all based on her social context and how it affected her design and educational practices. She was meeting deadlines and achieving goals on design jobs, doctoral studies and at the university where she used to teach in the Design Programme.

Her context of practice continues to be subjected to the pressures of insularism, corruption, political branding, persecution, lack of resources, lack of access to advanced technologies and production methods, and lack of adequate budgets. On beginning this programme of research, she was being resilient under adversity without consciously knowing it.

1.2 The Discovery of Tools to Manage Adversity

The researcher communicated her frustration to a fellow colleague and architect, Andrés Mignucci. In her conversation with Mignucci, the researcher described the difficulty in articulating how she has practised design in adverse conditions in Puerto Rico. He then suggested that she should articulate her method for design practice in
Puerto Rico (Mignucci, 2009). As a response, the researcher articulated eight tools of her systematic design procedure for the first time. The procedure ended up with nine tools, but in the initial discussion with Mignucci, only eight were identified. Those eight tools were:

1) **Diversification** - Combining multiple spheres of action and having the ability to move among diverse social groupings, thus developing an eclectic network without the need to belong to a specific social group.

2) **Fast Feet Play** - Being in constant mutation and transformation. A fast feet attitude can make or break any play, evolving around ever-changing situations, clients and circumstances.

3) **Rauxa/Seny** [this was named by Mignucci] - These are Catalan words for intuition/common sense. The researcher uses this term to describe the balancing of the tension between creative intuitions and the practical aspects of design.

4) **Publishing** (initially referred to as Publish) - The reflection on both, the process and the final artefact, must be documented. If the process is not documented and made public, then it will feel as if the entire action never existed.

5) **At Hand** - To constrain the design work to the feasible resources available and not lament over what we do
not have; instead, we should see the design learning opportunities.

6) **Intertextuality** - Acknowledge and create dialogue with previous authors/creators (this cancel out the *tabula rasa*) and connect with what has taken place, and value interventions that may be forthcoming.

7) **Stealth Mode** - To be undetectable, under the radar, by not drawing attention towards the project or oneself. Keeping quiet and proceeding with cleverness. It is the opposite of *Publishing*.

8) **Anchored** - Means to be anchored in place, a sense of commitment to a specific community that should not to be confused with blind nationalism or xenophobia.

### 1.3 Initial Inquiry

The researcher decided that she was going to use the tools as her initial inquiry, because she was skeptical as to whether she was actually using those tools in similar situations and, although she recognized them, she wondered if she was rationalizing in a simplistic way on how to handle difficult contexts in her practices. So the first question of this research was: Do the tools exist?

### 1.4 FIRST STAGE OF RESEARCH: Approaches, Purpose and Initial Questions: Resilience Theory

In an effort to study the tools she used to practise under adversity, the researcher identified the Resilience Theory (refer to section with same name in this Supportive Document, p.39, and *Resilience Theory & the RTRP Tools* in the Portfolio of Evidence, pp.26-34), which explains how certain individuals thrive or resist succumbing to the impact of negative events. The researcher adapted Carver’s model (refer to Appendices in the Portfolio of Evidence, p.248), ‘Response to Adversity: The Domain of Possibilities’ (Carver, 1998), to evaluate the effectiveness of the tools. This is the level of efficacy of the tools when handling adversity in real time to achieve positive outcomes. There are four levels:
4) **Thriving**: New knowledge and improvement in one or all areas: practices, economy and emotion.
3) **Resilience** - Recovery in all areas.
2) **Survival with impairment** - Damage in one or no more than two areas.
1) **Succumbing** - Burnout, emotional exhaustion, depersonalization and decrease in self-efficacy.

The researcher's tools were grouped using Polk's (1997) four resilience behaviour patterns which are: Philosophical (User’s world view), Dispositional (User’s self-worth), Situational (User’s problem-solving skills) and Relational (User’s roles in society). For further in-depth discussion, refer to the Portfolio of Evidence, p.26.

This initial inquiry into resilience gave rise to an expanded range of questions that constituted the core questions of this research: Is there a resilient model...? If it exists, can it be taught?

Initially the researcher used the reflective methodologies of Lewin's Action Research (1946) and Schön’s Reflective Practice (1983) (subsequently identified as AR and RP) to monitor her use of the tools and see if she was really using them, how often and - in what manner. She chose Action Research and Reflective Practice because they are introspective methodologies that allowed her to be the subject of the study. She was acquainted with these methodologies through the Professional Doctorate Programme. She designed a database registry system (*registro*) to record her design practice activities (refer to section *The First Stage Method* in the Portfolio of Evidence, pp.38-55). During this period a new tool emerged, *Script* (in the Portfolio of Evidence, p.45).

9) **Script** - Involves following the designed plans in a situation of low-level stress with the purpose of
avoiding burnout and blockages of effective decision-making when high-level stress is experienced.

1.5 APPROACHES: Interviews
It should be noted that structured interviews were carried out with other designers locally and in Argentina concerning the researcher’s tools and her resilience methods (Portfolio of Evidence, p.55 and p.159).

1.6 APPROACHES: Case Studies
Two main case studies were done in this initial stage: Cátedra Haití, an educational platform, and Hotel Excelsior’s Typography Project. The latter is included in the Portfolio of Evidence, in the section Resilience Toolbox In Use #1 (pp.56-81). The tools are discussed as they come up in the design solution in order to tackle the adverse political situation in a typographic design project (2009). Another case study that evidences a political stressor is Resilience Toolbox In Use #2 (pp.104-109), concerning a design exhibition project (2009).

1.7 FINDINGS & CHANGE OF APPROACH: Succumbing
After seven months, the researcher succumbs (fails to resist stressor effects causing her emotional exhaustion, depersonalization and decrease in self-efficacy) and stops her research completely. To her surprise, although her chosen research methods identified important findings, they led her to succumb.

AR and RP are introspective methodologies. They lack tools that allow practitioners to change their context when they become aware of their stressors. They promote isolation from peers as they encourage the idea of the practitioner as problematic (a ‘loose cannon’) (Supportive Document, p.59). They also promote tunnel vision (Portfolio of Evidence, p.116). Further clarifications of the role and benefits of AR and RP and the researcher’s decision to adopt the Systematization of Experience approach with participatory
research and design is discussed in Section 4 of the Supportive Document (p.50).

### 1.8 Findings

- The tools exist in relation to each other as a toolbox (refer to the Portfolio of Evidence, pp.40-54). They are not effective when used individually; even though they might solve the problem at hand in a particular instance, they do not generate resilience when used individually (refer to the Portfolio of Evidence, p.174,p.217). The toolbox is a metaphor for the nine tools as a system-thinking mindset. When used as a system (based on the four resilience behaviour patterns, refer to the Portfolio of Evidence, p.26), they do produce insights that allow consciously repeated use in high-order thinking (analyzing, evaluating and creating). A quick example: using only the Situational set would give the user real-time problem-solving skills. If the same set is used in combination with the Dispositional set, it will add “staying in focus” skills (focus on the main plan; the user’s macro-level objectives). In-depth description of their interrelationship and how they are grouped can be found in two sections in the Portfolio of Evidence: *The Resilience Theory and the RTRP Tools*, pp.26-34, and *The Resilience RTRP Toolbox Process*, pp.92-103.

- The research methodology has to be contextualized. The researcher’s error was to not recognize that research methodologies are not ideologically free. In her context this was devastating, because her stressor is political. Her own tools, specifically *Rauxa/Seny, Anchored* and *Diversification*, allowed her to identify the Systematization of Experience, a Latin American version of Participatory Action Research. This research method, chosen for the second stage, enabled the researcher to thrive.

- There are extensive relationships between the RTRP toolbox and the Resilience Theory. The researcher will
return to this point in detail in Section 2. Resilience Theory in this Supportive Document, p.38.

One of the findings of the initial stage was that the researcher’s political context negatively affected her practices. In order to explain her context, because this is a practice-based research, she consulted Postcolonial theories as part of her literature review.

For all findings, refer to section First Stage: Effects on Researcher’s Practice (Portfolio of Evidence, pp.160-161).

SECOND STAGE OF RESEARCH: Same Context and New Questions
1.9 RATIONALE: Contextualized Research Methods
‘Qualitative research is a situated activity’ (Denzin and Lincoln, 2003, p.4). The researcher is a peripheral designer and educator (living in a Third World country (a term coined by Gui Bonsiepe); she lives in a territory belonging to, but not part of, the United States (President’s Task Force on Puerto Rico’s Status, 2011). In her research, she later came to an understanding of the appropriate research methods for her context: the Systematization of Experience (refer to second stage research diagram, Portfolio of Evidence, p.21), a methodology used in Latin America since the 1960s. Reflections on the role of contemporary qualitative research have been explored in Social Science practices:

‘Rapid social change and the resulting diversification of life worlds are increasingly confronting social researchers with new social contexts and perspectives...traditional deductive methodologies...are failing...thus research is increasingly forced to make use of inductive strategies instead of starting from theories and testing them...knowledge and practice are studied as local [italic by authors] knowledge and practice’ (Flick, 2002, cited in Denzin and Lincoln, 2003, p.15).
Authors Denzin and Lincoln reflect on the role of the researcher:

‘...theory, analysis, ontology, epistemology, and methodology. Behind these terms stands the personal biography of the researcher, who speaks from a particular class, gender, racial, cultural, and ethnic community perspective. The gendered, multiculturally situated researcher approaches the world with a set of ideas, a framework (theory, ontology) that specifies a set of questions (epistemology) that he or she then examines in specific ways (methodology, analysis) [...] Every researcher speaks from within a distinct interpretive community that configures, in its special way, the multicultural, gendered components of the research act’ (Denzin and Lincoln, 2003, p.28).

1.10 Systematization as Research Method for the Second Stage

Having a political mindset, the researcher used the Anchored tool (looking for a similar context in her region), and the Diversification tool (she chose the Latin American Literary Boom, since this movement used a creative approach in response to chaotic events in a non-linear way). She looked for chronological parallels in the Social Sciences in the region and identified the political thinking of educators and sociologists such as Ivan Illich, Paulo Freire and Fal Borda. Their literature led her to the method of Systematization of Experience. This framework addresses issues of ethics concerning Reflective Practice and Action Research (for more in-depth discussion, refer to Section 4 of this Supportive Document Second Stage: Research Methodology, on p.50).

The researcher realized that the way in which to conduct her inquiry and design the resilience toolbox needed to be coherent (thinking and actions). As concluded in her paper Decolonized Methodologies from the Design Research Field (Portfolio of Evidence, p.116): 'The methods employed in the
data collection and analysis of the RTRP research, as well as the theories that inform them, had to build a decolonized epistemological and ontological foundation within the researcher’s colonized context’.

Thus, the research became openly transdisciplinary (September 2010 to March 2012) through a Systematization workshop that included Participatory Design and Borda’s Participatory Action Research (1977).

The researcher appropriated Systematization to make it design-relevant. In the Systematization workshop, the users designed the RTRP toolbox (February, 2011). This process also allowed users to further apply the tools. The description of the Systematization workshop can be found in this Supportive Document in Section 5, p.74. In the Portfolio of Evidence, photos can be found on pp.166-184, the transcript of the video in the Appendices, pp.255-373, and a 90-minute video is included in a DVD.

1.11 RESULTS: Thriving: The Effects of the Paradigm Shift
Because Systematization is a contextually-driven method that includes a political framework, it drove the researcher to thrive. Also, the RTRP model became better expressed and intelligible, because the researcher needed to articulate to others her resilience methodology (Portfolio of Evidence, p.83).

The Systematization approach allowed collaboration and participation among all participants, and this included ethical considerations about who owned the new knowledge and how it is shared. Safeguards (verbal confidentiality agreements prohibiting references to people outside the workshop by name) were put in place in order to avoid lack of confidentiality (participants were under stressors). Also, the methodology allowed the negotiation of the different knowledge the participants had. Both participants
and researcher were able to handle new knowledge about their context while tackling their stressors. By using the Participatory Design method, the RTRP toolbox was articulated through a paper prototype and this was the starting point in enabling others to learn and use the tools. (Portfolio of Evidence, pp.176-183). The last step of Systematization is to disseminate the lessons to others, therefore, both Volume I and II of the Doctoral Research, just as the “Bounce & Design” toolbox, is the act of Publishing of the Systematization’s last step.

1.12 APPROACHES: Corroboration, Additional Case Studies

Two additional case studies were done during the second stage, both in 2011: ‘Film Director’, a Web and Mobile App project (Portfolio of Evidence, pp.194-197) and ‘Doctor’s Office’, the initial stage of a complex project that involves intensive design-led research, environmental graphics and participatory design (Portfolio of Evidence, pp.198-203). These two case studies added a deeper understanding of the RTRP toolbox operation in the researcher’s design practice (with clients and assistant designer).

1.13 APPROACHES: User Testing, Comparison and Peer Review Period

User testing (p.187), comparison of the RTRP working prototype with IDEO’s Social Impact Guide (p.204), and peer review (p.222) were done after the Systematization workshop (all page references correspond to the Portfolio of Evidence). User testing was done twice in 2011 and the comparison was conducted between January and February 2012.

During this period, the RTRP process was refined, adjusted and articulated more effectively. The researcher made two findings: 1) that the outcome was repeatable in order to achieve resilience, using the established sequence of application for the tools (more details in Section 5, p.72,
with the participants in the Systematization Workshop and in Section 6, p.98, in this Supportive Document with the corresponding evidence), and 2) that there were different levels of maturity (learning skills for strategic thinking). The levels were based on Carver’s model (1998). These are:

LEVEL 2- Situational toolset process: surviving with impairment.
LEVEL 3 - Situational & Dispositional toolset process: resilience.
LEVEL 4- Situational, Dispositional & Relational toolset process: thriving.

Carver’s LEVEL 1, succumbing, is not considered here given that it goes against the purpose of the resilience tools. Description of the above points can be found in *The Resilience RTRP Toolbox Process, Portfolio of Evidence*, pp.92-103.

Three sessions of peer reviews were organized by the researcher to present the research *Developing Methods of Resilience for Design Practice* to a multi-disciplinary mix of professors and professionals (March 2012). They were educators from New York City, United States; architects from the School of Architecture, Polytechnic University of Puerto Rico; and psychologists from the Psychology Department, School of Social Science, University of Puerto Rico. One of the findings from the Peer Review concerned the role of the *Intertextuality* tool. They all agreed it to be a key element in the innovation of the RTRP toolbox. This supports the researcher’s first-stage findings. From this experience the researcher was motivated to identify resilience models in other fields to be used by practitioners. She reviewed models that were intended for nursing and firefighter managers as well as a model that promotes resilience in children in their educational life (refer to 6.4 *Presenting Research to Others* in this Supportive Document, p.106).

NOTES

The RTRP spiral model consists of nine tools that are organized into four sets based on the resilience behaviour theory (Polk, 1997). The terms used are Polk’s: Situational, Dispositional, Relational and Philosophical.
Some of the findings of the second part were:

- There are appropriate methodologies for the researcher’s context. Systematization comes from the Social Sciences, and the researcher made it relevant to design practice (refer to p.63 in this Supportive Document). Systematization was therefore adapted to be a Latin American contribution in resilience methods for design research under stressors. Systematization produces resilience because it is structured for empowerment.

- RTRP is a four-step spiral model that enables the user to make strategic resilient decisions in real-time or to thrive under long-term adverse events caused by stressors (refer to p.111 in this Supportive Document). This model is designer-centred, as opposed to user-centred, helping designers to deal with stressors that are sources of professional and personal adversity.

For all findings, refer to section Second Stage: Effects on Researcher’s Practice (in the Portfolio of Evidence, pp.236-237).
The researcher is engaged in design and teaching practices at a micro level in an adverse context (Puerto Rico), and in this research has documented and illustrated how she used the Real-Time Response Planning (RTRP) tools as a method. During the first stage of the research, in which the researcher was both researcher and subject of her study, she considered both subjective and objective aspects; the subjective by referring to those phenomenological experiences that affect her practices in an adverse context where she lives, and the objective by examining measurable and observable patterns of the tools within the RTRP. The development of the tools pre-existed her understanding of Resilience Theory. RTRP emerged from the researcher practice, and then it was informed by the Resilience Theory. The researcher did not consider the Evolutionary Theory because resilience is a learned behaviour and not a result of genetics. Neither did she investigate Collaboration theories (refer to glossary, p.120), because although this is related to her research, her focus was on the designer’s perception of stressors and how to tackle them without losing focus. During the research period (from 2009 to 2012) the researcher was not aware of the emerging field of Design Anthropology which promotes the understanding of design objects in the social, cultural and political domain based on ethnographic data and analytical skills. As such, further research is needed on how Design Anthropology approaches can be used to explore the
researcher’s cross-cultural awareness and how it can help improve the RTRP design articulation.

2.1 Definition of Resilience
‘The emergence of resilience theory is associated with a reduction in emphasis on pathology and an increase in emphasis on strengths (Rak & Patterson, 1996)’ (VanBreda, 2001, p.1). Resilience theories, used in Social Sciences, show how people survive, cope and sometimes surprisingly thrive when they are in crisis situations. These theories originally started in the 1930s as a social study of children and families who lived with adversities caused by the Great Depression. These same studies led to some conclusions and definitions, but the ones pertinent to this research are:

- ‘Resilience means the skills, abilities, knowledge, and insight that accumulate over time as people struggle to surmount adversity and meet challenges. It is an ongoing and developing fund of energy and skill that can be used in current struggles (Garmezy, 1994)’ (Saleebey, 1996, p. 298).
- ‘[Resilience is] the capacity for successful adaptation, positive functioning or competence […] despite high-risk status, chronic stress, or following prolonged or severe trauma (Egeland, Carlson, & Sroufe, 1993, in Sonn & Fisher, 1998, p. 458)’ (VanBreda, 2001, p.5).
In peripheral countries where national economic and social political adversity is a constant, resilience in the design practice might become a tactic itself (refer to Haitian architect Voltaire's statement in next section 2.2 in this Supportive Document). Having a stable environment allows designers to take more risks and persist until they achieve their goal. It is important to note that the recent economic collapse due to the global economic crisis in countries like Iceland, Spain, Greece and Ireland, may have left many designers powerless, lacking the instruments to operate, just like designers in an unstable peripheral environment. Kristos, a 47-year-old graphic designer from Greece that had been unemployed for three years at the time of the interview (2010) stated: 'From 1980 to 2005 there were good times for my line of work. Then, starting in 2006, things got harder. Now, I’m told to work without insurance and to accept flexible working times, and I have to pay into a new insurance fund. I was working for €24,000 a year before, now I get €250 a month [€3,000 a year]. I live on support from my family [...] Official unemployment figures are artificial. The Union of Graphic Designers thinks the number of unemployed is over 1 million' (Lantier, 2010). Designers in an adverse national context can find their efforts and education easily derailed (refer to the clarification text in the left-hand column).

The researcher could not identify literature that dealt with resilience theory in the specific context of designers. Clearly, there is a need to articulate alternative design methods and tools with which we can build resilience against hardship and adversity, as well as instruments of design. This resilience-based approach for designers involves the contextualized feedback and development of procedural situated knowledge, using design methods of storing and managing data and a problem-based method-combination process (a combination of both collaborative and self-learning strategies). Jacques Ranciere’s claim: ‘An individual must learn something without any means of having it explained to him’ (1991 p. 16)
has echoes of Schön’s ‘reflective practice’ and Paulo Freire’s ‘empowerment to the oppressed’ ideas, but raises questions about spontaneous self-awareness in a non-emancipatory context (such as the researcher’s) that have been addressed in the postcolonial paper Decolonized Methodologies from the Design Research Field (Portfolio of Evidence, p.116). This postcolonial paper discussed in depth the researcher’s political stressors. The conclusions of the paper are that postcolonial methods and theories have been playing a large role in design practice and its education, as well as in design research. There is a need for methodologies that prompt user empowerment in design practice (particularly in the context of adversity).

2.2 Resilience and Thriving

In a conference organized by the American Institute of Architects, at Centro de Puerto Rico, architecture students were shown a component of one of the researcher’s case studies, the one which involved Haiti’s reconstruction after the 2010 earthquake. During this conference, Leslie Voltaire, a Haitian architect, said: “In countries like ours, there is nothing provisional; what is provisional is permanent.” It struck the researcher as true, the fact that the crisis on her island is not a temporary condition; it is what the Puerto Rican society has evolved into. In a conference that the researcher presented Encuentro del proyecto inter-multi-disciplinario Arte, ¿dónde y para quién?, Inter-acciones creativas 2010, (Meeting of inter-multi-disciplinary Art Project, Where and for Whom?, Creative Inter-actions, Centro de Estudios Avanzados, 2010), she related this story to fellow professors of the University of Puerto Rico. At that time, the institution was involved in a student strike that had escalated to the point where the police force had occupied the campus. Unexpectedly, the audience’s reaction was one of relief when they realized that crisis was a permanent condition. Most resilience theory studies describe circumstances that cannot be changed, so the individual focuses his or her energies in

**QUICK REFERENCE**

RESILIENCE THEORY & THE RTRP’S TOOLS- PP.26-34, Portfolio of Evidence.

How the researcher adapted Carver’s model (1998) to the RTRP’s toolbox is explained. The effectiveness of the tools is evaluated by their level of efficacy when handling adversity in real time to achieve positive outcomes. The four levels are:

1. Succumb
2. Survival with impairment
3. Resilience (recovery, surmount adversity and meet challenges in a positive functioning)
4. Thriving (new skills and knowledge)

This forms the basis of the critical approach to this research.

coping with the situation and its aftermath, in the same way that the researcher’s colleagues reacted to Voltaire’s story.

According to Carver (1998), thriving is the most sophisticated way of the four possible ways in which a person responds to adversity; resilience (recovery) is the third; the second level is survival with impairment and the first is to succumb. The researcher used Carver’s model ‘Responses to Adversity: the Domain of Possibilities’ (1998) as criteria to evaluate the effectiveness of the RTRP toolbox in achieving resilience and thriving.

Resilience must not be confused with thriving; this latter is defined as: ‘acquisition of new skills and knowledge [...] of new confidence or a sense of mastery, and enhanced interpersonal relationships’ (Carver, 1998).

It should be pointed out that there is no such thing as a resilient person. Resilience is not an inherited characteristic and it is not constantly present in a person’s lifetime. It is more like a behaviour or life configuration of an individual that maintains a ‘pattern of positive adaptation in the context of significant risk or adversity’ (Masten & Powell, 2003).

While the environment and context will influence a person’s capacity to be resilient, their personality and world view can also enable some individuals to prove themselves more resilient than others. Resilience is in the user’s behaviour; the RTRP toolbox process guides designers’ behaviour in a way that feeds, and self-feeds on two of Polk’s resilience patterns (1977): Philosophical and Dispositional. That is, coherence of the user’s world-view with his/her sense of self-worth.

Each of the tools has attributes or traits informed by the Resilience Theory. These traits are positive outcomes for resilience behaviour. Some of the tools share the same traits.
The Self-Efficacy trait (a sense of mission), a tool trait from the Dispositional resilience pattern, is fed by Stamina (insightfulness and endurance) and Personal Causation (belief in final goals), traits from the Philosophical resilience pattern. (For definitions of all the tools traits, refer to the Portfolio of Evidence, pp. 28-30).

Then, Self-Efficacy feeds the Locus of Control (sense of control is within oneself) and Sense of Coherence (a personal compass), also traits from the Dispositional resilience pattern. These latest two feed back to Stamina and Personal Causation (refer to section The Real-Time Response Planning Model, in the Portfolio of Evidence, pp.82-91).

There exists a construction for resilience and thriving:
‘such as hardiness, coping and a sense of coherence; cognitive resources such as accurate threat appraisal, self-efficacy and perceived personal risk; the ability to attribute and mould the meaning attached to life events; social support systems; and social processes or rituals which facilitate transitions in life’ (O’Leary, 1998 cited in Van Breda, 2001, pp.39-40).

In the second stage of the research, there is an indication that the use of all tool sets, especially Intertextuality, might be the gate not only to thriving in adverse situations, but also to innovation opportunities in design practice (refer to RTRP process flow charts, in the Portfolio of Evidence, pp.98-102). That is because Intertextuality is a tool that allows collaboration with different people and the sharing of different knowledge.

Therefore, starting off from this construction, the researcher found a connection between the RTRP tools and managing a crisis by identifying a procedure that specifically deals with the act of designing and teaching in a hostile and adverse environment. All this indicated in the early phases

\[2. \text{Dispositional (User's self-worth)}\]
‘Physical and ego-related psychosocial attributes provide a sense of autonomy or self-reliance, a sense of basic self-worth, good physical health and good physical appearance’ (Polk, 1997 cited in Van Breda, 2001, pp.5-6).

\[3. \text{Situational (User's problem solving skills)}\]
Involves an individual resolving a stressful situation, through creative and critical methods. This can include an individual’s problem-solving ability, the ability to evaluate situations and responses, and the capacity to take action in response to a situation’ (Polk, 1997 cited in Van Breda, 2001, pp.5-6).

\[4. \text{Relational (User's roles in society)}\]
‘Individual's roles in society and his/her relationships with others. These roles and relationships can range from close and intimate relationships to those with the broader societal system’ (Polk, 1997 cited in Van Breda, 2001, pp.5-6).
of the research, informed by the Resilience Theory, that a resilience-in-design model for peripheral designers was possible, and that it could be taught (possible to articulate to others, whether peripheral or not).

According to the American Psychological Association (APA, 2010), resilience can be learned and there are ten steps to follow, so the teaching of procedural knowledge to other designers and design students can be improved through:

- Making connections (component of some of the researcher’s tools, such as Publishing and Intertextuality)
- Helping others (component of the Anchored Tool)
- Daily routine (component of the Script Tool)
- Taking a break (component of the Rauxa/Seny Tool)
- Move toward your goals (component of the Anchored and Fast Feet Play Tools)
- Positive self-view (component of the Anchored Tool)
- Hopeful and realistic outlook (component of the Anchored and At Hand Tools)
- Self-discovery (component of the Rauxa/Seny Tool)
- Change is part of living (component of the Rauxa/Seny Tool)

The RTRP Toolbox is an artefact that helps the user to think strategically under stressors (refer to tables 1 and 3, in the Portfolio of Evidence pp.174-175). Thus, it affects the user’s behaviour and perception by learning to have resilience. It also affects favorably the decision-making process, because the user perceives what once were threats as manageable situations; therefore, it short-circuits the stressor (a physiological effect). Users then can accomplish their task successfully.

2.3 Conclusions
The following conclusions were drawn from this review of resilience and reflection upon the application of the
researcher’s RTRP tools within her commercial and educational design practices:

- The tools fall into Polk’s four resilience patterns of behavior (1997). He named them as: Philosophical, Dispositional, Situational and Relational. In the same order as listed, their definitions can be summarized as follows: user’s world-view, user’s self-worth, user’s problem-solving skills and user’s roles in society. (Diagram in the Portfolio of Evidence, p.86).
- Resilience and Thriving can be taught as a method according to the Resilience Theory.
- There are extensive relationships between the RTRP toolbox and the Resilience Theory that have enabled the identification of the structure, the way the tools work together and their traits.
- There is a Social Science model (Carver, 1998) to evaluate the effectiveness of the RTRP tools’ functions in adverse events. The researcher used this Resilience-based evaluator model as evaluation criteria. This forms the basis of the critical approach to this research.
3.1 Background for Research Paradigm Shift

The researcher needed to frame her methodology to show what it’s like to work in the context of her island, which is subject to insularism and isolation, high levels of corruption, political branding that often ends in political persecution, lack of resources, lack of access to some advanced technologies and production methods, and lack of adequate budgets. It was the day to day experience of all this that prompted the researcher to develop ways of coping, which became the nine tools within her systematic design procedure, some of which are shared across different yet related design practice work.

In listening to her colleagues’ experiences and questions, and in her own reflection and self-study, the researcher’s procedural memory was evident (refer to Glossary, p.125). This was anticipated to inform the researcher’s teaching, art and business practices.

What the researcher was specifically interested in were the existing design models related to the tools that she had been using during her practice. Although informative, the existing design models did not deal specifically with the act of designing in a hostile environment that was designer-centred. The one model that the researcher related
NEW QUESTIONS:
What good is it to know if you’re unable to change?
Were Lewin and Schön aware of their political dissonance in their method?
Is there an RP and AR version that acknowledges the political factor?

NEW MOTIVATION:
Look closer to home for answers. The power of situated knowledge.

to most was Barry Boehm’s spiral model (1988) of software development; because of its focus on risk evaluation and reduction, it was closer to the set of actions that were taken to correspond with the researcher’s tools. Another model that approached risk evaluation and reduction was Robert Cooper’s Stage and Gate model (1988). The Stage and Gate model is generally used in product development. It shares with Boehm’s model an iterative process. In Stage and Gate, the effectiveness at each stage is evaluated by members of the development team. They work as gatekeepers, that is, the team makes a decision to continue or close the project at each stage. What is very different from Boehm’s model is the insertion of a business plan in the initial stage. This framework makes the Stage and Gate model less flexible than Boehm’s model, because there is less exploration given its attachment to the capitalist market. Stage and Gate is more a sequential step-by-step model that does not support radical changes of previous decisions. Boehm’s spiral model is more compatible with messy processes. However, both models share the trait that (learned) resources increase gradually as the ideas demonstrate their value.

Nevertheless, what was required in the researcher’s inquiry was a design model/process ‘of’, instead of ‘for’, peripheral designers. It is a model/process of peripheral design, because
it is designed and used by a researcher that is a peripheral
designer, although it is for all designers worldwide going
through political, economic, social or/and a combination
of stressors. This act of a distinction of locality, is an act of
empowerment, as situated knowledge.

Previously, the researcher was planning long stable strategies
in an environment that did not foster such activity because
her society is in constant turmoil, and it is not a temporary
social political situation. This raised the question - How can
designers have a sense of future when they cannot plan?

3.2 How the RTRP Tools Helped the Researcher to
Achieve a Paradigm Shift in Her Research

The researcher made her last registro in September 2010.
By then she had made her last entry on her house’s street
wall. This was an act of Publishing, as a way to move out
the registro to the public arena (refer to The Writing on the
Intertextual Wall, in the paper Decolonized Methodologies
from the Design Research Field in the Portfolio of Evidence,
p.130). Then she stopped using AR and RP. The implications
were that the researcher should move the research to the
participatory (therefore public instead of isolated reflexion)
and the political domain.

Following this realisation, she looked closer to home (Rauxa/
Seny), by region (Anchored), for answers and chose the
Latin American Literary Boom approach for its creative
ways to deal with chaotic events in a non-linear way. This
literary movement flourished during the 60s and 70s of the
20th century, when a series of authors from this region,
although not organized, shared a way of writing particularly
characteristic to the region. A key mode within this
movement was “magic realism”, recognized today as a genre
of writing. It is not clear where this term originated (Evans,
2003). The Latin American Literature Boom is a clear example
of toppling the Hegemony of Writing (refer to Glossary,
p.125).
Many of these writings also coincided with gruesome military dictatorships. Their style of writing was one that many Latin American and Caribbean people could identify with because it made explicit a frame of mind for approaching chaotic environments. The movement was called a Boom because, for the first time, a whole generation of peripheral writers made a crossover globally, first in France, like Julio Cortázar (from Argentina). The researcher finds a connection with Cortázar because his novel *Hopscotch* (1963) is a non-linear story where readers can choose the order of chapters.

The researcher then looked for chronological parallels in the Social Sciences and in education within the region (*Diversification*). The researcher concentrated on the ideas of educators and sociologists who worked between the period of 1960s and 1970s and who originated from Latin America, like Ivan Illich (an Austrian who worked in Puerto Rico and then Mexico), Paulo Freire (Brazil) and Fal Borda (Colombia).

This enabled the researcher to shift her research into a participatory (open) and transdisciplinary approach, using the participatory framework of the Systematization of Experience method, which includes a political dimension.
4.1 Research Approach: Contextualized Methods
This section will explore guides for Systematization of Experience, a research method used by ActionAid International (Netherlands and South Africa), ALBOAN, the Pedro Arrupe Human Rights Institute and Hegoa (Bilbao, Spain). The researcher will also explain the reasons why she abandoned Action Research and Reflective Practice for their lack of effectiveness in building resilience in her adverse context. This section also explores Participatory Design as well as Participatory Action Research and describes in what measure each of them builds resilience and thus informs open transdisciplinary research. Finally, how the researcher appropriated Systematization and made it relevant to design practice.

Transdisciplinarity (a term introduced by Swiss psychologist Jean Piaget in the 1970s) is a way to construct knowledge by crossing boundaries between disciplines. The *trans* prefix means “across, over, beyond.” Thus, transdisciplinary research stresses the blurring of boundaries and a greater integration between practices of different disciplines. It requires strong collaboration skills and tolerance to wandering and errors in public. It is less expert-driven than multidisciplinary research (where each practice is enclosed in itself in the interactions) or interdisciplinary (a way to integrate perspectives and results from different practices but still within the framework of the
NEW QUESTIONS:
Will this method allow resilience behaviour by the researcher and participants in the workshop?

In the researcher’s context, given the negative impact of colonial status on the designers’ Locus of Control, is it possible to perform successful PAR and PD without the influence of the colonizing machine?

If so, what adaptations need to be made to situate research in the local context?

How can the researcher achieve coherence in researching and designing the RTRP Toolbox?

MOTIVATION:
How to be a resilient and ethical researcher in a non-collaborative and hostile context.

... (Hoffmann-Riem, et al, 2007, p.3). In the researcher’s design studio, different practitioners participated in the design solutions together with the designers. These practitioners shared their skills and knowledge from each particular field as facilitators/co-creators, rather than experts, thus avoiding possible power-play dynamics.

4.2 Type and Structure of Research:
Open Transdisciplinary Inquiry

Following is a summary of the characteristics of an open transdisciplinary research according to Lawrence (2010, pp.18-19):

- Research which challenges knowledge fragmentation by specialization and promotes integration of multiple perspectives.
- Research that allows the researchers to be critical about the research itself.
- Research that addresses complex problems in a heterogeneous domain.
- Research that enables the construction of knowledge from different practices and where reflection is practice-based.
- Research that focuses on local contextualization.
- Research that enables researchers to be comfortable with uncertainties.
• Research that enables intercommunicated actions; these are the researchers’ acknowledgements of their social context with others.
• Research where researchers from different practices that have integrated their efforts and collaborated closely.
• Research that is action oriented.

An open transdisciplinary method that tackles a wicked problem demands three areas of multiple-aspect interactions (fig. 1) and blurred boundaries between practices, according to Brown, Harris and Russell, (2010). Numerous aspects are key because they reflect the transdisciplinary principle (the different knowledge of those involved). These areas are (fig. 1): ethical positions, ways to view the world and formats to construct knowledge:

![Diagram](image)

Fig. 1. Diagram by O’Neill, based on Brown, Harris and Russell (2010). Three areas of multiple-aspect interactions in an open transdisciplinary research.

Brown’s (2010) description of the open transdisciplinary research topology (fig. 2) concerns the arrangement and touch-points of the solution space. This supports the openness in the research because it enables participants to influence the direction of the inquiry:
4.3 Systematization
Systematization consists of acts of intervention that in the context of Latin American social management (gerencia social) are considered to be systematized methodologies and tools to provoke social change. ‘Systematization, we would begin to understand it as a process of knowledge construction’ (Barnechea et al, 1994: cited in Fantova, 2002, p.4).

Paulo Freire’s Liberation Theology is an example of systematization of social intervention. Liberation Theology is a social Christian-faith-based movement informed by Marxist ideology that emerged in Latin America in the 1960s with a strong position against inequality and injustice. Freire’s Liberation Theology is defined as participatory because it is a communion experience: ‘No one is auto-liberated, neither is liberty made by others’ (Freire, 1969, p.46). This is Freire’s approach to achieving liberty: that human liberty (salvation also for Freire) is something to be achieved by collective effort. No one can be free on his/her own, nor set free by others. Instead, according to Freire, one becomes free in the process with others. This aspect is also reflected in the Systematization principles as discussed in the next section (4.4) of this Supportive Document.
Systematization, as understood in the Latin American context, is an interlocutory process, as well as emancipatory; it exists between people who negotiate a power discourse, theory and cultural construct.

During the 1970s, schools of thought based on Systematization flourished among Social Sciences and Social Services in Latin America. This was also a period of great social unrest under the sinister dictatorial regimes that governed in the region for many years. Systematization uses, among other methods, Donald Schön’s Reflective Practice (RP) as one of its references. ‘Those who do Systematization think that they can learn from their practice and that gained knowledge will help improve the practice’ (Fantova, 2002, p.4), which reflects Schön’s premise of ‘Learn by doing’ (1983). In fact, Systematization applies Schön’s ideas as reference because: ‘[Systematization] allows practitioners to tackle and solve unknown and changing situations. Reflections about day-to-day action produce knowledge that will later be used in new practices’ (ActionAid, 2006, p.44). This newly acquired knowledge can empower users and might promote the building of resilience; therefore, it could provide conditions for thriving.

Ivan Illich in Puerto Rico and Paulo Freire in Brazil, among many others, started to postulate education as a political emancipatory tool: ‘...even at the institutional level, popular education was perceived as a powerful tool for the political system democratization, for human rights defence or to work out gender issues in different countries of the region’ (Planells, 2004, p.2).

But by the 1990s Systematization was almost abandoned as a result of the neoliberal practices of governments (for example, in Argentina in the 1990’s, and Chile in the 1970’s) and also because certain political discourses eroded Systematization’s reflective methodology, such as
the Sandinista Movement in Nicaragua (Ghiso, 1998; Mejia, 1999). A neo-liberal regime entails economic policies with a strong ruling class agenda, which promotes loose regulations of free enterprises by government, even though this might compromise the environment or workers’ safety. Neo-Liberalism is less focused on supporting and funding social programmes like cultural, educational and public health services, and instead promotes individualism rather than community thinking:

‘Around the world, neo-liberalism has been imposed by powerful financial institutions like the International Monetary Fund (IMF), the World Bank and the Inter-American Development Bank. It is raging all over Latin America. The first clear example of neo-liberalism at work came in Chile (with thanks to University of Chicago economist Milton Friedman), after the CIA-supported coup against the popularly elected Allende regime in 1973. Other countries followed, with some of the worst effects in Mexico where wages declined 40 to 50% in the first year of NAFTA while the cost of living rose by 80%. Over 20,000 small and medium businesses failed and more than 1,000 state-owned enterprises were privatized in Mexico. As one scholar said, Neo-liberalism means the neo-colonization of Latin America’ (Martinez and Garcia, 1996).

4.4 Advantages of Systematization Over Reflective Practice and Action Research
This section is concerned with the advantages of Systematization, in this context, over Reflective Practice (RP) and Action Research (AR), as a method that can drive the researcher to thrive because it offers a political framework. Both Reflective Practice and Action Research contain
political dissonance in their methodology. The principles of Systematization are:

- Collective learning
- Disseminate lessons (collective action)
- Awareness of social-political factors at play in the social arena

Systematization uses the best practice of RP
- Self-learning (extrapolate tacit knowledge)

Systematization uses the best practice of AR
- Reflective and reflexive on ways to learn (understand one’s role and outside changes in one’s research)

Systematization is recognized as a valid way to construct knowledge that is interrelated to theory; ‘From this point of view, systematizers ascribe to the principles of the epistemology of practice of authors such as Elliot [John Elliot, 1990] or Schön’ (Planells, 2004, p.5). This is not a neutral process, given its empowerment and social political agendas. The objectives of Systematization (fig.3) have been identified by Planells (2004) as follows:

1. Problematize certain situations and awareness through a process of self-reflection.
2. Trigger changes in action and interaction by raising the awareness of stakeholders.
3. Affect the social structure through collective action.

Fig. 3. Diagram by O’Neill based on Planell’s description of the Systematization’s objectives (2004).

The first two objectives are shared through Schön’s Reflective Practice (1983), but the third objective takes a different route because it is an act of transgression of the collective status quo. Schön postulates that his method of acquiring
knowledge through experience followed by reflection is an effective way to increase the learner’s responsibility of his/her own education (empowerment), therefore it seems to be a way to improve educational practices (thrive) for both teachers and students. Reflective Practice shared the reflexivity with Action Research (AR), an inquiry method of reflective researchers. AR allows researchers to acquire new knowledge about their decision-making procedures and promotes critical thinking, in terms on how their practices affect their research. ‘Lewin’s (1946) concept of action research has been developed and adapted by many researchers (Kolb 1984, Schön 1983 and 1987, Carr and Kemmis 1986, McNiff 1988, McKearnan 1994)’ (English, 2008). As stated, AR is a strategy that is used to be reflexive about methods, epistemology and the researcher’s own field. RP is closer to a tactic, a tool to frame the problem.

It seems that Lewin’s intention with AR was to find a way to strengthen democracy through democratic leadership. In reference to a participant in a study on participative group dynamics, he said: ‘Democracy he has to learn’ (Lewin, 1948, cited in Smith, 2001). There have been critical views of Lewin’s way of teaching democratic thinking because it implies a manipulative role of the teacher: ‘Where the leader is sufficiently in control to rule out influences he does not want and to manipulate the situation to a sufficient degree’ (Lewin, 1948 cited in Smith, 2001). Although he defined the democratic leader as someone who promoted group decision making,

‘[u]nfortunately, Lewin and his colleagues never developed the definition beyond this rough sketch, leading some critics to find undemocratic implications in their ostensibly democratic model of leadership. Kariel (1956) argues that Lewin’s notion of democracy is somewhat manipulative and elitist, and the exchange
between Barlow (1981) and Freedman and Freedman (1982) suggests that Mao’s mass line leadership in China used a model like Lewin’s to mask coercion under the guise of participative group processes’ (Gastil, 1994).

On the RP side, according to Bish Sanyal, former Chair of the Faculty of the Massachusetts Institute of Technology, Schön was purposely apolitical in his description and development of Reflective Practice: ‘A deep understanding of social/political conflicts was not of particular importance to Don [Donald Schön] because he was generally content with what some refer to as the human condition […] He left those issues for others to understand and focused himself on what he considered life enhancing activities – namely, experimentation, innovation and learning’ (Sanyal, 1997, p.7). This makes it, as in Action Research, a ‘methodology containing significant areas of political dissonance and ethical ambiguity’ (Williamson and Prosse, 2002, p.592).

It is a cruel situation to know the causes of stressors and not having the freedom to change them. It is very cruel because the same knowledge that makes things explicit shows the lack of liberty and the impotence to change conditions: ‘the rights that define individual freedom must also include rights of political participation’ (Bohman and Rehg, 2007). This concept was painfully illustrated in Tunisia recently by Mohamed Bouazizi, a college-educated person who had been forced to become a street vendor. He burned himself to death when police barred him from selling food on the street, and his act ignited a revolt with the participation of many middle-class educated people who were jobless and repressed educated middle class. These demonstrations led to the overthrow of a government that had been in power for 23 years and consequently tossed the country into mayhem (Kirkpatrick, 2011). Still, Mohamed Bouazizi had
succumbed to socio-political and economic adversities. ‘In some of Lewin’s earlier work on action research (e.g. Lewin and Grabbe, 1945) there was a tension between providing a rational basis for change through research, and the recognition that individuals are constrained in their ability to change by their cultural and social perceptions, and the systems of which they are a part’ (Smith, 2001).

Action Research and Reflective Practice, by themselves, are political acts, regardless of their theorizing intentions, because they promote changes, but at the same time the lack of acknowledgement of their political nature or the lack of a definite methodology considering the social cultural space can be implosive because: ‘Having uncovered areas in need of change, action researchers and participants in their own organizations can be at greater personal risk, and more exposed, than in traditional research. They can be seen potentially as loose cannons rocking the boat, with possible consequences for their careers in that organization’ (Williamson and Prosse, 2002, p.559). Action Research and Reflective Practice could create conditions of increased adversity, leading the designer to succumb.

4.5 Comparison of Systematization With Participatory Action Research, Reflective Practice and Action Research

From the initial stage of Systematization and Participatory Action Research (PAR), the researcher and the participants are recognized as political actors in a social arena, thus providing opportunities of self-empowerment, recovery and the ability to thrive. Participatory Action Research is informed by Paulo Freire’s critical pedagogy. Freire’s educational model teaches students to de-construct power discourse and to act based upon the new knowledge achieved by such process and helped the development of civil rights. Freire’s Liberation Theology was his approach
to education. Participatory Action Research was promoted globally by Colombian sociologist Orlando Fal Borda in 1977, when he organized the first world congress of PAR, also called Popular Education. Fal Borda postulated that the legacy of the Spanish La Conquista’s (Spanish Conquest of the Americas) was the very thing that PAR pursued to reconnect with, which is the colonized individual and his own experiences (Lopera, 2008, p.29). PAR is not politically dissonant or ethically ambiguous like Schön’s RP or Lewin’s AR, because it is aligned with decolonizing methodologies such as the Systematization schools of thought. ‘In Latin America, the best known practitioners of participatory research from its inception will recognize themselves as inheriting much more from Karl Marx than from Kurt Lewin, and more from Antonio Gramsci than from Carl Rogers’ (Rodriguez Brandão, 2005, p.25).

Learning without an authoritative source to guide us, but rather through one’s own life experiences, is also a postulation by French philosopher Jacques Rancière (1991) when he describes educator Joseph Jacotot’s resistance to accepting a political contextual reflection. This also differs from Schön’s apolitical reflection:

‘But this is the most difficult leap. This method is practised of necessity by everyone, but no one wants to recognize it, no one wants to cope with the intellectual revolution it signifies. The social circle, the order of things, prevents it from being recognized for what it is: the true method by which everyone learns and by which everyone can take the measure of his capacity. One must dare to recognize it and pursue the open verification of its power – otherwise, the method of powerlessness, the Old Master, will last long as the order of things’ (Rancière, 1991, p.16).
There are different ways to approach Systematization, as for example, taxology, which aims to create typologies, but they all ‘… deal with the qualitative dimensions of reality and are based in a dialectical epistemology’ (Palma cited in ActionAid, 2006, p.41). The interconnections of all stakeholders in a given project (or situation) are ingrained in the contextual source. There is a continuous focus on the process of constant collective assessment, in a systematic manner (in the process of Systematization), since it is a requirement that those who participate are the only ones who can Systematize their experiences and derive their research findings. The rigorous basis of Systematization involves two precise guidelines:

1. The deconstruction of values, social-cultural approaches and ideologies, so that theories can be developed to support actions coherent with values. It is not necessary that there is a reconstruction of values. The important thing is to make explicit to all participants each other’s values, social-cultural approaches and ideologies, so that there is coherence between actions and participants/guiding thinking. An example would be the presentation by the guide (the researcher) to participants of the methods and research tools in the Systematization workshop for their evaluation and approval. Systematization participants are involved with the design plan of the workshop inquiry. This is known as governance. In organizations, it refers to a management process that enables decision rights for a given area of responsibility to achieve cohesive policies.

2. Participants must be reflexive and reflective through the Systematization process. A quick example in this research is the reflection of Systematization participant number 6 on his practice as to how he has to make adjustments that challenge him and his beliefs when he encounters different inter-cultural groups: “Take the highway and go to
the other side of Puerto Rico, so you can really see that you will find yourself in another country” (for the full video transcript, see Portfolio of Evidence, p.260).

In pursuit of Communities of Practice (Wenger, 2006) with clear political guidelines, the researcher reviewed Richard Winter’s six criteria (Winter, 1989 cited in O’Brien, 1998) for critical thinking. These are:

1. Reflexive critique: researcher’s possible bias on data interpretation because of his/her values,
2. Dialectical critique: awareness of the phenomenon of language and its relationship with the context,
3. Collaborative resource: participants are all co-researchers,
4. Risk: whatever the outcome, there will be new knowledge,
5. Plural structure: different ways to construct knowledge,

Systematization shares with Action Research (AR) the reflexive and the philosophical concept of the dialectical critique, but as stated previously, the political factor is integrated as part of the Systematization process. It is essential that participants make an effort to understand the multiple sides and contradictions of the issues they decide to tackle, and appreciate the complexity of doing so in a collective manner. But two of Winters’ criteria have political dissonance: Risk and Collaborative resource. It is not clear who owns the new knowledge and who takes responsibility for the outcome. In a politically sensitive arena this could imply exploitation (coercion by others that know sensitive information) and prompt particular participants to succumb to their adversity. ‘Practices to be systematized are not just
rational interventions supported by theory, but also include political, ideological and affective dimensions. Consequently, both practice and systematization articulate deeply rational-objective and affective-subjective dimensions. If these various dimensions are not holistically addressed through systematization then the attempt to understand the intervention would be incomplete’ (ActionAid, 2006, p.45). Systematization also has similarities with Participatory Design (PD), because it involves ‘those who will become the users throughout the design development process’ (Sanders, 2007), creating conditions for thriving due to the empowerment context.

The multiple-aspect interactions approach (fig.1, p.50, in this Supportive Document) in the researcher’s Systematization is followed by the collective construction of ‘operating concepts’ and typologies through taxonomization in order to broaden the solution space with ‘other levels of complexity and depth that are usually not in the participant domain’ (Hurtado, 2005, p.30). This is also why the critical view of this research methodology, language used as a phenomenon of discourse and the contextualization of the researcher, are actions that need to be executed. ‘Subjectivity on which we based our identities was not something fixed or essential but located in language and ideology’ (Hetherington, 1998, p.24).

4.6 Commonalities with Participatory Design and Participatory Action Research
This section is concerned with the role of Participatory Design (PD) and Participatory Action Research (PAR) within Systematization.

Systematization uses the best practice of PD
- An explicit political change agenda

Systematization uses the best practice of PAR
- Researcher and participant awareness of their social-
political bias and how it is connected to the role language plays in power discourse.

Participatory Design (PD), similarly to Systematization, is a method of researching with emancipatory objectives. Its discourses concentrate on three main issues:

‘(1) The politics of design,
(2) the nature of participation, and
(3) methods, tools and techniques for carrying out design projects’ (Kensing and Blomberg, 1998, p.168).

PD originated during the 1960s-1970s in Scandinavia and Germany, and concerns the power relationship between workers and the new computer-system-based workplace: ‘Workers and their unions, who were concerned that the introduction of computers would reduce their control over their immediate work situation as well as the overall planning and administration of production’ (Kensing and Blomberg, 1998, p.169). The authors identify these issues with Gärtner and Wagner’s (1996) three arenas for participation:

1. The individual project (designing work and systems).
2. The company (developing frameworks for action).
3. The national level (policies).

Nevertheless, ‘[c]oncerns have been voiced that too few PD projects are engaged at the organisational or company level [...] may lose sight of the importance of participating at the national and political level’ (Kensing and Blomberg, 1998, p.169). Like Systematization, PD has intentions to tackle the power discourse: ‘PD is not defined by the type of work supported, nor by the technologies developed, but instead by a commitment to worker participation in design and an effort to rebalance the power relations between users and technical experts and between workers and managers. As such, PD research has an explicit organisational and political change
agenda’ (Kensing and Blomberg, 1998, p.181). The agenda of organizational change is a consequence of an empowered user and designer.

Although it is true that PD aims to actively involve all users in design, the guidelines tend to be more concerned with data-mining and extrapolating user interactions. The researcher did not identify approaches that involved user decisions in choosing the methods and tools to carry out the participatory design. Neither was she able to detect guidelines for researchers to evaluate their own ideologies and how these could affect participatory design dynamics (in this research, this is the paper prototype of the RTRP toolbox). PAR’s Triple Self-Diagnosis guideline was what the researcher used to address this issue; it will be discussed more in depth in the next section (4.7) in this Supportive Document, p.65.

Cooperative, Participatory or Contextual Design all share a relation with the end-user, but they differ from Systematization or other decolonized methodologies in that they do not ask the questions: Who owns the research? Who owns the design knowledge? Who chooses the methods and tools for inquiry? Smith (1999) identifies these questions as the act of ‘colonizing knowledge’ and ‘colonizing the disciplines’. Systematization has specific guidelines on how to approach the decision-making process for designing the research plan with the participants. This will be discussed more in depth in section 4.8 The Iterative Process of Systematization, in this Supportive Document, p.65.

Systematization deals with intentional actions and explicit purposes from the person that acquires new knowledge and acts with it. This methodology defines knowledge as what is ‘informed not only by theory, but also by our values, our ideological and political approaches, our previous
experiences and our common sense’ (ActionAid, 2006, p.8). The Systematization model is also similar to the AR Spiral (Zuber-Skerritt, 1992) and Kolb’s Experiential Learning Cycle (1984) (refer to the Doctoral Research Map in the Portfolio of Evidence, p.240). It contains organized and reconstructed actions in order to communicate to others the lessons as new usable knowledge in ‘facing problems that require fast and immediate action’ (ActionAid, 2006, p.9).

The following is a diagram (fig.4) of the output of Systematization:

![Diagram of Systematization output](image_url)

On the other hand, Participatory Action Research (PAR), in the Latin American scenario, has converged with Systematization methodologies because both generate a
participative evaluative research experience, with the ‘aim to conceptualize based on practice or practices’ (ALBOAN, 2003, p.39), and give the participant the means to transform his/her situation. It is also used by the social workers in Peru to improve their practice, as an ‘analytical reflection and reconstruction process’ (ALBOAN, 2003, p.30), because it implies in-depth analysis and documentation of the learning project. As in Systematization, PAR uses reflective thinking, as it is informed by Freire’s Critical Pedagogy.

4.7 The Researcher’s Design-Relevant Version of Systematization

The researcher appropriated Systematization and made it design relevant by bringing similar collective reflexive recordings of experience from the Social Sciences (PAR) and from Design (PD) into the process. This is the version (fig. 5) the researcher used in the Systematization workshop:

Systematization is the umbrella (fig. 5), a safety net, to ensure a decolonized methodology, given its clear focus on the politics of language and the risks of the lack of coherence between thinking and acting. Decolonized methodologies are those that take into account a colonial or postcolonial
context. Although both PAR and PD could be seen as an act of researching with the user, PD is actually the act of designing through research (design-led perspectives). In the present research, the users are fellow designers, educators and creative professionals that will use the RTRP toolbox.

4.8 The Triple Self-Diagnosis: An Approach from Participatory Action Research

One of the methodological approaches in PAR, in the Latin American tradition, is ‘the triple self-diagnosis (conception, context and practice)’, which are the attitudes and behaviour of the researchers that allow a critical distance between the researchers and their research (Hurtado, 2005, p.129).

Triple Self-Diagnosis consists of knowing, as researcher, one’s:

1. Ideological and/or subjective position.
2. Socio-cultural approach.
3. Consistency, or lack of it, between thinking and action (view of the context and concrete practice).

This is compatible with one of the Systematization guidelines: the deconstruction of values, political positions and ideologies so that theory supports practice.

4.9 The Iterative Process of Systematization

There are four broad steps (ActionAid, 2006, p.20-33), which are:

1. SYSTEMATIZATION PLAN DESIGN - purpose - agreements as to
   - What experience to systematize
   - The expected purpose
   - The main question (the research question, refers to Section 5.6 in this Supportive Document, p.81)
   - The way experience is to be systematized
2. RECONSTRUCTION OF EXPERIENCE – How things happened and the context in which they happened:
• Documentation about what happened (reports, material, graphics)
• Participant memories
• Include only facts or situations that affected the experience directly
• Register political or economic changes in the region, country or locality; climatic factors or disasters; changes within the organization, etc.
• Include both objective facts and subjective perceptions

3. ANALYSIS & INTERPRETATION OF EXPERIENCE - The purpose is to identify the lessons and new knowledge to:
  • A brainstorm session with main questions and a key question; specify concepts that relate to theory
  • Relate the experience to its context (considering external events)
  • Include different actors’ points of view

4. COMMUNICATION OF SYSTEMATIZATION RESULTS - The purpose is to disseminate the experience and its lessons:
  • Decide content with all stakeholders
  • Do not commission a person from outside of the systematization process to write the report. If an expert is needed, the group should not lose control of the content.

4.10 The Role of the Systematization Guide
There are three actions that the guide takes on to address issues of communication between participants (ActionAid, 2006, p.45) these are:
  1. Recovering (the construction of concepts and topologies).
  2. Translating (the participants’ knowledge to others in the Bünd (term discussed in section 4.11) as usable knowledge.
  3. Analysing (the researcher uses PAR’s Triple Self-Diagnosis).
4.11 The Bünd Dynamics

The German word Bünd has multiple definitions, including ‘binding’, but in this research it is used as:
‘an attempted basis for communisation of social relations within modern, gesellschaftlich [societal] conditions, but one which applies individual choice as the basis for membership rather than class, gender or ethnic origin’ (Hetherington, 1998, p.89).

Systematization groups are Bünde, and as such, they are not stable or permanently grouped, like a corporation, a church, or university’s faculty, among others. In order to make Systematization work, as explained in previous section 4.8, p.66, participants use systematization guidance to agree:
1) on the need of systematization for their experience,
2) the questions to be answered and
3) methods to do so.

Therefore, the Systematization Bünd ‘operates principally through forms of self-governance and control but not at the expense of expressing one’s emotions’ (Hetherington, 1998, p.92). This initial agreement in the Systematization process also echoes Bünd characteristics: ‘The intensity of a Bünd, while it calls for the complete commitment of individual members, also reflexively promotes their individuality in that it requires continual self-monitoring and self-identification as well as identification with others (Hetherington, 1998, p.94).

Systematization groups are related to the concept of Communities of Practice, in that both ‘address the informal and tacit aspects of knowledge creation and sharing, as well as the more explicit aspects’ (Wenger, 2001, p.3), except for their charismatic or aura properties on issues to solve, which are the main differences with Bünd. So it may be said that all Bünd are Communities of Practice, but not all Communities of Practices are Bünd.
4.12 Conclusions

The researcher’s version of Systematization allowed her to thrive (fig.6). Because it takes into account the political dimension, Systematization can be associated with identity politics, and because it implies communal experience and expressive forms, it is the organization of the Bünd promoting emphatic expressions in reference to alternative ways to tackle a wicked problem.

Fig. 6. Summary of the researcher’s design-relevant version of Systematization for a participatory and open transdisciplinary framework that includes a political mindset. Blue is for theorists; Magenta for their theories; Yellow for methodologies; Brown for Systematization; and Green for the design outcome.
The approach adopted by the researcher is based on debating, in the same way postcolonial literary traditions sought self-empowerment. Illich (1971) pointed out that Freire moved constantly because he refused to educate using the ‘appropriate’ and accepted words from the official teaching practice, because it compromised communication with his students, who read into those words other meanings. Having said that, the researcher defines her approach as an act of sharing knowledge from the starting perspective of the local (Haraway’s Situated Knowledge concept, 1988, fig.6). To recognize situated knowledge is a way to resist the fixed and disembodied vision that brings ‘totalization’ (Haraway’s terms): ‘Location resists the politics of closure, finality’ and ‘situated knowledge is about communities, not about isolated individuals. The only way to find a larger vision is to be somewhere in particular’ (Haraway, 1988, p. 590). In order to do this, the researcher needed to reframe her research into a participatory (open) and transdisciplinary approach, using the Systematization framework. She adapted it so that it would be design relevant, by using collective design methods from PD but reinforcing the politically compatible collective reflexive recording of experience by using PAR (fig.6).

This position mirrors Systematization in that from the start it requires agreement between the guide and the participants in order to initiate the inquiry and method used (discussed in section 4.8 of this Supportive Document, p. 65). If it is an affirmative decision, then it’s followed by the workshop on how to systematize (ALBOAN, Instituto de Derechos Humanos Pedro Arrupe, Hegoa, 2003). This is an example of how the designer’s knowledge, as researcher, is not as important as the sum of the knowledge of all the Systematization workshop participants (paraphrasing Lawrence, 2010). This was crucial for the researcher as it allowed coherence between her political mindset and her actions, thus, avoiding political dissonance and promoting
resilience, which RP and AR did not provide (refer to *Decolonized Methodologies* in the Portfolio of Evidence, p.116).

This process was also compatible with her postmodern mindset which enabled the researcher to comfortably manage the research questions from different points of entry. This is to say that the researcher does not work from/assume the position of the ‘god trick’ (Haraway, 1988, p. 581), but from situated knowledge: ‘The knowing self is partial in all its guises, never finished, whole, simply there and original; it is always constructed and stitched together imperfectly, and therefore able to join with another, to see together without claiming to be another’(Haraway, 1998, p.586). This point is extremely important to the particular circumstances of the researcher, since she perceived her political context as colonial, where the ‘god trick’ discourse is applied as part of colonial practices.
5.1 The Location
The researcher chose Beta Local (betalocal.org), a non-profit, post-academic study and artistic production programme that opened in January of 2010, in San Juan, Puerto Rico, as the location for the Systematization workshop. The programme receives residents from diverse fields and visiting artists who offer conferences promoting interdisciplinary and experimental practices with a localized focus. The systematization participants were not members of the Beta Local programme. Beta Local was chosen because it promotes exploratory projects that do not conform to local standard ways of practice. “Standard ways” refers to institutionalized learning that strongly depends on bureaucratic procedures that do not allow flexibility. In addition, in view of the present dismantling of the educational system, the researcher needed to identify a space with an educational mission but using a decolonized framework. Beta Local is founded on the ideas of Ivan Illich, therefore the political space is acknowledged in the creative practices of its stakeholders. The researcher had the collaboration of Architect Andrés Mignucci as an assistant Systematization guide, while she was the main guide. A design student of the Fine Arts Programme of the University of Puerto Rico documented the whole workshop as part of an internship organized by PROA, the Artist Assistance Programme of the Puerto Rico Museum of Art.
5.2 The Participant Criteria

The call for the workshop was made through social networks a month before and it was addressed to all kinds of designers (graphic, fashion, architecture and industrial, among others) that were currently practicing, either on their own (owned a business or worked freelance) or as employees. Students were also allowed to participate if they were active in the practice (credits validation issues were coordinated with Beta Local and the university). Participant ages varied between the 20s to mid 50s. The workshop also welcomed educators-practitioners, because Systematization includes the dissemination of new knowledge. Practitioners could also come from the areas of Social Sciences, Cultural Management and Arts, in order to enrich the process holistically. Six was the minimum number of participants and twelve the maximum, as per Systematization guidelines. The majority of potential participants had long successful careers in design practice. An orientation meeting was scheduled with these potential participants to establish the group’s schedule to accommodate all individual circumstances. The group of potential participants/designers consisted of single parents, some of whom had recently lost their job; designers moving to open their own design businesses and some looking to redirect their practice; others doing their PhD studies, while maintaining a freelance practice and an adjunct professor. All of them were experiencing external stressors.
Profile descriptions of potential participants were as follows:
1. Art director at an ad agency (mid-late 40s)
2. Experienced designer, having completed postgraduate degree, recently retrenched and freelancing at that moment (mid 20s)
3. Art student (mid 20s)
4. Art director in a newspaper (mid-late 40s)
5. Fashion designer and store owner (mid-late 30s)
6. Community psychologist currently researching behaviour and technology (mid 50s)
7. Multimedia producer and film editor (mid-late 20s)
8. Fashion stylist (mid late 20s)
9. Design activist, involved in grass-roots organizations (mid-late 50s)
10. Industrial Design student, undergraduate and freelancing at the moment (mid-late 20s)
11. Artist and graphic/multimedia designer (mid-late 20s)
12. Indie-film director, (mid-late 50s)
13. Textile designer, (mid-late 50s)

5.3 The Schedule
The Systematization workshop took place during February 2011 and it consisted of eight sessions, for a total of 18 contact hours. The workshop’s activities developed as follows:
1. [Tuesday 15] Presentation of research, central ideas - doctoral map.
2. [Wednesday 16] Introduction to the tools of Real-Time Response Planning (RTRP) and explanation of research methods.
4. [Saturday 19] Second step: Creation of timeline, a historical reconstruction under the following themes: Tools, Strategies, Actions that Occurred, Difficulty and Level of Competency; drawings and photos were also inserted (contextual inquiry begins: photographic diary). A critical interpretation graph including
errors, recommendations for further experience and new ideas, and a chart of new knowledge with ideas that did not fit in the first graph.


6. [Tuesday 22] Fourth step: Participatory Design, creation of diagrams of activity patterns that anticipate the choice and use of the RTRP tools in order to understand their outcomes. For the diagram it was requested that participants include objectives to achieve, steps to achieve them, and RTRP Tools.


5.4 The Plan

First step was the Systematization Plan Design (discussed in 4.9 The Iterative Process of Systematization in this Supportive Document, p.65), which consisted in all of the participants agreeing to the purpose and how the group would proceed. The agreements were:

- The need to systematize experiences in the design practice in Puerto Rico and to share the story with other designers.
- The intended result was to design the RTRP as an artefact (paper prototype) that would be used to disseminate (teach) the new knowledge.
- That Systematization research question was: How to design an application that prompts strategies to address problems quickly in a tough, elastic, flexible way, with resilience and the ability to adapt?
- How to systematize (methods, activities and responsibilities that will enable each participant, to explore information resources). This fitted into Beta Local’s open process policies, which are based on Illich’s pro-active approach to education by students.
Mignucci’s synthesized diagram of the workshop (fig.7):

1. Researcher & Assistant Systematization Guide present Toolbox.
2. Designers use tools in their practices + enunciate their process + make group presentations.
3. Designers work on toolbox mock-up for others to use it methodologically.

Fig. 7. Systematization workshop diagram, done in meeting by Mignucci, January 11, 2011.

5.5 Narrative of Events

The following are brief narratives of the Systematization workshop. Each session, during weekdays, was from 7-9 PM after work. Every session opened with a briefing of what happened before, to allow participants who had missed sessions to catch-up. Two initial activities were carried out before starting the Systematization workshop.

• **[Tuesday 1] First activity, Lecture - Orientation**

The first activity was an orientation given by the researcher 14 days in advance of the workshop. The idea was to answer questions and coordinate the schedule, giving potential participants time to organize their routine. The activity applied research methods for collecting data and raising awareness among potential participants of how specific methodologies support the research. Questions were answered concerning the resilience theory, the doctoral programme, the thesis of the research, the role of the designer as a political actor and the designer as citizen, among others. IDEO’s *Method Cards* and Michael Michalko’s *ThinkPak*, as well as a toy tool set for model railroad building and repairing, were also presented as a metaphor and visual stimulation, since the researcher knew designers needed to see the designed materials. Some of the potential participants were familiar with the IDEO cards,
Participatory Design and Design Thinking, but they were not used to registering or documenting their process, nor to publish it to others. Refer to Portfolio of Evidence for photo documentation of the Systematization workshop (pp.166-184), also for video (DVD) and transcript scene selection.

- [Tuesday 15] Second activity, Presentation of Research, Central Ideas - Doctoral Research Map and Glossary Cards

The second activity took place during the first day of the workshop. From the original group, two designers did not attend (newspaper art director, could not coordinate her time and fashion stylist, father died just before workshop started). A new potential participant signed on, an urban planner in her mid 30s. This was the last day that the workshop was open to the public. This attendance numbers represent a 69% positive response to the idea of being involved in the workshop. Two undergraduate design students attended, as well the coordinator of the Artist Assistance Program (PROA) of the Puerto Rico Museum of Art.

Systematization was scheduled to start on the third day. A digitized version of the doctoral research map was presented (refer to Appendices on the Portfolio of Evidence, p.240). Glossary cards of the terms used in the research (in order to establish a research vocabulary that could be shared with participants, with words like situated knowledge and intertextuality, among others) were also given out that day for potential participants to take home. The whole presentation was interactive and was engaged as a table game. At the end of the presentation those that decided to commit to the workshop signed the consent form. It was very important that participants understood what was expected from them and the nature of the investigation. The consent form included a confidentiality clause, since the next day the tools were going to be presented and also there was an ethical obligation to protect other participants’ confidentiality.
given to the potentially politically sensitive nature of the information shared by participants.

Potential participants were more responsive to the glossary cards. They were interested in the doctoral map, although they found it contained too much information for them to comprehend. Architect Mignucci supported the researcher as an interlocutor. It was important to explain how Post-colonial, Post-modern and Social Science theories and methodologies backed up the research, as required in the open systematization process (p.68 in this Supportive Document). Also, it was discussed how the RTRP toolbox was an artefact that helped the user to think and how the activity was a design-led, open transdisciplinary research. The researcher started with Haraway’s concept of situated knowledge (1988), and went on in a non-linear format, putting glossary cards on the doctoral research maps. There were two printouts of the doctoral research maps to give more individual access to the material. Participants felt comfortable picking up the glossary cards and maps.

Everything was done in a low-technology (lo-fi) manner, analogue way without the use of computers in order to reduce technological ‘noise’ and to offer a neutral space. Also it was an opportunity to show the tool At Hand, which consisted in putting to positive use what the researcher had available as a way to tackle her constraints given in her limited financial resources (the researcher had no funding for the workshop or any part of the research).

- [Wednesday 16] Introduction to the Real-Time Response Planning (RTRP) Tools and Explanation of the Research Methods (First Stage):
These participants will be referred to as P, followed by a number based on the following list. Profile descriptions of participants as follows:
The introduction to the Resilience Theory and the toolbox took place on this second day. There was also a short introduction about the research methodology to be used in both research stages. Emphasis was on the first stage since the next meeting, Systematization, would be explained in depth. From the first research stage, the \textit{registro} (Portfolio of Evidence, p.48), the graphical timeline (Portfolio of Evidence, p.41) and the \textit{Behaviour Over Time Graph} (Portfolio of Evidence, p.45) were shown in order to give participants graphical evidence about how the first stage of the research was done, and how the researcher interacted with the RTRP Toolbox. The initial findings of the first stage of the research were also shared with them.

Although there was an orientation about the nine tools and their use, there were no training activities. It was important that the tools were interpreted by the users, so as not to fall into cultural \textit{dirigisme} (refer to glossary, p.120). The researcher, as the main guide, made this position clear to
all participants. In this way, the tools would be used in the participants’ contexts and it could be determined how effective they were as part of a Participatory Action Research.

The assistant guide, Mignucci, drew relationships between the first-day concepts (definitions of terms like situated knowledge and intertextuality, among others) and the tools, and how these concepts migrated to the operations of resilient design practices. The researcher made the connection to her design practice and encouraged each participant to do the same with their own practices. An example of each tool was given based on the actual experience of each participants, from producing design bags with local seamstresses to dealing with power struggles with other designers in a creative team: “My materials are from Utuado [rural town] and I work with a local seamstress… it gives an edge to the work”, P3 said, referring to At Hand and its connection to situated knowledge.

For example, tools as Intertextuality, At Hand and Anchored, were connected to Haraway’s situated knowledge; Fast Feet and Diversification tools with Derrida’s differance and Foucault’s heterotopia. “I can see that At Hand is not only physical but metaphorical, since I deal with people with different levels of education” P7 said. Mignucci explained how common it was for architecture students to present design projects that needed cutting-edge technology from Europe which is unavailable in Puerto Rico, so there was no act of Anchored in the place. The concepts of formless (Krauss and Bois, 1997) and Rosalind Krauss’ expanded field (1979) backed up Diversification because it was a border-crossing operation and it helped with how one inserted oneself in a transdisciplinary team; also working with users is an act of a diversification operation. “Because of the [economic] crisis, the art director is not there any longer, so now we have to do both the creative [work] and [the] art direction”, P1 shared. Participants discussed how diversification was lacking in
how designers are trained (locally) and that it is commonly recognized that design education promotes specialization. Thriving was seen as space for possible design innovation by participants and the guides. They all agreed that thriving provided an increase in self-confidence that lowered stressors and enabled them to focus on creative solutions. “I was interested in participating because it is a pedagogical inquiry that can be shared, it is powerful and shows how it can change under the wicked problem we are living in” (P3).

5.6 Narrative of Systematization Events

- [Thursday 17] First step: Design Planning

After thoroughly explaining the methodologies of Systematization and the researcher’s role, the first step was initiated: to ask participants if they agreed on the need to systematize experiences in design practice in Puerto Rico and to share the story with other designers. Video and transcript scene selection are available in the Appendices of the Portfolio of Evidence (p.255). Participants had different ideological values concerning the political aspect of the toolbox. They were not comfortable with the idea that the colonial reality was the main adverse event, although they did recognize political and economic hardship. P1, P2 and P5 were concerned about the colonial political character of the question, and P6 and P9 were more at ease as interlocutors, since they were able to translate the political element more into a discourse of power than a specific colonial discourse. P4 was also an interlocutor in separating the researcher’s stressors from the participants’ activity. The researcher at most times was a listener, since the conversation was mostly between participants about how to deal with the toolbox and how to introduce it to their practices, how they viewed power struggles, reflected on their practice and articulated design methods.

Participants had clear expectations about the final result, which was to be the design of a physical artefact (paper
prototype) meant to disseminate (teach others) their new knowledge. They also understood clearly that the Systematization research question was: How to design artefacts that display strategies to address problems quickly in a tough, elastic, flexible way with resilience and the ability to adapt?

For the next session they were told that they should mark their level of competency (based on Carver’s model) and at the next meeting, they were to build the data-timeline of how the tools interacted with them and share their experiences in their practice. The instructions for the registro (their reflective logs to be used in the collective timeline) were:

1. Document what happened (they could bring photos, drawings, diagrams).
2. This was an activity about remembering the RTRP tools in their practice.
3. Only work with events or actions that affected the experience systematization.
4. Include subjective perceptions.
5. Be aware of the social, political and economic stressors.

The timeline registro was used to record how the RTRP toolbox was used as support for the inquiry. It was meant to record the systematization of the experience of using the tools. It was a collective presentation in order to compare each participant’s experience. Additionally, they were also asked to document the result of using the tools to tackle their adversity, the RTRP tools they used and how they used them. The registro was also used to log the result of using the tools and to evaluate the efficacy of their resilience. The last request was that they make recommendations to improve the tools’ usability and that they share their new knowledge acquired with the tools. In retrospect, the researcher recognizes that the last request
was confusing because it combines different types of entries: the tools usability and the tools level of maturity in terms of self-learning.

It was very clear that at the end of the session, based on participant responses and conversations, the toolbox was no longer owned by the researcher. The participants were highly motivated and started showing a sense of ownership (responsibility), that is, they knew their own inquiry was going to be used in the researcher’s research. They were convinced that their opinions mattered to the researcher and the rest of the group (a Bünd manifestation). They left that day with a sense of mission.

• [Saturday 19] Second step: Creation of Collective Timeline

This section lasted four hours. Photos (p.173), video and transcript scene selection is available in the Portfolio of Evidence (p.262).

Each participant was asked to insert his/her entries in a collective timeline registro, laid down on a table, for them to insert the reflective logs as requested in the last session (fig.8).

P3 could not attend, but because she was using the toolbox she was able to complete the registro and make decisions concerning her issues at the store. She gave her data to the researcher so that it could be inserted in the collective timeline. P5 did not attend either. One of the participants, P4, suggested that each of them speak briefly about the experience. The group spoke about completed tasks, despite their adverse events. P6 proposed that an additional tool was needed, one that could help a leader remind his group how to reconnect with the task’s purpose.
Coloured Post-it labels were assigned so that participants could write their entries as follows:

- **Magenta** - Adverse event (could be more than one, they were numbered).
- **Green** - Tools they used.
- **Blue** - Strategies (how they used the tools).
- **Yellow** – What happened after using the tools.
- **Orange** – Results using Carver’s levels of competency in three areas (practice, economic and emotional).
- **Pale Yellow** - Last request: context in which the tools were used, the positive and negative properties of the toolbox, recommendations and new ideas for the toolbox and new knowledge.

The researcher did not make the purpose of the timeline’s last cells clear enough (last request) as regards the positive properties, errors, and new knowledge she was referring to in the use of the toolbox. Therefore many participant entries were Reflective Practice entries. The researcher made a note to the group about the misunderstanding, but participants thought that it was an added value, so the entries were included. In others words, although it was not requested, participants wrote entries concerning reflection on their behaviour during their decision-making process to tackle adversities in their practices.

A summary of the Systematization timeline (showing a simple tabulation of the RTRP tools used by the participants in a 48-hour period) and Reflective Practice entries are shown in the Portfolio of Evidence, pp.174-175.
It is the researcher’s point of view that the participants’ Rauxa/Seny was their main driver, that is, the creative reasons that motivate them in a coherent action plan. This was confirmed by P6 when he said that “the toolbox’s purpose was to focus the user” (remind the users what the main plan was and the methods to act on it). The more they used the Situational tool set, the higher the possibility of them succumbing, but they still had the learning opportunity to modify behaviour if they used the Situational tool set with the Dispositional tool set: “I kept to the plan. I was able to handle different issues in different practices” (P7). The researcher marked the differences in the participants’ definitions of the tools, because they were broad, Publishing and Script. Publishing was used proactively by Mignucci and reactively by the researcher. As with Script, participants used it as a proactive organizer for everyday activities, but for the researcher, the Script tool was a plan to use when a burnout situation may occur. Also, P3 agreed with the researcher’s association of Anchored with Rauxa/Seny. The Intertextuality tool is as strong as a decolonized tool and innovation because of its relationship with situated knowledge and the concepts of formless and heterotopias. Still, it was the tool least used by the participants, which might be explained by P3 and P6’s observation that “We don’t collaborate.”

Participants were asked if they agreed that there is a need for an RTRP toolbox during semi-structured interviews. The answer was affirmative (refer to DVD or transcript of systematization video in the Portfolio of Evidence, p.255-261). However, the researcher acknowledges that this is a leading question and in hindsight should have rephrased the question in a non-leading way.

It seems that to younger participants the RTRP toolbox was a way to organize their work plan, and for the older participants, it was also a way to reflect on their own
behaviour. In conclusion, the tools served as a way to make effective decisions under stressors (refer to DVD or transcript of systematization video in the Portfolio of Evidence, pp.262-332; also, refer to tables of Summaries, pp.174-175).

The researcher revisited the Systematization research question agreed on the first day of systematization (Design Plan), and discussed it. The research question was, how to design an artefact that displays strategies to address problems quickly in tough, elastic and flexible ways, with resilience and the ability to adapt? The researcher had made it clear to the participants that the designer’s life was part of the design brief in this research. Still, the researcher thought there was a need to remind participants that it was important for them to focus their experience with the toolbox (fig.8) on their practice and how it contributed to such, in order to communicate this new knowledge to others. This was done with the purpose of focusing the conversation of the Synthesize lessons in the designer as a person in practice and not on personal issues that do not concern the practice. The following equation (fig.9) was explained to the participants:

Experience (RTRP) ---->What for (purpose) = Design the Toolbox paper prototype
[Accomplish the task in practice] [Communicate it to others]

Fig. 9. Equation for participants to focus on the PAR inquiry, February 21, 2011.

The researcher reminded participants the wicked problem context they all shared by offering objective facts of adverse events during the 48 hours during which they had used the toolbox. This included a major bankruptcy of a national pharmacy that left 700 people literally on the street, since employees were notified in a note hanging on a closed door;
40 personal bankruptcies and other specific social and economic adverse events. As a citizen designer, if the only tool used was *At Hand*, then there was no plan, consequently no opportunity for resilience or thriving because it meant the designer was too busy reacting to adverse events without a strategic method. At first sight this can be an effective tactical move but it is not an effective strategy in the long run. There is a need for coherent thinking between practice and context, as PAR’s Triple Self-Diagnosis and the Systematization guidelines require. Therefore, the participants needed to be accurate and precise in extrapolating the abstract concepts used (post-colonial, post-modern and social science) and their tacit knowledge, but also aware of their values, cultural bias and ideologies in order to design an artefact that would help the user to think strategically in real time, thus promoting a resilient behaviour (refer to DVD or transcript of Systematization video, in Portfolio of Evidence, line 1332, p.345 to line 1419, p.352).

The researcher designed four key questions (table 1) in order to be able to create a design brief from the Synthesized lessons that, according to the Systematization iterative process, was the third step. Question number three was only for the researcher, but it was shared with participants. Questions one, two and four were answered collectively as part of a reflexive process. All participants agreed to answer all three questions (refer to Portfolio of Evidence for three additional tables of Summaries, pp.174-175).
A summary of Synthesized lessons of the RTRP toolbox is presented below in Table 1:

<table>
<thead>
<tr>
<th>Researcher’s Questions</th>
<th>Their attitude</th>
<th>Their values</th>
<th>Their beliefs</th>
<th>Their expectations</th>
<th>Their needs</th>
<th>To do</th>
<th>To think</th>
<th>To believe</th>
<th>Type of external events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the participants’ attitudes, values and beliefs about the inquiry?</td>
<td>Curious, interested to reflect on the experience (self-critical)</td>
<td>To be proactive in order to accomplish the task despite adversity</td>
<td>Empower designers; Provok in them a shift in their paradigm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. What do participants expect and need from the researcher’s product?</td>
<td></td>
<td>Be effective and predictable; Make the process transparent; Provok innovation; That others can use it; Focus strength both on the individual and to help others as leader to focus; Systematize personal methods; Organize priorities; Establish concrete strategic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. What does the researcher want them to do/think/believe?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>To objectify their experience (express it in concrete form)</td>
<td>How they can communicate their tacit knowledge with tools to others</td>
<td>It can be taught and it can; bring change</td>
<td></td>
</tr>
<tr>
<td>4. What are the participants’ conceptions of their context?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A place that does not foster the education of sharing tacit knowledge</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Summary of Systematization’s lessons to be used as design brief.

These lessons meant that the participants were reflexive and critical of their decisions. They wanted the same experience for the users, so they required that the RTRP toolbox make the users’ process transparent in order for users to acquire new knowledge and improve their higher learning and thinking under stressors. They were aware that their context
does not foster collaboration or sharing of their individual strategic solutions.

- **[Tuesday 22] Fourth step: Participatory Design**
The researcher also asked participants to create diagrams based on one of the tasks from their previous timeline registro. Video and transcript scene selection is available in the Appendices of the Portfolio of Evidence (pp.255-373).
The purpose of the inquiry was to see if it was possible to pick up certain activity patterns that anticipate the choice and use of the RTRP tools in order to understand their outcomes. In the diagram it was requested that they include objectives and steps to achieve them, and identify the RTRP tools used. The purpose was to give consideration to the question “how does the RTRP tool work?”, and “how is it organized by the activity of the user?”. This meant to consider the order of importance given to the tools by the researcher (refer to Portfolio of Evidence, pp.84-85). The exercise was intended to address these questions:
  - Can the RTRP function be produced by the tools in a different order of importance as given by another designer? Is it not predetermined?
  - Do they have different levels of maturity?
  - Are the tools used always in the same way, or do they mutate?
  - In what type of situations are these tools more effective?

In order to use the RTRP in real time, users do not need prior experience in Schön’s Reflective Practice methodology because the toolbox usage, according to the participants’ experience, promotes reflection-in-action and on-action by itself. However, according to the Synthesized lessons of the RTRP toolbox, users need to have a willingness to be reflexive and critical about their behaviour during practice. The understanding of their decision-making process and the making of resilient behavioural patterns was a result of the RTRP tools’ effectiveness. The tools’ reflexive methodology
promotes that users articulate and learn from their experiences (refer to Portfolio of Evidence, p.214).

Very few participants were able to do the diagram activity. Some did not understand the mechanism of the diagram and this caused tension among the group. The researcher decided that the diagram activity was not successful, so she moved quickly to address the other issues of the research, in order to achieve the workshop’s objective. The researcher decided to apply her Fast Feet Play and At Hand tools, and to discard the diagram, as proposed by the Systematization methodology (refer to section 4.8 The Iterative Process of Systematization, p.68, in this Supportive Document), to take into account the participants’ opinion about the choices of inquiry methods. In a group discussion she asked the group to be in charge of the design as users and co-researchers. In retrospect, the researcher should note that at the time (February, 2011) she was not aware of the Activity Theory that would have helped her to prepare this activity more successfully.

One of the participants, P6, proposed to use IDEO’s Brainstorming technique. An important thing happened: the researcher, relinquishing sole creation, accepted this immediately but P3 asked: “I think it is important to ask first if P6 wants to do it and if the group wants him to do it.” This is an example of democratic behaviour, or paraphrasing Concepción (2011), one of the properties of citizenship is to participate in decisions in public spaces; others are to be reflexive and have a feeling of ownership in the group activity. ‘According to Diaz (2004) there are three psychological components to be developed by the person to take the empowerment: the belief in their competence, striving to implement control and understanding the political apparatus that contextualizes its action’ (Concepción, ibid, p.98).
This day of the workshop was a landmark that validated the chosen method of Systematization and the researcher’s adaptation as the most appropriate, because it drew on a decolonized framework. Designing the RTRP involved some pitfalls because it forced a position on the researcher as the only authoritative voice—a learned behaviour from the colonizer, the one who infantilizes the natives: ‘Modern states territorialized meaning by manipulating languages, education systems, myths, symbols and narratives’ (Hobsbawn 1990; Anderson 1991; Paasi 1999).

This infantilization is a method of repression. It is commonly used by imperial states and it still remains latent in colonial territories and post-colonial states. Infant’s etymology is revealing. The etymology of the word “infant” is revealing: in (not) + fant (from the verb fari: speak, tell) = unable to speak.

United States citizens in Puerto Rico are not given all the constitutional protections that a United States naturalized citizen has, for example voting for the President (Jones-Shafroth Act, 1917). ‘Naturalization is the process by which U.S. citizenship is granted to a foreign citizen or national after he or she fulfills the requirements established by Congress in the Immigration and Nationality Act (INA)’ (Department of Homeland Security, 20914). Puerto Rico lacks sovereignty, or seen through the Resilience Theory, has a low Locus of Control which prevents a national Sense of Coherence.

‘Perhaps the biggest harm perpetrated by the United States against the people of Puerto Rico can be labelled as a crisis of self-confidence [...] that they [believe] lack the intellectual and moral capacity for government’ (Malave, 2002, pp.417-418).
• [Wednesday 23] Fourth step: Brainstorming (was originally the Discussion of Paper Mock-Ups)
Originally this session was to involve discussion of mock-ups, but instead it involved brainstorming, to design as a group one mock-up that would correspond to the brief (refer to Portfolio of Evidence, p.176). The previous day’s events prompted this change. P6 was in charge of this activity as decided in a collective manner. P2 was not able to attend. At the end of the session the group was able to achieve a simple and basic paper prototype. At the beginning of session the researcher reflected on P3’s question about designers as citizens (“I think it is important to ask first if P6 wants to do it and if the group wants him to do it.”) in relation to Freire’s Liberation Theology, democratic participation and governance.

A student intern participated for the first time, sharing his ideas about the possible design of the artefact for the toolbox. There was a discussion about Intertextuality as a way to innovate, because it was a tool for sharing with others and involving other areas of knowledge. They also established design parameters for the paper prototype:
1. An instructions section.
2. A glossary of tool traits and main concepts.
3. The cards in three versions: stand-alone, pocket and booklet format.
4. A tool topology map.

• [Thursday 24] Fourth step: Creation and Presentation (was originally only the Presentation of Mock-ups)
Originally, this session was focused on the presentation of the final mock-ups, but it became the day when the paper prototype was created. There was short discussion about the lessons learned from the Systematization approach and the group went over the design parameters from the day before. At the end, the group presented the paper prototype (refer to Portfolio of Evidence, pp.178-183) to
the researcher. The final conversation was about the role of colonialism and its long-lasting effect on Puerto Rico: local education promotes a culture of employees versus business ownership, to be a consumer instead of a worker, and does not promote the growth of national businesses because international market relationships are controlled by the United States. Plus, the design market is limited to two types: ad agencies or graphic design in web and print. There is no service or product design. Participants recognized the strong political nature in design praxis, and how their systematization experience with the RTRP toolbox was open to active interpretation by other users with different contexts of experience. In itself this was a political act. This was a change of attitude towards political context, because at the start, participants were not comfortable with the idea of the political aspect of the RTRP toolbox, although they did recognize their political and economic hardship. They were more comfortable at that time with any discourse of power rather than the political role and its effects on design practice.

Individual specific questions were given by the researcher for each participant to answer. P5 did not attend due to her work schedule, but did respond to the researcher’s questions by email. As a result of this workshop process, the prototype was revised into a working RTRP Toolbox, by the researcher’s design studio. Some of the questions to, and answers from, participants were:

**P2 - What tools did you use primarily to get here today?**

*Script,* and I used it because it organized my day to enable me to achieve all my commitments.

**P1 - If you think this toolset can help other practitioners, what does it say about designers and their role in society?**

Designers can create tools for any type of practitioner.

**P3 - Do you think that locally we don’t have**
industrial designers or design firm owners because we are not taught to be proactive and empowered? Proactive is to move into action under adversity, empowerment is to have the courage to express ideas. The answer is yes!
P9 - This experience, did it help examine, focus or establish strategies in this period of change in your life?
To examine my strategies yes, without a doubt.
P8 - Do you think the RTRP tools are used the same way or they mutate?
I think they have the capacity to mutate, but a longer period of user testing is needed to compare it to different levels of adversities in order to extrapolate mutation patterns (if any).
P7 - What is the difference between using the RTRP tools at work and at the University?
Definitely there is no difference. In both scenarios I find adversities and in both I design.

5.7 Conclusions of the Systematization Workshop
The RTRP toolbox promotes empowerment, aided by the tools being formless. "The tools are flexible enough to adapt to the users, they even can add their own tool" (P4).

The workshop saw the following questions answered:

• Will other designers agree about the need for an RTRP toolbox?
The answer was affirmative (refer to DVD or video transcript in Portfolio of Evidence, pp. 333-364).

• Can a resilience workshop be conducted with successful outcomes in an adverse environment?
Yes, if you have Bünd, a group that is inspired by their goal in such a manner that they have a sense of mission and ownership. Participants in the Systematization research need to recognize beforehand: ‘...that one has
been marginalized, excluded and oppressed, and this must be accompanied by reflection, which seeks to understand how one has been stripped of power, then how to face this situation and to transform that reality’ (Concepción, 2011, p.98). This was evidenced in the last group conversation on Thursday 24 (p.91, in this Supportive Document).

• Given the negative impact of the colonial status on the designers’ Locus of Control, is it possible to perform successful PAR and PD without the influence of the colonizing machine?
Yes, the Systematization workshop became a temporary raft, a space for the group to meet in a coherent environment where they did not feel threatened, but the researcher does not know if this has lasting effects. ‘When people are not aware of the social dynamics that they are involved in, when the victim and the victimization are seen as a natural and inevitable condition, especially, when the victim has the illusion of being a free citizen in a democracy, raising awareness of their status as oppressed is very difficult’ (Gill, 1998). Further exploration of social-political factors is beyond the scope of this research.

5.8 The Limitations, Recommendations and Confirmations of the Systematization Study
There are three key limitations of this study:

1. The investigation involved a heterogeneous group. Although they all shared a graduate educational background, were urban residents and most of them were well travelled, they all came from different social backgrounds, ideologies and customs. The participants are not necessarily representatives of Caribbean or Latin-American designers, neither can they claim to be representative of Puerto Rico’s design community.
The criteria of selection was based on availability of designers, design students and design educators. It should be noted that this is a small community, according to a 2011 report: out of 1,889 creative industry businesses, only 15% are design related (293) (Hernández Acosta, 2013, p.21).

2. The group was engaged with the RTRP toolbox for a limited time. This was very different from the experience of the researcher, who monitored engagement for seven months, therefore cross-comparison during a long period of time was not included in the research.

3. The tools worked in the specific context of the workshop. Participants were able to become a Bünd, understand the tools and their needs, and completed a paper prototype, but the researcher cannot assure this is repeatable in all other circumstances. Monitoring the tools in longer sessions and in other circumstances is needed in order to see if the outcomes are predictable.

There are two recommendations:

1. Monitor the RTRP toolbox with geographically different groups, first with Caribbean and then Latin-American communities.
2. Expand the engagement period with the RTRP toolbox to two weeks, in order to better develop skills for its use (this was done in a limited study, refer to the comparison with IDEO’s Design for Social Impact in the Portfolio of Evidence, pp.204-221).

The following points were confirmed with the first section of the research:

- The resilience tools coincide with many factors of thriving and resilience under the Resilience Theory.
- The RTRP toolbox cannot change the distressing effects of a context of political repression at a macro
level, but it can help teach resilience and improve the chances of its users to thrive.

- The findings of the first section of the research confirmed that the most important benefit of the resilience method of the RTRP toolbox is that it helps users feed their Sense of Coherence and Locus of Control through Self-Efficacy, and for that reason, it retro-feeds their Personal Causation and Stamina. For all findings, refer to section *First Stage: Effects on Researcher’s Practice* (in the Portfolio of Evidence, pp.160-161).

- RTRP is axiological (Archer, 1980, p.33), but it is not a messianic toolbox (a “saviour” solution). It is not an all-inclusive solution to prevent designers from succumbing to adverse situations.

- RTRP is a set of tools that encourage the user to act and operate at a personal and localized level (insightful and sensible to the historical context).

- In a society such as the researcher’s, where education and design jobs are being eliminated, the importance of the *Rauxa/Seny* and *Anchored* tools is heightened under constant adversity as living conditions deteriorate. These tools are pillars that allow the other tools to help the designer withstand adversity. *Rauxa/Seny* belongs to the Philosophical set (the users’ world-view, the meaning of their life) and *Anchored* to the Dispositional set, users self-worth. The loss of a job and prolonged unemployment will deteriorate the way the designer sees himself/herself. This might affect their sense purpose in life, and therefore the handling of such stressors. The eventual loss of stamina, the will to continue, might be diminished; therefore, designers might succumb under their adversities.

5.9 Systematization Workshop Findings
The researcher has come to the following points of understanding (refer to table 4. Summary of RTRP
Systematization achievements, difficulties and unexpected results in the Portfolio of Evidence, p.184):

- The Systematization method is effective as a decolonized framework. Politically, it was an effective decision to co-design and co-research with users, so as to avoid a cultural *dirigisme* issue, since the design communication platform is not ideology free (refer to the postcolonial paper in the Portfolio of Evidence, pp.116-134). The research methodology needed to be deconstructed and critically approached in order to be effective in a non-emancipatory environment. The Systematization method allowed participatory decision-making, therefore it is not a secluded methodology, on the contrary, it is by itself an *Intertextual* tool.

- The failure of the diagram activity proved that Systematization works through a renegotiation of the methods that participants are comfortable with. As proposed by the Systematization methodology, the researcher took into account the participants’ opinions in the choices of inquiry methods. In a group discussion she asked the group to be in charge of the design as users and co-researchers, not as passive subjects to be studied. In a colonized environment (this research context), the decision-making process by a participant and, at the same time, the encouragement to be proactive in a collective manner, is in itself an achievement. Colonized profiles respond to authoritative (kinship) figures, do not make decisions (not proactive) and tend to be individualistic (not collective, therefore more isolated). There are different possible methods to research the toolbox and once participants are aware of what they are trying to achieve, Systematization allows the participants to select the most appropriate research method.

- The *Bünd* dynamic is essential for Systematization to be successful under political and economic hardship.
• There is a need for an RTRP toolbox, according to the participants.
• The RTRP toolbox dynamic provokes Reflective Practice, according to participants.
• Tacit knowledge was made explicit and the group was able to create a final paper prototype in a short period of time, under political and economic stressors.
• Resilience can be taught as stated in the review of Resilience Theory literature and made evident in the participants’ responses in the timeline entries (refer to the summary of the Systematization timeline and the Systematization Reflective Practice entries in the Portfolio of Evidence, pp.174-175).
• RTRP toolbox might be able to migrate to other practitioners; this means that designers have a strong and active role in society as political actors.
• RTRP toolbox helps users focus on their life and plan their practice, “To jump-start the strategic, no doubt” (P9).
6.1 Practice-Based Research in a Contextual Inquiry

North American artist Donald Judd wrote the essay *Some Aspects of Colour in General and Red and Black in Particular* (1994) about colour, artistic education and artistic activity. He argued that although colour theory should be taught early in the student’s academic career, this explicit knowledge does not become practical (tacit) knowledge until it is actually practised: ‘There is a limit as to how much an artist can learn in advance’ (Judd, 2000, p.92). Judd’s claim is consonant with practice-based research although, he bluntly restricted the teaching of art to practicing artists. By the same token, he was critical of artists who could not articulate their practice. ‘This is part of what is wrong. This is partly why the integrity of art is steadily diminishing. There cannot be an education of artists that is distant, distorted, and institutionalized with the expectation that in five or ten years a good artist will result. The result is another institutionalized new teacher’ (Judd, 2000, p.92). Judd later commented how colour, as knowledge, paraphrasing Joseph Albers, is both subjective and objective (Judd, 2000, p.98). Judd’s thoughts echo in practice-based research, which has a strong contextual method of inquiry.

As in practice-based research, the researcher tested the working prototypes in a working environment and also, as in open transdisciplinary research, they were presented to diverse professional communities.
6.2 Working Prototype

According to the final step of Systematization, which is to disseminate the experience and its lessons, a working prototype was created from the participant paper prototype. The researcher’s design studio created the working prototype of the RTRP toolbox, now called *Bounce & Design* (B & D) (refer to Portfolio of Evidence, p.190). It is aimed at designers who did not take the Systematization workshop so it can be tested in a working environment in order to make any necessary adjustments. The researcher has plans to eventually publish the *Bounce & Design* (B & D) toolbox, which is based on the RTRP model.

Two working prototypes were created after the Systematization workshop (refer to Portfolio of Evidence, p.186). Adjustments were made after two user-tests (refer to Portfolio of Evidence, pp.187-189).

The B & D toolbox included a set of cards of the nine tools, divided into the four sets (Polk, 1997) discussed in the Portfolio of Evidence (pp.26-33): Philosophical, Dispositional, Situational and Relational (named as such by Polk). In the same order as listed, their definitions can be summarized as follows: user’s world view, user’s self-worth, user’s problem-solving skills and user’s roles in society. The four sets were colour-coded for visual identification and also a tool topology map was included.
In order to encourage designers to use and engage with the RTRP method, three systems of usage were designed for the toolbox working prototype, according to the Systematization findings:

- A folding system for quick selection (learning stage, designed to familiarize the designer with the tools).
- A one card system in which every card can be attached to others (for building the visual tools in order of importance and enabling the user to order the tools according to their perceived importance.
- A pocket version.

One blank card was also included with each system, so the designer can identify his/her own tool, as a product of a reflective practice. Each card had a brief description of a tool and what it is used for. Also included were the tool’s benefits (in reference to Resilience Theory factors and their relationships with the nine tools), so the designer could easily start relating them and learning how they interacted and promoted resilience behaviour. For example, in the **Publishing** tool card:

> Show others what you are doing. Allow them to see your reflections on both, process and final artefact. If you don’t document it, it will be like it never happened. Remember that problems grow in the dark, so you can also use the **Publishing** Tool as an instrument to get problems out of the closet, in order to debilitate them and solve them. Benefits: Increased sense of coherence, hardiness, self-efficacy and locus of control.

The **Bounce and Design** toolbox also included a glossary with the description of each benefit (tool traits: resilience positive outcomes). Two examples of tool benefits:
Self-Efficacy
Resilience Theory (Bandura, 1982; Maslach & Jackson, 1986)
The way we visualize ourselves is related to how we feel about our achievements. By living our lives purposely, we diminish the risk of burning out and we boost our stamina.
Applies to Dispositional Tools.

Sense of Coherence
Resilience Theory (Antonovsky, 1979)
Consists in having a sense of direction. It’s like a personalized guide that shows us ways to embrace life.
Applies to Dispositional Tool

A glossary of Postmodern and Social Science terms linked to the design practices was included. For example, Foucault’s *heterotopia* concept is explained as follows:
Is the relation between the real society and the ideal one, and how it is manifested in the public space. It can be seen as your balance between your design vision and the solution space.

The *Bounce & Design* toolbox includes a set of instructions about how to use the tools with the three systems, carefully not falling into cultural *dirigisme* (refer to Glossary, p.123) but promoting an active interpretation through the designer’s context of experience.

There are further adjustments to be made in order to further clarify the three systems to the users. A third working prototype is in development and a mobile version is being considered. Adjustments are being made in the realm of affordance (graphic design considerations and semantics) to improve the educational elements of the RTRP toolbox.
6.3 Comparison to Another Guide
Two designers/research assistants from the researcher’s studio agreed to participate in testing IDEO’s Design for Social Impact Guide (DSI) (2008) and the Bounce and Design Toolbox (RTRP Toolbox). IDEO’s Guide was chosen because it shared with RTRP the goal of gaining social capital and it focused on clients with economical constraints (refer to Portfolio of Evidence, pp.204-221).

The comparison confirmed again that the RTRP model is a method of nine tools that through thinking skills improves a person’s ability to acquire the skills of resilience and thriving behaviours. Therefore it aims to nourish the designers’ tolerance towards uncertainty and to build their stamina. This is done by the activation of self-mentoring (learned resourcefulness and resilience factors) when facing a good chance of getting hurt. User D2 stated in her comparison how difficult self-confrontation was but how it allowed her to achieve her goals (refer to Portfolio of Evidence, p.214). Resilience is coping, the behaviour that allows the user to stay in position, not to succumb, but to resist and handle tasks successfully despite stressors.

‘People who succeed in regulating their internal processes during difficult situations, [...] acquire the skill of self-regulation. Next time a difficult situation arises, they are more adept at regulating their internal processes and are thus better able to respond effectively to the situation’ (Van Breda, 2001, p.47).

6.4 Presenting Research to Others
Three peer review sessions were organized by the researcher to present the research Developing Methods of Resilience for Design Practice to diverse professors and professionals. They were educators from New York City, United States (March 7, 2012); architects from the School of Architecture of the Polytechnic University of Puerto Rico (March 23, 2012); and psychologists, School of Social Science, University of
Puerto Rico (March 28, 2012). The last two sessions were open to the academic communities in accordance with the RTRP open transdisciplinary research model. Peer professions were chosen on the basis of their relation to the theories and framework of the research: Design, Social Sciences and Education (for more details on the three peer review sessions, refer to Portfolio of Evidence, pp.222-235).

All participants agreed that B & D made a contribution to design practice, that the research was credible and that the *Intertextuality* tool was a key component to thriving.

The researcher highlights the educators’ peer reviews given the educational intentions of the RTRP toolbox. The educators peer reviewers prompted the researcher to look for other resilience-oriented models in other practices that focus on the practitioner. The RTRP model is created for the adult designer who is already a practitioner or for emerging designers that want to improve their skills to handle adversities in his or her context. From the educational framework, students thrive by self-learning as they improve the cognitive skills that allow them to move forward. Cognitive skills is a group of conscious intellectual and emotional activities that includes self-regulation, focus, remembering, producing and comprehension of language, analyzing and problem solving, among others. The researcher reviewed educational and emergency management models. The following is a summary of this literature review:

Many educational models promote resilience in middle school, like Meltzer & Krishnan’s *Funnel* model (2007) or the programme Drive to Thrive for teaching strategies of executive functions (a neuropsychology term) to elementary school students to improve their ‘performance on classwork and tests’ (Meltzer, 2007, p.186).
These are theories that some resilience educational models have used to tackle elementary learning. The researcher found that these theories had learning strategy commonalities with RTRP in the following areas:

- **Executive Functions**: the processes to selectively attend to specific information (prioritizing); to work with many types of information (shifting between approaches) and plan for that specific information (moving and sorting in order to organize it). ‘Executive functions also involve being able to select the appropriate response or behaviour while at the same time inhibiting inappropriate responses or behaviour’ (Tanner, 2009).

- **Emotional Self-Regulation**: the ability to respond to stress.

- **Cognitive Flexibility**: the ability to handle multiple pathways and multiple purposes when approaching problems (Spiro and Jehng, 1990).

Other models reviewed by the researcher were those that handle high job stress in practitioners like nurses and firefighter managers. For example, the Stress Adaptation Model (Allen, 1991, cited in United States Fire Administration, 1991, p.47) is aimed at breaking the chain of physical effects that stressors might have on an individual. These are:

- **Cognitive Appraisal** (perceived stress).
- **Emotional Arousal** (feelings toward the stressors).
- **Mind/Body Connection** (*Fight/Flight Response)*.
- **Physical Arousal** (body’s reaction to the stressor, like when the consumption of oxygen increases).
- **Physical Effects** (the body’s chemical and mechanical activity, like trembling hands and cardiac failure).
- **Psychosomatic Disease** (physical diseases like hypertension).
This model is recommended in the United States for firefighters by the Federal Emergency Management Agency, (FEMA, International Association of Fire Chiefs Foundation, 1991, p.47) in order for them to make correct decisions in a limited time and with incomplete information.

Another model is Stuart Stress Adaptation (Stuart, 2009) for psychiatric nursing care. This model is intended for psychiatric nurses to identify patients’ patterns of coping responses. The Stuart Stress Adaptation Model includes ‘biological, psychological, sociocultural, environmental, and legal-ethical aspects of patient care into a unified framework for practice’ (Current Nursing, 2012). It is a method for decision-making in nursing care concerning treatment and the patient’s resilience skills.

By reviewing these theories the researcher acquired additional data to improve RTRP’s articulation of the education of resilient and thriving behavior.

6.5 Conclusions
During this period of the research four questions were answered. Those are:

- Can the RTRP function be produced by the tools in a different order of importance, as given by another designer? Is it not predetermined? Yes. Two user tests in the comparison with IDEO’s guide showed a clear difference in the perceived order of importance of tools. So the order is not predetermined (Answered on RTRP Comparison in the Portfolio of Evidence, pp.204-221).

- Do the Design Methods for Resilience have different levels of hierarchy? Yes, they do, although there were only two participants in the comparison with the IDEO guide, the use of the tools over time indicated levels of learning and interacting
with them. In a first level they became organizers and on a second level they changed into strategies clearly around user motivation (Answered on *RTRP Comparison* in the Portfolio of Evidence, pp.204-221).

• Are the tools used always in the same way, or do they mutate?
They mutate. It is common for designers working at the researcher’s design studio to use the tool names as a way to: 1) explain a situation and 2) describe the actions in a situation (in a client research). The tools are a cultural product that supports resilient-thinking behavior, but the studio designers’ adaptation reflects how they used them as a way to reconstruct and understand other people’s tasks (Answered on *Resilience Toolbox in Use #4* in the Portfolio of Evidence, pp.198-203).

• In what type of situations are these tools most effective?
  a. For unexpected adversity.
  b. For a resilient strategic plan.
The first objective of the research was to corroborate the existence of the RTRP tools by extrapolating the researcher’s tacit knowledge from her design and teaching practice under adverse conditions (refer to 1.2 The Discovery of Tools to Manage Adversity, in this Supportive Document, p.24). The researcher was the subject of the study during the first stage in order to examine the tools’ existence. The concept of resilience framed this stage. Her stressors were political. The research methods aimed at identifying and addressing adversity had to build resilience in a researcher that was suffering from political stressors. The findings of the first stage were that the tools were corroborated and adjusted as a strategic design thinking method, and during this process, an understanding of the appropriate research methods in a contextual inquiry about resilience was achieved at the end of the first section. The appropriate research method was Systematization of Experience, as adapted by the researcher.

The researcher appropriated Systematization and made it design relevant by bringing Participatory Action Research (PAR) and Participatory Design into the process. A Systematization workshop was planned as part of the research to explore the appropriateness of Systematization and the effectiveness of the tools. Systematization was used to ensure that researcher’s and participants’ cultural beliefs, ideologies and values did not play a negative role.
in the process. PAR was used as the means for participants to research the RTRP tools in their practice (refer to fig.5. in this Supportive Document, p.65 and fig.6, p.69). The researcher was aware of the pitfalls of an expert-driven experiment, with the risk of her becoming the authoritative creative force. Likewise, the researcher and participants were aware of confidentiality issues concerning information to be addressed in the workshop. PAR strengthens participatory confidentiality as well as the risks of expert-driven situations with Triple Self-Diagnosis (Supportive Document, p.66). The researcher focused the main question of the first part on the Systematization of the design of the RTRP and the need for such resilience toolbox (5.6 Narrative of Systematization Events, Supportive Document, p.81). Then the researcher again made sure that this approach was relevant to design practice before participants started to synthesize lessons, which was the third step of the Iterative Process of Systematization (Supportive Document, fig.9, p.86). These syntheses were used as a design brief for the paper prototype (Supportive Document, table 1, p.88). From this point on participants moved to PD. During this second stage, peer reviews with colleagues and user testing were also conducted.
Findings of the second stage:
1. It was confirmed that resilience tools can be shared and taught. This was a point of common understanding among many different designers, including those from Argentina, where some of the interviews occurred (in Portfolio of Evidence, p.55). Both research stages confirmed it. Thus, the researcher built the resilience design model (fig.10).

2. The researcher’s model is a spiral problem-solving process of four repeatable steps (refer to the RTRP Procedural Method in Portfolio of Evidence, p.83):
   1. Analysis - Grasp the Adversity
   2. Strategy - Choose the Tools
   3. Act - Method (Tools’ order of importance)
   4. Learn - Observe

3. The operation of the resilience design model, how the tools interact and are related to each other, was made explicit during the first stage and confirmed in the second stage with the use of the researcher’s Systematization version. As in Donald Judd’s statement about colour theory, the explicit knowledge contained in the *Bounce & Design* handbook becomes tacit knowledge when practised.

4. So there are different levels of maturity (learning skills for a strategic thinking). Using Carver’s Level of Competency, (Portfolio of Evidence, p.248), the levels of maturity are (refer to flowcharts of the toolset process in the Portfolio of Evidence, pp.98-102):

   (LEVEL 2- SITUATIONAL TOOLSET PROCESS)
   SURVIVING WITH IMPAIRMENT
   Solving the immediate adverse problem but being impacted and driven off track from design practice objectives. At this level, tools also can be used as a way to improve design methods.
(LEVEL 3 - SITUATIONAL & DISPOSITIONAL TOOLSET PROCESS) RESILIENCE
Solving the immediate adverse problem and staying on track. The designer acquires reflection skills, insightfulness of his/her social context. Therefore, the process improves social interrelationship skills and helps the designer stay on tracks.

(LEVEL 4 - SITUATIONAL, DISPOSITIONAL & RELATIONAL TOOLSET PROCESS) THRIVING
Not only has the designer maintained his/her focus on the main design objectives, but she has also acquired multi-perspective reflective practice. The tools become strategic operations for innovation and organisational policies. This is the designer as ‘citizen’. This level requires the Intextextuality tool.

5. Given the research limitations, including the small sample of users (refer to p. 95 in this Supportive Document), findings do not imply that this is a fixed process.

6. The RTRP method has two levels of expertise (fig.10). The first one is the development of strategies in real time, and the second one, after the user is familiar with the tools, the skill to plan longer flexible strategies for future events under similar adverse conditions (handling of stressors).

7. The participants of the Systematization workshop and user D2 from the comparison study with IDEO’s guide (case study #1 in Portfolio of Evidence p. 56 and case study #2 in Portfolio of Evidence p. 104), only achieved the first level of expertise. The second level of expertise was achieved by user D1 from the comparison study with IDEO’s guide, when on the fifth week she established a strategic operation to address ill-decisions and economical/technological adversity. ‘This time the tools helped me use common sense and my
instincts to know where I should direct my objectives. It was a holiday, but I didn’t want to waste time. I called the design studio and worked. We advanced that week’s work, making the week run more smoothly with less tension. Since I made progress on those tasks, I was able to continue with more important ones’ (in the Portfolio of Evidence, p.211).

8. At the RTRP first level of expertise, the designer’s decision-making process can become compatible with the adverse event because he/she acquired the skills to address the situation (therefore achieving resilient behaviour). Paraphrasing Dr. Ross Greene (2012) in regards to elementary-level students with behavioural challenges, it is not due to a lack of motivation when a person succumbs to their stressors but a lack of conscious intellectual and emotional skills that can be used appropriately in their context.

9. At the RTRP second level of expertise, the designer can change his/her immediate context so that the same type of adverse event will be minimized or prevented from repeating itself (thriving). It is a transformative level. As stated, thriving is defined as: ‘[the] acquisition of new skills and knowledge […] of new confidence or a sense of mastery, and enhanced interpersonal relationships’ (Carver, 1998).

10. In the researcher’s case, all the tools re-group under one tool: Rauxa/Seny. It worked as the main driver: building Stamina and Personal Causation. The role of Rauxa/Seny was also detected by the Systematization participants. The second most important tool, Anchored, is a focus tool. It builds Locus of Control, Self-Efficacy and Sense of Coherence (refer to the researcher’s order of importance for the tools in the Portfolio of Evidence, p.85). Rauxa/Seny gives a self-awareness and feeds a sense of mission (that the goal is achievable). It gives direction, steady focus on the goal, and control on how to rapidly create circumstances to achieve it. This goes back
to Rauxa/Seny, the will to continue despite the level of adversity or the extended endurance of adversity.

11. The research focused on designers under the following stressors (adversities that caused physical reactions of Fight/Flight Response):
   - Social
   - Economical
   - Political
   - Or a combination of the above areas.

12. The RTRP tools have been most effective in these situations:
   a. For unexpected adversity (refer to Typography Case Study, p.56 and Museum Exhibition Case Study, p.104, Portfolio of Evidence).
   b. For a resilient strategic plan (refer to process book role in Film Director Case Study, p.194 and Doctor’s Office Case Study, p.198, Portfolio of Evidence).

13. RTRP differs from other resilience models because it:
   1. Focuses on the designer (the practitioner), not the user, design firm or design artefact.
   2. Builds real-time resilient strategies.
   3. Is used under adversity that causes true stressors.
   5. Teaches skills to adapt quickly in a shifting environment.
   6. Promotes thriving and resilience.

14. The RTRP model’s fundamental structure is focused on:
   1. Solving techniques for ill-structured knowledge domains (Voss, 1988). This is an educational term. It is a ‘scaffolding’, a creative and flexible solving technique for wicked problems developed to facilitate the student’s...
knowledge transfer by contextualizing it in real-world situations.

2. Case-based learning (like in learning law or medicine, there are case precedents, but it is the user’s experiences that are the case studies).

3. Reflective higher-order thinking and learning (Bloom, 1956, Pohl, 2000). An educational model for the development of high intellectual skills (analysing, evaluating and creating), so the students apply the new knowledge in another context from the one in which they learned it.

4. Situated contexts and their associate knowledge (Haraway, 1988).

7.1 The Importance of Being Anchored
The contemporary practice of the designers under social-political and/or social-economic adversities, is a wicked problem. Wicked problems are defined as: ‘issues that prove to be highly resistant to resolution through any of the currently existing modes of problem-solving’ (Brown, 2010 p.62). According to Horst Rittel and Melvin Webber (1973 cited in Brown, 2010, pp.62-63), the ten characteristics of a wicked problem are:

1. It evades a clear absolute definition and instead tends to be ambivalent and multi-perspective.

2. There is no granting of truth value at solutions but, instead of better or worse value, there is no ‘criteria that tell when the or a [italic as original] solution has been found’ (Rittel and Webber, 1973, p.163).

3. It is multi-causal with many inter-dependencies, thereby, involving trade-off between conflicting goals.

4. Tackling leads to unforeseen consequences elsewhere, creating a continuing spiral of change: ‘We have no way of tracing all the waves through all the affected lives ahead of time or within a limited time span’ (Rittel and

5. It is a moving target.

6. It has no single solution, but a combination of many ‘OK, let’s try that’ (Rittel and Webber, 1973, p.163).

7. It is socially complex and related to other wicked problems.

8. Because it is multi-causal, interrelated and dynamic, it cannot be attached to any one person, organization or discipline, which makes it difficult to identify responsibilities.

9. Its resolution involves changes in personal and social levels, changes that might be resisted or encouraged depending on the circumstances.

10. At the same time, every wicked problem is unique. Paraphrasing Einstein, Rittel said ‘You cannot solve a complex problem through the same thinking that created it’ (1972 cited in Brown, 2010, p.62). Knowledge migrates differently among stakeholders; ‘[e]ach wicked problem is thus uniquely grounded in its place and time’ (Brown, 2010, p.63).

This last point (number 10), which makes reference to ‘groundness’, is connected with one of the researcher’s resilience tools: Anchored (a sense of commitment to a specific community that is not to be confused with blind nationalism or xenophobia). Anchored is part of the Dispositional (Polk 1997) Toolset of RTRP. There are four resilience behaviour patterns that the RTRP sets are based on, all are discussed in detail in the section Resiliency Theory & the RTRP tools (in the Portfolio of Evidence, pp.26-33). It is the researcher’s understanding that Point 10 summarizes the other characteristics of a wicked problem. Anchored is a tool that belongs to the core set of the RTRP (in the Portfolio of Evidence, p.84), which is informed by situated knowledge.
It’s worth noting here that it is ‘through critical examination of this groundness that wicked problems can be resolved’ (Brown, 2010, p.63). This depends on who the researcher is and the context of the researcher. The RTRP toolbox is a Cognitive Artefact, a term that Donald Norman (1991) defines as a human-made thing that affects the user’s behaviour, perception and, therefore, task (refer to section 2.2 Resilience and Thriving, in this Supportive Document, p.39). The research highlighted the fact that there is a need ‘to consider the role of tasks on particular environments or contexts, forms of integration of work teams, individuals, artefacts and culture’ (Figueroa, 2007, p.73). Therefore, the RTRP toolbox is an Anchored artefact, contextualized by the user’s perception of his/her social cultural environment.

7.2 Reflective Statement
The RTRP model and toolbox were created in the same way that designers construct knowledge (design way of thinking). Designers think visually (visualization tools) and in a trial and error, manner (explorative).

Contemporary design has changed to a more transdisciplinary and user-centred practice (Dubberly, 2012, Yee et al, 2009). It has become less craft-focused and less expert-driven. Many designers are tackling wicked problems that involve global issues.

The current global economic crisis may have left many designers without a safety net, as is also the case of emergency managers and health care workers, among others, exposed to adverse events that create stressors for them. It can still be expected that they will continue to do their job efficiently despite the pressure that they are experiencing.

The RTRP model was used to study the strategic decision-making process of designer Marianne Hopgood, owner of Puerto Rico’s first communication design firm, Graf,
Inc. A research paper was co-authored with her and the researcher’s business partner, Arthur L. Asseo. The result was presented at the 5th International Conference on Typography and Visual Communication, held at the Department of Design & Multimedia of the University of Nicosia, Cyprus, in June 2013 (refer to Appendices section in the Portfolio of Evidence, p.374). The conference dealt with the theme of adversity and how lessons from the past can address current social and economic situations in design practice. The researcher’s motivation arose through her reflection on issues of the Hegemony of Writing (refer to glossary) and the need to start recording critical local design history in order to strengthen a design discourse and culture. The Graf, Inc. research has been pursued by the researcher’s design studio through an alliance with a non-profit institution.

It should be noted that researcher’s increased participation in international conferences and publications in global design journals, as well as increased participation in local design policies, are a result of her tools, mostly: Publishing, Diversification, Anchored and Intertextuality.

Another project that has been informed by the RTRP tools, the research theories and the researcher’s adaptation of Systematization to design practice is Proyecto C (June-July, 2013). The purpose of this project is to develop avenues of communication to share resilient decision-making strategies of cancer patients concerning their health, economic situation and social conditions in the face of serious illness, so as to promote resilient attitudes in others. The same methodology was used, Resilience theories were applied and designers used the RTRP toolbox to address adversities that arose during the process (refer to Appendice section in the Portfolio of Evidence, p.387).
At the time of writing this reflective statement, the RTRP method is being actively used by the researcher in a tacit mode as well as in an explicit manner when it is necessary to communicate strategic planning for design projects to others on her design team. Nevertheless, and as stated before, the *Bounce & Design* toolbox needs further user evaluations and adjustments in its graphic articulation. For example, the researcher has considered including a simple *registro* tool template for users to evaluate their decision process with the tools.

This researcher’s contribution to design practice is her resilience RTRP model/process (*Bounce & Design*). This resilient approach to design might allow other designers and design educators dealing with a wicked problem paradigm, to positively improve their conscious (intellectual) and emotional process in order to produce quality work without losing their dignity within a long-term context of extreme adversity.
Glossary

The terms that follow have been defined for the purpose and in the context of this study.

Action Research

Kurt Lewin’s Action Research (AR) (1946) is an introspective methodology. AR is a strategy used to be reflexive about methods, epistemology and the researcher’s own field, requiring the actions in question to be actively revised and practiced anew.

Bricolage

This term has many meanings but it has been used here as a coded language, as a way of talking that reveals social groupings and power relationships. Originally it was used to describe what is available, like when doing a collage.

Bund

Sociological concept used by Hetherington (1998) to name the temporary social groupings created by affectual choice with constant individual reflexivity.
CITIZENSHIP

Marshall’s (1950) definition of citizenship is divided into three kinds: (1) Civil - the right of liberty of expression, to associate, to believe, to own property and be judged by the law, (2) Political – the right to be elected for public office and to vote and (3) Social – economic security and quality of life.

COGNITIVE ARTEFACT

Any artefact that helps perform a mental task. ‘Cognitive artefacts are in other words man-made things that seem to aid or enhance our cognitive abilities’ (Soegaard, 2006). A simple example could be a To-Do List.

COLLABORATION THEORIES

There is no definite definition but, for this research, is ‘the process of shared creation’ (Montiel-Overall, 2005).

CULTURAL DIRIGISME

French reference to strong influence from a government, institution or someone in power in a coercive manner. It is a political-economic term. It is also used culturally, given it is an effective communication tool and means of symbolic manipulation to impose a desired behaviour in the public sector, a group or others that are not in charge.
DESIGN-LED PERSPECTIVE

This is the way a researcher/practitioner collaborates with readers (users) in the design process.

DIFFÉRANCE

According to Derrida’s (1963) definition, it is the multiple meanings a word can have because of its “traces” of other words, sometimes hidden in hierarchical oppositions.

EXPANDED FIELD

According to Krauss’ theories, an ‘expanded field’ (1979) means that practice is no longer defined by the material properties of objects. Using the example of a sculpture and the pedestal used to support it, she postulated, and demonstrated, the lack of borders between art and design practices (architecture, landscaping and nature), to a point where the pedestal disappeared, absorbed by the sculpture. Therefore, it is hard to tell when art starts and landscape ends. This does not mean that the borders are not there; they are elastic, expandable, overlapping, like water.

FORMLESS

A set of performative operations in art practice that defy traditional and hegemonic art postulations. Based on Bataille’s term *informe* (1985) and explored by Krauss and Bois (1997).

GENERATIVE DESIGN RESEARCH

Value-driven, axiological research to change status quo in collaboration with the reader. The creation of empowerment tools that readers can use to create new things to improve their situation.
HEGEMONY OF WRITING

Researcher’s term to describe the official voice of the ruling class in various areas, including the educational system, museum exhibition design, urban design, among other social spaces. This term is informed by Roland Barthes’ theories where he challenges the hegemony of the author over his writing and proposes the importance of the interaction between the reader and the writing. Under postcolonial theories, the author can be both the colonizer and the colonized.

HETEROTOPIA

The space between the real social space and the utopian space. This concept elaborated by Foucault (1986) recognizes the social and power relationships in all spaces and all interrelationships.

INTERTEXTUALITY

Kristeva’s (1966) definition of the multiple “traces” a Text (work) can have from other works, therefore, questioning the role of originality and the Author himself/herself in relationship, with the reader.

KINSHIP FIGURES

The human body and western family structures metaphors were used in colonial discourse as a way to rationalize the presence of the colonizing culture over other cultures; ‘...kinship politics operates to forget a sense of natural association with natural hierarchy, bringing together broad notions of trans-territorial association with a naturalization of (racial, gender and cultural) inequality in order to build hierarchical notions of international community’ (Patil, 2008, p.13).

PROCEDURAL MEMORY

The memory of a process involving particular actions that are automatically activated, and therefore are tacit knowledge.
QUEER THEORY

An identity construction theory proposed by Judith Butler (1990), positing that gender is a social dynamic construction. Therefore it is also true for all social identities, including cultural and national.

REFLECTIVE PRACTICE

Donald Schön’s Reflective Practice (RP) (1983) is an introspective methodology. RP is closer to a tactic; a tool to frame the problem and, as stated by Schön: ‘learn by doing’.

SITUATED KNOWLEDGE

Reality cannot be grasped as a whole — the ‘god trick’ (Haraway, 1988, p. 581). Knowledge is local, partial and always in relationship with other local and partial knowledge.

STRESSOR

The medical term stressor is defined as a real or perceived threat that causes physiological effects like the release of adrenaline to defend oneself or to flee (Fight/Flight Response).

SUCCUMBING

Burnout, a term to describe emotional exhaustion, depersonalization and decrease in self-efficacy.

TABULA RASA

Latin term for the metaphor “clean slate” or “white canvas”. It is used in this research in reference to the act of deleting all past reference and starting new.
TEXT, READER, AUTHOR

Barthes (1977) defined Text, or work, as an open-ended structure that is completed by the Reader (who is the recipient, the one that receives the work, the user) and initiated by the Author (the one that controls, or originates). The relationships between these three factors reveal social power structures.

WICKED PROBLEM

A term coined by Rittel and Webber (1973), used in social planning to describe a problem that is difficult to solve for its contradictions and constant changes.
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DEVELOPING METHODS OF RESILIENCE FOR DESIGN PRACTICE

MARÍA DE MATER O’NEILL

A supportive document submitted in partial fulfilment of the requirements of the University of Northumbria at Newcastle for the degree of Professional Doctorate

Research undertaken in Northumbria Department of Design

Volume 2 of 2. Portfolio of Evidence June 2013
Declaration

I declare that the work contained in this portfolio has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others.

Any ethical clearance for the research presented in this Supportive Document has been approved. Approval has been sought and granted by the Faculty Ethics Committee on October 1, 2013.

Name: María de Mater O’Neill

Signature

Date: June 25, 2013
PROFESSIONAL DOCTORATE PORTFOLIO
VOLUME 2

Developing Methods of Resilience for Design Practice

Submitted by María de Mater O’Neill
June 2013
RELATIONSHIP OF THE DOCTORAL REQUIREMENTS

Supportive Document
Volume 1 of 2.

Portfolio of Evidence,
Volume 2 of 2.

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Museum Exhibition Case Study (2009)

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RESEARCH CONTEXT

Colonial Machinery Map

Paper: Decolonized Methodologies from the Design Research Field


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NOTES
The aim of the researcher’s Professional Portfolio is to provide evidence for an understanding of the RTRP Design Model through its principles, contextuality, relationship to other design for development approaches, and its application in design practice that is under adversity that caused stressor. The intentions of the portfolio layout design is to give the intertextual threads a coherent non-linear reading and still promoting the Barthesian (1968) openness of the reader’s interpretation of this practice based research. The Portfolio documents the errors and wandering of a research process as part of a contextual and open approach.
THE REAL-TIME RESPONSE PLANNING RESEARCH
RESEARCH CHRONOLOGY, AIM, HYPOTHESIS, QUESTION,
ONTOLOGY & EPISTEMOLOGY
A diagram of the history of the Real-Time Response Planning’s research chronology that documents a change of methodology is presented. The research consists of two stages. The aim and the hypothesis are identified. The research question and sub questions are presented in diagrams in order to visualize the related theories that informed it.

RESILIENCE THEORY & THE RTRP TOOLS
Resilience Behavior Patterns are discussed as related to the RTRP toolbox. Definitions of thriving and the model for effectiveness evaluation of the RTRP toolbox are discussed.

FIRST STAGE

THE FIRST STAGE METHOD
DEVELOPMENT OF THE REAL-TIME RESPONSE PLANNING
Discussion of the first section of the research when the tools were observed within a seven month span (2009 to 2010) using Lewin’s Action Research (1946) and Schön’s Reflective Practice (1983). Description of illustrated timelines and register (registro) for the Action Research phase is presented,
as a way to extrapolate the tacit knowledge of the researcher’s design and education practices and her interactions with the tools.

RESILIENCE TOOLBOX IN USE #1

The first case study is presented as evidence of the RTRP’s engagement in theory-building from practice. The tools are discussed as they manifest in the design solution and in tackling an adverse political situation in a typographic design project (2009). This case study was used as the first section of the researcher’s data base recording (registros). The Hotel Excelsior typographic project consisted of transforming an 11-letter logo from 1966 lettering to contemporary digital typography. It was used as an educational platform for both historical research and for helping nine young designers to understand how historical events shape present socio-political scenarios. A published conference paper is included.

THE REAL-TIME RESPONSE PLANNING MODEL

The RTRP design model and its procedural method is presented. The researcher explored other theories concerning models for design and education practices. The tools order of importance in their operation and its articulation of the user decision making process under adversity are discussed. As a sample, the researcher’s order of importance is discussed. The RTRP is identified as an artifact for learning resilience
behaviours. The nine tools and the first working prototype are introduced to the reader. A brief example of researcher real-time is presented.

**THE RESILIENCE TOOLBOX’S PROCESS**

RTRP toolbox’s Topology and the system to articulate the users’s order of importance is discussed, as way to teach RTRP resilience in design practice by way of Reflective Practice. How the tools sets interact between each other and their effects are explained (flow diagrams included).

**RESILIENCE TOOLBOX IN USE #2**

Museum exhibition (2009) award wining design project. How *Publishing* and *Diversification* tools were used as a way to address closure of a project due to political adversity. *Intertextuality* and *At Hand* tools where used as design drivers for ideation (Art Direction).

**RESEARCH CONTEXT**

The researcher perceived her context as one colonial in nature, that also includes social and economical depression. A concept map is presented as a possible scenario of the colonial context and its effects in her home country.

Two papers were written and one was submitted to a conference venue. The first unpublished paper, *Decolonized Methodologies from the Design Research Field*, explored Postcolonial theories for ways to be critical of research
methodology. This paper explored how methods and theories, as part of the colonial and post-colonial constructions, have been playing a large role in design practice; its education, as well as in the design research. The two main topics are: three arguments for why there was a need for a change of methods in an inquiry that prompts user empowerment; and second, the affects of the Hegemony of Writing and the role of the reader. The conference paper (on the process of typesetting), *Quick Recovery in the Design Praxis: Formless Operations from the Field* deals with Post-modern and Painting theories in relationship to the RTRP design model. Topics are: (1) A brief description of the conditions faced by the peripheral designers from the Caribbean and Latin America (2) A description of how the RTRP’s toolbox is informed by Deleuze and Guattari’s post-modern ideas and its connection to Haraway’s Situated Knowledge. (3) A brief description of the ontological and epistemological framework, which is mainly based on art critics Krauss and Bois’ theories, because of their non-hierarchical interconnection, which are appropriate to the modeling of stressors situations of adversity. Also in this section, a visual concept map is presented as a possible scenario of the RTRP Toolbox in the colonial context.

**FIRST STAGE: EFFECTS ON RESEARCHER’S PRACTICE**

Research-first section’s summary & conclusion.
SECOND STAGE

SHIFT IN METHOD
In the second stage of research, a methodology capable of building resilience in the researcher was chosen and adapted to be design relevant.

PHOTOS: SYSTEMATIZATION WORKSHOP
These photos document the systematization workshop that uses Borda’s Participatory Action Research (1977) and Participatory Design. During this workshop the RTRP’S toolbox was used by participants and they designed a paper prototype. A first working prototype was designed by the researcher’s design firm based on the participants prototype. First user testimonial is included.

RESILIENCE TOOLBOX IN USE #3
The RTRP’s tools are discussed as they were used in the design solution for a client, a web application for mobiles and blog design project (2011). The researcher’s design studio process book is discussed as an example of the Publishing tool. Other viewpoints are considered.

RESILIENCE TOOLBOX IN USE #4
This case study concerns the uses of the RTRP’s tools by the researcher’s studio junior designer (2011). The Publishing tool and the process book are revisited as a case of avoiding conflicts with the client.
RTRP COMPARISON

IDEO’s *Design for Social Impact Guide* is compared to *Bounce and Design Toolbox* (RTRP colloquial name) by the researcher’s two studio assistants designers.

PRESENTATION TO THE PROFESSIONAL COMMUNITIES

Three peer review sessions were organized by the researcher to present the research *Developing Methods of Resilience for Design Practice* to diverse professors and professionals. They were educators from New York City, United States; architects, School of Architecture, Polytechnic University of Puerto Rico; and psychologists, School of Social Science, University of Puerto Rico. The last two were public to the faculty and students as part of RTRP open transdisciplinary research.

SECOND STAGE: EFFECTS ON RESEARCHER’S PRACTICE

Research second section’s summary & conclusion.
FIRST STAGE OF THE RESEARCH (AR & RP) October 2009 to July 2010

Action Research

Timeline

October 2009 to May 2010

Structured and unstructured interviews

Registro

Reflective Practice

October 26, 2009 to September 17, 2010

Tacit Knowledge

Explicit Knowledge

The first time researcher’s articulation of the initial eight tools of her systematic design procedure. As a result of a conversation about her art and design practice with a fellow colleague.

Tools

Contextual Review

Social Science Theory

Postmodern Theory

Structured and unstructured interviews

Toolbox

Researcher’s resilience approaches (28 years of art and design practice)

SCRIPT TOOL, PATTERNS & IMPORTANCE

Postcolonial Theory

Starting to build a resilience model

Next?
CLARIFICATION
After approximately seven months, the first stage of the research, that involves both RP and AR, was abandoned due to the extent of limitations involved under the colonial context. These results did bring findings that helped redirect the research.

SECOND STAGE OF THE RESEARCH (OPEN TRANSDISCIPLINARY) September 2010 to March 2012

CHANGE OF RESEARCH METHODOLOGY, CONSONANT TO THE POLITICAL STRESSORS

MODEL
RESEARCH AIM

To identify and articulate the methodology of the researcher’s practices as an art director and as a design educator in a weak democratic society, which is suffering from disintegration due to political, social and economic adversities; in order to publish the process of resilience as a design tactic in this wicked problem’s context of instability.

RESEARCH HYPOTHESIS

The researcher’s resilience design model, named *Real-Time Response Planning* (RTRP), enables designers to be radically resilient in constant adverse conditions, in real-time, to bounce forward.

‘In fact, for academics men to be happy, the universe would have to take shape [...] On the other hand, affirming that the universe resembles nothing and is only formless, amounts to saying that the universe is something like a spider or spit’ (Baitaille, 1985, cited in Bois and Krauss, 1997).
RESEARCH QUESTION

Is there a resilience model used by designers under stressors?

Resilience is coping (staying put, resisting, managing to stay in the position, not to succumb while handling the tasks successfully).

In this research the term model is defined as an conceptual representation of a cognitive process.

The medical term stressor is defined as a real or perceived threat that causes the physiological effects to fight or to run.

QUICK REFERENCE

Refer to Section 1, Introduction- Core Argument, in the Supportive Document, p.24.
SOCIAL SCIENCES: SYSTEMATIZATION OF EXPERIENCE
This decolonized research methodology allowed the researcher to strengthen the coherence between her postmodern thinking with her practices in a colonial context.

RESEARCH ONTOLOGY & EPISTEMOLOGY: RELATED THEORIES AND THE RESEARCH SUB QUESTIONS

How to articulate such a resilience model?

SOCIAL SCIENCES: RESILIENCE THEORIES
A theory that emphasizes peoples’ strengths under adversity. It allowed the researcher to sub-categorize her tools to Polk’s (1997) four patterns of resilience definitions.
SOCIAL SCIENCES: POPULAR EDUCATION
To design an artifact so procedural knowledge of resilience can be taught to other designers and design students by fellow designers.

How to teach a resilience design model that enables designers to bounce forward in real-time under long periods of adverse conditions?

POSTMODERN THEORIES
Is the way the researcher constructs knowledge under her context. These theories allowed the researcher to be flexible, explorative, critical of meta narratives, open to the uncertainty of wandering and grateful to the value of errors.

POSTCOLONIAL THEORIES
They allowed the researcher to understand how methods and theories (language), as part of the colonial and postcolonial constructions (her context), have been playing a large role in design practice, its education, as well as in design research.
Resilience Patterns

Using Polk’s (1997) four patterns behaviour of resilience definitions (named by Polk as Dispositional, Philosophical, Situational and Relational), the researcher sub-categorized her tools as follows:

I. DISPOSITIONAL - ‘Physical and ego-related psychosocial attributes provide a sense of autonomy or self-reliance, a sense of basic self-worth, good physical health and good physical appearance’ (Polk, 1997 cited in Van Breda, 2001, pp.5-6):

- Anchored - Means to be anchored in place, a sense of commitment to a specific community that should not be confused with blind nationalism or xenophobia.
- Publishing (Initially referred to as Publish) - The reflection on both, process and the final artefact must be documented. If it’s not, it will be like the whole action never existed. Consists in making it public.
- Script - Involves following the designed plans in a situation of low-level stress, with the purpose of avoiding burnout and blockages of effective decision-making, when high-level stress is experienced.

II. PHILOSOPHICAL - ‘individual’s world-view or life paradigm, belief that positive meaning can be found in all experiences, the belief that self-development is important,
the belief that life is purposeful’ (Polk, 1997 cited in Van Breda, 2001, pp.5-6):

- *Rauxa/Seny* - These are the Catalan words for intuition/common sense. The researcher uses this term to describe the balancing of the tension between creative intuitions with the practicality of practising design.

III. SITUATIONAL - ‘involving a linking between an individual and a stressful situation. This can include an individual’s problem solving ability, the ability to evaluate situations and responses, and the capacity to take action in response to a situation’ (Polk, 1997 cited in Van Breda, 2001, pp.5-6):

- *Fast Feet Play* - Being in constant mutation and transformation. A fast feet attitude can make or break every play, evolving around ever-changing situations, clients and circumstances.
- *Diversification* - Consists in combining multiple spheres of action and having the ability to move among diverse social groupings, thus developing an eclectic network without the need to belong to a specific social group.
- *At Hand* - To constrain the design work to the feasible resources available and not lament what we don’t have, instead, we should see the design learning opportunities
• **Stealth Mode** - Means to be undetectable under the radar by not drawing attention towards the project or oneself. Stay quiet with cleverness. It is the opposite of *Publish*.

IV. RELATIONAL - ‘individual’s roles in society and his/her relationships with others. These roles and relationships can range from close and intimate relationships to those with the broader societal system’ (Polk, 1997 cited in Van Breda, 2001, pp.5-6):

• **Intertextuality** - Acknowledge and create dialogue with previous authors/creators (the cancel out the *tabula rasa*). Refer to glossary on Supportive Document, p.122) and connect with what has past, and the value interventions that may be forthcoming.

The researcher’s tools names came from the actual function of each of them during the process, and out of their performative action.

**Thriving and the RTRP Toolbox**

What is the relevance of establishing resilience and thriving levels for RTRP for design practice? A similar question has been asked in the Social Sciences: ‘How is it possible that people survive and some even grow irrespective of the trials and tribulations of life? Where does their bio-psycho-social wellbeing and strengths originate from, and how can they be enhanced?’ (Strümpfer, 1990, 1995 cite in Makola and Van den Berg, 2008).

Defining thriving implies a deconstruction that under Resilience Theory reveals the following factors and their relationships with the researcher’s toolbox (refer to this Portfolio of Evidence for the tool’s topology diagram, p.92).

The tools can be identified by a distinguishing characteristic or quality. These eight traits are:

• **Sense of Coherence (Dispositional tools)** - A personal cartography and compass; a way of
approaching life (Antonovsky, 1979).

- **Hardiness (Dispositional tools)** – The combination of three mental attitudes toward stress: (1) a commitment that relates to one in relationship with others, (2) a sense of control and (3) to view the obstacle as a challenge (Kobasa, 1979).

- **Learned Resourcefulness (Situational and Relational tools)** - A set of cognitive skills that allow a change of behaviour when the evaluation of a situation demonstrates that previous successful behaviour doesn’t work anymore (Rosenbaum & Ben-Ari, 1985).

- **Self-efficacy (Dispositional tools)** - How the individual performs in terms of how he sees himself. Having a sense of mission will increase self-efficacy and decrease burnout (Bandura, 1982). Burnout is a symptom of emotional exhaustion and depersonalization. It reduces personal accomplishments related to work (Maslach & Jackson, 1986). ‘Burnout is associated with decreased job performance and reduced job commitment and predicts stress-related health problems and low career satisfaction’ (Shanafelt, Bradley, Wipf, and Back, 2002).

- **Locus of Control (Dispositional tools)** - Occurs when there is a lack of belief in destiny, but control is within oneself or when power is transferred to someone trustworthy, for example God or loved ones (Antonovsky, 1979).

- **Potency (Situational tools)** - Involves a procedural knowledge of coping (Ben-Sira, 1985, in Strümpfer, 1990, p. 272).

- **Stamina (Philosophical tool)** - It is the capacity for insightfulness and endurance (Strumpfer, 1990, p.70).

- **Personal Causation (Philosophical tool)** - Is the finding of one meaning in human history, without the
need of fame and recognition. Humans need liberty in order to be able to develop Personal Causation (De Charms, 1998, p. 269). ‘De Charms addresses the notion of personal causation at a philosophical, existential level, and does not pull it through to empirical, practical or clinical utility’ (VanBreda, 2001, p. 53). It should be noted, that the researcher is from a Latin region, it leads her to search for literature concerning Latino communities. These references revealed that Latino university students in the United States mainland have a higher Personal Causation than Anglo Saxon students: ‘It may be that while the meaning of life is worthy for Whites, they may not anticipate nor expect antagonistic factors to thwart attainment of life’s goals. In short, they may perceive fewer threats in being part of society. Whereas, Latino’s perceptions about the meaning of life may be heightened by a guarded attitude toward goal attainment, which may be shaped by a history riddled with struggles that served to question their real acceptance by society. Therefore, for Latinos, the difficulty in attaining accomplishments may give rise to an exalted meaning of life’ (Pirtle and Plata, 2008, p.6).

RTRP Effectiveness Evaluation Model
The effectiveness of the tools is evaluated by their level of efficiency when handling adversity in real time towards positive outcomes, not to be confused with improvisation or an immediate hasty reaction. By identifying the tools and the way to use them, the researcher can increase the favourable consequences that allow recovery in three areas: practice, economics and emotions. The researcher defined the level of effectiveness by the ability to recover from an adverse event, at least to the same level where she was before.
It should be pointed out that when the RTRP is activated in response to one adverse event, it does not imply that this event is the only adversity occurring at that moment, and that restoration means that one moves back to a sustainable environment. Resilience is the capacity to cope with living conditions that might be considered as not sustainable by high-income nations. Although adversity is a universally shared human condition, the way it is perceived and defined depends on the context. The RTRP research also has to deal with a short time response to the adversity event that occurred, which means that the resilience time frame is usually hours or days. The researcher must emphasize that in different social-spatial contexts the knowledge migrates differently, this is why she will be cautious about using her country’s condition as a parameter to judge other countries social-political, or economical adversities. In her country what is considered by high-income nations as conservative resiliency is actually experienced as thriving. As an example of this type of thriving, the researcher handled of the closing of Museum Casa Roig’s inaugural exhibition event (refer to this Portfolio of Evidence, pp.104-109), by changing its dissemination through other venues and subsequently receiving international design award.

The highest effectiveness level of the individual’s competence will be thriving (fourth level of efficiency), which in the researcher’s case will be acquisition of new knowledge and well-being improvement in one or all areas of experience (practice, economics and emotion). The improvement can be, for example, increased knowledge in one or all areas; a better economic status; an increase in self-efficacy, and quickly changing an obstacle to a design opportunity (as it was done in Casa Roig and Hotel Excelsior, refer in this Portfolio of Evidence, pp.56-81). In this level the researcher identifies areas of improvement and indicates a sub-evaluation for the levels of thriving, which show improvement in: one area (1), two areas (2), or all three areas (3). When RTRP is activated
due to an adverse event, the tools are chosen in an order that reflects their importance, from bottom up. So, the top tools in a given adverse event are of less value than ones at the bottom (refer in this Portfolio of Evidence for the tool’s order of importances and topology, p.84 and p.92). According to this sub-evaluation, the following is the researcher adaptation of Carver’s model (refer to Appendices in this Portfolio of Evidence, p.248), ‘Response to Adversity: the Domain of Possibilities’ (Carver, 1998), to her RTRP:

![O'Neill's adaptation of Carver's model](image)

**Fig. 1.** O’Neill’s adaptation of Carver’s model.

When the researcher wrote a report for the Northumbria’s Reflective Practice module in 2009, she reported the development of a model that addressed similar issues and that it was the ongoing focus of her research. The researcher noted ‘During implementation of the reflective recordings, I suddenly noticed and identified that I needed a graphic model to contextualize the person (me) with others in their (our) immediate situation, in order to be able to assess the task at hand. So I developed a model named *Personal Design Practice* [Fig.2], which I started using as an insightful collaborative graphic tool not only for me as a teacher, but also for the students [Fig.3] and designers under my staff. It turned to be a different model from the one proposed by
Stuart English’s Mind Matter and Quality (2006), “Shifting the emphasis to the person who designs...” because it promotes authorship as a solo scheme. To be capable of identifying and measuring “the dynamics of the situation in which that teaching is being carried out” (Waters-Adams, 2006)’ (O’Neill, 2009).

Fig. 2. Diagram using the Personal Design Practice, to analyse the researcher as an Art Director in a Publication Design project’s context (2009).

Fig. 3  Student’s *Personal Design Model* done in conjunction with O’Neill, Graphic Design 2nd Level, Escuela de Artes Plásticas de Puerto Rico (March 10, 2009, Xerox copy of student sketch book). Student and research topic was that “Without the local there is no global.”
The \textit{Personal Design Practice} scheme involved the researcher developing an understanding of the different adverse context of the stakeholders from the perspective of the designer, design teacher or design student. How, for example, in a traditional Christmas carols song book adverse circumstance compromised the collaboration space and the creative solution [Fig.4]. Like many other peripheral designers (refer to discussion about Bonsiepe’s term of peripheral design in this document, p.139), the researcher produces design artefacts that carry “no wound” from the circumstances. They do not show the social-political and economic national context that designers are submitted to. These adverse events caused external stressor lashes. For further discussion on the researcher’s “no-wound” concept please refer in this...
Portfolio of Evidence (under The “No Wound” Design and the Normative Design Operation, p.156; and on postmodern paper section 2.1 No Wounds, Designing under Adversity without Leaving Traces of It, p.140).

REFERENCES


FIRST STAGE OF THE RESEARCH
ACTION RESEARCH &
REFLECTIVE PRACTICE
OCTOBER 2009 TO JULY 2010

THE RESEARCHER WAS THE SUBJECT OF STUDY
AS PART OF A RESEARCH BASED PRACTICE FOR
A PROFESSIONAL DOCTORATE.
THE FIRST STAGE METHOD

ACTION RESEARCH AND REFLECTIVE PRACTICE

The first section of the research intended to record and build her design model and resilient tools by reflection and self-study. What is the routine sequence of actions that supports such a mental effort? What is the motivation that feeds these endurances? Through Action Research and Reflective Practice she intended to observe and record the strengths and limitations of her method in relation to the unique problems the researcher encountered on a daily basis. To do this, she designed a database register system (registro) to record her design practice activities. The objectives of this database were:

- Using Visual Ethnography to document the process of the entire project while evidencing a contribution to new knowledge.
  i. To check for efficiency and effectiveness of the resilient tools in the given circumstance.
  ii. To mark chronological her resilience tools in action (timeline).
  iii. To plot patterns over time and graphically organizing them using visualization techniques.
  iv. To map the concept of the resilience tools.
  vi. To reflect on the processes of designing under a hostile environment.
  vii. To enter ramifications of new knowledge (iterative development process).
Taxonomy actions are not unusual in the arts. United States artist Mark Dion has exposed the bias of categorization and the powers politics of indexing, see Tate Thames Dig (1999). So the researcher was aware of her taxonomy actions as language social constructions. The initial stage of registering her procedural memory was the mechanism for establishing the criteria for choosing the tools, so she made adjustment to the registro. This was done through a combination of having documenting (seny) and insight (rauxa) skills.
TIMELINES

Researcher designed two systems for data recording, the previously referred *registro*, used in two case studies and monthly timelines.

1. Researcher used the *registros* to extrapolate the tacit procedural knowledge in her design activities when creating and teaching design in a hostile environment. It included reflection-on-action and in-action.

2. A graphical timeline marking the design and teaching practice context was also designed as a way of plotting resilience events. These timelines framed the actions and tools chosen with their project history and social context, to encourage comparison. Not all the events on the timelines have *registros*.

The researcher recorded data for eight months, focusing on procedural systems, which indicated procedural patterns. The *Behaviour Over Time Graphs* (BOTG) that includes task successes and failures, was done as well. The May timeline was not included in the BOTG, because the graphs were done for the Northumbria’s Mid Point review that was due in May 1, 2010. At that point, the researcher started to have doubts on RP and AR’s methodology. Therefore, May was the last month that a timeline was done. By September, the researcher stopped doing *registros*.

The BOTG of the timelines revealed a sociopolitical phenomenon typology of how distraught the researcher’s experience of colonial reality is. At a micro level the Philosophical and Dispositional tools are strong, but the more it becomes close in a macro level, the use of the Situational tools increases (for in depth definitions of these resilience behavior patterns refer to *Resilience Theory & the RTRP’s Tools* on this Portfolio of Evidence, p.26). This means that the colonial status of the researcher’s country kills the spirits of empowerment and the thriving factors diminish. Therefore, there is national low self-efficacy (refer to *Colonial Machinery*...
October 2009

Monday, OCT 1: I was informed by designer about a serious personal crisis: Called designer to organize jobs and interviews.

Tuesday, OCT 2: Writing with designer about IPA new version due the next weekend. In the meeting, but they see no improvement. Designer report to Dean. Deadline is also the 23rd October. A bit Agiprop.

Wednesday, OCT 3: Finished the report for university about IPA new version due the next weekend. In the meeting, but they see no improvement. Designer report to Dean. Deadline is also the 23rd October. A bit Agiprop.

Thursday, OCT 4: Highlights of the IPA new version due to arrive late to class because the IPA new version is going and what we are hearing of IPA new version is going is not good.

Friday, OCT 5: Praticall down the street. Homeland Security is the front houses at my street. The toxic cloud over the heading is a massive layoff.

Saturday, OCT 6: Protests against government opening was canceled due to an afternoon shoot-out on the street light.

Sunday, OCT 7: Dean informed me that the IPA new version due to arrive late to class because the IPA new version is going is not good.

Monday, OCT 8: At hand. Excelsior's clinic, where host suspected was a former police officer. Confirms that the suspect was a former police officer.

Tuesday, OCT 9: Meeting with tutors. We are told “You have to abandon the plan of action. A bit Agiprop.

Wednesday, OCT 10: Meeting with tutors. We are told “You have to abandon the plan of action. A bit Agiprop.

Thursday, OCT 11: Dean recommend a bit Agiprop. A bit Agiprop.

Friday, OCT 12: An interview with Argentine Professor to check the IPA new version due to arrive late to class because the IPA new version is going is not good.

Saturday, OCT 13: Finished the report for university about IPA new version due to arrive late to class because the IPA new version is going is not good.

Sunday, OCT 14: Woke up with headache. Damages. I can hear police yells, including children, and I can't sleep.

Monday, OCT 15: Finished the report for university about IPA new version due to arrive late to class because the IPA new version is going is not good.

Tuesday, OCT 16: Ended up at the IPA new version due to arrive late to class because the IPA new version is going is not good.

Wednesday, OCT 17: Dog chewed at the IPA new version due to arrive late to class because the IPA new version is going is not good.

Thursday, OCT 18: Write IPA new version due to arrive late to class because the IPA new version is going is not good.

Friday, OCT 19: Write IPA new version due to arrive late to class because the IPA new version is going is not good.

Saturday, OCT 20: The toxic cloud over my family, they had to leave the IPA new version due to arrive late to class because the IPA new version is going is not good.

Sunday, OCT 21: Running to Puerto Rico.

Monday, OCT 22: Returning to Puerto Rico.

Tuesday, OCT 23: Students involved in the IPA new version due to arrive late to class because the IPA new version is going is not good.

Wednesday, OCT 24: Confished typographic works only in a Puerto Rican context? Tutor's answer: “I would like to know why we’re questioning the validity of using the IPA new version due to arrive late to class because the IPA new version is going is not good in a Puerto Rican context?"

Thursday, OCT 25: Meeting with tutors. We are told “You have to abandon the plan of action. A bit Agiprop.

Friday, OCT 26: Meeting with tutors. We are told “You have to abandon the plan of action. A bit Agiprop.

Saturday, OCT 27: IPSA new version due to arrive late to class because the IPA new version is going is not good.

November and December 2009

Sunday, NOV 22: Leave to Buenos Aires for the Excelsior’s class, with two designers.

Monday, NOV 23: Meeting with theArgentina design team.

Tuesday, NOV 24: Invoice for services with trendy Argentine design team.

Wednesday, NOV 25: Invoice for services with trendy Argentine design team.

Thursday, NOV 26: Critical session with my designers at FACOS class presentation. We notice billboard about “desaparecidos” from the FADU class presentation.

Friday, NOV 27: Designers work day. We published documentation on the Web-day.

Saturday, NOV 28: Meeting with Argentine colleagues and tutors. Nenita gives a bit Agiprop. We are told “You have to abandon the plan of action. A bit Agiprop.

Sunday, NOV 29: Weekend. Work the whole day. Designers are at peace.

Monday, NOV 30: Write IPA new version due to arrive late to class because the IPA new version is going is not good.

Tuesday, DEC 1: Meeting with tutors.

Wednesday, DEC 2: Meeting with Argentina Professor to check any IPA new version due to arrive late to class because the IPA new version is going is not good. He allowed me to record him. Unfortunately, all my impressions were confirmed by him. “This is a disaster, and they fear your job because they don’t understand you, they don’t believe you.” Next consultation with the director. Questions the validity of Hotel Excelsior’s hypothesis that typography works only in a Puerto Rican context? Toto’s answer: “I would like to know why we’re questioning the validity of using the IPA new version due to arrive late to class because the IPA new version is going is not good in a Puerto Rican context?"

Thursday, DEC 3: First day of the class. Early morning I did a very quick meeting with a type of printer card setting to establish a decision. I can hear police yells, including children, and I can’t sleep.

Friday, DEC 4: Last day of the class. Early morning I did a very quick meeting with a type of printer card setting to establish a decision. I can hear police yells, including children, and I can’t sleep.

Saturday, DEC 5: Last day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Sunday, DEC 6: Saturday, NOV 22: Leave to Buenos Aires for the Excelsior’s class, with two designers.

Monday, DEC 7: Last day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Tuesday, DEC 8: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Wednesday, DEC 9: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Thursday, DEC 10: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Friday, DEC 11: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Saturday, DEC 12: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Sunday, DEC 13: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Monday, DEC 14: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Tuesday, DEC 15: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Wednesday, DEC 16: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Thursday, DEC 17: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Friday, DEC 18: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Saturday, DEC 19: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Sunday, DEC 20: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Monday, DEC 21: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Tuesday, DEC 22: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Wednesday, DEC 23: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Thursday, DEC 24: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Friday, DEC 25: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Saturday, DEC 26: Final day of the class. We are told “You have to abandon the plan of action. A bit Agiprop.

Sunday, DEC 27: IPSA new version due to arrive late to class because the IPA new version is going is not good.

Monday, DEC 28: IPSA new version due to arrive late to class because the IPA new version is going is not good.

Tuesday, DEC 29: IPSA new version due to arrive late to class because the IPA new version is going is not good.

Wednesday, DEC 30: IPSA new version due to arrive late to class because the IPA new version is going is not good.

Thursday, DEC 31: IPSA new version due to arrive late to class because the IPA new version is going is not good.
January 2010

Timeline of my circumstances

Saturday, JAN 17: meeting with Dean. Discussed Rauxa/Sens and the School mission and goals. At 4:53 of the afternoon a 7.3 earthquake hit Haiti.

Friday, JAN 18: Brainstorming meeting for both University Museum and Pechos Ranch in order to talk about new business in a collaborative environment.

Saturday, JAN 19: Late in planning university courses, start writing syllabus, including a new course in the interdisciplinary program of a University of Puerto Rico. 11 pm: getting tracking knowledge acquired in the DDP I started my own business.

February 2010

Wednesday, FEB 2: Continue working with clients at the same time trying to land new business.

Monday, FEB 3: Go to conference at Cunarder Museum with M. abou or 2008 collaboration at Cunarder. That day got an email that the client got accepted to the conference.

Saturday, FEB 6: We start meeting about the new course in design thinking. Following others. We decide set work on an editorial proposal and a full meeting on this topic is set for Monday, 4th February.

Monday, FEB 7: Continue on the IPA approval.

Tuesday, FEB 8: APR first meeting. Hear scary stories from the director. First thing they acknowledge the damage a few detectives made with the Facebook photos. They estimated 800 thousand images: “To APA late city” load at first. During the day designer had set up the blog at Wordpress to help with the co-coordinator group (90 students, four professors, five designers from institute). In the afternoon, class at CUNI made a collective editorial proposal concerning the personal and professional interest and how it connects to the others and jobs in communities.

Tuesday, FEB 9: We go to the Coordinators and discuss the following Monday. University Museum director called and asked that we talk about the new Chair had not said. “Did not know you knew the President de la Torre” she responded to him. “I’m actually, I think is not too much to August. We have to withdrawn our name from the University Museum director, José Ramón de la Torre”.

Tuesday, FEB 10: Brainstorming meeting for both University Museum and Pechos Ranch in order to talk about new business in a collaborative environment.

Tuesday, FEB 11: Meeting with Dean, Chair and professor concerning university exhibits. Chair starts saying “we need documentarist until you show us the items we need to show; we do not know about Haiti disaster.” I spoke with Chair at the university; we get an email that the abstract got rejected by A.M. about our 2008 Museum with A.M. about our 2008

Thursday, FEB 11: We get the Coordinator’s call to come the following Monday. University Museum director called and asked that we talk about the new Chair had not said. “Did not know you knew the President de la Torre” she responded to him. “I’m actually, I think is not too much to August. We have to withdrawn our name from the University Museum director, José Ramón de la Torre”.

Friday, FEB 12: Continue on the course in design thinking. Following others. We decide set work on an editorial proposal and a full meeting on this topic is set for Monday, 4th February.

Saturday, FEB 13: We start meeting about the new course in design thinking. Following others. We decide set work on an editorial proposal and a full meeting on this topic is set for Monday, 4th February.

Saturday, FEB 14: We start meeting about the new course in design thinking. Following others. We decide set work on an editorial proposal and a full meeting on this topic is set for Monday, 4th February.

Monday, FEB 15: Continue working with clients at the same time trying to land new business.

Tuesday, FEB 16: Start learning what is important to knowrol the business.

Wednesday, FEB 17: Work closely with the student for the Pechos Ranch presentations. Especially when it turns out the students are two presentations. The Director of the project is PD Aerospace. She is going to be elected as the new President de la Torre. We realized that we have lost an important business. We went for dinner.

Monday, FEB 22: Continue working with clients at the same time trying to land new business.

Tuesday, FEB 23: Meeting with new professors and the Dean. Although very civilized talked it was all of the Dean was assistant. Decided to let it go, and continue project without counting on him. If he did not want to engage that was his responsibility. Dean informed me that the contract person said it was: “This people made a beautiful job but the coordinator butcher it.”

Wednesday, FEB 24: We start meeting about the new course in design thinking. Following others. We decide set work on an editorial proposal and a full meeting on this topic is set for Monday, 4th February.

Thursday, FEB 25: Meeting with new professors and the Dean. Although very civilized talked it was all of the Dean was assistant. Decided to let it go, and continue project without counting on him. If he did not want to engage that was his responsibility. Dean informed me that the contract person said it was: “This people made a beautiful job but the coordinator butcher it.”

Friday, FEB 26: Non illustrative course in for next Monday. I am going to present it. It’s a very nice job. I uploaded M. A. drawings of my first session at catedrahaiti blog; refreshing the user what they need.

Saturday, FEB 27: Non illustrative course in for next Monday. I am going to present it. It’s a very nice job. I uploaded M. A. drawings of my first session at catedrahaiti blog; refreshing the user what they need.

Sunday, FEB 28: Things really started to go wrong. We are giving up the right content, but going on as usually. We missed deadlines for other clients just to make sure we didn’t miss from Realidad. We are very behind the DDP. Research but manages to deliver a client deadline. We did coordinator if you don’t follow our recommendations we have to withdraw your name from the credits. Be aware: “You are here to please us.”
Monday, MARCH 1: Stopped by the UPR and picked up moneys for the DDP. Feeling good about the progress of my own DDP. Moved forward with the work on the DDP, since I had to start working on the DDP.

Thursday, MARCH 4: Industrial Design studio approach. I shared my findings with the design students, and they were very interested in my work. I took some notes on how to improve the project, and I will share them with the students.

Friday, MARCH 5: Met with the group of students who are working on the DDP. They shared their progress with me, and I gave them some feedback.

Monday, MARCH 8: Executed the new schedule for all the working on the DDP. Since Thursday, APRIL 1: Monday, MARCH 1: the communication emails, I pick up Kevin Hilton's frustrated strong rumor of and will get back paid taxes this year good news I won't Deliver Executive Summary and final report for the DDP.

Wednesday, MARCH 10: Meeting with Dean, where she agreed with my findings that the Design program is not meeting our needs. However, she also said that she did not have enough time to do anything about it. We decided to continue our meetings and to work on the DDP.

Wednesday, MARCH 17: Board meeting at Casedra Haití, to discuss the status of the DDP. The board members expressed concern about the lack of progress and the need for action.

Thursday, MARCH 18: Got a notice from the Dean of the School of Design for a new project, which I will be working on.

Friday, MARCH 19: Received letter from the US Department of Education, which is giving me a new opportunity to work on the DDP.

Thursday, MARCH 25: Sent letter of intent to the Dean of the School of Design for a new project, which I will be working on.

Saturday, MARCH 27: Organized and established a meeting with the Dean for a new project, which I will be working on.

Monday, MARCH 29: Organized my agenda for the DDP. I will be meeting with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts.

April 2010

Thursday, APRIL 1: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Monday, APRIL 5: Managed successfully to deliver the DDP to the Dean, to the Dean of the School of Design, and to the Dean of the School of Fine Arts.

Tuesday, APRIL 6: Received a letter from the Dean of the School of Design, which is giving me a new opportunity to work on the DDP.

Wednesday, APRIL 7: Trying to meet with Terrance Hilton has been difficult, so I will meet with him at a different time.

Thursday, APRIL 8: Stopped by the DDP office, and I met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Friday, APRIL 9: Sent out draft to Dean for approval. Made final changes to the draft and sent it out for approval. It was received in a timely manner.

Monday, APRIL 12: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Tuesday, APRIL 13: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Wednesday, APRIL 14: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Thursday, APRIL 15: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Friday, APRIL 16: Sent a small email to the Dean of the School of Design to express my concern about the lack of progress.

Monday, APRIL 19: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Tuesday, APRIL 20: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Wednesday, APRIL 21: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Thursday, APRIL 22: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Friday, APRIL 23: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Saturday, APRIL 24: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.

Sunday, APRIL 25: Met with the Dean, the Dean of the School of Design, and the Dean of the School of Fine Arts to discuss the progress of the DDP.
April 2010

Tuesday, April 20: Meeting with two students to discuss their performance in the course. We discussed their progress and the need for them to work harder. They seemed motivated and ready to improve.

Wednesday, April 21: After class, I met with one of the students to discuss his progress and the challenges he faces. We talked about his plans for the future and how he can overcome the obstacles. He seemed determined and grateful for the advice.

Thursday, April 22: Spoke with a student about her progress in the course. She seemed confident and ready to take on the challenges. We discussed her plans for the future and how she can achieve her goals.

Friday, April 23: Met with the class to discuss the course content and the upcoming exam. The students seemed prepared and ready to take on the challenge.

May 2010

Tuesday, May 4: Rant Police broke into one of the university's computer labs. I received a message from a student stating that the lab had been hit. This is the first time that the police have broken into a university lab.

Wednesday, May 5: We met with a group of students to discuss the incident. They seemed angry and upset about the incident. We talked about the importance of protecting university property.

Thursday, May 6: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Friday, May 7: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Saturday, May 8: We met with a group of students to discuss the incident. They seemed angry and upset about the incident. We talked about the importance of protecting university property.

Monday, May 9: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Tuesday, May 10: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Wednesday, May 11: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Thursday, May 12: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Friday, May 13: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Saturday, May 14: We met with a group of students to discuss the incident. They seemed angry and upset about the incident. We talked about the importance of protecting university property.

Sunday, May 15: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Monday, May 16: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Tuesday, May 17: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Wednesday, May 18: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Thursday, May 19: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Friday, May 20: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

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Monday, May 23: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Tuesday, May 24: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Wednesday, May 25: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Thursday, May 26: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Friday, May 27: We met with the university's administration to discuss the incident. They seemed committed to taking action.

Saturday, May 28: We met with the university's security staff to discuss the incident. They seemed concerned and wanted to take action.

Sunday, May 29: We met with the university's administration to discuss the incident. They seemed committed to taking action.
concept map in this Portfolio of Evidence, pp.112-113) that is consistent with countries that are experiencing shutting off events, such as social violence, emblematic institutional implosion and bureaucratic clientelism, which Hopkin defines as ‘a form of personal, dyadic exchange usually characterized by a sense of obligation, and often also by an unequal balance of power between those involved’ (Hopkin, 2006, p.2).

The researcher spent more time fixing detours caused by stressors than with problems of the design or educational practice. These stressors are social political in nature. Consequently, like many designers in this type of colonial context, the researcher succumbed temporarily to social marginalization. ‘This long history of marginalization [colonial] has produced and continues to produce serious harms’ (Malabet, 2002, p.391).
REGISTROS

In these forms the researcher recorded tacit knowledge and the criteria for choosing the tools. The registros include visual ethnographic items (drawings, photos, video, and audio), a description of the situation, the tools that were used, guidelines on how they were used, level of effectiveness, action research reflection, references, and a section of foreseen new knowledge. There were three templates’ adaptations.

The two main case studies are: Catedra Haiti, an educational platform, and Hotel Excelsior’s Typography Project (included in this Portfolio of Evidence, p.56). These two were chosen due to their complex, intertextuality and interdisciplinary components. Tabulation and cross-tabulation between the two as case studies and timeline, were also done.

This act of breaking down the researcher’s existing design methods initiated a systematic approach to the understanding of the patterns traced by the tools that were used during the process of her practice. The research did not focus on the artefact, but on the nature of the complexity of the contextual problems the researcher was facing as a practitioner in the design and education practices.

A total of 15 registros were done during the period of October 26, 2009 to September 17, 2010. Not all registros involved the case studies.
Tabulation: The number of times the tools were used according to a resilience pattern. The Situational tools are highlighted. The tools are divided in fourth sets (refer to in this Portfolio of Evidence, p.26): Philosophical, Dispositional, Situational and Relational (Polk, 1997). In the same order as listed, their definitions can be summarized as followed: user’s world view, user’s self worth, user’s problem solving skills and user’s roles in society.

Findings: At a micro level the Philosophical and Dispositional tools were strong, but the more it reaches a macro level, the use of the Situational tools increases.
<table>
<thead>
<tr>
<th>TOOL:</th>
<th>□ Diversification □ Fast Feet Play □ Rauxa/Sens □ Publish □ At hand □ Intertextuality □ Stealth mode □ Anchored □ Script □ Other:</th>
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| ACTIVITY: | 2. |
| □ Design □ Teaching □ Art | 3. |

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| OTHER ADVERSITIES INTERPLAYING: | |
| □ Political □ Social □ Economical □ Personal □ Professional | |

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<td>☑ Audio</td>
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<tr>
<td>☑ Timeline (file apart)</td>
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**Registmo’s template, R1**
Response to Adversity: Real-time Response Planning

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<td>Poor</td>
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<td>Low</td>
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What do I know? | What do I want to find out?

How I can work this out? | What did I learn?

What will happen next? | What is my plan? | What does it mean?

Registro-Reilient Tools – Maria de Mee O’Neill version 3.0

Registro’s template, P.2
**Visual Ethnography**

**Description:**

**New Knowledge (unforeseen ramifications)**

Month, day, 10.

**References**
By the time of this registro, Script was not identified. It became visible in the entries of Other. It repeated various times in April, therefore indicating a behavior pattern.

**Way of Using Them**

Researcher describes exactly how the tools were used, in order to identify if the operation repeats itself.

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### Tools Used

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<thead>
<tr>
<th>TOOL:</th>
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<tbody>
<tr>
<td>Diversification</td>
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<tr>
<td>Fast Feet Play</td>
<td>■</td>
</tr>
<tr>
<td>Intertextuality</td>
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<td>Rauxa/Sens</td>
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<tr>
<td>Publish</td>
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<tr>
<td>At hand</td>
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</tr>
<tr>
<td>Anchored</td>
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<td>Other: No</td>
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**Category:** Art Direction

**Location:** Buenos Aires, Argentina

**Date of Event:** December 2, 2009

**Date of Entry:** April 3, 2010

**Last Revision Date:** Sunday, May 16, 2010

**Activity:**

- Design
- Teaching
- Art

**Project:** Hotel Excelsior — catedra.

**Code:** Excelsior_catedra_03_APRIL_10_v2

**Related Registro:**

- Excelsior_exhibition_26_OCT_09_v1
- Excelsior_catedra_26_OCT_09_v1
- Excelsior_catedra_04_NOV_09_v2
- Excelsior_catedra_05_JAN_10_v2

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**Guideline for use:**

1. Make it a open process so dialogue can be enrich by others who have nothing at stake.

2. Analyses and synthesis political undercurrent discourse.

3. Be ware, is tricky to established contact with one of the hostile member of the team.

4. Engage the team, speak out about weirdness and make things visible.

5. No is affirmation of liberty.

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**It relates to other registros**

The case studies were complex, therefore they were broken into activities for analysis purposes.

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 Registro’s close up: Hotel Excelsior.  
Code: Excelsior_catedra_03_APRIL_10_v2.
Ethnography photos, audios or video were documented in order to be contextualized.

Rought drawing of people and how they relate to the spaces were done in order to construct perceptual knowledge (body construction of knowledge).

From top to bottom, left to right:
Final power diagram, done everyday before the clinic to established tactic and strategic; billboard of student and faculty 'desaparecidos' on FADU indoor patio; part of the clinic, Verónica Cano; informal meeting with faculty; discussing iterative model with Cano.

Registro's close up: Hotel Excelsior.
Code: Excelsior_catedra_03_APRIL_10_v2.
CARVER'S MODEL


REFLECTIVE PRACTICE

Schön's reflection-on-action and in-action

CONTEXT

This entries led me to Haraway's Situated Knowledge and consequently to Post-colonial Theories.

Registro's close up: Hotel Excelsior.

Code: Excelsior_catedra_03_APRIL_10_v2.
**Procedural Diagram**

Fast Feet Play

Rauxa/Sens

→ Publish

→ NO

**Procedural Diagram of How the Researcher Used the Tools.**

Researcher final tools order of importance came from these diagrams recordings. On the actual working prototype its the Netting system.

**New Knowledge (unforeseen ramifications)**

April 3. 10. Lesson learn from the reaction has help me to steer industrial designer professor in a collaborative space and move him away from hostile confrontation because of his power discourse.

**References**


**Final Entries**

Researcher final thoughts, learned behavior.

Registro’s close up: Hotel Excelsior.
Code: Excelsior_catedra_03_APRIL_10_v2.
INTERVIEWS
Four structured and one unstructured interviews were conducted to explore which specific methodological tools other designers use and how they configure and reconfigure their collection of tools, during their adverse conditions. Four of the interviews were done in Buenos Aires, Argentina and the other one, the only female interviewed, in San Juan, Puerto Rico. The Argentine interviewees group was composed of one person that went through Rafael Videla’s dictatorship in 1976 and the other three, who were younger, experienced the financial and social shut down of 2001. All the interviewees are successful designers in terms of endurances and prestige, they hold a strong position in the community and some are design firm owners. These interviews were mostly carried out during the months of November 2009 and later on in the month of May 2010.

REFERENCES


Anon (2011). Screen shot of 24/7 video, February 23, 2011 [video online] Available at: http://www.youtube.com/watch?v=PKi-rSQfBAI&feature=player_embedded#at=123
At right: The researcher and her studio partner presenting the Excelsior’s conference paper for the 4th International Conference on Typography and Visual Communication (June, 2010), on the theme Lending Grace to Language, University of Nicosia, Cyprus. At right on next page: Hotel Excelsior (Open Type, 2011).

To view the presentation for the conference, access the link below: http://prezi.com/pb_rfmu9ecyg/typography-restoration-as-a-sign-for-understanding-political-discourse/

Video: http://vimeo.com/37397784

TYPOGRAPHY CASE STUDY (2009)
The project was used as a case study for the registro analysis. The Hotel Excelsior Typographic project was a three-year project that consisted of transforming an 11-letter logo from 1966 lettering to a contemporary digital typography. It was used as an educational platform for both historical research and for helping nine young designers to understand how historical events shape present sociopolitical scenarios.

Since the beginning the researcher faced some unfavorable circumstances and for that reason she can say that Hotel Excelsior was born into adversities, developed as a resilient project itself. The project started in 2007 and the researcher soon experienced political stressors. The researcher cannot discuss the matters of this issue due to its political nature, since it involved high officials in the past government administration some of them still in office today. It suffices to say that as a result, she resigned her tenure track position.
at the State’s Design and Art School, where she initially began this project. With full support of Hotel Excelsior logo’s owner, she continued the project as part of her design studio, using the *Stealth Mode* tool and with the collaboration of designers and design students.

Some of the *registros* concern a Typographic Clinic that she organized with an Argentine professor from the School of Architecture, Urbanism and Design in Buenos Aires University, Argentina. Afterwards the *registros* were continued during the conference at the 4th International Conference on Typography and Visual Communication on the theme of “Lending Grace to Language”, which took place thanks to the efforts of the Department of Design & Multimedia of the University of Nicosia, Cyprus (2010). Being a complex project, three instances are presented as the argument for the RTRP’s tools effectiveness.

**FIRST INSTANCE: PUBLISHING, RAUXA/SENY AND FAST FEET PLAY TOOLS**

Once in Argentina, the researcher’s staff found themselves in an adverse situation when the Argentine Professor manifested that “You come to a serene place asking uncomfortable questions” (Carpintero, 2009). For in depth discussion about the Argentinian professors reactions refer to published paper *Typography Restoration as a Sign for Understanding Political Discourse* (next section, in this Portfolio of Evidence, p.64).

**NOTES**

There were seven *registros* for Hotel Excelsior, one concerning a possible exhibition of the project, five concerning the Typographic Clinic and one concerning writing the paper for Cyprus presentation (from October to December 2009).
**Top:** Carver’s model from *registro* (refer to Appendix section, in this Portfolio, p.248). Carver’s model marks time up to four months in this *registro* because that’s when the researcher wrote the entries to unforeseen ramifications that affected her another project: ‘April. 3. 10. The lesson learned from [...]’s reaction has helped me to steer the industrial design professor in a collaborative space away from hostile confrontation because of his power discourse’ (from *registro* code: Excelsior_catedra_03_APRIL_10_v2).

**Bottom:** Procedural diagram from *registro* code: Excelsior_catedra_05_JAN_10_v2: ‘Last day of the clinic, the Argentinians were very violent in their assumptions. I have to assert the right for liberty and at the same time tolerated their discrepancies without being repressed by them. Later, at a conference in Puerto Rico, videos of the clinic were shared for public opinion on the matter. The Argentines knew about the conference at Beta-Local, they wished us luck with it, but were later surprised we showed the clinic’s videos. Audience in Beta-Local were taken back by Argentine reaction, but dismissed it very fast. Most of the debate had to do with the act of mutilation and restoration, and the user role in it. Which ironically was one of the main issues we try unsuccessfully to engage the Argentines.’

‘Guideline for use: (referring to tools)
1. Make it an open process so dialogue can be enriched by others who have nothing at stake. [*Publish*]
2. Know your community history. [*Anchored*]
3. Recognize other forms of design thinking. Learn from Yee’s design exploration terms (see Excelsior_catedra_04_NOV_09_v1)

“Liquid does not rebound, never moves into reverse.” (Bois 1997 p.129). Be open to liquid definitions and comfortable with ambivalence.

(...) New Knowledge (unforeseen ramifications)
March. 2. 10. I can’t comprehend the effects on people who have been exposed to institutional repression for long time. My arts knowledge (*formless* practices) is the main force in my conceptual tools’ (from *registro* code: Excelsior_catedra_05_JAN_10_v2).
In this case study the researcher identified two findings:

1. The *Publishing* tool works against the *tabula rasa* that peripheral designers have inherited from the European *Conquista* (refer to paper *Decolonize Methodologies from the Design Research Field*, p.116).

2. The *Publishing* tool is fuelled by the *Anchored* tool that in turn promotes a personal paradigm in the researcher that Antonovskiy identified as ‘Sense of Coherence’ (Antonovskiy, 1979, p.183 cited in Van Breda, 2001, p.21) and a ‘Locus of Control’ (Antonovskiy, 1979, p. 153 cited in Van Breda, 2001, pp.26-27); both thrive factors and driven by *Rauxa/Seny*, a ‘Personal Causation’ and another thrive factor. ‘Being the master of one’s fate’ or ‘being an agent of change in the environment’ (De Charms, 1968, p. 269). This finding was used as a basis to understanding the relationship between the tools and its processes.

SECOND INSTANCE: *INTERTEXTUALITY TOOL AS DESIGN SOLUTION*

The *Intertextuality* tool was chosen as a way to solve the designers predicament. The finishing of an alphabet from an original lettering that has formal typographic errors, created by a designer from a fast changing era (1960s), while at the same time being loyal to the researcher’s and staff’s contemporary moment. Through an intertextual action that...
THIRD INSTANCE: ANCHORED AND PUBLISH TOOLS

The researcher’s staff were scheduled to give a conference at Beta Local, San Juan, Puerto Rico after the Typographic Clinic. The challenge was how to publicly present the Buenos Aires’ clinics, which was repressive and contradictory discourse in a constructive way. This is how the tools were used:

1. **Rauxa/Seny, Publishing, Diversification, Intertextuality**
   - Engaged in a rich debate in Beta Local after presenting videos from Buenos Aires (refer to video online).

2. **Anchored, Intertextuality**
   - Presented the Beta-Local and in Cyprus the issue of the design phenomena. Although close in shared history with the Argentinian colleagues; they relate differently to it. The researcher chose the **Intertextuality** tool, as the key to solve the design problem because here acceptance of the importance to **Publishing history**’ errors. These historical errors are Puerto Rico’s failure in the government’s modernist national project and in the Hotel Excelsior, it is manifested in the lettering’s typographic errors.
3. *Diversification, At Hand* - Requested for additional opinion from another typographer about formal issues.

4. *Publishing, Diversification* - Went to another transnational forum to discuss conceptual ideas: the acceptance in the Cyprus conference “Lending Grace to Language” (refer to presentation online).

The summary of the outcomes in the San Juan conference (refer to journal paper on next section in this Portfolio of Evidence) and the Cyprus conference were both successful. The researcher was invited to published presentation on a typographic journal by the organizer of the Cyprus’ conference.

**CONCLUSION**

As a Typographic Project an Educational Platform under Political adversity (both in Puerto Rico and Argentina’s experience) the use of the RTRP Toolbox during the project created areas of improvement beyond resilience. Such as the emotional and the practice areas, therefore, the Level of Competency (Carver, 1998) was Level 4 - Thrive (refer to Appendices, in this Portfolio of Evidence, p.248).

**THRIVING**

1. Hotel Excelsior was finished by the researcher’s staff (*Anchored tool*)

2. San Juan and Cyprus Conference were successful (*Anchored, Rauxa/Sen, Diversification, Publishing and Intertextuality tools*)

3. Conference paper was published in Hyphen Typographic Journal, Greece, 2012. (*Publish and Diversification tools*)
REFERENCES


TYPOGRAPHY RESTORATION AS A SIGN FOR UNDERSTANDING POLITICAL DISCOURSE

ABSTRACT
We will propose that a typeface design project can be used as a tool of historical research as well as an educational venue for designers to understand historical events and their current social political wave. The Design Exploration research model used in the creation of the Hotel Excelsior typography consists of three chained elements: the Artefact, being a 1966 hotel logo from San Juan, Puerto Rico, the Phenomenon, with the use of mid-modern design in concordance with Cold War government’s progressive values, and the Statement, which is to provoke a proactive thinking in a weak democratic context. Transforming the 11-letter logo from lettering to a digital typography with a contemporary use raised two intertextual venues: a rescue, true to the spirit of a graphic designer who had no formal training, or fixing the icon due to its formal typographic errors. This was an interesting dilemma that revealed who we are in the way we shape a narrative of design history. Creating this typeface unraveled a social paradigm where democracy is placed in colonial and neocolonial societies within a post-colonial world. The procedural knowledge developed in this praxis of design implies a philosophical way of thinking about sociopolitical phenomena. Reflecting from a pragmatic perspective, the act of deconstruction of a design artefact has shown unresolved historical political issues.

NOTES
This paper was submitted to the 4th International Conference on Typography and Visual Communication (ICTVC), that was held in Nicosia, Cyprus, in June 2010. The 4th ICTVC with the theme “Lending grace to language” was organized by the Department of Design & Multimedia of the University of Nicosia. Published on Hyphen Typographic Journal, 2012, pp.3-42 (top photo). References and citation style system was done according to journal specifications.

Acknowledgments
The Hotel Excelsior’s creative team were Verónica Cano, María Maldonado, Mayela Mercedes, Rachel Henández, Josué Oquendo and Daniel Rivera. Consultants: Norma Jean Colberg (2007-10) and Mauricio Conejo (2007-08). Authors are grateful of the support of the Axmayer Rodríguez family.
INTRODUCTION
The subject of this paper aims to explain how a typeface design project was used as a historical research tool and as an educational venue for designers to understand historical events and their current social political wave. The two voices present in this paper will be the ones of María de Mater O’Neill, project initiator and art director, and Arthur Asseo, designer, former student and now O’Neill’s business partner. It is important to note that, with this presentation we simultaneously perform and describe the action of a Speech Act, this concept will be clearing itself out as we develop the paper’s theme.1

The Hotel Excelsior Typography project started in 2007 within an academic context with then Professor O’Neill and a group of her students; and has since then evolved into the professional practice of seven designers, where O’Neill no longer was their professor, but a colleague. This project began as O’Neill’s act of madness, combined with faith and keen intuition (what O’Neill refers to as rauxa/seny, the Catalan words for madness/common sense), which grew out beyond the learning of a craft and transformed itself into knowledge of the design process and design education.

Within the Hotel Excelsior project, two objectives were developed. The first was to communicate to the designers the procedural knowledge, the “how to”, that which is implicit but is hard to verbalize. This objective was to extrapolate the

implicit procedural knowledge in our design activities when creating the typography as a way to teach political history. The second concern was reflexive, thinking about the reasons behind the design solutions chosen, and most importantly, the meaning of the design artefact and its process as a sociopolitical phenomenon.

This project consisted of transforming an 11-letter logo from a lettering made in 1966 to a contemporary digital typography. It was a tool for both historical research and for helping seven young designers to understand how historical events shape present sociopolitical scenarios.

Since 1898, Puerto Rico is an unincorporated territory—that belongs to but is not part of—the United States of America. The demographics of the creative team that worked in the Hotel Excelsior Typography project range from contrasted political views and socioeconomic circumstances. Nevertheless, we were all affected by the outcome of the political, social and economic programs established in 1949 by the first elected governor of the island, Luis Muñoz Marín. He was sharp, clever, disquieting and manipulative. He used the United States’ economic and cultural Modernity exportation plan—with its Cold War agenda—as schemata, which Muñoz also strategically implemented in Puerto Rico in a true cannibalistic mode that we can parallel to the Brazilian writer Oswald de Andrade’s proposal in his essay “Manifiesto Antropófago” (Cannibal Manifesto, 1928). As a result, during Muñoz’s term in Office, various architectural designs of Puerto Rican hotels won international architectural contests and set standards in the International Modern Movement. Frank Lloyd Wright’s protege Henry Klumb relocated to Puerto Rico to become the father of Modern Architecture in the Caribbean. Toro y Ferrer Torregosa Architects (1949), the firm that designed the Hotel Excelsior, had previously won the design of the Hilton Hotels first Caribbean venue, the Caribe Hilton. It was the golden


3. “Antropofagia” is the performative act from the Brazilian Mid Modern. It proposed a symbolic assimilation (eating, digesting and vomiting) of the occidental culture in a way that takes whatever sees fit in the context of Brazilian culture.
era of design in Puerto Rico, design as architecture, urban, typography, industrial, and graphic design flourished under an ambivalent scenario of false promises but honest hopes. Muñoz’s vision, although controversial in his intentions, was the last time a national development plan was approached like a design project.

THE TOOL OF HISTORICAL RESEARCH AND EDUCATIONAL VENUE

The young designers were promoted to be “first and foremost a researcher, but rather be part of the design team as a designer” with the research question: how we can finish an alphabet of a designer from a fast changing era and at the same time be true to our historic moment? This question is in itself intertextual, because of the appropriation and pastiche factors. This typography is not driven by the effectiveness of its possible commercial use or the end user, but it is driven by the possibility of it helping us bypass our current paradigms. In our case, being an unincorporated territory, these paradigms are social-political. This paper concerns the societal discussion of a typography project in a colonial and neocolonial context.

In order to approach the educational areas of both design and political history, a six-step process evolved as a methodology of design pedagogy.

1. To identify a project that promoted on the student a Personal Causation, “being an agent of change in the environment” by promoting the finding of one’s meaning in human history, without the need of entailed fame and recognition, but implying a deep meaning in human society. What Walter Benjamin called aura: “the unique phenomenon of a distance, however close it may be”, the presence of the project’s aura, that gives out the sense of unreachable distances. The project offered the promise of a poetic space for the then students, who became the main actors.


2. Having a sense of mission increased self-efficacy, which gave them a constant sense of self-empowerment through the whole project. Locus of Control is achieved, that is when there is a lack of belief in destiny, but control is within oneself or power its transferred on to someone trustworthy, for example God or loved ones. When O’Neill experienced burnout, – common in educators and medical professionals due to intense “people service” – a member of the team was responsible to quickly take her responsibilities to carry out the project direction, as a consequence of strong Personal Causation. This designer’s capacity for insightfulness and endurance, promoted by self-efficacy is evidence of the strength of the first and second step.

3. By immersion and role-playing, the designers were taught to see history research as something fun and pertaining to our current historical moment. Our mood board were musical scores from the 1960s, from both US and Caribbean culture. “Designers think more in terms of solutions rather than in terms of problems. Their approach is not systematically based, but they immediately react to stimuli in the design environment. The reflection-in-action approach is far more systematically based, but is oriented towards knowledge-in-action.”

4. When various team members moved to other places, Hotel Excelsior became a Co-location team. To be able to maintain the sense of commitment, the team needs a location that they feel they can meet, to work and socialize. If there is no previous experience with team members abroad, it is best to have them all located in the same place. Virtual location brought special considerations of lack of body presences, paramount in Latino Culture.

5. Key phases were chosen for iterative evaluation. A focus group was organized in Argentina, due to a new movement in Latin American typography. At that moment

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we initiated the last step.

6. An open process, finishing the project in a public manner, enabling us to present both artefact and process in the same value.

As part of this reflection, we have identified that the research theory on design that accommodates our educational and social issues on the typographic project is Fallman’s model of interaction design research. Fallman identified three areas in his model: Design practice, design studies and design exploration. Although our project has moved among these three areas, it mostly falls into what he identified as the latter: “to provoke, criticize, and experiment to reveal alternatives to the expected and traditional, to transcend accepted paradigms, to bring matters to a head, and to be proactive and societal in its expression”.8

The Design Exploration research model used in the creation of the Hotel Excelsior typography consists of three chained elements: the Artefact, a 1966-based hotel logo from San Juan, Puerto Rico, the Phenomenon, the use of mid-modern design as a Cold War government’s progressive values, and the Statement, which was to provoke a pro-active thinking in a weak democratic context. Yee explains about Fallman’s research model: “Design exploration is a way to comment on a phenomenon by developing an artefact that embodies the statement or question that the researcher is attempting to critique.”9


THE PHENOMENON: MID-MODERN DESIGN AND PUERTO RICO’S INDUSTRIALIZATION

The history of tourism and architectural hospitality goes hand in hand with the then current governments, both local and federal for promoting cultural ideology, with David Ogilvy as the advertising captain. “Pablo Casals is coming home – to Puerto Rico” was a slogan that according to Ogilvy, was his bigger achievement, changing of the images of a country. The federal government had already mastered this strategy with the group of painters known as the New York School, such as Jackson Pollock, who were promoted in the Venice Biennial as a way to establish United States hegemony, as it was well documented. The same was done with tourism in Puerto Rico: “The image juxtaposed the island’s tropical allure and its material progress, its rural simplicity and its advanced consumer offerings, its yearning for change and its stability. In short, Puerto Rico shone as a Cold war paradise, an outpost for liberal capitalism in a world seemingly tempted by the promises of communism.”

After the great war, with faster air travel, and the boom of television a range of mediatic etymology that has not stopped in our times, began allowing the beginning of what we know today as globalization and the negotiations of identities. When Mrs. Axtmayer opened the Hotel Excelsior in an important avenue in Miramar, a 100-year old residential area of the city of San Juan, she was not new to the hotel business. Her Austrian father had been the owner of the Hotel Eureka, and as Hotel Excelsior, it was primarily aimed
to small business travelers rather than to vacationers. She became the first woman hotel manager in Puerto Rico, who was also the first Puerto Rican graduate from Cornell University’s School of Hotel Administration. Modernism brought to Puerto Rico, as well to many other countries, the changing role of women. A local newspaper article about the opening of the Hotel was: “Woman named manager of $2 million hotel Here”. Similar to many of the Caribbean islands, the tourism industry brought us an ambivalent discourse, where inland culture is framed as commodity and we grew dependence to it. It is now romanticized by a recent movie done by hip actor Johnny Depp, “The Rum Diaries”.12

THE ARTEFACT: AN 11-LETTER LOGO

Designed by Ernie Potvin in 1966, the logo for the Hotel Excelsior consisted of a lettering of the two words HOTEL and EXCELSIOR drawn in all-caps, probably by hand, in a simple, centralized composition. What most characterizes this logo is the tropical curl in the final letter of each word, the “L” of HOTEL and the “R” of EXCELSIOR. This particular element gives the logo its flare and uniqueness, it is the grand finale of the piece. The “R” with the curl draws the most attention since it is the only small case character in the composition, but it is drawn at capital height. The “L” of HOTEL EXCELSIOR is different from the “L” of HOTEL, it does not have the curl but it has a long arm to fit an emblem of a palm. In the process of transferring the logo to a digital font format and designing the rest of the alphabet, the emblem was eliminated, but both versions of the “L” were included.

The curl has been an essential element in the design of the complete alphabet, as it has become the trademark of the typeface. Although the curl’s uniqueness, alternate versions of letters that have the curl were designed without it, like the “R”. This way both the traditional shape and the one with the curl were provided improving usability of the
typography. The other trademark preserved in the complete alphabet is what the team called “The Flintstone Effect”, from the 60s cartoon animated TV character; that’s no other than the asymmetry and imperfections product of the fact that Potvin drew them by hand.

The owner of the Hotel, Mrs Shirley Axtmayer Rodríguez, commissioned the logo to Potvin. There is virtually no documentation of Potvin’s design career. The few information available was obtained through the Axtmayer Rodríguez family. Potvin, natural from the continental USA, lived in Puerto Rico while working as an actor on various musical plays. The husband of Mrs. Axtmayer met Potvin while working on the theater business, and knowing that he also had experience designing posters he suggested him to design the Hotel’s logo. Potvin was not a typographer; actually, the original lettering has formal typography errors. This became evident with the letters “E” and “O”, traditional matrix characters of the alphabet. The “O” lacked a central axis and the “E” was round-shaped, invalidating it as a matrix, for it is regularly a square-shaped letter.

From the very beginning of the project there was a conflict between which venues were more effective to answer our research question: to fix the typography errors, which is an act of tabula rasa that we have inherited from the European conquista or use these errors as part of an intertextual action. Treating the lettering as text, in Julia Kristeva’s semiotic approach, the logo and its individual letters have no meaning on their own, as the meaning resides on their connection with the on-going (then and now) cultural and social-political processes. To eliminate the errors would be to eliminate it’s meaning; the objectification of The Other is source of long discussion in Post Colonial theory: “Somehow the colonized is not a history’s subject, the colonized tolerate the burden, more cruel than others, but always as an object.”

Puerto Rican architect Andrés Mignucci, in a round table about Hotel Excelsior, established a comparison with the project and architectural restoration. He explains that when restoring an architectural structure some attempt to emulate the original as it was so it is impossible to tell what is original and was is recreated. Another method is the one used by architect Carlo Scarpa, as Mignucci explains: “Restore what is extremely evident of the original registry but laying on it a new intervention, from our time, the registry of our own design ideology, shape, materiality, etc. Where then, is raised with clarity what came before and what came afterward.”

Not too far from Mignucci’s observation, the Argentinian designer Carlos Carpintero questions in a previous activity: “How would it be to speak with the same discourse of the Hotel Excelsior today? Would it be with that shape or would it be with totally different shapes?” Some questions within the creative team were: should we really try to pick up the original discourse of Hotel Excelsior as it was in the 60s? Should the discourse change its shapes completely to be more effective in the present context? An interesting dilemma that revealed who we are in the way we shape a narrative of design history.

THE STATEMENT: COLLECTIVE PRO ACTIVE THINKING IN A COLONIAL CONTEXT

The transformation from lettering to typography shifted the end use of the artefact along with the way it should be designed, as noted by both Puerto Rican creative director Norma Jean Colberg, consultant of the project and Argentinian professor and typographer Marcela Romero. This discussion provoked some reflection on our part, since in our practice as designers in the design studio, we are very concerned with the end user. It was our intention that the democratic promises that were present in the era of Hotel Excelsior were maintained in the typography, such as the promises that had opened the space for a design industry for a short time and the inclusion of women in the industrial
life. The typography should be functional for the end user, it should be accessible because part of the promise of democracy is that everyone has access to information and quality of life for all. As Puerto Rican video artist Beatriz Santiago commented in the already mentioned round table, “this is an act of rescue that makes it useful for a current wide range of users (...) it is a rescue not in a museological way, but in a practical manner.”16 This act of rescue will be achieved when the Hotel Excelsior typography is used, regardless if the user knows the background of the project or not. In that instance, the process is finished and everything sums up to an act of resilience to the effects of the colonization that Memmi explains: “The more serious lacking of the colonized is to be outside of history and outside of the city.”17 The fact we are here as speakers to give testimony of the process and final artefact is an act of thriveness, in the face of the colonizer’s voice.

FOCUS GROUP REACTION
Following consultant Mauricio Conejo’s suggestion, our design studio invited Argentine professor and typographer Pablo Cosgaya from the School of Architecture, Urbanism and Design (FADU) in Buenos Aires University, Argentina, to co-organize a three-day focus group that was called Typographic Clinic: Hotel Excelsior, in early December 2009. At the focus group the three versions of the typography worked until that moment were presented. To describe our experience in Argentina, we will paraphrase Irani, Vertesi, Dourish, Philip & Grinter as we were confronted with a taxonomic gaze, that categorized “here” and “there”, “them” and “us” that invokes The Other and at the same time, an omnipresent “I” that observed and marked the differences from its place of judgment. Our creative team believes in “...seeing the ways that design is culturally specific should allow us to broaden the conversation about what other practices can count as good design.”18 In other words, we believe in a constant fluid and dynamic culture, one that is not static in its identities.

17. Memmi, Retrato, p.102.
These differences between the stakeholders at the Hotel Excelsior Clinic were exemplified in our approach in the framing of the solution. For our team it was always easy to feel the aura of the typography, as a result of the intense research tactic of immersion on 1960s culture in Puerto Rico. We could recognize it a mile away. But our Argentinean colleagues found it very hard to accept that we were divided between loyalty to a piece of lettering with obvious typographic errors and the choice to produce a new typeface, perfectly designed with a remembrance of the original lettering. “You should respect its spirit and then, be free”.

We were told to abandon the project because of lack of knowledge of the typographic craft: “You guys cannot do it because you do not know how.” According to the latter, because of the way we construct knowledge we are incapacitated to finish a formal typographic artefact, but this way of acquiring new knowledge, in his ambivalent discourse is: “…how knowledge really is constructed; not by trying to replicate the dominant discourse. But no, you guys come asking uncomfortable questions, things that are a nuisance: intertextuality in relation to design, let’s see… Ideology and design, design from Latin America… I was looking at some of the papers that you have shared with me, which some of them have some incredibly interesting things and particularly heretical in design discourse, not only here but in all of Latin America. To think about intertextual dialogue, cultural artefacts, those are just things that are a nuisance. They become a nuisance because they are unknown, or they sound strange. It might be coming from someone who is not a graphic designer as a witty remark on design practice, but it cannot come from someone that has studied and that comes from design. It might be coming from a place not design-imaginable, like where you guys come from. You do design but not from the habitual place that we consider design. You construct knowledge of design from another place.”


20. Carpintero, “Reflexiones”.

21. Carpintero, “Reflexiones”.
Argentina’s recent political history has shaped their design experience, still present in the huge billboard of “desaparecidos” (missing) professors and students, victims of the military dictatorship during the 1970s and early 1980s, displayed in the inside patio of the FADU building. It seems that Design, in this academic context, was promoted as craft under Bauhaus methodology. Therefore, design is seen as an activity undisturbed from social events, consequently missing in societal discussion.

The different readings of who is authorized to create a typeface revealed again the phenomenological character of the Hotel Excelsior project. The fact that such identity was imposed as part of a design action from the Argentinean colleagues made us realize that: In other settings, however, the context in which usability studies work may not be present. For example, histories of exploitation by researchers or a distrust of disengaged observers make such methods untenable in some communities. Even the fact that Puerto Rico shared cultural history with Argentina due to the conquista, and more recently, the effects of neoliberalist practices that also dismantled Argentine society in December of 2001, the strong difference between us couldn’t allow them to see a typographic project as an axiological design. “You come to a serene place asking uncomfortable questions”. Our Argentinean colleagues wanted to forget the past in their recent young democracy, and we resisted any attempt to tabula rasa, as we registered it as an act of colonialism. The creation of this typeface unraveled a social paradigm: where does democracy, within colonial and neo-colonial societies, reside in the context of a post-colonial world? The procedural knowledge developed in this praxis of design implies a philosophical way of thinking about sociopolitical phenomena. Reflecting from a pragmatic perspective is the act of deconstruction of a design. Our Argentinean colleague’s colonized speech is better explained by Memmi.

22. Irani, Vertesi, Dourish, Philip, Grinter, “Postcolonial Computing”

23. Carpintero, “Reflexiones”
when he manifests that “the fact is that the colonized does not govern. That he is strictly apart from power, at the end, even creates a lack of interest to access power from the part of the colonized. How could he be interested in something that he has been excluded?”

Although our intentions to learn the craft were acknowledged, they were found to be faulty because they were not learned before commencing the project, but in the production process: “learn by doing” (Schon, 1983). This might be an influence from our colonizers’ democratic values as Papantonopoulos explains that “American people consider while walking” contrary to European who “consider before walking” and the Japanese that “consider after walking”. To the understanding of the Argentinean colleagues, the fact that we searched for the solutions when the typographic problems became visible, instead of considering them beforehand, would affect the quality of the final product in a negative manner. Within our colonial context, where adversity is a common trait among design and educational projects, it was not possible to assess the typographic construction beforehand, the only option was to start producing and learning on the way. As Norma Jean Colberg commented: “There is a need to create in a depressed country”. Having a sense of faith that the process will sort itself out is a behavior of resilience and is not improvisation, it is coping. “Resilience means the skills, abilities, knowledge, and insight that accumulate over time as people struggle to surmount adversity and meet challenges”.

Although we do not agree with their design ideology, we do respect and acknowledge the Argentinean’s knowledge on the craft of typography. It was because of their suggestions that we were motivated to improve the design of the typography. The most decisive of these suggestions was the reference of Uncial calligraphic style, which shares a lot of similarities to the shapes of Hotel Excelsior. Something the Argentinian’s
saw very clearly was that if we were to follow Potvin’s intentions there was no need to include lower case letters in our alphabet. Although it had been discussed in a team meeting earlier in the process, we had failed to understand it. A decision was made to disregard the lower-case alphabet, already designed, keeping the typography in an all-caps format.

To answer our research question and solve the dilemma, we chose the intertextual action as the most effective venue to finish an alphabet of a designer from 50 years ago and, at the same time, stay true to our historic moment. The research question was resolved with the first step that heightened the meaning of life through which our history and dynamic identities were reinforced. The project is presently on the final stages of fine-tuning.

It is important to note that all the designers of the Hotel Excelsior team graduated from the same Art and Design School, where O’Neill used to be a faculty member. Currently, that University is under adversity, as many of our principal institutions, because of the threat of possible shut down due to the State’s neo-liberal practices that have caused social unrest. A successful twenty-year old educational project in which O’Neill participated in its program development is being erased.

Projects like Hotel Excelsior become more urgent as a tool against the intents of tabula rasa of our own recent history. Reflecting on the process of the project designer Josue Oquendo, who entered the team in 2009, commented: “The social discourse behind it is so strong, and its something that always was respected by us, for me it made it a peculiar project, to see how design works for the benefit of the emotional, of the human side...”

From my perspective, I wouldn’t be able to explain this project in a linear manner because all the aspects of the design pedagogy used in this project were present throughout its entirety. While writing this paper, I find myself explaining everything with the Personal Causation and self-efficacy behavior. These psychological concepts have helped me identify that these aspects were in fact tools, which made it possible to conclude the project. I find it hard to categorize when does the Personal Causation step end and when the next begins because I think those characteristics were constantly present in throughout the process.

At first, the project was presented to the designers as a mere opportunity to learn the typographic craft. The scope of the design methodology and ideology that the project implied was not visible to the designers at the time, although it was undoubtedly present for O’Neill. Not revealing those facts from the start was a strategy to develop the Personal Causation, self-efficacy and Locus of Control behaviors thoroughly, intended to promote self-empowerment and self-definition of the participants. In our colonial context, where it is common to accept the opinions of authoritative figures as truth, it was very important that the designers determined on their own the value of their actions in the role of design.

Upon reflection-on-action (Schon), it is obvious how self-efficacy helped each designer identify his or her own interpretation of the context of the Hotel Excelsior era and the project itself. “The sensible representation of the context depends on the experience of the subject” as Pomerol & Brézillon state while talking about the process of decision making and how the contextual knowledge becomes the procedural context. A group can share the facts of the
context but the proceduralization of those facts is going to be different according to the “mental image generated by the words of the description” in each individual.29

The procedural context of the young designers was never expected to be the same as O’Neill’s who was born in the 60s and knew, as Colberg, about the Hotel’s existence. No matter how much immersing in the era’s culture the designers did through research, their contemporary voice would have been impossible to quiet. If it had been the same for both parts, designers and art director, the inquiry on restoration versus mutilation may have never been raised.

A sense of accomplishment was reached by the designers because the self-empowerment and maturing process was visible to each through their own process. Looking back, this aspect is evident when some of the members of the team decided to step aside in some phases of the project without eliminating the chance of stepping back in. The open process and constant documentation of every move made it easier, but not perfect, for the participants to pursue other activities outside of Puerto Rico and still be part of the project.

Again, the result of the commitment developed through the understanding of a purpose of the personal insertion in the history of a specific community made possible the continuance of the project with a collocated team. For the same reason, the project was saved from disappearing in the event of the art director’s burnout, in which case one of the designers stepped up to re-frame the solution.

The nature of the project enabled it for a long-term process. To maintain the designers motivation, elevated secondary goals where set, and after each one was accomplished, the next one was established. By doing this, we were not only working to finish the typography but also—at first—to have an evaluation by professional consultants, and afterward, meeting the Hotel’s owner and share the process with her. As time went by, the project got denser, transforming those

goals into the transnational focus group in Argentina and the participation in this event. For a group of young designers, the opportunity of gaining global tacit knowledge and the idea of contributing their new knowledge to a global community provoked strength to keep moving forward.

Through gained knowledge, and a reflection on the project, it becomes more evident the need of documentation of a design history in Puerto Rico. Our people have been discouraged to document to a level that most people don’t even consider it in the process of their projects. As I understand it, this is a manipulation from the colonizer to make sure that the colonized do not have access to power, to keep them “outside of history” as it was quoted earlier. It is an attempt to control the education of the people, because educated people cannot be dominated. As I start my post graduate studies in the history of design I reinforce my contribution to my community. I conclude, that by knowing our history I have reinforced my freedom, which will not necessarily make me a better person, as Walter Benjamin was contradicted by history, knowledge does not make you a better person, but it gives you the opportunity to choose.

CONCLUDING REMARKS
This paper has explored how a typeface design project can be used as a tool of historical research as well as an educational venue for designers to understand historical events and their current social political wave. How in weak Democracies, a Design Exploration project can unravel a social paradigm in colonial and neocolonial societies in our actual post-colonial world. This paper suggests a methodology of design pedagogy to address these issues to improve outcomes for design axiology research in the training of empowered design researchers and practitioners, and therefore advance the quality of education in uneven economic and political relations.
OTHER VIEWPOINTS

Activity Theory

Activity Theory (Vygotsky, 1978, Engestrom, 1999 cited in D’Ammasso Tarbox, 2006:75) is based on the premise that thinking is affected in an object-related activity by its ‘context of the specific situation and activity taking place’ (D’Ammasso Tarbox, 2006, p.75). The author D’Ammasso Tarbox proposed it as a model to organize the graphic design process and to identify tensions between the stakeholder and the object. According to the author, the conceptualization of visual elements on a design object that includes its history in the cultural environment, can be strategically made a more effective object to the user.

Cognitive Tool

Situated cognition is the study of how mental process are developed by their social situations, and that tools that culture and representational media provide are used to reorganize, support and extend them (Pea and Seeley Brown, 1987, cited in Wilson and Keil 1999:767). Vygotsky argues that the interaction of artifactual mediation and cognition brings ‘new functions linked to the use and control of the instrument selected’ (Vygotsky, 1985, cited in Vérillon, 2000). A tool is an instrument when it is just doing a task, but becomes a cognitive tool when its mediated properties interact with the situated cognition of the user.

THE REAL-TIME RESPONSE PLANNING MODEL

RTRP PROCEDURAL METHOD

Resilience theories, through the Social Sciences, show how people survive, cope and sometimes surprisingly thrive when they are in crisis situations (refer to Section 2. Resilience Theory, in Supportive Document, p.36). Real-Time Response Planning, (RTRP) is an artefact that helps the user to think strategically under stressors of nine tools. RTRP is a process to response in real time with a strategy to tackle an adverse event, so the resilience time frame is usually brief (hours or days).

When RTRP is activated, the tools are chosen in an order that reflects its importance which is related to decision-making processes and the sequence of the user’s decisions. The tools order of importance is defined here as the peak of tools over other tools options, and how they relate as a group of tools. It becomes the main focus. The user of the RTRP toolbox must have the possibility to identify not only his/her own tools to add to the toolbox but also be able to constantly reconfigure the order of importance of the set of tools to tackle the adversity effectively.
This is a spiral solving problem process that feeds and self-feeds two resilience patterns: Philosophical and Dispositional (Polk, 1997). Because of past learned experiences with the RTRP tools, there is a will to continue (stamina) because of a strong sense of self-efficacy, which is driven by an inner control of destiny that helps to face error and wandering as part of the process.

RTRP as Resilience Cognitive Tools
The researcher defined it as a set of mental process, not to be confused with behavioral observations of resilience, because the tools promote change of behavior in the design practitioner.

NOTES
Refer to Section 2, Resilience Theory, in the Supportive Document, p.36.
RESEARCHER TOOLS ORDER OF IMPORTANCE

Based on the case studies and Behavior Over Time Graph (BOTG) of seven month timelines the researcher did the system mapping based on the tools order of importance and their relationship to each other (right diagram, The Researcher’s order of importance of the RTRP toolbox). It showed that the performative operation of the toolbox, in her case, was that all the tools re-grouped under one tool (top diagram): Rauxa/Seny (DRIVER: Stamina and Personal Causation), followed by importance by the Anchored tool (FOCUS: Locus of Control, Self-Efficacy and Sense of Coherence).

This hierarchical order is related to decision-making and the sequential decisions on the case studies and BOTG timeline. Some tools have more links than others, like Fast Feet (ACTION: Potency) which manage all the Situational tools including one Dispositional, which is the Publishing tool. Although, the researcher grouped the Intertextuality tool under ACTION, this one is controlled by Anchored and Publishing, both Dispositional tools.

NOTES

Visual Importance in Painting Theory

The Alberti Windows (the frame of a painting) is invisible but dominant, because it directs the viewer’s eye to the inside of the frame and not the outside. Therefore, the importance of the picture frame helps direct the visual focus. The importance is perceptual.
The researcher tools’ importance reveals that life’s meaning has given her a sense of self (Rauxa/Seny).

This allows her to place herself in history and in relation with others (Anchored).

Also allows her to move with a sense of security (Publish).

Therefore she is able to move very fast (Fast Feet Play).

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3. Also allows her to move with a sense of security (Publish).

Therefore she is able to move very fast (Fast Feet Play).

THE RESEARCHER’S ORDER OF IMPORTANCE OF THE RTRP TOOLBOX
Balance your instincts and that passionate inner voice that comes straight from the heart with your knowledge of craft and good reasoning. By using this tool you will be able to mentor yourself.

Stay tuned to what happened, is happening and will happen in the field. Accept and recognize the past authors’ and creators’ legacies and integrate them respectfully in your work. In the best-case scenario, this tool may lead you to innovation.

Mutate and transform. If adversity makes its appearance, act immediately. A fast feet play attitude can substantially change any play, transforming a problem into a design opportunity.

If you are in a high stress situation, follow the plans you designed when you were not - or less- stressed, in order to avoid any blockage. With this tool you can avoid burnouts by letting the effective decision making flow.
Show others what you are doing. Allow them to see your reflections on both, the process and the final product. Remember that problems are like fungus; they grow in the dark, which means you can also use this tool to get problems out of the closet, debilitate them and solve them. Remember that in order to publish you need to document your work, or on the contrary, it will be like it never happened.

Commit to a specific community and when you find yourself in a compromising situation, remember and honor it. You should not confuse this tool’s meaning with blind nationalism or xenophobia.

If you find yourself in a stressful situation, constrain your design work to what is available. Don’t lament about what you don’t have; instead, welcome the new learning opportunities that this may bring you.

You need to know when to stay quiet and not draw attention towards your projects, or yourself. Maybe this time you should operate under the radar and be more discreet about your plans. *Stealth Mode* is the opposite of *Publish*.

Mix and match your allies, so you can develop an eclectic network. When moving among the diverse spheres of action you will expose yourself to new possibilities. Note that, in order to make this tool work, these spheres can’t belong to a specific social group.
The Bounce & Design toolbox is the colloquial name for the RTRP. The first working prototype was done in early 2011, includes a set of cards of the nine tools and one user’s tool (shown in this spread). There are three ways to use it:

1. **Free Choosing System** (supported by map tools topology and glossary). Shown above.

Photo by Nora Maité Nieves
The researcher’s own tool is Unplug (top photo, by researcher), assigned to Philosophical set (worldview). Systematization participant P6 discussed that he needed a Focus Tool. (Refer to DVD or video transcript of the Systematization Workshop in this Portfolio of Evidence, pp. 255-373).
On a presentation with clients (two partners), the researcher realized that one of the partners had a different brief, and because of it, the work was going to be judged negatively. On the other hand, she did not want to get involved in the poor intercommunication between partners and into a power play with one of her clients. Both clients and researcher were under stressors because of the precarious economical situation. She was tired, the night before she was woken up by the sound of gunfire in her neighborhood.

She quickly (Fast Feet Play) and briefly communicated (Publishing) the discrepancy and observed (Stealth Mode) the reaction of the baffled partners (refer to spiral diagram on the left). After the confusing meeting, she knew that the job could be cancelled. Walking to the car, she used what was available (At Hand), the smartphone, to access the material remotely, which would support the arguments and in an organized manner, quickly (Fast Feet Play) emailed the material with short and clear notes (Publishing). She used the electronic media as way to detach herself from an embarrassing situation between her clients. Then, she waited and observed (Stealth Mode). In a few hours the clients emailed her an approval.

She maintained focus, stoicism and alertness despite being tired and worried. The tools provided her with quick decision strategies in tackling the possibilities of a
OTHER VIEWPOINTS

Hypertextual Relationship
Nonaka & Hirotaka proposed a corporate organization that is based on a combination of tacit, explicit and strategic knowledge. They coined them as hypertextual relationship. (Nonaka & Hirotaka, 1999, cited in Pasin, 2011, p.2) It is a nonlinear model that allowed the linking of knowledge through various levels, context or work areas. It promotes creativity in employees as it tries to combine the interaction of different types of expertise. 'The knowledge and creative employees are, according to the text [Nonaka & Hirotaka], the key assets of the company. The proper structure or flow rate allowed this knowledge to be shared fluidly in the business'. (Pasin, 2011, p.2) Professor Pasin, from Argentina, is using it as part of her research in the role of chaos on design pedagogy. 'Pedagogy of chaos is a fertile framework for understanding the teaching of “projecture” disciplines, since they use for design developing a set of tools and procedures that operate on exploration path and less linear knowledge generation.' (Pasin, 2011, p.5) She shared with the researcher the use of the rhizome (Deleuze & Guattari, 1987) as a framework because it is an open and non-hierarchical system.

cancellation due to a power play between clients. Thus, the tools made her aware of solutions that were sensitive to the clients’ context.

REFERENCES


THE RESILIENCE RTRP TOOLBOX’S PROCESS

RTRP TOOLBOX’S TOPOLOGY
Once the users know the nine RTRP tools, after an adverse event is over, the toolbox guide recommends that the users reflect about their decisions in order to be more efficient in their resilience strategies the next time. In order to do this they will need the Netting System (a recording of the user’s tools order of importance) and the RTRP toolbox’s map (the RTRP Toolbox’s topology).

The intention is to self-learn by examining the way they used and combined the tools. This exercise will left them know how they are handling the adversity under resilience theories.

Reflecting on the choices they made, this system can help them visualize their behavior patterns (decision making and how they act upon them), when they work and design under stressors caused by adversity. In some cases they will find that they have used more than one tool simultaneously. The importance of the tool visualization is enhanced by attaching the RTRP cards, which they will consult and compare with the RTRP toolbox’s map. Depending on the set and benefit, their pattern of decision thinking during adverse events will be revealed.

The Netting System consists of the nine tools, plus the user’s tool (s). Each one is independent but they have a small
RTRP Toolbox's Topology was included in the *Bounce & Design Toolbox* as suggested by P7 in the Systematization Workshop. He thought that it was necessary for the user to understand the sets, what they meant and therefore their individual benefits (traits) (Refer to Section 5. *Systematization Workshop* in Supportive Document, p.72).
insertion to attach each card around the sides. The user assembles the tools according to the order in which they were used to see the relationship and order of importance between them. This allows analyzing of the decision making activities. How is analyses is explained further in this text. The method to visualize these decision making process under duress is the following: Cards can be assembled in layers (level) starting with the most important (the first tool used), up to the last one used. This way, as the illustration below shows, (diagram Number one) the three tools are on equal value, but the vertical cards were the first one used and the horizontal one the last. In diagram Number two, the same order of importance is shown but the tool on top is secondary in level of importance. In diagram Number three, the top card is the less important one, as it is usually the last used in the adverse situation.

Top diagram: Illustration of the Netting System, from booklet of the second Working Prototype.
Basing Rauxa/Seny as the main driver (refer to Supportive Document, Section 5. Systematization Workshop, p.72) the following are outcomes of the sequence of applications of the tools (as sets) and the level of maturity (learning skills for a strategic thinking):

**LEVEL 2- Situational Tools Set Process:**

**Surviving with Impairment.**

If the user only used the Situational Tool Set this might be an indication that they are mostly solving the outside stressor issues that distract them from their main plan. In Puerto Rico this is called “apagando fuegos” (putting out fires), and it means spending most of the time improvising. In Activity Theory this is termed as operational, a user reaction that
‘emerges as an improvisation, as the result of a spontaneous adjustment of an action on the fly [...] Over the course of learning and frequent executions, a conscious action may transform into a routine operation’ (Kaptelinin and Nardi, 2006, p.62) so they become crucial to the everyday work tasks in order to support contingencies. ‘Operations do not have their own goals; rather they provide an adjustment of actions to current situations’ (Kaptelinin and Nardi, 2006, p.68). The disadvantage of converting an operation in part of the daily routine is that the user loses track of the problem that caused the reaction of the operation in the first place and this is not corrected. Refer to flow chart number one on the following pages in this Portfolio of Evidence.

LEVEL 3 - Situational & Dispositional Tools Set Process:
**Resilience.**
When the user used the Dispositional Tool Set with the Situational Tool Set, the system becomes a way to organize priorities, and to help them maintain focus in their main plan. Refer to flow chart number two on the following pages.

LEVEL 4- Situational, Dispositional & Relational Tools Set Process: **Thriving.**
If they use all the tool sets with the *Intertextuality* Tool, this could mean that they might be knocking on innovation’s door. They might thrive after adversity, and also innovate in their design practice. Refer to flow chart number three on the following pages. This was stated by participants on the Systematization Workshop (refer to DVD or transcript in this Portfolio of Evidence, pp. 255-373).
The RTRP Toolbox as a device identifies supra situational activities, which are coping activities produced whether or not they are of particular interest for the subject (Kaptelinin and Nardi, 2006, p.92). Supra situational activities are often part of a temporary condition, and are sometimes part of the development of new processes or ways to address unforeseen necessity. Even if they stop using the RTRP tools or they are performed by others in same user’s team, the supra situational activities of the RTRP become tacit tools of resilience that can be activated under adversity.

‘When the activity system underlying a certain practice is not completely supported by tools, rules, and the division of labor (Engestrom 1990), supra situational activities are what hold the activity system together. However, the functions served by these activities can be expected to be transformed gradually into functions served by artifacts, environments, and norms of the setting. Therefore, supra situational activities are critically important during the initial phase when an emerging activity system has not yet crystallized into the material and organizational structure of a setting. Occasionally, when unexpected changes occur and a readjustment of the activity system is required, supra situational activities may provide the additional degree of resilience needed to complete the change’ (Kaptelinin and Nardi, 2006, p.93).

REFERENCE

Tools

Polk (1997)

MID RESULTS

(Based on findings of the first section of the research)

Personal Causation
(a sense of self)

Stamina (the will to continue)

Locus of Control (I control my destiny)

Self-Efficacy (I can do it. I have a sense of mission)

Sense of Coherence (I have a personal compass)

Tools' Properties

(Based on findings of the first section of the research)

Rauxa/Seny

World View

Problem solving

Organizer

Prioritizer

Diversification

Stealth Mode

At Hand

Fast Feet Play

TOOL'S PROPERTIES

Locus of Control (I control my destiny)

Sense of Coherence (I have a personal compass)

Self-Efficacy (I can do it. I have a sense of mission)

Stamina (the will to continue)

Personal Causation (a sense of self)
FLOW CHART 1: SITUATIONAL TOOLSET PROCESS

LEVEL OF COMPETENCY
(CARVER’S MODEL)

FINAL RESULTS

Improved design methods

(LEVEL 2) SURVIVING
WITH IMPAIRMENT

Solving “noise”, off
track from main plan
Personal Causation (a sense of self)

Stamina (the will to continue)

Locus of Control (I control my destiny)

Sense of Coherence (I have a personal compass)

Self-Efficacy (I can do it. I have a sense of mission).

MID RESULTS

TOOLS

TOOLS'S PROPERTIES
(Based on findings of the first section of the research)

100 Professional Doctorate Portfolio
FLOW CHART 2: SITUATIONAL & DISPOSITIONAL TOOLSET PROCESS
FLOW CHART 3: SITUATIONAL, DISPOSITIONAL & RELATIONAL TOOLSET PROCESS
RESILIENCE TOOLBOX IN USE #2

MUSEUM EXHIBITION CASE STUDY (2009)
This case study is an intertextual example about how formless trajectories (Krauss and Bois, 1997) were used by the researcher in a design exhibition for an architecture and design museum located in the State University of Puerto Rico, Humacao’s regional campus. This is an early modern building that was, at the same time, the object of the collection. This case study is also an example of political effects on design projects and how the RTRP’s toolbox was used to tackle such adversities.

Top photo: Casa Roig
RTRP’S TOOLS AS DESIGN BRIEF

Initially the intention was to relaunch the Museum Casa Roig as the new museum of Architecture and Design. It used to be a space for the University’s activities. As a historical landmark, the researcher’s studio could not interfere with the space in ways that could compromise it’s integrity, also, there were issues of strict budget and bureaucratic tangles. The exhibition’s purpose was to present both the new Museum’s mission for a possible corporate sponsorship, as well as to present it to the immediate community of a small rural town. In this project, the four formless operations were present as aesthetic solutions: Base Materialism, Pulsation, Horizontality and Entropy (refer to conference paper: Quick Recovery in the Design Praxis: Formless Operations from the Field, in this Portfolio of Evidence, p.136).

The Intertextual tool was used as dialogue method between past and future architects, as well as the researcher’s Design studio. The whole educational panels were translucent textiles, which hold imagery of architectural details of the space in the visual distortion of artist M.C. Escher as a metaphor of the house morphing into a new vision. This also became a concept in itself: ‘...the dreamer succeeds in getting out of the depths of the earth and begins his adventures in the heights’ (Bachelard, 1994, p.24 ) in order to invoke the intimate spaces in the second floor that were removed.
in the 1989 restoration. This house has been restored by two architects, and it was to be restored by a third. While standing on the second floor, the visitor could see the new annex of the museum. Some of the texts were carefully and discreetly written on the walls, laid out to empathize an architectural detail form. As visitors walked through the house, it would speak to the visitor.

RTRP’S TOOLS IN RESPONSE TO POLITICAL ADVERSITY

The exhibition inaugural event was cancelled the same day it was due to be opened by the university’s president, because it was identified as a past government administration project. The elections had just occurred and quickly after that, University of Puerto Rico’s students held massive demonstration protesting against the government’s public workers layoffs (Law 7).

The researcher moved very fast and seized the opportunity of a regional private university educational TV program about design. She accomplished that they filmed the TV program in the museum, enabling documentation and dissemination of the exhibition, as well the mission of the Museum (Fast Feet Play, Diversification, Publishing, and At Hand tools). This kind of situation is where RTRP became an effective strategy to tackle adversity due to its reflective and learned resourcefulness properties: ‘The problem is that constant demands of action do not let us realize how the changes in our practice are the result of our learning. Because we are constantly facing problems that require fast and immediate

NOTE

Law 7 (March 9, 2009, Declaration of Fiscal Emergency and Omnibus Plan for Economic Stabilization and Restoration of the Puerto Rican Credit) declare Puerto Rico in an energy crisis. It removes the ability for unions to bargain collective contracts, authorizes the government to bypass existing labor laws (that caused massive layoffs on the public sector and freeze of jobs position including in the education sector), provide for the government to do “Public-Private Alliances,” and bypass procedures for private contractors, among other neo-liberal practices.

THRIVING

1. Documentation on TV show (Fast Feet Play, Diversification, Publishing, and At Hand tools).
2. Participation on Design Biennial in Spain and winning award (Publish and Diversification tools).
3. Approaching the house’s integrity (Intertextuality tool).
Top photo: The Casa Roig, early modernist house, Humacao, Puerto Rico. Photo by Arthur Asseo. Center: photo of video of design project, Museum Director Brigantty. Photo by researcher. Bottom: Presentation of Casa Roig Museum's exhibition design at the II Bienal Iberoamericana de Diseño (Ibero-American Design Biennial), Madrid, Spain (2010). The project was awarded the BID10 prize. Photo by Gabriel Piovanetti.
action, we generally are not aware of these processes. That is why it is difficult for us to tell others what we learned’ (ActionAid, 2006, p. 9).

The exhibition is still on but the future of the museum, as many others government institutions, has gone into a coma state. The project was the researcher’s studio submission to the *II Bienal Iberoamericana de Diseño* (2010) in Madrid, Spain, using the *Publishing* and *Diversification* tools. The project was awarded the BID10 prize. The exhibition of the Museum project was the researcher’s own “lettered city” in resistance to the persistence of the Hegemony of Writing in the public educational system. *Publishing* is a decolonizing tool, which is also true of the *Intertextuality* tool. ‘Postmodernism exposed the ideal of universal communication as naively utopian at best and oppressively colonial at worst’ (Lupton and Lupton, 2009).

The designers in a *formless* (Bois and Krauss, 1997) practice must be undefined and borderless, conceptually speaking, so they can achieve strategies that address problems quickly in a resilient, elastic and flexible way with the capacity to thrive and the ability to adapt, without losing the focus because of short-term reactions tactics obstructing long-term strategies.

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The researcher’s first methodology objective was to identify and articulate the thinking procedures of her practices as art director and design educator, in order to publish the process of successful evolving design methods for resilience, against the negative effects of stressors. From October 2009 to April 2010, when creating and teaching design in a hostile environment, the researcher extrapolated the implicit procedural knowledge in her practice activities.

This first objective revealed a finding indicative of the practice based research: The colonial status of her home country, Puerto Rico, is extinguishing the spirits of empowerment, therefore, thriving factors diminish (refer to Colonial Machinery Map in the next section). Eight months later, after this understanding, the social political and economical situation of Puerto Rico deteriorated further, as noted by the The Economist, who gave the island the top place for the worst GDP forecast of 2011 (Economist, 2011):

- The social pact has been broken, the alliance that entails the agreement between government and citizens, as well as between citizens and private institutions. The rupture brings it down and instead, a show of force by those who are in power flourished.
- Bureaucratic clientelism emerges when a political party, bureaucrats and politicians at top of the social pyramid exercises it, and at the expenses of underpowered
citizens unable or unwilling to become involved in such undemocratic endeavours. They used their influences to accomplish their political and personal agendas, consequently followed by corruption and social violence escalation.

• Emblematic public institutions are privatized or dismantled and the private ones collapsed.
• Increase polarization of the social space, due to the reduction of the middle class, the rise of unemployment and a major professional migration, not seen since 1930s.
• The educational system has been commercialized, which means that history, art, cultural thinking; including design programs; are dismantled or considered just as technical problem solvers, with no critical thinking. The state approaches education as an unbearable expense and private institutions find a good opportunity to see students as clients.
• Drug and money laundering related crime has escalated, Puerto Rico has become a Narco-Nation. Organized crime have public shootings that include rival children as target. Teenager and young adults are the average ages of the gang’s members.

Puerto Rico, apart from the global economic crisis, is going through neoliberal policies and is being ruled under a “totalitarian democracy”, a term coined by Jacob Leib Talmon in his book *The Origins of Totalitarian Democracy* (1952), used to describe a supremacist hierarchical social pyramid and the infantilization of its citizens by its elected government.
In the researcher’s particular circumstances, Puerto Rico serves as the home country. She perceived her country’s political context as colonial. Post-colonialism theory expresses, especially Albert Memmi’s (1966), that one of the colonized characteristics is his/her self-hate. This is also supported by being just a subject of History but not in control of his/her History. Social problems under colonialism are not all caused by the colonizer. It is a machine with no driver. This map intents to show the possible scenario of a correlation between statistics of exclusion and the psychological effects of colonialism as an extreme adversity.
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2010 SOURCE


DECOLONIZED METHODOLOGIES FROM THE DESIGN RESEARCH FIELD

ABSTRACT
There is a need of appropriate research methods for contextual inquiries occurring in contexts under prolonged adverse conditions. In the case of the researcher, Puerto Rico’s is such a context. Post-colonialism theory was used in an open transdisciplinary doctoral design practice based-research as part of a contextual review aimed to inform a methodology capable of building resiliency in the researcher. This paper explores how postcolonial methods and theories have been playing a large role in design practice, its education, as well as in design research. The two main topics are: three arguments for why there was a need for a change of methodologies in an inquiry that prompts user empowerment in design practice (particularly in the context of adversity); and second, the harmful effects of hegemony efforts, and the role of the end-user and the peripheral designer. A discussion of the research methodology is discussed: 1) Limitations of Kurt Lewin’s Action Research (1946) and Donald Schön’s Reflective Practice (1983) ; and 2) Empowerment under an open transdisciplinary research that consisted in a Systematization of Experience workshop that included Participatory Design and Fal Borda’s Participatory Action Research (1977). This process also allowed the user to further apply the RTRP’s tools. This paper explains: 1) The reasons for the conceptual shift in the first section of research that led to a second section; 2) The new resulting knowledge

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QUICK REFERENCE
Refer to Section 3, Succumbing, p.44 and Section 4 Second Stage: Research Methodology, p.48, both in the Supportive Document.
on Post-colonialism theories in design practice and research; 3) How Systematization is a Latin American contribution for resiliency methods for a design researcher under stressors; and 4) How Systematization produces resilience because of its empowerment structure.

1. INTRODUCTION

This paper focuses on how Postcolonialism theory has been used in an open transdisciplinary and practice base doctoral design research as part of a contextual review to build a decolonized research methodology. The researcher was to develop a design resilience model for decision making activities for designers and design educators under stressors. The researcher’s resilience design model, named *Real-Time Response Planning* (RTRP) intends to enable designers to be radically resilient in long enduring adverse political, social, economic (or a combination of the previously mentioned) contexts, in real-time, to bounce forward.

The *Real-Time Response Planning* (RTRP), consists of a set of nine cognitive tools that she named as: *Diversification*, *Fast Feet Play*, *Rauxa/Seny* (intuition/craft), *Publishing*, *At Hand*, *Intertextuality*, *Stealth Mode*, *Anchored* and *Script*.

The research consisted of two stages: 1) Kurt Lewin’s Action Research (AR) (1946) and Donald Schön’s Reflective Practice
(RP) (1983) log to document the effectiveness of the tools in their intended aim to extract the implicit procedural knowledge in the researcher’s design activities, when creating and teaching design in a hostile environment (from October 2009 to May, 2010); 2) An open transdisciplinary research (September 2010 to March 2012) that consisted in a Systematization workshop that included Participatory Design and Participatory Action Research. In this workshop the users designed the toolbox (February, 2011). This process also allowed the user to further apply the tools. User testing and comparison with working prototype, and peers review was executed. This paper explains the reasons for the conceptual shift in the first section that led to the second section of research. As a Practice Based Research (PBR), the researcher was the subject of the study in the first stage. Her stressor was political because she perceived the political context of her home country, Puerto Rico, as colonial. The medical term stressor is defined as real or perceived threat that caused a physiological effects to fight or to run.

The first stage of this research is a critical interpretation that emerged from a grounded analysis during the researcher’s design and teaching practices. The tools were identified using Kurt Lewin’s Action Research (AR) (1946) and Donald Schön’s Reflective Practice (RP) (1983). By using these research approaches, the researcher was able to record the use and behavior patterns of her cognitive tools. During this first stage, the researcher realized that AR and RP were no longer suitable because of their political dissonances making her succumb. This prompted changing the methodology to the Systematization of Experience as a pursuit of coherence between the researcher’s thinking and her practice. From the beginning, the research, as well as the design artifact (RTRP toolbox, working prototype), were axiological (Archer 1980) with a strong political nature in design praxis, while recognizing that it is open to active reader interpretation.

The initial working prototype, RTRP toolbox, is an artifact that help the user to think strategically under stressors with nine empowerment tools. A paper prototype was first designed by way of Systematization of Experiences through a workshop (second section of research) that included: Participatory Design and Participatory Action Research with nine colleagues (a psychologist, a film editor, an urban planner and six design practitioners). Afterward, based on workshop participants’ guidelines, the working prototype was designed by the researcher’s studio. It was called “The Bounce and Design Toolbox” (fig.1).
“What? Post-colonialism? Have they left?”
(Bobbi Sykes quoted in Smith 1999)

2. FIRST TOPIC: THE NEED FOR A DECOLONIZING FRAMEWORK FOR THE RESEARCH PRACTICE

Donald Schön was purposely apolitical in his description and development of Reflective Practice, “He left those issues for others to understand and focused himself on what he considered life enhancing activities – namely, experimentation, innovation and learning” (Sanyal 1997, 7). Action Research and Reflective Practice, by itself, are a political act, regardless of the theorizing intentions because they promote changes, but at the same time the lack of acknowledgement of their political nature or the lack of a definite methodology, concerning the social cultural space, can be implosive because: “Having uncovered areas in need of change, action researchers and participants in their own organizations can be at greater personal risk, and more exposed, than in traditional research. They can be seen potentially as loose cannons rocking the boat, with possible consequences for their careers in that organization” (Williamson and Prosse 2002, 559).

On the contrary, since the beginning in 1970s, when Systematization schools of thought flourished among the Social Sciences and Social Services in Latin America, which was also a period of great social unrest due to the gruesome dictatorship regimes that governed over many years in the region, Systematization recognized the researcher as a political actor in a social arena. As in Paulo Freire’s critical pedagogy, that Participatory Action Research (PAR) is informed. Fal Borda postulates that La Conquista’s (the Spanish conquest of Latinoamerica and the Caribbean) legacy was the very thing that PAR pursued to reconnect with, which is the colonized and his
own experiences (Lopera 2008, 29). PAR is not politically dissonant, or ethically ambiguous like Schön’s RP or Lewin’s AR, because of its alignment with decolonizing methodologies, such as the Systematization Schools of thought. “In Latin America, the best known practitioners of participatory research from its inception will recognize themselves as inheriting much more from Karl Marx than from Kurt Lewin, and more from Antonio Gramsci than from Carl Rogers” (Rodriguez Brandão 2005, 25).

Systematization consists of acts of intervention that under Latin American social management (gerencia social) are considered to be systematized methodologies and tools to provoke social change. Systematization, understood in the Latin American context, is an interlocutory process, as well as being emancipatory, between people who negotiated power discourse, theory and cultural construct.

In the process of adjusting the method of study for RTRP research, part of the related studies focused on analyzing why there was a need for a change of methodologies in an inquiry that prompt user empowerment. There are three arguments put forward: (1) how language as a cognitive artifact can be a colonizer tool; (2) how in design practice the colonized gazes over the Other can also be revealed; and (3) how the design educational system can continue promoting colonial relationships between design educators. The Other here is defined as the minority in an identity politics context, not necessarily exclusive to the Third World.

2.1 FIRST ARGUMENT: COLONIZING DISCOURSE
The contemporary practice of the designers in peripheral countries is a wicked problem. Wicked problems are defined as: “issues that prove to be highly resistant to resolution through any of the currently existing modes of problem-solving” (Brown 2010, 62).

Language is a cognitive artifact, a system that helps the user to do a task. Lev Vygotsky argued that the interaction of artifactual mediation and cognition brings “new functions linked to the use and control of the instrument selected” (Vygotsky 1985, quoted in Vérillon 2000). Language as a cognitive tool, its mediated properties interact with the situated cognition of the user (mental functioning developed by the user social situations). Therefore, language is a cognitive artifact used as a teaching tool. Is a tool that culture and representational media provides to reorganize, support and extend mental functioning (Pea and Seeley Brown 1987, quoted in Wilson and Keil 1999, 767).
The author invites the reader of this paper to deconstruct in the Derridian Postmodern framework the phrase “discovery of America”, as a way to entertain the thoughts of visualizing its official historical facts. The first argument in support for a decolonizing framework for the research practice is based on how language as a cognitive artefact can be a colonizing tool.

These are the known facts: Three boats crewed with lost uneducated Europeans, it included criminals that were liberated exclusively for this enterprise to be able to fulfill the Kings’s agreement with Christopher Columbus, as stipulated in the contract *Capitulaciones de Santa Fé*, April 17 of 1492 (Alvarez 2009, 43); who thought they were arriving to India.

During centuries this term “discovery of America” has been taken for granted because the language of *La Conquista* that was placed five hundred years ago still plays beyond Spanish colonial times: “Once again, the function of official writing began to create an idealized political architecture, an airy republic in the acerbic expression of Bolivar [Simon Bolivar, Venezuelan, 18th century liberator, researcher’s note], detached from reality, prolonging the same disjuncture between social life and legal structures that had existed during the colonial period” (Rama 1996, 41). Beatriz Pastor, who in 1983 was awarded by *Casa Las Américas* (Spain) because of her essay on narrative discourse from *La Conquista*, point out how Christopher Colombus mystified his reports (*crónicas*) to the Kings of Spain in order to confirm his arrival to India and adapt it to the King’s expectations, related to Marco Polo’s trips. Loosely translated by the researcher, Pastor wrote: “The central meaning of discovery, to reveal and to disclose, is deformed by Colombus’s perceptions and actions, who wants to identify the new lands to other references and previous models. His inquiries became inventions, deformations and concealment” (Pastor 1988, 5). As previously shown, from the very beginning the history of the colonized was fictionalized by the official language, which rewrote the “discovery of The Other”.

In the 1960’s, the official language was taken and morphed into “magical realism” (term coined by Cuban writer, Alejo Carpentier) by Latin American Literary Boom’s writers, just as the authors in the Chroniclers of the Indies, but with a different political agenda - merge into a new reality; the fantastical and the mundane. Brett Levinson writes that magical realism “materializes when Latin American history reveals itself as incapable of accounting for its own origin, an incapacity which traditionally - though not here, within magical realism - represents a demand for a
myth: mythos as a means to explain the beginnings which escape history’s narrative” (Levinson 2001, 26).

One of the methodological approaches in PAR, in the Latin American region, is “the triple self-diagnosis (conception, context and practice)”, which are the attitudes and behavior of the researchers that allows a critical distance between the researcher and the research, that necessary conceptual space in an open transdisciplinary research that tackles wicked problems with decolonizing methodologies (Hurtado 2005, 129). The triple self-diagnosis requires:

1. to know as the researcher, one’s ideological and/or subjective position
2. to know as the researcher, one’s sociocultural approach
3. to know as the researcher, one’s consistency or lack of it between thinking and practice (view of the context and concrete practice)

Acknowledgement of the researcher as a political actor in the Systematization of Experience, did shed light on the researcher’s problematic methodology of Reflective Practices and Action Research and the designing stage of the RTRP Toolbox. Designing the RTRP could entail having some pitfalls because it forces the researcher in the position of the sole creator, the author, which is the only authoritative voice. This is learned behavior from the colonizer, who infantilizes the natives: “modern states territorialized meaning by manipulating languages, education systems, myths, symbols and narratives” (Hobsbawn 1990; Anderson 1991; Paasi 1999: 69-88, quoted in Patil 2008, 3). This infantilization is a method to repress people, which is commonly used by imperial states, and it still remains latent in colonial territories and post-colonial states. Infant’s etymology is revealing. The following is its construction: “not able to speak”, comes from in- “not” + fans, of farī (“speak, tell”). This etymology breakdown is connected to the Hegemony of Writing that the researcher will discuss later on in this paper. The human body and western family structure metaphors were used as a colonial discourse as ways to rationalize the colonizer’s presence over other cultures; “...kinship politics operates to forge a sense of natural association with natural hierarchy, bringing together broad notions of trans-territorial association with a naturalization of (racial, gender and cultural) inequality in order to build hierarchical notions of international community” (Patil 2008, 13).

When the researcher realized the political dissonances of her chosen research methods, she was confronted by decolonized research methods. If she just designed and then user tested the RTRP Toolbox prototype she was infantilizing those she wanted to
teach resilient design methods. Paulo Freire’s Liberation Theology addresses this contradiction when he reframes education as participatory because it is a communion experience between educators and students: “No one is auto-liberated, neither is liberty made by others” (Freire 1969, 46).

Howard Gardner, professor and researcher of Project Zero; an educational research group at the Graduate School of Education at Harvard University; identifies five kinds of minds (thinking and acting). “Three are related to intellect: the disciplined, synthesizing and creative minds; two emphasize character: the respectful and ethical minds” (Fusaro 2009). These are described as follows:

- The disciplined mind: the mastering of information.
- The synthesizing mind: taxonomic capacity and the building of ontological framework from different sources of information. “Be able to sort out what is important and what is not from the massive amount of available information” (Fusaro 2009).
- The creative mind: “to think outside the box of that discipline” (Fusaro 2009).
- The respectful mind: “real respect from mere tolerance of differences” (Fusaro 2009).
- The ethical mind: “abstract and reflective thinking about one’s behavior” (Fusaro 2009).

The researcher realized (ethical mind) that from the start she has to recognize the designers’ empowerment in the RTRP’s research and its design construction into a toolbox. In other words, the researcher has to recognize the user’s participation in the design of a resilient design model and also the user participation in the research. This is a critical reflection and an awareness of who the researcher is.

The researcher realized that the way she approached the inquiry, her choices of methods and the plan on how to design the RTRP toolbox revealed her colonized behavior, it was not coherent to design a resilient toolbox without the participation of the intended users.

The factors in the research methodology - the language as a phenomena discourse and the researcher’s context - are needed to be viewed critically. “Subjectivity on which we based our identities was not something fixed or essential but located in language and ideology” (Hetherington 1998, 24).
2.2 SECOND ARGUMENT: UNDERSTANDING COLONIZED DESIGN PRACTICE

Fred Wilson, an Afro American artist, was asked by the Seattle Art Museum in Seattle, Washington, to create an intervention in their galleries (The Museum: Mixed Metaphors, 1993). The museum has a collection from Asia, Africa, Europe, European America and Native America. He intervened with different installations, by collection, in each floor. In the early 20th century gallery, he pushed all the early modernist art into one corner. The art objects were cluttered and visitors could not appreciate the Matisse in front of a marble harp, or a tall Giacometti in front of a De Kooning portrait; “When viewers asked what the reason for this was, it had to be explained by museum staff that this was the way the African and Native American collections were displayed on the floor below” (Wilson 1994, 159). Wilson revealed to the viewers what many Third World artists know about museum exhibition design, the label, lighting and staging and how it reveals the gaze of a cultural fantasy about the one being collected; “It is important to remember, however, that colonialism was not just about collection. It was also about re-arrangement, re-presentation and re-distribution” (Smith 1999, 62).

Designers and their educators can have humanitarian motivations but the act in itself can carry paternalism. German Designer Gui Bonsiepe, whose professional life has taken place mostly in Latin America, wrote a critical review on Austrian Victor Papanek’s book *Design for the Real World* (1985). His review brought of on Papanek’s views at First World designers’ solutions to Third World countries. He found that Papanek intentions were contradictory when “the cheapest radio for the Third World [referring to Papanek’s 1962 juice can and paraffin wax radio, translation by the author] is engulfed by the *bon sauvage* ideology, the one that is just happy with a dummy technology developed for them by the metropolis” (Bonsiepe 1975, 101-102, translation by the researcher). The inter and trans culture affordance in design practice it is not that clear an issue, because culture it’s not fixed in time. There is also an issue to standardize, not only for economical production but to negotiate diverse social practices that involve the user interaction to products and communication design pieces. Although the designer’s ability for insightfulness towards the Hegemony of Writing in the normative design practice it is critical.

2.3 THIRD ARGUMENT : UNDERSTANDING COLONIZED TEACHING PRACTICE

As part of the assignment in one of the modules on the doctoral program, the researcher presented an interactive diagram about Latin American Literary Boom influences on her practice. Some of her immediate academic colleagues did not know
about the writers involved in this movement, including Gabriel García Márquez and Mario Vargas Llosa, both Nobel Prize winners. They were also unaware about the implications of the Boom in the international literature arena and its political consequences. The module’s tutor proposed to the researcher to be clear about “the importance of those ideas in the context of the world” when readers come from different cultures and experiences (Yee 2008). The term “reader” is used in this paper as the recipient, known as end-user, which can be other designers, design educators, students, among others.

It is true that designers need to be aware of the different cultures, but this raises an interesting question: Where does the reader’s responsibility lay in the understanding of the designed artifact as a social-cultural one? Two others point to consider are:

1. The readers lack of historical, geographical and sociocultural knowledge of the Other’s history is a wicked problem itself because it reveals the historical top-down narrative and the reader’s role, who understands the world through the ideology of the predominant culture. If the reader depends solely on the author, in these cases the teacher, this can be considered to be a infantilization of the student. Jacque Ranciere’s claims “an individual must learn something without any means of having it explained to him” (1991, 16) has echoes of Schön’s reflective practice and Freires’s “empowerment to the oppressed” ideas, but it raises questions about the spontaneous self-awareness in a non-emancipatory context. Educators like Ivan Illich in Puerto Rico and Paulo Freire in Brazil, among many others, started to postulate education as a political emancipatory tool: “...even at the institutional level, popular education was perceived as a powerful tool for the political system democratization, for the human rights defense or to work out gender issues in different countries of the region” (Planells 2004, 2). Participatory Action Research (PAR) is also known as Popular Education, and promotes a student that assumes an active role in the acquisition of knowledge. The students are seen as collaborator with the teacher.

2. Local knowledge is what may hold the key to innovation in several occasions, in the case of the colonized, it can be an act of emancipation. “Approaches from situated cognition (or situated knowledge) argue that cognition as any human activity is social (is built in social relationships), embodied (the bodies as agents of action), concrete (focus on the physical constraints and circumstances of the action) and compromised (depending on contingent factors related to individual circumstances). Some of the theorists who have contributed to research in this area, are Suchman (1987), Barwise and Perry (1983), Haraway (1991), among others” (Figueroa 2007, 68).
The researcher was investigating a design practice in a region that lacks history books about its design history and traditions. Just recently, in 2008, the first attempt of a Latin American design history book, *Historia del Diseño en América Latina y el Caribe* (Blücher, Brazil), was published. The only Caribbean island included in this book is Cuba. Others islands were not included because of difficulty in allocating scholastic documentations. Presently, there is no comprehensive book about design history from the Caribbean. As is, global knowledge is really the colonizer knowledge, supported by scholarly construction legitimized by teaching it “In fact history is mostly about power. It is the story of the powerful and how they became powerful, and then how they used their power to keep them in positions in which they could continue to dominate others. It is because of this relationship with power that we have been excluded, marginalized and othered” (Smith 1999, 34).

The resistance comes from both the colonized and the colonizers, despite the loss of intellectual knowledge about design practice. “They are different students. Be patient with them; those are too many books to read” or “Go back to teach design. Leave history to General Studies’ professors” have been some guidance’s directives to the researcher by academic supervisors in some of the universities from Puerto Rico where she has taught design. These are the researcher’s experiences of the resistances of adopting decolonizing framework. The relationship between colonized and colonizer is very strong and they feed each other. As Frantz Fanon (1961) and Albert Memmi (1966) discussed, they shared the colonized bricolage, the hegemony influences of the word; “The machine is almost factual: the colonial situation fabricates both colonizer and colonized” (Memmi 1966, 73).

3. SECOND TOPIC: THE HEGEMONY OF WRITING

The official writing, who can and where, is intrinsically connected with graffiti since the beginning of the *Conquista*. As illustrated by an account about how Spanish captains felt underhanded by their leader Hernán Cortés when they did not receive their share of the booty. On the whitewashed wall, overnight, they wrote their complaints using insulting phrases and charcoal:

“Each morning, Cortés wrote his replies in verse on the same wall until, infuriated by the insistence of his interlocutors, he closed off the debate with these words: ‘Whitewashed wall, a fool’s stationary.’ Cortés thus re-established the hierarchy of writing – that ought to be reserved for superior purposes – and condemned graffiti because anyone could produce it. Graffiti was to remain a clandestine appropriation of writing, an illegal attempt to subvert one of the ordering principles of society” (Rama 1996, 38).
La Conquista was an economical endeavor. The cartographies were official legal documents. Notaries travelled with Cristobal Colón and through all the conquistador’s trips. They were the ones who could write and read, consequently, the ones who notarized and legitimized the new territories as the King’s lands. They used an already designed form to register the new cities: a description with blank space to fill the name on the top, urban grid in the middle, signatures and dates on the bottom; making a perfect illustration for Baudrillard’s phrase “maps without territories”. Some of the cities they claimed they established with drawings of streets and houses that did not even exist. They were just an undisturbed wild landscape. And it was not that the Kings did not know about this, it just was necessary to legitimize and archive in the official language. This early official legal registros are an indication of the cultural dirigisme (French word referring to strong influenced by the one in power in a coercive mode):

“More important than the much-discussed grid design are the general principles behind it, directing a whole series of transmitted directives (from Spain to America, from the governing head to the physical body of the city) so that the distribution of urban space would reproduce and confirm the desired social order […] before anything may be built, the city must be imagined in order to avoid circumstances that might interfere with its ordained norms” (Rama 1996, 6).

Angel Rama narrates, as part of his history about how the “lettered city” was constructed in Latin America, the ways this persistence of the Hegemony of Writing immigrated to the educational system in post Spanish colonial times with Latin American letrados (the ones from urban areas who could write and read); “a system primarily destined to produced bureaucrats, perpetuating an antidemocratic concentration of power and resulting in a ruling elite like that of the colony…” (Rama 1996, 46) As figure 2 illustrates, the Dominican Republic 16th Century map is full of
fantasy creatures and the inscription ‘In Española only whites exist’ and on the right side, more or less 100 years ago, a text for a school book reads ‘Porto Rico is now a part of the United States. It is a beautiful and fertile island. The people are active and intelligent. In both of these islands there are more whites than negroes.’ This blunt racial detachment from the official documents was not only a common legal practice but constantly legitimized by educational institutions. The Nineteenth Century Latin American Universities’ “graduates exemplified the gap between the city of letters and urban realities instead of faithfully representing or interpreting those realities, they gilded them” (Rama 1996, 50).

“France can talk about their history without mentioning Haiti, but Haiti cannot speak of its history without talking about France. A phenomenon typical of colonial ideology, which is still alive.”

(Iñigo 2010)

3.1 THE ROLE OF THE READER: THE PRO ACTIVE USER
The role of the reader, who is the recipient of the design knowledge, brings into context another conjunction to this problem: The readers are not passive actors in the mediated interchange of knowledge. The reader can act and can control the design knowledge. As previously explained in the researcher’s module presentation to her fellow companions, the lack of contextualization disrupts the capacity of the reader to understand design arguments. Same token, non-peripheral designers cannot assume that all readers have the knowledge about the geopolitical region where they design the artifacts or systems they ship to the global market. This lack of awareness and political savoir faire can also occur from the peripheral designer’s side. Readers will use the design artifact in a localized manner, sometimes in ways they were not meant to be used. Paraphrasing Ramesh Srinivasan (2011), readers from different cultures than the designer, with socially shared set of practices, like language, will affect how they construct technology, or reconfigure it to adapt it to a local form (appropriation). The Hegemony of Writing, in the case of design practices, was identified long ago:

“Industry has surrounded people with artifacts whose inner workings only specialists are allowed to understand. The nonspecialist is discouraged from figuring out what makes a watch tick, or a telephone ring, or an electric typewriter work, by being warned that it will break if he tries. He can be told what makes a transistor radio work, but he cannot find out for himself. This type of design tends to reinforce a non-inventive society in which the experts find it progressively easier to hide behind their expertise and beyond evaluation” (Illich 1971).
The focus of the researcher’s educational argument is to discuss the Hegemony of Writing and how the education institutional systems still persist in blindsiding the Other in matters of global historical events. Books like *The Elements of Design*, by Noel Riley and Patricia Bayer (2003), an encyclopedia that includes the decorative arts from the Renaissance to the present; given to Postgraduate students presently at Smithsonian-Corcoran, Washington D.C; or the Horst Waldemar Janson’s *History of Art*, given to the researcher over 20 years ago in her first year as a undergraduate art student at Cooper Union School of Art and Science, New York City, does not include one Latin American or Caribbean artist or designer. These books claim a western survey of official historical information. The non-inclusion is a redefinition of the western cultural map, since all the Americas are part of the western world. To recognize situated knowledge is a way to reset the fixed and disembodied vision that brings totalization: “location resists the politics of closure, finality” and “situated knowledge is about communities, not about isolated individuals. The only way to find a larger vision is to be somewhere in particular” (Haraway 1988, 590).

The usefulness of design knowledge, in the practice as well as in research, over the value of truth on both, has been stressed. It does not have to be truthful but useful. This usefulness includes the way the designer chooses to communicate to the reader. As demonstrated in the three arguments, platforms of communications are not ideologically free and neither are cognitive artifacts; “This is an important notion, because the point is no longer to question whether the message is true, but whether it works as an argument -- one that manifests itself more or less explicitly in the message, in relation to the conditions [emphasized by this researcher] under which it was produced and under which it is disseminated” (Van Toorn 1994, 105). Questions about who defines usefulness and determines to whom it is useful for, are ideologically mediated; and also present in both how the artifact was researched, designed and distributed. “Design will have to get used to viewing substance, program, and style as ideological constructions, as expressions of restricted choices that only show a small sliver of reality in mediation” (Van Toorn 1994, 105-106).

Illich (1971) pointed out that Freire moved constantly because he refused to teach using the “appropriate” and accepted words from the official teaching practice, because they would compromise the communication with his students, who read into those words’ other meanings. Having said that, and because the subject of the researcher’s study is a wicked problem, it is related to other wicked problems and can be recognized, for example, that the reader’s role in a transnational design context is
hard to tackle. Paraphrasing Lilly Irani, Paul Dourish, and Melissa Mazmanian (2010); the transnational/colonial designers mould the local practice, platform, methods and tools, in the need or desire to be recognizable and legitimate in a no ideological-free intercultural space; a space where there is an exercise of meeting halfway, “however, is not necessarily evenly distributed” (Irani, Douris, and Mazmanian 2010).

3.2 THE WRITING ON THE INTERTEXTUAL WALL

Julia Kristeva approaches the text, the author and the reader as stakeholders in a work in progress, not a finished product to be consumed, inhabiting a multiple interconnected logico-epistemological (Lefebvre 1991) textual space. Analyzing the structure of the text, how it came into being, shows the performative nature of the intertextuality in the researcher’s graffiti “what’s on your mind?” (Figure 3), which has a connection with the digital Facebook’s wall and at the same time the historical conquistas’ whitewashed wall; both symbolic territories. It also has other textual readings, as a performative public reflection-in-action by the researcher in her house street wall; written the morning after a hurricane passed over her home city, her house was broken into by thieves and after realizing Schön’s RP and Lewin’s AR was too painful to continue, therefore infective as a colonial researcher’s methods. It is a misery to know without liberty and this is very cruel because the same knowledge makes the lack of liberty visible, and at the same time impotent to change it: “the rights that define individual freedom must also include rights of political participation” (Bohman and Rehg, 2007).

The bilingual text has also another layering of transposition. The diverse readings by the street readers of the text on the wall, ranged from a North American woman responding “it is true” and her local friend responded “but it is an abandoned house”, to another reader comment: “is too smart for a graffiti writer”; both echoing Cortés’
“a fool’s stationary”. The wall activated neighbors to address the security issue, both criminal and health, in the researcher’s street. As many neighborhoods across the U.S. mainland, the abandoned houses have proliferated in the long period of economic depression. The act of the Intertextual wall also an action of Publish, one of the RTRP tools (refer to appendix). Publish is a decolonizing tool, which is also true in relation to the Intertextuality Tool. Both have the properties of making connections to others and different issues, a component to learn resilience behavior according to the American Psychological Association (APA 2010).

A similar approach to the white wall, tabula rasa, is Architect John Habraken, a Dutch citizen; in his conference “Design and the Everyday Environment” (2010); who discussed the new level of design interventions in the cities, redrawing his diagram as follows in figure 4:

![Fig. 4. Habraken’s diagram](Redrawn by researcher)

What he is stating is that the contemporary architect is designing inside another designer’s context, as an example in the first layer, the urban planner; secondly, the urban designer; thirdly, the architect and fourthly, done afterwards, the interior designer. His proposition goes around a concept called “Open Building”, where the architect designs an initial based design, a shell to be intervened by users and others designers. This, according to him, will promote a new professional attitude: “no inventions but cultivation on building new environments.” According to Habraken, another actor in this layering is needed: the user, because “Whenever user can act, can control” (Habraken 2010). Habraken coined this statement as “Built Fields”, and it is an intertextual action. The contextualization of the human factor and the understanding of previous and future design interventions is a way to resist the tabula rasa inherited from traumatic events like the Conquista.

CONCLUSIONS
During the process of her Reflective Practice and Action Research actions, the researcher realized she could not continue with these methods because they hold colonizer properties in themselves. Both methodologies do not give guidelines to the user on how to change his/her political context after realizing by reflection the consequences of his/her context. Thus they do not take into account, the political
ramifications of the new knowledge acquired by reflection in action. It is important to take into account who the researcher is; but also in what context the researcher is researching. Therefore interpreting the meaning of Jürgen Habermas’s theory of rationality thinking, about “how speaking and acting, subjects acquire and use knowledge” (Bohman and Rehg 2007), is not as neutral as “learn by doing”; but critically pointing out where the researcher acts when researching and which designing tools are used in that act of construction and understanding of the new knowledge from engaging with a wicked problem.

When searching for a decolonized methodology, the Systematization of Experience was chosen because it allowed the researcher to be a political actor, and to take into account her own ideology as well as the other participants in her project a way to resist the *tabula rasa*. She also realized that colonial machinery does not need a driver, that it is a system that runs by itself, where the colonized and the colonizer participate in maintaining its usability and usefulness. It is possible that researchers and designers from the peripheral countries can be brought paradoxically to another choice of words as a written statement of colonizer-colonized dynamic: “From the vantage point of the colonized, a position from which I write, and choose to privilege, the term research is inextricably linked to European imperialism and colonialism” (Smith 1999, p.1).

The methods employed in the data collection and analysis of the RTRP research, as well the theories that inform them, had to build a decolonized epistemological and ontological foundation inside the researcher’s colonized context. Peripheral design researchers, practitioners and design educators have to be aware on how methods and theories (language) as part of the colonial and postcolonial constructions have been playing a large role in design practice, its education, as well as in the design research.
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The Science Registry Ltd
QUICK RECOVERY IN THE DESIGN PRAXIS: FORMLESS OPERATIONS FROM THE FIELD

ABSTRACT

There is a lack of an understanding of a designer’s methodology in weak democratic societies, suffering from social, political and/or economic adversities. Resilience becomes the design tactic as designers articulate their approach in this wicked problem’s context of instability. This paper only deals with Post-modern and Painting theories in relationship to the researcher’s resilience design model, named Real-Time Response Planning (RTRP). The RTRP model intends to enable designers to be resilient and thrive in adverse conditions, in real-time. The researcher identified that peripheral creative practitioners were able to design artifacts or systems with “no wounds” despite many years of adverse context, and often the practitioners thrived against all odds. Topics: (1) A brief description of the conditions faced by the peripheral designers from the Caribbean and Latin America (2) A description of how the RTRP’s toolbox is informed by Deleuze and Guattari’s post-modern ideas and its connection to Haraway’s Situated Knowledge. (3) The ontological and epistemological framework, which is mainly based on art critic Krauss and Bois’ theories, because of their non-hierarchical interconnection, which are appropriate to the modeling of stressors situations of adversity.
Introduction

Postmodern and Art theories, informed the philosophical scaffolding of a research concerning resilience and the designers under adversity that caused them stressors. Postmodern thinking allowed the researcher to be flexible, explorative, critical of meta-narratives, open to the uncertainty of wandering and grateful to the value of errors. These postmodern theories were used because the researcher wanted to build a resilience model with the intention to enable designers to improve real time strategic decision-making. The researcher found that postmodernism theories of non-hierarchical dynamic interconnections were an appropriate framework to understand chaotic events.

The term stressors is defined as ‘situations that are experienced as a perceived threat to one’s well-being or position in life [...] the body’s stress response is triggered, and a series of physiological changes take place to allow the person to fight or run’ (Scott, 2009). The designer just needs to ‘perceive [that] demands exceed resources’ (Salas, Driskell, and Hughes, 1996, cited in Kowalski, Vaught, and Scharf, 2003) to activate his or her inner alarm system. Adapting successfully under duress ‘is dependent upon an individual’s perception’ (Gillis, 1993, cited in Kowalski, Vaught, and Scharf, 2003) of the adverse event, because ‘it is the perceived experience of stress that an individual reacts to’ (Kowalski, Vaught, and Scharf, 2003) that might affect unfavorably the decision-making behavior.
The researcher’s resilience design model, *Real-Time Response Planning* (RTRP), consists of a set of nine empowerment tools for design practitioners under stressors. The RTRP toolbox is used in this paper as a metaphor for a resilience system thinking mindset that was articulated into an artifact. These tool’s operations were extrapolated during a seven months period where the researcher was able to record the behavior patterns of her decision-making process under stressors using Kurt Lewin’s Action Research (1946) and Donald Schön’s Reflective Practice (1983) methods. The RTRP model emphasizes resilience and thriving under adverse conditions by promoting:

- Contextualization (user’s historical/cultural sensibility of his/her context)
- Openness to multiple perspectives while maintaining a clear focus (Executive Functions process)
- Cognitive Flexibility, the switching of multiple analyses for ill-structured domains (Spiro and Jehng, 1990).

This method allows designer’s decision-making process to become compatible with the adverse event because he or she acquired the conscious intellectual and emotional skills to address the situation (therefore achieving resilience behaviour). The RTRP toolbox helps the user to think. It is informed by Resilience Theory and since resilience is not a characteristic of a person, but a learned behavior, it can be taught (Master & Powell, 2003).

The RTRP’s nine tools are:

1) *Diversification* - Consists of combining multiple spheres of action and having the ability to move among diverse social groupings, thus developing an eclectic network without the need to belong to a specific social group.

2) *Fast Feet Play* - Being in constant mutation and transformation. A fast feet attitude can make or break every play, evolving around ever-changing situations, clients and circumstances.

3) *Rauxa/Seny* – These are the Catalan words for intuition/common sense. The researcher uses this term to describe the balancing of the tension between creative intuitions with the practicality of practicing design.

4) *Publishing* – The reflection on both, process and the final artefact must be documented. If it is not, it will be like the whole action never existed. It consists of making it public.

5) *At Hand* - To constrain the design work to the feasible resources available and not lament what we do not have, instead, we should see the design learning opportunities.

6) *Intertextuality* - Acknowledge and create dialogue with previous authors/creators (the cancel out the *tabula rasa*) and connect with what has past, and the value interventions that may be forthcoming.
7) **Stealth Mode** - Means to be undetectable under the radar by not drawing attention towards the project or oneself. Stay quiet with cleverness. It is the opposite of Publish.

8) **Anchored** - Means to be anchored in place, a sense of commitment to a specific community that should not to be confused with blind nationalism or xenophobia.

9) **Script** - Involves following the designed plans in a situation of low-level stress, with the purpose of avoiding burnout and blockages of effective decision-making, when high-level stress is experienced.

This is part of an open transdisciplinary practice-based research in the Doctoral Design Practice program for a Professional Doctorate, School of Design, University of Northumbria, United Kingdom. The aim of a Professional Doctorate candidate according to the UK Economic & Social Research Council (ESRC) is to ‘.... make a contribution to both theory and practice in their field, and to develop professional practice by making a contribution to (professional) knowledge’ (The Science Registry Ltd).

**FIRST PART: LATIN AMERICA AND THE CARIBBEAN CONTEXT**

1.1 **The Centre and the Peripheral - Bonsiepe**

The RTRP model is a model of peripheral designers. In order to understand it, the reader needs to be anchored in the context where the researcher’s design practice takes place.

German designer Guy Bonsiepe (1985), who’s professional life has been mostly in Latin America, wrote on the concept of peripheral design. He defines peripheral design as design from countries that have not solved their manufacture and infrastructure problems.

According to Bonsiepe, in developed countries or the centre (as he refers to them), design is an integral part of production. More importantly, Bonsiepe claims that the experience of the centre although usable is not useful to the peripheral design community. Simply put, designing by international standards instead of incorporating inter and cross-cultural approaches can result in products that are culturally suited for global markets but may have features that fail to be usable locally. This is a result of using methods from the centre’s perspective (world-view and needs). Thus, according to Bonsiepe, the design that the periphery can find usable in their local context does not exist in the centre.

In an interview in 2003, Bonsiepe emphatically stressed his position - which he stated from the 1980s - that ‘design should be done in the periphery and not for the periphery as the result of some kind of benevolent paternalistic attitude of the centre to these countries. I insist and always have insisted on local design practice’ (Fathers, 2003, p.48).
1.2 Adversity is the Context of Design Practice in the Periphery

The term adversity in this paper is defined as situations that cause stressors. These stressors can be political, social, economic or a combination. As stated, the medical term stressor is defined as a real or perceived threat that causes physiological effects like the release of adrenaline to defend oneself or to flee (Fight/Flight Response).

Historically, in the periphery, national economic and social political adversity is a constant. It is important to note that because of the recent economic collapse due to the global economic crisis, for example, in countries like Iceland, Spain, Greece and Ireland, many designers have been left powerless and lacking of instruments to operate; just like the ones in an unstable peripheral environment. As Leslie Voltaire, a Haitian architect, said in a conference organized after the 2010 earthquake by the American Institute of Architects, at Centro de Puerto Rico, “In countries like ours, there is nothing provisional; what is provisional is permanent.”

In another educational conference, Meeting of Art Inter and Multidisciplinary Projects, To Where and to Whom?, Creative Interactions 2010, (Centro de Estudios Avanzados, 2010), the researcher relayed this story to fellow professors of the University of Puerto Rico, which at the time was involved in a student strike that had escalated to the point where the Police Force had occupied the campus. Unexpectedly, the audience reaction was one of relief when they realized that the crisis was a permanent condition.

2.1 No Wounds, Designing under Adversity without Leaving Traces of It

The researcher defines her concept of the “no wounds” as an artifact or system design that did not show the context of the adversity it was created in or the adversities the designer went through at the time of its production. Peripheral creative practitioners are able to design artifacts or systems with “no wounds” despite many years of constant adverse political and economic conditions. Some design practitioners thrive (economically, personally and practice) against all odds. This is not a question of luck or a set of good improvisation. This prompted the researcher to question: what is the resilience thinking mindset that is taking place regardless of the practitioner’s awareness? A similar question has been asked in Social Sciences: ‘How is it possible that people survive and some even grow irrespective of the trials and tribulations of life? Where does the bio-psycho-social wellbeing and strengths originate from, and how can they be enhanced?’ (Strümpfer, 1990, 1995 cited in Makola and Van den Berg, 2008).

The researcher interviewed an Argentinean designers firm, G & H, at their store in a trendy neighborhood in Palermo, Buenos Aires (2009). Their store did not have the “wounds” of the context it was created after they lost their previous design studio in the economical shut
down in 2001, that included social riots provoking Fernando de la Rua leaving the presidency (just as 2011 Egypt’s events). They have 25 years of practice. “With tools and wounds, with very different tools [from the Europeans or the North Americans]...” G & H shared with the researcher the Diversification, Rauxa/Seny, Publishing, At Hand, Intertextuality, Stealth Mode and Anchored tools (tools were presented to them). They identified as one of their tools the *Two Hands*. H said: “It was born out of the crisis [the store], the *Two Hands* tool, in one hand we built this project and the other hand we were putting clothes in the luggage to leave the country. Every night we thought about leaving.” G adds: “All our friends left. Is a constant feeling - the leaving.” They identified three reasons for accepting a job: prestige, new knowledge or money. In reality, most of the time, in their practice, it happen mostly by the first two, almost never the third, and they made adjustment. H said: “Over here, you could be the great magician, and in two days, everything can be change and you are bankrupt. There is nothing guarantee.” This design partners showed a strong sense of Anchored and stamina. In 2011 they have expanded their work to Brazil. The year of the interview, 2009, they just had an exhibition of their work at the American Institute of Graphic Arts.

Using Argentinean financial crisis of 2001, where unemployment went up to 50%, Bonsiepe gave an example of how designers moved to the craft market to sell their product [translated by the researcher]: ‘ The symbolic add value disappeared [referring to branding]. Young designers, that had no clients left, started to design low-fi products. Something like neo-urban craft.[...] There was a local design, for local demand in local prices’ (Bonsiepe, 2011). He also noted that Argentinean designers started to offer their services to foreign clients at cheap rate, known to be three quarter less that in the centre design rates. The neo-urban craft that Bonsiepe recounts in the interview is an example of resilience behavior by the designers.

**THIRD PART: RESEARCHER PAINTING PRACTICE, POST-MODERN THEORIES, AND CONSEQUENCES FOR HER DESIGN PRACTICE**

3.1 Painting Revisited

The researcher has 25 years of experience in painting practice. From 2000 to 2007 she explored the question of the practice itself and the role of the painter.

Painting practice has been intensely scrutinized through the last century within its own value, role and methodologies. As a result of this ongoing debate painting practice showed different results. Twenty-first century artists such as Duchamp, the Fluxu movement, Pollock, among others, represented milestones in art practices. In the 1960s the painting debate was revisited by painters such as the North American-based painter Donald Judd. It was again
revisited by painters of the 90s generation. Both re-visitations were due and influenced by post-modernism theorists like Kristeva, Barthes, Derrida, Deleuze, Yves-Bois and Krauss. Yves-Bois and Krauss, are the editors of MIT academic political and post-structuralist art journal *October*.

### 3.2 The Expanded Field – Krauss

In 1979, Krauss published a small paper on *October* that became a hiatus in contemporary art theory. Krauss’ “Sculpture in the Expanded Field” (1979) defied the definitions of sculpture, architecture and landscaping, as one that was no longer bound by its materiality of the object properties or practices methodologies. She theorized that there was a paradigm shift in the artistic and architecture practitioners framework that could not be analyzed by traditional modernist craft oriented framework: ‘the very term we had thought we were saving sculpture- has begun to be somewhat obscured’ (Krauss, 1979, p.33). Using the pedestal of the public monuments as an argument, and how it disappeared in public spaces due to the practices of artists like Robert Smithson’s *Spiral Jetty* (1969-70). Krauss proposal was: ‘ to name this historical rupture and the structural transformation of the cultural field that characterizes it, one must have recourse to another term ’ (Krauss, 1979, p.41). Krauss coined the term expanded field.

**Effect on Researcher’s Conception on her Design and Education Practices:**

The researcher used Krauss’ expanded field to define the understanding of both the role of the Author (Barthes, 1977) and definitions of her practices as a painter, educator and designer. The definition was no longer bound by its methodology or materials of the properties it creates (in the case of art and design). This mental attitude allowed the researcher to move freely in a formless manner (Krauss and Bois, 1997) between all her practices and identities. In the researcher’s case it refers to a transdisciplinary approach.

The researcher applied her pictorial thinking to both design and education. As an example, she no longer thought that painting has to be a system of meanings, where its function is to enunciate a message. Painting can be an experience where meaning is constructed and derived by the spectator. This operation is present in design when the user adapts/intervenes designed objects and in the case of education, when students have an active role in their construction/acquisition of knowledge.

### 3.3 Authoring, Working, Reading and Fragmented Knowledge - Barthes & Kristeva

The ideology of the Author, the one that authorizes the meaning that can be consumed by the reader is one of the main principles of Postmodern theory. In Roland Barthes for example,
the Author is the Work. Therefore, one is a painter because one paints, not otherwise. It is because of the existence of the act that the existence of the author is validated; ‘the Author is thought to nourish the book...’ (Barthes, 1977, p.145). It also means that the researcher’s design practice is open and able to be re-written because its very nature is intertextual; making it temporal and visible only as a fragmented knowledge. Kristeva’s (1966) intertextuality is her definition of the multiple “traces” a Text (work) can have of other works, therefore, questioning the role of originality and the author itself in relationship with the reader.

Effect on Researcher’s Conception on her Design Practice:
The researcher changed into a more user centered design, sometimes participatory (open) and transdisciplinary one, as she tackled the issues of the monolithic Text and the ideology of the Author in the design practice. This re-framing allowed her to recognize the renegotiation of different types of knowledge between all the stakeholders in a design project.

3.4 Haptic Vision, the Questioning of Visual Supremacy - Deleuze
In Francis Bacon: The Logic of Sensation (1981), Gill Deleuze discussed the supremacy of visual senses over the other four senses, especially the dichotomy of hand and the eye and the: ‘...subordination of the hand to the eye’ (Deleuze, 2002, p.124). The eye (optical) and the hand (the manual, as refer by Deleuze), are joined by a third way of gazing, where the hand and eyes are on equal value: ‘the formation of a third eye, a haptic eye, a haptic vision of the eye, a new type of clarity. It is as if the duality between the tactile and the optical had been visually transcended in the direction of a haptic function that emerges from the diagram [construction of knowledge, in the case of Bacon by colour and it’s used of chromatic layering]’ (Deleuze, 2002, p.129).

Effect on Researcher’s Conception on her Painting Practice:
This insight at that time enabled the researcher to explore optical illusion in her pictorial work with full reference to medieval art and the construction of collective knowledge through the seeing of others, which included gesture. “Seeing is a way to obey?”, was a focal question of the researcher in the painting Enable Blue (2007), a corner ceiling three paintings install in a dimly light room that through colour and shape gave the illusion of a three-dimensional cube that rotate in space (fig.1). It rotated because the spectator activated it optically by they own movement in the room and the colour informed the spectator’s perception of that movement. In Barthenian terms the art work was finished by the reader. This painting experience moved the researcher to user centered and user experience methodologies in her design practice.
3.4.1 Situated Knowledge – Haraway

From the *Enable Blue* painting experiences, the researcher redefined her approach to her RTRP research as an act of sharing of knowledge from the starting perspective of the local (Haraway’s situated knowledge concept, 1988). To recognize the situated knowledge is a way to resist the fixed and disembodied vision that brings totalization: ‘Situated knowledge is about communities, not about isolated individuals. The only way to find a larger vision is to be somewhere in particular’ (Haraway, 1988, p. 590).

**Effect on Researcher’s Conception on her Painting Practice:**

The researcher started to distance herself from the traditional role of the Author by first collaborating with the specialist in wood conservationist, in the frame construction of her paintings *Color (to Donna Summers)*, 2004, *Pink (to Monroe)*, 2005 and *Enable Blue* (2007). The researcher was able to fully co-author in a transdisciplinary art project *Painting for a Specific Floor* (2008), in Chile, with architect Andrés Mignucci (fig.2).

3.4.2 Conclusions

It was the researcher’s conclusion that the identity of the painter is a constant reconfiguration in its construction (its definition was not fixed in time any more, liberating it from the legacy of art historian Clement Greenberg’s postulation of the modernist painter). Who defines it, or who is the authority to define that identity was in immediate question, as a way to
deconstruct monolithic text. Greenberg promotes the autonomy of the practice, where all solutions have to come from the practice itself, including the methodology and material to be used, ' Each art, it turned out, had to perform this demonstration on its own account ' (Greenberg, 1960).

The research tackling of the contemporary identity of the painter in a local context and how the act in her context called for a paradigm shift in her painting practice, from Greenberg’s so called ‘Art autonomy’ to Krauss’ expanded field.

Just as in her painting practice, the expanded field approach is a part of the researcher’s philosophical system for both designing and researching. This allows her to use a rhizome (Deleuze and Guatari, 1987) model to reflect on her research’s initial question: Is there a resilience model used by designers under stressors? A rhizome model is different from a binary model, because it has different points of entries, with no hierarchical value, it rotates; therefore, there are no top/down or left/right dichotomies. ‘A rhizome ceaselessly establishes connections between semiotic chains, organizations of power, and circumstances relative to the arts, sciences, and social struggles’ (Deleuze and Guattari, 1987, p.7). So it was compatible to use it as a thinking framework concerning creative practitioners in chaotic events.

A different perspective lays in the interconnection of each point of the rhizome. This was to avoid the ‘god trick’ (Haraway, 1988, p. 581) and achieved the access to situated knowledge: ‘ The knowing self is partial in all its guises, never finished, whole, simply there and original; it is always constructed and stitched together imperfectly, and therefore able to join with another, to see together without claiming to be another ‘ (Haraway, 1998, p.586). For example, the renegotiation of many different types of knowledge between designers and users during participatory design activities.
FOURTH PART: RTRP TOOLBOX AND POSTMODERN THEORIES

Postmodern ideas, like Barthes’, allowed the researcher to reflect on her own contradictions about her initial choosing of research methods and plan to design the RTRP toolbox. As the researcher tackled the issues of the monolithic Text and the ideology of the Author she recognized the users’ role in the research of the RTRP toolbox itself. She became critical of her chosen methodology and the possible of her ‘authorness’. Therefore, the way the RTRP’s tools were researched and the toolbox designed changed to a participatory (open) and transdisciplinary one. Participatory Action Research and Participatory Design methodologies were used to design the first paper prototype that the RTRP toolbox was based on. In the Barthenian terms, the design of the paper prototype by users was done in an open manner (open Text), by collaboration and allowing at the same time, that future RTRP’s users could include their own tool into the toolbox.

4.1 The Active User – the *Formless* – Kraus, Bois and Bataille

Approaching the understanding of meta-narratives on chaotic events brought the researcher to Krauss and Bois (1997) interpretation of French intellectual and literary figure George Bataille’s *informe* (1929). Here the researcher found a set of conceptual performative tools. In their *Formless User Guide*, Bataille, according to Krauss and Bois, was not concerned with the dichotomy relationship between form and content, but he focused consistently on ‘the unverifiable of the non-hierarchized’ (Leiris M. cited in Bois and Krauss, 1997, p.18). *Formless*, as performative, ‘derives less from semantics than from the very act of their delivery’ (Bois and Krauss, 1997, p.18). Performative is used here as an art speech term, it is based on the belief that all identities are social constructs; therefore, one performs an identity. In the case of *formless*, it is the way to construct the identity of the artist by its own operation of doing art. Bataille’s *informe* is a philosophical term used in the contemporary arts to identify works that are disorganized textile arrangements, paper or material in a liquid or foam like viscosity, among other not contained or orderly forms.

In design, the users (as Barthenian’s readers) are not passive actors in the mediated interchange of knowledge. Don Norman claim that ‘what people need, and what design must be provided, are signifiers’ (2008, p.19). Signifiers are the clues for the user to understand how to interact with an artifact or system, and for what purpose it was designed for. How these signifiers are constructed (or perform) could entail a type of cultural *dirigisme* (French word referring to strong influenced by the one in power in a coercive mode). The researcher understands that there is a need ‘to consider the role of tasks on particular environments or contexts, forms of integration of work teams, individuals, artifacts and culture’ (Figueroa, 2007, p.73). Figueroa words echoes Bonsiepe emphasis on local design for local needs. It also
echoes cross-cultural approaches to design practice. Therefore the RTRP toolbox as an artifact had to be designed understanding philosophically the presence of ill-structure domain that the user might be handling.

The researcher found that formless theory was compatible in the way she was approaching design practice under chaotic events. So she explored the possibility of how these set of Bataille’s conceptual performative tools were inherent in her resilience thinking mindset. Bataille’s informe is based on questioning the traditional visual art postulations, which he identified as:

1. The visual supremacy over the other senses.
2. That art reveals itself in an instance.
3. The persistence of vertical gaze (The spectator’ corporal point of view).
4. The beginning and end of the visual piece (The persistent of the Alberti’s ‘window’, the invisible but dominant frame).

The four corresponding Bataille’s principles to question the traditional art postulations are the following (according to the researcher understanding of the Bois and Krauss’ interpretation and how it relates to her arguments):

1. **Base Materialism** - This address the first postulation. ‘Matter cannot be reabsorbed by the image’ (Bois and Krauss, 1997, p.20) is the trumping of the supremacy of the visual over the other senses; to question that knowledge is acquired visually. It’s related to Haraway’s ‘god’s trick’.

2. **Pulsation** - This address the second postulation. ‘Endless beat that punctures the disembodied self-closure of pure visuality and incite an eruption of the carnal’ (Bois and Krauss, 1997, p.32) in reference to an organic beat, a visual rhythm that pushes in and out of the work of art recognizing that it must be finished by the spectator. As an example, the researcher painting *Enable Blue* (2007), where there’s no longer passive spectator because ‘...It is not merely an object, a painting but also a phenomenon - a subtle unexpected experience that only can be had if one is aware of the entirety of the space they are occupying ’ (King, 2007, p.41).

3. **Horizontality** – This address the third and four postulations. ‘...the systems of spatial mapping [...] the production of the lower-than-low’ (Bois and Krauss, 1997, p.252) consist in the verticality of the vision, in terms of the spectator when observing paintings on a wall, like the choreography used by painter Jackson Pollock in his emblematic vertigo paintings. Pollock’s work, the dripping paintings, achieved all entries area, which means the eye could enter the painting in any direction causing a vertigo feeling; specially, being a large scale, physically the eye could not “see” the end. It has an illusory physical perception that
moved the spectator in a horizontal position. As an example of the situated knowledge, the Foucault’s heterotopia (1986) and borderless identities (queer, Judith Butler, 1990).

4. **Entropy** - This address all postulations.’..the constant and irreversible degradation of energy in every system, a degradation that leads to a continually increasing state of disorder and of non-differentiation within matter’ (Bois and Krauss, 1997, p.34). Entropy is not pure, it consist of messy hybridism and of crossing borders. Entropic operation are transgressive, they take over as an invasive action, as in Robert Smithson’s photos essay *Hotel Palenque*, Palenque, Mexico, 1969. ‘As action decreases, the clarity of such surface-structures increases. This is evident in art when all representations of action pass into oblivion […] it seems that all information, and that includes anything that is visible, has its entropic side. Falseness, as an ultimate, is inextricably a part of entropy, and this falseness is devoid of moral implications.’ (Smithson, 1966). Entropic is the system’s left-over: like abandoned spaces in urban areas and graffiti. It is also a way to knock down the meta-narratives of the Hegemony of Writing (monolithic Text), this is a term describing language as phenomena of political power. Entropic in art has to do with construction of representation (the falseness in the act of categorization and labeling things) and the uncontrollable of the ineffable. For example, the deconstruction of the Spaniard’s cartography under the Americas’ colonization as ‘maps without territories’ (Baudrillard, 1994). Entropic operations are not necessary negative but are still chaotic. In literature, for example, entropy has been a rhetoric approach in the magical realism by Latino American Boom’s writes like García Marquez and Julio Cortazar.

**Consequences of Revised Research Practice for the RTRP:**

As she has done in her practice as painter/designer/teacher, the researcher has to resist the monolithic Text, in order for the RTRP to be empowerment tools. The RTRP have to be usable and at the same time easy to use in the local (spatially situated groupings) context of the design practitioner. The tools should be open to interpretation (situated) by the users; otherwise they would fall into cultural dirigisme. This is an imposition of rules on ways to handle adversities. That is to say that the research of designer’s resilience and the artifact that was later built (RTRP toolbox), are axiological (Archer, 1980) with a political nature in design praxis, and are open to the active interpretation through the user’s context of experience. In this way, the RTRP toolbox supports resilience decision making process by nourishing a sense of self and will in the user to continue because it builds confidence in achieving positive results. The sense of self gives an inner sense of control and focus direction in life.

The RTRP toolbox could be philosophically interpreted as a formless Deleuzean and Guattari’s machine; an ‘assemblage of heterogeneous entities’ (Chernaik, 1999, p.84). The RTRP’s tools dynamic reconfiguration by the user – the order they are used and the importance the user
gives to a particular tool over another, it’s not fixed. This enables the RTRP toolbox to act as multiple thinking system mindsets. In Deleuzean’s terms: an abstract machine: ‘. a dynamic system at the edge of chaos ’ (Bell, 2006, p.10). Therefore, it allowed the users to adapt the tools and its order of using according the particularities of both user and their adversities.

FIFTH PART: AN EXAMPLE OF THE RESEARCHER’S FORMLESS PRACTICE – BOOK DESIGN

In order to illustrate the use of the RTRP’s tools operations and how it’s informed by the Postmodern and Art theories the following example is presented. This is a brief account of a book design production under a context where both client and researcher were under stressors. The researcher client’s project (2010), a Lebanese and Puerto Rican cookbook that compiled over 50 years of 100 family recipes, illustrates some of the above art theory formless operations in the researcher’s design practice (fig.3). Is also an example of the resilience design operation behind the creation of a “no wounds object” by using the RTRP toolbox.

The cookbook’s design concept was to address metaphorically the current local social havoc issue without cultural dirigisme. The design project was done when the Puerto Rico government was dismantling emblematic cultural, educational and judicial institutions causing violent social protests and unrest. The client wanted to support local businesses and to strengthen communities. The client believed that despite the economical crisis the user could still sit down and eat with family members as a way to bond, while using healthy local products to prepare fast and easy dishes.

The researcher established as art direction two of Bataille’s principles: Entropy and Base Material. This latest is in reference to the art direction’s aim that the cookbook’s reader achieves emphatic feeling based on their own memories of cooking and sharing food. This was done by the reader finishing the visual story that was inserted by parts throughout the cookbook. To accomplish this task a photo shooting was scheduled during a real family dinner instead of the standard clean isolated product shots. The photos narrated the sitting down on the table for lunch, the engagement of conversation and other dynamics during dinner time. All the previous preparation, like going to the market also was photographed. Backstage details, such as dirty dishes, the preparation of the dinner and leftovers, were shown in an emphasize manner (entropic characteristics). This is an example of the RTRP’s Anchored tool operation. The design was localized; it was articulated in the local cultural pattern of ways to construct stories as well to prepare meals.
Other RTRP’s tool, *At Hand* was used to address budget’s realities since, the client was restricted economically, therefore the cookbook could not have a photo by each recipe but it did have product shots that were carefully selected with the client, as well the how-to photo sequences in cookbook. During the lunch photo shooting, a thunderstorm came, and natural light was lost, also, water flooded the car driveway (it was a small house, the dinner room was near). It was out of the question to cancel the shooting session, so a call was made by the researcher to continue (*At Hand* again, and *Fast Feet Play* tool), there was no intention to hide the events of that day, but were used as part of the shooting session: i.e., photo of the client closing windows during dinner talk. *The At Hand, Fast Feet Play and Anchored* support the Entropy’s principle and Base Material’s aim that the art direction was based on. In other words, by the researcher using her solving problem skills with a positive self worth allowed the achieving of the design aim by detecting creative opportunities to articulate ways to tell a story in a cost effective manner despise the social chaotic context and unexpected adversities.

The photos taken during lunch were not staged. All the objects in the photographs that was used were what the family had available. It helped to articulate the locality of the scene (*At Hand* and *Anchored* tools). Discussions about the photographer’s memories with his grandmother and references to the researcher own childhood was tapped in, as a way to intertextualize the project in a non-nostalgic form. It was emphasized in the book’s notes about the cultural artifact inside the house, from a mid modern poster to design furniture design by local designers. Researcher asked the client to write her own memories about the recipes, adding localization to the design layering. Using both, the *Intertextuality* and *Publishing* tools from the RTRP toolbox, before and afterward, it was all made explicit.

This is what the researcher terms Liquid Design. Liquid is used in this paper as postmodern term use in formless art theorizing, it means: ‘to complete the work of decomposition’ ([Bois and Krauss, 1997, p.129](#)). Again, the art work *Hotel Palenque* (1969) from artist Robert Smithson is an excellent example. The paradox of recording the erosion from the act of preparation of food than in itself is materials that sustain life. The photographs of the spilling of food over tablecloth and utensils, the chaos that is created in the process of cooking in the domesticity space and the dirty napkins, are examples of Liquid Design. They were made all public as part of a visual narration. Liquidity is near to the soil, because of its relationship to gravitational forces. Bois and Krauss make reference to Pollock walking over his dripping canvas, as choreography of transgression. The painter does not position himself vertical from the white canvas- he walks over it, staining at the same time.
It is the researcher belief that innovation in the periphery comes from the entropy - what is left when the form (order) is taking away – and the situated knowledge it builds (the Anchored and the Intertextuality tools). Innovation in the periphery is not from the clean slate of the tabula rasa. This is the resilience operation behind the creation of the “no wounds object”, creating with what is At Hand, incorporating intertextuality, moving/thinking thought multiple pathways with Fast Feet, diversifying, being in a state of Rauxa/Seny, Anchored to one’s beliefs and realities, and finally going on Stealth Mode when required and knowing when to Publishing.

The cookbook went into a second edition in less than a year. The design and the photographs have been highlighted in book reviews as very intelligible and evocative.

5.2 Final Conclusions
This paper has focused on how the researcher’s painting practice influenced her research inquiry about resilience in design practice. Postmodern and Art theories, in the ongoing debate on painting practice, have allowed the researcher to expand her pictorial tacit knowledge to her design practice. These theories also:

• Changed her way of researching in design lead research
• Changed her way of designing
• Built the philosophical frame work of the RTRP toolbox, an artifact to help think designers in tackling adverse events that caused them stressors
• Promoted in her a transdiciplinary approach to her design thinking.
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NOTES
Two examples of underground code (Lefebvre’s Spaces of Representation).

Argentina’s official World Cup 1978 poster, produced under Jorge Rafael Videla’s military dictatorship. The image ambivalence has eerie references to the abductions, which commonly happened out of the sudden, in the street in broad daylight. Note that near the stadium there was a famous underground torturing centre. The researcher has not been able to identify the author of the design.

Brazilian conceptual art by Cildo Meireles, Projeto Cédula, 1970. Done under the Military Dictatorship (1964–85). For the conceptual work of art, Meireles used the Brazilian Bank note to ask about the political assassination of an anti-regiment journalist. Photo by the researcher.

This is a conceptual map of possible scenarios that is used as the counterpart to the Colonial Machinery Map. The concepts Colonized Space, the Empowered Space and the Space of Power Knowledge are what Lefebvre (1991) identifies as Representation of Space. The latter is defined by him on how semiotically space is understood (the ideology and the various interplays of discourses on the social space).

Fanon proposed a violent rupture (#1) as the only way to break from the Colonial Machinery. A second (#2) choice might be as underground resistance, the Lefebvre’s second element in his triadic process logico-epistemological spaces (refer to 4.11 The Bünd Dynamics in Supportive Document, Vol.1, p.67). These are clandestine code used in a public format as a way of resistance. As an example, is the

**EMPOWERED SPACE**

**IDENTITY POLITICS**

**HETEROTOPIA**
Butler, 1990

**ADUANA**

**QUEER THEORY**

**SITUATED KNOWLEDGE**
Haraway, 1988

**IDENITITY POLITICS**

**HETEROTOPIA**
Foucault, 1986

**DESIGNER AS CITIZEN**

**AUTHOR IS THE READER**

**READER IS THE AUTHOR**

**Locus of Control**
I control my destiny

**Self-Efficacy**
I can do it. I have a sense of mission.

**Sense of Coherence**
I have a personal compass

**CITIZENSHIP**
Marshall, 1950

**HISTORY**

**EXPANDED FIELD**
Krauss, 1979

**TEXT**

**MULTIPLE CONSTRUCTIONS OF KNOWLEDGE**

**SECULAR RATIONAL AND SELF-EXPRESSION VALUES**
(World Values Survey, 2009)

**SELF-EFFICACY**
I can do it. I have a sense of mission.

**LOCUS OF CONTROL**
I control my destiny

**SENSE OF COHERENCE**
I have a personal compass

**DESIGNER AS CITIZEN**

**TEXT**

**SITUATED KNOWLEDGE**
Haraway, 1988

**MULTIPLE CONSTRUCTIONS OF KNOWLEDGE**

**SECULAR RATIONAL AND SELF-EXPRESSION VALUES**
(World Values Survey, 2009)
conceptual art in Chile and Argentina in the 1970s. The RTRP Toolbox belongs to this second choice category. The map diagrams the RTRP intentions in promoting the designer as citizen. Therefore, the social space becomes open versus the colonizer space that is closed. History becomes multiple versus monolithic text. History becomes visible, because the designer is not outside of history; finally, aduana becomes the ever changing identity of the peripheral designer.

These are not to be confused for a claim that using the RTRP will break the Colonial Machinery, it might be that only a violent social movement would achieve such a rupture in countries that still experience these political condition. Nevertheless, as the designer becomes more effective using resilience tactics in design practice in long-term adverse social conditions, which might bring seizure to the repressive social space. One choice of rupture does not necessarily eliminate the other.

THE “NO WOUND” DESIGN AND THE NORMATIVE DESIGN OPERATION
The researcher’s concept of a “no wound” design artefact is an artefact (or system) that does not show in its production, or configuration any indication of the adverse conditions of the peripheral designers or the context of the adversity it was created in. It also means that the way the design artefacts are
constructed in its significance are very similar to the artefacts designed under normative design operations. The readers (user) might infer wrongly that its familiarity is because its contextual origins is the same as the recipient, since “is not possible for the existence of meanings outside of the conditions of their use” (Iniguez, 2012). The “no wound” design artefact will have a contextual meaning concerning its familiarity, regardless whether its reading is true or false. The contextual meaning is the social process that the artefact was constructed through.

Designers might not be aware of normative operation in their practices, since under Activity Theory, operations are ‘lower-level units of activity’ adjustments done in a particular situation that can easily become routine processes’ (Kaptelinin and Nardi, 2006, p.62).

Normative design operations are taught in universities ‘at the center’ and have emigrated to peripheral design curriculum. It is a standardized system of ways of constructing knowledge in design. Therefore, as an example, it is expected that increasing social mobility of a designer practitioner is the result of a system of meritocracy. Under sociopolitical conditions of repressions and corruption, this system does not exist. Peripheral designers cannot depend on the merits of their work as a way to succeed without

**NOTES**

German designer Gui Bonsiepe (1985), who's professional life has taken place mostly in Latin America, wrote on the concept of peripheral design. He defines peripheral design as industrial design from countries that have not solved their manufacture and infrastructure problems. These countries are chosen by the ‘center’ (as Bonsiepe coined them) multinational because they offer:

1. Cheap labor.
2. No environmental regulation.
3. Natural resources at low cost.

The researcher expanded Bonsiepe’s concept to all designers working in peripheral countries.
succumbing to political stressors. Another example of using the normative design operation is the planning and administration of a design project that does not take into account constant electricity shortage. These might sink many peripheral designers using the normative operation in their country and claim: “I can’t work this way!”. The normative design operation does erode away the local construction of knowledge because it not anchored in the situation of the peripheral designer.

On the other hand, the peripheral design operation does not exclude design thinking, methods and techniques from the ‘center’. The “no wound” artefact usually has the following characteristics on their process. The first three are Intertextual: the cultural hybridism and merging them to local way of doing that are in itself dynamic; the uses of distinctive cultural references with the rebranding of traditions (this might also be classed as Diversification); and the Publishing capacity to the global design community. The last two are Anchored: sourcing the resources locally, be human or material (this might be also At Hand), this is done in order to build or strengthen the designer’s communities.

It is difficult to identify examples of “no-wounds” design, precisely because the final design does not embody any signs of the adversity it was created under, to differentiate it from

NOTES

No-wound design

An example of “no-wound” design is this Professional Portfolio. During the production of it these were some of the researcher’s circumstances: top photo, broken pixels in monitor, second monitor broke. The researcher’s does not have funding for months in order to replace them. Second photo: abandoned house by owners, vandalism outside the researcher’ house. She was forced to put up a fence. Third photo: broken infrastructure on researcher’s street, sewage’s pipes. Last photo: researcher always carries with her a small pepper spray for self protection, due to home invasion and violence in the street.
designs constructed under normative design operations. The researcher was able to identify the concept, because she was able to know the circumstances of many designs, by being a witness, or have interviewed designers about it.

As an example, the researcher interviewed an Argentinean with 14 years of graphic design practice who experienced the 2001 financial and social shut down in Argentina. His typography products are the resilient result of this crisis. He has successfully been selling them to the international community. “…You can’t separate the person from what he designs. We design the way we cook, the way we cross the street […] We have an instinct of surviving. Very often we fall, we fall, we fall, we come back, chaos, success, chaos, success” (P., 2009).

REFERENCES


P.A. *Research Interview* [Interview] (Personal communication, 30 November 2009).
SUMMARY

1. The RTRP tools fitted under four patterns of resilience theory definitions.
2. RTRP tool coincide with many factors of thriving and resilience under the Resilience Theory.
3. Resilience Theory provided a way to evaluate effectiveness of the RTRP tools.
4. According to the American Psychological Association, resilience can be learned.
5. The RTRP tools were used the same way by the researcher for seven months.
6. The tools revealed a dynamic interrelationship hierarchical order (order of importance) that related to decision-making and the sequential decisions under adverse events.
7. In the case of the researcher, Rauxa/Seny tool was the main driver (Stamina, Strumpfer, 1990 and Personal Causation, De Charms, 1998), followed by importance the Anchored tool (Sense of Coherence, Antonovsky, 1979) that work as a focus tool.

RESEARCH FIRST SECTION’S FINDINGS & CONCLUSION

The Researcher was the subject of study, as part of a research based practice for a Professional Doctorate. The following conclusions were drawn from this first section:

• The researcher’s resilient behavior patterns were identified:
  i. In what context the RTRP tools were used.
  ii. How the RTRP tools were used.
  iii. How dynamically the relationship between RTRP tools change (adaptability in real time).

• The researcher transdisciplinary practices (painting, education and design) and the researcher postmodern background has allowed her to transfer and negotiated her different knowledge.

• The contextual inquiry identified that in social-political context that bred long adverse events have psychological effect on self-efficacy. That is, the capacity of an individual to perceive the liberty to control his or her life.

• Research methodology is not ideologically free. Research methodology needs to be coherent with the historical context where the research is taking place in order to avoid disruptive action on the researcher and the research itself.
8. A new tool was detected, Script tool, that works as a cool off tool to prevent burnout.
9. In the research's context, Publish is a decolonized tool, which is also true for the Intertextuality tool.
10. The RTRP is axiological.
11. All interviewees (from Argentina and Puerto Rico) recognized the RTRP tools.
12. The RTRP Toolbox can be used as a design solution.
13. Resilience and way of applying it to the design practices is a common tactic used in peripheral designs.
14. The existence of “no wound” design artefacts or system done by peripheral designers.
15. The RTRP became a toolbox, with four sets of tools.
16. Colonial status of a country kills the spirits of empowerment of their citizens and the thriving factors diminish. Damage is on the individual’s Locus of Control (Rotter, 1966).
17. The RTRP gave the researcher opportunities to thrive under long and extreme adverse context.
18. The RP and AR methodology became ineffective in a colonial (long and extreme adverse situation) context due to their political dissonance.
19. Political instability is a stressor to the peripheral designer.
20. There is a normative design operation that has the Hegemony of Writing factors.

The research methods chosen, AR & RP, drove the researcher to succumb in a research directed to teach resilience to designers under adversity.

* The importance of the relationship with others (Intertextuality, Anchored and Publish tool) in resilient behaviour is an essential ingredient to thrive under extreme and long adverse events that were caused by the stressors.
SECOND STAGE OF RESEARCH
OPEN TRANSDISCIPLINARY
SEPTEMBER 2010 TO MARCH 2012

THE RTRP DESIGN MODEL AND THE TOOLBOX WERE THE SUBJECT OF OPEN TRANSDISCIPLINARY AND PARTICIPATORY RESEARCH BASED PRACTICE FOR A PROFESSIONAL DOCTORATE.
In the second stage of the research, a methodology capable of building resilience in the researcher was chosen: Systematization of Experience. This section describes the empowerment methodology adapted by the researcher to be design relevant which consisted on a Systematization of Experience workshop that included Participatory Design and Fal Borda’s Participatory Action Research (1977). This methodology allowed the user to further apply the RTRP’s tools.

This section also includes documentation of the creation of the first working prototype, initial testing and further user test in a second prototype comparison with IDEO’s Design for Social Impact. A three peer reviews events where the research was presented to professional communities is the final entry in this Portfolio of Evidence. The professional communities are Educators, Architects and Psychologists.

**SHIFT IN METHOD**

**QUICK REFERENCE**

Refer to Section 4, Second Stage: Research Methodology, in the Supportive Document, p.48.
PHOTOS: 
SYSTEMATIZATION WORKSHOP

By building a decolonized framework with Postmodern and Postcolonial theories, the researcher was able to detect the Latin American Systematization research methodology, which is based in a political participatory and empowerment methodology from the Social Sciences.

The intentions of the Systematization Schools of Thought since the beginning were political, as a response to political empowerment by the educational practice and presently promoted by many institutions, like: Consejo de Educación de Adultos de América Latina (CEAAL, ceaal.org); Centro de Estudios del Tercer Mundo, in Mexico, (CEESTEM); Centro de Estudios de la Educación (CIDE), Facultad Latinoamericana de Ciencias Sociales (FLACSO, flacso.org), Red ALFORJA (Centroamérica, redalforja.net) and Centro Latinoamericano de Trabajo Social, in Perú, (CELATS, http://www.universidadperu.com/empresas/centro-latinoamericano-de-trabajo-social.php).

The researcher chose Beta Local (betalocal.org), a non-profit post-academic study and artistic production program that started in January of 2010. The researcher had the collaboration of Architect Andrés Mignucci, as a supportive Systematization guide, while she was the main responsible guide.

NOTES

Refer to Section 5, Systematization Workshop, in the Supportive Document, p.72.

Additional documentation
DVD for video documentation. Full video’s audio transcript available in the appendix section of this Portfolio of Evidence document.

Acknowledgments
All Systematization photos and video camera: Carlos Severino, student intern, University of Puerto Rico, and Programa de Asistencia al Artista (PROA, Artist’s Assistance Program), of the Museum of Art of Puerto Rico. DVD editor: Tessie O’Neill
English subtitles: Regina Bultrón Bengoa.
Video processing: Cecilia De Antoni

QUICK REFERENCE
5
Refer to Section 5, Systematization Workshop, in the Supportive Document, p.72.
A preliminary lecture was given by the researcher to provide orientation about the workshop, 14 days before it happened (February, 2011). The idea was to answer questions and coordinate schedule, giving time to the potential participants to organize their routine. Questions were answered concerning resilience theory, the doctoral program, the thesis of the research, among others.

After the Systematization Workshop, the researchers’s design studio developed the first working prototype based on the participant’s paper prototype.
CALL FOR PARTICIPATION

Screenshot of workshop’s call in Beta Local’s website, in their educational forum (http://lopublico.betalocal.org/) and Facebook.

Gracias por demostrar interés en esta investigación del proyecto. Favor de leer cuidadosamente toda la información a continuación. Decida si realmente quiere participar en la investigación para este proyecto.

Si decide participar, se le solicitará que firme esta forma de consentimiento, cada hoja con sus siglas y al final nombre completo.

No tiene que participar, y si decide no hacerlo no hay ninguna penalidad o pérdida. La participación es una voluntaria.

¿Cuál es el trasfondo?
Este taller es parte de una investigación doctoral de María de Mater O’Neill sobre la práctica de la IA para la Escuela de Diseño de la Universidad de Northumbria, Reino Unido.

¿Quién es ella?
Es socia fundadora junto a Arthur Asseo de Rubberband LLP. Un taller de diseño polifacético fundado en 2008 y en el que participan profesionales de procedencias y prácticas diversas. Sus servicios abarcan desde páginas cibernéticas accesibles para ciegos hasta el diseño de exhibiciones, libros, tipografías y otros, donde un concepto amplio y holístico de la práctica reflexiva de diseño. Se busca innovación en la organizativa, en el servicio y la producción, siempre en marco de responsabilidad social y ambiental. Creemos en el diseñador ciudadano. Entre sus clientes han figurado la Fundación Luiz Muñoz Marín, Docomomo Puerto Rico, Marvel & Marchand Architects, entre otros. En junio de 2010 el estudio participó en la 6ª Conferencia Internacional de Tipografía y Comunicación Visual en la Universidad de Nicosia, Chipre, también obtuvo Premio en la categoría de Interiores/espacios por la exhibición del Museo Casa Roig de la Universidad de Puerto Rico en Humacao, "Hacia un nuevo rumbo"; en la T I B I Iberoamericana de diseño, Madrid, España. En el 2011, se une al grupo de socios Nora Martí Nieves, cuando el taller se incorpora en una corporación.

¿Cuál es el propósito de RTRP?
Son 9 herramientas cognoscitivas de la investigadora diseñadora María de Mater O’Neill para fortalecer metodológicamente estrategias con el enfoque de apoderar a los

At top: Consent form and at bottom, the first day of the workshop.
[Tuesday 15] Presentation of research, central ideas - doctoral map (refer to Appendix section for Doctoral Map in this Portfolio, p.240)

**FORMLESS**

A set of performative operations in the art practice that tackles the traditional and hegemonic art postulations. Based on Bataille’s informe (1985) and explored by Krauss and Bois (1997).

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**CITIZENSHIP**

Marshall’s (1950) definition are divided in 3: civil, the right of liberty of expression, to associate, to believe, to owned property and be judge by the law. Political – the right to be elected for public office and to vote. Social – economical security and life qualitative.

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**BÜND**

Sociological concept used by Hetherington (1998) concerning the temporal social grouping by affectual choice with constant individuals reflexivity.

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**At top:** Digital map and at the bottom, sample of glossary cards about Social Science, Postmodernism and Postcolonial main concepts that informed the research.
[Wednesday 16] Introduction to the tools of ‘Real-Time Response Planning’ (RTRP) and explanation of the research methods.

At the top, the resilience theory concepts in relationship with the tools, which were given at the 2nd day of the workshop. At bottom right: Sample of glossary cards: Hotel Excelsior typography was used for the title, as an example to the participants of a resilient project.

**STAMINA**
Resilience Theory

Is the capacity for insightfulness and endurance.  
(Strumpfer, 1990, p.70)

Applied to: Philosophical Tools

**PAUXA/SENY**
PHILOSOPHICAL (Polk 1997)

Balance an equilibrium between keen intuition and knowledge of craft (rauxa/seny, Catalan words meaning madness / common sense), both connected to mentorship.

**Type:** “Individual’s world-view or life paradigm, belief that positive meaning can be found in all experiences, the belief that self-development is important, the belief that life is purposeful.”

**Properties:** Stamina and Personal Causation
[Thursday 17] First step: Design Planning, which consisted in all the participants’ agreement on the purpose and how the group will proceed. The main Systematization question was: How to design an artefact that displays strategies to address problems quickly in a tough, elastic, flexible, with resilience and the ability to adapt?
[Saturday 19] Second step: The creation of timeline which involved the database recording of the RTRP toolbox as a validation inquiry. Participants have been recording for a 48 hour period.

[Monday 21] Third step: Synthesize lessons, participants were asked to focus on the application of the toolbox in their practice and to reflect on how it can contribute to it in order to communicate this new knowledge to others.
The following is the summary of Systematization’s timeline:

<table>
<thead>
<tr>
<th>Participant</th>
<th>Adversity</th>
<th>Tools</th>
<th>Type</th>
<th>Used for</th>
<th>Patterns of resilience definitions</th>
<th>Level of competency (economic, emotional &amp; practice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Art Director, Ad Agency (mid late 40s)</td>
<td>Completing 3 conflicting task - one is personal (economic) (personal)</td>
<td>Rauxa/Seny Script Publishing Intertextuality</td>
<td>Philosophical Dispositional Relational</td>
<td>Negotiating time</td>
<td>World-view Self-worth Self-worth Roles in society</td>
<td>(3) Resilience – Emotional and Practice (4) Thrive - Practice</td>
</tr>
<tr>
<td>2. Recent Postgraduate Experience Design, just lay-off, freelancing (mid 20s)</td>
<td>3 task, one personal, 2 looking for jobs (economical)</td>
<td>Rauxa/Seny Intertextuality Fast At Hand</td>
<td>Philosophical Relational Situational</td>
<td>Make plan with real budget in order to focus</td>
<td>World-view Roles in society Problem solving Problem solving</td>
<td>(4) Thrive – Emotional and Economic (4) Thrive – Emotional and Economic (4) Thrive – Practice (3) Resilience – Practice</td>
</tr>
<tr>
<td>4. Psychologist, specialising in behaviour and technology (mid 50s)</td>
<td>Time and space to do Literature Review go back to research (political) (economic)</td>
<td>Rauxa/Seny Script</td>
<td>Philosophical Dispositional Reflexivity World-view</td>
<td>World-view Self-worth</td>
<td>(3) Resilience – Emotional and Practice</td>
<td></td>
</tr>
<tr>
<td>8. Design Activist, grass-root organization director (mid late 50s)</td>
<td>Decision about organization’s future (political)</td>
<td>Rauxa/Seny Publishing Intertextuality Stealth Mode</td>
<td>Philosophical Dispositional Relational Situational</td>
<td>Reflexivity</td>
<td>World-view Self-worth Roles in society Problem solving</td>
<td>(3) Resilience – Emotional and Practice</td>
</tr>
<tr>
<td>9. Recent Postgraduate Experience Design, just lay-off, freelancing (mid 20s)</td>
<td>3 task, one personal, 2 looking for jobs (economical)</td>
<td>Rauxa/Seny Interactivity Fast At Hand</td>
<td>Philosophical Relational Situational</td>
<td>Make plan with real budget in order to focus</td>
<td>World-view Roles in society Problem solving Problem solving</td>
<td>(4) Thrive – Emotional and Economic (4) Thrive – Emotional and Economic (4) Thrive – Practice (3) Resilience – Practice</td>
</tr>
</tbody>
</table>

Table 1. Summary of Systematization’s timeline
The following is a simple tabulation of the RTRP tools used by the participants in a 48 hours period:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rauxa/Seny (P)</td>
<td>8</td>
</tr>
<tr>
<td>Publishing (D)</td>
<td>6</td>
</tr>
<tr>
<td>Script (D)</td>
<td>5</td>
</tr>
<tr>
<td>Fast Feet (S)</td>
<td>5</td>
</tr>
<tr>
<td>At Hand (S)</td>
<td>4</td>
</tr>
<tr>
<td>Intertextuality (R)</td>
<td>3</td>
</tr>
<tr>
<td>Anchored (D)</td>
<td>3</td>
</tr>
<tr>
<td>Stealth Mode (S)</td>
<td>3</td>
</tr>
<tr>
<td>Diversification (S)</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2. Simple tabulation: Systematization workshop

<table>
<thead>
<tr>
<th>Participant</th>
<th>Benefit of the tools</th>
<th>Error* (RP)</th>
<th>Recommendation for the toolbox</th>
<th>New ideas (RP)</th>
<th>New Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Art Director, Ad Agency (mid late 40s)</td>
<td>Lower the stress.</td>
<td></td>
<td>Game changer tool to recognized when the situation change in a positive manner</td>
<td>Be more practical</td>
<td>Faster solutions to the same problems</td>
</tr>
<tr>
<td>3. Fashion Designer, store owner (mid late 30s)</td>
<td>It helped me to make decisions.</td>
<td></td>
<td>The tools repeat but not in the same order.</td>
<td>Start with one tool. When I define the Wicked problem, I can identify the tool to use.</td>
<td>Rauxa/Seny and Anchored I feel they are related.</td>
</tr>
<tr>
<td>4. Psychologist, specialising in behaviour and technology (mid 50s)</td>
<td>I did something. (finally start)</td>
<td></td>
<td></td>
<td>Work Friday in the Project's office.</td>
<td></td>
</tr>
<tr>
<td>6. Design Activist, grass-root organization director (mid late 50s)</td>
<td>See yourself more objectively.</td>
<td></td>
<td>Forget the purpose of what one is doing.</td>
<td>’Form follows function’ Procedure to focus with the purpose.</td>
<td>Think about the process. Generate self-awareness and simplified analysis.</td>
</tr>
<tr>
<td>7. Industrial Design student, undergraduate, freelancing (mid late 20s)</td>
<td>I kept the plan, was able to handled different issues in different practices.</td>
<td>With time I lose information.</td>
<td>What to do when the Script tool fail?</td>
<td>Toolbox for therapy</td>
<td></td>
</tr>
<tr>
<td>8. Artist, Graphic and multimedia designer (mid late 20s)</td>
<td>I am not alone. To give.</td>
<td>Drama queen, stress 24/7</td>
<td>Interlocutor is important.</td>
<td>Enjoy everything Have Faith And relax!</td>
<td></td>
</tr>
<tr>
<td>9. Urban planner, recent came back from Barcelona (mid late 30s)</td>
<td>Learn, exchange, stimulus.</td>
<td>Not been able to say &quot;no&quot;.</td>
<td>Be humbled, be patience* (RP) Need tool to stay grounded=focus</td>
<td>How to negotiated and recognized that the situation for everyone is very bad.</td>
<td></td>
</tr>
<tr>
<td>2. Recent Postgraduate Experience Design, just laid-off, freelancing (mid 20s)</td>
<td>Deal with each problem and find a solution for each of them.</td>
<td>Lose Faith and self-confident.</td>
<td>Simplified. Create different platform to develop and communicate the toolbox</td>
<td>Know my actions and analysed them in words. Measure my abilities and action taken.</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Systematization’s Reflective Practice entries.

*Error: this was misinterpreted by the participants, they thought it refered to their “errors” using the tools, instead it was intended in errors in the researcher’s articulations of the toolbox.
PARTICIPATORY DESIGN


[Wednesday 23] Fourth step: Brainstorming session using IDEO’s technique.
At top: Prototype’s raw sketch.
[Thursday 24] Fourth step: Production of the paper prototype and presentation to the researcher.

**Right top:** Initial tools colored sets.

**Right bottom:** *Quick Choosing System*, that later became the *Free Choosing System* (top left photo).
At top, group’s discussion of paper prototype.

At bottom, tools in order of importance version (later became the *Netting System* shown in the photo above left).
Right: The toolbox initially opens with the version of the tools that can be attached to each other (that later the Netting System), in order to build the user’s own order of importance. At top: The Netting System (First Working prototype).

At the cards’ backside the tools’ description can be found. They are all inserted in pockets.
Each tool has an icon to identify it, as well as a color according to the resilient pattern it belongs to responds.

The paper prototype has a book format. This was adapted to a binding format, in order to allow the user to change the order of the pages or just take out the system and incorporate it in their own project binders.
They repeated in order for the user to combine them quickly.

Two slots were left blank for the user to include their own pair of tools. In the final toolbox, only one slot was left blank to save cost.
At top, digital mock-up of the inside cover of the working prototype booklet (at left, the tools’ topology map).

Participant’s tools topology map with researcher’s notes, to be included in the toolbox.
The following is the summary of Systematization achievement, difficulties and unexpected results:

<table>
<thead>
<tr>
<th>Components</th>
<th>Activities</th>
<th>Main achievement</th>
<th>Difficulties faced</th>
<th>Unexpected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Participants involvement and engagement</td>
<td>• Getting an agreement on the project's idea and understanding the research's nature.</td>
<td>• People who participated in previous workshops agreed on the idea and got involved in the project.</td>
<td>• Short time in addressing complex conceptual ideas; not all actors handled theory or liked it.</td>
<td>• Participants enjoyed it.</td>
</tr>
<tr>
<td></td>
<td>• The toolbox was strengthened by participants ideas and suggestions.</td>
<td>• The design of the communication strategy was effective.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• It worked as a decolonized method.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Supporting RTRP's model.</td>
<td>• Organizing PAR</td>
<td>• The design of the register of experience was effective, as the participants enjoyed it and the process wasn't intrusive.</td>
<td>• The researcher wasn't clear in the writing of the timeline cell that the positive properties, errors, and new knowledge were referring to the toolbox, and many participant entries were RP entries.</td>
<td>• RP's annotation became a plus in the inquiry, as added value. It evidenced that RTRP provokes reflection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The formless properties of the tools operations could easily go with personal activities not necessary attached to practice.</td>
<td>• The toolbox was used as a strategy to make a plan and prioritize goals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The deconstruction of political, ideological and theoretical values of the practice's context, were hard to extract in a concrete synthesis.</td>
<td></td>
</tr>
<tr>
<td>(c) Key actions in participants outputting as designers citizens</td>
<td>• Organizing PD</td>
<td>• They assume responsibility for the toolbox.</td>
<td>• Transferring participants tacit knowledge to concrete design ideas for the RTRP toolbox.</td>
<td>• The shift to assume responsibility did happen but it depended on the guide willingness to transmit that the author was dead.</td>
</tr>
</tbody>
</table>

Table 4. Summary of RTRP Systematization achievements, difficulties and unexpected results.
DEVELOPMENT OF FIRST WORKING PROTOTYPE

A Working Prototype was created based on the Systematization Workshop’s brief (participants and researcher’s findings), in order to test it with the first end-users (a newspaper’s Creative and Production Director and a film Director) in a working environment to make the necessary adjustments for a second prototype. These user’s observations allowed a new review in the editing of the text by a reading comprehension educator, so it could be more effective when teaching resilience to the user and to strengthen the educational objectives of empowerment.

The following is the brief for the first version of the Working Prototype:

- Short Introduction
- Instructions (a small booklet included for guidance)
- Three versions, three ways to use:
  1. Free Choosing System (supported by map topology and glossary)
  2. Order of importance construction for Reflection on Action (Netting System)
  3. RTRP toolbox pocket version
- One blank card for users to insert their own tool in each system.
- The use of Hotel Excelsior typography
ADJUSTMENT AFTER FIRST USER TESTING FINDINGS

In the second working prototype illustration of use and clear labeling was added to improve affordances based on the Creative and Production Director report. The user tested the first working prototype for two weeks:

‘Quick annotations when I can identify the tools and use them as / would use / see them.

Fast Feet Play: having to design something that a client had asked, that frankly, was cheap and vulgar. I have frustration in this situation in which this piece is generated. It has to be done in three days and knowing the client’s history from previous work (lateness in delivery of materials, last minute changes and whining). All of which falls into concepts of bricolage by social grouping and power, heterotopia, the project could be ideal but becomes a wicked problem because of the client’s behavior.
Publishing: I use Publishing all the time. In the work situation there is much power play. Don’t know exactly the reasons why, maybe because the company is too big, ...if the roles are not entirely clear, if there are those who want more than others. It is for me an essential everyday tool. For me is to show what I am doing in design, but in other areas also (budget and priorities in group management). Also is a way to pass the ball to another team, when publishing by via email to another colleague (make him or her responsible) as part of the chain of production and is documented. It is not so much for my protection, as stated in the description [Publishing’s definition, note by researcher], but in my case, is to make others responsible in a public manner.

Rauxa/Seny: This one I also use a lot, when I make pieces and look, when I evaluate other designer’s pieces, I use it when thinking about the end-user. Of course, for me here, the main issue for me is more than doing design that often serves for marketing purposes or other functions, has the input of too many people at time, each one with its own rauxa, which comes to explain how design decisions are. This is difficult to surpass sometimes within my work, when the piece has a marketing purpose or a new platform, and we don’t know really what will be the user’s reaction. Each stakeholder has its own rauxa and they not always make the best design’s decisions. Many times these decisions are based on taste and aesthetics. It is often an uphill struggle for me to
explain to people the difference when they have no visual background. *Rauxa* is also the sense of things, that gives you the basis. If *rauxa* is missing (which each stakeholder, in their own way defends), things would not have value, would not have weight.

I also use consistently: *Stealth* [Mode] *Diversification, At Hand*, in addition to *Publishing* and *Fast Feet Play*. Did not use it that much: *Anchored* and *Script* (more than to comply with a production’s calendar, there is no *Script* usage). Does *Script* also apply to my role? As I handled the “script”? If it is used as “follow the script”, but it is not to bring last moment’s solutions. *Diversification* is more of a marketing concept, I think of possibilities in my practice, but not as a design tool, maybe more in my personal life.

This comments are actually in my role as a designer / administrator / production management’ (R., 2011).

She reported that she only uses the *Free Choosing System*. This means that modifications have to be made in order to clarify to the user the three systems. She also confirmed the familiarity of the tools.
At top right, a digital mock-up. The RTRP was renamed to *Bounce & Design*.

At right, digital mock-up of the inside cover of the booklet. The *Bounce & Design* toolbox includes a set of instructions about how to use the tools with the three systems. A colloquial copy was done for the toolbox.

At right, a digital mock-up of the introduction spread.

At right, spreads of digital mock-up of the tools’ benefits and glossary of terms.
Top: Order of importance version card’s pockets were eliminated and the design was changed for cost effectiveness in the production. Also, the order of appearance has changed according to the reading comprehension of educator practitioner’s suggestions. User has to cut small slots in order to attach the cards, this promotes playfulness and lower costs production.

Bottom: Free Choosing System detail, where the user can write hers/his own tool.
When using the pocket version, the user cuts the fan folding design format. This promotes playfulness and lower costs production.
The binder’s box, as well as the binder itself, are both made of recycled materials.
FILM DIRECTOR CASE STUDY (2011)
The researcher’s design studio works with small and midsize clients that are overworked and struggling to continue with their practice. Some of them have limited resources, others fight unethical colleagues. The film director hired the researcher’s design studio to design a website for her production company. After research, it was determined that what she needed was a *Publishing* tool created to work with what she had *At Hand*. Especially then, when her movie was taken out of the Academy of Motion Picture Arts and Sciences Awards 2011 competition, because the Academy decided that Puerto Rico could not compete in the foreign category anymore. This was a setback, because her film, made in Spanish, will have had to compete in the national
category where movies are in English. This in turn, forced her to withdraw the movie, therefore, affecting possible distribution assets. This happened when she was producing other projects, working as a full time university educator, constantly traveling to film festivals, and raising production funds. It was definitely not sustainable, for her to spend her already limited resources on web maintenance.

**RTRP TOOLS AS DESIGN SOLUTION**

The design studio proposed a blog on a social network handled by a dashboard platform designed for her to be used quickly and on the move (*Fast Feet Play*) by her smartphone. It was suggested to her to buy a tablet, and the site’s dashboard was adapted to it. A system of other free and cost effective services from different social networking media were designed and adapted to fit her needs. They were all operated from the dashboard (a web application) and fed her page in real time. It also included real time video streaming in order to maximize her participation on conferences and live feed her video studies of her subject when doing projects. Paraphrasing information designer from UCLA, Ramesh Srinivasan, this project solution approach was the attaching layers of systems without eroding the local way to construct knowledge. Contextualizing the client and applying the RTRP tools, assisted to empower her and to use her resources in a more effective way.
**OTHER'S VIEWPOINTS**

*Designer's role*

It can be said that the activities of the researcher and her creative team with the film director could be framed under some of the proposed 7 roles on service design projects. These roles occur when designers are interacting outside the normative of the practice: facilitator, researcher, co-creator, communicator, strategist, capability builder and entrepreneur. (Tan, 2009, cited in Yee, Tan and Meredith, 2009:2)

*Generative tools*

The researcher’s design studio process book is a Generative tool. This term is defined as ‘the creation of a shared design language that designers/researchers and the stakeholders use to communicate visually and directly with each other.’ (Sanders, 2007)

**CLIENT’S PROCESS BOOK AS A PUBLISHING TOOL**

As is commonly practiced in the researcher’s studio, a process book is used to explain to the clients, the research and design proposals, and to document the process, which might include doubts, errors, and reflections, until the project is finished. This by itself is a Publishing tool that promotes better communication with clients, stops the power struggle over design decisions and promotes client collaboration. ‘It has been beautiful to also see you guys’ process’, the film director commented on her approval email of the design proposal (F., 2011).

**FILM DIRECTOR AS A RTRP USER**

The film director was a user testing the RTRP toolbox’s first prototype. The testing was for two weeks in April, 2011, where the toolbox was given to her without explanation on how to use it.

“This landed in a good moment [the At Hand tool] because I am in a transitional personal moment, I closed the office and I’m working from home...still organizing things, so it came in a good moment, like, ‘hey, you did the right thing!, Trust yourself, you will be Okay’. I will have more time as an artist, I will not spend so much time with clerical work. So this has the added value that it [the RTRP Toolbox] arrived in the perfect moment. But nevertheless, which ever moment they arrived at, no matter what moment it is, one will find different readings in it.” (F., 2011)

**RESILIENT**

1. Design solution for the client’s control of her content, using what she has available and produced in a way she constructs knowledge ([Fast Feet Play, Publishing, Anchored and At Hand tools]).
2. Process book as a communication piece for shared reflection ([Publish tool]).
3. Submission paper about client case study to Argentina’s FADU event and Puerto Rico’s E-zine ([Publishing and Diversification tools]).
REFERENCES


NOTES
Argentinean Colleagues’ Viewpoints
A short paper of the RTRP Model and film director case study was sent to the School of Urbanism, Architecture and Design of the University of Buenos Aires (FADU). This is the use of Publish and Diversification tools as a strategy to test concepts with design peers and include the results in the Professional Doctorate Portfolio. Also, is the aim to create conditions for the use of the Intextuality tool. A long version that included the RTRP model was published on e-journal 80 grados (http://www.80grados.net/planificacion-defensiva-en-tiempo-real/).

The researcher was invited by fellow professor and industrial designer Beatriz Galán to submit ideas for the Working Round Tables Project, Design and Research under the theme of Innovation, concerning the creation of a Center of Project, Design and Development (November 14, 2011). Professor, industrial designer and event coordinator Malena Pasin responded to the researcher’s submission: ‘Very interesting your speech [...] Your approach relates to three other researchers’ topic, which could form a future joint theme, all linked to the design process. One of the papers is from Arq. Diana R. Barros (disruptive pedagogy) and two are in fact mine, chaos on pedagogy and its application to the teaching of design; and the other one is about tacit, explicit and strategic knowledge, for the learning of projective skills’ (Pasin, 2011).
DOCTOR’S OFFICE CASE STUDY (2011)
The researcher’s design studio was hired to do a contextual research aim at identifying communication applications to improve health information among all the stakeholders. The doctors did not want to use ads because they thought they presented health services as a business commodity, but they recognized a need to communicate to other doctors and patients about the new treatments. The clients were also disturbed by some of their colleagues’ unethical practices to acquire new patients. The researcher’s design studio proposed an inquiry in order to explore perceptions of health and service issues among patients, their doctors, client’s employees and themselves as designers. It was proposed as a way to identify venues to reach out to the communities, and the design studio recognized the axiological framework. The
context: There is no free health insurance in Puerto Rico and the state health insurance is bankrupt and unreliable. Previous private health insurances that act as mediator of the state health insurance have corrupt practices that have left many doctors with unpaid bills (previous private health insurances were raided by the Federal Bureau of Investigation). The clients had concerns with the economical effect of health issues.

TOOLS AMONG YOUNG DESIGNERS
The young designers’ responsibilities were to assist on the contextual research, do the actual fieldwork and participate in the space solution. Both were candidates for an undergraduate degree in design and have used the RTRP toolbox. One of them participated in the Systematization Workshop for the testing and design of a paper prototype of the toolbox (Second stage of research, February, 2011).

It is common for the designers working at the researcher’s design studio to use the tool names as a way to: 1) explain a situation and 2) describe the action in a situation. In a verbal description of a Day in a Life activity with a subject, one of the assistant designers described his subject of study doing multiple tackling of roles as: “she has to do Fast Feet, Diversification and At Hand.” (M., 2011)
The designer recognized a tacit system that was in place in order to accommodate needs that the official working flow did not provide. The designer has assimilated the RTRP tools and used them in another way that they were intended to be used (he diversified them). Both the designer’s use of the tools, and his subject of study’s behaviors at work can be framed under ‘situated action’ that Suchman (1990): ‘contrasted with traditional notions of planning. In other words, the intentionality for the action is not something that is predetermined but something that arises from working’ (Baber, 2003, p.62). The designer’s use of the toolbox showed the cognitive nature of the tools and how it was used by him as ‘objects to think with’ (Levi-Strauss, 1966, cited in Baber, 2003, p.86).

It answered question from the Systematization Workshop: Are the tools used always in the same way, or do they mutate? (refer to Section 5. Systematization Workshop in Supportive Document, p.72). The tools are a cultural product that supports resilience thinking behavior, but the designer’s comment reflects that he also used them as a way to reconstruct and understand other people’s tasks. In this particular case, on how his subject of study adapts and modifies as a way of working in an unpredictable environment.

**PUBLISHING AS A LEARNING TOOL**

Previously, before starting a client’s research project, the
design studio was rushed to do an art work for a billboard. It was already planned by the client before the researcher’s studio started a contractual relationship with them. Despite not being the researcher’s field, it was decided that the studio was to improve the original artwork (advertising). It was an intervention that did not come out well, both in the process as well as the final application. After this incident, the researcher interviewed the client’s administrator concerning the process book already submitted with the research proposal. The interviewee spoke on how it changed her opinion about design processes, the role of the designer, and ways to work in collaboration.

"T. - I have to admit that I started with a different perspective. And maybe, less enthusiastic on when I start, I am been very honest, that when I finished. Is not that I didn’t have faith on the project, but I felt that at the end [reading], that feeling was maximized. Maybe because I didn’t know, no matter how many times you explained it to me, still didn’t know the project until I finished reading it. Even now that you clarified my doubts of stuff that I did not understand. Finally understood the diagram (research) is an abstract of all what is the research. I think it maximized my sensibility. At the end of the project, when we finished the research... There is a really good part that says that we will all acquire new knowledge, that maybe it was always there but it had not been extrapolated for the benefit of the company [...] It is true, because just reading it brought out things that I didn’t see it before."
It is going to be very positive for everyone.
Researcher - How did it change your perception of what a designer does?

T. - A lot, I was worried, I told the Doctor, Mari speaks Spanish but sometimes I don’t understand her (laugh) but after reading now I understand the full scope. [...] The billboard process was very difficult, at the end was, forget about it! They are the experts, we have to let it go. Initially, I did not understood the project (research) before, then this happened, and I was not enthusiastic at all. It was a forced process [billboard]. But now, this is different. The billboard was too forced, it was not an ideal process. I was concerned about the research. But obviously, you know, the research and the billboard have nothing in common [process]. I have promoted to read the process book to the other administrative staff, so they can change their perspectives.

Researcher- The circumstances forced all of us to work in a way that we don’t like and forced you guys to extinguish fire’ (T., 2011).

**RESILIENT**

1. Process book as a communication piece that steered away the project from a conflicting relationship with the client (Publishing tool).
2. Young designer used the tools as a way to understand others (Diversification tool).

The studio process book shows how it diverted conflict among clients and designers. It is also a learning tool on how design works, how it interacts with the client’s context, and the constant revision of design process, public errors and wanderings. On the day the project started, the researcher
could see copies of the process book in different staff and doctors offices.

The researcher relates to the Publish tool as a defensive one but others that have different experiences see it as an offensive tool (participants in the Systematization Workshop). That is because the Publish tool allows connections with others, therefore it is a tool that helps the user to learn to be resilient in the act of interaction with others. Paulo Freire, a Brazilian educator and intellectual author of the Liberation Theology expressed on this matter: ‘No one is auto-liberated, neither is liberty made by others’ (Freire, 1969, p.46).

REFERENCES


RTRP COMPARISON

A COMPARISON TO THE IDEO’S DESIGN FOR SOCIAL IMPACT GUIDE

Two designers/researcher assistants from the researcher’s studio agreed to participate in testing IDEO’s Design for Social Impact Guide (DSI) (2008) and the Bounce and Design Toolbox (RTRP Toolbox). IDEO’s Design for Social Impact Guide was commissioned by the Rockefeller Foundation. It has two books, the main is the How-To Guide and the second, the Workbook. It was intended for design firms that wanted to get involved in social impact projects. It was chosen over IDEO’s Human-Centered Design (HCD) (2009) toolkit because of the goal of social capital and its focused on clients with economical constraints. ‘The challenge is how. How can design firms make social impact work a core part of their business? How can we collaborate with organizations that are highly resource constrained?’ (DSI, 2008 p.5).

IDEO’s Human-Centered Design was funded by the Bill & Melinda Gates Foundation and design in collaboration with Heifer International, and ICRW. The aim was to design for ‘people living under $2/day’ (HCD,2009 p.3). It is a collection of participatory, user-center and ethnography approaches very similar to IDEO’s Method Cards.

Both participants involved in the comparison investigation are in their 20s. D1 recent graduated from design school and
### Objetivo

**Objetivo logrado:**
- No
- Casi, pero pobre
- Sí, pero sólo satisfactorio
- Sí, de forma efectiva
- Sí, excepcional

### Nombre de participante:

### Fecha del evento:

### Conflicto:

### Pasos de los eventos
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

### Actividad:
- Diseño
- Ilustración
- Reunión
- Investigación

### Otros:

### Asunto:

### Objetivo:

### Sistema usado:
- IDEO
- RTRP

### Otros factores ajenos que afectaron:
- Manejo de tiempo
- Problemas tecnológicos
- Personales
- Pobre comunicación
- Desconocimiento
- Coordinación con otros
- Económicos
- Otros:

### Descripción general: contexto

### Diagrama tus decisiones (solo para RTRP; parte Nesting System)

### Mi nivel de aprendizaje
- Excepcional
- Sobre lo común
- Satisfactorio
- Pobre
- Ninguna

### Comentario (opcional)

### Nuevo conocimiento (reflexión posterior)
- Fecha:

### Fecha de informe:

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**V.1**

**Pagina 1**

**IDEO / RTRP Comparison registro.**
Caguas
Casa
arreglos rápidamente
de esto, hago los
Realizar un concepto
que tipo de
muevo rápidamente a
partners
llamar a personas con mac y programas de diseño pero no aparecen.
ayuda en diseño
otro día,
plazo
una meta
comunico con
con errores.
/uni2714
el envío.
Me
me notifica que se
Identificar
Pero ese día no tenía la tecnología con los programas para hacer los cambios.
plan corto
hacer las entrevistas
muevo a universidad
tan tarde, estaba cansada y no pude ver que cometi repeticiones en las preguntas.
Al realizar estos pasos me doy cuenta que hacer mucho fast feed no funciona puedo
a través de colegas
población quiero atender con el diseño.
Hacer
hagan los cambios.

participant D1 Registros, from top left to right: January 18 (RTRP);
January 20 (RTRP); February 2 (IDEO); February 13 (RTRP); February
17 (RTRP); and February 20 (RTRP).
**Registro**

- **Nombre del Participante:** D2
- **Fecha del Evento:**
  - January 23 (RTRP)
  - January 26 (RTRP)
  - February 2 (IDEO)
  - February 10 (RTRP)
  - February 15 (RTRP)
  - February 15 (RTRP)
  - February 22 (RTRP)
  - February 23 (RTRP)
- **Objetivo:** No casi, pero pobre
- **Descripción General - Contexto:** Mi nivel de aprendizaje fue excepcional.
- **Fecha de Informe:** 2012

---

**Resumen del Contexto:**

- **ACTIVIDAD:** Diseño
- **ASUNTO:** Diseño
- **SISTEMA USADO:** IDEO

---

**Otras Factores Externos que Afecaron:**

- Problemas de coordinación con otros
- Desconocimiento económico
- Pobre comunicación
- Manejo de tiempo
- Problemas técnicos

---

**Comentarios:**

- Mi nivel de aprendizaje fue excepcional.
- He aprendido mucha nueva información (reflexión posterior) desde el evento que me registré.

---

**Fecha de Informe:** 2012
D2 is a graduation candidate. These user testing started from January 23 to February 28, 2012. One of the designers (D2) had participated in the Systematization Workshop. The other (D1) was sick for a week. They were given digital files of both systems for printing. Four benchmark questions were presented to them:

1. Were you able to do the steps quickly and resolve the adversity in your practice?
2. Did you learn new strategies and improve your decisions?
3. How much effort was required from you to use these new tools?
4. Are these methods and tools integrated easily into your practice?

A *registro* was designed for their recording, based on the researcher’s initial *registros*. It had unforeseen ramifications, a section in which participants explained their adversity type and the context where it happened. A ten step brief description on how they used the chosen system was also included. They were requested to send at least two *registros* each Saturday. After the first week, an unstructured interview with both of them was carried out (see transcript in the Appendices). A tabulation was also made.

In the interview, the participants were confused about the IDEO’s DSI guide function and expressed difficulties in applying it to their everyday practices (refer to Appendices for full transcript). It took them until the second week to use IDEO’s DSI. With the RTRP, the turnaround was an hour for D1.

**FINDINGS OF USER-TESTING D1**

The IDEO’s guide was used only once with satisfactory levels for both learning and accomplishment of the task at hand. Most of D1’s adversity are a lack of technological tools and economical constraints that interrupted D1 to do her job in
### LEVEL OF LEARNING

<table>
<thead>
<tr>
<th>System Used</th>
<th>Exceptional</th>
<th>Over Average</th>
<th>Satisfactory</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTRP</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>IDEO</td>
<td></td>
<td></td>
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### TASK: LEVEL OF ACCOMPLISHMENT

<table>
<thead>
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### TOOLS USED [RTRP]

<table>
<thead>
<tr>
<th>Tool</th>
<th>World View</th>
<th>Problem Solving</th>
<th>Self Worth</th>
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<tr>
<td>RAUXA/SENY AT HAND</td>
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<td></td>
</tr>
<tr>
<td>FAST FEET PLAY</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIVERSIFICATION</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCRIPT</td>
<td>2</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>PUBLISHING</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ANCHORED</td>
<td></td>
<td></td>
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</tbody>
</table>
the researcher’s design studio. D1 depends on an old car for transportation. The research’s studio and clients are on the capital city of San Juan. D1 lives in a town nearby.

During the first week, D1 learned about the need to make strategic plans: ‘It helped me to act fast, at times of crisis, but it should not happen again, for the next time, it is more effective doing pre-production. I learned that I must organize with several days of anticipation in order to eliminate the uncertainties, bit by bit’ (from registro_ January_20). D1 makes a note on new knowledge in a previous registro, ‘I was able to work under adversity without the emotions blocking me’ (from registro_ January_18). In both occasions she used Publish as way to call for assistance of others, Publish is present on all the occasions during the user test of D1.

On the second week there is no registro due to D1 being sick.

On the third week, D1 used IDEO’ guide to make a personal plan. ‘The toolkit of IDEO seems to me a tool to develop long-term projects. Not to solve unexpected problems that designer’s experience living in a Third Word country’ (from registro_ February_2).

On the fourth week, D1’s task was to carry out interviews on both employees and users for the researcher’s studio. D1 also was in charge of laying of a survey that was going to be printed and distributed that week. The survey had errors, D1 had to fix it fast so the inquiry could continue according to schedule. D1 also had a misstep during the interviews, they started late. Both tasks were accomplished but in satisfactory level. D1 commented about the balance one needs when using Fast Feet Play: ‘...doing to much Fast Feet does not...’

At left: Participant D1 tools’ order of importance, from top to bottom, January 18 (RTRP); January 20 (RTRP); February 13 (RTRP); February 17 (RTRP); and February 20 (RTRP). At right, D1 tabulation.
work, one can end committing many mistakes, very stressed and having burnouts’ (from registro_February_13). D1 did Reflection-on-action about the ill-decisions to modify her behavior.

On the fifth week, D1 established a strategic operation to address ill-decisions and economical/technological adversity. ‘This time the tools helped me to have common sense and use my instinct to know where should I direct my objectives. It was a holiday, but I didn’t want to waste time. I called the design studio and worked. We advanced that week’s work, making the week run more smoothly and less tense. Since I advanced with those tasks, I could continue with more important ones’ (from registro_February_20). The most prominent tool that week was Rauxa/Seny as the main driver, followed by Anchored and Publishing on an equal level. Her tools’ importance was similar to the researcher’s.

FINDINGS OF USER-TESTING D2
IDEO’s guide was used only once with poor levels for both learning and accomplishment of the task at hand. Most of D2’s adversities are lack of time management, poor communication with others and lack of knowledge with task at hand. An economical constraint and a non descriptive personal adversity were the only challenged faced by D2 in professional and academic obligations. They interrupted D2 to do his job in the researcher’s design studio; his academic obligations and his work in another design studio.

In the first week, D2’ faced 2 adversities. The first was related to an academic situation concerning a failing grade that might have affected his chance of graduating, which he managed to overturn. The other adversity was to face an unexpected design jury presentation. In both these instances D2 used Script tool as the primary tool. Not only as a learning situation (‘to be more responsible’, from
At left, participant D2 tools’ order of importance, from top left to bottom: January 23 (RTRP); January 26 (RTRP); February 10 (RTRP); February 15 (RTRP); February 15 (RTRP); February 22 (RTRP); and February 23 (RTRP).

On the second week D2 used IDEO’s guide to tackle his second design studio job. D2 wanted to establish the mission and vision of that design studio with the design group. ‘IDEO’s tools do not seem that they are to be used individually but as a group. It is not within aspects of changes on a personal level. Initially, it can be a little confusing as it is an extensive material’ (from registro_ February_2). On unforeseen knowledge, D2 stressed that ‘There has to be room for negotiation.’ This task was not achieved.

During the third week D2 used RTRP tools again to address group management in the second design studio job. Script for D2 is a focus tool. ‘These tools help me in a more personal way; but I think that also can be applied somehow with other people (in a group). But I would like to see how to apply them effectively with more people (...) Like establishing an effective script, so at the moment of unexpected events, it helps you to stay focused. That way you can think of other things and how to solve them without losing your perspective’ (from registro_ February_10).

On the fourth week D2 had to do an interview for the researcher’s design studio. Unexpected events interrupted the flow of starting the task. D2 was able to do the task but assigned “as poor” in the learning level in his registro. Although D2 mention ‘I have to be comfortable with error and wandering in new processes (...) In this situation, I am not very sure about the level of learning. But I still feel that I have to register what happened’ (from registro_ January_23) but also to continue working despite unexpected situations. The trend of Script tool use continued throughout the tools comparison stage.
## System Used

<table>
<thead>
<tr>
<th>System</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTRP</td>
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</tr>
<tr>
<td>IDEO</td>
<td>1</td>
</tr>
</tbody>
</table>

## Level of Learning

<table>
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<th>Over Average</th>
<th>Satisfactory</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTRP</td>
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<td>3</td>
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</tr>
<tr>
<td>IDEO</td>
<td>1</td>
<td>1</td>
<td>1</td>
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## Task: Level of Accomplishment

<table>
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<th>Satisfactory</th>
<th>Almost But Poor</th>
<th>Poor</th>
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</thead>
<tbody>
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<td>RTRP</td>
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<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>IDEO</td>
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<td></td>
<td>1</td>
</tr>
</tbody>
</table>

## Tools Used [RTRP]

<table>
<thead>
<tr>
<th>Tools Used [RTRP]</th>
<th>RAUXA/SENY</th>
<th>AT HAND</th>
<th>FAST FEET PLAY</th>
<th>STEALTH MODE</th>
<th>SCRIPT</th>
<th>PUBLISHING</th>
</tr>
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<tbody>
<tr>
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<td>3</td>
<td>5</td>
<td>3</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>
WERE YOU ABLE TO DO THE STEPS QUICKLY AND RESOLVE THE ADVERSITY IN YOUR PRACTICE?
I think that during adversity the RTPR can be used to quickly resolve situations, since they are tools for a change in behavior, due to the type of context in which they were created. The more you use them, it becomes easier to avoid possible adversities or be able to work through adversity. During these weeks, as a designer in a country of constant change and uncertainty I could handle and control decisions and actions without the need to control the external environment around me.

DID YOU LEARN NEW STRATEGIES AND IMPROVE YOUR DECISIONS?
I could see the psychological level that they have, they are determined to make designers solve situations under stress and uncertainty through change in behavior, decision making and management of emotions.

HOW MUCH EFFORT REQUIRED FROM YOU TO USE THESE NEW TOOLS?
The effort to use the tools depends on the level of commitment and desire of the participant. In terms of level of legibility, I could understand their function, which were the objectives of these tools and how to use them. The systems are made so that each participant physically can uses them as they wish. In my case I liked to read them in paper before leaving my house and read them again when I came back home. At the end, I wanted to use them more often, so I cut them and inserted them in my wallet, so if I needed one, I had it available. Although I didn’t need to look at them so often, I liked them so much that I learned all the tools, their meanings and effects. For me, they are tools of reflection and focus in times of crisis. They help me to stay anchored in a trip full of surprises, unexpected moments and constant changes. The part that I can identify as difficult is when after so many conflicts, the tools were a type of coach that indicated that something was wrong and that I should reflect again on my decisions. To have this kind of confrontation with myself, to accept my bad decisions and who I affected, this is the most difficult part of the tools.

THESE METHODS AND TOOLS ARE INTEGRATED EASILY INTO YOUR CONTEXT WHERE YOUR PRACTICE OCCURS?
Perhaps I can not change the technology that I have, I can not change the economical situation, emotional, physical situations and so forth. But what these tools helped me is to understand that I can change my behavior, my attitude towards these adversities, continue getting new knowledge, improving my performance as a designer, be empowered and finally climb to a level of quality of greater focus.
WERE YOU ABLE TO DO THE STEPS QUICKLY AND RESOLVE THE ADVERSITY IN YOUR PRACTICE?
I could not solve quickly the adversity. IDEO toolkit is made to develop projects in a group and you have to write and do a series of inquiries. If I need to deliver or develop something quickly and without the necessary support, I’ll be lost, I can’t quickly find organizations that can help me with regard to funds, technology or staff. The environment where I live does not provide it in such an utopian way. Organizations are not trained to meet users’ expectations right away, all is done through long negotiations and communications. Getting to obtain what needed to be done takes a week or in the majority of cases, but right away it would be impossible.

DID YOU LEARN NEW STRATEGIES AND IMPROVE YOUR DECISIONS?
What this toolkit of IDEO help me with was to establish a strategic plan for future occasions, it helped me to focus and have a sense of vision but towards long term, not short term.

HOW MUCH EFFORT REQUIRED FROM YOU TO USE THESE NEW TOOLS?
Occasionally I had to answer a series of questions that hindered me in to find answers because many times, I didn’t have the answers. The development of my design portfolio became difficult, since in times of crisis, I can’t concentrated on that. Having to answer all these questions requires time and space. Something that the Third World don’t have, because time is money. Space is limited and occasionally invaded by many situations that the truth is, I can not respond effectively. At the end. I have doubts if I did the IDEO’s toolkit correctly.

THESE METHODS AND TOOLS ARE INTEGRATED EASILY INTO YOUR CONTEXT WHERE YOUR PRACTICE OCCURS?
Methods and tools are integrated to the context where the practice occurs but only in the long term. If I do not have a computer and I have to finish a job, I can not answer all these questions to find a successful solution. I must move quickly, have emotional control and knowing well directions without losing sight of important or incomplete details. Most of the time is “do or die” and with tools to solve large projects and long term as the IDEO’s, I can’t have guidance in this context because everything is changeable and uneven. I think that if everything worked as expected they could work perfectly in my context, but the truth is that our reality is so distorted and volatile than staying firm and stable seems in many cases almost impossible. A designer in our context suffers much, you need tools that work with control, focus, mental, spiritual and physical stability. You need to have an additional skill as a human being in order to work and develop a quality project in my context.
WERE YOU ABLE TO DO THE STEPS QUICKLY AND RESOLVE THE ADVERSITY IN YOUR PRACTICE?
I could follow the steps quickly, because they are things you already do and the tools help you understand why you do it. It is a system of thought. Not only helps it solve the adversity, it helps you to have a better design practice.

DID YOU LEARN NEW STRATEGIES AND IMPROVE YOUR DECISIONS?
Definitely, although I still have to work them better. But they have helped me organizing and focusing more.

HOW MUCH EFFORT REQUIRED FROM YOU TO USE THESE NEW TOOLS?
The first times a bit, but once you use them they become increasingly more a part of you and do not require much effort.

THESE METHODS AND TOOLS ARE INTEGRATED EASILY INTO YOUR CONTEXT WHERE YOUR PRACTICE OCCURS?
They integrate easily to the unexpected situations of the country. The Script tool helps me to organize me but above all not lose that focus. Publish has helped me to keep others informed what it's happening to me. This is very important in my practice because in difficult situations, where you have to do Fast Feet Play, the act of Publish keeps abreast everyone of what is happening. Makes them more aware of my actual situation.

WERE YOU ABLE TO DO THE STEPS QUICKLY AND RESOLVE THE ADVERSITY IN YOUR PRACTICE?
They seem like very good tools and somehow they could be implemented. But I had difficulty using the IDEO tools in my practice of design.

DID YOU LEARN NEW STRATEGIES AND IMPROVE YOUR DECISIONS?
I learned new strategies but I still have not been able to implement them.

HOW MUCH EFFORT REQUIRED FROM YOU TO USE THESE NEW TOOLS?
I believe that it requires much effort; not only of for an individual but as a full working group.

THESE METHODS AND TOOLS ARE INTEGRATED EASILY INTO YOUR CONTEXT WHERE YOUR PRACTICES OCCURS?
The context of my practice is of an unexpected nature. It seems to me that these tools require a practice in a context with more or better [social] structure.
In the United Kingdom
The Young Foundation both recognise and critique the designer’s involvement in social innovation.

Futuregov (http://wearefuturegov.com/)
A ‘change consultancy for government and social innovation.’

Tactical Tech (http://www.tacticaltech.org/)
An international NGO working to enable the effective use of information for progressive social change.

In Australia
The Australian Centre for Social Innovation (TACSI) adopts design alongside other disciplines to experiment with bold ideas to achieve better lives.

In the United States
Project H (http://www.projecthdesign.org/)
Focused on design education, transformation of curricula, environments, and experiences for K-12 educational institutions in the US.

In Denmark
MindLab, the government’s cross-ministerial innovation unit, adopts design methods to help create new solutions for society.

NOTES
List of social design oriented initiatives compiled by Dr. Joyce Yee.

In the fifth week, the adversities originated from an academic factor and from a design studio’s task. Script was used again as an organizer and for achieving tasks during that week. ‘Script can help to take advantage in the things that one does and to advance work’ (from registro_February_22). The next event was concerned with acquiring statistics from the State Art and Design School for D2 graduate project. This task was not achieved very well because of a lack of information and D2 had to be guided on the task.

CONCLUSION
D1 was able to change behavior in the last week, and established a resilient strategic tactic. As a result, D1 created additional work for herself at the researcher’s studio due to her decision making process (addressing one of her stressors-economic). This has to do with D1 capacity for reflection and being comfortable with errors and wanderings. D1 saw them as opportunities to learn: ‘The effort to use the [RTRP] tools depends on the level of commitment and desire of the participant.’ Although D1 found this self-confrontation difficult: ‘to accept my bad decisions and who I affected, this is the most difficult part of the [RTRP] tools.’ D1’s motivations are clearly expressed: ‘I can change my behavior, my attitudes towards these adversities, continue getting new knowledge, improving my performance as a designer, being empowered me and finally climb to a level of quality of greater focus’ (refer to D1 benchmark questions).

In the case of D2, the use of Script as a primary tool indicated a more pragmatic approach to the RTRP’s toolbox.
But it did not move D2 to a resilient strategic thinking. *Anchored, Publishing* and *Script* are all Dispositional tools. Using activity theory terminology, the *Anchored* is a motive driven tool (the user’s reason behind an activity) and *Script* is an operation driven tool (lower-level units of activity) (Kaptelinin and Nardi, 2006, p.62). ‘Operations do not have their own goals; rather they provide an adjustment of actions to current situations’(Kaptelinin and Nardi, 2006, p.68). D2 can carry his everyday activities, maintains focus on short objectives but lose track of his motivation (the main reason that guides the purpose of his decision-making) for doing it. A similar situation was detected by Systematization Workshop participant P6 when using as example a T-Mobile television ad (refer to DVD or to transcript, 2- Creation of Timeline, 01:12:58;02-->01:13:02;13 in Appendices, in this Portfolio of Evidence, p.272):

“Design Activist  P6 - One of the most popular advertisements in the last couple of years is the Brazilian wax one. Do you remember it?

Multimedia Designer  P8 - Yes

Design Activist  P6 -What is it trying to sell?

Art Director at an Ad Agency  P1 - A cellphone (Laughs)

Design Activist  P6 - Most of the people, if you asked them what that advertising sells, they don’t know which is the product. That’s where you have expressed, manifested… and those where millions of dollars. Within the process, the client, the creative director, forgot which was the process. They ended up with a great advertisement that didn’t meet, that doesn’t meet the purpose, because it is not clear.”
This addressed Systematization workshop unanswered question:

**Does the Design Methods for Resilience have different levels of hierarchy?**

Yes, they do, although there are only two participants in this comparison, the long running of the tools indicated levels of learning and interacting with them. In a first level, they became organizers and on a second level they changed into strategies around a clear user’s motivation.

Other unanswered Systematization workshop question that was answered by this comparison study was:

**Can the RTRP function be produced by other designer’s tools’ order of importances? Is it not predetermined?**

Yes, D1 and D2 have clear different order of importances. So they are not predetermined. Alas, as in D1 as with the researcher, the relationship between Rauxa/Seny and Anchored tools and their effects repeat themselves.

Concerning IDEO’s *Social Impact*, one has to note that its function is different from *Bounce & Design*. Additionally, the guide and workbook do not take into account the context of the peripheral reader. Perhaps it is thought for an international organization that is working in another country. It is not anchored in the locality, as a ways to construct knowledge by the local designer. This is consonant to their claim ‘This initiative is focused on the process around doing this work, rather than the content of the work itself’ (DSI, p.5). The visual presentation was disturbing for the participants (refer to transcript 6:07, File-Voice0012 in the Appendices in this Portfolio of Evidence, p.254):

D2- Is just, the photo, they don’t..there is no connection between the photo and the text. I don’t understand why all the photos are like this [referring to the look and feel]
Researcher- What do you mean?

D2 -. Well, poor...

The D1 commented that the school book function and the similarity to the look of a catalogue (D1), are references to the Kinship politic and the collecting imagery that Linda Smith mention in her book *Decolonising Methodologies: Research and Indigenous People* (1999). For further discussion referred to the postcolonial paper and the full transcript 4:50, File-Voice0012 in the Appendices in this Portfolio of Evidence, p.254).

D1- It is always well structured. Like for..or something for architects. Mostly all is the same..lines, grid, it looks like a catalogue. It gives you an impression of a catalogue.

D2- It’s like technical labels...

D1- It is not bad, it is like a school book, they do the underlines so you can write there.

IDEO *Human-Centered Design* is more contextualized, but still has lesser references to Kinship politic as the illustration used for the local participant seem to be school book’s drawing. HCD is full of successful and proven methodologies, but it does not address if the designer runs into political or economical adversities, such as corruption, institutionalized or state violence, among others. The HCD concentrates on the users but the designer is afloat as someone almost not affected by the local social-political situation. The only references found is the Worksheet: Identity, Power & Politics. This is aimed at the user and there is , and there is no guide about how to handle adversity when directed towards the designer. The IDEO DSI is very different from the *Bounce & Design* Toolbox.
It can be said that *Bounce & Design* Toolbox can be a complementary to any guide, such as IDEO’s DSI and HCD, to give the designers the tools to be resilient when working on social initiatives projects.

REFERENCES


Three peer review sessions were organized by the researcher to present the research Developing Methods of Resilience for Design Practice to diverse professors and professionals. They were educators, in New York City; architects, at the School of Architecture, of the Polytechnic University of Puerto Rico; and psychologists, at the School of Social Science, of the University of Puerto Rico. The last two were open to the academic communities as part of RTRP open transdisciplinary research.

All participants were given the Portfolio of Evidence and Supportive Document. The researcher’s oral presentation was adjusted in the last two sessions according to first participants’ (educators) suggestions and researcher’s previous experiences in order to improve the articulation of the RTRP research.

Participants were not familiar with Northumbria Professional Doctorate documents format, so they asked about format guidelines. All of them were familiar with practice based research.

The researcher has incorporated participants’ recommendations about the written documents in order to clarify articulation of the research.
Principal Ruth Swinney is from Colombia, S.A. She started her career as a bilingual teacher in New York City. In 1984 she founded one of the first dual language programs in New York City in PS 84, and subsequently became director of bilingual and dual language programs for a large school district in NYC. In this role she supervised bilingual and ESL programs, and developed seven models of dual language programs for the District. When she became principal of PS 165 (Manhattan) she set up a nationally recognized dual language program, and at the same time that she turned around one of the bottom schools in the city. She has won numerous awards for her work with second language learners, and for her achievements as a principal. After retiring she worked with the Reading and Writing Project at Teachers College, Columbia University, heading the principal work, and the ELL department. Currently she works as a consultant.

Dr. Patricia Velasco started her career as a speech pathologist in Mexico City. She has an Ed. D from the Harvard School of
Education; her dissertation focused on Academic Language and Reading Comprehension in Bilingual Children. In San Cristobal de las Casas, Chiapas, Mexico she established a Staff Development Institute (Casa de la Ciencia) that works with indigenous bilingual children and their teachers. After she moved to New York City, she first worked for the Reading and Writing Project at Teachers College, Columbia University as a staff developer supporting teachers all across New York City in addressing the literacy and language needs of English language learners. Currently she is Assistant Professor of Education at Queens College, City University of New York, where she coordinates the Bilingual Program.

Dr. Jossie O’Neill is the Director of Partnerships and Outreach of The Gateway School. She has a C.A.S., from Harvard University and a Ed.D., Teachers College, Columbia University. Dr. O’Neill was in charge of Start-Up School Initiative in Mumbai, India, expected to open August of 2012. She is the intellectual author of the initiative STEMinds for the Future (www.ldinthemiddle.org and steminds.wikispaces.com) a partnership of The Gateway Schools, Academy for Educational Development & Hunter College, CUNY. To improve the integration of strategic math learning into science, technology, engineering by middle school students with learning disabilities in New York City public and charter schools. It also provides the STEMinds student forum grounded in evidence-based practices.

The major points made from the three hours review were the following:

- There are crisis models from Business and Educational fields, but these models concern management and leadership skills. Researcher did identify closer models: Stress Adaptation Model (Allen, 1991) and Stuart Stress Adaptation (Stuart, 2009). Refer to 6.4 Presenting Research to Others in Support Document, p.106.
- Issues with the use of the term Third World regarding
the researcher’s country because of its political relationship to United States.

- The researcher was asked to separate the context of the practice based-research from the research question in order to communicate the research focus clearly. The context was suggested to be inserted clearly in the methodology section.
- All agree on its contribution to the design practice and research credibility.

**Participants Highlight Summary Quotes**

Dr. Velasco summarized the RTRP functions and process to give tools on handling adversity “for every single designer that have been ignored so far, in terms of, you know, the capacity to develop resilience. Either for the sociopolitical conditions or even just dealing with difficult clients (..) Adversity is a concept that we all face, Ruth as a principal. As a teacher, Jossie changed jobs now. She will need Intertextuality, because she comes from teaching a higher to lower income economic background students. Life is not perfect, we all have to cope. What you have are tools that say ‘these are the strategies that you can use. You can combine them in several ways, and when you combine them, the effect gets amplified and you feel pro active’ […] The tool’s conclusion is that to be really effective they need to be interactive with each other, and the one, the key one, that makes the other ones go around is Intertextuality.”

Principal Swinney identified similar relationship to management models: “There are many models, Sergiovanni’s models (leadership) for Principal educators (1984), [not audible] did for business, by walking around and all that came from there (Management By Walking Around, MBWA, Peter and Waterman, 1982). I believe that these models exist but they do not invalidate yours. [Models] Not only they come from the Third World, but also they come from United States and Europe. This fact does not take away from yours.”
Dr. O’Neill states “What you proposed is that there is a model! What you have done is to visualize this model into a [set of] tools. Okay? One of the reasons you have visualized this model into the tools has been because in your research on resilience theory and design you have found that there are other models but they do not take the designer as a key person, as a component of ..this whole process. What you want is for people to understand that as important as it is, the design system, the model that you are using, is the person who is designing it. This is what I am understanding […] it can be used, it can be taught, and it will provide the designer in this adverse situation a way to manage and cope and still move forward.”

SECOND PEER REVIEW- March 23, 2012, School of Architecture, University Polytechnic of Puerto Rico. Participants are Dr. Omayra Rivera Crespo, Architect Oscar Oliver and Architect María Isabel Oliver. This review was open to the public.

Dr. Omayra Rivera Crespo has her doctoral degree from the School of Architecture La Salle, Universidad Ramón Llull, Barcelona, Spain. Researcher and architect, she just published her thesis on Procesos de Participación: Proyectar, Construir y Habitar la Vivienda Contemporánea (Participatory Design and Architecture Practices, Editorial Académica Española, 2011). She is a professor at the Polytechnic University of Puerto Rico.

Architect Oscar Oliver is also an Urban Designer and Instructor at ArqPoli School of Architecture of the Polytechnic University of Puerto Rico where he teaches Design Studio, a course on History and Theory of the Neo-Avant-Garde. He is currently the Editor of Entorno, the official publication of the Puerto Rico Association of Architects and Landscape Architects. From 2008-2010 he served as editor of the journal Polimorfo, a multidisciplinary
publication on architecture and its multiple cultural roles. Prior to that, his interest for the everyday repercussions of contemporary urbanism led him to be one of the editors of *Onourb* Magazine (2001-2004) and Co-creator and Principal of CIUDADLAB; a nonprofit research, design and action driven collective about the city. He was a former urban policy maker and advisor to the Governor of Puerto Rico (2006-2007) and holds a Masters in Urban Design from Harvard University (2006) and a Bachelors from ArqPoli School of Architecture (2004).

Architect María Isabel Oliver is an Instructor at the ArqPoli School of Architecture, Polytechnic University of Puerto Rico, where she teaches Design Studio and History and Theory of Latin American architecture. She holds a Bachelor degree from University of Puerto Rico and a Masters from Columbia University in New York. In the realm of theory and research she has been the recipient of many research grants that address the topic of Latin American architecture and its cultural and architectural debates. She has conducted research in Argentina, Brazil, Cuba, London, and Puerto Rico. She was the founder of iESCALA (*Iniciativa de Estudio de Sociedad, Cultura y Arquitectura de Latino America*) at the School of Architecture, University of Puerto Rico, where she taught for five years, after being a faculty member at the School of Architecture of the City College of New York, The New School Parsons School of Design, and as adjunct faculty at the Cooper Union. She is currently the Editor of *Polimorfo*, ArqPoli architecture journal, a multidisciplinary publication that addresses international architectural debates from a variety of multidisciplinary perspectives. She is currently pursuing a Doctor of Design (DDes) at the Graduate School of Design at Harvard University.

The major points made from the two hours review were the following:

* RTRP model was pertinent to the design practice.
• The handling of Postmodernism theories was efficient.
• The Colonial and Postcolonial issues were not questioned by the participants, but the researcher was asked to clarify the shift in methodology (the shift to Systematization).
• All agree on its contribution to the design practice and research credibility.
• Hotel Excelsior case study was highlighted as a thriving and exemplary resilient project.

Participants Highlight Summary Quotes
Dr. Rivera Crespo referring to Postmodern and Popular Education theories: “As an observation, I understood Deleuze and Guattari reference to explain this non linear characteristic of your research, with hyperlinks, because your thesis is very hyperlinked, [...] I also find very pertinent the reference to Freire and PAR, how to help the participants to find their own voice and that it becomes more of a dialogue, an exchange of ideas, than a lineal education. These references are appropriate. Freire was pertaining, I understood, because I know the author, I know why it makes sense but I would like more details for someone that is not familiar [for everybody]. The same with Barthes [...] I feel that things are stated and later are explained [...] The topic is fantastic but it is understood much better in the practice.”

Architect Oscar Oliver made an observation about the layout of the Portfolio of Evidence and the role on the Intertextuality concept: “If your are using Derrida and Deleuze, within all this...using their intertextual references, and how it can become, and they did it, Derrida, worked on texts that speak about simultaneity. That intertextuality somehow was used as a framework in this text... and simultaneously you have the diagrams, the analysis, the deconstruction of each particularity. Maybe you want your text to have that simultaneously to explain the tools [...] What for me was most important, is the Intertextuality. Although I know this work is about resilience,
I think *intertextuality* is very important. As a mechanism to present the research, as already mentioned, but also as a designer's tool. Especially when you define it as a negotiation of [different] knowledge. The designer position himself/herself in this adversity within this *Intertextual* tool, to acknowledge, to discover, to separate, all these [different] knowledges in order to tackle this adversity and generate a resilient structure. But I wonder, if this structure of *intertextuality* can be transformed into a mechanism to reveal the adversity structure. [...] To see in this revelation if the exercise, which has been one of resilience, can become one of resistance [...] Is the most difficult [*Intertextual* tool] because it had a transformative capacity [...] And it is pertinent now [the RTRP Toolbox] because it builds a common scaffolding but still flexible enough to be taken by different types of people...and from there a collective is generated, collectives that can work in a transformative mode...that’s how this becomes relevant."

Architect María Isabel Oliver pointed out: “I find the Portfolio of Evidence and your oral presentation to be more clear than the theoretical text [Supportive Document, Volume 1]. In the theoretical text there is too much jumping. It presents a methodology, that becomes more clear in the exercises (cases studies, conferences, etc.) than in the theoretical text. From the Postcolonial, contextualized in Puerto Rico, but then you bring in Argentina, wasn’t very clear why, but yes, I understand the similar political situation and all the adversity issue. But I think there is a lot that can be worked here [in Puerto Rico]. My suggestion is to listen to your [oral] presentation, because is much clearer. One can tell you have read a lot but I find anxiety in the text, Cortázar, Kristeva, Rosalind Krauss, Yve-Bois, so, what are we talking about? ...because I understand the project. My first question was: what is the difference with IDEO’s? I asked that because we used it at Parson [School of Design, New York]. But you clarify it. They work more in a First World Level, more with the designer, less with public community or the one that
reads all the intertext. But you can edit the theoretical text, follow your oral presentation, because now, I said to myself: Wow! Now I got it!”

THIRD PEER REVIEW- March 28, 2012, School of Social Science, Psychology Department, University of Puerto Rico. Participants are Dr. Otomíe Vale Nieves, Dr. Dolores Miranda Gierbolini and Dr. Heidi J. Figueroa Sarriera. This review was open to the public.

Dr. Heidi J. Figueroa Sarriera is a social psychologist and full professor at the University of Puerto Rico, Río Piedras Campus, at the Department of Psychology. Her research area deals with the relationships between new technologies, the transformation of everyday life, subjectivity and embodiment. She has chapters in book and academic journals, and co-edited, The Cyborg Handbook with Chris Hables Gray and Steven Mentor, Routledge, 1995; with Madeline Román and María M. López, edited Más allá de la bella (in)diferencia. Revisión postfeminista y otras escrituras posibles, Publicaciones Puertorriqueñas Editorial, 1994; with Marisela Montenegro and Rose Capdevilla edited forthcoming Feminism and Psychologies at the Latin American context. Feminism & Psychology: Special Feature, international journal published by Sage. She also published Infusions/Infusiones. Itinerants Portraits of My Cancer Treatment/ Estampas itinerantes de mi tratamiento de cáncer, published on demand by Blurb.com, 2011. She actually is working on a book titled, Sujetos imaginarios en la era digital: Proyectos postidentitarios contemporáneos (Imaginary subjects in the Digital Age: Contemporary Postidentity Projects (forthcoming). She is co-editor of the online journal, Teknokultura (http://teknokultura.net), is a peer review online (Open Access) interdisciplinary journal of digital culture and Social Movements published biannually by the research group Cibersomosaguas (Complutense University of Madrid). The journal is dedicated to publishing
theoretical and empirical works on relations between society and technology with particular emphasis on the conditions, factors and cultural and political effects of technological changes.

Dr. Vale Nieves holds an MA and Ph.D. in clinical psychology from the University of Puerto Rico, Río Piedras. She is currently a full professor in the Department of Psychology at the Psychology Academic Research Area, University of Puerto Rico. Her topics of research interest are: the constitution of subjectivity, gender construction, critical psychology, construction of the ‘young’ category, technology and gender.

Dr. Miranda Gierbolini, is the Psychology Department Chair, University of Puerto Rico (UPR). Dr. Miranda has over twenty years of experience in the field of community psychology. She has received several awards including the Psychologist of the Year in 1996, award given by the Puerto Rican Association of Psychology. In 1995 the newspaper *El Nuevo Dia* selected her one of the “Outstanding Women of the Year” and during her years of study at Temple University she received two major awards granted by the institution. Her research covers various fields of human behavior, among these: the Higher Education Reform, Reform Movements in the UPR and Community Development in Public Housing. Dr. Miranda has been President of the Puerto Rican Association of University Professors (APPU), Academic Senator Río Piedras Campus and a member of the Board of Trustees of the University of Puerto Rico.

The major points made on the two hours review were the following:

- The Colonial and Postcolonial issues were not questioned by the participants. But researcher was asked to clarify the colonial viewpoint and the *Intertextuality* concept as a personal experience in the
first stage of research.
- To clarify the concept of adaptation (coping).
- The handling of Metacognitive theories was efficient.
- All agree on the contribution to the design practice and research credibility.
- Hotel Excelsior case study was highlighted as a thriving and exemplary resilient project

Participants Highlight Summary Quotes
Dr. Vale Nieves comments are referring to Intertextuality and Postcolonial issues: “I really like how you work with the authors. They are all pertaining [to the research], I am referring to Volume [Portfolio] and the arguments are coherent [...] you bring over for consideration the reader, the importance of the Intertextuality, not only what you are postulating, the rhizomatic schemes, what Deleuze and Guattari proposed, but also as an important phenomena in the life of people. I think it is very important and rich your Intertextuality reference, as Dr. Figueroa mentions, your work has a transdisciplinary dimension. Having said that, you inferred the idea of Puerto Rico as a colonial country. You bring over a series of authors to support your argument, sometimes I feel a bit of tension between the idea that you propose of Puerto Rico as a colony and the other idea of Intertextuality...so the perception that I have when I read you, is that there is an exclusion logic, the colonizer and the colonized vis-à-vis with other subjects that have other rubrics capable of agencies change, and are able to move in those socially complex spaces. Although you mention it briefly not all goes through the colonial scheme, I notice the protagonist in your enunciation, how this colonial situation has an effect of the subject of study [...] Maybe you have to be more explicit, that this is your experience [the researcher’s political stressors in her reflective practice, first stage], this is how you live it. You make another postulation in your work, that may have an analogue dimension to my previous comments, your reference to First and Third World are very
solid categories [...] Because your work precisely proposed to break from the solid format, the fixed thing, because of the intertextuality, and you do point it out somewhere in your text. But the aftertaste that I have about it, is that the Third and First World, how I perceived it, how you postulated them are solid, but still inside those worlds, beside the contextual issue, if we live in Puerto Rico from the Latin American perspective we live in the First World, but if the gaze comes from mainland United States, we are in the Third World. Greece has become the Third World of the European Union...these are a series of situations that are not...[Researcher answer: ‘fixed’]..right, fixed.”

Dr. Nieves makes a clear clarification about RTRP planning intentions of coping: “The concept of adaptation came out twice [in the written document]...that concept in the Psychology field is polysemous, it inferred that the subject has to adapt to the social condition, but I know that you speak from another point of view. The way I conceived your toolbox, it proposed transformation and resistance. Maybe you need to qualify this concept of adaptation. Because the first impression can be that you are postulating a toolbox for people to...[researcher answer: ‘conform’] conform.”

Concerning the colonial issue, Dr. Miranda comments: “I must say that the text of [Volume 1] needed the references of Volume 2 in order to understand some of the ideas. When I see the Hotel Excelsior [case study] example, that’s when I realize how you were handling the colonial issue. Why? Because in the process of tackling the problem, you contextualized the social-historical moment the original logo was created. It is not about seeing it now [contemporary’s gaze] and take out what I don’t like, or whatever criteria is used, but you go back to understand the socio-historical moment that, yes, is attached to the colonial situation [...] you are concerned about the colonial issue and adversity, the question is, are you creating an artificial adversity, a type
of adversity that not necessarily always exists? This is a bit problematic, I perceived, but still, in the Systematization workshop you did state that the participants did not necessary agree, that their adversity was very different from colonialism.”

Dr. Miranda’s reference concerns the handling of Metacognitive theories: “You make an extraordinary presentation of the different approaches in cognitive theories in terms of a line of thinking...and very well illustrated, I thought, the way you presented the concept of resiliency and how to teach it, and the details you give in the critical pedagogy, the one you used, Freire, and the Systematization, you accommodated all that in an extraordinary way. Very few works I have seen have that type of fluidity and anchors, that allowed me to understand what you have done [...] It’s a good example of a cognitive line that [not audible] work with, the tendency that people work with one style of cognition, with one cognitive level, where one establishes priorities, levels...the problem about this type of positions is that it promotes the acknowledgment of individualistic or cognitive styles in the educational scenario, when in other research findings it has been said that our cognitive does not work in a fragmented way. As a matter of fact, it is more simultaneous...[...] multi-level, in fractions of seconds...because you are stopping a cognitive process in time and space...a way to explain this [process]. It’s interesting how you put this to work, there are different strategies, and when in the other line of thought they proposed the opposite. The kid and the person fall into error in a repetitive way, because he/she doesn’t reflect the possibilities of other [cognitive] strategies.”

Dr. Figueroa had three observations: “My first observation has to do with the tension between closed systems (for example, when you make an emphasis in a method, also when you refer to APA’s 10 ways to teach resilience [refer to Resilience Section in Volume 1] as your support to your
project *vis-à-vis* the open system that is implied in your project. I experienced in the Systematization Workshop as well as in this document that your proposal as an open system instead of a closed system. It is a method but is designed as an open system […] In the workshop there was an activity that illustrated that openness, when you said, ‘there is a blank tool slot, if you guys determined there is another tool you guys have used, and is not in the original toolbox, there is the opportunity to insert it’..I think that is a good example of openness, not the only one. So I would like to know what was your rationale behind the acknowledgment of these two support materials for your project if you agree that your proposal is an open system [refer to Second Stage: Research Methodology and Systematization Workshop sections in Supportive Document, Volume 1]. The second observation is that throughout the text you make a claim that there is a clear difference between your model and others. Are you establishing an adversarial relationship between your model and the others, are you saying that there is a relation of exclusion between these models and yours, a relation of ‘instead of other’ or a relationship of collaboration, inclusion, a ‘with other’ approach? [Researcher answers: ‘with others’]. The third observation is that you problematized the concept of design. You opened that category. What is considered to be design? I thought that was very interesting (..) because this approach points to the ethical process, not only the product, but the process itself. I would like you to elaborate this idea.”

REFERENCES


SUMMARY
1. Systematization became a decolonized methodology under researcher’s context.
2. The RTRP tools were recognized by all Systematization participants.
3. The Systematization participants agreed there was need for the RTRP Toolbox.
4. The Systematization as a Latin American contribution to participatory research can be applied to design practice.
5. The RTRP’s design model can be taught.
6. The RTRP’s toolbox allowed its diversification.
7. The RTPR has a short learning curve.
8. The RTRP toolbox can be used for long strategic planning for both aims and objectives.
9. The combinations of the four sets have repeatable results (Levels of Maturity).

RESEARCH SECOND SECTION’S FINDINGS & CONCLUSION
The RTRP design model and the toolbox were the subject of open transdisciplinary and participatory research based practice for a Professional Doctorate. The following conclusions were drawn from this second section:

• Researcher built a design model of the peripheral designer. The RTRP model is possibly one of many. There is a need for further research in building alternative procedural design model from the peripheral designer.

• Practice base research was the only way to identify tacit knowledge that can become explicit.

• The RTRP tools have the potential to make the researcher aware of the contextual history of the design’s end-users.

• The RTRP toolbox requires improvements in areas of affordance in order to move the user from reflection-on-action to reflection-in-action. This will help the designer move to operate at different levels of maturity and develop a resilience strategic thinking.

• The research method chosen for the second stage, Systematization of Experience and its adaptation, drove the researcher to thrive. That is because Systematization is a contextual driven methodology.
• There are appropriate methodologies for the researcher’s context. Therefore, Systematization is a Latin American contribution of resilience methods for design research under stressors. Due that Systematization produces resilience because of its empowerment structure.

• RTRP model is unique because it addresses the designer under adversity that caused stressor.

• *Intertextuality* was agreed by all participants in the peer review to be a key and fundamental element in the innovation of the RTRP toolbox. This supports the researcher’s first stage findings (refer to RTRP process flow charts, pp.95-103, in this document).
APPENDICES

P. 240  DOCTORAL RESEARCH MAP

P. 248  MODEL EVALUATING TOOL LEVEL OF COMPETENCE

P. 249  TRANSCRIPT OF UNSTRUCTURED INTERVIEW FOR THE IDEO DESIGN FOR SOCIAL IMPACT GUIDE

P. 255  TRANSCRIPT OF SYSTEMATIZATION VIDEO (DVD)

P. 374  CONFERENCE PRESENTATION IN THE UNIVERSITY OF NICOSIA, CYPRUS
DOCTORAL RESEARCH MAP

Top: Doctoral mapping at researcher’s house, by January 1 2011.
Postmodern Theory (close-up)
Postcolonial Theory (close-up)
Systematization (close-up)
MODEL EVALUATING TOOL LEVEL OF COMPETENCE
‘Thriving (physical or psychological) may reflect decreased reactivity to subsequent stressors, faster recovery from subsequent stressors, or a consistently higher level of functioning. Psychological thriving may reflect gains in skill, knowledge, confidence, or a sense of security in personal relationships. Psychological thriving resembles other instances of growth. It probably does not depend on the occurrence of a discrete traumatic event or longer term trauma, though such events may elicit it. An important question is why some people thrive, whereas others are impaired, given the same event. A potential answer rests on the idea that differences in confidence and mastery are self-perpetuating and self-intensifying’ (Carver, 1998, p.1).

REFERENCES
TRANSCRIPT OF UNSTRUCTURED INTERVIEW FOR THE IDEO DESIGN FOR SOCIAL IMPACT GUIDE

After the end of the first week a spontaneous unstructured interview was done concerning the two researchers/designers assistance’s experiences (January 30, 2012).

- Well, in question number two [referring to benchmark], yours did not require that much effort but what is happening to me [not audible]...when we did the workshop in Beta-local [Systematization], that I identified that I was more in the problem-solving [Tool’s set], ‘apagar fuegos’ [putting out fires], but, when I gave you the last two reflections [comparison registros] I could see that it was still happening. Even when I am using them more [the tools], I still don’t see how I get out of the problem-solving or is just a characteristic of how I behave in my practice. That is not going to change...

3:03 D2

3:53 Researcher - Well that is your decision, but you have to run the tools for more than a week.

3:58 D2 - It’s just that I don’t know how to get out of that.

4:00 Researcher - The toolbox [RTRP] gives you a system for that reflection. When you are doing the Netting, you will start understanding the analysis of how you are making decisions. And if you connect them to the benefits [Tool’s benefits] then maybe you can start tackling to change that behavior that bothers you. At least now you are aware, and that you are confirming the same thing that happened in the workshop [Systematization]. There you run it only for 24 hours. Now you are really are running them again. It’s only been a week.

4:34 D2 - [no audible] there are a few things, for example in the second reflection I sent, that I could detect that I have things from previous scripts, that when ‘Oh, I already got it’ that allowed me to pull out, not so much like problem solving.

0:01 Researcher - My concern is on how to do that with IDEO right now.

0:06 D2 - Well, IDEO, from what I have seen so far, it seems is for working in groups, to build up a company, like [D2] is saying. It does not address the personal...like one’s practice.

0:25 Researcher - Well, it’s just...so, what about the fourth question?
- [reads] The methods and tools are integrated easily into your context where your practices occurs?

- See? You have to confirm me that you are having problems [with IDEO]. in the part of comments [on registro] so you can start making observations. “I am noticing this thing”...in four weeks we will know if this is a trend or is just something you notice in a specific moment. But then, after four weeks if it keeps up, well definitely it’s there. Confirmed by the whole month.

- Remember what I told you..now I am reading it [IDEO]. I am planning to run IDEO this week, but, yes, in my practice, “I can put this in my practice in this type of situation”. But I can see things that if I used them, to build something.. but from there, gosh, what is going to happen?

- The purpose of this study is to see which of the two toolkits is more effective in this context.

- Well, that question I can’t answer yet. Because...I have to

- You have to run it.

- I have to...How I can explain it to you? This [show the IDEO Guide] I have to run it like I was a company.

- But you are not a company.

- But no, I don’t know.

- You are an individual.

- This it...

- I have to run it like I was alone.

- In my case, I can see it running it with [other design studio D2 working as freelancer].

- Some stuff applies to you and doesn’t. Just identify they don’t apply. And you write:’doesn’t applied to me, doesn’t applied to me’. Maybe some stuff [in the IDEO Guide] applied to you. I don’t know, you determine that.

- There you go.

- In terms of answering basic social impact issues.

- You make a link to your project, make a link to Rubberband’s projects [researcher’s studio]. do you understand me? You are checking the utility. What were the first [two] questions?

- The first questions... [reads] Were you able to do the steps quickly and resolve the adversity in your practice? Did you learn new strategies and improve your decisions?
3:12 Researcher - Exactly.

3:14 D1 - Well I can answer you that this one [IDEO's Guide] can help me develop long term strategic and Rubberband's tools will give me the short one.

3:24 Researcher - You can't say that until you run them for four weeks.

3:27 D2 - Exactly.

3:30 Researcher - You have to give me evidence of what you just said. Maybe that's your intuition that it be like that, but you need to bring up your evidence [of D1’s claim]

3:38 D1 - Because what I do is...

3:41 Researcher - Run it D1!

3:44 D1 - What I do with...? I run it partly not completely

3:53 Researcher - ...do you understand what I am saying? You have to run it completely to see what works, what doesn’t..can be applied, can't be applied. In these three questions [originally they were three but the researcher split the first one into two] that are my benchmarks..

4:03 D1 - Ujum..

4:04 Researcher - And the second question is: was it easy to learn? Or, from the four weeks, you took three weeks to understand Mari Mater's tools or it took you three weeks to understand IDEO's tools. How long it took for the learning curve? How much effort it took to learn the tools?

4:22 D1 - And that question I answer on..? this is the third one?

4:26 Researcher - The second. [Note: it is the third, but at that time is was the second: How much effort was required from you to use these new tools?]

4:31 D2 - Okey, I suspected that one, and other, one is more individual and the other one is more collective

4:44 Researcher - So, did the method change?

4:48 D2 - Yes. I was going to ask you is this is the only toolkit that you are comparing your to..?

4:53 Researcher - Yes. It was assigned.

4:55 D2 - It was assigned...

4:56 Researcher - IDEO is a British Company. They [Northumbria’s examiner] wanted me to compare it. IDEO is very famous. [no audible]

5:17 D2 - Yes, therefore, is this the only toolkit IDEO have?

5:19 Researcher - Yes, for this type of thing [social impact], yes.

5:21 D2 - Okey, that’s what I wanted to know.
- We are comparing them. Why don’t you used it? Why do you need mine when IDEO’s is available?

- I see it more like an interview.

- Doesn’t matter, it could be an interview.

- What I am talking about is the effectivity in a particular context. If it is usable for you or not. In the long run, D1, my toolkit will be available, IDEO’s toolkit is available. Working in Rubberband or not, working in Dominican Republic or Brazil, and if you are working the same type of project or with the same design principles, philosophically, which of the toolkits will you use? That is the question. Which one works? You either buy the IPad or the Samsung.

- Ujum..

- That’s is the question at the end. Understood, D2? For that, you have to run it. You can do this, you can do that, it works here. Got it, D2?

- Yes, yes, this is why I want to run IDEO this week and understand it well. Because I have not finished reading it yet and seeing what happens, what I’m going to find out.

- But, you guys didn’t finish reading it? Why did you read mine faster?

- Well, of course let me tell you, ist’ shorter, yours is cost-effective in terms of printing. When I am going to…in this case, D1 printed it before me, but printed only the Workbook, didn’t print the tools guide. When I go to do my copies I made copies only of D2’s workbook. Then I see, that D2 is lost, then I go “ah D2 didn’t print the guide”. I was going to print it in my home, but when I realized the amount of pages, I said, forget it!, I am going to print it on a bureau, I don’t have that amount of ink.

- Did you find my toolbox more compact than the other?

- Aha, your toolbox

- It’s smaller.

- Exactly, it is more compact…and…in matters of…in IDEO I have two documents, yours are both merged and still it’s less than any of the two of IDEO…

- Yeah, right. These are the tools [pick us pages of Bounce and Design].

- Is the number of pages that you have, really, is obvious, IDEO’s have a lot of pages. Now, if they are addressing social impact, and it seems that is meant for people to practice anyplace in the world, I don’t see how you can print this in Africa, or similar places, it’s not cost effective.

- Okay.

- Even if I could do it, costs more, way more.
- Let me save this file [the sound file]...

- One thing that you guys will evaluate is the look and feel. If IDEO's images are attractive, what message they convey, versus images...in terms of design, the toolbox's images.[not audible]

- Yours...you mean the images?

- In terms of design.

- The form that yours is constructed, is a curious fact, well we go back to what we mentioned before, page numbers. D2 had it disorganized. When I made the copies I was, gosh, what is the order? But I used my rauxa/serny, I followed the hierarchies level, but I don't know if everyone can do that. I followed the design cues. Well, I read it, the last tools, so I started to put it back together, the cover page to, match with the following. What is in the Bounce & Design Toolbox?, lets look for a match for that, ah, here it is, now is talking about the tools, well maybe, we talk about another system. Here it is, the Netting System...then

- So, you are assembling the toolbox actually.

- Yes, despise there are no page numbers, but it leads you, I finish reading about the Netting System, here I found another system, what's next? The format changed, now you speak about Intertextuality, the tools’ names, okey, I'll put them here...

- I'll get it, I'll get it.

- I think it's this way. Well I wanted to confirm if is this the way it goes.

- I will answer you. It was designed in such a manner that the end-user will move them as they wish.

- Okey.

- Because it couldn't be so [cultural] dirigisme. The way the user constructs knowledge is going to be different in each user [no audible] the form you understand them [tools] you are going to assemble them differently. Maybe what I can insert in each page, on the footer, is the name of the categories, Netting System, and so on. But if you want to assemble Netting System at the beginning, that is why it is a binder, that opens up, you can reshuffle, pull it out, put other. Like I have done. It is a diversification act. The box itself is flexible in its construction.

- I really like it, in the sense that it's very simple and easy to understand, but I want to see it in Spanish.

- Oh Boy! That Working Prototype was costly! Okey! Give me a break!

- I know, but you need to take it to Latin America!

- Let's get back, in terms of IDEO..
- I see it well structured.

- This one..the other..You see it?

- It's always well structured. Like for..or something for architects. Mostly all is the same..lines, grid, it looks like a catalogue. Gives you an impression of a catalogue.

- It is like technical labels...

- It's not bad, it's like schoolbooks, they do the underlines so you write there.

- Interesting... And the photos?

- Well yes, it gives it an aura. That is the reason why you are reading this. Or where they want to direct their audience.

- It's just, the photo, they don't..there is no connection between the photo and the text. I don't understand why all the photos are like this [referring to the look and feel].

- What do you mean?

-..Well, poor...

- What you see is not necessarily what it is said about how to work in that context.

- But it said social impact, to make a social pact, ...but...at the same time...for me, is a bit contradictory in terms of the amount of pages, if they want to reach those people in the photos, how it will get there? You see people with rudimentary tools or emerging developments, well to get this, first this in a computer [the IDEO's Guide]. Need a computer to get it. Still a lot of pages to print. So how are they going to know how to manage it?

- But this is a guide for designers not to the end-user. Same as..you follow me?

- Oh, I thought it was..

- No, it’s for designers, just like mine, I did it with illustrations in their case was photographic. But it is the same target - the designer.

- I would have preferred to have see them, how it works [referring to IDEO’ Guides], in context. Instead of seeing them..

- I don’t understand. The designers you mean?

- For example, how to construct a house..how to do network? For real..

- They have illustration..see it? Designing implementation..they have diagrams

- Yes, but I mean in the user’s context.
TRANSCRIPT OF SYSTEMATIZATION VIDEO (DVD)

1-DESIGN PLANNING: First step of Systematization
[Thursday February 17, 2011] After explaining in depth the methodologies of Systematization and the researcher’s role, the first step was initiated. To ask the participants if they agreed with the need to systematize experiences in design practice with the RTRP Toolbox in Puerto Rico and to share their story with others. They agreed.

Art Director at an Ad Agency P1

1
00:01:38;08 --> 01:01:38;19
What’s interesting to see is

2
00:01:41;21 --> 00:01:42;24
If I can now manipulate them.

Design Activist P6

3
00:01:46;20 --> 00:01:48;27
-Let me tell you… To me what…
P1 -Right?... really...(Laughs)
P6

4
00:01:50;24 --> 01:01:53;26
-To me what really interests me from the process is…

5
00:01:55;27 --> 00:01:58;20
And I should be honest about that I had sixty reservations

6
01:01:59;03 --> 01:02:04;25
and I still have my reservations about if we have a method to transfer them.

7
01:02:05;08 --> 01:02:09;19
But at least in my case, what I do
is really interesting

8
01:02:10:07--->01:02:12:17
because during these days I've been like hearing this

9
01:02:13:22--->01:02:14:19
but with few articulation.

10
01:02:15:06--->01:02:20:03
Big part of what I do is to create collaboration systems.

11
01:02:21:01--->01:02:22:23
Because I don’t do work directly.

12
01:02:22:24--->01:02:26:01
I coordinate people to do work with the communities.

13
01:02:28:09--->01:02:31:12
If it wasn’t that way, we couldn’t have the reach we have.

14
01:02:32:01--->01:02:35:14
Then I see some of these concepts that we have been discussing here.

15
01:02:35:22--->01:02:38:01
They are particularly pertinent, not only

16
01:02:38:14--->01:02:41:06
to the people that are there working with us,

17
01:02:41:28--->01:02:43:13
the volunteers that we bring...

18
01:02:43:19--->01:02:46:01
For example, every time we do a short film

19
01:02:46:26--->01:02:48:24
people like you go to different regions.

20
01:02:50:04--->01:02:53:01
They are back here in the area, working within the field.
They are doing film making. They have a particular practice.

When they arrive to the neighborhood to work with the community,

One week before; for example, the short film’s director;

you can see immediately that they don’t have...

They don’t recognize the knowledge of the locality…To start with.

“No, no, no… That can’t be done that way,

because shots need to be done this way.”

People from the neighborhood are telling you: “No, wait, because it is that…”

Right?

So, resistance, or that lack of awareness

about that, in order to make that collective project happen...

What will really work, once you’re gone.

You can see it in their lack of knowledge about that knowledge.
Second, our overestimated idea about originality

And here we can see that intertextuality, in general, makes you humble,

if you understand it.

So, you go to work with those groups knowing this, and you get there with a better attitude.

Knowing that you are part of a total and not by yourself.

That concept, “formless”, that we discussed here...

Look, there are no resources in these neighborhoods.

You are going to shoot a short film with whatever they have.

If a light bulb is all there is to light scene “D”,

you can’t ask for a power plant.

So, I can almost see the idea of Fast Feet,
which I confess that originally seemed to me like...

But it’s cool, if you are aware

that you have to adapt immediately to whatever there is,

because everyone is there standing right next to you waiting for you,

because you can’t take two weeks to make a decision.

Right?

So, for my own personal means,

for the work we do at Prensa...

For me, the nine concepts we have discussed until now, seem to me particularly pertinent

to create collaboration systems.

If we can teach them,

Right? That is what we are going to see now.

If we can articulate them in a way that we
can give them to someone and in effect...

that is what is left to see,

but if we could do that, I think it’s fabulous.

Because again, back here in the area, in the field,

conditions are somehow more controlled.

Take the highway and go to the other side of Puerto Rico,

so you can really see.

That you will find yourself in another country

So, I do think there is a considerable need

and would be great if we could articulate a system with this.

-Yes, but for me the most interesting thing is...

As you have pointed out, for me it seems excellent,

but I think it could turn confusing because I know

that you have such a big issue with all these bubbles here.
And I think that it distracts us from all that.

**Researcher**

-What happens is that I need to be honest.

**P2**

-I think you should say it, but for me is more about being able to use these tools.

We have these circumstances, but let’s use the tools.

**Researcher**

-That is what it’s all about.

**P2**

-Ok. I wanted to be clear

[Laugh]

**Urban Planner P9**

-It’s also that the way P6 explains it, it seems correct to me and...

And the way he expresses it, I could say

“Look, let’s start it.” I totally agree to do the workshop…
TRANSCRIPT OF SYSTEMATIZATION VIDEO (DVD)

2- CREATION OF TIMELINE: Second step of Systematization

[Saturday February 19, 2011] A selection of 4 participants presentation of their record of the systematization of experience using the tools. They spoke about completed tasks, despite their adverse events, and decision making process. The participants presented their record in a collective timeline. Researcher choose two males and two females, as well different generation - for the video selection.

88
01:06:25;09-->01:06:27;16
What I worked on yesterday

89
01:06:28;08-->01:06:31;20
and what I’ve been actually working during the past few weeks…

90
01:06:32;04-->01:06:34;15
But what I mainly worked on yesterday

91
01:06:35;06-->01:06:40;01
was to decide if “Plataforma” should be...

92
01:06:40;26-->01:06:43;10
What type of structure “Plataforma” should be.

93
01:06:43;17-->01:06:46;26
What type of entity should manage “Plataforma”.

94
01:06:47;04-->01:06:50;21
That has been the process of the last two months.

95
01:06:51;02-->01:06:54;26
But yesterday, I already had the need of making decisions.

96
01:06:55;09-->01:06:56;22
because today we have a Board meeting.

97
01:06:57;07-->01:07:00;18
and I have to get there assuming a specific position.
The tools…

I should make clear that when you are really aware

that you are using every tool, in one way or another...

And I should say that the most prominent for me was *Stealth*.

Right?

At least the way I interpreted it, I disappeared yesterday.

I didn’t respond to anyone, I didn’t speak with no one.

I stayed home in reflection mode.

But considerations, for example *Intertextuality*, appeared

because this is not an isolated project.

It’s part, not only of what we are doing at Prensa,

but of what the whole sector does.

And there were important considerations about how this project

was being paired, linked and managed, with the rest of the groups.
The idea of Publish...

This thing of exposing the black and whites, not only for others to react but also so you can see it, in some stages of the process is crucial.

You need that feedback because most of the time the oral explanation is not as good as images.

I did some sketches at the end of the day so my daughters and my ex partner could react.

This one, which I’m not sure how you pronounce it, Rauxa/Seny that is that balance between taking the chance and maintaining common sense and consciousness, also maybe was one of the most important ones, because there are decisions that once made become conflicting for some groups and not for others.
So there is a big necessity of making… to balance those two things.

The strategies… eh…

This is somehow contradictory with what I’ll say later

but what I decided to do yesterday during the morning,

was to exclude other people from the decision making process.

It’s confusing not to know when you should stop

other groups’ input, for you to process it.

Actually it is even very dangerous, because it confuses you.

So yesterday, part of the strategy was

to stop listening people.

That goes along with Stealth.

- Correct

It’s consistent with that.

And the other thing, just to enrich that process of
detaching yourself from what you are doing and analyzing.

140
01:09:19;28-->01:09:21;24
is to change your routine. Right?

141
01:09:22;26-->01:09:27;12
Also was part of the things to do.

142
01:09:28;06-->01:09:30;12
Finally, I took a decision.

143
01:09:30;26-->01:09:31;18
At the end of the way…

144
01:09:31;23-->01:09:33;18
At the end of the day, I took a decision.

145
01:09:34;25-->01:09:38;18
What it really needs to be another organization

146
01:09:38;21-->01:09:41;08
the one that manages “Plataforma”. I can’t do it.

147
01:09:42;20-->01:09:46;04
It’s wise to structure a ”Plataforma” within “Prensa” _______.

148
01:09:46;24-->01:09:50;17
but the greatest difficulty; or part of the great difficulty;

149
01:09:50;26-->01:09:55;05
is to take away resources from “Prensa” to lift up another organization.

150
01:09:55;25-->01:09:58;07
That itself, is a wicked issue.

151
01:09:59;01-->01:10:01;14
Eh… The results, in term of...

152
01:10:02;07-->01:10:05;20
At the end of that cycle of analysis and decisions
I would think that is resilience. Right?

This ability to wrap up, because this process has been... eh... of too much agony.

Not only because its complexity, but because there are sectors and people with conflict of interests, depending on the position I'm going to assume.

And I'll actually see it now when I give the news to the Board.

So the idea to finish the process, get to a point within the process where I feel... not vindicated, but re-energized. I think it's a better way to put it.

The context...

I think it was about where this process took place...
-No, but talk about it.

-Could it be?

I'm on the street, at a bookstore that I don't usually go to; but in this case it helped me a lot;

and at home.

-Yes. It's fine.

-I think the kindnesses of this process are aware that in some point you need to be able to comment. You need to be able to explain.

I think that one of the biggest virtues that this has is that really helps you to detach yourself.

Makes you aware of how you should see yourself from the outside.

And that action, which I think is what P1 was explaining before...

For that conscious streaming process that one takes with no limits.

Right? To be aware of that,
pauses actions, places you in another perspective

and you can be more objective when analyzing.

Mistakes...

And maybe is one of the tools that I miss in the ones you are suggesting.

Because in my experience, the difficulty, the biggest problem with which you deal in an individual level, when in a group level...

In a professional level...

Is that people forget which are the purposes.

What's it that you are supposed to do. What the project is supposed to do.

-The core.

-To clarify in the initial part of the project.
Then you need tools to remember it, reiterate and remember it again.

And this is crucial when you work with a group.

From one week to another, they forget what they agreed to.

An specific example is that right now we are organizing a group in Guayama, so they can take charge of the film project.

There was a whole session to determine what they wanted from the filming.

Well, the conclusion was that they wanted a space that allows them signification. That allows them to let Puerto Rico know what they do.

Well, it is not a cooperative what you need, because doing money is not crucial.

So next week, if someone says: “How is it that we are going to make money out of this?”
You have to lead them again.

So that idea, or that absence, of a tool that allows you to confirm which are the purposes,

I think is absent within the tools we have discussed so far.

-Could that one be *Script*?

-No because *Script* is more like having a work plan.

-Is a work plan for after

- It’s true, because there isn’t one for when *Script* fails.

What do you do?

-The sense of purpose and how one...

That north. Right? The north that one needs to have there as a drive to...

-I'll give you two more examples.

One from my daily life and other that I think is very pertinent,
and that doesn’t have to do with me.

One of the most popular advertisements in the last couple of years is the Brazilian wax one. Do you remember it?

-A cellphone (Laughs)

-What this advertising used to sell?

-A cellphone (Laughs)

-Most of the people, if you asked them what that advertising sells, they don’t know which is the product.

That’s where you have expressed, manifested… and those where millions of dollars.

Within the process, the client, the creative director, forgot which was the process.

They ended up with a great advertising that doesn’t meet the purpose, because is not clear.

“Prensa ________”… my organization...
when trying to determine if we were going to hand over

“Cine Foros” to the communities, or not.

There is a sector from the Board saying that it shouldn’t be hand over

because it is an emblematic project of “Prensa ______”

that allows us to bring more people and that we should keep it.

That Board forgot the purpose of “Prensa”

-Exactly

We are not there for the institution. We are there for the community.

From my daily living and from my practice in the field,

I could give you six hundred...

Six hundred… six hundred examples

where having lost, forgotten the process

is the worst thing that could happen to you.

Eh… New ideas…
Two big thoughts...

not because they are new, but because it’s been a longtime

since I experienced a concept so vividly as I do now.

The first is “Form follows function.”.

The form of things is determined by its function.

You have a collective project as “Plataforma”, which is a collective project.

You can’t insert it into an organization that wasn’t designed for collectives.

After all, it’s because of this that Plataforma needs an organization composed by a collective, so it can behave as such.

And the other thing is that we need a mechanism that helps us to confirm, to remember, to root which are our purposes.

-To re-contextualized

-So, it’s like a tool to establish purpose?

-There are tools to establish purpose.
In the way we handle things there are tools; one more effective than others.

But once you have determined it, how do you keep it alive in practice during the process?

They are two different things.

Many processes fail when determining which is the process, because they start failing when trying to determine which is the problem.

At the agency, when we work with advertising, to figure out a campaign is a real thin process.

You begin here and end here.

Probably, in a month, we should have figured out the campaign.

But with this other type of project you are really designing something that you hope stays for a long time and with the one you will no longer have intertextual hands.

- It's a wicked problem. We are talking about a tricky issue.
This is for tricky issues.

Yes, because when it transcends,
well, it’s open to influences and to be…

Maleable.

... And yes, because it’s not that easy as just making a plan,
because some people can’t make a plan beforehand and trace “A”, “B”, “C”,
linear or ascendant lines... or

That is the problem Apple will have when Steve Jobs die.

Oh, please, shut up. I almost die.

Please let’s focus. We are here.

And which is the new knowledge?

If people believes you or not,
or the level of credibility with which...

So getting to the meeting today, with that clarity is almost half of the battle.
Get to the funders with half of that clarity, is something…

I’m not sure yet which is the new knowledge,

because I’m still in the same process and I know

things will keep happening.

I did placed again, eh… two concepts

that even though they are not new, they became very evident

in this process.

The first one, “self-awareness”.

I think the exercise was really nice

in achieving… eh… objectivity

and if not objectivity, in achieving…
-Common sense, right?

- Yes, and an analysis of what you are doing.

And I have heard some of you mention it
and I think this is true.

01:18:15;01-->01:18:16;04
Eh…

01:18:18;26-->01:18:21;23
The simplification of the analysis that is something we also

01:18:21;28-->01:18:23;13
carry from the design field,

01:18:23;14-->01:18:28;25
but in the planification of big projects, applies in the same way.

01:18:29;24-->01:18:32;10
Less is more, (Laughs)

01:18:33;25-->01:18:37;04
At the beginning of the project you see all the elements

01:18:37;11-->01:18:39;01
that are over the table to lift up the project

01:18:39;16-->01:18:41;02
and they seem like a lot, but at the end of the way

01:18:41;18-->01:18:43;03
some of them are fundamental.

01:18:43;20-->01:18:46;06
And this simplifying process,

01:18:46;27-->01:18:49;01
you know?… Systematize,

01:18:49;15-->01:18:52;08
as a result, it helps you to simplify.

01:18:53;00-->01:18:55;27
I think that was, if not a new knowledge,
a confirmation of a good practice.

This is my process, until now.

-Well, wish you success at the meeting.
-I’ll let you know on Monday.

-I began with the situation as soon as I got out from here,

because in the moment that

I was doing this experiment with Mari Mater...

-But, yesterday was Friday.
-Uh?

-It was Thursday.
-The day before yesterday?

-Yes, the day before yesterday.

-I was in a situation that is the one I’m presenting now.

A dilemma of being able to do my job,

a filming that was in its second day of shooting.

Those who know a little bit about filming know
that they last until dawn because you pay an amount for certain resources

and they need to be maximize during the time-frame.

The most you can make of it.

Then, being able to do my job.

Where the filming fits within this project

and also my dad’s retirement celebration.

That I wanted to be there, at the event to celebrate.

What I do is to look for a plan. I need to make a plan.

Which is the plan?

What I’m going to do so everything can be in its place,

allowing me to be able of doing everything?

I also use the Intertextuality tool

and the resource you just told me about…
about resilience.

- Uhum…

Researcher

Art Director at an Ad Agency P1

345
01:20:43;21 --> 01:20:49;13
- That I trust I can do this because

346
01:20:49;22 --> 01:20:52;24
I have previous experience, because I have done it before.

347
01:20:55;03 --> 01:20:58;05
I’m going to… I’m going to succeed.

- There’s a self-efficacy.

Researcher

Art Director at an Ad Agency P1

348
01:20:58;12 --> 01:21:00;27
- There is a self-efficacy.

- That is a sign of resilience.

Researcher

Art Director at an Ad Agency P1

349
01:21:02;18 --> 01:21:05;01
- Then, I use eh…

350
01:21:05;25 --> 01:21:12;00
The Rauxa/Seny, because in the process I’m tired

351
01:21:13;04 --> 01:21:15;11
and everything indicates: “Get some rest.”

352
01:21:15;20 --> 01:21:16;20
“Take it easy.”

353
01:21:16;25 --> 01:21:20;08
No. I need to do my job and find a balance

354
01:21:20;15 --> 01:21:23;24
between what is emotional and rational,

355
01:21:24;02 --> 01:21:28;20
in relation to my commitments, because that’s my job and my responsibility.

356
01:21:29;01 --> 01:21:33;25
My reputation. These are all the things that come to mind in that moment.

357
01:21:35;15 --> 01:21:36;26
That’s why I...

358
01:21:37:03-->01:21:40:11
Basically, those three tools came to light.

359
Well, strategies, that was to make that plan

360
and then, stick to that plan.

[talking in the street] 361
01:21:49:05-->01:21:51:27
[…]  
[laugh in the street] 362
01:21:52:15-->01:21:56:19
(Laughs)

Art Director at an Ad Agency P1 363
01:21:58:10-->01:22:01:17
I have to negotiate with my work,

364
01:22:02:05-->01:22:07:00
because on that depends if I look good in my job,

365
01:22:07:05-->01:22:10:26
and that I can deal with… with

366
with other things that are moving parallel.

367
I sit down with my colleague and explain:

368
“Look, this is happening to me.

369
I know that I trust you and we trust each other with our work.”

370
“Take it easy. I can deal with it.
Go and do what you need to do and when you get out, we can meet and catch up.”

-Is Publish there?

-No, Publish isn’t here,

but that’s part of Publish.

-Yes. Bringing it to light.

-Then, that problem resolves.

I still need to set a balance between my job and my dad’s event, so it doesn’t interfere with other things at work.

and so I can fulfill both commitments.

Happens that on that same day they are going to clean the office and they are going to paint the office, and we are going to stop working in the afternoon.
It went perfect.

That is the element we were talking about.

How a situation changed...

Eh… unexpectedly, the circumstances in my favor.

Eh…

Then, consequently, there is…eh…eh…

Resilience in the practice and in my family situation.

And there is thrive in the filming,

because after getting out from here

there still is a change of scene.

I get out from here and they still haven't started filming,

therefore I can fulfill my commitment with the second part of the filming.

-That's thrive.
-That's thrive in the practice.
-Yes.

In context, well, I placed both days of shooting.

The goodness I see in this is that the Script tool quickly came to my mind.

There are many things to do. Which is the plan?

And how do we maintain ourselves in the plan?

In a positive way that allowed me to…

to not develop stress, because I canalized it.

You kept it under control.

-I kept it under control.
Instead of starting to think and getting worried,

I took care of it. You see?

With solutions that maybe I didn’t have before.

Or beginning to think and open opportunities that I didn’t have before.

And you were aware that, because you were doing the workshop, you were doing it consciously?

-Yes.

So it wasn’t something that you could have done naturally?

-Maybe I could have done it naturally, but I reaffirmed it.

-He has everything consciously.

And one of the new things that happened is that

I started to think about what was happening.
in a way… eh…

In a reflective way,

instead of being carried away by circumstances,

and just wait to see what’s going to happen.

-That’s called reflective practice.

-Come again.

-That’s called reflective practice.

It’s a way of working.

You don’t act up, but you reflect in action.

It happens really fast.

what I’m doing is to talk about what you called game changer

that someone over here called faith.

And I relate it to faith because there is a hope…
It should be something that helps us to convert them into something more practical. More easy to recognize and easier to apply.

Assistant Systematization Guide

- More pragmatic

Art Director at an Ad Agency P1

- More pragmatic. That's the word.

Researcher

- In design investigation terms that is known as generative tools.

Art Director at an Ad Agency P1

- Generative tools.

Researcher

- What we are doing are generative tools,

meaning that the user also modifies them.

They become like viruses, like mutants.

They need to have that skill so they don't become dogmatic.

Assistant Systematization Guide

- They have to be agile.

- Yes, they can't be dogmatic.

Art Director at an Ad Agency P1

- But, I'm already thinking in the product itself,
to be something

that I don’t leave in a drawer. Or is something that

I can easily identify,

or is something that is small

that I can take with me, that...

-I think that it should be mobile.

-Mobile. Exactly.

In new knowledge, I need to repeat

stress control. Quicker solutions.

More solutions for the same problem. For the same problems.

-There’s more space for innovation.

-Of course.

Well…

I don’t know if I’m explaining myself correctly.
The way you explained it to me was clear.

-When I have tools to deal with solutions, is not the same thing that when I don’t have them.

So, I can get… I can open and obtain more solutions for the same problem...

-Yes...

-than before, when I just tackled it from one side.

Now, I have options to put them to work and expect for more solutions to open.

-The solution space opens, therefore there are more possibilities for innovation.

-Exactly.

-There is a space for innovation.

What interests me the most from your process, which you just talked about, is that clearly you
brought your personal situations.

**Art Director at an Ad Agency P1**

-Yes.

**Researcher**

01:28:52:01-->01:28:54:06
-So, it's the diagram that you should use.

01:28:54:17-->01:28:58:16
Part of this is your own personal life.

01:28:58:27-->01:29:03:19
Because your work on it and you forget, because everything is work and personal.

01:29:04:00-->01:29:07:11
But if you don't include it, while you are working.

01:29:07:24-->01:29:09:04
you were going to be like "I need to get to my dad's.

01:29:09:23-->01:29:11:05
I don't want to disappoint him."

01:29:11:12-->01:29:13:12
And that does affect your work.
-Of course.

**Art Director at an Ad Agency P1**

01:29:13:20-->01:29:17:14
-Once you include it and publish it with your partner,

01:29:18:05-->01:29:21:27
it becomes part of the solution space.

Yes. That's your life as a designer, as part of the brief.

**Multimedia Designer P8**

01:29:27:10-->01:29:29:06
- I had a…
I was included in an exhibition, without me wanting it.

I mean, without me knowing that I was going to be included.

Because, I just said "Attending" to a Facebook Event.

And that put my name on the artists’ list.

(Surprised)

- That’s the…

-P2, shut up.

There was a project…

Last week I was leaving a job…

A project that… A campaign I started, I directed

and built up.

But I realized that with the time I have available this week

and my professional commitments this week,

I won’t be able to do my part.
However, there’s a team that is able to execute it

and I can leave instructions explaining.

Ok. That’s what I did.

Second, that I thought I was going to need to leave it.

And the third one is a job offer that was not materialized,

because of the job I left last week,

trusting that…

It was going to happen.

But, happens that there was a last condition

that guaranteed me if the job was going to be mine, or not,

which I wasn't expecting.

And I was waiting for the results and

I didn't know,

because they told me they were going to call me
at the beginning of the week

and it was already Thursday and they didn't call me back.

So I think that I didn't get the job.

Eh… The first tool… For the first situation

The tools I used were Fast Feet Play and Diversification.

Fast Feet Play, because I need to react.

I need to say “Ok. I'm already in”.

I can say “I do it or…”

Or I say “I'm sorry. I said yes because…”

-Multimedia Designer P8

-Assistant Systematization Guide

-That's the exhibition?

-Yes, the exhibition.

And I really said yes because I was going to the exhibition, but

I don't think I can make it.
It was about saying “I’ll do it, or I won’t do it.”

In the second situation,

I also put “fast feet play”,

Script and Intertextuality.

Script because

I sent an e-mail

saying “I have two options.”,

because there’s a deadline.

The deadline was supposed to be on Wednesday.

I say “Look, as I told you

last week; since my last day of work;

I don’t know If I can finish this but

there’s a team that can finish it. This is a work of a creative team.

I was...
I worked as art director and I did the conceptualization and everything.

There were designers, illustrators, copywriters that worked with me.

You have the team to finish this.

I can give you the conceptualization of this, of this poster that’s left,

and I can put together the instructions for this other application that suddenly came up, because the poster came up on Thursday.

The wicked problem is that it was an additional poster that needed to be conceptualized from one day to another.

And she wanted me to do it,

because she doesn’t trust in the other designer.

She doesn’t trust in his capacity.
And also came up an application about...

An application that has to be put on a wall.

Now we have to see what kind of materials are going to be used.

I don’t have any idea.

I don’t have time to call the printing shop, because I’m giving the other designer a brainstorming, helping him to solve his problem with other application that also came up until the last minute.

So he takes time off from my work time, the one I need to do my part.

And I say to her “Look, I spent two hours with this guy conceptualizing something that he was supposed to do, because that’s his part.
So, I’m doing his work before I leave.

I told her, "I can do this.

Or you give more time...

During the weekend I can work these days

and for the beginning of next week

I can have everything ready.

She wrote me in the next two days,

after the deadline.

I’m worried. I don’t know what to do.

I talked with the mediator,

and here is where I go to new ideas and new knowledge.

I talked to the mediator that is not directly involved in the project,
but can influence what happens.

I told him, “Look, what should I do? You know? Am I doing it right?”

And he says “Well, yes. I think you are.”

I sent the e-mail and she answered, “Look, I’m going to print it next Thursday, Can you do it? Monday is fine.”

So I ... I make the decision of doing the project.


-Because that’s the work you want.

It’s fine. She’s moving in another job.

-I faced the situation, thanks to the advice of the support group.
And I called to see if I got the job, or not.

If I wouldn't have had a conversation where my support told me to call,

I simply would have thought “I lost the job”

Let me find the “B”, the “C”...

The “B”, “I ignored you two months ago.”

“C”, that in a funeral they found...

They called me and I didn’t have phone.

Ok. Fuck this!

Excuse me.

Eh…

So, you published?
You’re support group has to do with “publish”.

**Multimedia Designer P8**  
01:34:59;06 --> 01:35:00;04
-Yes. I put it.

01:35:02;04 --> 01:35:04;14
-[

01:35:05;00 --> 01:35:08;28
[Laugh]

**Multimedia Designer P8**  
01:35:10;11 --> 01:35:13;18
-The first result is that I’m going to participate of the exhibition.

01:35:15;15 --> 01:35:17;05
I took the decision to participate.

01:35:19;07 --> 01:35:21;20
The second project, I’m going to complete the project.

01:35:22;13 --> 01:35:24;18
And in the third one, I got the job,

01:35:24;27 --> 01:35:25;21
because I called.

01:35:25;22 --> 01:35:26;13
-[

**Assistant Systematization Guide**  
01:35:27;17 --> 01:35:29;01
-Succumb or thrive?

**Multimedia Designer P8**  
01:35:29;11 --> 01:35:29;28
-Thrive.

**Researcher**  
01:35:30;23 --> 01:35:31;24
-Thrive in which areas?

**Assistant Systematization Guide**  
01:35:32;08 --> 01:35:33;08
-All of them
Let her speak.

In the second situation I have resilience, because, anyway, what I’m going to do is part of a whole and I don’t know if that whole is going to …

Because…

I got this project and I started to create this campaign doing freelance.

I’m […] company. I don’t know anything.

Even though I’ve been there for a long time,

No one gave all this information.

I don't have anything […] to the company.
Eh… But it seemed to me that it was a project that gives me an opportunity for me to demonstrate some skills in other areas, like art direction, team management, project management. And I wanted the project to have the quality, for me to include it in my portfolio. And that really was the drive for doing this project, which has been difficult. That is why I placed it in “resilience”. That’s why I don’t placed it in “thrive”. “Thrive”, where I got the job. And “thrive”… I’m not so sure about the first “thrive”, because I still don’t have anything,
but I have a recommendation for a tool that is called “chance operation” that I learned four years ago.

That is this aleatoric element that impulses an investigation so it can result in a project that is not simply something you found and used it.

But a project …

-That is true. I use that all the time.

- You feel like “I can’t do this. I won’t finish it!”

And that happens to me a lot and it has been like a constant in my life, and those who know me know it.

So, I realize that I’m not alone, that I have a support group.
It works for me.

And, being generous.

Being generous, not only with material things, but being generous with my time, being generous with...

With the way I can...

[outside noise]

Being also generous with...

with criticism, with the feedback… It's been like...

I don't know… I see it as many levels,

starting from […]

Mistakes, well, being a drama queen and stressed all the time.

Anxiety…

-But you mean mistakes of your project or problems of the system?

-No…
Of the system I didn’t take note.

-Ok. It’s fine.

-Because your description showed that you were in control

That you weren’t…

-She gets stressed.

-No, but I mean in the story that she made, you seemed to be in control and...

-Because I look like…

-Because she doesn’t look like, but she gets stressed.

-I show control, but inside I’m a wreck.

-But you felt wrecked here?

-All the time

-She needs to trust more in…

Because she’s able to manage all, but she gets stressed.
-For example, the project I worked within this…

This exercise was a documentary of a poet, because he worked on a very famous poem.

So then I do a merge of his poem with another poem of a French poet, from the eighteenth century, who started a movement of…

Then I do a merge and talk to him. I know him, because he is the dad of one of my friends.

I give him a call and I’m recording through Skype what he is showing me and by chance -I didn’t have a clue. I haven’t talked to him in three years— he is doing the French’s poem that I chose to merge, in a tridimensional way.
It was all a chance operation.

I didn’t know he was doing that.

I didn’t know that in this precise moment all things were going to happen.

And the French’s poem itself is about chance.

And the poem of this other poet is a sonnet where in each [descending] vowel, you can use every vowel.

That also, at the same time, is something […].

New knowledge…

To enjoy everything, even though it is a trauma.

To have faith
and relax

(Inside Conversation)

-It’s very hard for me in these moments, because I have to be...

-Sometimes I do one for Christmas

-Stick to...

-I never do.

I’ll do one on March 1st.

-Eh...

But I did had to… I mean, the day begins without a plan

and from 9PM, I know that I have a meeting at noon

and that I’m going to need to modify everything.

They also called me...

That same day during the morning I received a call saying
that next week at 7AM I had to be in Adjuntas.

For me that’s terrible,

because I also don’t have a good car to get there and

also to drive at 5AM...

About the things that happened…

There was an e-mail and a voice mail

asking for an estimate for some furniture work that I accepted.

And...

I still… Well I don’t have Internet at home,

because my roommate forgot to pay the bill.

We paid it few days ago but they haven’t reconnect it.

So this also complicates everything, because

to read that e-mail I had to move from place to place.

So now I’m between my house and my former house.
And in addition, at noon, they let me know;

and I understand this as an informality,

after he told me “No, we still have time to do the job.”;

that now, for this same weekend, we need to have a project built up,

rehearsed and everything.

And he insisted for me to be the responsible for a script,

which I started to work on it because…

Because I have other skills, like writing skills and such,

but I don’t have experience; I have enough writing experience,

but not for children,

who are a tough audience.

I started to do research but is delicate.

You know? You can’t…

You need to change the channel,
if you are going to do a project like this for a children's population.

Tools...

Definitely, *Diversification*.

Well, because of the same reason.

Because...

It’s not what I prefer to do but it’s what is generating me some income.

-Because there’s precariousness.

-Well... I wouldn’t say there’s precariousness.

Because for my luck I don’t depend

on a salary to survive.

I have help.

-But the lack of Internet...

There are some things that you are lacking of.

-But I do have situations that make things difficult. Yes.
And also because it’s not the ideal situation.

I want to generate an income.

But, anyhow, it’s not a stress.

Let’s say that in that sense

I’m not in the same situations as you. Like, “When is the rent due?”.

Not still.

[laugh]

-No. I don’t have to pay rent.

-Just to give an example.

Even though I always sun dried clothes.

For other reasons.

-I go to my dad’s house to wash my clothes

and last time he argued with me…
-The *Fast Feet Play*,

again because of this informality.

Because it has been months. It’s horrible.

I really don’t know what’s wrong with people…

- Everything is done here by *Fast Feet* playing.

- If you tell me to be somewhere at an exact hour,

I get there at least ten minutes before

and I’ll wait 5 minutes before, doing nothing,

till is time.

I need to be on time.

At least I try to.

*At Hand* and the *Rauxa/Seny*.

*Publish*, not even by chance.
I have an incapability for Publish.

Well, strategies...

I called my sister. She’s going to let me use her car.

I found a house with some friends in Adjuntas.

I’m leaving Wednesday night, so at least I don’t have to get up so early in the morning.

-That’s Publish.

-Eh… That’s Publish?

Telling her “Look, I need help.”

Because […]

Even the sense of […]

Eh…
Strategies… Well, dedicate time and do things for the people that helps me.

How I like to call it, my “patron”.

What happened…. 

I decided to… Because they asked to make that estimate for the furniture,

right now they commissioned me some furniture, but

...Because of 

the space I have now to work with the wood

is a little bit …

Limited.

So…

I decided that I needed to…

So yesterday I did […]
And… Let me see what else…

To see if I finish it and document it.

- Are those your pictures?
- Yes.
- That’s an act of Publish.
- Yes. That’s an act of Publish, yes.

- Eventually they were… but, eventually.

Oh, well, the pictures yes.

But I’m also thinking about an eventual Publish event.

And when thinking about the tools,

I found some beautiful tree trunks on the road

and I was saying “Do I take them or not?”
Those should make a beautiful bench.

"But they are going to kill me if I keep collecting junk and I don’t have space.”

But whatever. I stopped and picked them up.

He told me Adjuntas was next week.

The only day off. I need to compromise it because it can’t be both days…

because of the money.

And last night at Borders I found for $2.99

[How to…].

They have a final sale, because they are going to close.

-The one in Carolina or…

-Which one? Which store?

-They went bankrupt.

-The one in San Juan?
All of them.

-But the one in Carolina is also...

-But not the one in Plaza.

-Yes because the one in Plaza has...

-And the one in Mayaguez.

-The only one they are going to leave open is Plaza's

-The thing about getting off the car,

I did it consciously using the tools.

And the other thing is that, even though...

I put it there, because I heard it from the other sessions, that

I try; within the so disorganized time that I have;

to get quality time during traffic hours.

I always have a book at hand and when I take the bus I read.

And it is a space that allows me to deal with everything,
because is relaxing and I can think better and organize and relax.

And to not make decisions without thinking.

So I put it there.

In results,

I put to survive, because part of my every day issues are because I studied something that I don’t like.

Specially, how the discipline is handle.

Prototypes are developed and that is planification, but…

So, that motivates me to keep studying.

I felt the obligation to keep studying.

And now that I started with Design,

which I really want to work very very very hard on it,

because I like it a lot.

So, I put “resistance”
And I put thrive, because…

But I put it as counterproductive, because the issue I have with this guy who is informal, that let me know the night before…

I have it because he was satisfied with a work I did for him and now he wants to…

Like keep giving me work.

But it’s not part of what I want to do.

I do it because I don’t have any other choice, but it isn’t what I would like to be doing.

Context, my former house and the street.

I still haven’t get to my house.

Kindness: Learning, exchange, encouragement …
Calories burned

and free lunches.

Mistakes…

Definitely in my case not knowing when to say no.

That’s the reason why, with the…

It happens to me a lot that

I dissolve myself, because

one doesn’t know how to identify its limits

and you say “yes” to everyone...

And I’m going to need to start … to say no.

That has two sides.

On one side you have what you don’t want to do

that […]

and the other side is …
When you have so much
that one closes opportunities
to eagerly do things that one really wants to do with strength.

-I have considered it.

One of the advantages of these two jobs I’m doing right now...
I mean the only two paying ones...
Well, two of the paying ones,
is that I accepted them because they give me the opportunity
of saying “Look, I can’t do it right now.”
There’s no contract. There’s some flexibility.
Well, I made a mistake.
I forgot something so simple as pre-schoolers don’t even know how to write.
And I think that one mistake is to hate publishing.
But I give it more thought in terms that I’m not a person…
It takes a lot for me to promote myself.

I think is bad in that sense.

-To sell yourself.

Yes. To sell myself.

Because of insecurities, because of many reasons, but I hate it.

I mean, for me to give a business card is like…

Like that… a trauma.

Recommendations:

Not to rush things, be patient,

recognize limitations and above all,

throughout these last years that have been

an intensive lesson about humility.

And I share P6’s recommendation...

I think there’s a need for a tool
- focus.

**Urban Planner P9**

To stay grounded when you are like freelancing.

You know? When you have a lot of things going on and you have a precarious situation.

Because what happens is that one…

**Postgraduate Experienced Designer P2**

-Could be that. Being grounded.

**Urban Planner P9**

-And new knowledge: How to negotiate and how to charge others.

And…

I mean because of my job.

Also, how to value it. Right?

**Art Director at an Ad Agency P1**

-How to give value to your own work.

**Urban Planner P9**

-Yes and from some things that happened yesterday,
to see how screwed the situation is for everyone,

because the worst thing is that people call me to see if I have work.

-Because when I mention you precariousness

is not […]

because I don’t only associate it with financial problems.

It seems like there is a paradigm change in your life

and you haven’t got to the other side and you are like this.

In the air.

And there’s people that have many difficulties with change ambivalences.

With what is coming and with new knowledge.

And you are learning new things,

but you haven’t crossed to the other side

and that could be very precarious.

Because you are like…
It's uncertainty.

-It's precarious, because I think it is that…

It has been very difficult for me,

because I consider myself to be a very confident person

and this course

suddenly woke up in me…

I mean that in this transition;

from this thing I studied,

were I was very successful and you know…

I had all things resolved,

when I decide “No. I don't want to do this.”

And I decide that I’m not going to study

where they told me to. You know?

From one day to another, all my plans changed.
And I returned to this limbo, where actually one of the tools has been to learn to live with very little, because one had to pass from living with an income and something more safe, to...

To say... “Well...

I prefer to keep searching what satisfies me and stimulates me, but it has to be at stake of loosing some other securities and that has unlocked some insecurities regarding my work, throughout the transition where I am.

-I think that on Monday I’m going to ask you all to review this part. I don’t take off what you have done, because you should leave it. But you should review it, because maybe I wasn’t clear enough.
that it was about the tools’ mistakes, kindness and recommendations.

**Multimedia Designer P8**

```plaintext
01:54:37;14-->01:54:37;22
-Ok…
```

**Researcher**

```plaintext
01:54:38;05-->01:54:38;12
-But…
```

```plaintext
01:54:38;29-->01:54:42;02
But it’s good you have marked this,
```

```plaintext
01:54:42;21-->01:54:43;26
because what you have done;
```

```plaintext
01:54:44;01-->01:54:45;00
from there to here;
```

```plaintext
01:54:45;04-->01:54:47;15
is that you have marked what is called a
```

```plaintext
01:54:48;09-->01:54:49;08
reflective practice.
```

**Multimedia Designer P8**

```plaintext
01:54:49;16-->01:54:50;00
-Exactly.
```

**Researcher**

```plaintext
01:54:50;08-->01:54:55;06
-Yes. You have emptied a reflection about your practice,
```

```plaintext
01:54:55;17-->01:54:56;16
about yourselves.
```

```plaintext
01:54:57;06-->01:54:59;00
So I would like to, with your permission;
```

```plaintext
01:54:59;07-->01:55:01;04
even though it wasn’t the intention; to leave it here.
```

**Urban Planner P9**

```plaintext
01:55:01;15-->01:55:04;05
-What I do think about the tools, and is not here,
but is [...] 

that they are tools to trust that things will happen.

Obviously you can't sit and wait for them to happen,

but to trust that things will happen.

To trust in yourself and that things will happen.

-Because you will be able to deal within the circumstances.

There's also a purpose.

-I mean [technical noise]

...That had to do with what you were saying about budgets and such.

I had a great professor that used to say that crisis generates opportunities.

-I stick to my mantra no matter what.

That's my mantra.

And he is a person that has a lot of experience working here with the public and governmental sector.
These last years that has been a north for me.

-So, it gets my attention

what you say about your trauma with the Publish,

because you are saying you make furniture

and every furniture you make is an act of Publish, itself.

--But no if you don’t take them out of your house.

--Of course not.

-Because I have had,

talking about things that just happen,

happens that when people see them they want them.

Then I have had to…

For me, there was just one furniture that I had to do as a design problem.

I had a necessity.

And I did it and it has been like…
But, her wicked problem is her career change.

That's her wicked problem.

-Because other things have contributed

and I definitely want to move in another direction.
TRANSCRIPT OF SYSTEMATIZATION VIDEO (DVD)

3- SYNTHESIZE LESSONS: Third step of Systematization

[Monday February 21, 2011] The researcher revisited the main question agreed on the first day of systematization (Design Plan), and discussed it. The main question was, how to design an application that displays strategies to address Problems quickly in a tough, elastic, flexible, with resilience and the ability to adapt? Although the designer life was part of the design brief in this research, it was important for the participants to focus their experience with the toolbox inside their practice and how it contributed to such, in order to communicate this new knowledge to others. Video topic selections are: Publish tool; Intertextuality tool; Focus and resilience; tools awareness as a metaphor of resiliency strategies; and innovation.

1156
01:57:11;15-->01:57:13;21
-What we now call Publish...

1157
01:57:14;00-->01:57:15;11
You’ve been calling it this way long time ago,

1158
01:57:15;18-->01:57:17;19
but I start to name it just now.

1159
01:57:18;09-->01:57:18;20
Publish

1160
01:57:20;13-->01:57:22;27
I usually teach it from the point of view of thrive.

1161
01:57:23;03-->01:57:23;20
Because?

1162
01:57:24;05-->01:57:26;11
Because in the act of publishing

1163
01:57:27;04-->01:57:29;29
is were we enrich ideas with...
With the group’s ideas.

So ideas start to rise, or we start killing them because of their lack of strength.

Of course...

Depending on context and I think both meanings apply,

because I can be inside a context where I know

I’ll be attacked and then I use it as a tool,

or as strategy to come out with flying colors.

But, anyway, it’s thrive because you try to come out from a situation

where you know you will be attacked.

-The north you have is to come out with flying colors

or stand out, however is called.

-But, your attitude is defensive,

while I see that the one I use the most is...
Is pro offensive.

**Assistant Systematization Guide**

- It’s proactive and offensive.

**Art Director at an Ad Agency**

- It’s proactive and offensive.

- Being a step forward.

**Assistant Systematization Guide**

- If lives, becomes bigger.

- If dies, means it wasn’t strong enough.

**Assistant Systematization Guide**

- There’s one that is important to notice.

**Researcher**

- That is a problem.

**Assistant Systematization Guide**

- That …

There’s one that is neutral and is very important.
It’s the act of documenting what one does...

-That fits into Publish.

It’s neither offensive nor defensive.

Is one that is a record,

da documentation of what has been done,

for us to use it in the more convenient way.

Sometimes in a reactive way and sometimes in active way.

But you can’t let important acts,

naturally the creative and design ones,

stay floating in the world of ideas

or in the interiorized world,

but you need to take them out.

That’s why I was telling you
that your act of doing a furniture piece.

To take it out and much more to confront it, is a Publish act.

That sketch turns into an act when you confronted with the material world, with the fabrication world, with the world of everything.

And you put it there.

How do you use it later will depend of the context and situations.

But it is there. You see?

And that’s one that isn’t reactive or active, but is very important.

-I think that, for example, the tools could be very useful....

They are really useful to focus and to be more aware about your need to Publish.
And there are some that help you in a conceptual level to develop an idea,
but at the same time I don’t know how…
I think like…
-No. It’s ok.
I think it’s very important because she wants to prove something that it will help, but because of its limitations could turn into something useless.
-No. They will not be useless because…
-I know. I mean in terms of…
-The investigation would say that this research finished there.
-Then you can’t prove anything.
-Yes. I’m proving many things within this context.
-For means of my personal analysis and of this sketch…
Because I think it’s already a work for us to internalize the tools, therefore the process, even though is short.

Really.

And I think that for use since we are younger, is way more difficult because we don’t have a work practice.

Not everyday I have work related things to do.

But I have an event tomorrow that is the perfect work frame within some work hours where I can really test and it will be three hours.

So I’ll really do this with my three hours of work.

Well, my question…

For Publish means, when I take out the DVD and I give it to the client,
is that an example of *Publish*?

I used the *Publish* there?

Even though is my duty and that’s why I’m going to charge the client?

-Researcher

-No. There has to be an adversity.

No just an act within your process of doing things.

There has to be an adversity that could prevent you from closing that deal.

-To become *Publish*...

-These tools are for adversities. For you to accomplish your purpose in your practice.

-That’s why they are for your own problems.

-And that’s also why it allies to an innovation,
- Well, some tools don’t need *Publish* to innovate.

There are some tools that…

- Yes. Of course. But in this case she’s talking about,

that she’s going to hand it in and there’s no problem.

- If there’s no problem, then you are not using the tools.

You are just doing what you have to do.

The tools activate when there’s an obstacle,

a problem, that prevents you from executing your practice.

- And is that *Intertextuality* the one we could expand

to the broad world of our previous experiences,

because in some way *Intertextuality*

comes with knowledge that is prior to us.

So, for example, others’ previous experiences

and ours,
take part in the idea of Intertextuality.

And the other thing that enters in Intertextuality that I think would be convenient to point out, is the use of a precedent.

And in design, same as in architectonic design as in graphic design, etc.

To all of those who took part of a search before us.

What Picasso did, what Dali did, what Da Vinci did...

What typographers did, what [...] did, the process of Evolution...

Everything is part of our shared knowledge.

So the use of precedents and previous references, form also part of Intertextuality.

I think it’s important to qualify.

And also one’s personal experience.

So I think it is important to unframe that,
[talking to P1]
in order to address better your Saturday’s question

about ‘And this, where do I…’

Where do I put it?’

Because in the way, one uses that precedent
or in the way one had a previous experience
and has work

is part of our accumulative knowledge that empowers us to make decisions

within a new context.

You say “Look, I used this in that moment and worked this way.”

So it seemed to me like that was a way of expanding the definition of Intertextuality.

-Yes, because it focuses you.

Because one, being a critical thinker,
Then, one always wants to improve in that sense.

and one will always be like… Like those are…

The vocabulary helps you to do that same thing.

-Yes. But focusing has some limitations.

and I want to go back to P6’s “lesson”,

to name it somehow.

I think that the essential issue, if I can interpret it,

about P6’s was how one does a sort of recapitulation

of the sense of purpose

with which one is working in the project.

To focus is important,

but what he was bringing to the table was

that in every [tragedy]. in every search, in every…
- But it isn’t the same thing?

-Uh?

- Isn’t it the same thing?

-I think it is that I’m not…

-No. In my opinion, one can focus in something very specific, but the sense of purpose, that kind of recapitulation of facing the essence of what one is pursuing and then having that in mind…

That long term purpose is different from the nature of the focus, because the focus could be…

-Not for me.
Because if you are committed to something, obviously you have a vision and that depends, because what P6 said is more about how he as a leader focuses others and how one maintains on purpose.

And I’m not talking... Like for example, I’m talking from my context. I am freelance.

Then, how I focus to get more clients, to find a job? And how these tools, within my political situation that has affected me enormously, because for example they gave me a job and then they didn’t.

And they left me hanging waiting for something to arrive and it didn’t.
So the political situation…

And that doesn’t mean that I haven’t been focused, that I haven’t done anything.

But how the tools take me out of the hole and I say “They didn’t give me the job.

So you know what? Screw it.

Let’s keep going.”

And that focuses in my own decision, that I want to design.

- I think these tools could be very useful.

I think that they even could…

And that’s why…

I expect that whatever we get from here, can be useful for other people,

but what I see is
that this could go beyond the design field.

Researcher

-I don't understand.

Art Director at an Ad Agency P1

-That the tools…

Researcher

-You mean to take them out to another field?

Art Director at an Ad Agency P1

-Yes because… Because...

I still don't enclose them specifically inside a design frame.

[THE ACT OF NAMING]

Urban Planner P9

-One that we have already said it.

I mean that I agree that you helped us to innovate. Right?

We now maybe have…

new mechanism to address, face

and maybe modify situations.

I mean that we have a positive and productive output,
of being able to...

The fact of managing a definition,

maybe with the options, now one has the...

Is not that suddenly I learn how to

focus some situations or to react in a specific way,

but the fact that this is defined and that I could say...

Because today I was talking to P6

and I was saying “Because the Publish tool …”

To name it, being able to classify

that this is what I’m doing,

helps me to systematize.

Next time it won’t be so random.

It’s part of the decision making process.

Exactly. Is like…
So you would say systematization.

-Well, I say is a…

Is the same when using Publish, because is an advantage to see things from the outside and say “This is what I’m doing.”

You have the vocabulary.

-Exactly.

What P3 was saying the other day that is a little bit about detach and being able to see it from the outside.

Recognize it and tackle it in other way.
A way that is more conscious to let it become part of us. But that separation is fundamental for one to recognize it. And I think that’s critical to the project. That is a separation that allows you to use them as tools. When you bought them, you already used them. In a more conscious and deliberate way. More malicious in tragical terms. It challenges you. I think it challenges you. If you constantly have them in mind, they move you away from your zone. Now I can, when adversity comes, bring them to my mind.
and try to think in the consequences if I use them.

Assistant Systematization Guide

Art Director at an Ad Agency P1

[ABOUT INNOVATION]

Design Activist P6

- Beforehand

- Before I couldn't, because I wasn't even aware that I was using them.

- When talking about tools that can respond to this huge universal problem,

- Because [at least in Puerto Rico the problem is colonial]

- Personally I also can see the usefulness,

at least of some of these tools, for very specific things.

For example, designing a website when you come from a graphic design background

and you need to design a website,

trust me that you are facing a serious problem.

You don't discover everything with the first design,

not even with the second one or the third one.

It is a process. Right?
Most of the things that are here, in conceptual terms, will dramatically help you to understand and at least to place you in a correct attitude towards that work.

So I’m not so sure; for your means; if you would like to frame this...

Its usefulness, only within the great concept of how to deal with colonial adversity; the one colony suppose.

I think these tools are even more of a [...].

More pedestrian, very utilitarian.

I think there are three things that one....

-We are talking about the expectations.

-We’re talking about the expectations.
I wanted to make you those comments first, because I’m still trying to resolve the discussion we are having, because I think that’s one of the restraints the group has; About where these tools really apply and if they truly should be confined to how you define them, or if they are more practical, as I’m hearing some of you saying. But the three things I’m thinking, at least in my case and maybe because of the stage where I’m at, is first innovation. But I’m going to classify it, or qualify it, because there’s a big risk with the idea of innovation just to innovate. Sometimes the more significant solutions are the ones you already had in front of you and you haven’t recognized.
So I think we tend to overestimate innovation, creation as the thing itself. But yes, there are problems that don’t find solution right away and need innovation. So I expect that a toolbox like this one could help me to innovate. And on the way to innovation, I would like them to be predictable. A toolbox should have... Should be predictable. You know? I have a lot of experience with that. Advertising. Saachi and Saachi, for example, had a specific creative brief that I swear is infallible.
The way you use it, systematically you will end up with a creative alternative and on the objective.

I have seen it a thousand times.

Actually, the first time we took that workshop as a group, the creative people next to the executives, all the executives came out with better alternatives than us the creative people.

That’s how good that system was.

It’s a shame that it doesn’t exist anymore.

Predictability.

Every time that I implement it, I get this result.

Every time that I implement it, I get this result.

That’s a quality I would like to have here.

Efficiency.

You go along with the process and when you go back,
you say “Yes. I did it, but look how much time I spent.

How many times I smashed myself against the wall.”

You would like this toolbox could minimize all the fat of the processes.

I think there are three qualities…

-Or that could warn you about the fat in the processes.

-If it warns you, you can eliminate it. Correct.

You want to have an efficient system that helps you to be the most efficient, if possible.

So I said three things.

Predictable,

Efficient

and Innovation, just when necessary.

-I wanted to ask you as a provocation
and as a…

As a catapult.

Do you think that innovation is the result or do you think that innovation could be one of the tools.

-Good question. I have never questioned that.

I think innovation is also a result.

In my own experience.

As soon as you begin…

As soon as you adopt some principles,

many of the ones that are already here,

as soon as you adopt them you are on an innovation path.

-But that is something that I was always required to do throughout grad school.

I was constantly under the pressure that I had to create innovation.

And I don’t know how productive,
or valid is when you just want to solve a problem

or because you do it for the ego of innovating.

-Innovation isn’t necessary to put your ego on the spot.

For some people it is, and also for some agendas.

-Well, for that impetus of creating something new.

How he just said.

You understand?

And that depends on how…

For me there is an issue about...

I don’t know if it’s about intertex… I don’t know but...

-Look what happens.

I think that’s what we all aim.

To bring innovative results.

But sometimes the solution to a problem
doesn’t mean that I need to apply an innovation,

but something that was used effectively in the past…

-This piece here,

new knowledge,

was the one that pushed me to say

“Well, new knowledge indicates that there is a qualitative jump

of everything one has over the table.”

And suddenly there’s a recognition that here’s something

that I have learned,

that is something new and existing.

It wasn’t there before, but is re-postulated in such way

that acquires a new dimension.

And I invert it to ask you

if in the creative process, in the same way we have intertextuality
that has to do with reconnection

with the already known knowledge

from the past and the precedents

and what came before us.

The anchorness.

The ones left that are essentially operational.

How one manages the situation

If one of the tools should be to set as a north

and how does one apply it so that new knowledge

translates into innovation?

In a qualitative jump

about what one does to be able to explore new territory.

As a will, no as a result, but as a will of action.

-It is already in my toolbox.
It needs to be.

It needs to be in my personal one.

I don’t know if in others’.

I say this, because

you give it to me as a tool

and that’s it.

Now, when you told me

that I really don’t need to use all the tools every time,

it’s a doable action and a vital option for us.

-That tool puts me under a lot of pressure.

-At least, in the way I used them during these days.

the tools create or aid

that jump into innovation.
That's my observation.

-Social Psychologist P4-

-What I wanted to say was that

the concept of innovation. Right?

has at least two entrances.

Because has the entrance of a new knowledge.

Right?

Something that wasn't there and that suddenly is generated,

but also has another meaning that is to renovate.

Right?

So when you renovate,

you are actually saying that there was something

that was already there and that you maybe stopped using,

or you weren’t paying attention to,

and suddenly what really solves the problem is that.
If we understand innovation with its two meanings, that also is innovation. Because you are recognizing something existing and that you haven’t used before and suddenly that was what you needed.

*Art Director at an Ad Agency P1*

-Or you used *Intertextuality* to generate something new...
TRANSCRIPT OF SYSTEMATIZATION VIDEO (DVD)
4- PARTICIPATORY DESIGN: Fourth step of Systematization
[Tuesday February 22, 2011] Participants change chosen technique for accomplish participatory design. Originally was a mental model activity and was chosen instead the IDEO Brainstorming technique. Video documents the process of this selection.

Design Activist P6
1591
02:19:11;04-->02:19:12;18
-We are in search of a new form

1592
02:19:12;28-->02:19:17;04
and rethinking current conventions is part of it.

1593
02:19:17;10-->02:19:21;17
But for example, if I was going to try to understand the assignment,

1594
02:19:22;02-->02:19:24;15
from the industry’s point of view,

1595
02:19:24;25-->02:19:28;05
I want to be sure if what you are asking me is

1596
02:19:28;27-->02:19:31;20
if the design helps to explain the product.

1597
02:19:32;07-->02:19:33;19
To build the product.

1598
02:19:34;10-->02:19:35;17
Because if no one understands,

1599
02:19:35;28-->02:19:39;19
“What are you talking about? What means Intertextuality?”

1600
02:19:41;00-->02:19:44;18
Because here we have had the benefit of having a long and extensive discussion.

1601
02:19:45;01-->02:19:49;26
Now, how do I manage to get someone to understand,
for the first time, that concept of intertextuality and to use it.

Today, we are not sure of how to achieve that.

You are… In the real world… Right?

One thing is to formulate the product,

and here to formulate the product means to find the way of grabbing the intertextuality concept

and being able to apply it to your own way of doing things.

That is the product.

And other thing is to pack the product.

Package design, versus product development. Right?

Which of the two is it?

-It's both.

-You are part of the first one.

-It's a wicked problem (Mignucci)
- It's a wicked problem.

- And you know why? Because, essentially, part of what we are betting on is that it is precisely through the package design, and content of course, where the understanding nature will turn evident.

- P2 wants to talk (MM)

- Suddenly, for me to design something, without thinking of me as a user, because my experience with these tools has been me as user or listening your experiences as users.

Then is difficult for me to detach when I'm trying to design something that maybe works for me and that maybe works for others, within the discussions I have heard.
-I agree.

It has to be done from a forum…

Because something that happens

is that in participatory design…

All of these is participatory design.

-Because I’m thinking right now in hundreds of ideas,

in terms of vocabulary, how to deliver the message,

how definitions should look like in the book and then…

Or whatever the design ends up being.

But suddenly I think that it’s hard for me to detach as the author.

-But is not as the author.

-You will not detach as the author. Is different.

-Is that the author we are talking about is an ideological author.

-Ok.
Participatory design is what is happening now, where people are negotiating ideas.

The result of a collective work, talking about efficiency, is not efficient if each of us spends the night thinking about one idea, when we could do it, as a collective, graphically taking notes of everyone’s simultaneous ideas throughout the process, discussing, touching bases, confronting ideas...

Let’s do it as a graphic brainstorming.

-Is that I thought it was going to be like that.

That is efficient. One night, all of us without agony or distress.

-And I think it can be based on us as users.

Of course. Is much more comfortable.

-P6, what tool is that?

-Intertextuality
That one is in most of them.

Let’s pause.

That depends on…

I agree with the premise you established.

But I still agree with me,

if there are 10 different alternatives.

If you have to meditate…

Brainstormings…

There’s a method we use for brainstormings,

which is the one I like and the only one I have read.

It’s IDEO’s.

Every person has to contribute.

So you will have a variety of…
You will have the same ten different alternatives, like if we had worked apart,

because when we get here you have to contribute with an idea.

- P6, let's take a vote.

- Oh ok.

- It was clear from the beginning

that there wasn't an exact way to do it

and that's why there's no one tomorrow or after tomorrow,

because this … You know?

Besides it creates a fertile field to…

- Can we meet earlier tomorrow?

- No, and besides it's true

that I have an idea in my mind

but I really don't know

if with all the things I have to do tomorrow
I can dedicate five hours to make you a prototype.

I can only dedicate the time I already compromised with the workshop.

- Let’s do Fast Feet right now.

Fast Feet!

Do we vote on it, yes or no?

- Yes

Now. So you know what?

P6, You are in charge

You just need to bring rag paper.

We have post its.

But I want to say something.

P6.

Hello P6.
Excuse me P6 and Mari Mater.

I think P6 brought an idea, but I don’t know if you also brought the idea that you were in charge?

- No. I didn’t bring up that idea.

- That’s why I’m asking.

- But I do have a method to run brainstormings.

- That’s why I’m asking if he is willing to do it, then we are willing to let him do it.

- Of course. It’s […]

- That’s why I was telling him, because sometimes we just…

- Publish, Publish, Publish…

- You put me on the spot.

[laugh]
CONFERENCE PRESENTATION IN THE UNIVERSITY OF NICOSIA, CYPRUS

5th International Conference on Typography and Visual Communication on the theme of “Against Lethe”, Regarding adversity and lessons from the past design practice. (June 6-8, 2013). The RTRP model was used as framework to analysed Puerto Rico’s first design firm. Presentation can be access at http://es.scribd.com/doc/145098121/A-Central-Paradigm-in-the-Periphery-The-Rise-and-Fall-of-a-Graphic-Design-Business

A Central Paradigm in the Periphery: The Rise and Fall of a Graphic Design Business

Rubberband, LLP

transformation design

Arthur L. Anejo
Mary Anne Hoppod Santaella
Maria de Mier O’Neill

First graphic design studio to professionalize the graphic design industry of Puerto Rico.

Graf, Inc.: A New Paradigm

1982-2002

A recurring publication design project for the Puerto Rico Tourism Company.

- It is the spanish term for “what’s happening”, a friendly way of asking what is going on.
- It triggered the formal founding of the firm.
- It also marked the beginning of Graf’s demise.
- It illustrates how Graf grew and changed.

Qué Pasa will be used to understand how Graf changed the local practice from fine art printmaking tradition to complex visual communication services in an adverse context.

Qué Pasa: The Official Guide To Puerto Rico

1982-1998

Thriving Under Adversity (1982-1996)

1 No design industry
2 Weak design culture
3 Technological limitations (pre-digital era)
Our Question

What was the historical context?

1 Lack of design industry:
   Only architectural firms were in business.

2 No Diverse Practice:
   Design services were mostly offered by multinational Ad Agencies.

3 Lack of Strong Government Policies:
   DNIEDCO (Division of Community Education), a strong cultural program that ran since the 1950s, had closed, leaving Concilio de Diseño (based on the model of the United Kingdom’s Design Council) as the only government program focused on design.

4 Politicized processes
   Cultural institutions and products were targeted and restrained by right wing government.

Theory of the Context

Peripheral Design Practices

Periphery = developing countries
Design is a luxury
Countries with no reliable infrastructure or manufacturing industry
Cheap labor
No design discourse
No design education (except architecture)

Central Design Practices

Center = developed countries
Design is an integral part of production

Our Question

What models did Hoppgood use to shape Graf?
**All Central Models:**

- Business model of West Indies Advertising (a local ad agency).
- Ethical Guidelines of the American Institute of Graphic Arts (AIGA) to begin/develop a design practice discourse.
- Pricing model of the Graphic Artists' Guild.
- Creative models of successful design groups like Pentagram to establish creative processes.

**New Question**

- How were these models adapted to the peripheral design practice?

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**Analysis Framework**

A four-stage problem-solving spiral model is used to explain, understand, and design Theory, the strategies used by Graf to tackle adversity, thrive and later, succumb.

RTRP uses 4 sets of behavior patterns consisting of 9 tools for design practitioners to make resilient strategies.

- Anchor
- Intertextuality
- At Hand
- Publish

---

**Effective Strategies**

1. Work-ethic based on merit, not by public relations
2. Horizontal organization
3. Supportive of creative practitioners
4. Visual acknowledgment of past artists and designers’ work
5. Used what was available
6. Participated in local and United States competitions. Open process with creative team.

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**Effective Strategies**

1. Work-ethic based on merit, not by public relations
2. Horizontal organization
3. Supportive of creative practitioners

_Evidence:_

They chose their workload and itinerary, very different from Ad agencies of the time. 

Emphasized pro-active decision-making. 

Emphasized collaboration in all stages of production. The designers participated in the costing of projects based on their estimated time for executing each phase.
Effective Strategies

Intertextuality

4 Visual acknowledgment of past artists and designers’ work

Evidence:
Gráf’s adaptation of Imma De la Losa’s sandblasted map of Puerto Rico drawn by photographer Jack Delano.

Gráf approached the map as an information design piece. The decision to pay respect to work of the Delano in Old San Juan, is a way to preserve design history.

rtrp

Intertextuality

4 Visual acknowledgment of past artists and designers’ work

Evidence:
The unique format (20x20cm) format was kept to maintain a connection and to build goodwill.
Effective Strategies

4 Visual acknowledgment of past artists and designers’ work

Evidence:
Graf also sustained and strengthened the editorial criteria that the previous editor had established for the publication (80% editorial content and 20% advertising).

Intertextuality

designer’s role in society

Stay tuned to what happens, is happening and will happen in the field. Account and accept for the past, and create an integrated language and engage them (both past and present) to be an innovative trend and turn them into something more. This book may lead you to innovation.
Effective Strategies

5 Used what was available

Evidence: Used photo-typsetting

Redesigned the magazine section by section.

Did a total of three re-passes while the production of the magazine kept on running, i.e. worked on two magazines simultaneously.
Effective Strategies

Publish
Skill others what you are doing about them to see your reflections on how, the process and the final product. Remember that problems are like fungus; they grow in the park, which means you can also see this to get problems out of the closet, deliberate them and utilize them. Remember that in order to publish you need to determine your work or on this country. It will be like if never happened.
What was the result?

- Growth of the corporation from 3 to 10 employees, revenue: $75.5K (1982), $327.1K (1990) to $1.3 million (1990)
- Peer recognition:
  - United States’ Print Magazine published an article dedicated to Puerto Rican graphic design, which included the work of Graf.
  - Governmental projects: Tourism Company corporate ID and promotional ID
  - International projects: Banco Popular Dominicano and Costa Rican presidential candidate Margarita Pérez, first female presidential candidate.

1. Economic Recession
2. Neoliberal Practices

Why Graf’s model could not adapt to a new context?

New Question

The adapted center model thrived until context became erratic.

Although Graf’s model was adapted to the peripheral practice, it was still center-based.

Graf’s Axiological Model became too rigid and lost focus.

Graf’s designers focused on adversity instead of opportunities.
Business Context

Cause

Privatization - Public policy

Effects

New administration handed Que Pasa - a product developed with taxpayer's money - to a private corporation

Unfair corporate practice

Business Context

Cause

Technology

Desktop publishing allowed proliferation of untrained professionals services and in-house setups.

Corporate clients started to request speculative design proposals in order to choose the lowest bidder.

Business Context

Cause

Recession: upcoming Depression 9/11

Effects

Citibank closed down its Corporate Banking division and left the Island.

For Hingco, this event was an example of the unrolling of the economic crisis that would engulf Puerto Rico as well other countries, in the upcoming years.

Business Context

Cause

No Fast Feet Play

Mature and transform.
If adversity means to
operational, act immediately.
A fast feet play attitude can
substantially change any play,
transforming a problem into a
design opportunity.

Graf's Axiological Model

Ineffective Strategies

1. Did not downsize or made adjustments to employee's benefits. Therefore compromised the whole team.

2. Were unable to reinvent their practice and recognize business and innovation opportunities.

Evidence:

Graf did not recognize new ways of working and how the role of the designer was changing.

* Unable to give employees the flexibility to work co-location.

* Unable to move from an expert designer to a facilitator designer, therefore, collaborating in a participatory way with inexact designers and users.
Ineffective Strategies

3 Graf unable to adapt its services to the fast-paced emerging Web market.

It is a fact that the Internet, although it was still very new to many, presented a niche for designers. In 1993 Puerto Rico became part of the second group of countries to have access to the Internet (by NSINet).

Effective and ineffective strategies for contemporary designers working under adversities:

1. Freelance operations will limit the growth (both of businesses and design capacity) in contexts with weak design cultures.

2. Corporate structures strengthen the design practice as well as the design culture.

3. The importance of using models that address the dynamics of socio-economic instability, similar to the experience of a peripheral country.

4. The importance of a deep understanding of local cultural knowledge in order to create cultural capital in a sustainable manner.

Lessons learned from Graf

4 Focus on opportunities instead of adversity.

Like a “paradigm” operation, one deals with the current problems at hand, while the other continues with the main plan.

5. The importance of collaboration and participatory creative processes that promote a proactive environment among design teams with the users, clients and vernacular designers.

6. The importance of inserting one’s own practice in design history in order to build creatively.

7. Being comfortable with public error and wondering in the creative process.

RTRP

Lessons learned from Graf

Where are we now?

1. Still a disorganized guild, dominated by freelance professionals.

2. In general, the Puerto Rican audience is unaware of what design is or the role it can play in a society, i.e. Puerto Rico has no design culture.

3. There is no entrepreneurship culture among the creative industries. The advertising agencies, which rule the industry, absorb the graphic design professionals. Others go into the freelance practice with no vision of something bigger.

4. The work done by the Graf has fallen victim to the obliterating effects of the context; tabula rasa, very common in contexts like Puerto Rico that do not have a design discourse.

Effective and ineffective strategies for contemporary designers working under adversities:

1. Freelance operations will limit the growth (both of businesses and design capacity) in contexts with weak design cultures.

2. Corporate structures strengthen the design practice as well as the design culture.

3. The importance of using models that address the dynamics of socio-economic instability, similar to the experience of a peripheral country.

4. The importance of a deep understanding of local cultural knowledge in order to create cultural capital in a sustainable manner.

Where are we now?

Design industry in Puerto Rico: 2013

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Right: Round table about Graf’s reacher was given in December 3, 2013, in City Hall, Caguas, Puerto Rico, in D’ Diseño lectures series event. From left to right: Arthur L. Asseo, Maryanne Hoopgood and the researcher (behind the Bounce & Design toolbox).
PROYECTO C, HEALTHCARE COMMUNICATION DESIGN PROJECT

Informed by the RTRP tools, the research theories and the researcher is adaptation of Systematization (July -June 2013). Project can be access at http://proyectcpr.wordpress.com It was a semifinalist on BID 2014, Spain, under Service Design.