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INTEGRATING SYSTEMS THINKING AND STORYTELLING

An overview

Maggie Ollove and Diala Lteif

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**Abstract**

This paper explores the role of design in conflict resolution when doing so means balancing burdened pasts alongside present uncertainties. To prove its relevance in today’s complex problem spaces, design cannot remain stagnant and must evolve alongside the pace of development. Designing within complexity is unprecedented. Yet, design can define structures that guide an understanding of this complexity. The methodology and case study described below explore how systems thinking, storytelling, and grounded theory can contribute to this understanding. The methodology aims to combine subjective perspectives with systemic analyses to create a collective narrative that reveals the multitude of individual understandings of conflicts. Ultimately, this methodology does not attempt to resolve conflict, but aims to provide an in depth diagnosis of a wicked problem and question the role of design therein.

*Keywords*: design, systems thinking, storytelling, conflict, diagnosis, wicked problems

**Introduction**

No problem space is new. All that is encountered has formed with layers of history, (in)action, failure, and insight. Understanding complex problem spaces as having a beginning, middle, or end is irrelevant, if not impossible as the human situation is endlessly entangled and complicated. Environmental degradation, economic recession, socio-political fragmentation, and rapid population growth have created a complexity that must balance burdened pasts alongside shifting nonlinear uncertainties. Any potential solution will not be a simple fix and must be crafted from an understanding of the nuances of what came before and foresight into what will come.

The problems that we currently face have been stubbornly resistant to solution, particularly unilateral solution. As we are painfully discovering, there is no way to unilaterally solve the problem of carbon dioxide buildup, which is steadily and inexorably raising the temperature around the globe. The problems of crack cocaine, ozone depletion, the proliferation of nuclear armaments, world hunger, poverty and homelessness, rain forest destruction, and political self-determination also fall into the category of "resistant to unilateral solution.” (Richmond, 1993, p.113)

Empathy and foresight are capacities built into the design approach. This makes designers well-positioned to create complex solutions that can rival the depth in complexity of problem spaces seen today. As Herbert A. Simon (1981) said, design moves existing situations into preferred ones. In a time when revolutions are started in the digital world and local tensions are broadcast globally, the preferred situations feel like they are harder to grasp than ever. And yet, designers are trained to deal with shifting circumstances and to forecast the desires and needs of their customers. They are taught to look into the future and to act now. Designers possess a necessary set of methods and capacities, but have yet to fully apply them to complex problem spaces. There remains a lack of understanding of the relationship between design and complexity that must be understood before design can position itself within world’s largest challenges and begin to add value.

If design is to be the means towards a radical change of direction of our ourselves and our made-world, if we are to move from the ‘existing situations into preferred ones’ – it cannot be understood and confined within its current forms. It has to change into a far more ambitious and intellectually informed practice. (Willis, 2013, p.1)

To begin to situate itself within complexity without overburdening already crowded problem spaces, design must differentiate itself from other fields by offer alternatives to what already exists. This paper seeks to explore whether design has the ability to offer such alternatives and suggest a possible methodology to arrive at these alternatives within the most stuck and stagnant problem spaces. In other words, does design have the ability to find understanding, clarity, and insights that can lead to action?

Explored conceptually since World War 2 (Mindell, 2002), systems thinking is a methodology that comprehends how individual parts fold into the whole. It supersedes previous methods of understanding through “analysis (to gain knowledge of the system by understanding its parts) with synthesis (explaining the role of the system in the larger system of which it is a part). Analysis is useful for revealing how a system works but synthesis reveals why a system works the way it does” (Ackoff, 1999). The term synthesis, however, should not be mistaken as a simple coming together or fluid process of understanding. Rather, systems thinking should be respected as a tool to complicate. It is a way to diagnose or understand at the greatest scale, while examining the ‘what is’ in nuanced detail. And this is in no way simple or clarifying.

To make no attempt to discover why a system works the way it does creates superficial designs. “One of the consequences of Systems Thinking is the willingness to sacrifice the performance of the part for the performance of the whole”. (Pourdehnad, Wexler, Wilson, 2011) As a complement to systems thinking, design can begin to thrive in complexity. Indeed, when systems thinking is applied to spaces of design the intricate layers and subtle moments within complex problems are exposed. The unknown is acknowledged and not ignored, and the details are pertinent and not besides the point. “It is possible – and necessary - to create an approach that explicitly incorporates the strengths of each (systems thinking and design thinking), thereby addressing their gaps and increasing the chance of creating sustainable solutions to the wicked problems facing organizations and society today. (Pourdehnad, Wexler, Wilson, 2011)”

With this large scope of cognition, design can complement a systems thinking approach and enter conversations about the so-called ‘wicked problems’ as first named by Horst Rittel and Melvin Webber. Defined in their nominal article, wicked problems are those most malignant, tricky, and unsolvable (Rittel & Webber, 1973). As opposed to tame problems, wicked problems are formed through multiple intertwined elements lacking clarity or distinction that test the capacity and possibilities of design. When the relationship between systems thinking and design is activated, wicked problems can be tackled with creativity, design thinking, contextual mapping, and roadmapping of potential unintended consequences.

Perhaps the need for systemic understanding and innovative insights, as well as the frustration that can result when absent, is never felt more readily than in complex conflict, where the most wicked of problem spaces can be found. In conflict mediation, conflict is defined as an interaction of interconnected people pursuing multiple opposing goals (Barki & Hartwick, 2004). Specific to systems thinking, conflict can be understood as a lack of alignment or consciousness of the system, whether this be an individual not understanding her position in the larger context or the system not responsive to the needs of the individual. The idea to be amplified is that conflict is multi-layered and forms from perception, action, and feeling (Mayer, 2012). These individual characteristics are compounded within complex conflict that is a combination of the tensions of multiple people or perspectives and often overshadow any single individual.

Isolating systems thinking in complex conflict remains too large- scale and does not incorporate individual sentiments, reactions, and empathies; the very means through which persons - the individual parts of the system - identify with conflict. To counter this a focus on the individual and subjective within conflict is necessary, along with the inclusion of the connection between multiple perspectives that form the collective subjective. Design, a field that has been shaped by the basic need of making things work for individuals, can be relied on to fold in these perspectives in ways that complement larger-scale systems thinking methodologies.

“Systems theory and design thinking both share a common orientation to the desired outcomes of complex problems, which is to effect highly-leveraged, well-reasoned, and preferred changes in situations of concern. A central difference in perspective is that systems thinking (resulting from its theoretical bias) promotes the understanding of complex problem situations independently of interventions or solutions. (Jones, 2016).”

Systems thinking can sort through the complexity of differing actions, feelings, and perceptions in conflict, while design introduces the individual perspective and leads towards change. By directly connecting these two methodologies, the strengths of each are amplified. This was tested through several recent case studies with different organizational structures experiencing conflict. This included conflict in hierarchical organizations, conflict in grassroots organizations, citywide conflict and the conflict of identity surrounding Lebanon. What was found is that without the capacity to include individual subjectivities, systems thinking loses the ability to find a complete diagnosis of a problem space and therefore will not lead towards the design of viable, substantial solutions. A whole is greater than the sum of its parts, but neglecting the parts cannot create a whole. Even more, when individual subjectivities are located within the broader system previously overlooked insights are found. Deriving systems thinking directly from subjectivities strengthens and encourages systems mapping or diagrams and enables more rigorous understandings that acknowledge the political and biased nature of the problem space. Only in this way can problem space (even of the most complex conflict) reach a consequential level of diagnosis that forms from a comprehension of the present that can be reframed with concrete insights to reveal emerging design potential.

This paper introduces a methodology that leverages systems thinking and storytelling to locate an in-depth diagnosis of conflict based on individual perspective. The first section addresses the methodology itself, followed by a section dedicated to one of the case studies conducted in Beirut, Lebanon; a capital struggling with the aftermath of a civil war. Immediately following is a reflective section that extracts the knowledge and lessons learned from the application of this methodology, before concluding with the larger role of design and designers within complex problem spaces.

**A methodology**

The goal of the methodology is to find clarity and understanding within complex conflict. Through an accessible and engaging diagnosis - or understanding - of conflict, this methodology raises individual consciousness and finds entry into the systemic problems using personal subjective experiences of individuals that can be revealed through stories. By connecting individual stories and experiences to inform the building of an intertwined system the perception of the complexity of relationships within conflict is revealed. Tying the stories directly to the system creates a better informed, more useful, and more ethical understanding of a conflict derived from individual subjectivities and framed by the larger systemic issues that impact a system.

The methodology described in this paper creates empathy by uncovering a diverse range of perspective through storytelling. Referred to as Design Align, this methodology relies on the built capacities of designers to strike a delicate balance between systems thinking and storytelling. Understanding conflict through the inclusion of various perspectives can extend the empathy from the individual to the conflict itself, creating a re-framed understanding. At the same time, Design Align simultaneously extracts data and information directly from the stories to learn about the conflict. By mapping relationships between different stories, new insights can be revealed and strategic points of intervention located on the larger scale. Through pattern-finding, clustering, and re-clustering of information, patterns and themes can begin to emerge from the system. These themes are re-framed as a narrative, which takes different visual and auditory forms depending on the conflict and the people involved. This accessible form of the narrative conflict - this in-depth diagnosis - is handed back to the individuals living in conflict as well as the original storytellers. The narrative is now theirs.What follows is a detailed description of Design Align, a methodology in four steps.

***Story Collection***

“People grow up amid a multitude of competing narratives that help shape how they see themselves and others.” (Winslade & Monk, 2000, p.3)

Stories define the people who tell them; they are an expression of self. In a neurological sense, stories assist the human brain in navigating the world. Stories allow people to test out scenarios in a safe way before deciding how to act in reality. “Clever animals don’t want to engage in the expensive and potentially fatal game of physically testing every action to discover its consequences. That’s what story is good for. The production and scrutiny of counterfactuals (colloquially known as “what ifs”) is an optimal way to test and refine one’s behavior” (Eagleman, 2012).

In conflict, however stories are known to take on other purposes. Most widely used in the aftermath of complex conflict, people in these situations benefit from storytelling for purposes of healing and reflection. This type of storytelling has been seen after such grotesque examples as the Rwandan genocide (Fullerton, Steward, & Morgan, n.d.) and the Holocaust (Fold 3, n.d.). Storytelling helps people comprehend and reflect on past events to eventually and hopefully move forward.

However during ongoing conflict, stories tend to show up in a very different way and to a different effect. Myth building refers to the idea that opponents in conflict understand one another through grandiose stories that have little to do with reality. These myths become ingrained in everyday life and affect how people relate to the other and to the conflict itself. This mythical perception of the other becomes the more difficult conflict to overcome and towards what Design Align focuses its efforts. A particular focus of interest was how myths associated with the conflicts are subject to domestic political manipulation, how “enemy images” are created, and how this in turn serves to strengthen the resilience of those conflicts to resolution. The image of the “enemy” is one of the most pernicious cancers gnawing away at societies in conflict. (International Alert, 2013, p. 10)

Searching for subjective perspectives within conflict unearths an endless supply of individual stories, and therefore endless ways to understand a conflict. The story phase of the Design Align methodology negotiates this truth by focusing on the collection of diverse perspectives and to avoid “totalizing descriptions”- a subjective description of the conflict tightly woven around the specific experience of an individual that sums up a complex situation through one perception (Winslade and Monk, 2000). This occurs when an individual perceives a conflict only from her own subjective standpoint, and cannot comprehend or include other perspectives. An inclusive process of story collection was established to invite participation and maintain respect for all stories and points of view. Yet amongst the multiple subjectivities collected in this phase, commonalities and overlaps appear as the individual experiences already began to merge.

Stories come in many different forms - the visual, the written, the performed, the language and so on. To gather a diverse range of stories and remain accessible, the Design Align methodology developed tools to appeal to different storytellers. Descriptions of two different story collection tools are described - an interview-style conversation and a visual-style represented through live mapping.

***Through Conversation***

With aid of an interview protocol, storytellers are guided through a telling or retelling of their story by a story collector. The storytelling phase must continue into the analytical phase. To do so through conversation, the story collector asks the storyteller to respond to different themes and scales of conflict. For example, the story collector first asks a question focused on the individual, perhaps asking how a conflict affects daily routine. With this low stakes question, the story collector speaks from a place of comfort and builds confidence in her answers and trust in the questions.

This is an incredibly important insight and strategy, especially for storytellers who are otherwise hesitant to make claims about larger issues. By relying on the storyteller’s personal story, Design Align locates an entry point to then discuss more complex issues. From the personal, the storyteller is guided towards speaking systemically about how daily routines are connected to the larger scale conflicts. The exact questions differ greatly depending on the context and conflict and are responsive to the storyteller yet in general the path moves from the individual to relationships between individuals, to relationship with a group, to the community, and so on.

***Visualizing the Story***

Besides listening and asking guiding questions, the story collector also has a separate task. And this is to diagram or live map the story. This visualization process has been accomplished in different ways and to great effect. For several storytellers, there is a great value in the ability to visually see what is being said. Many storytellers proclaimed that seeing their conflict in this new way was incredibly important. On more than one occasion, storytellers revealed insight, astonishment, or clarity during this stage of the process, including one participant who noted that seeing the conflict on one piece of paper made the conflict feel easier to overcome. To not downplay the significance, it should also be highlighted that the visualization step aligns closely with current peacebuilding initiatives. “Peacebuilding measures also aim to prevent conflict from reemerging. Through the creation of mechanisms that enhance cooperation and dialogue among different identity groups, these measures can help parties manage their conflict of interests through peaceful means. This might include building institutions that provide procedures and mechanisms for effectively handling and resolving conflict” (Maiese, 2003). By visually revealing what an individual says, the process to renegotiate identity in relation to the conflict and in relation to other individuals involved in the conflict is begun. This creates a space for dialogue surrounding conflict and emphasizes the dialogic intentions of the Design Align methodology.

Stories are a tool to understand and relate to conflict. The human brain makes sense of complex conflict through stories and can even begin to analyze and reflect on painful memories through stories. As Carl Jung said, “the healing of trauma only begins when the traumatised person is able to transform traumatic events into a logical and coherent narrative”(Andermahr & Pellicer-Ortín, 2013) Another value of storytelling often left unexplored is the ability of stories to help imagine preferred scenarios. But, this is exactly what is needed in moments of complex conflict - a vision for the future. And so alongside the comprehension of the past and present, the interviewing protocol aims to collect ideas and visions for the future. Even if small or seemingly insignificant the collection of these notes for the future hint at what should be. They are the grounds to take what is and turn it into a preferred future.

***Analysis***

“Without changing our patterns of thought, we will not be able to solve the problems we created with our current patterns of thought.” (Albert Einstein, nd, cited in Ackoff, 1999, p.3)

By acknowledging the relationship between systems thinking and design, this methodology develops from previously argued reason for overlapping worldviews. While this paper does not have the capacity to relate the full argument, a brief explanation should suffice. Systems thinking and design have built different languages, metaphors, knowledge, and experiences yet fundamental overlaps exist specifically surrounding the relation to the future. The designer notion of creating preferred alternative futures, is reminiscent to systems thinkers who “generally, aim to do something today to improve the system tomorrow” (Pourdehnad, Wexler & Wilson, 2001). A vision for the future, along with a want to act towards creating this future aligns systems thinking and design thinking. By drawing parallels between these worldviews, systems thinking and design thinking can strengthen each other by examining the methods, tools, as well as questions, and drivers of each other.

The analysis phase of the Design Align methodology introduces systems thinking into a design conversation. This next phase identifies the connections and disconnections between stories, moving from the individual level to the systemic. The system that includes diverse stories and are brought together in a holistic visualization that captures many subjective perceptions of the conflict. This creates a highly politicized systems map that diagrams the conflict through the lens of the collective subjective. The resultant map also portrays the perceived, the agreed upon, the conflicting, and the possibilities for preferred futures. Through this messy visualization the conflict - in all its complexity - reveals itself.

Drawing systemic knowledge directly from the stories allows individual subjective experiences to inform the larger-scale understanding. This stage is very much a layering process that leads into pattern finding. The placement of elements in the systems diagram adds clarity as every introduced element reveals new perspective and potential for patterns to form and insights to then emerge.

By connecting individual stories into a structure that invites analysis, the ethnographic process can begin to be informed by system analysis. But it does not yet dive deeper into the insights found from the overlaps in individual stories. To do so, a research approach needed to be developed as a guide. Drawing on the learnings from other fields, the re-interpretation of grounded theory - most familiar to social scientists - became the most effective approach. The grounded theory approach was developed in the 1960s by Barney Glaser and Anselm Strauss (1967) as a reaction to the quantitative positivist paradigm dominant of that epoch. In essence, this method aims to extract theory from qualitative data through a systematic analysis by “interpreting [the] meanings or intuitive realizations” (Charmaz, 2006). Emphasizing the overlaps from the previous step, this method extracts themes from the systems diagrams grounded in the empirical realities. In other words, themes are established from the organization and reorganization of the raw data - the systems and stories. “The supposed advantage of this is that the theories that are being developed, almost by definition, are grounded in the data and therefore do justice to the social reality” (Tummers & Karsten, 2012). Combining grounded theory with systems thinking results in explanatory theories rather than descriptive or purely conceptual theories.

Grounded theory fit well with a design process as it is in itself an iterative process that can draw analysis from the data at hand. In the Design Align methodology, the completed systems diagram is the source of the initial data. All the elements of the system are dismantled and reorganized to extract value - or in this case - narratives from the system. The information is shuffled and reorganized in quick consecutive rounds using common categories. In each round, clusters emerge unveiling different themes, categories, key characters, and most importantly insights and preferred future scenarios.The grounded theory complements the values of this methodology by informing the creation of the democratic narrative to be disseminated back to the initial community struggling with conflict. The initial stories themselves are a source of great insight stemming directly from lived experiences with the aim of pulling key insights that could support individuals in forming a more holistic understanding of their own realities and the connections that bind them to each other and the larger conflict.

***Narrative***

“At any given moment, all over the world, hundreds of millions of people will be engaged in what is one of the most familiar of all forms of human activities. In one way or another they will have their attention focused on one of those strange sequences of mental images which we call stories” (Booker, 2006).

A narrative metaphor is based on the premise that ‘reality’ is constituted by society, that it is constructed and maintained by the members of a particular society in the stories of daily interaction and across generations (Freedman & Combs, 1996 cited in Legowski & Brownlee 2001). These social metaphors are regarded as influencing and shaping individual metaphors. Thus, problems are viewed as being located within their cultural context as well as individual experience” (Zimmerman & Dickerson, 1996 cited in Legowski & Brownlee 2001).On the individual level, narratives reinforced by society help people grapple with the complexity of conflict by breaking it down into accessible combinations of stories. Conflict narrative is perceived relatively by individuals who navigate the system from different vantage points and experiences. Capturing stories from many storytellers (including the oppressed, oppressors, and otherwise) is essential to understanding the subtle nuances of conflict. Stories act as an entry point, but stories in isolation do not build momentum or provide a full understanding. Together individual stories, consciously or otherwise, form the greater narrative of the conflict re-frames conflict to tell an inclusive, and perhaps alternative version. But this narrative also introduces opportunity for insight.

The complexity achieved in the systems thinking and analysis phase is very difficult and inaccessible, especially for people unfamiliar with systems thinking. In a world rife with integrated conflicts (for example, when environment degradation overlaps with economic recession overlaps with social justice issues) it is increasingly difficult for individuals to connect to complex, systemic problems. These problems have fundamentally become too complicated and individuals no longer see their place in the system. Narratives, however, have the capacity to engage audiences, provoke thought, and provide access for new audiences. In the context of this methodology, the narrative is defined as a synthesis of the multiple perspectives and stories around the conflict into an impactful, poetic and multi-layered storyline. This phase of the Design Align methodology translates complex conflict into relevant and accessible narratives that invite engagement from a diversity of people. Key to this engagement are the emphasis on the multiple entry points collected in the story collection phase and preserved in the analysis. It is through the entry points to the larger conflict that individuals can engage with the greater narrative.

Narratives package complexity into accessible structures for individuals to comprehend; it translates and reveals the results and insights from the analysis phase in provocative ways. The original stories, now supported by secondary research, allow for the themes developed in the grounded theory stage to become more fully and clearly developed. The initial stories are the substance that constructs the whole: the narrative. They are more than just descriptions of the conflict, they are its truth.

***Dissemination***

“But we are beasts of emotion more than logic. We are creatures of story, and the process of changing one mind or the whole world must begin with ‘Once upon a time’.” (Eagleman, 2012)

Stories are the substance that construct the world rather than a means to describe it; they hold truth. The narrative then is shared truths. It is what connects one individual to the other to build empathy and reveal overlaps. In the midst of conflict, opponents tend to forget that the other sides struggle with similar, daily issues. By understanding the others’ point of view and the connections with one’s own, there can be movement past the differences to build on shared hopes.

The Design Align methodology therefore delivers a holistic narrative to the initial storytellers and the communities affected by the conflict. To uphold the values established through our process and the design criteria that guide the methodology, the realization of the dissemination or delivery phase is of the utmost importance. A delivery system must be found that hands the narrative to the initial storytellers, as well as others individuals affected by the conflict. The delivery system must be adapted to specific contexts and change depending on the specific community and their needs, but it should respond to issues of accessibility, transparency, inclusivity, and respect.

In this stage popular technological formats and platforms often emerge as the best option for an accessible and democratic means to deliver narrative. This includes interactive videos and podcasts, Facebook, Twitter, and other social media networks. While our intention is to hand the narrative to the original storytellers, we also want these individuals to realize that this is their narrative and to take ownership. This includes the sharing, copying, changing, or altering of the narrative - it no longer belongs to us and experimentation, evolution, and argument are encouraged.

**Beirut: A Case Study**

The following is a case study that serves to illustrate the methodology described above.

On the scale of a nation, the Design Align methodology enters a great complexity of intertwined histories, unclear relationships, and corruption. And yet the value of problem diagnosis is very clear. Individuals are easily consumed by the levels of complexity on this scale, and for good reason often become complacent and live their lives with little or no knowledge of the larger systems. Other individuals, however, reject this complacency and do engage in the systems. Yet, still this is a frustrating endeavor with few useful tools. The purpose of Design Align on this level is to diagnose the problem space through individual subjectivities, to raise consciousness and to lead towards agency to act with accessible insights into the context. By finding space for agency that leads to behavior change, (even if only small) individuals define their place in the system. And with more time and increased awareness, this definition leads to ownership. In addition, when individuals locate spaces of overlap between their position in the system and someone else’s, a shared perspective develops. This process of finding overlap does not necessarily lead to solution or answers, but it does recreate a narrative based on ties between the system and individuals.

The Beirut case study uncovered challenging insights that shaped the trajectory of the Design Align methodology. Tackling this issue was only supposed to give us the means to start testing our methodology. Even if it meant failure, this large-scale conflict was tackled with the very purpose of pushing the boundaries of what this methodology could be. And so we humbly approached the issue of corruption in Lebanon.

***Stories***

By interviewing five experts from different fields - working either directly or indirectly on the issue of corruption in Lebanon - diverse range of perspective was collected. The storytellers in this case were a sociologist, political expert, designer, UN officer and a historian. Each storyteller related a well constructed argument explaining the causes of internal conflict in Beirut through the lens of their field.

Raed Charaf - PhD in Sociology, Writer

Raed’s depiction of the Lebanese conflict emerged from his observation of individual behaviors and societal patterns. His story with the idea of “the other” that separates the Lebanese society into two major groups; this it the typical us versus them mentality. Guided by the protocol, he directly related this mentality to the media and local coverage of the news that reinforces this divide by “magnifying the differences of the other”. Raed’s story revolved around how the media’s use of stereotypes portrays an illusion of mass control that amplifies community segregation and hatred. In this scenario, the divide let the leaders maintain power by dividing citizens.

Carole Maalouf - Political Communication Consultant

Carole’s story started with her daily frustration with unbearable traffic jams, which naturally led into her description of a corrupt government that does not allocate funds towards infrastructures. Going through the scales of her story she described a core political concept known as the “societal security dilemma”. She illustrated this theory using the Lebanese War[1] as example. The war was a result of fear; the Christian Lebanese community feared the Palestinian armed presence. Although the Palestinians never made a direct threat, yet the Lebanese population perceived one. At the same time, the Lebanese Muslim community felt alienated by the Christians and saw this as an opportunity of alliance. Therefore, the Muslims empathized with the Palestinians. This basic setup essentially describe the existing conditions that aggravated the materialized conflict, or war.

Marc Baroud - Designers and Program Director of the Design Program at A.L.B.A

Marc’s depiction of the conflict was told through his daily struggles with individuals who lack of accountability for their actions. Driven by profit and greed, the Lebanese society he once knew has lost its drive for passion, creation, and innovation. According to Marc, the main issue of corruption is economic in nature. He describes this as *economic racism;* or the tendency of people to think that income is an indication of status. Building from here, Marc speaks about cultural values, which seem to be the last thread holding this society together. Marc still has hope in the future and locates alternatives for his students who can, and will bring change.

#### Ahed Sboul - Chief of Conference Services United Nations

Having lived and worked in Lebanon for nearly 10 years she has amassed enough experiences and knowledge as a native. Yet, despite this time spent she resides in Lebanon on diplomatic status and feels she is an outsider who does not belong to this nation. In her story, she critiqued Lebanese individualistic behavior. She defined this as people who act on their own behalf with little thought to the greater collective.

Gregory Buchakjian - Historian, Photographer

Coming from a historical perspective, Gregory’s story starts similarly to Carole’s: in a traffic jam. He compared this individualistic behavior to historical drifts and cultural tendencies of the 1600’s and the Ottoman Empire. Gregory explained how many of the informal structures instilled by the local Pacha’s (representatives of the Ottoman authority) to govern their land in a world with no technological communication were preserved to the present day. This results in the survival of local leaders that still have control over communities and neighborhoods, and facilitates corruption.

***Systems Thinking and Analysis***

Although each interview carried great insight and connected the individual’s struggles to bigger systemic issues in the Middle East, none of the stories offered a complete narrative. By not overly limiting or defining the problem space, the five stories collected carried little overlap and had major divergences. Yet, combining the five perspectives into a coherent system was an interesting exercise because it showed how large a global system can get, and how narrow an individual’s perspective can be.

This process revealed a lack of alignment not seen on the others scales. Individuals were not only unable to locate themselves within this conflict, they were completely separated from it. What developed was the need to show people the different perspectives of the same problem, but to also guide them to take ownership over the absence of alignment.

***Narrative***

Through system mappings and several rounds of grounded theory led pattern-finding, several recurrent themes were identified. This included individualistic behavior, as well as corruption, and the individual fear and need for protection. Several themes emerged - education, the collective, and revolution - that resonated with multiple storytellers. These major themes were then organized into thematic clusters informed by the Seven Basic Plots (Booker, 2006) and the plots were further developed with character sketches, detailed events, and a set story structure. Based on the systemic insights, the central context of the narrative was focused on a traffic jam, and the character of ‘the other’ became the antagonist.

With the structure of the story set, a storyboard was created in order to fill in the details. By visualizing the different scenes in each chapter, it became apparent that the narrative defied the rules of a linear storytelling format. The complexity of this conflict required constant jumps in both time, (when referring to historical incidents such as the war) as well as in space (when addressing several issues at the the same time). What needed to be highlighted was the lack of linearity or ability to understand the problem chronologically. And so the structure of the book evolved to fit this demand. The book combines the materiality of stories with a structure that allows pages to be flipped to show the passage of time. To exaggerate the visuality of this, we built a pop-up book to explore the materiality of the descriptions in depth. Physically extending beyond the two-dimensional paper, also metaphorically let us extend beyond linear narrative. To keep the book grounded in reality despite its seemingly whimsical structure, the narrative referenced many real-life places, dates and people.

***Diagnosis***

In the midst of a wicked and complicated conflict to claim a diagnosis (especially at this early stage of the process) is a bit naive. What can be delivered at this point are interesting insights uncovered through the combination and analysis of different stories. For this case study, the emergent themes included ideas about corruption, the lack of unity, fear and protection, and individualistic behavior.

The theme of individualistic behavior resonated with several of the original storytellers and Lebanese people consulted later. Lebanese people do not clearly find distinction between individualism, individual behavior, the right to privacy, and a sense of unique self. There is an unsaid assumption that Lebanese people have the right to judge others based on their behavior. Yet, this remains on the individual (and almost superficial) level because there is a refusal to behave for the common good - and thus individualistic behavior and lack of accountability reinforces a corruptive society.

***Dissemination***

The pop-up book created during the narrative phase was filmed for a short video to capture the narrative as a whole. The video has been shown to close friends and members of the Lebanese community for constructive feedback. It will soon be released to wider audiences, including the original storytellers. The structure of the pop-up books will allow additional pages added to be added that incorporate new insights uncovered through this process.

We live in a world today where social media has the capacity to launch revolutions and where connections made in the digital world can be as powerful as in the tangible world. While this project never intended to go viral or make real change, change does start somewhere and the findings and reactions to this methodology were powerful. By creating a narrative emphasizing the poetry and elegance of the narrative of a conflict, this methodology intends to appeal to the empathetic side of people and to nudge, rather than force, an understanding of the complexity of corruption in Beirut. Through the field of organizational design, “we have learned that aligning people around a shared vision and mission is not enough to make the alignment stick. People also need to have a shared picture of reality and to understand their contribution to the existing situation. Without this picture, people cannot agree on how to get where they want to go because they cannot agree on where they are. Furthermore, they resist acting differently because they do not feel responsible for their current circumstances. They tend to blame others or forces beyond their control and believe that others must change first” (Stroh, 2000). The value of this methodology in such a large scale conflict is a diagnosis of complexity that gives ownership to individuals through their own subjectivities, while also introducing the subjectivities of others in manageable and respectful ways. And this has the potential to lead to change.

**Outcomes**

Since the authors assumed different roles for the Beirut prototype, there existed a chance to examine this context in different ways. Because Diala is Lebanese and grew up amidst this conflict, we had the benefit of an insider’s perspective. Maggie, on the other hand, was foreign to the conflict (though not anymore) and contributed the insight of a potentially less biased perspective. Together we diagnosed this problem space from a place of empathy, sympathy, passion, and skepticism. Through this way of working we established the importance of acknowledging, and even embracing our subjectivities, rather than subduing or ignoring them. For any problem space, we enter with our own biases and assumptions that cannot - or perhaps should not - be designed around. In fact, our role as designers should be to use the tools, processes, and methods of design to creatively and innovatively apply our subjectivity to a problem space.

The complexity of the Beirut prototype became all-encompassing and even frustrating at times. We were very easily lost in this wicked problem. However, from our personal reactions and empathies for the storytellers and the conflict itself, we realized the necessity to establish different entry points into complexity. The way a person understands conflict is unique to themselves. Therefore multiple entry points are needed to engage a more diverse group of individuals in our methodology. Stories have the capacity to deal with the varied personal connections to conflict, while the systemic approach launches a step towards transformation of stories into a stronger and immortal collective narrative that is relatable even after the passage of time.

This is especially relevant for Lebanon, a country left without a modern history book. History textbooks taught in schools do not recount stories past the early 1970’s when the war began. Once the civil war ended, vastly different perspectives emerged about what happened and what should be remembered. These disagreements prevented a consensus over what the common historical narrative should be and therefore no history book was written. As a result, Lebanon’s history and present intertwine thereby preventing citizens from a reflection on events that can only be gained through the passage of time. The country remains in conflict, never healing from past events.

The Design Align methodology applied in the Lebanon context highlights the importance of a collection of narratives at such a large-scale, and begins to take the place of the history book. Through the preservation of individual perspectives, every citizen begins to understand her conflict through a subjective entry point into this system. This encourages individual reflection on a larger conflict. By understanding how she fits within this wicked problem, she can also begin to imagine exit routes and preferred futures. This is how alignment is attained. This methodology strives not to make the change, but to diagnose conflict and locate opportunity for change.

**Conclusion**

For systems thinking to work with design praxis, large-scale understandings need to be grounded in subjective perspectives and individual stories. Without this connection, the most integral piece of conflict is missing; the stories that create the system of conflict. A story, at its most basic, is a moment in time. Through the collection of many moments or stories the larger narrative can be found and then be analyzed through systems thinking to lead to thoughtful, necessary diagnosis that can be the basis for thoughtful design. As Rittel and Webber (1973) concluded, “the formulation of a wicked problem is the problem! The process of formulating the problem and of conceiving a solution (or re-solution) are identical, since every specification of the problem is a specification of the direction in which a treatment is considered”. Focusing on the connection between systems thinking and individual stories is a methodology of problem formulation. It is design for diagnosis, not solution.

With a viable, empathetic, and understanding diagnosis, design can begin to do what it does best - to act. Perhaps the expertise of designers working within complex problem spaces can be aimed at connecting different methods of several incompatible processes, in this case, systems thinking and storytelling. Design has the capacity to balance the incommensurable within a designed artifact. In fact, “reconciling incommensurate requirements is an essential aspect of design” (Sargent, 1994). With its hopeless complications the foremost need of design is not to solve problems. A more pressing need is design’s ability to function as the interpreter and translator of the chaos of complex conflict, and through the integration of systems approaches and individual subjectivities. By respecting that problem spaces are inherently multi-layered, complex twists of ever changing systemic thought and subjective stories, design praxis needs to evolve into a cognitive and dialogic field that is reshaped through integrated praxis. Embracing the subjective, the individual, the whole, the systemic, the political, and the empathetic, design can be the means to understand first and act second.

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Maggie Ollove

Post-Graduate Fellow

School of Design Strategies, Parsons the New School of Design

Email address: maggie.ollove@gmail.com

Diala Lteif

Full-time faculty, Deputy Director

Académie Libanaise des Beaux-Arts (ALBA), École des Arts-Décoratifs

Email address: dialalteif@gmail.com

[1] This is more commonly known as the Lebanese Civil War, but Carole disputed the use of the word ‘civil’.