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# Leadership for Resilient Urban Systems: Two Cases in Asheville, NC

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# Leadership for Resilient Urban Systems: Two Cases in Asheville, NC

by

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## **Dissertation**

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## **Dedication**

This work is dedicated to the memory of Reuben McDaniel,

who was many things to many people.

To me, he was a scholar, mentor, irreverent provocateur, believer, and friend.

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# Leadership for Resilient Urban Systems: Two Cases in Asheville, NC

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The role of leadership in the resilience of urban systems is poorly understood. Leadership can be thought of as a complex practice, where the functions of leadership emerge from the relationships amongst actors, systems and institutions. There are five theorized functions of Complexity Leadership: Community Building, Information Gathering, Information Using, Generative and Administrative. The purpose of this dissertation was to explore the connection, if any, between Complexity Leadership and the resilience of urban systems.

This was explored in the context of two cases in Asheville, NC: the Residents' Council of Public Housing of Asheville and Rainbow Community School. The Residents' Council is a non profit that represents residents' interests; Public Housing in Asheville is a typical for a 100k small city. The case documents some of the Residents' Council's attempt to adopt Dynamic Governance, a set of self-organizing governance practices. Rainbow Community School is a private k-8 school, recognized internationally as an Ashoka Change-Maker School for its innovative model of education. Data was collected through a hybrid of traditional ethnographic techniques and distributed ethnography. Data was analyzed inductively, using a combination of qualitative analysis and set theoretic analysis.

The research generated findings of three kinds. First, complexity leadership was necessary but not sufficient to account for the observed resilience qualities. To explain the observed coordination across other functions and capacity to engage with mystery, this research theorizes

an additional function of Complexity Leadership—a Spiritual function. Second, individual strategic leadership played a role in fostering resilience through strengthening weak functions of complexity leadership. Third, resilience qualities emerged over time through the process of Panarchy. Spiritual leadership plays a role in fostering Panarchy through creating conditions for cross-scale resonance. The dissertation closes with the contributions of this research to theory, practice, and methods for research in complex urban systems.

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# CHAPTER ONE: INTRODUCTION

## INTRODUCTION

This research initially focused on a question: How can socio-ecological resilience be fostered in urban systems? Attempting to address this question identified, and challenged, a number of my implicit assumptions.

My focus expanded from questions about the resilience of urban systems to include questions about the resilience of people. Originally, I had assumed that the individual scale was not a necessary unit of observation to understand the resilience of urban systems. This research illuminated how (as they say in complexity science) while *more is different*, the behavior and capacity of urban systems is clearly built on a foundation of the capacity of its individual members. If planners wish to understand the resilience of an urban system, they must understand the wellspring of resilience for its people.

Over the course of this dissertation research, my questions migrated from resilience to leadership. Originally, I assumed (as I suspect many planners do) that understanding the process by which intention is translated into action was not necessary to create useful knowledge around resilience. This research illuminated how intimate the connection is between intention and action. Leadership is an important aspect of planning, yet it is rarely discussed in those terms. If planners wish to engage of the work of resilience in urban systems, an understanding of leadership within urban systems is necessary.

This research expanded my perspective from considering leadership as a distributed action to considering as the product of both relationships and individuals. Originally, I had subscribed to the central argument to the recent scholarship on leadership: leadership is not an individual act, but a distributed act that emerges from complex relationships. Similar to my perspective on resilience, I believed understanding the individual's role was not crucial to understanding the expression of leadership within an urban system. This research illuminated the importance of individual (or strategic) leadership as well as relational (or complexity) leadership, and how intertwined the expression of leadership can be. If planners wish to understand the nature of leadership, they must think about it both as a result of complex interactions and as a product of the "strategic" individual.



## ROAD MAP

This introduction will set up the work presented in this dissertation in several ways. It will introduce what this research is attempting to understand in the form of a problem statement, and contextualize how this research can contribute to solving that problem. It will explain and outline the research process in exploring these questions. In general terms, it will explain what was learned from the research and offer a few anecdotes on the surprises that emerged. The chapter will close with a roadmap for the remainder of the dissertation.

## MAY YOU LIVE IN INTERESTING TIMES

This research began with a few very basic suppositions. The world is experiencing accelerating ecological transformation (IPCC 2014). The world has been and continues to be economically, politically, socially unpredictable and transformative (IPCC 2014). There is a Chinese curse: *May you live in interesting times*. Every generation feels they live in interesting times. The generations alive for the 21st century may find things particularly interesting. The world is both rapidly urbanizing and rapidly warming. Within these meta-trends, the effects often manifest, not as smooth continuous change, but in awkward and often uncomfortable bursts. Migrants into Delhi don't arrive in a steady stream so much as in clumps, as whole clan-groups from rural communities relocate together (Author Observations 2005). One morning, a traffic circle that was previously featuring bare earth will sport two dozen tents and makeshift homes. A warming planet arrives on New Orleans' doorstep not just as marginally hotter summers, but as increased frequency and intensity of tropical storms. As a consequence, the dominant human experience in this century will be one of living within transforming cities whose experience is defined by punctuated shifts. As the implications of these two forces for daily life becomes clearer, so does the importance of resilience as an aspiration for cities.

In America, the post-war economic expansion was a tide that raised the boats of the middle class—and cities with it. As political winds changed, cities faced the economic policies of liberalization in the 1980's. This led to the transformation of the industrial sector in the US, and the fortunes of both cities and the middle class began to change. The industrial belt became the rust belt. Cities such as Detroit, Cleveland and Baltimore watched their tax base, populations and fortunes fall while social tension climbed. The blue-collar middle class has contracted dramatically in the US; those who remained within it saw their purchasing power

contract over the following 40 years (Piketty 2013). The silver lining in this transformation was the dramatic improvement of health and environmental conditions in American cities. In Cleveland, a combination of market pressures and environmental regulations led to market-exit of large steel and industrial firms. In turn, this led to a dramatic improvement in the Cuyahoga River, which burned in Cleveland in the early 1970's. In 2006, the river was designated scenic.

An observation of the American urban experience in the past century reveals that cities have faced both slow transformations and shocks with economic, social and environmental dimensions. In a landscape of climate change and accelerating wealth inequality, cash-strapped cities seek the means to cultivate economic, social and ecological resilience to weather and thrive through the coming century's tumult. Given these transformations, understanding the nature of what resilience means for urban communities is more important than ever before. How can communities foster the socio-ecological resilience of urban systems?

#### PROBLEM STATEMENT

Resilience has become an important concept within both practice and academic research. From its origins in psychology and the study of ecological systems, resilience has become a key conceptual tool in the “complexity turn” that has become useful to a number of different academic disciplines and professions (Urry 2005). Far from being an idea with an agreed-upon definition and a common set of uses, resilience is still very much a part of the conceptual Wild West. There is still considerable debate on how resilience is useful as a concept, how to effectively research resilience, and how to use a resilience perspective in practice.

*How can communities enhance social-ecological resilience within complex urban systems? (Goldstein et al 2013)*

One perspective on planning is to view it as assisting communities in preparing for the future. The seed for this research, this question offers one way to frame current thinking about how planning can assist urban communities in preparing for the future: focus on resilience. Embedded within this question are four further sets of questions—epistemological, methodological, normative, and practical—to examine in order to explain what it means to study leadership for resilience in urban systems and why that matters.

## THE MEANING OF RESILIENCE?

The evolution of resilience as a concept spans a broad-ranging progression from attempting to explain behavior of simple interactions to complex systems, and from a focus on outcomes to a focus on process. The literature chapter describes the [evolution of resilience](#) as a concept and its uses in engineering, psychology, disaster management, ecology, and complexity science. Within complexity science, the research foundation for this research, resilience has been used to understand the ability for these communities to withstand the unexpected, learn from the stress, adapt to unfolding changes, and thrive in new forms emerged as a central capacity for researchers to understand. Resilience became shorthand for this systemic capacity for adaptation and learning from stress amidst conditions of complexity that enabled healthy, sustainable, vibrant communities in the long run. The definition used for this research is that **“resilience is a property of complex adaptive systems” that describes their “ability to withstand, recover, adapt, and learn in response to disruption or crisis”** (Reuben McDaniel Personal Communication October 10 2014; Breen & Anderies 2011).

## CONCEPTUALIZING CITIES AS URBAN SYSTEMS

To understand the resilience of cities, it is helpful to conceptualize cities in terms of urban systems. Complexity science has influenced the thinking and research on cities considerably in recent decades. “Cities are the example par excellence of complex systems: emergent, far from equilibrium, requiring enormous energies to maintain themselves, displaying patterns of inequality spawned through agglomeration and intense competition for space, and saturated flow systems that use capacity in what appear to be barely sustainable but paradoxically resilient networks” (Batty 2008, 769). Traditional conceptualizations of the city as a unitary political entity are dissonant with geographical, spatial, and social realities (Jones 1998; Swyngedouw 2000). In order to match a theorization of space to what actual observations in human settlements, it makes more sense to think in terms of interconnected urban systems.

Urban systems can be many things—a park system, a public transit network, public housing, a neighborhood, a power or water grid—each unique within its city and having a distinct signature and character. They are characterized by a density of interconnections and a diversity of flows, agent types, and information. Whether intentional or not, there is an

identifiable purpose and function to the system. Tyler & Moench (2012) define an urban system as a network of relationships amongst agents, institutions, and technical systems. This research expands on this framework to conceptualize urban systems as composed of five elements: (1) A social network amongst the actors, (2) an interlocking ecosystem of organizations, (3) a system of physical infrastructure, (4) a network of physical sites, and (5) a culture composed of set of interconnected institutions that govern the relationships amongst actors, organizations, infrastructure, and sites. [Urban systems are explored in more detail in the literature chapter.](#)

### THE MEANING OF RESILIENCE IN URBAN SYSTEMS

In short, this isn't yet clear. To define resilience for an urban system, **community resilience is a property of an urban system characterized by the marshaling of personal and collective resources to thrive in an environment characterized by change, uncertainty, unpredictability and surprise** (Magis 2010, 401). What actually enables communities to marshal resources and thrive in conditions of uncertainty is not well understood. Resilience thinking offers a way to make sense of the complex non-linear dynamics of urban systems, but there are two important limitations on its ability to explain urban systems.

The first is about scale. Existing research provides little understanding of how phenomena that span multiple scales foster resilience. "The idea that scale is an interactional achievement resulting from intention and choice has not been well developed within resilience thinking (Goldstein et al 2014)." The most useful framework to date comes from Tyler and Moench (2012), who frame the resilience of urban systems as a network of relationships amongst agents, institutions, and systems. They argue that resilience in urban systems can be observed through the following capacities: (1) agents with responsiveness, resourcefulness and the capacity to learn, (2) institutions that provide a framing for rights and entitlements, decision-making, information exchange, and the application of new knowledge, (3) systems with flexibility & diversity, redundancy & modularity, and the capacity for safe failure (Tyler & Moench 2012). This provides a simple, parsimonious, and useful framework to describe observations of resilient urban systems. What is absent from this framework is an explanation of how these capacities are generated; how do the relationships amongst agents, institutions and systems generate the flexibility, diversity, and other properties that drive the phenomenon of resilience? This illustrates the gap in existing research more generally. Attention has been given to the properties of systems and, to a lesser degree, the role of institutions and the qualities

of agents. Little attention has been paid to the qualities of relationships amongst elements that generate resilience. Currently, no theories exist to situate agency and explain how resilience is generated by the actors within cross-scalar relationships amongst these elements. A step forward for resilience research will develop ways to explain multi-scalar drivers of resilience.

The second set of issues entails experience and power. In research to date, the concept of resilience has been predominantly used in the exploration of the performance of systems, divorced from the human experience or outcomes. The social dimensions of resilience have remained under-theorized (Brown, 2014). As a result, how research is conducted and what is learned from it has been inadequate at exploring the role of individual and collective social agency and addressing issues of power. “Resilience does not engage with the material, social and symbolic landscape that constitute the lived experience of the communities whose resilience is being sought (Goldstein et al 2013; Adger et al 2009; Crane 2010).” To be useful to planning practice, a meaningful step forward in resilience research will illuminate how the resilience of urban systems intersects and engages with questions of power.

#### **FOSTERING RESILIENCE**

The final concern is practical and regards intention. Thus far, it has been difficult to make the concept of resilience useful within practice (Wilkinson et al 2010). The research on resilience thinking does not yet provide a theory of action that might situate the planner and their actions within the process of resilience building. If resilience is what communities wish to have, a clear idea is necessary for what planners must do, or perhaps more importantly, who planners must be.

How do communities translate their intentions to foster resilience into action? Existing research on leadership, social change, social learning, social movements, and participatory action are likely relevant to resilience-building (Kaufman 2011). These other domains of research could be helpful in constructing a theory of action for resilience. One way to think about planning is as translating a community’s intentions into action in a thoughtful process. One way to think about leadership is as translating intention into action. Leadership is an important aspect of planning, yet it is rarely discussed in those terms. In order for planners to provide leadership around resilience, it is necessary to develop a more nuanced understanding of how to translate an intention to foster resilience into action. Leadership from the complexity perspective “is a recognizable pattern of social and relational organizing amongst

autonomous heterogeneous individuals as they form into a system of action (Hazy et al., 2007; Lichtenstein et al., 2006; Marion and Uhl-Bien, 2001; Shamir, 2012; Uhl-Bien and Marion, 2009; Uhl-Bien and Ospina, 2012; Uhl-Bien et al. 2007).” Complex Adaptive Systems identify five “functional demands” (Hazy & Uhl-Bien 2015) that configurations of leadership (Gronn 2007) must perform in order for those systems to maintain themselves: Community-Building, Information-Gathering, Information-Using, Generativeness and Administration (Hazy & Uhl-Bien 2015). This research will draw on the recent scholarship on leadership in complexity to develop a more nuanced, actionable understanding of resilience.

### **OBSERVING LEADERSHIP FOR RESILIENCE WITHIN URBAN SYSTEMS**

There are two significant methodological challenges to advancing resilience research. First is an issue of timing and observation. Previous research has used moments of crisis to reveal the degree of resilience of a urban systems. While this enables a postmortem on the resilience of the system as it experienced crisis, it does not give a sense of the resilience of an urban system post-crisis. A step forward for resilience research would be a framework that allows for observation or measurement of qualities of resilience outside moments of crisis.

The second is the challenge to observing experience. Capturing the experience of resilience has lain outside the capacity of resilience research methodologies employed thus far (Feldman et al 2006, Goldstein 2010, Lejano & Ingram 2009). Using Tyler & Moench's framing of resilience as generated by agents, institutions and systems, meaningful explanatory research on resilience will require methods of research that enables an observation of the quality of the relationships amongst those elements.

Here a paradox arises. On the one hand, complex systems involve interdependencies, and “identification of these interdependencies requires prolonged engagement with the system” (Anderson et al 2005). Thick description and rich case studies are required. On the other hand, complex adaptive systems are nested “within a larger network of systems” (Watts 2003). If the unit of analysis is an urban system, and urban systems are the loci of multiple cross-scalar networks (Batty 2009), to observe the behavior relevant to resilience as a phenomenon will require multiple units of observation. Furthermore, given the limitations to the understanding of the explanatory dynamics outlined above, cross-scalar and system boundary-crossing behaviors the most important ones to observe. So, resilience research must involve observation at the individual, group, organizational, systemic and trans-systemic scale. This involves a significant breadth of coverage or breadth in observation to do

meaningful research into resilience. Herein lies the paradox: resilience research requires significant breadth and depth, and traditional research methods face a distinct trade-off between breadth and depth. Engaging meaningfully in resilience research requires the development of alternative methods of observation and analysis.

#### NEEDED CONTRIBUTIONS TO RESILIENCE RESEARCH

To recap the driving questions, how do communities foster the socio-ecological resilience of complex urban systems? And, how do communities translate their intentions to foster resilience into action?

At present, good research on resilience in urban systems should:

- 1) Enable the observation and explanation of the multi-scalar phenomena that foster resilience.
- 2) Extend the understanding of how lived experience and power affect resilience.
- 3) Develop a more nuanced and actionable understanding of resilience through focusing on the role of leadership in fostering resilience.
- 4) Improve the ability to observe breadth and depth within a complex urban system.
- 5) Take steps toward a framework that enables an assessment of resilience outside moments of crisis.

#### APPROACH TO RESEARCH

The goal of this research design was to develop an exploratory research design that could respond to these challenges, while providing an opportunity to theorize about the relationship between leadership resilience and urban systems. This research employed a novel combination of methods. The intention was to use Participatory Action Research, approaching research from the perspective that it is *with* rather than *on* people. As can happen with Participatory Action Research, things did not go as planned. This research used instead a case-study approach, looking at two organizations that are central to very different kinds of urban systems.

To observe leadership distributed across an urban system, leadership was operationalized through “episodes of leadership.” To achieve a breadth of observation that still responded to emergent patterns, this research combined a traditional ethnography with distributed ethnography. Distributed ethnography makes the members of an urban system participant-observers. Participants were used to observe these episodes of leadership across an urban system. Their observations and insight became the foundation for both [qualitative analysis](#) and [set theoretic analysis](#).

Using these forms of analysis in tandem enabled some interesting aspects. One was to use set theoretic analysis to identify, from the causal relationships within participant observer stories, which elements of an urban system were primarily responsible for generating various qualities of resilience. Another was to use qualitative analysis to work inductively from dozens of stories to develop a sense of which leadership practices were fostering these qualities. Both provided the ability to theorize on the larger emergent patterns that linked episodes of leadership to qualities of resilience.

### **CASES**

This research studied such questions in two urban systems: the Residents' Council of Public Housing of Asheville and Rainbow Community School. Public Housing is a typical public housing for a 100k small city. The Residents' Council is a 501c3 whose purpose is to empower residents of Public Housing and improve physical living conditions (CAHA Bylaws October 8 1985). The non-profit's leadership attempted to take on a self-organizing governance practice known as Dynamic Governance. Rainbow Community School is a private k-8 school, recognized internationally as an Ashoka Change-Maker School for its innovative model of empathy-driven education. For Public housing, data was collected through interviews with 10 individuals totaling 21 hours of interviews. These in-depth interviews were conducted with leaders, representatives of the Residents Council, residents and allies. Observations of public and private meetings over the course of 2015 totaled over 40 hours. For Rainbow Community School, the primary data collection was through two methods, a distributed ethnography and more traditional ethnography. The distributed ethnography involved an online survey to collect mixed qualitative and quantitative data from respondents. Respondents included 102 students grades 4-8, parents, teachers & staff, and alumni. The ethnography involved 12 interviews of staff, teachers, parents and board members, spread over 16 recording sessions consisting of over 45 hours of recording. Over 100 hours of observation was carried out within the classroom, meetings, and informal gatherings. Data sets from both urban systems were coded using qualitative analysis and analyzed using qualitative and network analysis techniques.

### **LESSONS LEARNED IN BRIEF**

What was learned from this research? Below are four surprises worth mentioning, followed by a recap of findings.



### **SURPRISE #1: THE IMPORTANCE OF INDIVIDUAL STRATEGIC LEADERSHIP WITHIN COMPLEXITY**

The first surprise regards the importance of Individual Strategic Leadership (StL) within Complexity Leadership. Both cases have strong evidence for Individual Strategic Leadership. This wasn't necessarily a surprise. What was a surprise was how intentionally and elegantly the director at Rainbow fostered the conditions for Complexity Leadership. Her primary job could be said to be sensing which functions of leadership were not up to the task and creating the conditions for others to play or express that function of leadership. From this, this research theorizes that the role of Individual Strategic Leadership within Complexity Leadership is *rebalancing*, or the active identification and strengthening of the weaker functions of leadership through leveraging existing strengths. The analysis chapter will explain [the impact of Individual Strategic Leadership](#) in more detail.

### **SURPRISE #2: THE SPIRITUAL FUNCTION OF LEADERSHIP**

The second surprise regards the presence of a Spiritual function within Complexity Leadership. The existing functions of Complexity Leadership were necessary to explain the observations, but not sufficient. There was a deep alignment in action across many episodes of leadership. This seemed to be the product of more than just a strong shared identity. There was a relationship with Spirit, a kind of subordination to a larger purpose in the face of uncertainty. That relationship with Spirit tuned action to be in harmony across all the other functions of Complexity Leadership. From these observations, this research theorizes a sixth function of Complexity Leadership: Spiritual Leadership (SpL). [The analysis chapter](#) will explain this further.

### **SURPRISE #3: THE ROLE OF PRACTICES IN COMPLEXITY LEADERSHIP**

The third surprise regards the role and nature of practices in generating Complexity Leadership. Practices are techniques used consistently and intentionally by a group. Dynamic Governance will be explored in further detail later. Based on this research, Dynamic Governance plays a role in both cases of study by providing Administrative and Information-Gathering Leadership. However, the effectiveness of this practice in each context varied dramatically. How the practice was (or was not) situated or fit (or did not fit) in the context was quite different in each case. Within Rainbow Community School, Dynamic Governance became an integrated part of the expression of leadership, having been adapted, hybridized and integrated into a number of other practices. It was used heavily within the Residents'

Council public housing, but almost as a standalone or sole practice whose adoption of Dynamic Governance was resisted heavily by the organization. From these observations, this research proposes that the use of any specific practice will not be sufficient to generate Complexity Leadership. More importantly, which practices are used seemed less important than how they are introduced, that they respond to the constraints of context, that they cover a spectrum of leadership functions, and that they integrate with one another. The literature chapter follows this thread of Dynamic Governance and how it illustrates these findings by providing some context. Chapter 4 explores Dynamic Governance's usage within Rainbow and the Residents' Council of public housing. Chapter 5 explores the role of Dynamic Governance within Complexity Leadership. And the Conclusion chapter examines lessons for Dynamic Governance and lessons for practice.

#### **SURPRISE #4: PANARCHY & RESILIENCE IN URBAN SYSTEMS**

The fourth surprise regards the role of Panarchy. Panarchy is the co-adaptive cycle of nested scales within a complex adaptive system. Panarchy is a familiar concept within the resilience literature, originally introduced by Walker & Salt (1997). It has found application within ecological sciences explaining patterns observed within ecological systems, although it has not seen much application and usage within socio-ecological systems. My head slapping moment came while I was reading an article by Berkes & Ross (2016) on a bus ride back from New York City. I had just finished the second round of coding on the interviews from the Rainbow Community School. Their opening argument, in a nutshell, was "we should look at Panarchy again to explain dynamics and social systems, because it really is a powerful model." I smacked my head and out loud said to the bus "crap, that's the history of Rainbow!"

This research observed dynamics of Panarchy present within both cases. From those observations, theorize a relationship between functions of Complexity Leadership and qualities of resilience. In short, when Complexity Leadership is present (including the Spiritual function of Leadership) at play, conditions for Panarchy are present. When Panarchy is at play, the selective amplification of qualities of resilience in urban systems manifest over time. The [Conclusion Chapter explains this in further detail.](#)

#### **RECAP OF FINDINGS**

Through the study and comparison of these two dissimilar urban systems, this research has several arguments to make on the relationship between leadership and resilience in urban

systems. First, Complexity Leadership fosters qualities of resilience within urban systems. That said, it does a better job of explaining observed resilience by including two other elements. One is a new function of Complexity Leadership: Spiritual Leadership. This Spiritual function of leadership provides a sense of meaning through acknowledging mystery, provides permission to engage with mystery and ask questions of why, and enables acceptance of the transformation generated by constructing meaning within conditions of uncertainty. The second element is Strategic or individual leadership. Individual Strategic Leadership can play an integral role within Complexity Leadership through rebalancing. Rebalancing is the active identification and strengthening of the weaker functions of leadership by leveraging existing strengths. Combining these elements together into the Complexity Leadership suite more fully explains the observed resilience.

There are two arguments to make on the role of practices in fostering Complexity Leadership and, by extension, resilience. One is on the specific role of Dynamic Governance as a practice, and the second is on practices generally. Within the context of the two case studies, Dynamic Governance plays a convergent role, fostering Information-Gathering and Administrative Leadership. Second, which practices are used seems less important than how they are introduced, that they respond to the constraints of context, that they cover a spectrum of leadership functions, and that they integrate with one another.

The Complexity Leadership Suite fosters resilience through the three mechanisms of Panarchy: Revolt, Remembrance, and Ratcheting. Revolt is the emergence or propagation of new patterns from smaller scale to larger scales. Remembrance is the maintenance or imposition of large-scale patterns enforced on smaller scales. Ratcheting is the simultaneous adaptation of a multi-scalar system. A necessary condition for all three of the mechanisms of Panarchy is Scale Resonance. Scale Resonance is the synchronized or harmonic movement of multiple nested scales within the system. A critical driver of Scale Resonance is effective spiritual leadership with an urban system.

#### **DISSERTATION ROAD MAP**

This first chapter offers the following supposition: Leadership can foster resilience in urban systems. The second chapter focuses on the state of knowledge about leadership for the resilience of urban systems. It is intended to identify specific questions that will be the focus of this research. The third chapter focuses on how to go about exploring those questions, lays

out the research toolset, and outlines the process that was used. The fourth chapter provides thick description of both cases through narrative history and exploration. The fifth chapter focuses on the lessons learned on resilience and leadership from analysis. The conclusion chapter synthesizes lessons on resilience and leadership into cohesive lessons, and offers takeaways from this research for theory, methods of research, and planning practice.

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# CHAPTER TWO: THE LITERATURE ON (COMPLEX) URBAN SYSTEMS, RESILIENCE & LEADERSHIP.

## MAIN PROPOSITION

Let's return to the initial supposition: Leadership may play an important role in fostering or suppressing the resilience of urban systems through tuning relationships. The goal of the first chapter was to convince the reader that this supposition is interesting, that the supposition was one worth answering, and that this dissertation can hold your attention while answering it. The goal of this second chapter is to lay out a theoretical toolbox for doing so. The focus will be on crafting the right research questions. The next chapter on methods will focus on how to go about exploring those questions.

## ROAD MAP

In order to unpack and interrogate this supposition, the basic roadmap is as follows. First is to lay out three domains of research: (complex) urban systems, resilience, and leadership. Think of this as providing tools to unpack the where, what, and how of the supposition of this research. Next, is to outline some of the implications that these (mostly separate) domains of research have when they are combined. Third, is to offer propositions and frame researchable questions that research can be designed to answer. First is the context: urban systems.



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## 1) (COMPLEX) URBAN SYSTEMS

### MAIN ARGUMENT: URBAN SYSTEMS AS NETWORKS OF RELATIONSHIPS

There are two reasons to orient our theoretical toolbox for working urban systems. One is that planners are creatures of place; they orient by knowing context and location. The second is that by starting with the context and framing it in terms of complexity will make the rest of our theorizing easier. Conceptualizing cities in terms of urban systems gives a meaningful point of contact with human behavior such as leadership, and with systemic behavior such as resilience.

Urban systems are networks of relationships amongst agents, institutions, and systems (Tyler & Moench 2012). Those networks of relationships generate five consistent elements: **A social network** amongst the actors that reproduce the urban system, an interlocking **ecosystem of organizations**, a **system of physical infrastructure** that mediates the agents' relationship with the site and each other, a **network of physical sites** where infrastructure and activity is situated, and a set of **interconnected institutions** that govern the relationships amongst actors, organizations, infrastructure, and sites. This framework gives a means of connecting the more granular episodes of leadership and qualities of resilience with specific elements of an urban system. This will help frame specific, actionable research findings. Conceptualizing cities in terms of complex urban systems, and complex urban systems as composed of these elements, frames further theoretical work within a common key signature.

### ROAD MAP: EXPLAINING COMPLEX URBAN SYSTEMS

How conceptualizing cities in terms of urban systems frames deeper theoretical work will take explanation in a couple of stages. First is to offer some of the foundational elements of complex adaptive systems and complexity theory. Next is to outline what this means when cities are conceptualized in terms of complex systems. This will set up a definition of urban systems and enable an exploration of some of their key elements and an operational framework from which the rest of this dissertation will conceptualize urban systems.

### THE COMPLEXITY TURN

Complexity theory and the complex adaptive system concept were originally generated within physics and mathematics, but they quickly gained an interdisciplinary research following. Attempting to answer scale and discipline-transgressing questions led to new concepts. Those concepts enabled others to address other scale and discipline-crossing

questions in new ways. This generated a positive feedback and contributed to the rapid growth of complexity as a discipline of study, approach to research, and paradigm. The result was the “complexity turn” in the sciences (Urry 2005).

### COMPLEX ADAPTIVE SYSTEMS

A Complex Adaptive System (CAS) can be thought of as a dynamic network involving many agents, such as cells, people, species, firms, among others. Those agents lack central control or authority. They have agency, meaning they acquire information about their environment and act independently. Combined with the distributed nature of their action, the relationships amongst these agents generates emergent, non-linear, non-reproducible, fundamentally unpredictable behavior. Such behavior emerged as an adaptive response to uncertain environments (Holland 1996, Dooley 1996, Gell-Mann 1992). To give a few brief notable examples, the concept of the complex adaptive system has been used to explain phenomena within ecology (Levin 1998), social movements (Chesters 2005), organizations (Boisot 1999), coupled socio-ecological systems (Holling 2001), patterns of leadership (Hazy & Uhl-Bien 2005) and elsewhere.

Some of the key dynamics make complex systems adaptive include radical openness, meaning there is no appropriate scope or boundary that one could draw to say what is “in” the system and what is “outside” without lopping off behavior that is fundamental to the system (Per Bak 1996). Complex systems are composed of nested scales, with systems within a larger network of systems (Watts 2005). These both generate (seemingly) paradoxical properties: more-is-different and self-similarity at scale. “More is different” means that, as more and more agents are considered relevant to a system, the observed behavior changes (Anderson 1972). As the boundary around a group of people is drawn larger and larger, the emergent behavior of that group transforms (from a team to a organization). Self-similarity at scale means similar emergent patterns can be seen to be operating at multiples scales within the system: similar patterns are at work in teams as in organizations. A classic example are the fractals from the work of Manoit Mandelbrot (Mandelbrot 1983). One important kind of self-similarity is internal models (Holland 1996), which engage in sensing conditions external and internal to the CAS, sense-making from that information, and translation into action. Internal models hold requisite diversity, meaning that the diversity of elements to the larger system is also contained within the internal model in microcosm (Holland 1996, Dooley 1997). This sensing,

sense-making and enaction can be thought of as such a self-similar pattern, occurring at the individual scale (Strati 2007, Lord 2011) as well as at the collective (Drazin 1999) and systemic scale (Paperin 2011). As a result of these dynamics, complex adaptive systems can be responsive to changes in their environment and can undergo rapid transformation, in the form of fragility and reconfiguration, or resilience and adaptation (Walker 2006, Levin 1998). The energy needed to maintain the relationships involved in complex adaptive systems means that efficiency and optimization often can come at the expense of resilience (Walker 2005). All of these elements result in a mess—a system in which every problem interacts with every other problem, resulting in unique, remarkable and surprising behavior (Ackoff 1990).

### **SOCIAL-ECOLOGICAL SYSTEMS**

Social-ecological systems are “complex, discontinuous, nonlinear, and unpredictable, integrating human and natural phenomena across multiple spatial scales and timeframes” (Goldstein 2014). The concept of socio-ecological systems emerged out of the ecosystem management literature as a response to a need to frame ecological and human stewardship activity within a common framework. The development of resilience as a social system concept was slow. Social dynamics were gradually incorporated into resilience thinking through the 1990s; in the 2000s, scholars started using social-ecological systems as the main unit of analysis (Berkes et al., 2003; Berkes and Folke, 1998). However, social dimensions of resilience have remained under-theorized (Brown, 2014). The socio-ecological systems concept becomes a means for transdisciplinarity, enabling scholars to describe complex systems with many kinds of agents within one framework (Gunderson & Holling 2002, Berkes & Folke 1998, Costanza et al 2001, Berks et al 2003). The concept of social-ecological systems enable researchers to explore phenomena such as resilience (Tyler & Moench 2012), and leadership (Hazy & Uhl-Bien 2016) through models such as networks of relationships.

### **CITIES AS SOCIO-ECOLOGICAL SYSTEMS**

Cities are our grandest collaboration with nature. “Cities are the example par excellence of complex systems: emergent, far from equilibrium, requiring enormous energies to maintain themselves, displaying patterns of inequality spawned through agglomeration and intense competition for space, and saturated flow systems that use capacity in what appear to be barely sustainable but paradoxically resilient networks” (Batty 2008, 769). Cities can be experienced as distinct entities, with some boundary in firm political space and (somewhat

fuzzier) geographic and social space. Examining material, energetic, informational or social flows, allows a different picture to emerge. Rather than a distinct entity with a discrete geographical, ecological or cultural or economic boundary, cities are nested social, cultural, ecological and technical relationships. The relationships amongst those elements compose a radically open system, or a system that lacks a distinct boundary between system and ambience (Bak 1997). From this perspective, cities can be viewed as "loci in multiple networks of relationships at different scales" (Batty 2008). And, cities interrelationships with their surrounding ecosystems or 'hinterland' make them co-adaptive complex systems (Cronon 1989). As a result, what spans the globe can be described as a system of cities (Batty 2008) and cities as socio-ecological systems.

To match a theorization of space to the multi-scalar, radically-open nature of human settlements, it makes more sense to think in terms of urban systems. Conceptualizing cities as socio-ecological systems and interconnected networks creates an opportunity: to identify a mesoscale aggregation. Traditional conceptualizations of the city as a unitary political entity are dissonant with the geographical, spatial and social realities (Jones 1998; Swyngedouw 2000). Amidst a complex network of relationships, what differentiates any part of the city from any other? Are there any meaningful scales between the agent/individual and the systemic? Put more simply, there's something meaningful in scale between city and agent. This is useful because it provides a means to connect systemic behavior to individual behavior. This mesoscale can be thought of as urban systems. As a consequence, theorizing "the city as a contained and objectively known space" must be displaced in favor of urban systems as a more appropriate scalar framing (Goldstein et al 2013).

#### **DEFINITION: URBAN SYSTEMS**

Urban systems can be many things—a park system, a public transit network, public housing, a neighborhood, a power or water grid—each unique within its city and having a distinct signature and character. These urban systems are characterized by a density of interconnections, a diversity of flows, agent types, and information. Whether intentional or not, there is an identifiable purpose and function to the system. Tyler & Moench (2012) define urban systems as networks of relationships amongst agents, institutions, and technical systems. Agents are elements of the urban milieu (both human and non-human) that have autonomy of action. Institutions are social constructions, both formal and informal, that help

to maintain the pattern integrity of the city by reducing uncertainty and stabilizing interactions amongst humans and between humans and systems through social patterns. Technical systems are the key building blocks to the reproduction of the city as a physical or spatial pattern. These building blocks give rise to an enormous diversity of forms and behavior.

I propose to conceptualize urban systems in terms of five elements: (1) A social network amongst the actors, (2) an interlocking ecosystem of organizations, (3) a system of physical infrastructure, (4) a network of physical sites, and (5) a culture composed of set of interconnected institutions that govern the relationships amongst actors, organizations, infrastructure, and sites. This is a useful framework for several reasons. These elements align with existing forms of analysis: social network analysis, Actor Network Theory and other organizational analysis methods, engineering research methods, GIS and geospatial analysis, and qualitative and generative social science techniques for analyzing culture. Most importantly, Tyler & Moench's framework is parsimonious. These five elements can describe any urban system, and offer a view into significantly deeper analysis if needed.

To use this supposition to frame a preliminary researchable question: how do the relationships amongst elements of urban system foster or suppress resilience? What role might leadership play in shaping those relationships? [Bringing it all together](#) will return to this question.

#### **ELEMENTS: TYLER & MOENCH**

What does resilience mean within the context of urban systems? The current scholarship around resilience has yet to establish a cohesive theory that links conditions and phenomena at multiple scales into an explanation for resilience as a property of urban systems. The most useful framework to date comes from Tyler and Moench (2012), who frame the resilience of urban systems as a network of relationships amongst agents, institutions, and systems. Agents are elements of the urban milieu—both human and non-human—that have autonomy of action. Institutions are social constructions, both formal and informal, that help to maintain the pattern integrity of the city by reducing uncertainty and stabilizing interactions amongst humans and between humans and systems through social patterns. Systems are the key building blocks to the reproduction of the city as a pattern. They argue that resilience will also be observed when the following capacities are observed in

urban systems: (1) agents with responsiveness, resourcefulness and the capacity to learn, (2) institutions that provide a framing for rights and entitlements, decision-making, information exchange, and the application of new knowledge, and (3) systems with flexibility and diversity, redundancy and modularity, and the capacity for safe failure (Tyler & Moench 2012).

### **STRENGTHS & LIMITATIONS**

Tyler & Moench provide a simple, parsimonious, and useful framework to describe the elements seen when examining resilient urban systems. What is absent from this framework is an explanation of how these capacities are generated. How do the relationships amongst agents, institutions and systems enable the emergence of resilience as a phenomenon? This illustrates the weakness in the scholarship more generally. Attention has been given to the properties of systems, the role of institutions, and the qualities of agents. The research currently lacks theories that situate agency and explain how resilience is generated by the actors within cross-scalar relationships amongst these elements. “The idea that scale is an interactional achievement resulting from intention and choice has not been well developed within resilience thinking” (Goldstein et al 2014). As a result, resilience research has for the most part been descriptive in nature and not explanatory.

One possible route to making this framework better able to situate causality would be to make it more specific. To do so, I propose thinking about urban systems in term of five elements:

(1) A social network amongst the actors, (2) an interlocking ecosystem of organizations, (3) a system of physical infrastructure, (4) a network of physical sites, and (5) a culture composed of a set of interconnected institutions that govern the relationships amongst actors, organizations, infrastructure, and sites.

In order to better guide practice, an explanatory theory of resilience is needed for urban systems. In order to provide an explanation of resilience, a means is needed to interrogate why a network of relationships amongst the actors, institutions, and systems within an urban system exhibits resilience.

### **RECAP: COMPLEX URBAN SYSTEMS**

In building our toolset, this chapter has argued the complexity turn led to new approaches in interdisciplinary research. Framing research around complex adaptive systems

and socio-ecological systems allowed researchers to describe the elements and behavior of cities in new ways. Based on this foundation, the research proposes to explore urban systems in terms of a (1) social network amongst the actors, (2) an interlocking ecosystem of organizations, (3) a system of physical infrastructure, (4) a network of physical sites, and (5) a culture composed of set of interconnected institutions that govern the relationships amongst actors, organizations, infrastructure, and sites. Next, is to outline resilience as a metaphor, concept, and body of research.

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## 2) RESILIENCE

Every so often a concept is introduced into the academic lexicon that takes on a life of its own. Introduced in one context with one definition and purpose, it quickly takes on uses in other contexts. It snowballs and gains other meanings. As it grows in usage, it becomes conceptually fuzzy and flexible. It gains utility as an organizing principle and not just a concept. It gains a following, but also attracts debates about its proper meaning and whether it continues to be relevant as a concept. Sustainability is one such concept. Resilience is another. Since resilience is such an important concept for our research, it seems worthwhile to disentangle some of its uses, and contrast it with other related, similar but concepts. To explain resilience it is useful to offer an overview of how the concept has evolved, offer a working definition for resilience and some of its key properties, and then explore the limitations and unknowns of resilience relevant to the context of this research.

### RESILIENCE: EVOLVING MEANING

The evolution of resilience as a concept spans an enormous degree of change. This evolution can be summed up as a progression from attempting to explain behavior of simple interactions to complex systems, and from a focus on outcomes to a focus on process. Resilience had its initial use in the context of engineering. From an engineering perspective, resilience refers to an object and its ability to be put under acute or chronic stress and maintain or return to its initial state *quickly* without being degraded or damaged (Martin-Breen and Anderies, “Resilience: A Literature Review.”). The degree to which an object was resilient could be measured by the degree of disruption it could withstand without change, and the speed with which it returned to its initial state. As engineers increasingly conceptualized the world in terms of systems in dynamic environments, resilience evolved to describe systemic properties. Resilience became the ability to maintain system function in the event of a disturbance (Martin-breen and Anderies, “Resilience: A Literature Review.”).

As a more widely used concept, resilience emerged from two intellectual communities: psychology of development and ecological science. While both share common goals, their literatures are quite distinct (Berkes & Ross 2016, Norris et al 2008, Welsh 2014). As resilience was adopted into psychology, it became a metaphor for describing the ability of individuals to weather trauma from early life, and to have positive life outcomes despite adversity (Bonanno 2004, Butler et al 2007, Rutter 1993). As it became a concept applied to



the larger scale of human communities, it retained this framing: maintaining or returning to a trajectory towards positive *outcomes* in development despite disturbance (Brown & Kulig 1996, Sonn & Fisher 1998). This work became the basis for the concept of community resilience within the disaster management literature (Berkes & Ross 2016, Norris et al 2008).

Ecology scholars were confronting a related but different question: How to explain forests that seemed healthier after they burned? They were still forests, but they had a fundamentally different composition after the fire. This marks an important shift in how resilience was used: ecologists were trying to understand ecological *processes* and the role of resilience within that. To explain this, ecology conceptualized forests as nested scales, from tree to stand to patch to forest to ecosystem. To describe the interactions across scales, they increasingly used language of non-linearity, adaptability, and transformability. Over time, ecologists began to situate the practice of management within these ecological processes that regulated forests, and the subject of study shifted to coupled socio-ecological systems. This became one of the key elements of complexity theory: The framing of resilience as a *property of complex systems and their processes of adaptation and transformation* has become the foundation on which most social-ecological resilience research is based (Berkes & Ross 2016).

Complexity researchers in the social sciences took this a step further, focusing research on the meta-question: What does it mean to prepare for the future amidst conditions of complexity? Geographers, urban planners, and sustainability researchers all found themselves seeking to understand communities enmeshed in complex socio-ecological environments (Wilkinson 2012). These environments present significant volatility, driven by economic, political, social and ecological change. The interactions and implications of this volatility were hard to predict, making conditions fundamentally uncertain. Amidst this uncertainty, the moral implications of action are hard to identify, leading to decision-making in ambiguity. The ability for these communities to withstand the unexpected, learn from the stress, adapt to unfolding changes, and thrive in new forms emerged as a central capacity for researchers to understand. Resilience became shorthand for this systemic capacity for adaptation and learning from stress amidst conditions of complexity that enabled healthy, sustainable, vibrant communities in the long run. This research draws its conceptualization of resilience from this tradition and its focus on wellbeing of communities, is the basis from which.

#### **DEFINITION: RESILIENCE & COMMUNITY RESILIENCE**

In this next section, I'll offer a working definition of resilience for this research, frame the meaning of resilience in the context of cities and urban systems, and describe some of the key qualities of resilient urban systems. Brian Walker & David Salt, two of the founders of resilience thinking, offer an excellent generic definition of resilience: "the ability of a system to absorb disturbance and still maintain its basic structure and function" (Walker & Salt 2006, 1). While elegant, this definition holds an outcome orientation and does not incorporate transformation: "Resilience involves transformation: the system responds to a challenge not simply by restoring its usual form but by changing in ways that better fit the new environmental constraints. This notion of resilience as adaptation and transformation is crucial for ecological, psychological, and social resilience" (Kirmayer 2009). The definition I would like to use here is that **"resilience is a property of complex adaptive systems," describing their "ability to withstand, recover, adapt, and learn in response to disruption or crisis"** (McDaniel, Interview 10-10-2014; Breen & Anderies 2011). This definition captures the essence of the process orientation for resilience, and it is more useful for answering questions about the processes of leadership.

In a similar vein, community resilience is "the existence, development & engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability and surprise" (Magis 2010, 401). To frame this around the urban system as our unit of observation, **community resilience is a property of an urban system characterized by the marshaling of personal and collective resources to thrive in an environment characterized by change, uncertainty, unpredictability, and surprise.** These are the definitions for resilience and community resilience used throughout my dissertation.

### **RESILIENCE, VULNERABILITY & ROBUSTNESS**

It is important to distinguish resilience from a few other related concepts. Robustness is the ability to maintain function without disruption (Dictionary 1999). In resilience's initial usage within engineering, the meaning was essentially the same as robustness. Today, robustness is used to describe objects or discrete elements, while resilience is now used to describe processes or systems. If vulnerability and resilience are viewed from the perspective of disturbance, vulnerability is the susceptibility by agents or systems to harm from specific kinds of disturbance (Klein et al 2003). In contrast, resilience is a generalized ability to

withstand disturbance (Tyler & Moench 2012). This makes vulnerability and resilience related but not reciprocal. A community could improve its capacity to identify threats and marshal resources without necessarily reducing its vulnerability to the failure of the infrastructure that provides water to their homes. They could reduce the vulnerability of water infrastructure in public housing to failure without necessarily improving the resilience of its population to disruption. A population is vulnerable “when fragile, inflexible systems and marginalized or low capacity agents are exposed to increased hazards, their ability to respond to shift strategies is limited by constraining institutions. Resilience is high [for a community] where robust and flexible systems can be accessed by high-capacity agents and where that access is enabled by supportive institutions” (Tyler & Moench 2012).

#### **DEFINITION: CITY RESILIENCE**

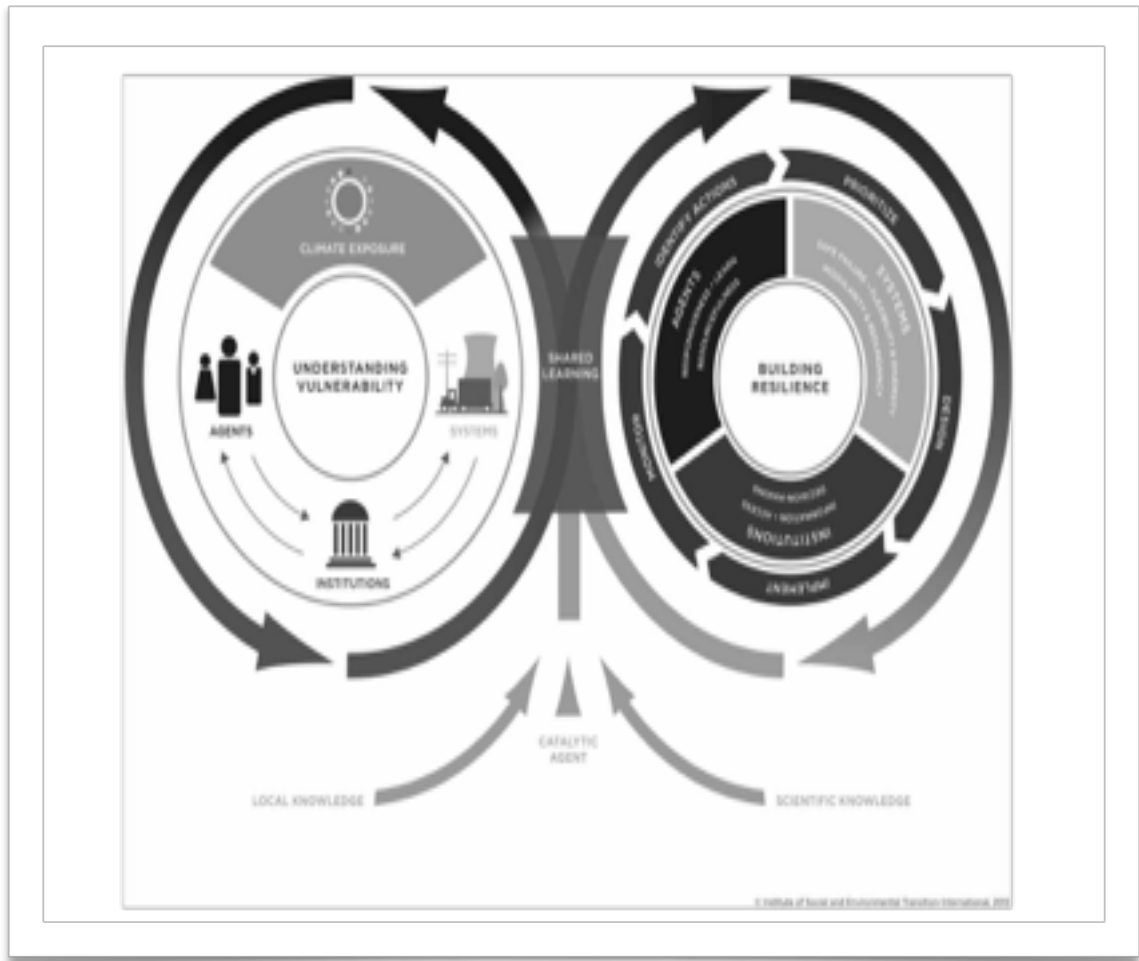
Cities can be viewed as “loci in multiple networks of relationships at different scales” (Batty 2008). Rather than a distinct entity with discrete geographical, ecological, cultural, or economic boundaries, cities are nested networks of social, cultural, ecological, and technical relationships. Those relationships compose a radically open system, or a system that lacks a distinct boundary between system and ambience (Bak 1997). City resilience is the “capacity of cities to function so that the living the people living and working within cities—particularly the poor and vulnerable—survive and thrive no matter what the stresses or shocks visited upon the city [are]” (Jo da Silva 2014). When cities are conceptualized as loci within multiple networks, the clusters within those networks emerge as points of interest and perhaps leverage points for generating resilience.

#### **URBAN SYSTEMS RESILIENCE**

The resilience of a system is determined by three key system characteristics: flexible diversity, redundant modularity, and safe failure (Tyler & Moench 2012). A resilient system is diverse in its building blocks and makeup. The flexibility and breadth of capacities thus afforded enables resilient systems to be modular and redundant, with essential functions that can be accomplished by different combinations of building blocks. Resilient systems can also fail safely. The same way an escalator becomes stairs when jammed, a resilient system is able to experience failures of components of the system without jeopardizing the functionality and cohesion of the entire system.

### **GRAPHIC 1: UNDERSTANDING VULNERABILITY, BUILDING RESILIENCE**

## Key



## Concepts

Next is to elaborate on a few concepts within the resilience scholarship: Panarchy, Revolt, and Remembrance. The farther into my research I have gotten, the more important the concept of panarchy has become in explaining observations in my cases, and in linking concepts from urban systems, leadership, and resilience.

### PANARCHY

Panarchy is a concept from the original work by Gunderson & Holling on resilience (Gunderson & Holling 2002). Panarchy is a heuristic for systemic behavior created by systems with nested scales, each of which go through an adaptive cycle with four stages: growth, conservation, release and reorganization. Their argument was that there is a holistic way to approach interactions across scales that does not rely on old and outdated ideas about

hierarchy. To escape this, they combine the Greek god of nature (Pan) with -archy (structure or governance), a term for the structure of nature.

Since its introduction in 2001, it has been cited over 4000 times (Google Scholar, Accessed May 9<sup>th</sup> 2016) and used to explain patterns within cities (Garmestani et al 2009; Garcia et al 2011; Eason and Garmestani 2012), to identify scales (Petrosillo and Zaccarelli 2010; Zaccarelli and others 2008), and identify aspects of resilience (Angeler et al 2010; Gunderson 2010; Fraser & Stringer 2009; Fraser et al 2005). Panarchy has been used as a framework for managing change (Gotts 2007).

As described by Allen, Holling and Gunderson:

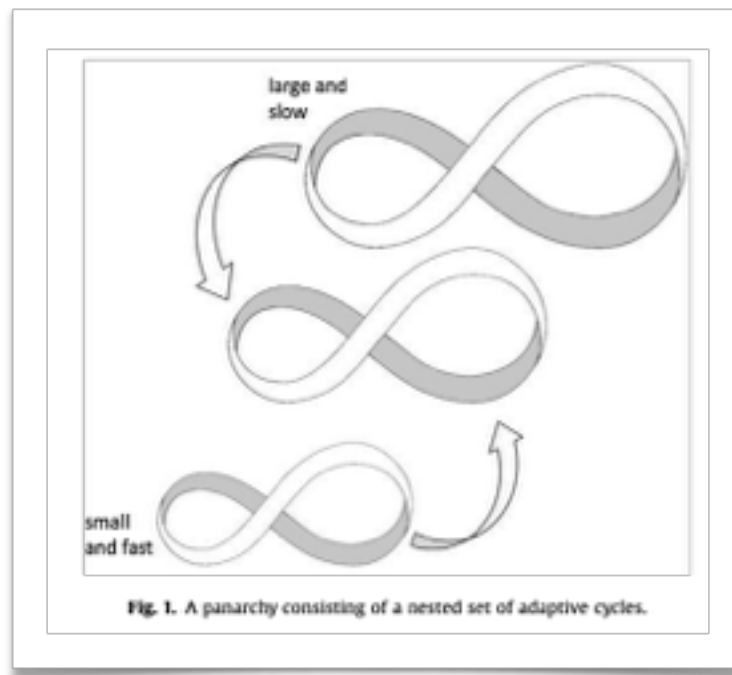
*“In an adaptive cycle (Figure 1), a system proceeds through phases of growth (r), conservation (k), release (X), and reorganization (a) (Holling 1986). The brief initial stage of development, the r stage, consists of the rapid exploitation and sequestering of resources. This is followed by a k stage of longer duration, characterized by the accumulation of capital, (system components or energies) which may eventually lead to a loss of resilience and the collapse of the system because the system becomes more rigid. The X stage of collapse is rapid and unleashes the energy accumulated and stored during the k phase. The X phase is followed by reorganization during the a phase, a relatively rapid period of assembly of system components, and is an opportunity for novel recombination. Reorganization is thought to become inevitable as capital (for example, biomass in ecosystems) builds” (Allen et al 2015).*

The lifecycle of the East Cesar Chavez neighborhood in East Austin illustrates this. In response to city growth, a new neighborhood is developed (r) at the turn of the 20<sup>th</sup> century. East Cesar Chavez was settled by free slaves, who became tenants to low slung bungalow homes. As relationships form, social capital builds, businesses become established: a community develops (k). Eventually, the trees mature, the sidewalks crack, the houses age, economic fortunes decline, and the community fabric weakens (X). This period can be quite long, waiting for other forces to disrupt. Those forces came in the early 2000s as Austin’s explosive growth was looking for areas for new entrants to land, and a gentrification period began (a). By 2010, a demographic transition had taken place, transforming East Cesar Chavez from the predominantly Hispanic community it had become to a predominantly white community (with almost no African-American population to speak of). New businesses (such

as Cenote) move in, community organizations develop (like One House at Time), and social capital develops (r).

Panarchy is a critical concept for this research for several reasons. Comprehending resilience and leadership in complexity requires descriptive language for interactions amongst nested systems. Panarchy “provides a framework that characterizes complex systems of people and nature as dynamically organized and structured within and across scales of space and time” (Berkes & Ross 2016). It also describes how systemic feedbacks drive interactions across levels and thresholds (Gunderson and Holling, 2002), offering a means to explain how short and long timescale patterns influence and amplify, or dampen, each other. In contrast, Complexity Leadership Theory ([examined in further detail below](#)) provides language to describe the behavior of elements within the system when systemic behavior conforms to panarchy. Panarchy offers a useful mechanism to understand interactions across space and time in complex systems.

## GRAPHIC 2: PANARCHY

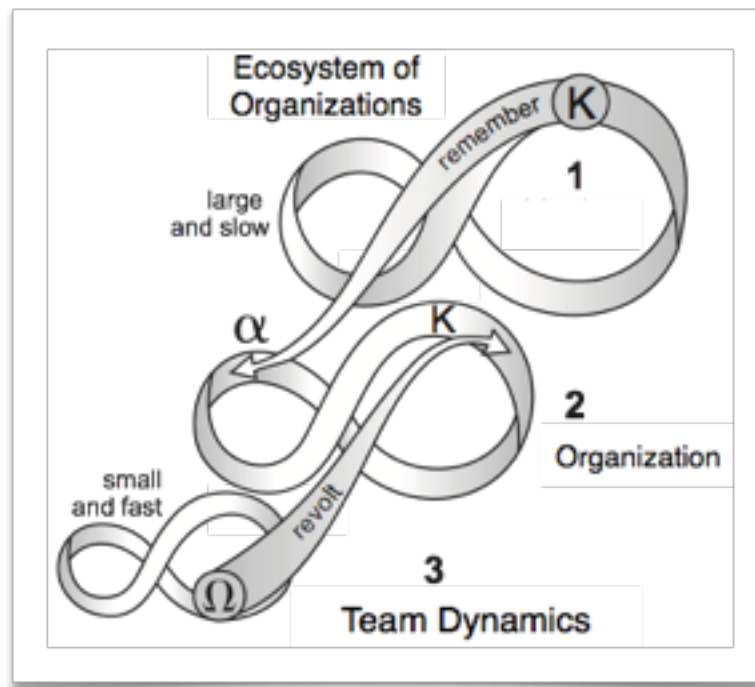


### REVOLT & REMEMBRANCE IN PANARCHY

To set up [an analysis of resilience and leadership patterns to the cases discussed later on](#), two concepts are introduced to explain the interaction dynamic across multiple scales: Revolt and Remembering. Revolt occurs when the fast, energetic dynamics arising from a

smaller system overwhelm the slower, cooler dynamics of a larger one (Berkes & Ross 2016). For instance, when a forest fire that starts in a small stand of trees leads to a forest fire, or the protests in Tahrir Square lead to national scale protests and the collapse of the Egyptian government, that's Revolt. Revolt is dependent on the larger scale system being susceptible to influence by the smaller scale, and it determined by timing and conditions. If the forest was not overloaded with dry fuel, or the Egyptian citizenry fed up with years of autocratic rule, a Revolt from smaller to larger scale would not have occurred and driven a cascade of reorganization.

### GRAPHIC 3: PANARCHY WITH ECOSYSTEMS OF ORGANIZATIONS



The second concept, Remembering, occurs when the cooler, more stable dynamics of a larger scale prevail over that of a smaller system and dampen reorganization (a) (Berkes & Ross 2016). An episode of Remembrance is an event where entrainment prevents emergence. For instance, when a team in a construction company starts ignoring safety procedures in order to move more quickly, and other teams intervene because “that’s not how we do things around here,” that’s Remembrance. Remembrance depends on the strength of the coarse grain

dynamics. If there is not a strong culture at an organization, Remembrance doesn't have the capacity to suppress emergence the cascades across scales.

#### **RESILIENCE: LIMITATIONS & NEEDED CONTRIBUTIONS TO RESILIENCE RESEARCH**

So far, this chapter has covered the building blocks of the resilience toolset that will be used throughout this research. Three issues are worth addressing next: First, the challenges to measuring resilience; second, the relationships amongst the resilience of systems of issues of power and equity; lastly, the difficulty in crafting resilience into a useful concept for practitioners. Each will provide some focus that will help ensure this research is useful.

#### **MEASURING RESILIENCE: METHODOLOGICAL CHALLENGES**

Thus far, developing means to measure resilience has proven difficult. How to discern if a system is resilient when not observing it under stress? Thus far, the tradition approach has been to establish resilience through evaluating response to crisis. There are two practical limitations to this. Unless a city has experienced a crisis, little is known about its resilience. Once it has, the information obtained is relevant to how resilient that city was while in crisis. But when cities and complex urban systems transform from crises, anything learned about its resilience is specific that particular system, time and event. It was resilient (or not) to *that crisis at that time*. No one involved in New Orleans resilience office would argue that its current resilience capacity is indicative of what existed pre-Katrina. A model of the underlying dynamics to resilience is needed, along with methods that enable an observation of those underlying dynamics outside of crisis events. One way to recast this research is to attempt case-comparison to theorize about the underlying dynamics to resilience in urban systems.

#### **QUALITIES: 100 RESILIENT CITIES**

The second challenge is measuring resilience. If what is being resilient is the relationships amongst agents, systems and institutions, how can the nature and strength of those relationships be observed? While quantitative measures have been applied to resilience, they have been confined to applications where resilience is defined in more engineering terms, and when the focus of resilience lies in discrete technical or ecological systems rather than in socio-ecological systems.

To respond to this concern, it is useful to turn to praxis research. Over the past five years, the Rockefeller 100 Resilient Cities and ARUP have partnered with cities all over the world. Their goal has been to develop a learning network centered on resilience, and to establish resilience offices in 100 cities. In so doing, they hope to integrate resilience thinking



more effectively into city policy and politics, while developing a richer understanding of what resilience means in practice. Out of this empirical research they developed a resilience framework (Arup & 100RC 2014). This framework consists in part of seven consistent qualities observed in cities otherwise evaluated as resilient. These qualities provide a means to indirectly observe constituent aspects of resilience in an urban system. For each, I will offer a definition and an example of what that quality might look like when expressed within an urban system.

1) Redundancy: separate processes that provide the same/similar capacity. For systems, this can be multiple ways to provide maintenance or home improvements. For institutions, this can be multiple ways that an agency can provide support to health, or provide time-critical decision-making capacity. When episodes of leadership occur that establish or reinforce this redundant ability to provide the same capacity, adaptive leadership that drives resilience through improving redundancy can be observed.

2) Robustness: the expected failures and disruptions will not interrupt service. For systems, observing robustness can come from episodes when infrastructure such as power networks can withstand disruption. If a shift in thinking (such as a concern with continuity of power) enabled actors to improve the robustness of a system (such as creating a backup power system off of a generator for a public housing complex), this constitutes observing adaptive leadership that fosters resilience through improving robustness.

3) Flexibility: adaptability in the means to an end. For agents, individual or groups adapting their strategy to still accomplish some ends is a manifestation of flexibility. When a group shifts its expectations from one mode of decision-making to another based on the constraints or conditions at hand—a shift from consensus to distributed authority with veto for significant concern—this is an observed manifestation of adaptive leadership driving resilience through improving flexibility.

4) Integration: quality of interconnection between systems, usually mediated by an institution. A shift towards integration might look like institutions demonstrating a greater alignment of various systems or stakeholders through developing an institutional mythology or story that clearly articulates how various systems function,

or how stakeholders' interests are integrated into a cohesive narrative. This is an observed manifestation of adaptive leadership that fostered resilience through improving integration.

5) Inlusiveness: participation by diverse actors in institutions. A shift towards inclusivity might look like institutions adopting practices that make them more porous to participation by members with divergent/diverse perspectives and interests. This improved porosity is an observed manifestation of adaptive leadership that fostered resilience through improved inclusivity.

6) Resourcefulness: a capacity to substitute means to strategic ends. A shift towards greater resourcefulness might look like groups or institutions expanding their mental models and thinking in ways that enable them to switch what resources are required to pull off some strategy. A shift in thinking that enables a shift in the means to a strategic end is an observed manifestation of adaptive leadership that fostered resilience through improving resourcefulness.

7) Reflectiveness: when organizations or individuals have practices in which they systematically reflect on past experiences to sense-make, and anticipate future challenges, then we are observing reflectiveness. A shift toward greater reflectiveness might look like an organization gaining greater self-awareness through the acquisition of new practices. When we observe this, then we are observing adaptive leadership driving greater resilience through improving reflectiveness.

Observing these qualities and gauging their strength of expression can be a means to observe resilience in urban systems. Combining these qualities with [Tyler & Moench's model for resilience in urban systems will explore this further.](#)

### **RESILIENCE, POWER & AGENCY**

What has resilience been used to describe so far? Thus far in the resilience scholarship, resilience has been a concept predominantly used in the exploration of the performance of systems, divorced from the human experience or outcomes. "Resilience does not engage with the material, social and symbolic landscape that constitute the lived experience of the communities whose resilience is being sought" (Goldstein et al 2014; Adger et al 2009; Crane 2010). As a result, resilience in its operationalization during research, and in its findings, has been ill equipped to address the human experience in contexts such as urban systems.

In order to be relevant to research within urban systems, research must be responsive to questions such as: resilience for whom? Resilience as a capacity is unevenly distributed. Those who are most vulnerable are often least resilient. “Those individuals and groups who are systematically marginalized through institutions that delegitimize their claims to the services provided by urban systems (i.e. have fewer entitlements) are likely to be more vulnerable to similar climate impacts” (Tyler & Moench 2012, Moser & Satterthwaite, 2010; Pelling, 2003). This is a product of a power landscape within urban systems.

This brings up another question: Resilience for whom? There is an important distinction to make here. While the resilience of a system in and of itself may not be value-laden, the conditions reproduced through that resilience are. Bigotry or sustainability can both be patterns that resilience maintains within an urban context. Every culture has underlying stories about what it wishes to sustain, and a set of values of which it wishes to maintain expression. When relationships amongst agents, institutions and systems are being resilient, they are maintaining the pattern integrity to a culture’s expression of its core values. To be insightful on urban systems, resilience research must engage with questions about whom resilience is benefitting within the city and why, and illuminate how the resilience of urban systems is enmeshed with power.

#### **FOSTERING CONDITIONS OF RESILIENCE**

How might resilience become a useful concept that guides the work of planners? The final concern is practical. As a result of the approach to framing and conducting resilience research around complexity, it has been difficult to make the concept of resilience useful within practice (Wilkinson et al 2010). Resilience thinking offers a way to make sense of the complex non-linear dynamics of systems. It does not as yet provide a theory of action that might situate the planner and their actions within the process of resilience building. If resilience is what communities want to *have*, a clear idea is necessary for what planners must *do*, or perhaps more importantly, who planners must *be*. Resilience scholarship needs to plausibly establish how planners’ actions might assist communities enhancing social-ecological resilience within complex urban systems.

#### **RECAP: RESILIENCE**

This section of the toolset introduced resilience as an evolving concept, one that is best defined as involving transformation and learning. This section has argued that panarchy is a

critical idea for this research, particularly the dynamics of Revolt and Remembrance. There are four limitations to the current understanding of research. One, the working conceptualization of resilience makes measurement inappropriate, and observation outside of disruption difficult. Second, the working conceptualizations of resilience do not yet adequately respond to issues of agency, power, or individual experience. Third, the working conceptualization of resilience does not offer a clear idea of what it means to foster resilience in practice. This first two will be touched on again in [bringing it all together](#) and when addressing [methodological issues](#) later. The third will reemerge in the [conclusion chapter](#). The next challenge is to outline leadership and what it might mean within conditions of complexity.

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### 3) LEADERSHIP

#### MAIN ARGUMENT: LEADERSHIP FROM A COMPLEXITY PERSPECTIVE

A concept of leadership useful to understanding resilience requires approaching leadership from a complexity perspective. In order to explain why this is necessary, it is useful to provide some context on the evolution of the concept of leadership over the past 20 years. Next is to introduce the scholarship on leadership from a complexity perspective (including [distributed leadership](#), Complexity Leadership Theory ([CLT](#)), and to offer a critique of its strengths and limitations. To provide a toolset that complements CLT and addresses those limitations, it is useful to introduce some of the research around [Individual Strategic Leadership](#), [tribal leadership](#), aesthetic leadership, and spiritual leadership. Last is to offer some arguments about how this suite of theories might function as an integrated toolset, and explore the remaining limitations.

#### LEADERSHIP FROM A COMPLEXITY PERSPECTIVE

One way to explain the difference between the previous approach to leadership and the complexity approach is in terms of networks. The traditional study of leadership was focused almost exclusively on the actions and behavior of nodes in a network. Most importantly, they examined the behavior of nodes endowed with authority, particularly at the juncture of hierarchical structures. In contrast, complexity approach to leadership focuses on relationships within a network. From the complexity perspective, leadership is a relational process, where leadership “can be seen as a complex dynamic process that emerges in the interactive “spaces between” people and ideas” (Gronn 2002; Lichtenstein et al 2006). Leadership is a pattern that emerges out of a set of relationships due to their qualities. Relationships themselves can be a source of action and force within the larger system. Leadership from the complexity perspective “is a recognizable pattern of social and relational organizing amongst autonomous heterogeneous individuals as they form into a system of action” (Hazy et al., 2007; Lichtenstein et al., 2006; Marion and Uhl-Bien, 2001; Shamir, 2012; Uhl-Bien and Marion, 2009; Uhl-Bien and Ospina, 2012; Uhl-Bien et al. 2007). This is not to discount the role of individuals, or to ignore the effect that individuals with authority or charisma might have. Instead, it is to embed individuals within a larger framework that incorporates how relationships generate leadership within complex environments. Approaching leadership from a complexity perspective has implications for the nature of

leadership, where leadership is situated can be developed. The first task is to explore distributed leadership as a systemic perspective on leadership, and then focus on Complexity Leadership Theory.

### **DISTRIBUTED LEADERSHIP**

Distributed Leadership (DL) can be thought of as a systemic perspective on leadership, as opposed to a distinct theory of leadership (Bolden et al 2005). The work from this perspective on leadership shares some key premises: “leadership is an emergent property of a group or network, there is openness to the boundaries of leadership, and varieties of expertise are distributed across the many, not the few” (Bennet et al 2003 p383). Leadership can be understood as a distributed practice, where leadership is “stretched over the social and situational contexts and it is not simply a function of what any individual leaders knows and does” (Spillane, Halverson & Diamond 2000b). Distributed leadership perspectives can be divided into two broad sets: numerical action and concertive action.

When DL comes from numerical action, leadership comes from the actions of many within an organization. The actions of each individual adds to the expression of leadership, and leadership is a sum of those actions (Gibb 1958). When DL comes from concertive action, the “pattern of group functions” expresses leadership in more holistic ways. At least three distinct forms of concertive action that exhibit leadership have been explored through research: spontaneous collaboration, intuitive working relations, and institutional practices. In spontaneous collaboration, leadership is expressed by the interactions many leaders, “so that leaders’ practice is stretched over the social and situational contexts of the school; it is not simply a function of what a school principal, or indeed an other individual leader, knows and does” (Spillane, Halverson & Diamond 2000, p6; Gronn 2002). These expressions of leadership are responses to specific conditions and novel conditions. Individuals respond to the situation at hand and, in so doing, opportunities to coordinate action with others towards some shared goal become apparent. In intuitive working relations, two or more individuals have developed capacities of collective mind (Weick & Roberts 1993) and collective improvisation (Vera & Crossan 2004). These capacities enable the group to offer leadership that “is manifest in the shared role space encompassed by their partnership” (Gronn 2002).

Institutional practices can create organizational structures that pool distributed capacity from amongst equals who hold authority, creating a new capacity to express

leadership. A frequent example is a council of school Deans within a university, or *primus inter pares* (Miller 1998). The university's President may appear to have chief authority over subordinate school Deans. In reality, within the domain of educating students a university President is at most a "first among equals" (Greenleaf 1977, 77). Instead, that council then both expresses leadership as a new entity, distinct from any individual, as well as coordinating action by its members amongst a variety of separate domains.

A note is needed to explain what DL is not. It is not some blueprint for management, offering no guidelines about what leadership is effective in different contexts for various goals. DL does not contradict or negate the role of strategic leaders. DL does not imply or argue that everyone is a leader (or should be). And, DL is not solely about collaborative scenarios or organizations (Spillane & Diamond 2007 149-152).

As a set of leadership configurations, some DL configurations may foster resilience and some may not. For instance, if leadership were from numerical action or additive, then if one gets knocked out others can continue without a loss in leadership capacity (Gronn 2002). Their presence of leadership would be resilient, and (presuming their leadership fosters resilience) the resilience generated by leadership would be resilience as well. In contrast, if DL comes from concertive action such as a pair that have developed intuitive working relations and offer cooperative aspects of leadership (Gronn 2002), then knocking one out would disable the leadership that fostered resilience.

#### STRAY CONCEPTS

There are five stray concepts to introduce before diving into this: coarse-grain properties, fine-grain interactions, emergence, entrainment, and attractors. *Fine-grain interactions* are the day-to-day choices of individuals and the activities they engage in. *Coarse-grain properties* are the large-scale qualities of a system that emerge from many fine-grain interactions (Hazy 2007).

The next is an important pairing: emergence and entrainment. *Emergence* is familiar: the appearance behavior from a system that seems greater than the sum of its parts. Again, coarse-grain properties emerge from fine-grain interactions. Given the flashiness of emergence, little attention has been paid to its more subdued younger sibling: entrainment. *Entrainment* is a willingness to adopt practices that align with coarse grain larger goals and structures. This is not something imposed. Rather, the coarse-grain properties themselves "by

virtue of their being recognizable, stable, significant, and therefore useful in some way as “the way things are done around here” begin to influence the behavior of individuals (Hazy & Uhl-Bien 2015, 92). Individuals are aware of larger coarse-grain properties, have a relationship with them, and feel compelled to entrain their actions to them. Entrainment is enabled by a number of factors. One is docility, or the willingness to trust and accept in others beliefs and models of reality, and to build their beliefs and models off of them (Simon 1990).

Attractors are stable practices or fine-grain interactions that are “sticky.” Sticky practices or behaviors have a habit of sucking more individuals into adopting them and being hard for individuals to stop practicing once they’ve adopted them. *Choice Attractors* are chosen attractors, practices that individuals adopt because they believe they will lead to an emergent new property (Goldstein 2010). Choice attractors can be self-fulfilling prophecies: when enough people believe that by entraining to that practice something will emerge, it does emerge. *Structural Attractors* are objects, physical resource or artifacts that, through their use, create an attractor for behavior (Allen 2001). A comprehensive plan is (intended to be) a structural attractor.

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## COMPLEXITY LEADERSHIP THEORY

### WHAT IS COMPLEXITY LEADERSHIP & WHY DOES IT MATTER?

From the perspective of Complexity Leadership Theory, the operational environment for leadership is complex adaptive systems. Given this, there are five “functional demands” (Hazy & Uhl-Bien 2015) that configurations of leadership (Gronn 2009) must perform in order for those systems to maintain themselves: community building, information gathering, information using, generativeness, and administration (Hazy & Uhl-Bien 2015). This framework is the product of 15 years of collaboration in a community of scholars, involving approximately 50 publications. I will introduce these grouped by the fundamental questions they help address in a complex adaptive system. The first, Community Building, addresses questions of *who* communities are. Information Gathering and Information Using address questions of *what* communities should do. The final two address *how* communities should do it.



## GRAPHIC 4: CLT RESEARCH, TAKEN FROM HAZY & UHL-BIEN 2015

**Table 2.** Leadership functions, illustrative practices, and studies that reflect these practices.

Functions	Illustrative practices	Empirical studies
Generative	<ul style="list-style-type: none"> <li>Set high aspirations for future products, services, and processes with external constraints, but without specifying how to get there</li> <li>Bring diverse experiences and perspectives together and support differences of opinion</li> <li>Encourage broad adoption of innovations that have been vetted</li> <li>Provide resources and space to try new things and new directions</li> <li>Form small teams and rotate membership often to break-up stale thinking</li> <li>Encourage openness to surprises to learn/do not punish failure</li> </ul>	Surie and Hazy (2006) Johannessen and Aasen (2007) Plowman et al. (2007a, 2007b) Tapsell and Woods (2009) Beck and Chong (2009) Garud et al. (2006, 2011) Groot (2009) Shepherd and Woods (2011) Backström et al. (2011)
Administrative	<ul style="list-style-type: none"> <li>Establish specific task targets, dependencies, and deliverables</li> <li>Use discretionary control over resources (like budgets) to reinforce successful projects</li> <li>Provide clear roles, task-specific training, and follow-up on expected activities</li> <li>Provide resources and autonomy to "groups" to support their efforts</li> <li>Establish challenging but achievable goals and objectives</li> <li>Use resources such as project plans and budgets as structural attractors</li> </ul>	Guastello (2002) Guastello and Bond (2004, 2007), Guastello et al. (2005) Garud et al. (2006, 2011) Johannessen and Aasen (2007) Plowman et al. (2007a, 2007b) Phelps and Hubler (2007) Hazy (2008b), Groot (2009) Tapsell and Woods (2009) MacGillivray (2010) Shepherd and Woods (2011)
Community-building	<ul style="list-style-type: none"> <li>Articulate an idealized future with shared values and aspirations</li> <li>Build trust that individuals will have access to shared resources</li> <li>Initiate and perform inclusion rituals like group celebrations</li> <li>Clarify in-group/out-group boundaries perhaps by using "us" versus "them" language or "tags" like uniforms</li> <li>Ask each person to invest their energy and resources in the organization</li> <li>Initiate and perform inclusion rituals like group celebrations</li> <li>Make people feel they is part of something valued and significant</li> <li>Use resource allocation authority to "kill" dead-end projects or wasteful activities</li> </ul>	Dal Forno and Merlone (2007) Boal and Schultz (2007) Tapsell and Woods (2009) Backström et al. (2011) Molleman et al. (2010) Hazy, 2008a, 2011 Shepherd and Woods (2011)

(continued)

**Table 2.** Continued

Functions	Illustrative practices	Empirical studies
Information Gathering	<ul style="list-style-type: none"> <li>Make time for thoughtful exchanges and reflection about new information that is being learned across the organization</li> <li>Encourage exploration and learning expeditions to search for new information from stakeholders</li> <li>Insist on frank exchanges about what is working or not working</li> <li>Listen, ask "why?", then "why?" again to challenge assumptions about what is known</li> <li>Conduct after-action reviews</li> <li>Encourage cross-team/organization communication/collaboration</li> <li>Identify successful initiatives and test them more broadly</li> <li>Help look for and identify common models of what is happening and needs to happen</li> </ul>	Barabasi (2002) Surie and Hazy (2006) Tobin (2009) Backström et al. (2011) MacGillivray (2010) Baker et al. (2011) Molleman et al. (2010) Garud et al. (2006, 2011) Shepherd and Woods (2011)
Information Using	<ul style="list-style-type: none"> <li>Drive accountability in resource allocation decisions</li> <li>Delegate authority over resources and responsibilities to leverage success, experience and expertise</li> <li>Find, vet, and place the right people in the right jobs</li> <li>Clarify individual responsibility for organizational outcomes to enable unambiguous assessment of success or failure</li> <li>Maintain consistency in personnel and roles in teams</li> </ul>	Allen (2001) Solow and Leenawong (2003) Tsoukas (2005) Surie and Hazy (2006) Schreiber and Carley (2006) Dal Forno and Merlone (2007) Molleman et al. (2010) Backström et al. (2011) Groot (2009), Tobin (2009) Garud et al. (2006, 2011) Shepherd and Woods (2011) Hazy, 2008b, 2012 Havermans et al. (2010)

### COMMUNITY BUILDING

Fostering the shared social and cultural capital that enables collective action is the primary function of Community Building within CLT. This should be entirely familiar to social scientists. Practices for community building foster belonging and trust, both within oneself and within a group. These practices generate a collective identity (Hazy 2011) and an understanding of one's identity as distinct and fitted within the collective identity: I have a place in it (Tajfel & Turner 1986). There is an aspect of subordination in this: I am subordinating my identity to a larger one. In so doing, I trust that what feeds my identity will be met. Community building practices are the foundation upon which all other leadership practices in complexity are built.

### INFORMATION GATHERING

Sensing and sense-making are the primary functions of Information-Gathering leadership (IGL). IGL practices support individuals' attunement and ability to sense signals relevant to the system, be they internal emotional signals, group social signals or organizational dynamics. They also support sense-making—both by individuals and in group settings—that enable integration and synthesis (Hazy & Uhl-Bien 2015). Through keeping the observational envelope wide, “activities explore the environment, observing and sharing what is happening in the distributed ecosystem, and maintain a fine-grain diversity of perspectives within the system” (Hazy & Uhl-Bien 2015, 84). This enables the organization to identify *interaction resonance* (Goldstein et al 2010) or soft signals (Bak 1996): fine-grain patterns that are relevant to coarse grain properties. Organizations with a high capacity for IGL are characterized by effective data collection, sophisticated dialogue, deep listening, collective mind, and group tacit knowledge (Weick & Roberts 1993; Erden 2008; Albert & Barabasi 2002; Surie & Hazy 2006).

### INFORMATION USING

Information-Using Leadership (IUL) is not what it might sound like at first reading. The primary function of Information-Using Leadership is Ratcheting. Ratcheting is the ability to identify *a coherent direction for transformation* and then move towards it deliberately and without backtracking. IUL practices “use fine-grain interactions to implement coarse-grain structural changes in the way the organization interacts with its environment” (Hazy & Uhl-Bien 2015, 85). In the words of Barak Obama, “we must go forward! We can't go back.” The concept of the fitness landscape is useful here (Kauffman 1995). Let's say the organization has

sensed to the current state of things (Information Gathering). Based on this, the sense it makes is that it needs to move down from the small peak it is on in the fitness landscape, and toward another one. This involves abandoning comfortable identities and practices, and strike off across uncertain territory towards something that is widely agreed is better, even though no one knows entirely how to get there or what they will find when they do. Doing so in a way where every step of the way, the door to retreating is closed: that's Ratcheting (Hazy 2012). There are several examples of this within my cases: one is Rainbow's story of [get bigger or get out](#). Another is [adopting Dynamic Governance on the Residents' Council](#).

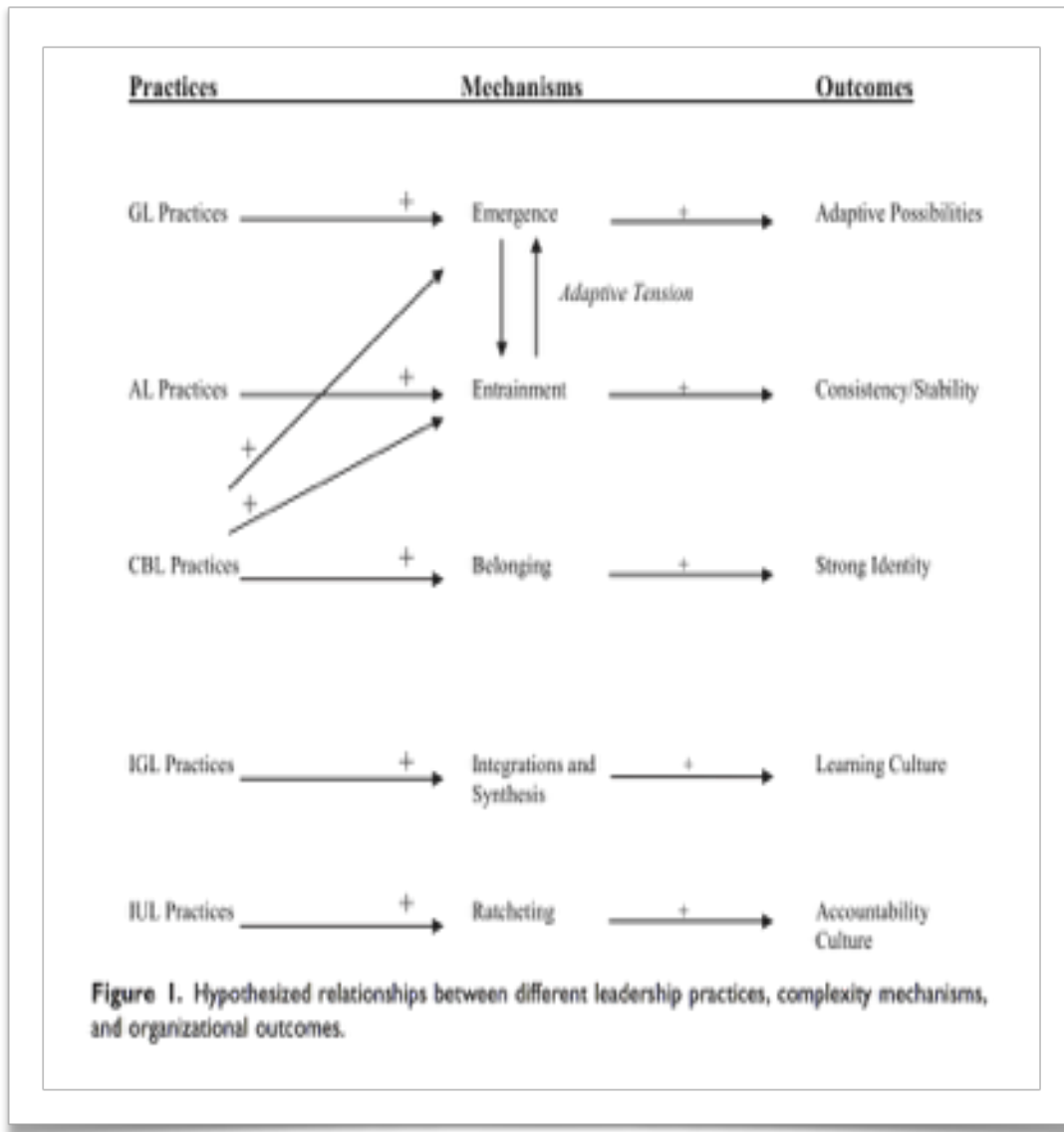
#### GENERATIVE

The primary function of Generative Leadership (GL) is fostering emergence of new coarse-grain properties (Surie & Hazy 2006). Practices that foster divergence in thought and behavior are key to GL. When an organization has effective GL, individuals feel a sense of autonomy, experimentation, and experience themselves as failure-celebrated and well-resourced. (Johannessen & Aasen 2007; Plowman et al 2007; Backström et al 2011). Groups feel permission to play, adopt, adapt, shuffle membership, collaborate where goals are identified, but not how to achieve them. GL and the environments it produces are the poster child of the entrepreneurial ethos, as emergence generates fundamentally new practices, behavior, and outputs and outcomes from organizations.

#### ADMINISTRATIVE

The primary function of Administrative Leadership is fostering entrainment of fine-grain interactions to coarse-grain properties. It achieves this by codifying knowledge and roles, setting out goals and targets, using resources such as project plans and budgets as structural attractors to reinforce desired coarse-grain properties, establishing boundaries around groups to accomplish tasks, and establishing policies and procedures (Gaustello 2002; Plowman et al 2007; Dougherty & Takacs 2004; Shepherd & Woods 2011). By doing so, AL improves the stability, consistency and predictability of these coarse-grain properties. It is easy to overlook how important this is. Without strong AL, organizations never develop strongly, fully, crisply developed coarse-grain patterns. They do not achieve a strong organizational culture or clear organizational strengths.

**GRAPHIC 5: HYPOTHESIZED RELATIONSHIPS AMONGST CLT FUNCTIONS (HAZY & UHL-BIEN 2015)**



### COMPLEXITY LEADERSHIP FOSTERS RESILIENCE

Having just walked through the Complexity Leadership Theory, what is its value to this research? The CLT perspective enables researchers and practitioners to read a complex environment and discern if there are patterns of self-reproduction or autopoiesis observed in complex adaptive systems. It seems plausible that, if these patterns are observed, leadership is fostering resilience. This framework can be used to describe how leadership is fostering resilience capacities. It will achieve this by linking (1) [micro-enactments or episodes of leadership](#) from specific episodes that enact resilience to (2) specific functions of leadership within the CLT framework. Later, when bringing it all together, propositions will be offered

on how Complexity Leadership fosters resilience. How a research design might do this will be explained in further detail [in the next chapter](#).

## LIMITATIONS OF CLT

### DRIVERS TO ADMINISTRATIVE LEADERSHIP

Second, there is an adaptive tension between Generative and Administrative Leadership (Hazy & Uhl-Bien 2015). One generates lots of new coarse-grain properties; the other is picking winners and reinforcing them. What is generating AL is important to the generation and maintenance of resilience capacity. This chapter will touch on this during [Individual Strategic Leadership](#) and in [bringing it all together](#).

### CLT AND ORGANIZING QUESTIONS OF WHY

Third, Complexity Leadership Theory describes the leadership behaviors observed in complex systems that can answer questions of “what” communities should organize, “how” they should organize it, and “who” they are in engaging in that process (Hazy & Uhl-Bien 2015). Absent from this framework are questions of “why.” Why does this complex adaptive system exist? Why do responses to these what, how and how questions cohere into something that constitutes leadership? Implied in the current conceptualization of the Complexity Leadership Theory is that a why is not necessary. Leadership emerges from a set of conditions. A driving “why”—and some aspect of a complex system that embodies it—is not a necessary element to explain leadership within complex systems.

Another interpretation is that questions of why are embedded in identity, or the community-building function. Through the kinds of storytelling that builds group cohesion, deep questions of why are addressed. This question will be explored more deeply later when I examine [tribal leadership](#). My supposition for now is that there is an important interrelationship between questions of who and why. Depending on the why that is articulated, different identities emerge with remarkably different practices required to support them. In examining these two cases in Asheville, one of the goals will be to interrogate this assumption. If there is evidence for this Complexity Leadership framework, is there also evidence for a why function? My presumption is that this is the case. The primary substance, the material of urban systems, after all, is people. People seem to have a need for meaning to animate action. If this is indeed the case, in order to foster leadership in complex urban

systems, it is necessary to understand what embodies the why within a complex adaptive system, and what role leadership plays in generating it.

The above sections covered the elements of Complexity Leadership Theory, accompanied by some needed concepts to help explain it, and identified some of its key weaknesses, which will be examined further later. The following section explores aesthetic leadership.

### **PHRONESIS, CONATION, IGL & IUL**

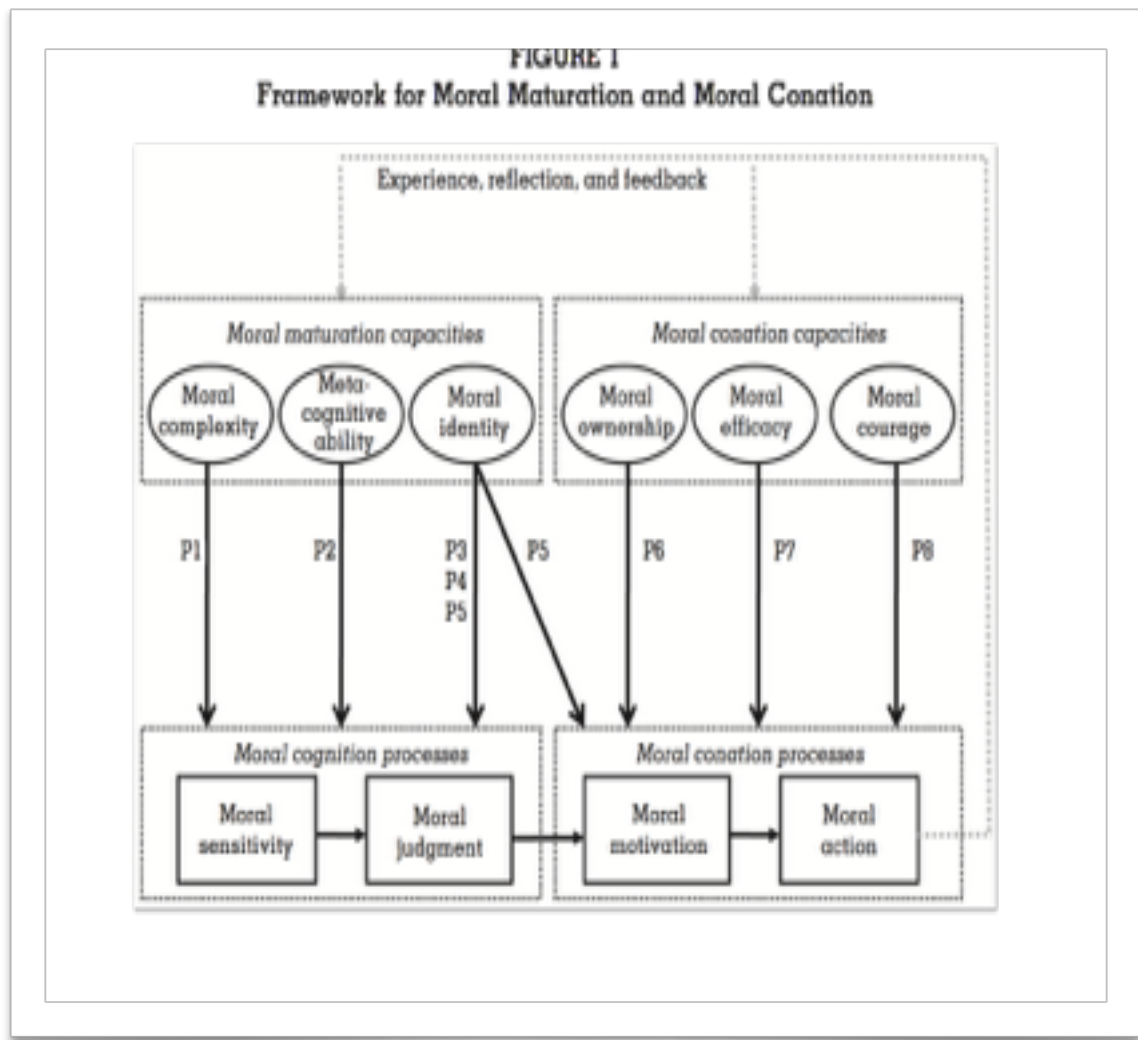
Fourth, IGL and IUL can be thought of as the two necessary and complimentary aspects of phronesis. Phronesis is a Greek term for a kind of knowledge (Flyvbjerg 2001). “Phronesis is the deliberation about values with reference to praxis... and is the intellectual activity most relevant to praxis. It is pragmatic, variable, and context dependent is oriented towards action” but does not frame action itself (Flyvbjerg 2001, p57). It is knowledge that is situated, contextual, and useful to answering three kinds of questions in an integrated manner: Where do we find ourselves? What do we make of that? What should we do? As they are currently framed, IGL answers the first question. IUL responds to the third. How does leadership in complex systems respond to the second question?

This second question is fundamentally one of moral conation, and is a deeper question than it may seem on first reading. Moral conation is the capacity to generate responsibility and motivation to take moral action in the face of adversity and persevere through challenges (Hannah et al 2011; Hannah & May 2009). The conation model is divided into maturation capacities, moral condition processes, moral conation capacities and moral conation processes. Moral complexity is the ability to read a social landscape and understanding the moral trade-off to actions and choices. Meta-cognition is the ability to examine oneself and one’s options. Moral identity is a sense of personhood that is inscribed with values. These capacities lead the moral maturation capacities of moral sensitivity and moral judgment. This in turn drives conative capacities for moral ownership, or taking responsibility for a situation and its valuative implications—a sense of moral efficacy and a realistically appraised understanding of one’s ability to act. Moral courage is the gumption to actually do something with that. These three enable the moral conation processes of moral motivation and moral action.

This connects to this question of why: why act? What compels action? Is this dealt with by the Community Building function of leadership? My presumption is that it is more

complex than individual or collective identity. [Bringing it all together](#) will return to this question.

**GRAPHIC 6: CONATION FROM HANNAH ET AL 2011**



### INDIVIDUAL STRATEGIC LEADERSHIP

What role do individuals in positions of authority play in leadership within this new paradigm? A few researchers continue to believe that even—and perhaps especially—in contexts of complexity, “strategic” leaders play a central role in the organization’s capacity to learn from its past, adapt to its present, and create its future (Boal & Schultz 2007). Individual Strategic Leadership can be thought of both as a set of actions that individuals take, and the act of making decisions within positions of authority within an organizational structure (Boal & Schultz 2007).

*“Strategic leaders perform many activities and wear many hats as they carry out their roles, such as: making strategic decisions, creating and communicating a vision of the future; developing key competencies and capabilities; developing organizational structures, processes, and controls; managing multiple constituencies; selecting and developing the next generation of leaders; sustaining an effective organizational culture; and the infusion of ethical value systems into the organization's culture” (Boal & Hooijberg, 2000).*

The supposition to this research is that there is a dynamic interplay between Individual Strategic Leadership and distributed leadership: both together are integral to leadership in conditions of complexity. In particular, Individual Strategic Leadership can play a critical role in driving administrative leadership at times when entrainment is critical to organizational health. Why this supposition seems founded will come out in the analysis of both cases and, in particular, contrast the impact of Renee and Sir Charles on the contexts where each offer Individual Strategic Leadership.

#### **TRIBAL LEADERSHIP**

What inspires a sense of collective identity? There is an important tangent to offer here, because it helps to explain the uniqueness of the Rainbow Community School as an organizing environment later in this dissertation. In an attempt to identify cultural drivers around tribalism, they researched organizational culture with 24,000 respondents in approximately 50 organizations (King & Fischer-Right 2008) distilled organizational culture into five types. Types 1 to 3 are dominated by individualistic cultures. Type 1 can be described as “life sucks.” Type 2 is “my life sucks,” where individuals in the organization perceive their conditions as unfair. Type 3 is “I’m great.” This is the culture found in most large organizations, and dominates in professional organizations such as hospitals, law firms, and higher education. The shadow to this type is “and you’re not.” The culture is individually competitive, caustic, with power dynamics and privilege baked into structure—and co-dependent with a Type 2 culture.

A major transition occurs arriving at Type 4, a culture of “we’re great.” The shadow to this culture is “and you (plural) aren’t” or are the enemy. There is strong intra-group cohesion, mutual support, and a simple shared vision. It is a group identity defined around adversarialism & competition. The distinction important to this dissertation is between Type 4 and Type 5. Type 5 is “we’re doing something epic.” It is oriented towards a mythological or



transcendent goal, involves strong intra-group cohesion, mutual support, and a significantly more complex shared vision. The important element to note is what kinds of goals, what leadership capacity is required, and what kinds of practices can be used within different cultural types. Being #1 in the market can inspire a Type 4 culture; ending world poverty can inspire a Type 5 culture. These goals differ in complexity, as do the operating environments involved in each. This requires a qualitative shift in leadership. Stage five cultures, and the organizational goals that motivate them, are the spaces in which I expect to see Complexity Leadership in full expression. If a Type 4 or 5 culture is observed within the case studies, is the CLT model necessary and sufficient to explain why that culture is the way it is?

#### **DYNAMIC GOVERNANCE/CIRCLE FORWARD/SOCIOCRACY**

The last concept to introduce is the practice of Dynamic Governance. Dynamic Governance is known under many names, originally called sociocracy, and referred to in North America (particularly in Asheville, North Carolina) as Circle Forward. For the purposes of this dissertation, it will be referred to as Dynamic Governance, a specific practice of leadership utilized within both case study sites, and therefore important to introduce and contextualize before the reader encounters it during chapters four and five.

The concept of sociocracy has been in the zeitgeist since at least the 1850s. Sociocracy is a fusion of the Greek words of *Socius*, meaning companion, and *Kratein*, meaning to govern. One of its paths into contemporary usage is through the work of Kees Boeke, a Dutch educator and activist. Kees' model builds on the Quaker tradition of consensus. The three fundamental principles were that the interests of all members must be considered; individuals must respect the interests of the whole; no action is to be taken without a solution that everyone could accept, and all members must accept these decisions when unanimously made (Boeke 1945). The first sociocratic organizational structure was employed by Kees at the Children's Community Workshop in Bilthoven, Netherlands (Wikipedia entry, accessed June 24 2016).

In contemporary history, sociocracy emerged out of the Edenburg Electrical engineering Corporation in the Netherlands in the 1960's and 70's. Manager and engineer Gerard Edenburg believed management science of the time to be poorly founded, and unhelpful in fostering an effective work environment. To develop a different approach to management, Gerard drew on both Kees and cybernetics. Cybernetics is a discipline that

emerged out of the study of systems. Norbert Wiener defined cybernetics as “the scientific study of control and communication in the animal and in the machine.” It is often used to refer to mechanisms of control over the system using technology. Gerard used his organization as a laboratory to experiment with principles of management and governance (Website of the Sociocracy Group, Accessed Jan 2 2014). The result was contemporary Dynamic Governance.

Contemporary Dynamic Governance has three basic principles: Consent, organizing in circles, and double linking (Buck & Vileness 2007). Sociocracy makes a distinction between consent and consensus. Consent is defined as no objections, where objections are based on one’s ability to work towards the aims of the organization. A sociocratic organization is composed of a hierarchy of semiautonomous circles (Wikipedia Entry, Accessed June 25 2016). Each circle is formed around some shared core function and is responsible for self-regulating and self-organizing. Each circle provides a representative to circles upward and downward in the hierarchy.

The process is described by Social Profit Strategies as “dynamic, disciplined and inclusive,” fostering resilience through creating the conditions for the integration of the diversity of an organization or system (Website, November 1, 2014).

In the 1980s, a series of organizations were founded both in the Netherlands and the United States to disseminate sociocracy and train others as trainers in sociocracy. Since then, sociocracy has been used in a range of settings, from corporations to schools and community organizations. John Buck, a Dynamic Governance trainer and scholar, was one of its early adopters in the United States. John Buck worked with a number of organizations in the US, including Rainbow Community School.

Dynamic Governance has been adopted elsewhere in Asheville, including in the food policy Council. This served as a point of inspiration for the potential role it could play in representation and governance within housing.

The key question for this research is whether Dynamic Governance plays an important role in fostering Complexity Leadership within both case study environments. If so, what role might the practice play in fostering Complexity Leadership in other environments?

#### **RECAP: LEADERSHIP**

This section introduced leadership from a complexity perspective. After laying out Distributed Leadership and Complexity Leadership theory, I identified weaknesses to the existing theory and offered some potential responses using research on aesthetic leadership, Individual Strategic Leadership, and tribal leadership. This section closed with a brief history on a specific leadership practice that will be relevant within the case studies, Dynamic Governance.

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#### 4) BRINGING THEM TOGETHER

How to integrate this research into some form that helps the exploration of its supposition? I make three main arguments.

##### **URBAN SYSTEMS RESILIENCE**

First, if the qualities of a resilient urban system are considered as generated by the relationships amongst the elements of an urban system. Namely, the relationships amongst geographic sites, physical infrastructure, an ecosystem of organizations, social networks, and a set of institutions generate qualities of resilience—flexibility, robustness, redundancy, resourcefulness, integration, inclusion, and reflectiveness. This is an integration of Tyler & Moench's basic framework on urban systems resilience with my augmentation of it, combined with the empirically generated qualities of resilient urban system from the work of the 100 Resilient Cities.

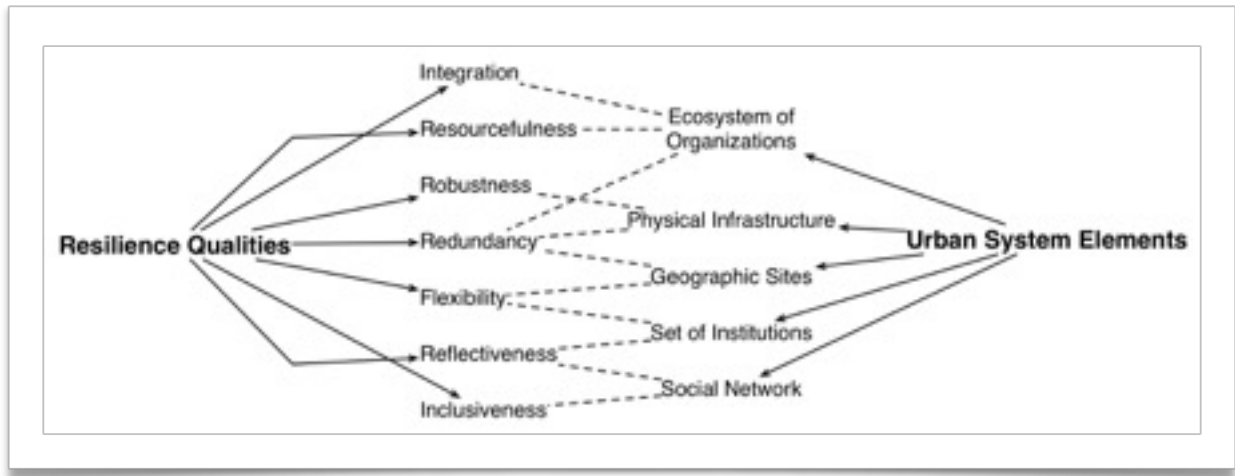
Where can these qualities be expected to emerge? Integration and resourcefulness emerge primarily from effective relationships amongst organizations. Redundancy emerges from the relationships between organizations and geographic sites. Robustness emerges primarily from effective relationships amongst physical infrastructures. Flexibility emerges from the relationships amongst institutions and geographic sites. Reflectiveness and inclusion emerge from the relationships between institutions and the social network.

This is obviously an oversimplification; any of these qualities can be observed to some degree almost anywhere within an urban system. This gives a rough picture of what observation within a resilient urban system might generate as a coarse-grain picture, and sets up the research question and engaging with methodological questions of how to observe the qualities of resilience.

##### **GRAPHIC 7: RESILIENCE QUALITIES & URBAN SYSTEM ELEMENTS**

##### **LEADERSHIP & RESILIENCE: HOW MIGHT LEADERSHIP FOSTER RESILIENCE?**

Second, what sort of leadership fosters resilience? I assert that these qualities can be observed within urban systems when Complexity Leadership is present, with three important caveats. First, leadership must ask and answer questions of why. This may fall within the Community Building Function of leadership; it may not. Second, a necessary condition is that the Information Gathering Function of leadership is attuned to signals of greater scope than

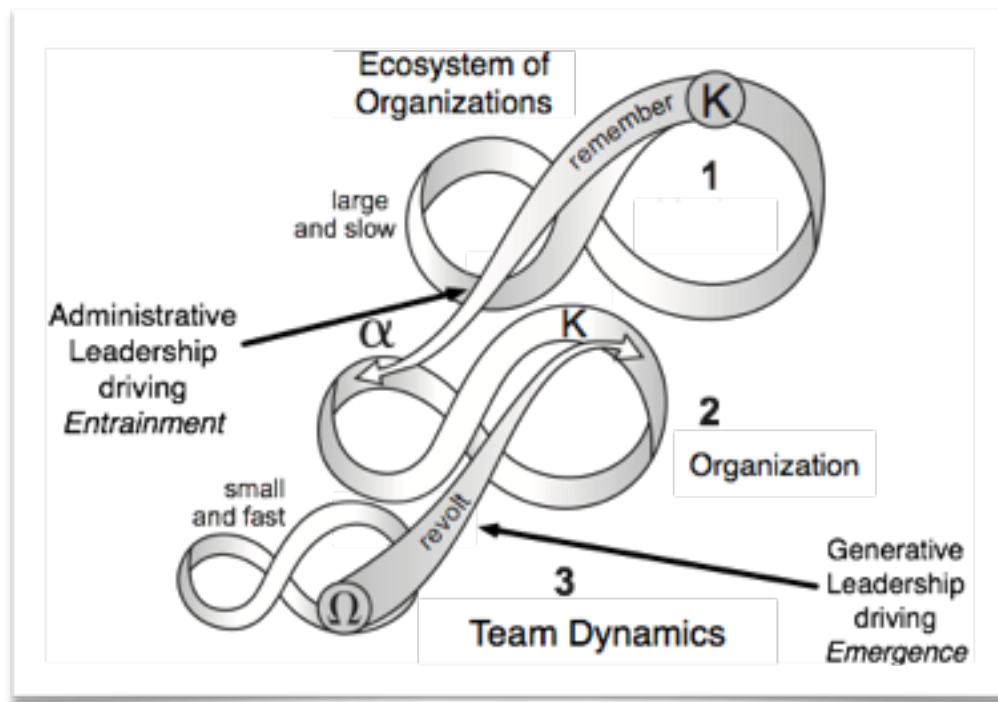


measurable data. This may come in the form of aesthetic leadership within IGL. Third, Individual Strategic Leadership may play a necessary role in driving strong Administrative Leadership.

#### URBAN SYSTEMS & LEADERSHIP: WHAT FORMS DOES LEADERSHIP TAKE IN URBAN SYSTEMS?

How does that leadership manifest within urban systems? One of the primary ways in which Complexity Leadership activities manifest in urban systems is through the mechanism of panarchy. Specifically, practices of the Generative function of leadership (GL) will manifest fostering the emergence of new coarse-grain patterns. Within nested urban systems, those coarse-grain patterns will constitute a Revolt, where smaller systems drive transformation in larger ones. For example, this may take the form of social or organizational action driving the manifestation of new forms in physical or geographical sites. Similarly, practices of the Administrative function of leadership (AL) will manifest entraining fine-grain practices to existing coarse-grain patterns. Within nested urban systems that entrainment will constitute Remembrance where larger systems patterns dampen emergence.

GRAPHIC 8: PANARCHY, ENTRAINMENT & EMERGENCE



#### MAIN ASSERTIONS

Reviewing the research from complex urban systems, resilience, and leadership leads to a set of assertions and questions. To recall some key arguments:

- 1) **Urban Systems**—Urban systems can be thought of in terms of agents, institutions and technical systems (Tyler & Moench 2012). The relationships amongst these elements produce a set of physical sites, systems of physical infrastructure, an ecosystem of organizations, a social network, and a set of institutions.
- 2) **Resilience**—Resilience is the ability of a system to withstand, recover, learn and adapt from disruption (Breen & Anderies 2011). Community resilience is “the existence, development & engagement of community resources by community

members to thrive in an environment characterized by change, uncertainty, unpredictability and surprise” (Magis 2010, 401).

- 3) **Complexity Leadership**—Leadership emerges from relationships, and is “a recognizable pattern of social and relational organizing among autonomous heterogeneous individuals as they form into a system of action” (Hazy & Uhl-Bien 2015, Hazy et al 2007, Lichtenstein et al 2006, Marion and Uhl-Bien 2001, Shamir 2012, Uhl-Bien and Marion 2009, Uhl-Bien and Ospina 2012, Uhl-Bien et al 2007). Within Complex adaptive systems, it performs five functions: community building, information gathering, information using, generative, and administrative.
- 38) **Resilience and Urban Systems**—Within resilient urban systems, the expectation is to observe qualities of redundancy, robustness, inclusion, integration, flexibility, resourcefulness, and reflectiveness.
- 39) **Urban Systems and Leadership**—Complexity Leadership can generate patterns of emergence and entrainment that generate panarchy in urban systems.
- 40) **Resilience and Leadership**—When leadership generates resilience, the expectation is to see questions of *why* articulated and answered somewhere, in ways that grapple with values and morality.
- 41) **Resilience and Leadership**—When leadership generates resilience, the expectation is to see leadership attuned to more signals than explicit data. This may include sensory signals and may be generated by aesthetic leadership in some form.

#### QUESTIONS FOR RESEARCH

From this, three general research questions emerge (with a few sub-questions):

- 1) What practices by individuals and groups create conditions for Complexity Leadership to emerge within an urban system?
  - 1) Does Dynamic Governance play a role in fostering Complexity Leadership?
- 2) Does Complexity Leadership foster resilience in urban systems?
  - 1) Is Complexity Leadership by itself sufficient to foster resilience in urban systems?
  - 2) Does Complexity Leadership generate panarchy in urban systems? Does panarchy contribute to resilience in urban systems?
- 3) When Complexity Leadership is observed, what is offering a deeper cohesion across these many functions of leadership?
  - 1) When urban systems are resilient, is there something unique about that cohesion?

#### RECAP: REVIEW OF RESEARCH, ASSERTIONS & QUESTIONS

This chapter reviewed the relevant scholarship from the research domains of complexity, urban systems, resilience, and leadership. It explored some of the limitations to this research and current understanding, developed a model for addressing these concerns, offered some assertions about what potential findings from research using this model, and posed some questions to focus my research.

Some large, fundamental questions remain unanswered: How to observe qualities of resilience in urban systems? How to manage the breadth and depth of urban systems to do meaningful observation? Where to observe these patterns? The next chapter turns to these questions.

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# CHAPTER THREE: METHODS FOR EXPLORING THE RESILIENCE OF URBAN SYSTEMS

## MAIN ARGUMENT & ROAD MAP

In brief, this chapter will argue that using a distributed ethnography in tandem with traditional ethnographic techniques offers a means to more effectively observe the breadth and depth of a complex urban system. This research uses the methods of set theoretic analysis in tandem with more traditional qualitative analysis as a means to more seriously interrogate the emergent properties.

The previous chapter closed with a set of assertions about the nature of leadership that fosters resilience in urban systems, and a set of focal questions for this research. This chapter will focus on how to build a research design that can meaningfully explore those questions. To do that this chapter will answer five questions:

- 1) What does it mean to research leadership in (complex) urban systems? The first section will outline the literature around research in conditions of complexity. This will provide design criteria for a successful research design.
- 2) How to explore these questions? The second section will lay out the methodological components used in the design, illustrate what this can look like in a cohesive design, and talk about the limitations of this design.
- 3) Where can leadership for resilience in urban systems be studied? The third section provides criteria for case selection and describes the two case sites used.
- 4) How specifically did this research explore these questions? This section outlines the process used for this research, including obstacles encountered and the differences between the initial research design and the actual research process.
- 5) How to make sense of the data? The fifth section will give a preliminary sense of what data was collected and how it was analyzed.

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## 1) DESIGN CRITERIA FOR RESEARCH IN COMPLEX (URBAN) SYSTEMS

What are the implications of framing research around complex urban systems, and attempting to observe resilience and leadership as phenomena? This section will make four arguments about those implications, one each for complex systems as a context, urban systems

as a context, observing resilience as a phenomena, and observing leadership as a phenomena. This section will conclude with a set of design criteria for research.

### **CONTEXT: COMPLEX SYSTEMS**

There is a fundamental challenge to observation within complex systems: interdependencies lead to novel, innovative, unpredictable behavior. Complexity theory “suggests that through studying the interdependencies and interactions among elements will provide critical insights for understanding an organization and its system properties” (Anderson & McDaniel 2005; McDaniel, 1994; Price 1994). This section will offer seven propositions to explain the consequences for research. Each will draw on Anderson & McDaniel (2005) to explain how complexity science might inform the study of complex systems. Two of the propositions relate to the selection of cases, and five to the design of research.

First, due to the interdependencies to complex systems, research within complexity requires rich case studies. “Identification of these interdependencies requires prolonged engagement with the system” (Anderson et al 2005). As a result, thick description and rich case studies are required. The next section will return to both in further detail. The case or cases selected should be ones where it is possible to have a deep and prolonged engagement with the system.

Second, the most instructive cases are ones that exhibit “positive deviance.” There are many valid configurations that can achieve positive deviance. “Complex adaptive systems emerge through self-organization, and have the property of equifinality” (Knight & McDaniel 1979), meaning there are no best practices, but many potentially successful patterns. Understanding phenomena of leadership or resilience therefore benefits from multiple cases. Also, since outliers can be “a source of new structural arrangements and patterns of behavior,” the most instructive cases may not be those that exhibit average behavior (Anderson et al 2005, Anderson, Hsieh & Su 1998). To that end, select cases that fall at the edges of the selection criteria, focusing on cases that barely make it or cases whose performance are off the charts.

Third, complex adaptive systems are nested “within a larger network of systems” (Watts 2003). Given resilience as a phenomenon and urban systems as the unit of analysis, resilience research must involve multiple scales of observation—individual, group,

organizational, systemic, and trans-systemic scale. Furthermore, it will be important to study behavior that transgresses scales and system boundaries. The study should use methods of observation that provide perspective from both inside and outside of an organization or system of study, and observe relationships that cross the system boundaries.

Fourth, the actions of a group are often studied separately from the ideas within a group (Anderson & McDaniel 2005). A group's stories and ideas coevolve with its behavior. As a result, listening to the congruencies and discrepancies amongst ideas and actions can be valuable in understanding underlying behavior (Anderson & McDaniel 2005; Capra 1996; Lee 1997). So, research into resilience and leadership should be designed to expose the relationships amongst ideas and behavior.

Fifth, "in order to understand how diversity might help and how it might hurt an organization," research within complex systems should seek to be "sensitive to dimensions of relationships" (Anderson et al 2005, McDaniel & Walls 1997). Such sensitivity can illuminate surprises about relevant dimensions. Research into resilience and leadership in complex systems should seek to observe in ways that are sensitive to known diversity and unknown diversity. It can seek to do so through using a range of observational methods.

Sixth is the importance of history in understanding phenomena within complex systems. "True understanding of the system will come from describing its configuration of relationships over time" (Anderson et al 2005). Studies therefore use methods that can reconstruct patterns across time and not discrete events. Historical analysis that can contextualize complex social relationships is important to the study of complex systems.

Seventh is the role of unexpected events within the study of complex systems. Rather than being a disturbance to ideal research conditions, disruptions are opportunities for learning (Anderson et al 2005). Since key underlying patterns are illustrated within nonlinearities in the behavior of the system, research into resilience should look for disruptions where small events lead to large outcomes or vice versa. In particular, use the observer as a useful disruption to the system being observed. The coevolution of system and observer can be a kind of loving disruption (Sletto 2012) that is a "rich opportunity for gaining insights into systems dynamics" (Anderson et al 2005). This suggests that research into resilience is best approached with a Participatory Action framing, seeing the researcher as potentially proactive actor within the system.

### CONTEXT: URBAN SYSTEMS

Beyond those challenges that apply to all complex systems, research in urban systems hold additional challenges worth emphasizing. There are cultural landscapes to navigate. An urban system has its own distinct culture while being enmeshed in larger cultural practices. These cultures are not always harmonic or aligned. For a researcher who is not “native” to the urban system, this poses challenges in relationship building, communication, language of research instruments, and interpretation. Second, there are power structures involved. An urban system has its own system of authority and power, and it is enmeshed in larger system of power. These are not always harmonic or aligned. For a researcher who is not “native” to the urban system, this poses challenges for establishing and understanding the consequences of their actions and disruption. As a result, working in urban systems requires attunement to shifting social signals that can help the researcher to situate their involvement, support from allies, and a reflective practice to triangulate and sense-make. Effective research requires the researcher to attune to shifting social signals in order to establish their legitimate involvement, garner support from allies, and model the practice of sense-making. Third, all urban systems carry histories of their interactions and conflicts, both external and internal. Each of these generates stories about cultural and power relationships that create the world around them. These histories situate all of the relationships and exchanges that take place. As a result, sense-making in urban systems requires attunement to the interrelated histories that have generated present. Fourth, the researcher enters this mess with their own cultural biases, power relationships, and history. Working in urban systems requires self-awareness in the researcher to how each action might reinforce, deflect, or disrupt existing cultural narratives. Last, all activity is being watched by other urban systems. The presence of the researcher is ‘witnessed.’ Given the cultural and power entanglements of an urban system, it can be difficult to predict the impact the presence and witnessing a researcher might have. Research methods must be sensitive and able to respond to cultural landscapes, be critically aware of power, and be self-aware of the disruptive role of the researcher.

### PHENOMENA: RESILIENCE IN URBAN SYSTEMS

The fundamental challenge to researching resilience is observing a multi-scalar property. To recall [the limitations of models and theorizing on resilience](#) thus far, there are no existing models of resilience that can quantify resilience. An explanatory model for resilience

is also needed. So, the goal in studying resilience in urban systems is theorizing: Is it possible to explain further what is happening when these [qualities of resilience are observed?](#) Looking at the various elements to Tyler & Moench's urban system framework, there is a more developed capacity to describe and explain the physical systems and geographical sites for resilience. Observing the property of resilience in relationships amongst social networks, organizations, and institutions has lain outside the capacity of the research methodologies employed within resilience research thus far (Feldman et al 2006, Goldstein 2010, Lejano & Ingram 2009).

A paradox arises here. On one hand, due to the interdependencies to complex systems, "identification of these interdependencies requires prolonged engagement with the system" (Anderson et al 2005). Thick description and depth of observation are needed. On the other hand, urban systems are loci of multiple cross-scalar networks, (Batty 2009) and resilience is a multi-scalar property. To observe the behavior relevant to resilience as a phenomenon requires multiple units/scales of observation, and the ability to observe behavior that is cross-scalar and system boundary-crossing. So, research into resilience must involve observation at the individual, group, organizational, systemic, and trans-systemic scale. Herein lies the paradox: Resilience research requires significant breadth and depth, and traditional research methods face a distinct trade-off between breadth and depth. Observing qualities of resilience in urban systems requires methods that offer the breadth to see emergent patterns and the subtlety (depth) to sense soft signals. In order to engage meaningfully in resilience research, developing alternative methods of observation and analysis are required.

#### **PHENOMENA: LEADERSHIP FOR RESILIENCE**

Leadership is a pattern that emerges out of a set of relationships due to their qualities. The fundamental challenge to observing leadership is of observing in a way that makes qualities of relating legible and patterns of relating discernible. Sensible phenomena are observable, but internal states of being are not. As a consequence, leadership research should seek to observe behavior that makes visible those invisible relationships and their qualities. It is possible to do so through [micro-enactments or episodes of leadership](#), which the components to research section will explain in detail.

#### **THEORETICAL CRITIQUE**

Research into urban systems requires a methodology that combines breadth of coverage with depth of observation. Social science research that uses large numbers and simple constructs such as surveys can achieve enormous breadth of coverage. Social science research that uses long engagement and personal observation such as ethnography can achieve great depth. Generally it is assumed that there is a trade-off between breadth and depth. Similarly, it's assumed that there is a trade-off amongst output of research. This is captured in Thorngate's (1976) "postulate of commensurate complexity," namely that it is impossible for a theory of social behavior to be simultaneously general, accurate, and simple. This is because theorists inevitably have to make trade-offs in their theory development, and trade-offs in the methods they use to observe phenomena. Woodside (2010) critiques this accepted wisdom, reviews some of the arguments made on both sides and offers alternative conceptual framing. Research can be thought of as seeking three kinds of goals: generality, accuracy and coverage. Conceptualizing this as a goal– space (or a box) demonstrates that there is not necessarily a trade-off amongst these three. In reviewing research methods, Woodside finds that research that employs cases from different contexts, and then uses techniques such as system dynamics modeling or set theoretic analysis to build arguments about causal conditions common to all contexts, can offer theorizing from research that doesn't entail such trade-offs. One goal of the present research is to explore methods for research in complex urban systems that fulfill these three objectives.

## **GRAPHIC 9: WEICK'S CLOCK & WOODSIDE'S BOX**

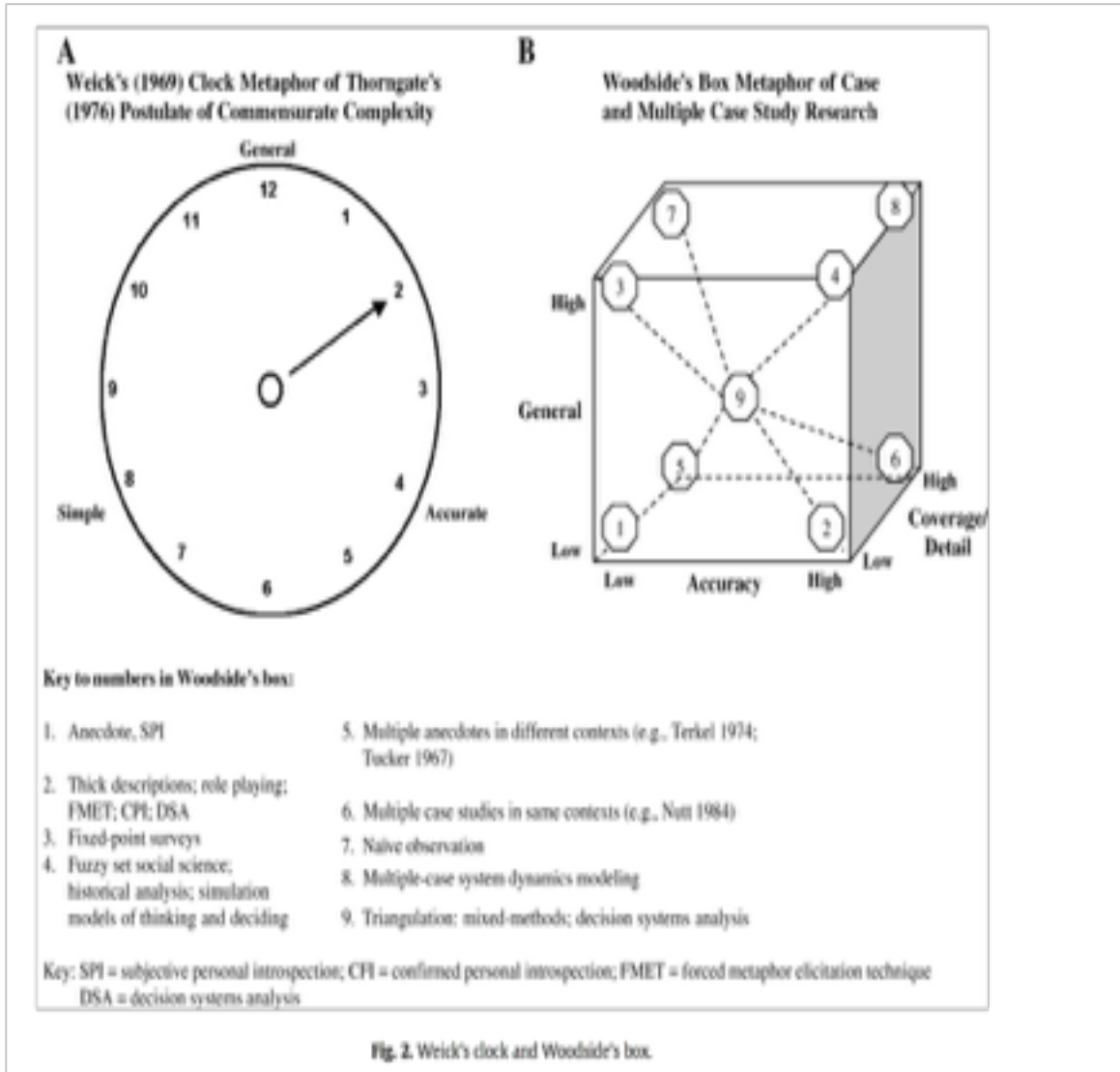
### **RECAP: DESIGN CRITERIA**

To recap the selection criteria for cases in complexity, the cases selected should:

- 1) be multiple,
- 2) be outliers in performance that are either barely acceptable or positively deviant, and
- 3) offer the opportunity for deep and prolonged engagement.

The design of research should:

- 1) enable the researcher to observe both breadth and depth within an urban system,
- 2) enable the researcher to perceive the qualities of relationship and patterns of relating that emerge into leadership,



- 3) employ observers inside and outside of the system, observing relationships that cross systemic boundaries,
- 4) enable the discernment of connections amongst ideas and behavior,
- 5) observe in ways that are sensitive to known diversity, and potentially sensitive to unknown diversity,
- 6) use history to contextualize present patterns,
- 7) use unexpected events as learning opportunities,
- 8) use the researcher as a useful loving disruption to the system, and
- 9) employ methods that are sensitive to cultural landscapes and power, and support a self-aware researcher.

The next section will lay out the components to a research design that can meet these criteria.

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## 2) COMPONENTS OF A RESEARCH DESIGN

Case studies are a means for theory building within complex urban systems. Naturalistic inquiry enables thick description and deep observation within urban systems. Thick description enables description that evokes the qualities of relationships that foster emergent properties. Participatory Action Research enables engagement with urban systems in ways that allow for collaboration and thickly described conditions. Storytelling enables the researcher and participant observers to share a multiplicity of perspectives on an urban system. It also can unearth episodes of leadership that lead to emergent phenomena. Distributed ethnography enables collection of stories from many participant observers. Qualitative analysis enables abductive sense-making. Fuzzy set theoretic analysis assists in drawing conclusions about what causal conditions are necessary or sufficient for emergent outcomes such as qualities of resilience. This section will unpack each of these. Following this section is a synthesis of these components into a cohesive research design.

### **THEORY-BUILDING THROUGH CASE-STUDY**

This research will use a case-study approach as its basis for theorizing. The case study is a natural method for studying complex adaptive systems for several reasons. Case studies within complex adaptive systems enable the researcher to do initial theorizing in ways that quantitative studies cannot (Anderson et al 2005; Flyvbjerg 2006). An observation of the rich interconnections within and across system boundaries enables the researcher to understand the interdependencies that lead to emergent behavior (Anderson et al 2005; McDaniel 2004). And they enable the sensitivity required to understand the elements that lead to self-organization (Cilliers 1998). By enabling researchers to follow small details to their potential for large outcomes, case studies enable researchers to focus on nonlinearities. As a result, case studies enable discovery of the roots of emergent patterns (McDaniel & Driebe 2001). Because the researcher has access to an environment without particular data-driven agenda or focus, case studies enable researchers to look for the unexpected and examine unexpected events (Anderson et al 2005). As a result, the studies have emerged as the primary research method for theorizing within complex systems.



### NATURALISTIC INQUIRY

How can the depth of interdependencies in a complex urban system be observed? Naturalistic inquiry, “seeks to maximize the range of specific information that can be obtained from and about a context. This requires a procedure governed by emerging insights about what is relevant to the study, and purposively seeks both the typical data and divergent data that these insights suggest” (Erlandson 1986, 33). Naturalistic inquiry assumes multiplicity of realities and seeks to make available the experience of that multiplicity through thick description (Erlandson 1986). From Jacobs (1961) to Miraftab (2009), providing a thick description of a place, culture, and sequence of events through ethnography has been central to planning research in a broad range of contexts, allowing researchers to examine the practice of planning along a spectrum of roles, from advocate planner to insurgent planner.

### THICK DESCRIPTION

Thick description enables researchers to richly describe the lived experience within urban systems. Denzin's work on qualitative methods of research provided a typology of thick description, and offered a foundational definition: “[Thick description] gives the context of an act, it states the intentions and meanings that organize the action, it traces the evolution and development of the act, it presents the action as a text that can be interpreted” (Denzin 2009)”

Ideally, a thickly described event should hold sufficient emotional and experiential detail to “bring the reader in vicariously” (Ehrlandson 1993, p33) and produce an empathetic experience of truthfulness in the reading of it, or verisimilitude (Denzin 2009). This sort of thick description makes possible a “thick interpretation” of messy events and their underlying dynamics, which in turn allows researchers to produce “thick meaning” that captures the complexity and richness of the specific context of study (Ponterotto & Grieger 2007). Because of this, thick description can be an important foundation for “generating working hypotheses in new contexts” (Ehrlandson, 1993 p33).

Thick description as a goal of the output from research is central to the study of complex environments, and is varied enough in its usage and meaning to require explanation. Thick description came into use within the social sciences from the philosopher Gilbert Ryle, who spoke of thick description as an intentionality in observation, where the intention was not merely to describe what was occurring, but to describe the context of a phenomenon

sufficiently for one to interpret and explain why the phenomenon was occurring (Ryle 1971). To move from thinly describing an event to thickly describing its context required significantly more scope, awareness, and detail on the part of the observer. Thick description was brought into the social sciences by ethnographer and anthropologist Clifford Geertz. From a deconstructionist perspective, it was important to frame the subjectivity of observation; for Geertz, anthropological writing was “really our own constructions of other people's constructions of what they and their compatriots are up to” (Geertz 1973). Anthropological writing is, in essence, constructing and retelling the stories of others. This act of construction involves the researcher's subjective perception of the events and a subjective interpretation of the factors generating those events. It is important to provide detail of sufficient richness to enable a reading audience to distinguish for themselves what has authentically been communicated in the retelling, and see not only what the author has reconstructed, but how and why they reconstructed in the way they did. The role of thick description, then, is to enable authors to contextualize both the observation and the phenomenon and, in so doing, provide this context validity to their work and assertions.

This study employs thick description in four ways. First is to contextualize the narratives to the two cases (the Residents' Council of Public Housing and Rainbow Community School) sufficiently to trace the evolution and development of events within a messy and ambiguous environment. Second, thick description provides an experience that is emotionally rich enough to allow the reader to enter vicariously into the experience themselves. Thick description explicates the subjective perspective of the researcher-participant in the form of a text so that it can be examined and used to make sense of the research. Each of these in turn supports fourth: thick interpretation of the narratives to these two urban systems and deriving meaning about the relationships amongst the actions of its actors, emergent patterns, and impact on the resilience of each as an urban system.

#### **DIRECT OBSERVATION**

Direct observation provides a key method for thick description through “being sensitive to the nature of relationships” (Anderson et al 2005). The researcher can approach observation focused on three layers: being, doing, and having. In seeking to understand *being*, the researcher used sensible knowledge (Strati 1999) to understand the emotional states and relational qualities of the interactions for which they were present. In seeking to understand

*doing*, the researcher is observing and recording specific actions that students, staff, and teachers would take during these interactions. In seeking to understand *having*, the researcher was using the opportunity of the moment to be immersed in sensible knowledge to infer what the motivations and root goals of the actors in the event or episode.

### **PARTICIPATORY ACTION RESEARCH**

Understanding the how and why to transformation within a community benefits from thick description of that context. Engaging in thick description benefits from a point of observation embedded within events as they unfold. One method to for being embedded in events is Participatory Action Research, was the intended approach for this research. Participatory Action Research provides a means to respond to several of the design criteria: to engage with urban systems in ways that enable rich observation, respond to the needs for sensitivity to context, and embrace the researcher as loving disruptor. As the intended approach, it will be described here.

Action Research is a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes” (Reason & Bradbury 2001). Participatory Action Research has several key distinctions in its orientation on the purpose, process, and outcomes of research. In contrast to normal science—which carries an orientation towards, abstract, context-independent, timeless knowledge for knowledge's own sake—the purpose of action research is the development of practical knowledge that can be used, now, to create change. Because of that, it has an orientation towards knowledge that is concrete as well as abstract, place-based, richly contextual, and prescient.

From the perspective of PAR, knowledge is socially constructed, and so is the understanding of how to use knowledge in action. The purpose of action research being to produce practical knowledge, the process must involve not only the collective, participatory process of sense-making, but a collective exploration of what it means to place knowledge into action. This is the basis of active, action-oriented research. Since the purpose is the ability to translate practical knowledge into action, the outcomes from action research are less epistemological and more about phronesis or *métis*. The intended outcomes are less about nouns than they are about verbs; while valuable, the creation of a textual artifact of research (noun) is not as important as the creation of durable, adaptable social forms of inquiry with the social context of research (verb).

Using collective inquiry as a way to address pressing problems is an enduring human tradition. Action research arguably has multiple points of origin as a named, explored part of the Western social scientific tradition as well. Amongst other origins, its intellectual seed stock comes from Martin Buber and dialogue (Buber 1947), Richard Rorty and pragmatism (Reason 2003), Friere and critical theory (Carr and Kemis 1983), democracy and deliberation (Borda & Rahman 1991), Peter Senge and systems thinking (Flood 2010), and more recently within complexity theory (Reason & Goodwin 1999, Phelps & Hase 2002, Phelps & Hase 2005). As the social sciences have increasingly framed its methodological challenges in terms of the complexity of the phenomena of study (Urry 2005), PAR has become an increasingly important method of inquiry at the forefront of social science. This is observed within the practice of sustainability (Martin 2005, Espinoza 2011), education for sustainability (Warburton 2003), urban planning (Kindon & Kesby 2007, Boonstra & Boelens 2011), and public health (Minkler 2000, Wallerstein 2006), and elsewhere.

Participatory action research has not often been applied to a cross-scalar phenomenon such as resilience. As learning and sense-making within systems has become a leading theory of change, PAR stands out as a potential way that researchers can assist systems in developing learning and sense-making capacity. The research process itself can shift from internal to the researcher to collectively amongst participants and citizen. This is one of the natural points for integration between a PAR approach and a distributed ethnographic approach. When embedded within the ongoing social life of a network, both can enrich a community or network's process of self-discovery and exploration.

As a note of clarification, PAR was the intended approach to research, but not the research approach actually employed. Due to the evolving nature of field research, the design adopted was a more traditional one that was collaborative, but not participatory or active.

### STORYTELLING

As a social-ecological complex adaptive system, urban systems have an underlying internal model. As the predominant actors within that system, human action plays a central role in influencing urban systems. More importantly, human forms of knowing determine the character of the internal model to an urban system.

In particular within urban systems, narrative is an important form of knowing and sense-making. This is for several reasons. Stories are a critical strategy through which humans

manage the complexity of their environment. Humans evolved a duality of mind, with parallel systems of encoding and recall for verbatim memory and fuzzy-intuition (Reyna 2012). This duality of the mind enabled humans to use strategies of reduction of complexity to explicit patterns through verbatim memory, and the absorption of complexity into tacit understanding through fuzzy-intuition (Bush 2013, Boisot 2008). This duality of the mind enables an economy of response to consistent and familiar situations, while preserving the ability to draw on experience to respond to new and novel situations with discernment. Story draws on this ability to express learning by encoding for both verbatim patterns and intuitive experience. This capacity to capture learning about a complex environment that is both detailed and specific, while being abstract and generalizable, is the reason story has played such a central role in the reproduction of culture.

Story is also a plurivocal form of knowing, that is, accepting knowledge from many domains expressed in a common form. These narratives “are partially shared, allowing for differences in perspective, storyline and focal point and enabling different actors of a community to tell in their own voice how they belong to the city” (Lejano et al 2013). Narratives are not confined to the experiences of humans either. As a species whose development was interdependent with other species, our capacity for attunement developed in response to the human need to understand and empathize with experiences and patterns within non-human nature (Merleau-Ponty 1945, Abram 1997). This has enabled humans to draw on non-human experience indirectly in order to build knowledge. As a result, humans craft stories that incorporate the requisite diversity and complexity from urban systems that spans much wider than what is directly knowable to human experience.

Story is a form of sense-making that is sharable and scalable, which enables communities to engage in knowledge transformation and generation at the group and network scale. In the ongoing dialogue between members of the communities and between them and the systems, institutions, and nonhuman actors around them, relationships are created amongst these narratives contesting, redefining and reevaluating (Issacs 1999). In so doing, these relationships amongst narratives enable the social construction of knowledge through the interaction of stories (Sandercock 1997, Healey 2009). This allows communities to manage the dispersed knowledge that comes from a diversity of actor-experiences within a social-ecological system (Becker 2001). This capacity of stories to encode both explicit and

tacit knowledge enables both (to a degree) to be diffusible across large spans of a social network (Boisot 2008). Story can thus be a form of expressive capacity that supports the generation of group tacit knowledge (Weick 1993, Erden et al 2008), and social memory (Folke 2002). Stories are like threads of silk and each participant in it a silkworm: when the necessary conditions exist for a community to spin powerful stories and weave them together into the field of stories, a fabric of their experiences, knowledge, and vision, stories can become the medium through which they can translate vision and values into action. Stories allow communities to “invoke an imagined future,” (Goldstein et al 2014, Schon & Rein 1995) and “weaving together a collective life out of their authentic lived experience” (Goldenstein et al 2013, Lejano & Wessels 2006) crafting an image of the city at temporal and spatial scales much grander than their individual storied experience.

Within the context of urban systems, this has led some within the planning community to argue planning itself is an act of storytelling (Forester 1999), and one where if you can change the story, you can change the city (Sandercock 2004). Out of this network of relationships amongst stories, an internal model for urban systems emerges: an idea of the performance desired from the network of relationships to urban systems.

#### EPISODES OF LEADERSHIP

If leadership can emerge anywhere within the relationships to a social system, what boundary can be drawn to separate when leadership is happening from when it is not? Liechtenstein et al (2006) propose thinking about this in terms of events or episodes. An event is “a perceived segment of action for which meaning relates to interactions amongst actors. All of the actors need not play equivalent roles in the action, but all of the rules are interrelated from this, meaning emerges in the spaces between people rather than in the act of individuals per se” (Lichtenstein et al 2006). An event where meaning has changed in ways where collective behavior has also changed is an event of adaptive leadership. **Episodes of Leadership**, then, is one way to operationalize the observation of Complexity Leadership (Lichtenstein 2006).

What methods might observe the episodes of leadership that compose Complexity Leadership? Lichtenstein et al argue that studying leadership within complexity will involve methods that have these characteristics:

- 1) The ability to identify and bracket the events, episodes, and interactions of interest;

- 2) Capturing these events or interactions as data in a systematic way;
- 3) Gathering individual/agent level data that describe interaction cues received over time [or practices of relating];
- 4) Modeling these data in ways that highlight their longitudinal and relational qualities;
- 5) Analyzing these data in terms of their relational and longitudinal patterns.

To do this, they propose focusing on episodes of leadership as the unit of analysis. Focusing on episodes of leadership allows a shift to observing the interactions that generate these episodes of leadership. This framework offers a general approach:

- 1) Capture stories in order to have the ability to identify and bracket events, episodes and attractions of interest.
- 2) Capturing these stories on digital platform so that I can capture them in a systematic way.
- 3) Enable authors and participants in those events to describe and interpret them in order to identify the practices of relating used over time.
- 4) Allow participants to rank the impact of various practices on the outcomes of the story, allowing the data to be analyzed in ways that expose the longitudinal and relational qualities involved in the interaction events.
- 5) Use qualitative analysis and a set theoretic approach to analyze the data to identify longitudinal and relational patterns.
- 6) Capturing individual “agent level” data that describes how individuals are relating enables researchers to see what sorts of actions of organization foster adaptive leadership. Asking multiple participant observers to connect episodes of leadership with tangible events that demonstrate emergent qualities of resilience in an urban system.

This is examined further later when I synthesize my approach to observing with breadth.

### **DISTRIBUTED ETHNOGRAPHY**

Distributed ethnography is an approach to naturalistic inquiry that uses the harvesting of stories to distribute the role of observer across many within a system, including the researcher, participants, experts and outsiders (Maxson 2012). Distributed ethnography asks large numbers of participants to observe their context, tell stories about their context, and sense-make of those observations and stories. In so doing, the locus of sense-making in the ethnographic process shifts from residing primarily within the researcher to being more

strongly shared with a network of participants. This harvesting of stories can be done through in-person interviews but can also be accomplished through digital platforms, such as Sense-Maker or Community Narrative Platform. Distributed ethnography remains true to the goals of naturalistic inquiry “to maximize the range of specific information that can be obtained from and about a context,” but shifts the mechanism through which that specific information is being obtained (Erlandsson 1993).

Distributed Ethnography has been adopted most extensively by researchers supporting practice organizations, in the context of international community development. Its use as a practice tool has been promoted by the Global Giving and Rockefeller Foundations (Maxson 2012). The focus has been on developing methods that provide breadth of coverage in complex environments, where useful information lies in patterns about which the researcher is not aware (Maxson 2012). One example is a monitoring and evaluation project conducted in Kenya that involved 14000 respondents. These field applications haven’t generally had a knowledge-generation focus; the focus of research is sense-making for the practice organizations.

Another context of use has been applications within private industry and closed-door government research, with organizations such as IBM or the CIA (Snowden 2002). Using proprietary software, collecting large data sets of thousands of respondents, the focus in these applications has been knowledge-generation for the hiring organizations. Both contexts of use demonstrate its potential applicability to embedded research with urban systems. Its knowledge generation applications have been thus far dependent on proprietary tools. An implementation of a distributed ethnography within this research requires developing an approach that uses simple existing digital tools.

### **STRENGTHS**

There are three sets of advantages of a distributed ethnographic approach over a traditional ethnographic approach. Some of the advantages to a distributed ethnography can be framed in terms of penetration, coverage, and quality. One limitation of individual researcher-centered ethnography within complex systems is what a researcher or a team of researchers can observe. Moving the locus of observation from single experts or a group of experts to be distributed throughout a network enables much deeper observational coverage of the system being observed. Through the capture of stories about one-on-one moments,



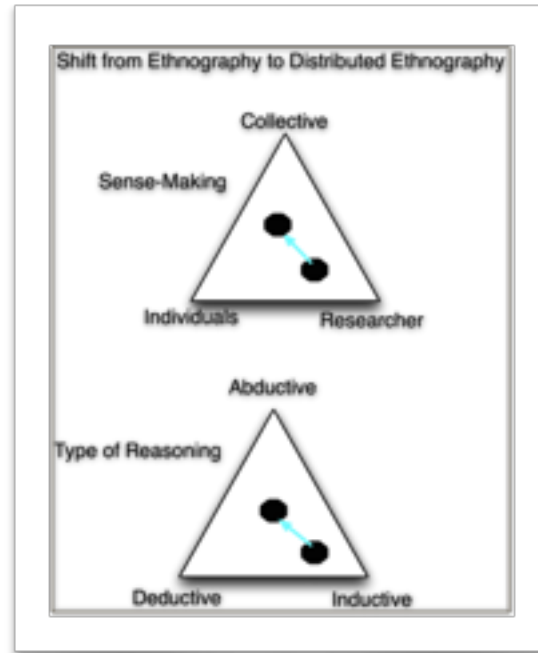
moments of group life, and moments of observation of behavior of the greater milieu to a community, distributed ethnography can achieve a greater penetration into spaces where observers cannot go. Through enabling participants to interpret and provide layers of meaning to their stories that identify and describe the nature of their relationships, distributed ethnography enables the collection of and sense-making from a large number of observations. The research is thus freed from the quality trap from surveys, and the researcher-overhead trap from interview and direct observation (Snowden 2002).

Another set of advantages to distributed ethnography lies in the normative objectives within planning research it allows this research to address: shifting the locus of sense-making from solely the expert to a balance of expert, citizen, and collective. Through the invitation to story, the distributed ethnographic process can shift the act of observation and interpretation more strongly to participant, thereby allowing the acts of observing and starting to become a part of the learning and sense-making process for individuals and for a network (Browning & Boudes 2005). If one were judging this approach based purely on the accuracy or precision of observation, it clearly is not comparable with seasoned ethnographic researcher. However, the distributed ethnographic process is also a sense-making and learning process by a network. When framed within practices that are supportive of developing expertise at observation and storying, the acuity and accuracy of observation, storying and capacity for sense-making by individuals in the network will improve over time.

Finally, a distributed ethnographic approach strengthens the capacity to use deductive and abductive reasoning as a complement to inductive reasoning within the research process. The distributed ethnographic approach enables the application of deductive reasoning to a network body of data by creating a field of stories with many attributes or layers of meaning ascribed to each story within the story network. The distributed ethnographic approach enables the use of abductive reasoning within the research process as well by creating a space for both researcher and groups within the system of study to play with and identify emergent patterns, as well as connect this with principles or patterns observed elsewhere. Shifting the locus of sense-making to the individual participant, and collective level, combined with an increased capacity for deductive and abductive reasoning and a dramatically increased coverage, can enable the observation of complex systems with a richness and thickness of

description absent in individual-based ethnography. Moreover, it enables sense-making of those systems as part of a richer social process than individual ethnography can support.

**GRAPHIC 10: FROM ETHNOGRAPHY TO DISTRIBUTED ETHNOGRAPHY  
WEAKNESSES**



Distributed ethnography entails two potential weaknesses that may be relevant to this research. First, engaging in a distributed ethnography may make the experience of engagement less intimate for both researcher and participants. The act of collecting stories is not necessarily done in person and synchronously. In my research it is often done mediated by some kind of software and asynchronously. This can lessen the relationship between researcher and participant. The researcher will thus need to identify other means to develop intimacy and trust with participants that Participatory Action Research requires. It is perhaps even more important, then, for the research to employ informal unstructured participation in the practices and lifestyles of those within the system.

A second consequence emerges during this researcher's process of analysis and sense-making of the information and observations obtained through distributed ethnography. In both traditional ethnography and distributed ethnography, the observation of a system is mediated by the stories and layers of interpretation others make about those who participate in the system. But because synchronous person-to-person interaction is not the main data-gathering strategy, the experience of gathering information may feel more removed for the researcher. My concern is that the experience

may be like wearing gloves after developing a familiarity with riding a bike and breaking and shifting gears with bare hands; shifting to wearing gloves can be disorienting and remove some of the sensible knowledge that's useful in sense-making. This may hinder confidence or genuine knowledge of the system. This may be offset by the tactile sense derived from engaging with a field of stories through a distributed ethnographic process. Whether or not this is true, it highlights the importance of using informal, unstructured ways to participate in the ongoing life of the system. This will help the researcher develop this tactile sense, confidence in the observations, and informal knowledge of the system.

## CONCLUSION

To conclude, employing a distributed ethnographic approach within this research potentially enables this study to address five of the methodological concerns. First, it may enable the observation of the quality of relationships. By enabling observation of a "field of stories," it can enable the observation of the emergent qualities from relationships at multiple scales. Third, by enabling stronger penetration and coverage of observation, distributed ethnography enables multi-scalar observation of those relationships within conditions of complexity. Fourth, by creating a network of large numbers of observations that can be analyzed with both deductive and inductive reasoning, distributed ethnography can create the conditions for abductive reasoning. Fifth, by shifting the locus of sense-making to a greater balance amongst researcher, participant and collective, it may enable the research inquiry to play a more powerful role within the sense-making of a community or network.

## FUZZY SET THEORETIC ANALYSIS

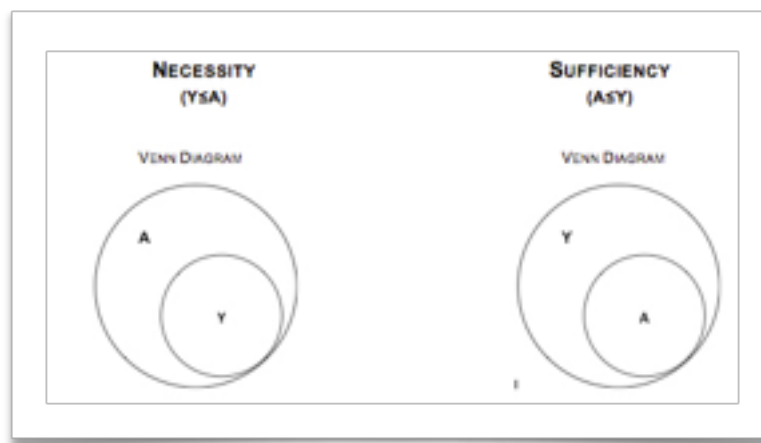
In a nutshell, fuzzy sets are sets whose elements have degrees of membership, and can have degrees of membership in multiple sets. Set membership is directional: A can be a full member of B without B being a full member of A. This enables researchers to represent relationships with causality, and to create a network of relationships of varying strengths amongst both sets and elements. This capacity for networks of directional weighted relationships enables researchers to deal with uncertainty and ambiguity in information, and still evaluate that set of relationships by some criteria to arrive at a conclusion. Fuzzy logic emerged initially from Heraclitus, who challenged the Aristotelian notion that elements were either true or false, proposing that elements could be simultaneously true and not true. Others expanded this from binary to multi-dimensional frameworks within mathematics. In the modern era, fuzzy logic emerged as a means to sense-making and decision-making in

conditions of uncertainty. It is attributed to the work of Zadeh, who both established its basic tenets of use and its potential application to linguistics (Zadeh 1965; Zadeh 1975). It was then applied to social inquiry (Ragin 2000, Smithson et al 2006). Ragin and others argue that set theoretic approaches constitute a “third path” synthesis to qualitative and quantitative reasoning (Ragin 2000) that does not involve the traditional trade-offs to mixed-method approaches.

According to Ragin, set relations in social science research:

- 1) involve causal or other integral connections linking social phenomena (i.e. are not merely definitional),
- 2) are asymmetric (and those should not be reformulated as correlational arguments),
- 3) can be very strong despite relatively modest correlations,
- 4) are theory- and knowledge-dependent (require some explanation),
- 5) since theory is primarily verbal in nature, and verbal statements are often set theoretic, set relations are central to social science theorizing (Ragin 2008, 17).

### GRAPHIC 11: NECESSITY & SUFFICIENCY

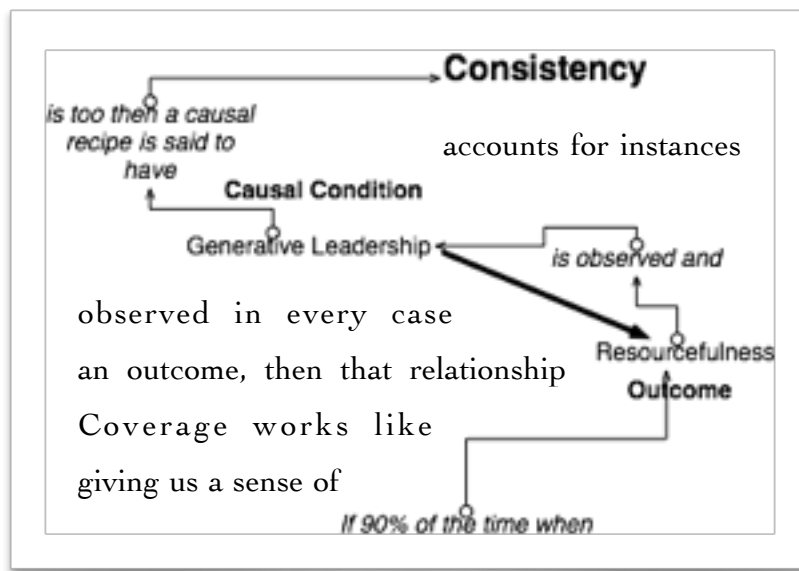


### CONCEPTS

Three concepts are introduced to make sense of an approach that uses set theoretic relationships: consistency, coverage, and calibration. *Consistency* is “the degree to which the cases sharing a given combination of conditions agree in displaying the outcome in question” (Ragin 2009, 44). For instance, Complexity Leadership offers a set of five conditions (Generativeness, Administration, Community Building, Information Gathering, Information Using). The resilience set has seven elements, one of which is Resourcefulness. If

all of the cases that demonstrate Community Building and Generativeness also demonstrate Resourcefulness, then there is high consistency. When a set of relationships between conditions and outcomes is consistent, then the relationship is worth paying attention to. If the relationship between Complexity Leadership and Resourcefulness is consistent across cases, then my hypothesis about the role of Complexity Leadership in Resourcefulness may be supported.

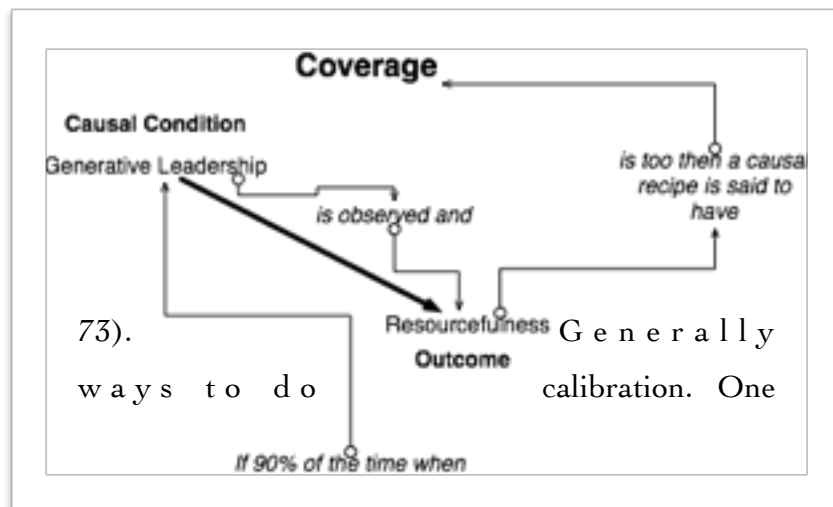
## GRAPHIC 12: CONSISTENCY



*Coverage* is "the degree to which a cause or causal combination of an outcome (Ragin 2009, 44)." If Generativeness and Community Building are also where Flexibility is observed as can be said to have coverage. strength in statistical analysis, the relevance of some relationship. A theory about the role of Generativity and

Community Building in generating Resourcefulness can be consistent without being of much importance if the connection lacks coverage in my cases.

## GRAPHIC 13: COVERAGE



*Calibration* is "a means by which a researcher adjusts their mechanism of measurement to conform to independently established standards" (Ragin 2009, speaking, there are two way is to do it directly, using previous research to

establish when a case is entirely in, half in, or entirely out of some set. This can be used when existing research provides a clear basis to establish the “phase shift” in some phenomena being present (or not). Another way is to do calibration indirectly, where the researcher’s judgment is used to determine the degree of membership. This question of calibration when examining how to calibrate observations within specific cases in this research.

#### VALUE TO THIS RESEARCH

The value of set theoretic analysis to this research is two-fold. The first is to enable rigorous analysis from language. The second is to enable analysis of patterns in complex conditions with significance from small to medium sample sizes. Humans make sense of the world mainly through language and making verbal arguments about how things are related. Set theoretic reasoning allows researchers to take a verbal argument as it is generated within social science theory, and translate it into testable propositions on phenomena in the world. It also allows researchers to take information generated by varying methods of research (qualitative and quantitative) and place them within the same sense-making framework. This enables an examination of phenomena for which it had been difficult to design effective research strategies of observation in the past. It also provides a way to resolve tensions between qualitative and quantitative observation methods. Third, because a set theoretic approach enables research that establishes directional causality as well as tracing multiple lines of causality, set theoretic research designs can identify configurations of conditions that lead to the phenomena of interest. This enables analysis that can distinguish between causal complexity and net effects (Ragin 2008). It also helps to identify weak but important signals within complex relationships. As a result, a set theoretic approach can escape many of the limitations of correlational analysis. This is particularly important within the study of complex systems, where there are often multiple recipes or configurations that can lead to a set of conditions, and where weak signals can drive much larger emergent phenomena (Ragin 1999).

To return to the challenge of sense-making within complex urban systems, fuzzy set theoretic approaches offer an important analytical antidote to the limitations of qualitative and quantitative approaches. For the set theoretic approaches can enable identification of a “recipe” or a set of causal conditions that leads to the emergence of a particular phenomenon.

It can perform this analysis with small- to medium-size samples 10-50 (Cooper & Glaesser 2016; Fiss 2016).

Specific to this research, fuzzy sets allow this research to do two things. First, to examine the propositions of this research, namely that Complexity Leadership can generate conditions necessary or sufficient for the emergence qualities of resilience. Combining a fuzzy set theoretic approach with a distributed ethnographic approach allows researchers to both test these propositions and listen for emergent signals. This supports the generalizability of the findings. In essence, this allows the researcher to explore propositions while simultaneously listening for other causal conditions that could also generate resilience, which is essential for both for this research and for research within urban systems in general.

### **PRAGMATIC QUALITATIVE ANALYSIS**

The Pragmatic perspective frames research as seeking to generate useful knowledge rather than accurately represent reality (Rorty 1999). This pragmatic approach to qualitative analysis (Feilzer 2009) supports theorizing in complex systems (McDaniel 2004), but also producing knowledge useful to action (Feilzer 2009). In a research sense, “pragmatism is a commitment to uncertainty, an acknowledgement that any knowledge produced through research is relative and not absolute, that even if there are causal relationships that they are transitory and hard to identify” (Teddlie & Tashakkori 2009, 93).

Qualitative analysis enables abductive reasoning through inductive and deductive sense-making. Abductive reasoning is the logical connection between data and theory often used for theorizing about surprising events (Teddlie & Tashakkori 2009, 89). When working abductively, researchers “move back and forth between induction and deduction—first converting observation into theories and then asserting those theories through action” (Morgan 2007 71). Through coding, the researcher can assemble patterns of behavior inductively from the data, as well as work deductively to code data from the qualities of resilience or functions of leadership. Combining both enables the researcher to perceive the cases in terms of existing ideas, and to suggest entirely new ways to make sense of the experience within urban systems.

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### 3) CASES: WHERE CAN LEADERSHIP FOR RESILIENCE IN URBAN SYSTEMS BE STUDIED?

Which urban systems might help an exploration of these questions? Through the study and comparison of two dissimilar urban systems—a private school and a public housing advocacy non-profit—this study may identify common or recurring types of episodes of leadership that are connected qualities of resilience in an urban system. This next section will offer some criteria for selecting good case study sites, and provide a brief outline of each case, its strengths and weaknesses, and the selection rationale.

#### **CRITERIA: WHAT MAKES A GOOD URBAN SYSTEM FOR THE STUDY OF LEADERSHIP FOR RESILIENCE?**

Four criteria stand out as important to case selection within this research. First, is it plausible, within the urban system proposed, that leadership affects the resilience of the urban system? Second, is it possible to observe the relationships and practices behind this? Third, is there an alignment between the methods and goals of this research, and the goals of the urban system? Finally, how might methods of observation be tested?

#### **RAINBOW COMMUNITY SCHOOL**

Rainbow Community School is a private coeducational K-8 school in Asheville North Carolina. Founded in 1977, a part of its initial mission was to bring holistic education to Asheville and transform education more broadly. Rainbow's curriculum and pedagogical approach have an explicitly nonreligious spiritual framing. Their website and staff talk about their leadership in developing "contemplative and mindfulness education" (Website accessed May 18, 2016; S. McCassim, Personal Communication, March 28 2016). Their pedagogical model "supports the development of the whole child in seven domains: mental, spiritual, emotional, moral/social, physical, natural, and creative" through "engaging children's native intelligences and exposing them to other intelligences through collaborative projects." This ensures learning is a lifelong process through cultivating self-motivation, self-direction, and self-teaching. Rainbow is recognized as an Ashoka Change Makers School, and it consistently wins awards for its quality in the region. Concurrent with my research and their beginning in 2015, they have gained attention from a research team at Columbia, educational researchers at Lectica, and the XQ project.

Schools are an important kind of urban system whose impact is felt through a range of mechanisms. They serve as a site for community events and social gatherings and social



organizing. Their quality influences decisions made by families, land values in the neighborhood or catchment, and settlement patterns in a community. Their preparation of graduates and reputation built by a school system influences the broader economy and the industries it can cultivate, attract and support. The school brings qualities to the community that can influence the character of a neighborhood and a community's overall culture.

As a case study, Rainbow offers the opportunity to study a school that observers believe has a unique educational model. That unique educational model shows up as a distinct culture, and within impacts on the broader community. Rainbow is a very particular kind of school within a very particular kind of community, Asheville—a rural mountain town where relationships are important. This creates a cultural context for the school that has been supportive to its development, and important to explaining its performance.

A note is needed about the Rainbow Community School as an urban system. Rainbow is an imperfect example of an urban system. Rainbow is not a series of geographical sites. Nor is it an ecosystem of organizations. Strictly speaking, it does not fit the definition of an urban system used here. It has quite an important geographical site. Currently one organization, Rainbow will soon be two with the founding of the Rainbow Institute. And, Rainbow has ties of influence to a number of other schools and businesses within the Asheville area.<sup>1</sup> The difference between Rainbow and an urban system is one of degree—extension from the singular to the plural—not of kind. Degree does matter. One school with one site is certainly different from a school system with many schools spread across multiple sites and a managing organization.

That said, studying Rainbow offers an opportunity to study positive deviance. As the late Reuben McDaniel once said to me, examples of positive deviance are almost inevitably weird, weird in the sense that they do not fit the expectations of this study and are hard to categorize. While there may be other schools that achieve similar positive deviance, there are no school systems that do so. The hope is that by theorizing from the Rainbow Community School case, this research can begin to articulate why such positive deviance has not been seen at the school system level. Moreover, studying a positively deviant case that imperfectly

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<sup>1</sup> There were strong indications that Rainbow's internal practices had influenced and been adopted by many businesses and other organizations within the Asheville area. One line for further research would be to document and articulate the cultural influence that Rainbow has had on Asheville. Drawing the circle more widely, one could think of this ecosystem of organizations as falling within the sphere of Rainbow as an urban system.

fits an urban system may improve the ability to identify positively deviant cases that are full examples of an urban system.

Rainbow's demographics do not match the community. As of last census, Asheville was 17.6% percent African-American and 3.7% percent Latino. Having a demographic makeup that matches its community is of importance to Rainbow—a goal they've never achieved. This by itself does not make Rainbow a poor case study, but it does limit what is possible to draw from it as a case.

Rainbow meets all four of the criteria for case selection. And, in the estimation of the researcher, there is something special going on here. Inclusion of it as a case late in the process was in part a response to my sense that there was something important to uncover about the relationship between leadership and resilience at Rainbow.

#### **RESIDENTS' COUNCIL FOR PUBLIC HOUSING**

There is one community, three organizations, and one governance structure relevant to this case. The community is the public housing residents of Asheville, of which 6000 live within roughly 1500 units spread across the city. The three organizations are the public Housing Authority, a body independent from the city of Asheville charged with providing “decent, safe and sanitary housing for the needy humankind (Website, Referenced Nov 1, 2014).” Asheville Housing Authority has been in effective operation since 1950. The second organization is the Residents' Council of Asheville Housing Authority, a 501(c)(3) registered nonprofit corporation dedicated to representing the residents of public housing in Asheville. As part of its bylaws, its mandate includes the maintenance, management, and administration of public housing building and grounds, the education of residents, working to ensure the quality of life for residents, conducting community engagements on various issues, and providing job services to residents (RCAHA Bylaws). The third organization is Social Profit Strategies, which is a non-profit focused on providing consulting services to “action-oriented and community-minded leaders” (Website, Referenced Nov 1, 2014). This includes the promotion and dissemination of Dynamic Governance as a governance strategy.

Public Housing is perhaps the easy poster child for urban systems. It is a central and visible urban system for a number of reasons. Its social network is composed of a vulnerable and marginalized population. For most communities, there is a well-developed ecosystem of organizations that holds relationships with and serves this social network. There is a specific

set of geographic sites that compose an important part of downtown cores in many cities, in addition to being an important part of the American imagination about what *urban* means. Each site has set of buildings and infrastructure, around which there is been much conversation and conflicting opinion as these this infrastructure ages and decays. Many of America's institutions around race poverty and inequality in lingering traumas show up within the institutions that bind together public housing as an urban system.

The Residents' Council public housing is an instructive case for several reasons. The organization plays a leadership role within public housing, seeking to foster the resilience of both its residents and its infrastructure. It is an organization in transformation, embedded in a system in transition, as a number of public housing sites is undergoing demolition and reconfiguration. Simultaneously, RAD conversions change the nature of the relationship between residents and the Housing Authority.

Public housing generally, and Asheville Residents' Council in particular, are difficult places for a white researcher to operate. There's a long history of mistrust between the Residents' Council and the city, the public housing authority (even though it is predominantly staffed by African-Americans), social service organizations, and white Asheville generally.

The Residents' Council case was selected because it fits the selection criteria and is an ideal environment to explore how qualities of leadership affect the resilience of an urban system. Moreover, it was believed that the strength of the researcher's relationships with key brokers of trust would be sufficient to enable effective collaborative research. Later, this chapter will [outline the process research actually followed](#). The chapter on leadership will explore why this research did not go as planned. The conclusion chapter will reflect on the [lessons this has for the practice of PAR](#) within urban systems.

#### **RECAP: CASES**

There is a significant difference between the selected cases. There is value in this contrast. It enables the researcher to put different patterns of leadership and resilience in both cases and more stark relief. It enables this research to tease out some of the drivers that may be common in both scenarios. Finally, they support theorizing about the nature of leadership for resilience in urban systems.

#### **RECAP & SYNTHESIS: PROPOSED RESEARCH DESIGN**

How do these methodological components fit together into something that addresses the design criteria? To recall the design goal for this research: (1) thick description and breadth of observation of (2) cases with diverse performance that (3) enable observation of the rich interdependencies observed within complex urban systems.

In brief, this research was intended to use a case study design that employs Participatory Action Research as a naturalistic inquiry approach. Instead, this research employed a case-study approach. From this foundation, there are two basic approaches to data collection. One is through interview and direct observation, which enables the thick description of experiences and emergent patterns within the complex urban systems. The second is through a distributed ethnographic approach using storytelling to capture observations from throughout an urban system. Through this “network of stories,” particular functions of leadership or elements of the urban system can be examined to determine whether they are drivers for the emergence of qualities of resilience. By engaging in a distributed ethnography, it is possible to (1) observe an episode of leadership in which (2) evidence for a constituent quality of resilience is also present that (3) affects some element of the urban system.

This will generate two rough datasets, a set of artifacts of interview and observation, and a network of stories. The artifacts are analyzed using qualitative analysis to identify the unexpected and soft signals, as well as reinforce and contest patterns emerging from the network of stories. The network of stories is analyzed using set theoretic analysis to tease out causal relationships between elements of urban systems and leadership, and qualities of resilience.

#### **FOCUS & LIMITATIONS TO RESEARCH**

Given this design, the focus of this research is primarily limited to the social side of socio-technical or socio-ecological systems. It is possible to theorize on the social causal conditions necessary for resilience. It is not possible to directly establish the drivers to ecological resilience from social action or to quantify those impacts.

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#### **4) PROCESS: HOW WERE RESEARCH QUESTIONS EXPLORED?**

This next section will narrate the process of research in three parts. The first part lays out the intended design and plans at the outset. The second unpacks what actually happened.

This will include an explanation of the differences between the plan and reality, touching on how what unfolded was instructive, and providing a sense of how the research was adapted as things unfolded. This section will close with a recap of the data collected, and how that data sets up the analysis provided in the following two chapters: Leadership and Storytelling for Resilience.

### **NARRATIVE OF PROCESS**

A generic blueprint for research is as follows: Over the course of weeks or months, the researcher develops relationships with key individuals and organizations within an urban system. Over time, a sense of clear, shared goals for a project emerge. That project has some driving question or questions that both the researcher and the organization, or the system at large, seek to understand more deeply. The researcher and a small team (representing a diversity of actors or perspectives within the urban system) develop questions that will guide a storytelling survey. The survey is vetted with and tested on small groups to refine the questions. The survey is set up as a Google form online, with a parallel paper artifact for use with those lacking digital access or literacy. Once ready, this small team uses its contacts and social capital to maximize the number of participants in the study. After sufficient responses are received, researcher cleans the data and engages in initial coding, first qualitatively within Atlas TI, followed by set theoretic within Kirq, and network analysis in Kumu. These initial findings are shared with the core team. Presumably, the study has answered some questions and raised others. The core team designs a new set of questions, and the process begins again. During this process, the researcher observes organizations and geographies, and interviews individuals in key locations within the social network. The process continues until actors within the urban system feel they have their questions answered in a way that helps guide action, and the researcher has a sense of how to articulate what is learned in a way that's useful for a practitioner-scholar audience. Next, I'll narrate what actually happened.

### **RESIDENTS' COUNCIL FOR PUBLIC HOUSING**

#### **INTRODUCTION: THE BEST LAID PLANS**

Things do not always go as planned when conducting Participatory Action Research embedded in urban systems. Things did not go as planned working with the Residents' Council. There are some insightful reasons as to why, but those will be explored in the Conclusion Chapter. Sufficient for the current purpose is to describe what initially had been

proposed within my dissertation research and agreed upon with the Residents' Council, and contrast that with what actually happened.

The initial intent was to engage with the Residents' Council in Participatory Action Research. Initial conversations with Sharonda Harper of the Residents' Council and with Tracy Kunkler of Social Profit Strategies over the course of several months made this approach seem feasible. The proposal generated with them was composed of two parts: First, a distributed ethnography together that would involve not only the Executive Committee and community associations, but also community members themselves. This distributed ethnography would involve as many as 200-300 people. Second, a series of interviews and observations with key members of the Executive Committee, associations, community members, and members of the organizations within the organizational ecosystem of public housing. This collaborative research would be used to identify what priorities the Residents' Council should have for its work in the coming years.

The first half of this proposal did not happen at all. The second half of this proposal did, with significant limitations due primarily to limited access to residents within public housing who were willing to sit for an interview. There were two important consequences. First, this research ceased to be Participatory Action Research. Second, this limited how the case could be used within research. The Residents' Council of Public Housing case has value primarily as a counterpoint to the rich data and thicker description drawn from the Rainbow Community School case, and to provide contrasting perspectives on the usage of Dynamic Governance as a practice.

#### **INTENDED PROCESS & ATTEMPTS**

The intended process for a distributed ethnography and the actual observations and interviews with the Residents' Council will be separated into two explanations. Over the course of the next year and two months, researcher had episodic contact with the Dynamic Governance leadership team and the Executive Committee for the Residents' Council. The initial proposal for research was then developed from September through December 2014 with the Dynamic Governance leadership team. The Dynamic Governance leadership team was comprised as follows: a city staff member, a staff member from the city who had acquired the initial grant to fund Dynamic Governance training for the Residents' Council Staff, a staff member from Social Profit Strategies who was administering the training grant on Dynamic

Governance with the Residents' Council, and members of the Executive Committee. Over the course of the next year, plans to design and administer a distributed ethnography were laid out three separate times. One was in January-February, designed to piggyback on the design process for the distributed ethnography as part of the Dynamic Governance and Executive team joint meetings. Implementation of the survey would be done in person at booths at an event. This could be either piggybacking on an existing community event or a standalone event. A second attempt came in April into May. Implementation of the survey was to use the Dynamic Governance trainings as they were rolled out to the various neighborhood associations as a means to reach association members. Association members would recruit residents in each neighborhood. During this period, the researcher and Executive staff set up a booth at a community event and recorded a small number of stories as a trial. A third attempt occurred in August into September. The design proposal this time was the same as the second, but limited in scope to one particular neighborhood that was going to undergo circle for training. Each time, the design was developed in partnership with the Dynamic Governance leadership team. Each time, the activities expected by both researcher and Dynamic Governance leadership team failed to materialize as imagined.

#### **INTERVIEWS & OBSERVATIONS**

In brief, data collection within the Residents' Council for Public Housing took two basic forms: observations and interviews. Observations began in October 2014, with the attendance of a pivotal meeting: the election of new officers to the Residents' Council. The history of the Residents' Council will return to this. Observations were of meetings of the Executive team, small team meetings of a portion of the RCPH staff, calls with Executive team members, RCPH meetings that were open to the public, and public events put on by RCPH. The time spent observing sums more than 40 hours over the course of five months.

Interviews were conducted with all of the Executive team members to RCPH, most members of the Dynamic Governance leadership team, key mentors as identified by the Executive team, and important contacts in the city and other organizations within the ecosystem of organizations to public housing such as Green Opportunities (a job training program) and the Housing Authority. Interviews were conducted over two periods, one in April-May 2015, and February-March 2016. In total, 10 individuals were interviewed, totaling 21 hours of interviews. An attempt was made to interview all parties twice in order to

capture some of the evolution of the organization and relationships during that time (and most parties were interviewed twice).

Interviews were conducted in a semistructured matter, with guiding questions and format for each interview, but allowing for long digressions and dialogue to form from unexpected insights and offered anecdotes. The majority of time in each interview was spent following such offered insights.

As a process note, it bears mentioning the difficulty of obtaining interviews with members of the Residents' Council social network around public housing. For some individuals, interviews were scheduled 6 to 7 times, with 2 to 3 missed appointments, and dozens of text messages or phone calls back and forth. It seems odd to consider nondata as a data point, but these incidents do help to contextualize the relationship between residents and the researcher. The difficulty in planning reflects the perceptions by black Asheville about white Asheville and what the researcher might symbolize (or be) and invoke as a response. I will return to this during the chapter on leadership, and in the conclusion as part of a reflection on lessons for the practice of Participatory Action Research in urban systems.

## **RAINBOW COMMUNITY SCHOOL**

### **INTRODUCTION**

I encountered Rainbow Community School first in a professional capacity: facilitating a two-day board retreat in August. Surprised by how emotionally healthy and productive their discussions were, I became curious about the organization. It was also clear the organization was entering a phase change. After seven years of maturation, growth and consolidation, they were entering into conversation about how they might expand Rainbow's model of education. I worked as a coach with Executive director Renee Owen for a few months, gaining insight about her approach to leadership and about Rainbow's model of education. In October of 2015, I was invited to participate in their XQ project team. From this experience, I witnessed some team practices that Rainbow uses, such as their centering rituals.

It now seemed plausible that Rainbow's distinct culture had impacts on the resilience community around it, and how leadership functioned at Rainbow was a driver for those impacts. I approached them about doing a study in December of 2015. Thus far in their history they have had difficulty articulating what makes that model distinct, and how it



impacts their students and community. Given their interest in expanding their model, the administrative staff indicated they were interested in collaborating.

### **STORYTELLING FOR RESILIENCE SURVEY**

There were three general forms of data collection with Rainbow Community School: the distributed ethnography story survey, observations, and interviews. The process for each is explained below.

Over the course of December and January, the story survey instrument was developed. Developing their goals for the survey, crafting questions, and refining the language involved multiple meetings with the staff and teachers. Rainbow uses a form of Dynamic Governance, and once a month they meet as a faculty to discuss emerging issues and make decisions. Any project with the potential to affect everyone within the organization requires consent from entire faculty. During a meeting on February 3, an hour was spent discussing the study, its purpose and potential disruptions, which grades it would be meaningful to engage, how to obtain parent and alumni responses, and how the story survey could be incorporated into the curriculum within the next month in ways that would support the pedagogical goals of each separate grade.

They granted consent, and the survey was sent to all parents and alumni. In early February, permission forms were obtained for students. Each class developed their own strategy for completing the story survey. Grades 4-5 used class sessions on draft stories, which were input by the teachers individually. Grades 6-8 incorporated it into writing exercises for English class. Parents and alumni were sent an email introducing the project, and reminded every week for five weeks. In total, the survey received 102 responses, with an 81% response rate from students 4-8, and a 32% response rate from parents.

### **EXAMPLE STORY & CODING**

The prompting question as developed with Rainbow staff was: *"Tell me a story about a time in the past month where you were aware of the Spirit of Rainbow in your life in some way."* A couple of points about this are worth noting. This is framed in Appreciative Inquiry (AI) language, "tell me about a time when" that asks someone to talk about personal experience that illustrates larger systemic patterns. The first reason for this is that it accomplishes the needs of the story-question for the researcher, namely to invite respondents to connect personal experience with larger systemic patterns. Second, a nationally respected appreciative inquiry

practitioner lives locally, who knows Rainbow and the staff and I could use as a resource. Third, the Rainbow community is familiar with AI language from having done an AI summit previously.

Second, it refers to the Spirit of Rainbow as the experience to be talked about. For students, staff, parents and alumni, the “Spirit of Rainbow” is a meaningful entity. It is an idea that is discussed, shaped through dialogue, and contested. The Spirit of Rainbow is a presence that acts on the world and has opinions about your actions. You can engage with it and ask it questions. It made sense, then, to frame a question about the impacts from Rainbow in terms of the Spirit of Rainbow. We’ll explore this further in the chapter on Leadership.

The following is a story response to the prompt from a 4th grader:

*I was in an argument with someone outside of school. It was about not agreeing on the truth of a fact. I was getting angry and I was getting ready to walk away because I was really mad. This was making me mad because I was really sure that I was right. But instead I took some breaths and calmed myself down. This helped me solve the conflict, because we were both able to honor my mom's request to stop arguing.*

The [explanation of the process for analysis will return to how this was coded.](#)

#### OBSERVATION

Observations at Rainbow Community School took place primarily over a three-week period in March 2016. These consisted of observations in three basic environments: classrooms, meetings amongst staff and faculty, and informal mixing zones where staff, teachers, parents, and students converge. The researcher spent at least an hour in each of the grades first through eighth, including spending time observing Spanish and art class. Observations were also made in standing weekly meetings, such as the monthly faculty Dynamic Governance meeting. Of particular interest were informal meetings where the researcher just happened to be present between a teacher and one of this staff in student support services, or a meeting between the director and a parent coming for pickup. Such interactions were valuable both in understanding the tone and culture of relating within Rainbow, but also in picking up tidbits about common stories and ongoing issues from multiple perspectives. Mixing zones were particularly interesting as observational environments, and included the pickup zone for fourth through sixth grade, the playground where students of all ages mixed over the course of the lunch hour, special assemblies were a

performer would come through, or the holiday program which served as a gathering for the entire community. In sum, the time spent in observation in and around the Rainbow environment was ~100 hours.

### INTERVIEWS

Interviews at Rainbow fell into three camps: staff, parents, and board members. Within the staff, interviews were conducted with administrative staff, support services staff, and teachers. To identify appropriate parents, staff identified key storytellers: individuals who knew the alternative narrative histories of Rainbow from the outside and could also speak to its character in their own experience. The two board co-chairs were interviewed as well. In all, interviews with 12 individuals spread over 16 recording sessions, consisting of about 45 hours of recording.

Interviews were conducted in semi-structured matter, with guiding format and questions developed for each of the three camps and specific questions for each individuals. The nature of the interviewing process was such that each interview would inspire questions to ask the next interviewee. For instance, one interviewee parent would bring up a story about “bullying” in the fifth-grade classroom and how instructive it was for the organization’s response to multilevel conflict. This would prompt the interviewer to bring it up in the next interview with a staff member, who would provide perspective from a different angle. This would prompt the interviewer to ask for an interview with the support staff, would provide yet a different perspective on the experience. Many of the themes that will be explored within the leadership for resilience chapter emerged in just this matter: ping-pong across time amongst the various observer interviews.

It is worth noting the ‘stickiness’ of interviewing and the interview process in the environment of Rainbow Community School: with one exception, every single interview was at least twice as long as the intended length. This was not the interviewer pushing for more time. Rather, those being interviewed were so engaged and excited to be exploring the themes involved that they did not want to put them down. They requested—demanded—often to have second interviews in order to continue these themes. It’s clear that at this point in time, the state of Rainbow as an urban system was hungry for systemic sense-making and these interviews provided a kind of sense-making space. We’ll return to this theme during the leadership chapter.

### RECAP: DATA COLLECTION

To recap the process for data collection, things did not go as initially planned. Initial proposals intended studying one case, with extensive distributed ethnography combined with interviews and observation. Instead, research is built on two cases. In one case, interviews and observation are used to build thick description. In the second case, distributed ethnography, interviews, and observation were used to generate both breadth and depth. Experience of the research process in both cases is both different and instructive. Working with the Residents' Council for public housing was a constant puzzle. A lot of energy was expended, without much benefit either for the researcher or for the organization. In contrast, Rainbow was extremely responsive. Everyone involved in the research process was not only cooperative, curious and engaged, genuinely interested in and supportive of the research, and interested to know what was learned through it.

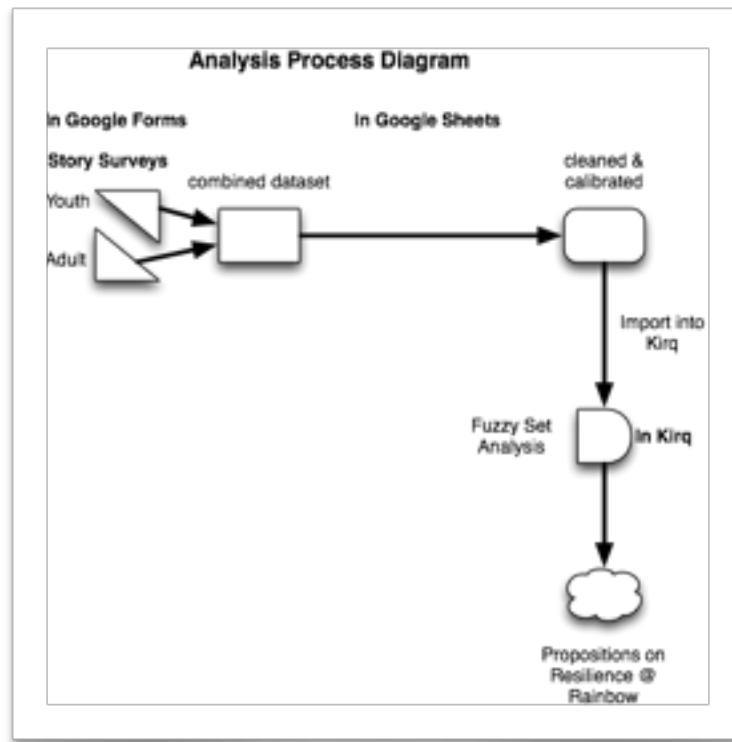
While it's a shame not to do a distributed ethnography within public housing, this two-case arrangement offers some benefits. It enables contrasting these deeply different urban systems. From that, a comparative analysis can more distinctly illuminate that patterns that make Rainbow Community School a vibrant urban system. It also places the current conditions in the Residents' Council for Public Housing is within a larger developmental arc and context. As a result, this research is better able to theorize about how leadership practices foster resilience in urban systems.

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### 5) ANALYSIS: HOW TO MAKE SENSE OF THE DATA?

This next section will recap the process of data set analysis, give a sense of qualities and quantity of the data, and discuss how those enable and constrain the research findings.

**GRAPHIC 14: SET THEORETIC ANALYSIS PROCESS**



### SET THEORETIC ANALYSIS

First, let's follow the story survey data from end to end. From its raw form in the survey, the first step is to clean the data. This involves combining the adult and youth surveys into a Google sheet. Then, transforming recorded values (1,2,3,4) into set theoretic values (0, .33, .66, 1). Next is to calibrate the data using an indirect method. A subset of the stories where the researcher had independent observations was identified. Then, the researcher

coded these stories. The responses from researcher-observer values and the respondent values are averaged for each response and recorded. This subset was then used to calibrate the rest of the data set. For each question, the average distance between the respondent value and the researcher value is used as a weighting. This weighting for each question was summed with the uncalibrated value to build a fully calibrated set.

After the data has been calibrated, then survey responses are converted to weighted questions (1-4) into set theoretic values (0-1). From here the data is exported into Kirq, which is fuzzy set Qualitative Set Analysis (fsQSA) software. Kirq is used to run a sufficiency and necessity analysis for findings on consistency and coverage. The findings from this analysis will be discussed in further detail in the storytelling for resilience chapter.

There are a couple potential concerns here. Does the storytelling for resilience data set contain enough stories to reach conclusions of significance? In set theoretical research, significance comes in the form of consistency. To remind the reader, when *consistency* by a set is greater than .75, generally the findings are worth reporting (Ragin 2008). In the initial analysis, there were a number of causal sets that reach the threshold for consistency.

That said, one of the intentions of this research design was to use it as an ongoing reflective practice within an organization from which to gradually build significantly larger data sets—with hundreds or thousands of responses. Data sets of that size would provide greater *coverage* and enable more nuanced analysis of the causal conditions that drive different resilience qualities. Reaching data sets of that size will have to wait for future research, which will be covered in the conclusion chapter's discussion of directions for future research.

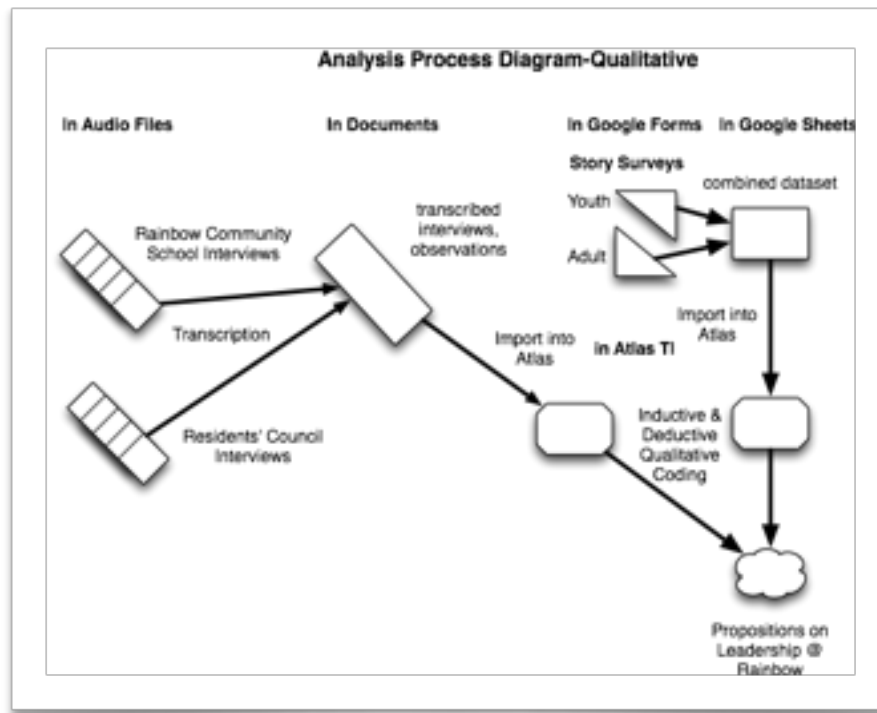
### **GRAPHIC: QUALITATIVE ANALYSIS PROCESS**

#### **QUALITATIVE CODING**

Let's follow the observation and interview data from end to end. First, the interviews from both cases are transcribed. Once transcribed, transcripts and observation notes are imported into Atlas TI, a qualitative analysis software for inductive coding. The combined observations and interviews from Rainbow and Residents' Council of Public Housing, generating 144 codes. These codes were used to support the development of the narratives of history and interpretation to each case offered in Chapter 4.

Next, let's follow the storytelling survey data from end to end. First, the stories are imported into Atlas TI for coding. The first round of coding was inductive. 168 codes were generated.

### GRAPHIC 15: ANALYSIS PROCESS DIAGRAM



Next, these codes were grouped by theme. 10 themes emerged:

- 1) Actors— Within each story there is a critical action taking place that makes it an episode. Who is doing the acting?
- 2) Awareness— Many of the stories reflected some capacity for sensory awareness, either towards internal emotional states or external conditions.
- 3) Conflict— Conflict, the ability to perceive it, accept it, articulated, and resolve it became a strong emergent theme.
- 4) Descriptors— This is the catchall for tags that described the episode did not fall into another for specific camp.
- 5) Drivers— Was it that was motivating action within the episode?
- 6) Emotional Capacity— Many stories demonstrated significant equipoise, or emotional sophistication. What emotional capacity was at play?
- 7) Felt Emotions— for many of the episodes, actor observers would describe the felt emotions they were aware of.

- 8) Learning Environments— Most stories took place within specific learning environments of one sort or another. What were they?
- 9) Outcomes— Many of the stories identified some kind of outcome from the event. What kinds of outcomes to receive consistently from Spirit of Rainbow moments?
- 10) Practices— Some of the stories referenced were involved consistent practices or rituals that affected the episode.

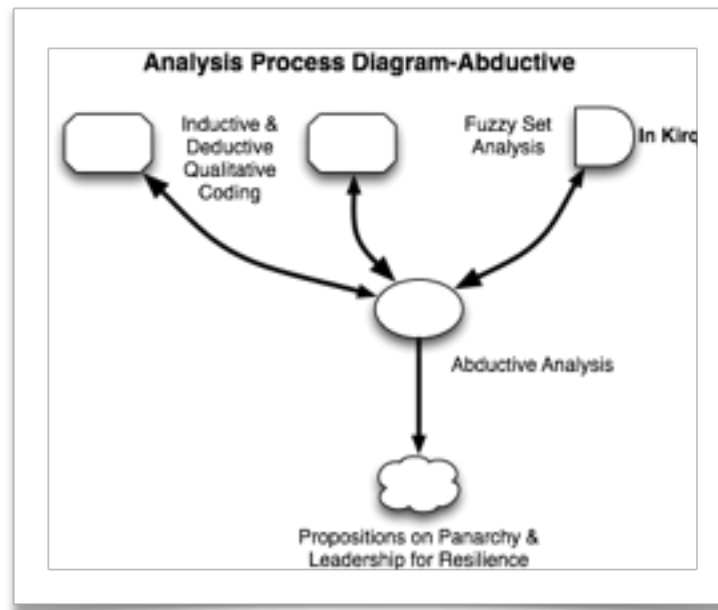
The second round of coding was deductive, using:

- 1) Qualities of Resilience—robustness, redundancy, resourcefulness, flexibility, integration, inclusion, reflectiveness
- 2) Functions of Complexity leadership—Community Building, Information Gathering, Information Using, Generative, Administrative
- 3) Elements of an urban system—Social Network, Institutions, Ecosystem of Organizations, Technical System of Physical Infrastructure, Set of Geographic Sites
- 4) Processes of Panarchy—Revolt & Remembrance
- 5) Capacities of Conation—Processes such as moral complexity, moral identity, moral ownership, moral efficacy & moral courage; capacities such as moral sensitivity, moral judgment, moral motivation and moral action.

The next step was abductive, or simultaneously inductive and deductive (Feiltzer 2009). To remind the reader, at this point in the analysis there are three analyses: the set theoretic analysis of the storytelling dataset in Kirq, the inductive analysis of the interviews and observations in Atlas, and an inductive analysis of the storytelling dataset in Atlas. Working back and forth across these three sets, the researcher began to pose questions. These questions were in the form of deductive propositions, such as “does the data support the assertion that Complexity Leadership is sufficient to explain the patterns of leadership present in both cases?” It was through this process that the propositions on Spiritual Leadership (which will be explained in more detail in Chapter 5: Analysis) and the role of Panarchy as a mechanism of leadership that generates resilience (which will be explored in more detail in Chapter 6: Conclusions) were generated.



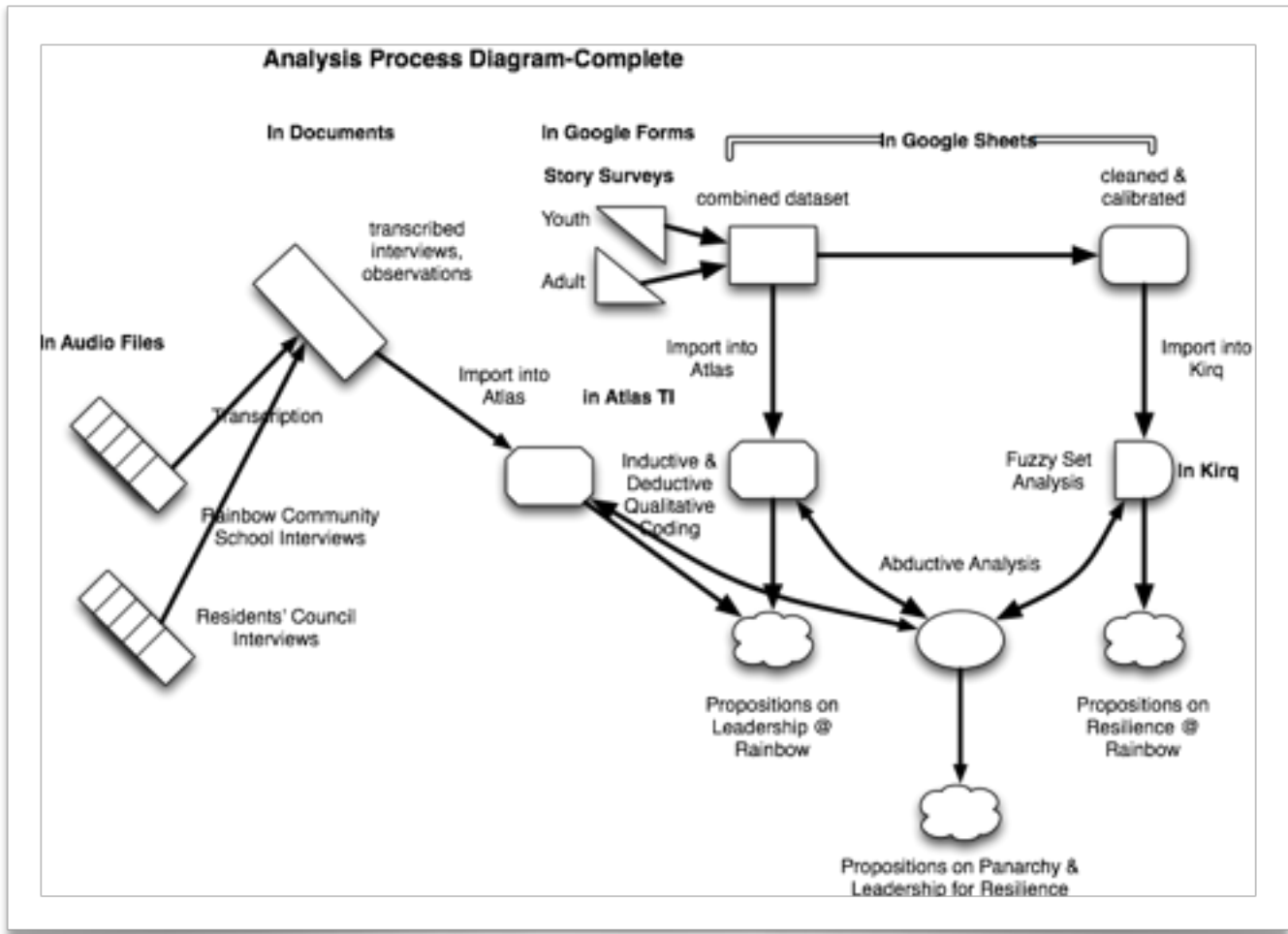
**GRAPHIC 16: ABDUCTIVE ANALYSIS PROCESS**



#### **RECAP: ANALYSIS**

To recap, the basic question was: Does Complexity Leadership foster the resilience of urban systems? If so, what practices support Complexity Leadership in doing so? Through set theoretic analysis these qualities of resilience could be linked to where these qualities are most frequently expressed within an urban system. The qualitative analysis of interviews and observations enables exploration of why these qualities of resilience might be expressed in different elements of an urban system. It does so by working up from surprising observations towards the larger emergent patterns they illustrate. Set theoretic work offers larger patterns to explore, and qualitative analysis enables a deeper exploration of the details. These two together provides a potentially powerful pairing when exploring phenomena within complex urban systems. The conclusion chapter will return to this in the discussion of the [methodological learning](#) from this research.

## GRAPHIC 17: COMPLETE ANALYSIS PROCESS



### RECAP: DESIGN FOR THIS RESEARCH

To recap, this chapter addressed the challenges to doing effective research on emergent phenomena within complex urban systems and offered design criteria for effective research. It laid out the components that correspond to the design criteria and enabled an exploration of the research questions within a cohesive research design. This included discussing the data collection process, explaining initial designs and expectations, and describing how the research actually unfolded. The chapter described how that data enabled analysis led to answering the research questions. This discussion sets up the next two chapters: unpacking the findings. Chapter four identifies lessons learned on leadership within urban systems. Chapter five explores the lessons on resilience in urban systems. The conclusion chapter will

bring these two themes together to explain what can be learned about leadership for resilience in urban systems.

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# CHAPTER FOUR: THICK DESCRIPTION OF RAINBOW AND RCPH

What could a Sufi-founded private school, and an African-American activist organization embedded in public housing possibly have in common? What could either of these organizations and their experiences have to teach us about resilience or leadership? The purpose of this next chapter is to provide a thick description of these two contexts: the Rainbow Community School, and the Residents' Council of public housing in Asheville. The goal of this thick description is to peel back some of the layers of detail and complexity to reveal some of the underlying patterns that may be in common or distinct to either of these urban systems. To do this, the chapter will use a combination of narrative by the researcher, stories told by participants, and memes.

First, the chapter will open with a brief history of Asheville. Next is a four-part telling of the history of the Residents' Council, using a combination of story vignettes and memes. This will be followed by a history of the Rainbow Community School. Following the history will be an exploration of why Rainbow is the way it is, using stories from members of Rainbow to illustrate four emergent memes. We'll close with a recap of the chapter that starts to illustrate how this thick description and themes will be used in our next chapter: an analysis of emergent patterns of leadership.

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## 1) BRIEF HISTORY OF ASHEVILLE, NC

Asheville was founded as Morristown in 1793, and renamed Asheville in 1797 after the North Carolina governor at the time. At this stage, Asheville was a frontier town at the crossroads of Native American pathways. Surrounded by a bowl of mountains, from the perspective of the colonies it was a refuge in a remote wilderness. By 1850, the population of Asheville was 5,812 with 347 slaves, making the population 5.9% African American (Wikipedia entry, Accessed June 13, 2016). Asheville remained a sleepy frontier town until the 1880s, when the Western North Carolina railroad connected Asheville to Salisbury. Asheville grew quite steadily through the early part of the new century, and thrived in the 1920s. Drawn by the remarkable diversity of its ecosystems and lushness of its forests, the

Asheville area attracted a number of different religious and spiritual retreat centers. The city in the region became a retreat destination for the Vanderbilts and other Eastern wealthy vacationers.

By the 1920s, Asheville had an African-American population of X, and at least five distinct African-American neighborhoods. White businesses were often uninterested in catering to the interests and preferences of black customers. White professionals, such as lawyers, were often unwilling to work with African-American clients. This left a vacuum. African-American businesses developed within these neighborhoods, catering to their needs. African-American professionals, lawyers and doctors, served those communities (J. Fox October 29, 2015). By the 1920s, there were vibrant, quasi-self-contained African-American communities within the larger fabric of Asheville.

With expectations of continued growth, the county and its white citizens were heavily indebted when the Great Depression arrived. On a per capita basis, Buncombe County was the most heavily indebted county in the nation. Eight local banks failed. Until the 1990s, there was little population growth and very little change to the broader Asheville economy.

What urban Asheville did experience was urban renewal. Each of the major African-American communities to downtown Asheville was displaced during this period: “Urban renewal was a continuous experience for Asheville’s African-American community for almost 30 years beginning with the Hill Street neighborhood in 1957 as the crosstown Expressway was built and moving on the south side, Stumptown, Burton Street, and East End, the fabric of each of these historic African-American communities was torn apart” (NC Humanities Council 2010).

While in many places urban renewal was covertly racial while wrapped in the garment of progress, in Asheville urban renewal had a overtly racial overtone. For example, a prominent Avenue that ran through an African-American district was renamed from Valley Street to Patton Street after a prominent local slaveowner. This process did more than rearrange buildings and rename streets. As Southside resident Robert Hardy describes the impacts: “The community breakdown—family displacement and the loss of businesses, neighbors, continuity, sanguinity, customs, cultures, and social norms (NC Humanities Council 2010).” The consequence of this urban renewal was that many of the historically

African-American businesses—and their knowledge base about entrepreneurship— were lost (J. Fox).

By the late 1990's, Asheville and earned a reputation as a liberal community. It was host to a number of spiritual and religious traditions, and hosted schools from a range of healing modalities. Asheville was becoming a kind of New Age mountain paradise in the East. A set of ambitious downtown revitalization projects driven by a small group of wealthy philanthropists began to revitalize the downtown. Its collection of distinctive Art Deco buildings downtown in combination with its excellent access to national parks and recreational opportunities made Asheville a hub for tourism.

Asheville is a mixture of typical and atypical. As of 2000, Asheville's racial composition was 78% white, 17.6% Black, 3.8% Hispanic, making it average amongst Appalachian communities.(Wikipedia, accessed 5.25.16). Also typical of Appalachian towns, Asheville has been a depressed economy for generations. The economy took until the 2000's to recover to under 10% unemployment. Typical of the nation, 20% of Asheville residents live at or below poverty. Buncombe County ranked in the top 1% of counties in the nation in terms of the inability of children to escape the poverty trap (The Impacts of Neighborhoods on Intergenerational Mobility). Amidst this, Asheville has become a thriving tourist town with the nation's largest concentration of breweries in the nation, a large and successful service sector, a growing number of retirees, and continued polarization between the haves and have-nots.

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## 2) EMPOWERING OURSELVES FIRST: A RESIDENT COUNCIL HISTORY

*This goes out to all of us on the hill,  
What we don't do those other folk will.  
Let's throw it in a circle  
Let's circle forward together  
We have to fight for our rights  
And keep that mindset forever  
Let's advocate for others  
And advocate for ourselves  
Today we celebrate his life  
Today we say farewell.*



2015

This next section will tell a story of the Residents' ' Council of public housing in Asheville. The purpose with this section is to offer a deconstructionist history of the Residents' Council and its immediate context. The story will have four parts. The first section will narrate the past: the founding of the Residents' Council and some of the context in which it was founded. The second section will narrate the near past and present: the relevant context for our story. The third section tells the story of the transition from the old leadership to the new leadership within the Residents' Council. The fourth section tells the stories of the new leadership. You can think of them as a lens zooming in from 60 years in the past towards the specific characters in actions that are the focus of our story. There are two writing devices that will be used to tell the story. One is story vignettes, offered by various individuals from within the urban system of public housing. The second is memes, or “the ideas, behaviors or styles that spread from person to person” and seem to explain the behavior in the story (American Heritage Dictionary 1991). This section will use these story vignettes to illustrate why particular memes have such power, prominence, and durability.

#### **FOUNDING: A CIVIL RIGHTS-INSPIRED INITIATIVE AT EMPOWERMENT FOUNDING OF THE RESIDENTS' COUNCIL**

It is in this context that Jack Kemp, who was the Secretary for the Department of Housing and Urban Development, started initiatives to encourage sale of public housing units to residents, and self-management and self-governance by public housing residents. As it was conceived, it was essentially a civil rights movement-inspired attempt at empowerment. On its face, this seemed a worthy goal and reasonable strategy. Time has revealed its shortcomings:

*When Jack Kemp started the whole public housing residents Council initiative, it was to empower people within public housing. To be able to manage processes to empower themselves to do things on their own. To give them the power to do things on their own. My concern with that is like with anything else. In order to be able to manage something you have to have experience. You either have to be taught to do that through family or something, or you have to have some educational background. Most of our residents didn't have an opportunity to have either one of those. So it's quite a bit of a disadvantage for them to say 'you can do*

*this' without having anyone to nurture you through the process (G. Bell March 23 2016).*

Within Asheville, this nationally promoted movement for empowerment of public housing residents took the form of a few charismatic individuals gathering to create a nonprofit. This became the Residents' Council of Asheville Housing Authority, a 501(c)(3) registered nonprofit corporation dedicated to representing the residents of public housing in Asheville. As part of its bylaws its mandate includes the maintenance, management, and administration of public housing building and grounds, the education of residents working to ensure the quality of life for residents, community engagements on various issues, and the provision of job services to residents (Articles of Incorporation RCAHA). This nonprofit would act as an advocacy organization, speaking on behalf of residents. Carl Johnson, Wilbur Turner, and John Williams, all themselves residents of public housing, incorporated the Residents' Council of Asheville Housing Authority, INC in 1986 (Articles of Incorporation, RCAHA).

#### **STORY: THE THREE DRIVERS OF DISENFRANCHISEMENT (BELL)**

Into the context of Asheville's distressed postwar economy,

*Public housing's role in that is like a parachute. Were it not for public housing people would be living in substandard housing. Public housing initially was to give people an opportunity to live in safe decent sanitary housing... The design of public housing, the design of subsidized housing... A lot of people lived in subsidized housing [and the experience] was parallel for both black people and white people (G. Bell).*

*Where the parallel ended was when we started the VA, FHA and other lending institutions were giving white people an opportunity to move out of public housing and into regular housing. Moving into single-family home and private-sector homes. For us, that was the visible beginning of redlining. We weren't given loans. The discrimination in regards to loans was horrific. It still is but it's much less visible. Number two, we weren't given job opportunities where there is equity our job opportunities and earnings potential. So, the gap started getting greater and greater (G. Bell March 23 2016).*

Gene Bell speaks of the first two drivers of disenfranchisement, discriminatory lending and job discrimination. The third was urban renewal, and its systematic targeting of African-American neighborhoods within the urban core (J. Fox; G. Bell March 23 2016). "Part of

what we're experiencing today is a result of that orchestrated discrimination" (G. Bell March 23 2016).

#### **MEME: STRUCTURAL RACISM**

This story about the drivers of inequality has led to a foundational meme that is present within the social network for public housing: structural racism, that this system has been designed to disenfranchise us, and to take away our opportunities for economic and social advancement. It is through the lens of this meme that any of the actions of city government, or any entity that is perceived as a part of the machine, are viewed.

#### **STORY: URBAN RENEWAL & GUTTING OF BLACK NEIGHBORHOODS**

A consistent story from the older generation is a morning of the loss of the kinds of communities African-American that existed before urban renewal.

*One of the things you find about the generation before us, before integration, was that all of us as African Americans lived together. I'm not suggesting that's what we have to do. It wasn't unusual for someone growing up to have a doctor or lawyer on the street. So you'd see that you can be successful... The hopelessness or the anxiety of success is going to be different, depending on if you grew up in White Plains NY or Camden NJ (G. Bell March 23 2016).*

#### **MEME: THINGS USED TO BE BETTER—FROM DIVERSE BLACK COMMUNITIES TO CONCENTRATIONS OF POVERTY**

These conditions also to a second foundational meme: things used to be better. The experience of educated African-Americans who came of age during the civil rights movement was witnessing the dismantlement of healthy African-American communities, to be replaced by public housing complexes. There are two dimension of time to this. One is looking back, with the nostalgic belief that things were substantively better in the past. The second is looking forward, with the belief that African-Americans coming-of-age today have no sense of their potential, of what is possible. This meme is used to explain the complacency that the older generation can perceive in the younger.

#### **TOLERATING: THE CONTEXT OF PUBLIC HOUSING**

This next section is intended to situate public housing and the Residents' Council within the cultural context of black Asheville post urban renewal. Public housing has come to represent the relationship between government and the poor. As such it is a politically tense battleground where memes play an important role in setting the terms of engagement. There is

an equally strong—and very different— set of memes at play within public housing about public housing and its residents.

#### **STORY: THIS IS TOLERANCE NOT RESILIENCE**

The primary community to this case is public housing residents of Asheville, of which there are 6,000 living within roughly 1,500 units spread across the city. The Asheville Public Housing Authority, a body independent from the city of Asheville, is charged with providing “decent, safe and sanitary housing for the needy humankind” (Website, Referenced Nov 1, 2014). Asheville Housing Authority has been in effective operation since 1950. The current director had this to say about the role of public housing in fostering resilience:

*Urban resilience is more a matter of tolerance. If you're resilient to something, in my judgment, it's more for small periods of time. Suppression for poor people and black people has been going on forever. How you handle that is different depending on where you are your support, your education, your family history all changes that and moves it in different directions and how to deal with hopelessness. I'm 69 years old. It is a significant struggle to always be aware and tolerate being treated the way you are because you're black. I have been reasonably successful, but there is always that factor that creates a lot of unnecessary stress (G. Bell March 23 2016).*

#### **MEME: THIS IS A CONCENTRATION CAMP**

A worker from a social change non-profit was talking with a resident. The worker:

*Shared this vision that this is a neighborhood. What would it be like to see this as a neighborhood? And she said no. People do not want to think about this as a neighborhood, this is like a concentration camp. This is temporary. You don't think about this is somewhere you want to be. A neighborhood it shouldn't be something that you're trying to move out of (T. Kunkler September 9 2015).*

This reflects a consistent meme held by residents: public housing units are not a community. We are here against our will. We will leave as soon as we can. This is up a pervasive belief, despite the knowledge that many are lifelong residents of public housing. Many grew up within public housing. All (who are not children) applied to live within public housing. Echoing within this meme are the anger and resentment at a society where it is difficult to get by. That anger gets directed at the organization that provides the “parachute.”

#### **STORY: TO WORK OR NOT TO WORK**

There's a meme within the broader culture: poor people are lazy. Otherwise, they would just take a job and pull themselves up by their bootstraps. This meme was called on in

the design of public housing, where there is now an expectation of work. Gene Bell, the director for the Public Housing Authority in Asheville, gave a counterpoint story. Referring to the expectation to work:

*You can't tell people you gotta do something if there's nothing to do. What I often [hear from outside of Public Housing] is that if I drive down Tunnel Road there's 10 signs out looking for workers. Let's say I have two children, and I'm getting food stamps. I'm getting subsidy. I'm paying 30% of rent, the minimum rent. I have got kids were seven and five years old. I go to work for eight dollars an hour. I don't have a car. I live on the West side. The hours are set up so that I intentionally won't go over 40 hours a week where they have to deal with me as full-time. So, I catch bus. I have to be at work at seven. So what do I do with my kids first? Hopefully the people next door can keep them. That I have to get to work. And of making \$320 a week, which comes to \$240 a week because I pay a third of that tax. I pay for some form of daycare for my kids after school. Or, I let them go home by themselves which is not a good thing.*

If our minimum wage earner gets a raise, or works enough hours, they are liable to lose their food stamps and health coverage.

*If I lose my food stamps, I have to buy food. If I lose my health care... you've got a lot of obstacles. I know people who say I'm going, and they do it. There's are stories of people who survived and that overcome those obstacles. Those stories are the exception, not the rule (G. Bell March 23 2016).*

Low skilled workers taking a minimum wage job across town is, at best, a financially a break-even experience. Frequently, low skilled workers are better off keeping the benefits—and not taking a job.

#### **MEME: THE SYSTEM IS RIGGED**

Within public housing, this experience is not uncommon. When many have this experience or know those that have, a predictable meme emerges: the system is rigged. Why work when working only makes the treadmill move faster? This became the shorthand for a general distrust of institutions, and skepticism about work and risk leading to positive outcomes. A number of members of the urban system of public housing had the same commentary: the non-profits engage in “poverty pimping” (S. Harper March 7 2016, T. Kunkler September 9 2015, S. Charles October 9 2015). They are only out to make their grant numbers work better. This connects with the “just out to get mine” meme as well; outside organizations are extractive and here for their personal gain.

### STORY: DON'T APPLY!

This next story comes to us from the director of the Eddington Center. In her previous capacity as a case worker, she worked directly with both the Residents' Council and residents of public housing. She offered the following story about the relationship with change:

*Fear of change is so strong within the public housing community. To give a specific example, Housing Authority was gonna provide an opportunity for a scholarship within Hillcrest. We soon learned that not a single family applied for the scholarship opportunity at Hillcrest. Came to find out that some of the community members were telling the kids, "not to apply for it not to apply for it! You don't want that!" Their fear of their children living differently than them can be so great that they don't allow their kids to take chances to get out of public housing when the opportunities are there in front of them. That was a really sad thing for me to witness (S. Bower September 22 2015).*

Fear of change, fear of difference, fear of loss: all seem to be present within this story. And, the story seems to speak to how each of those fears is present in a visceral daily way for residents. The story expresses one of the consistent memes: amidst this volatile, chaotic world, the safest thing you can do is nothing at all.

### STORY: CHILD DISPOSSESSION

During a training for Dynamic Governance, one of the parents in the training had their children taken by child supportive services.

*T: They're really just going from crisis to crisis. In the middle of our training in Hillcrest, this woman got her kids taken away from her by CSS. We're in the training the last day of the training we ended up using the process to brainstorm support ideas for action for her personally. It was such a messed up situation. She ended up with some support from the circle period the circle was what she had to go to. We were the only ones who were going to provide her support and her life was what she felt at the time. I ended up seeing her a few times after that and others did as well just to be there to listen to her.*

*A: Why is that? Why did she feel like the circle was the only support she had in life? This is one very particular woman and story, but I don't feel like this is the exception.*

*T: So the story was that she had let a friend of hers stay at our house. Then she told the friend to leave because the friend had been using drugs. "You got to get out of my house now." That woman then turned around and turned her into CSS as retaliation. The kids had tested with Coke in their hair because they've been exposed to it through this roommate! So she got all tangled up in*

*this.... Oh she's still all tangled up. After that she was done. You're not going to talk about Dynamic Governance after you have something like that go down in your life. Her sheer powerlessness in that system and how easily everything can get flipped upside down. I talked to a therapist who works with CSS. So I called him what can she do? And he said she's really screwed (T. Kunkler March 4 2016).*

#### **MEME: EVERYTHING CAN CHANGE AT ANY TIME**

The story seems representative of many, and connects with three memes. The first is that everything can change at any time. Public housing residents' experience is one where their world can completely transform, being turned upside down with remarkable speed. Make sure you have a backup plan and exit strategy at all times. As a result, people are constantly trying to build resources for themselves on company time, even the dedicated. Second is, again, that the system is rigged. Misunderstandings, when had with an agency like CSS, can be impossible to walk back. Those misunderstandings make for a landscape of choice that is very path-dependent and very dire. The third is that the safest thing to do is nothing at all. If you take a risk to help someone, it could lead to your kids getting taken away from you. If that is the scale of consequence from taking a risk to help someone, it is safer to keep everyone at arm's length. In such a dangerous, violent place, surrounded by so much difference and alienation, where taking risks on behalf of others can result in your world ending up upside down, the safest thing to do is nothing at all.

#### **STORY: CYCLE OF DEPOSING AUTHORITARIAN LEADERS AT HILLCREST**

This next story was told by a worker from Bountiful Cities, one of the support organizations in the public housing ecosystem. She had been working with the women's well-being project at the Hillcrest community:

*She noticed that people would be really upset about the current president, because that person was really dictatorial. It was my way or the highway. She talked to residents of the community who would say we you really want a different kind of Association that's inclusive and here's everybody's voice. They would rally and oust the person, and elect somebody who'd been talking about inclusive processes, and as soon as they became president they would turn into this dictatorial leader! Autocratic, my way or the highway. She watched this cycle through several cycles of this. She thought: it's like the internalized oppression. As soon as they had some kind of power, they turned into the expressions of power that they've experienced. The oppressor. They just flipped into that. They have been squashed under a very autocratic, top*

*down system without much choice. Soon as they have some choice they just become that (T. Kunkler March 4 2016).*

It was like characters playing out a familiar script, only the actors would change. The well-developed distrust of authority leads to attempts to undercut and displace it. Lacking another story of how authority might be enacted, the actors expect authoritarian behavior. Lacking another script to draw on, leaders fall into the “stereotype threat” of the primed model of authority (Steele & Aronson 1998). As a result, they play out authoritarian- ness and its deposition over and over.

#### **MEMES: LEADERSHIP’S COIN**

This helps to set up two memes that are different sides of the same coin. The first is about the experience of leadership: there is the expectation that all leaders are dictators who are just in it for themselves. As a result, Asheville’s African American communities are antagonistic towards anything that seems like leadership. Leadership harms them. So, they want to control it, keep their leaders weak and with “no roots.” “Asheville likes leaders that it knows the weaknesses of, so it can pull out the rug on them whenever it wants” (R. Wright March 14 2016). This helps to explain the fragmentation observed within the community quite a bit, given their resistance others’ authority.

The second meme is about the experience of being a leader: that “people want to work but they don’t want a title” (S. Harper March 7 2016). A title means you are a leader. Visible leadership means you get blamed for things eventually. This is a culture that is caustic towards Individual Strategic Leadership. As one of the most prominent and obvious leaders in public housing said to me, “I do a lot, but just cause I wear a lot of hats doesn’t make me a leader” (S. Harper March 7 2016).

#### **SEA CHANGE: NEW LEADERSHIP IS SWEEPED IN**

The Residents' Council has gone through some important transformations in the past two years. This next section will narrate that transformation, and introduce some of the characters that are important to understanding transformation.

#### **STORY: WINDS OF CHANGE**

In 2014, there were many winds of change blowing through public housing in Asheville. One wind comes from the federal government and HUD, from a program called RAD. RAD stands for Rental Assistance Demonstration. RAD began with an acknowledgment that much of the nation’s public housing stock is old in need of significant



refurbishment or replacement. To provide some context, RAD was the policy step child of PETRA. Facing the highest ever reported level of worst-case housing needs, 8.5 million very low income renter households, and accumulated need for refurbishment of the public housing stock, HUD was in a bind (HUD 2013). To deal with this they introduced PETRA in February 2010. The goal of PETRA was to enable cash-strapped housing authorities to conduct much-needed refurbishment to the public housing stock. To do so, it turned flows of rental income into a financial asset that could be leveraged for private investment (Smith 2015). Housing authorities could sell these rental flows to private investors, in order to secure private funding. These private funding can then be used for renovations on the physical facilities. PETRA faced strong opposition from some members of the Democratic Party in Congress, public housing advocates, and stakeholder organizations (Smith 2015). As a result, the bill was never introduced.

In 2011, RAD was introduced. RAD is the same mechanism as PETRA with only a few differences. The total number of units affected could be no more than 60,000, any public housing authority could affect no more than 1000 units, and for any particular development only 50% of the units could be in a developed redeveloped project could receive RAD vouchers (Smith 2015). This last provision was to ensure mixed income makeup of a RAD development. Introduced quietly, RAD passed through Congress. While it is technically a demonstration program, it has become a kind of enabling legislation for local housing authorities (Smith 2015). In Asheville, it was perceived as license to restructure their entire project portfolio. David Nash, Chief Financial Officer for Asheville Public Housing Authority, embraced it as an opportunity to stabilize their struggling agency. "Very few housing authorities have actually closed RAD deals at this point," Nash said. "We may be the first in the nation to convert 100 percent of our inventory (Asheville Citizen Times July 7 2014).

While RAD is not a full-blown voucher program, this distinction is lost on most public housing residents and public housing advocates in Asheville (Observations October 5 2014). Asheville public housing had elected to convert the Lee Walker Heights development to RAD first. In the short run, many of the implications of RAD for public housing residents have been unclear, and so it has been a source of anxiety. In the medium-term the likely renovations and demolitions of existing housing projects will cause disruption and displacement, another

source of anxiety. In the long term, the nature of public housing within the city of Asheville is set to change based on decisions and actions taken in the preceding 18 months. This makes this an intense and potentially volatile time within the public housing community.

Another wind of change was blowing within the Residents' Council itself. After years of relative inactivity, conflict was stirring within the Residents' Council. With twelve years with the same set of leadership on the Residents' Council, it had gained a reputation for “backroom politics and a talk shop” (Informal conversation, Hillcrest Residents' Council Community Meeting, September 11, 2014). Newer members were interested in positioning the organization for greater impact, and were challenging the leadership on both its leadership style and focus. After a couple of contentious meetings, the president of the Residents' Council resigned. In the next meeting the acting vice president, in an attempt to provide stability, took on a tone of aggressive authoritarianism. This backfired, and amidst the active yelling conflict of that meeting she resigned. This set up an election for all of the major officers for the Residents' Council. This is the point at which the researcher enters the story, being an observer for this election meeting in October 2014. With fewer than 30 people in the room, this was a good turnout for a Residents' Council meeting. Each of the candidates for president had done their best to turn out their friends and supporters. There was an air of popularity contest to the event. In that election, Iindia Peterson was elected secretary, Sharonda Harper was elected vice president, and Sir Charles was elected president. Keith DeBlasio was not an elected member of the Residents' Council, but such a consistent presence that he bears mention here. Keith became their advisor in matters organizational and legal, was heavily involved in the day-to-day conversations in the first year. Ayanfe Carter was also not a member of the Residents' Council, but became a trainer in Dynamic Governance during this period. She was also heavily involved in the work of the Council, as it prepared to rollout trainings and Dynamic Governance into the various communities.

Amidst all of this, the City of Asheville, Social Profit Strategies and CAHA received a grant from Z Smith Reynolds to provide support to CAHA in exploring and implementing Dynamic Governance. Social Profit Strategies is a non-profit focused on providing consulting services to “action-oriented and community-minded leaders (Website, Referenced Nov 1, 2014).” This includes the promotion and dissemination of Dynamic Governance as a governance strategy. Dynamic Governance has been adopted elsewhere in Asheville, and

served as a point of inspiration for the potential role it could play in representation and governance within housing. The new leadership of the Residents' Council actively attended the Dynamic Governance stewardship team meetings, and had an apparent interest in implementing Dynamic Governance within the Residents' Council. With the grant from Z Smith Reynolds funding its work, one of the early goals of the organization became to adopt Dynamic Governance as a method of governance within the Residents' Council, and to roll out its usage to the resident associations within each of the public housing communities.

Over the course of 2015 in the 2016, the Residents' Council launched three projects involving residents. The first was a project to provide cleaning and trash removal services to the Housing Authority. The second was an after school program for at-risk teens. During this time, the Council continued to press the agenda of expanding Dynamic Governance, but without much success. We will return to all three of these projects in more detail in the next section.

#### STORY: SHUVONDA

Shuvonda, a resident of public housing, was already an established leader within her community before her involvement with Residents' Council. As she learned about Dynamic Governance, she became a strong proponent, advocating for its incorporation into the Residents' Council. She has since become a Dynamic Governance trainer, training staff within the city and others within the community. Those indicators that would be easy to look to first to determine preparation for leadership, Shuvonda does not have. She has very little education. She spent little time in leadership roles within a formal organization prior to being in the Residents' Council. To judge her on these groups misses the point: Shuvonda's leadership style is effective within the context in which she operates. Her effectiveness tells us some things about that context. First, she leads without authority. Tracy Kunkler, who worked with her as an advisor on Dynamic Governance, had gotten to witness her in a number of her roles within the community:

*T: Some of the qualities I see: one is that she leads by example. She walks her talk. The issues that are important to her she does something about. So, getting food into her communities. She works with Mana [a food security organization] and runs the popups and her community. She is concerned about the kids, so she starts an after-school program for kids. She creates programs. She does leadership by example. She's a really effective*

*communicator and influencer, so she gets people bought into those ideas and programs. People are loyal to her, and she's got a lot of integrity (T. Kunkler Oct 25 2015).*

All the projects she has started she has done without having some official job title that is providing the authority to do so. In an authority – allergic environment, her leadership is able to garner support and resources.

Second, Shuvonda has compassion, and chooses to act on those feelings. There are a number of children in the Hillcrest community who face challenging circumstances at home. Their parents may work long hours. Their parents may have drug addictions or other entanglements. Sometimes their parents are simply unable to pay for dinner pay to provide dinner. The children of these households range in age from as young as aids to as old as 18. Some of them finds can find themselves locked out of their homes. Others are just in search of safety, a meal to eat, or just warmth in connection. There are small group of women, all grandmother types, who take care of these children. Shuvonda is one of them. She is not, to my knowledge, biologically related to any of the kids. But, she will often take them in, provide them dinner. These women are the real social safety net within public housing. Their presence is easy to miss, and none would say that there role provides all for these children that they truly need (T Kunkler Oct 25 2015). Shuvonda's role as one of these parents is telling. Later in this chapter, a board member for Rainbow communities this school describes the difference between being a parents and a Parent. A parent is one who is concerned for their own children. A Parent is concerned for all children. Shuvonda is clearly a Parent, and one where her compassion implores her to act. Her choices and leadership clearly contradicts the out-to-get mine meme.

Third, she focuses on “relationships above ideology” (T. Kunkler Oct 25 2015). Shuvonda believes letting go of conflicts and moving on as a central principle. In two or three different ways, she expressed “people don't know how to let go. We move forward when we move forward together. If we can't let go then we can't move forward.” To combat this, Shuvonda is willing to play an active role.

*I have watched her take ownership. I have watched her smooth things out she's interpersonally. She's a mediator. She'll take on blame. She'll be like, 'you can just blame me!' She'll take ownership over something in order to move the group forward. She maintains relationships above ideology above right and*

*wrong. That's one of the things is why people respect her. She attends to relationships first (T. Kunkler Oct 25 2015).*

Shuvonda's proactiveness, her willingness to place relationship over opinion and ideology, and her willingness to take ownership, in combination with her communicative and emotional intelligence, makes her an extremely trustworthy character in a trust – thin environment.

### STORY: SIR CHARLES

Sir Charles is a short man, muscular. He generally is soft-spoken, though has a quick temper. During my observations, he was consistently the questioning skeptic – interrogating people and ideas for soundness, inconsistencies. He is known within the broader community for starting a set of local gardens.

*[Sir Charles] wants to empower people in this community. He really believes in that. I think he gets accused of being in it just for himself. I think he does look out for himself. That is true but that's not the whole story. I think he really wants to see transformation. He wants to be lifting people up he wants to be creating those things (T. Kunkler March 4 2016).*

Sir Charles perceived two problems, and came up with one solution to address them. He was concerned about the health and eating habits of his community. He was also concerned about the dangerous tendency of bored and under-engaged young men to get themselves into trouble with the law. He combined both into an urban farming program. Sir Charles works with teenagers and youth within the public housing community to cultivate a range of vegetables, which are sold at the local farmers markets.

Sir Charles was variously described by individuals that work with him as driven, strong, headstrong, stubborn, and a bully. One view on Sir Charles' style that was representative:

*I think Sir Charles has a little bit more of that traditional style of leadership where the leader takes risks. He has the best plan. It's a more military style of leadership. Yeah, much more. He's very suspicious of anybody on the outside (T. Kunkler March 4 2016).*

The interactions with the researcher fit this pattern. The other members of the Residents' Council were supportive, even excited, about the prospect of doing the storytelling for resilience project within public housing. Sir Charles was deeply skeptical. He remarked

that reporters from the outside came in and told stories within newspaper that Sir Charles perceived as unfair and damaging. The researcher's repeated requests to observe the day-to-day operations of the Residents' Council, or to contribute in different ways to its operations were consistently ignored. From his point of view, there was quite a bit that could be lost through partnering with the researcher, and very little to be gained.

*He's much more suspicious of things coming to him. He's much better in a context where he has an idea and he can strive to make that happen, than he is empowering other people's programs and ideas. He has to be bought in completely and own something before he's going to allow it to happen. That makes sense as a different kind of leadership? If it's not his idea, he'll end up being suspicious and caustic towards it. I think that'll end up being really problematic for him. It's a world view that makes him uninterested in collaboration, the goal would be that the Residents' Council—all the money is coming to the Residents' Council, only residents are involved in its projects. They don't have to deal with any outsiders at all (T. Kunkler March 4 2016).*

It is difficult to know for certain, but seems likely that this skepticism was the reason why the storytelling for resilience project never found traction within the Residents' Council.

Part of his leadership presence has to do with his relationship with drug use:

*Sir Charles is very emotional. And when he's blazed, which is frequently, he can't focus for any period of time. He loses a lot of what's going on. When he comes back he's upset because he can't grasp what's going on because he didn't hear it. He derails what's going on then, or goes off (G. Bell march 23 2016).*

This is not merely an individual trait. It is important to remember that part of the context in which Sir Charles is operating is a broader community that at best ignores, and at worst is actively antagonistic towards him and his community's efforts. Drug use is an adaptive coping mechanism to highly disturbing, agitating environments. Leaders that emerge in these environments are ones who have done the best to make change happen despite challenge and adversity. In a sense, Sir Charles' coping strategies are successful adaptations. Sir Charles leadership style emerged in one set of conditions, with one set of goals.

He now finds himself leading within an entirely different set of conditions, with a different set of goals. Many of the adaptations that made him an effective leader within conditions where he started are now a hindrance in the environment into which he is moving. The frictions of his style when applied to his environment become apparent when looking at

the relationships within the ecosystem of organizations around public housing. The Residents' Council's relationship with the housing authority is complex. The housing authority director, Gene, acted as a mentor and supporter to the Council. The Housing Authority offered free rent for an office, within the Grant Center, a facility owned and operated by the Asheville Housing Authority. The meme that everything is rigged shows up in this relationship. Regardless of the behavior of the Housing Authority towards the Residents' Council, there is always guardedness and occasionally outright antagonism between the residence Council leadership and Housing Authority staff. Such consistent incidents led Housing Authority staff to describe Residents' Council member as lacking personal and organizational maturity. There is a consistent "experience gap," where Residents' Council members lacked the cultural literacy to know how to appropriately engage with others in a professional relationship (S. Bower September 22 2015; G. Bell March 23 2016).

The most vivid example of this came from Sir Charles' response to an Urban Agriculture Alliance meeting. The member organizations of the Urban Agriculture Alliance realized that they had overlapping contact with the membership in public housing. In short, they were an ecosystem of organizations that all dealt with different aspects of the relationship between marginalized populations and food. They hadn't had a collective conversation about how to integrate and negotiate their overlapping engagement. To talk this through, they met at the Grant Center. The intention was to come to a collective understanding, so that they could then work engage with the Residents' Council and other organizations within the public housing ecosystem with greater clarity. Sir Charles is involved in urban agriculture in Asheville. The Residents' Council offices are across the hall from the meeting room at the Grant center. He perceived this as a direct snub.

*[Samantha pulls out a 8.5x11 sheet of paper that says Fuck All Ya'll in large letters.]*

*S: So, that was a sign that Sir Charles had printed and put up on the door of the meeting room where the urban agriculture alliance with meeting. Because he felt left out... There is a lot going on there. Gene and I talk a lot about this gap of experience about residence in public housing. The lack of experience sometimes comes from lack of education, but not always. The experience of how to navigate relationships with different organizations, or people. It's not appropriate to put hate mail up on a door. It's okay to feel angry. But for you to then to act out in such a state of rage that you type up*

*for call y'all in on your company's letterhead, walk across the hall with tape and put it on the door and leave it. That's a whole another level of ridiculousness. That's the gap of experience we talk about. To be able to recognize your anger, and figure out an appropriate means to communicate it. The kind of behavior does not provide for collaborative outcomes (S. Bower September 22 2015).*

It would be easy to demonize Sir Charles, turned him into an antagonistic villain in the few stories that are told here. He has been working to provide order within a constantly chaotic environment. That a forceful style of leadership would become his style makes sense given the nature of the challenges that he is faced. His leadership approach is one adaptive response to the conditions that he has confronted. Shuvonda's is another.

Shuvonda and Sir Charles stand as different expressions of leadership from the environment of public housing. Both demonstrate a rejection of many of the core operating memes to their environment. Perhaps the key contrast is this: a different understanding of what it means to be to offer leadership. Sir Charles is attached to the idea of authority. Roles and titles matter. Shuvonda has no use for roles and titles, and doesn't even see herself as a leader. Through their work together at the Residents' ' Council, the two came to trust each other more deeply. They came to rely and counterbalance each other. Sir Charles acquired softer edges. Shuvonda gained confidence in her capacity, and key skills of management. The question is whether the styles of leadership for both will continue to adapt, enabling navigation new and evolving challenges.

### **THE SLOG: NEW LEADERSHIP CONFRONTS THE DIFFICULTY OF CULTURE CHANGE**

The new guard of officers joined the Residents' Council with the vision of transforming it as an organization, and using it as a vehicle to empower residents. The reality has been far more messy. The next section will share some vignettes from the past two years. These are intended to provide perspectives on the Residents' Council and its actions. These vignettes, told from the perspective of different observers, are at times at odds with each other.

### **ALTERNATIVE PERSPECTIVES: THE RESIDENTS' COUNCIL FROM THE OUTSIDE**

After becoming elected, the Residents' Council small core team of officers has worked together closely. Within a few weeks of starting, they had set up and started using an office space within the Grant Center. The Grant Center houses an ecosystem of nonprofits that focus on supportive services for low wealth communities. By 2015, the Executive team to the



Residents' Council had initiated a plan to start a cleanup business. Sir Charles spearheaded this effort, desiring to start a business that would empower residents through providing income and workforce training. As residents move out of units, there's often a lot of work to collect waste and debris and cart it to the landfill. In the initial Residents' Council charter, they were charged with responsibility for the upkeep and maintenance of public housing structures. They leveraged this, and worked with a receptive housing authority to develop a contract for cleaning. In order to set up a cleaning business, they needed the truck, to hire staff, to set up an accounting system, and clarify their banking set up. The Housing Authority sold them a truck, it hired public housing residents to do the cleanup work, and developed a relationship with the landfill for dumping of waste.

At the same time, it was exploring how to roll out Dynamic Governance training to each of the housing associations. Shuvonda and Ayanfe had become Dynamic Governance trainers. Their goal was to expand the representation of Residents' Council through the election of two officers from each of the associations to the Residents' Council. This broader Residents' Council would have greater ability to communicate ongoing concerns of residents and develop plans to respond. To conduct these elections, the Executive staff met with each of the associations over the course of the summer. Generally at each meeting, turnout was relatively low though a core group of committed individuals would show up. Discouraged by this, and unwilling to appoint unelected members to the Residents' Council, they abandoned their idea of expanding the Council and rolling out the trainings of Dynamic Governance.

Instead, they decided to focus on one neighborhood with strong representation: Hillcrest.

*The community they chose to work with first is Keith's Community, Hillcrest. The problem was there's so much tension and Hillcrest so much divisiveness. I think we were naive in thinking that would be a good place to work. they have a lot of leadership, actually. They had some really powerful charismatic really smart people. Eytiofia and Keith are like mortal enemies. It was too much camps and antagonism. That didn't work out. The other place we are trying to organize with the South side, which was relying on Shuvonda who was over-extended (T. Kunkler march 4 2016).*

As a result, the training occurred but Dynamic Governance was not adopted at Hillcrest. To date, it has not been adopted elsewhere within public housing, aside from within the Residents' Council Executive Committee.

There are several possible explanations for this. One is its association with the city, white outsiders, and the nonprofit community. Anything that came in from the outside was “white people telling us what to do” (T. Kunkler March 4 2016). A second explanation is how Dynamic Governance disrupts existing mediums and patterns of authority. Through its focus on process and consensual decision-making Dynamic Governance challenges traditional authority and decision-making patterns. The third explanation is tactical: the Executive team did a clumsy job of rolling out Dynamic Governance. Had it approached the associations in ways that were mindful of their existing needs, and worked to meet those needs, it may very well have been readily adopted.

In the spring of 2015, the Executive Committee began brainstorming another project. It eventually settled on a youth empowerment program, designed to provide leadership and entrepreneurial training to at risk teenagers. By summer of 2015, the program was up and running, with roughly 20 participants. It had volunteer experts and connections established with other organizations providing logistical support, and expertise.

As a result of working on each of these three ventures so closely—and to a lesser degree, the use of Dynamic Governance as a practice— this small crew had become a team. Its members would talk out decisions collectively. They would use circling (talking in rounds) to discuss contentious issues. They would use consent as a principle for action. Tracy from Social Profit Strategies explained where they had arrived this way:

*So they had that experience in launching this youth program. They've gotten a lot of attention from other organizations as well. They are beginning to have their presence is requested at a lot of different tables right now. Nonprofits are coming to them and want their input. They've done some collaborative planning. They've been talking about a food sovereignty Grant with five organizations, where each organization gets \$5,000; the Residents' Council is one of those organizations. So they are seen as an entity that others can collaborate with. You're getting credibility. Even the Housing Authority asked us at one point to do a Dynamic Governance training. Actually, they wanted customer service training. But, the Residents Councils using that we want to use that too. That's something else that they've been*

*responding to. The Residents' Council is using this method, we want to use it to. That's another side of this. I want to emphasize that there has been growth and progress by the Residents' Council. I want to make sure that they honor and recognize that (T. Kunkler March 4 2016).*

Others talked with respect about their aims and approach. One staff member of Green Opportunities, a fellow tenant organization in the Grant Center, thought of them as “radical and resilient.” They had dared to have vision, a vision to keep the community together in social and environmental health, and hope within a desperate situation. They had sought help from “adversaries”, like the housing authority and building managers. They had shown a vulnerability with persons of authority. They had gone through the pain of getting to know and work with each another. Their programs were showing signs of success; their youth program was helping to awaken to responsibility in new ways. (S. Smith Nov 20 2015).

#### **STORY: Z SMITH DYNODES GRANT PROCESS FAIL**

One particular story seems particularly instructive about the relationship between emotions, Dynamic Governance, and a learning process of the Residents' Council team. Z Smith Reynolds had a \$70,000 grant available, for focus on trainings and capacity building within public housing. At the prodding of the Dynamic Governance team, the Executive Committee decided to apply for the grant. Tracy tells the remainder of the story:

*They had three weeks to pull it together. Ayanfe wrote the entirety of the proposal. It's important to say what it leap forward this was from a year prior to have the Resident's Council applying independently for a grant of that size. The process of writing they'd gotten a bit behind. It got down to the last day. They are in the office, uploading materials and going over the budget. While going over the budget, Sir Charles starts to ask questions about what they're proposing. He had lots of concerns, fears, misunderstandings. That last day they had spent a lot of their time the last day talking not working, and it delayed things enough that they didn't submit the grant. It was some kind of freak out. Sir Charles started to come around, but not until it was too late for them to actually submit the grant.*

*As Robin pointed out later, they weren't doing something in a structured transparent way, and there wasn't a formal decision made to do it [apply for the grant by the consent of the Executive Committee]. That was where Sir Charles was coming from in part. The learning was that we need more structure. Ayanfe's response was that you don't actually trust us, that you didn't understand and could not let go.*

For some time afterwards, this event created significant animosity amongst the team. They could not let it go and move on with their work (S. Harper). The team had processes for consensual decision-making, and dealing with conflict, but they did not use them. The team also reached a juncture where most of the team understood and trusted the direction that they were heading, while the one in a position of formal authority did not. He didn't trust the rest of his team enough to let go of control and allow them to move on. The story highlights the relationships among discipline, emotion, and process. As Gene Bell, the director of HACA put it:

*Dynamic Governance is the right aim in that it's structured around process. But, it hasn't dealt with or come up with a process way to deal with the emotional side of the group that they're working with. Without dealing with that, it's going to be rejected. If you can come up with some way to deal with that effectively, it might be adopted and be a process that helps them (G. Bell March 23 2015).*

#### **RECAP: A NARRATIVE OF THE RESIDENTS' COUNCIL IN STORY AND MEME**

To recap, this section has provided context to the Residents' Council of public housing in Asheville. It has done this through offering a narrative composed of story vignettes and memes. This was broken up into four sections. The first section examined the context to the founding of the Residents' Council, and touched on the three drivers of disenfranchisement for African-American communities: job discrimination, redlining, and urban renewal. This produced two strong memes that have carried forward through history: structural racism, and the sense that things used to be better. The next section examined the current context and operating conditions of the Residents' Council. The section offered a series of stories from the perspective of residents and others within public housing as an urban system. Out of this there are a series of memes, each of them a thread that composes the fabric of a typical worldview (though not the only one) held by those within public housing. The third section narrated the sea change in leadership as the new members of the Residents' Council took office. It also provided varying perspectives on two of its leaders: Shuvonda and Sir Charles. This last section narrated the slog, as they navigated the challenges to becoming a more effective and mature organization.

The next section turns to Rainbow Community School. This next section will offer a narrative of its history, and an exploration of some of its emergent qualities as told through interview and story.

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### 3) FROM SUFIS TO XQ: RAINBOW'S LEADERSHIP HISTORY

#### FOUNDING—1977—SUFIS LAY A PLAY FOR AN ELEMENTARY SCHOOL

It was 1977. A small group of Sufis were living in Asheville, North Carolina. In this group was Aostre, Anne Craig, and Ashrita Laird. Each had young children, all about to enter the age for preschool. When they looked around at Asheville, they saw traditional schools. No schools were oriented towards “early childhood education.” There was no actual pre-school, which “was a new thing for Asheville at the time” (J. Johnson Jan 20 2010). So, they developed an idea to start their own. At a friend’s house on Westover Drive in a little cul-de-sac in the neighborhood of Montford, about 25 potential parents gathered for a meeting. There was support for the idea. So, with 25-30 kids pre-enrolled they rented the Sunday school space in All Souls Episcopal Church in the Biltmore neighborhood of Asheville. They called it the Rainbow Mountain School. From Rainbow’s website:

*In the autumn of 1977, our first director, Dr. Aostre Johnson, graduate of the Harvard Graduate School of Education, and two other women with higher degrees in education: Ashrita Laird and Anne Craig, started Rainbow as a school that offered a truly child-centered education. Not only were these women brilliant and innovative, but they were also deeply spiritual sufis, believing in universal peace and acceptance of all spiritual traditions. Their motto was 'excellence in educating the young child.' (Rainbow Website, Accessed June 05 2016)*

At the time of Rainbows founding, Aostre articulated the five domains model for education. The five domains are:

1. Mental development of the skills and knowledge that are useful to the student as a lifelong learner
2. Emotional development to assist the child in understanding and communicating in the world of feelings
3. Moral/social development supporting ecological thinking about the connections between all creation
4. Physical development and the care and respect of the physical body

5. Spiritual development supporting the child's recognition and communication of his or her own truth. (Rainbow Website, June 26 2016)

Their model drew on Sufi practices as well, as the three founders were all followers of Sufism. The strand of Sufism they were connected to was from Hazrat Inayat Khan. Inayat was born in India into a family of musicians in 1882. An accomplished musician by his teens, he toured India and playing for the rajas and elite. During his travels, he encountered the man who would become his teacher and guru, Mohammed Abu Hasana. Mohammed was a member of the Chishti Sufi Order, which had a presence in India since the 1100's. Inayat studied with him for a number of years, then left to tour the West as a musician. Inayat became the first and arguably most important emissary of Sufism into the west.

Seeking to articulate the teachings of his guru in ways that were accessible to westerners, One of Inayat's mottos was to work in the service of "awakening of humanity to the divinity of humankind." Inayat's Sufism was not oriented towards Islam. Rather, he saw a role for all religions within the awakening of humanity to the divinity of humankind. His son Vilayet articulated his philosophy:

*You, the Ultimate Reality, are All in All.  
Atheism confesses the ineffability of Your Essence.  
Polytheism personifies Your manifold Attributes.  
Monotheism witnesses the unity of Your Being.  
In every God-Ideal an emanation of You shines forth.  
The heart receives of You as much as it can contain.  
When the heart is supple it is capable of every form.  
Then Your manifestations surpass the limitations of belief.  
— Pir Vilayet Inayat-Khan*

This non-Islamic Sufism can be seen primarily as exemplified within three organizations in the West: the Omega Institute, Dances of Universal Peace, and the Inayati Order. Inayat's son Vilayet was a co-founder of the Omega Institute. At the time of the

As a side note, Aostre Johnson and Howard Gardner were contemporaries at Harvard School of Education. Before going to Harvard, Aostre founded Rainbow Community School on the five domains model. After his time at Harvard, Gardner articulated the multiple intelligences model, which had five core elements. The Rainbow model predates Gardner's multiple intelligences and the two may have influenced each others' thinking (R. Owen June 26 2016). In a sense, Rainbow may be the first multiple intelligences – oriented school.

founding of Rainbow, John Johnson, Aostre's husband, was a leader within the Sufi Order International (now named the Inayati Order).

Rainbow incorporated a number of aspects of Sufi practice into its educational model. Meditation as an individual and collective practice, for example, became centering, which remains a core practice at Rainbow to this day.

A moment is needed to explain centering. As it is used at rainbow, centering is an opportunity for silent meditation. That a practice like centering would be used at a secular school is a fairly recent phenomenon. In fact, contemplative practice being used by laypersons or not monks or others in a dedicated spiritual discipline is a recent phenomenon.

With the notable exception of the transcendentalists in the 1800s, it wasn't until spiritual teachers from the East began to influence the West in the 1960s that this became a more widespread practice. The contemplative movement emerged from this eastern cross-pollination. Today, roughly 30% of adult Americans would describe themselves as having some sort of contemplative spiritual practice (Callahan 2013). Contemplative practice defined broadly includes any practices that quiet the mind, and bring body mind and heart into alignment. Such practices include meditation, yoga, prayer, contemplative arts and movement (Website, Fetzer Institute, Access June 26 2016).

To return to Rainbow, Rainbow's adoption of centering was an early expression of this contemplative movement. At this point, while finding a school with a 40 year tradition of them is unusual, such practices as centering are hardly unusual, being found in a wide range of schools which lack Sufi roots.

Rainbow's model and culture has acted as an attractor. While at All Souls, the school had a contract with the church to support five kids who were high order artistic or in some way special ed. "One of those things that made Rainbow Mountain such unique place was we are always trying to figure out how to help"(J. Johnson Jan 20 2010). The staff began asking questions of "What is intelligence? Who is intelligent? In what ways are they intelligent" (J. Johnson Jan 20 2010)? From their discussions, they began integrating special needs kids with the regular classroom. "In the second or third year of the elementary school, 40% of the students had some kind of diagnosis (P. Holman Jan 20 2010)." This approach, the expertise and time it requires of teachers, the emotional intelligence required of students, and the

conflict and opportunity for growth that it provides a community became a part of the foundation of Rainbow's educational model.

In the next nine years, the school moved through a number of locations. When the only holistic education school in the Asheville public school system was closed, many of the parents came to Rainbow and asked if they would start kindergarten. As a counterpoint to this growth, was suspicion of this different culture, the nature of the school it was creating. "They had created a Sufi school on the down low in the basement of an Episcopal Church (R. Owen March 28 2016)."

*"This was a Sufi school, it wasn't advertised as a Sufi school, but it was the Sufi community that put it on and all the teachers up to that point including the director were Sufis and we were in this Episcopal Church. There was movement going on to get us out of the Episcopal Church (J. Johnson Jan 20 2010)."*

With this twin of push and pull pressure, the school moved to Trinity Episcopal on College Street. Soon, the growth of the school meant that it needed a new space. It next moved to the Allen Center on Tunnel Road. By 1986 the school had 80 children, and it moved into its current home on Haywood Road in West Asheville. At the time, many of the parents whose children went to Rainbow were professionals, and West Asheville was considered "slums." Asheville was a community with many blighted neighborhoods, and West Asheville was one of the most obviously distressed. There was resistance to the move, but the idea of a more permanent home won out. The school now spanned from pre-k to 6 grade. The school is there to this day.

"You have to understand that one of the missions of the school has always been to advance education and the society around us, to be a leader" (J. Johnson Jan 20 2010). This preschool put on the first alternative education conference in Western North Carolina in 1979. It was called Holistic Perspectives on Education and Health, and brought in speakers from the nation and had several hundred attendees. At its founding, the school thought of education in terms of the "five domains." With a strong emphasis on "mythology and creative imagination," the intent and philosophy was distinctly different from most school at the time. John Johnson, one of the founders, explained it this way:

*The school emphasized not getting kids to be too cognitive too fast, we were not really concerned about them learning their ABCs or their numbers, because*



*we knew that they'd be doing that for the rest of their life, and that there is this precious moment in their life, which still they had access to this other part of their brain, it was magical and creative, which remembered things through music and rhythm instead of abstract thinking, I met with our emphasis. Just give these kids a break, give them their five years give them their babyhood, and don't worry if this is going to retard them academically. Because, we believe this is going to create the most solid foundation for their future. This was our belief, it wasn't proven theory. But it was what we wanted for our kids whether anyone believed it or not (Johnson Jan 20 2010).*

Of the three founders, each has continued to be leaders in education. One has founded a series of alternative schools in Asheville. Another became the dean of education at a college in Vermont.... From 1977 to 1986, a Sufi school with a radical approach to early childhood education had become *established* in Asheville.

#### **COASTING—1986—RAINBOW COMMUNITY SCHOOL CONDENSES AS A COUNTER-CULTURAL HIPPIE SCHOOL**

Ashrita spent 2 years as director in the new space. From 1977 to 1988, each of the founders had taken a turn as director. Ashrita, the last to take a turn, was burned out by 1988 (J. Johnson Jan 20 2010). From 1988 to 1991, the school produced and absorbed one disruption after another. The order of these was hard to tease out. The story is told from those who have maintained some connection to the school, and so may tend towards two-dimensional. On the surface, some were trials of leadership. Others were trials of health or personality. All contributed to a crisis of finances.

Ashrita shifted into Director of Curriculum, and directorship shifted to a man named John Shisner, who “you know on paper he was dean of the college, dean of students PhD in education, but really it was the beginning of the end.” His skill as a manager kept this small school in the black, but “all the teachers hated him.” After a couple of years, a few key teachers left including Ashrita.

Around the same time, a new superintendent came into the Asheville city school system who was more supportive of holistic schools. Francine Delaney became the first principle of an alternative school within the public school system (which later took her name). Many parents at Rainbow and parents in the community said that they wanted a Rainbow model school. Francine Delaney asked Rainbow for support in developing the school, and they agreed. When Francine Delaney opened, many of Rainbow's students left the private

school for the public school. At that point numbers dropped significantly, to where the elementary had only around 10 students.

After a year, the numbers recovered, in large part due to loyalty to a teacher by the name of Gwen Dean. Gwen Dean “is the kind of teacher the old elementary school was based on. Sort of a cult of personality with the teacher. Everyone loved Gwen, and she was a great teacher” (J. Johnson Jan 20 2010). Then in the middle of the following summer with full enrollment numbers for the fall, Gwen took a job at Warren Wilson College. When she did the elementary program collapsed.

At this point, none of the founders had any direct involvement with the school. Sufis no longer ran the school, nor were its teachers. A gentleman by the name of Jay is asked to step in as director. After a few months it’s clear that his real calling is in the classroom, and he returns to being an elementary school teacher. Without the knowledge of the school, he had AIDS. Partway through the school year he died, leaving his class to be absorbed into Mary Virginia Bunker’s class.

class. Her recollection of the period:

*I inherited them all, so I had kindergarten through grade 4, and then the third and fourth grade families went, “you know what, there’s this huge span,” because I was also a prekindergarten teacher that year. The teachers said you know what that’s way too much. It was just too much to accommodate in one year, so they started going off and I lost third and fourth graders (V. Bunker Jan 10 2010).*

“This was very painful, it was difficult for the children, very difficult for the parents, and for the whole school (J. Johnson).” John Johnson, one of the original founders, who had been heavily involved in the schools, had thoroughly checked out by this point.

*In 1990 I’d finally gotten really tired of Rainbow Mountain. I’d resigned from the board, I dropped off my daughter and picked up my daughter was a parent just like anybody else. I just checked out. I was probably unfortunate because Ashrita checked out, and Aostra checked out, and so there was a vacuum. So what happened was the board of the time appointed a guy named Ian Stephenson to be the managing director (J. Johnson Jan 10 2010).*

#### **CRISIS—1991—JOHN JOHNSON TAKES OVER**

John tells the story of when this finally broke as a crisis.

*My wife came home one day and said “I think there’s some problem with the school that I think you should check in on.” And I said “well, what kind of*

problem?" She said, "I don't know I just think there's some kind of problem you should check in on." I called Ian and said, "Angela thinks that perhaps there is a problem at the school. Do we have a problem?" He said "well, we don't have any money." This was in late April. I said "you don't have any money? Well, I know this isn't a good business practice, but maybe you should take some of the deposits." Because, we would have applications starting in February, and then people make deposits. So he says "what deposits?" And I started thinking and realized I myself have not received an application. So I said to him "so you don't have any applications?" And he said "no, we don't have any applications" and I said, "this is the end of April and you don't have any applications for the fall?" And he said "that's right." I said "well, what do you have? And he said "well, we have 13 kids for the summer." I think there were three teachers at the time left in the school so I said, "well how about the teacher salaries?" And he said "well, actually we don't have any money for that either." So I said "how long is this been going on?" I think it been going on for months, maybe two somewhere between two or three months salary was due. He said "and besides that, we're on a provisional license" provisional license in terms of the preschool, because we had met all the requirements. I said "what's the major requirement?" He said the furnace. And I said, "what's wrong with the furnace?" He said somebody taken half of one furnace and half of another furnace and welded them together to make one furnace. For some reason, all those years the fire marshal didn't see it. But this year he saw that it was two furnaces welded together and he said "well, that doesn't meet code." So I said "so, how much money are we talking about?" He said "about \$10,000." I said "well, is there anything more?" And he said "well, yes there is. We owe \$10-12,000 to the IRS for withholding taxes, because we've been using that to pay our salaries and stuff." So I called the chairman of the board and I said I think you need to have an emergency board meeting tomorrow. He said "why?" I said, "well how's the school going?" And he says, "great!" I said, "I think you need to call an emergency meeting, and if you're not gonna call it I'll call it because if you wait there won't be a school." I explained all the things that I'd heard and he said "okay, I guess we do need to have one." So we decided to have a board meeting. Meanwhile, Ian decided to go to California for vacation after he got off the phone with me and never returned. So we have the director and his teacher wife leave instantly so this is when we had the board meeting (Johnson Jan 20 2010).

As the story that is told by the “old guard” goes, the board members convened. John and the chair explained the situation, and they discussed closing the school. The board unanimously wanted to keep the school open, but were clear that this would involve financially making it work. They settled on a specific amount of money they needed to raise in order to keep the school open. Then, they locked the door and started passing a hat around the circle. Everyone was expected to make a contribution to the hat. Every time the hat made a full pass around they counted up the amount of money that had been pledged. It took three passes to arrive at what was needed. John agreed to be director until he had raised enough money to pay his own salary. Rainbow Mountain School was kept open.

#### **EXPANSION 1991-1997**

The school again entered a period of financial solvency and growth. “I will say, thanks to John’s inspired leadership, in just three years the programs were created where there was financial demand (Peggy Holman Jan 20 2010).” Their early childhood education program expanded to include two and three-year-olds. There was demand in the community for an after school program which could serve many of the community alternative schools that were emerging in Asheville. This was done on a “more like a corporate model, with sort of, you know, you generate a program that can pay for itself and then you have a job (P. Holman).” Connected with Asheville city busing, the school expanded to the point that they had 35 children packed into a small little room. This increased the flow of students into their elementary school program. It became clear that there was also a market for a 6th to 8th grade program. Rainbow hosted an event at pack Memorial Library for a large audience where they pitched it as built on a Rainbow foundation, including a range of new pedagogical practices.

As John tells the story, he brought in ideas from a leading school in Vermont called the Alpha program. They’d already introduced the Multiple Intelligence framework in pre-K, but expanded it to the entire school through training their teachers. A school in California was using Mysteries Counseling which became incorporated into the program. Portfolio assessment became a part of how the school operated. There was a strong response from the community, and so the Omega program was born.

There has always been a trade-off between diversity and money, money and mission, and to a lesser extent between trauma and money. “Over the years we’ve had diversity committees, formal committees to figure out how to get more diversified (J. Johnson Jan 20

2010).” John would work with these committees to determine how many students they could take at what level of scholarship. Then, he would come to the teachers and negotiate with them about how many students with various challenges they were willing to take on. During the period of growth, things remained financially tight. “There would be some months where I’d have to go cap in hand and find \$15,000. It was uncomfortable (J Johnson Jan 20 2010).” By the end of his time as director in 1997, the school was seemingly financially stable again and had solidified as a school for early education through elementary.

### COASTING 1997-2006

The next nine years are somewhat of a mystery. “The school had been declining for one reason or another. I’m not sure on all of the reasons (R. Owen).” The only clear stories told about the period now are how occasionally middle school students would occupy the building, shutting down class and requiring the administration and parents to end a standoff (J. Johnson). Jan Stanhope, a teacher, was made director from 1997-2003. In 2003 she was fired somewhat suddenly by the board, without an improvement plan or conversations about why. A source who know board members from that period sited interpersonal skills as the driver, saying she was aligned with Rainbow’s philosophy (J. Hatcher March 23 2016). John Shackleton, the then curriculum director, was hired as the director. Of the various parties still connected to the school, few had much to say about this period. The basic educational model of Rainbow hasn’t changed. The general demographic hadn’t changed. The school acquired the butterfly house, a small structure adjacent to the existing property, making a small addition to their footprint.

Those interviewed did have quite a lot to say about where Rainbow arrived by the end of this period.

*“This was BR – before Renee. And I can tell you the school was a mess. It was this collection of sometimes very good and sometimes very bad teachers. They all did their own thing. There is no continuity in the curriculum. Was no coherence. There is no real even sense of direction (C. Konjin).”*

“2003 to 2007 was when it really started declining. We had someone on the board who has around from [19]97 to 2003, and I have had people tell me that they left during that period because they sense that things were changing (R. Owen).” The buildings were unrenovated, dark, and often dirty.

*[In visiting] one of the things I learned is how passionate people are about the school. That was bleeding over into toxicity. And hurt feelings. I remember an assistant teacher in the preschool who is a wonderful person but it seemed like the worst in people was coming out in people (R. Owen).*

The environment amongst the teachers has become dogmatic, catty, and caustic. Personality conflicts had become a serious part of the teaching experience at Rainbow. To use the derogatory epithets, divisions emerged between believers of the classic “hands-off, magical growth” model and the “stuffing knowledge down their face” model. Cabals of parents gossip on the landing about students and the performance of teachers without voicing their concerns to teachers or administration (J. Hatcher March 14 2016). The administration during this period:

*had this aura of “protecting the magic.” There is this wizard mentality. We have to protect the old rituals and the old ways. They're so important to protect. But what happens is that during the three years that John Shackleton was director, the school was having hard times. Some charter schools had started up, their started to be real competition. But its attitude was still what it was. This is what we do, take it or leave it. That seemed to be the philosophy of the administration anyway. They were leaving in droves after third grade especially (R. Owen March 28 2016).*

It is during this period that Rainbow gained its strong cultural associations and labeling from the outside as a hippie school, where the school was a mess, teachers were all over the place, and students were not learning.

By 2005, the school began to struggle financially. John Shackleton had come in as the interim director in 2003, as an act of service. This dragged on for three years. During that time the school:

*was lacking funding, and was very much in the red. It was not run right. John Shackleton was running it. He had other skills... but he didn't know how to run a school on a budget. The teachers were paid crap, they had no benefits. They basically worked for love-the love of their school and what they were doing (J. Hatcher March 14 2016).*

In 2005, some rotation on the board put “a remarkable group of strong women” in charge (C. Konjin March 23 2016). All of them are successful professionals in their own right, they felt a tension between Rainbows’ current culture and the Spirit of Rainbow. They drew up a set of mission documents, and chose to find a new director (C. Konjin March 23 2016).

They chose to advertise for the position nationally and received quite a number of applicants. One of them was John Johnson, the former director and founder. Another one was Renee Owen.

#### **HIRING RENEE: BOARD LEADERSHIP SETS A NEW PATH & SCHOOL FOLLOWS**

Renee had decided that she need to leave the rural town of Paradox Valley in Colorado, and the charter school that she had founded there. She was looking at private schools, and had interviews. A week after the application deadline, she saw the ad for Rainbow Mountain School. The job description read:

*the same as all the others that you've read. Comes with all the usual duties. It was so refreshing! And I got on the website, and... I could not believe what I was seeing. I got this really intense sense of destiny. In fact, I looked at Scott [her husband] and said this is my destiny's to go work at the school. I was flooded with that. It was so intense. It didn't pay very well, I had other positions lined up they would pay quite well. I was a finalist for these I had interviews. I just knew that this was what I needed to do, are was called to do (R. Owen March 28 2016).*

When she contacted her, she came into town for three intensive days. This involved:

*"A tour of the town and school. I had to do a centering. I had to teach an academic class. I chose to do art. I had lunch with all of the teachers so they could do a Q&A. I met with the fundraising Committee which was called Rainbow foundation. There is an evening parent panel where parents showed up and asked me questions and I got to speak a little bit. It wasn't in the schedule for me to observe classes, but I asked for them to fit that in...and then a half day interview with the board. It was really thorough and intense for a small school that had really done never an external search before. When I was in the parking lot with Donna [the board chair], she let on to me that one of the other finalists was the previous founder and Executive Director here at Rainbow. In terms of my emotions, I don't know. I would say my heart sank. I was angry. I wasn't sure why they had bothered to have me come. Thank goodness that she did that. I don't know if she was supposed to, she just chose to. I took a lot more risks during the next two days that I would have otherwise. I thought, well if I want this job I can't just play it safe..."*

The community was split about who it wanted. Some parents, including one named Claudia, wanted the return of the old director to revive the Spirit of Rainbow (C. Konjin March 23 2016). Others were concerned that this would represent a return to the bad old

days. Many had a clear response to Renee. Jenny Hatcher, a parent to a first grader at the time, recounts, “

*I saw Renee. Her credentials from what she started in Colorado blew me away. And I thought if anyone can take this school where it needs to go, if that woman could come in here, she could change this place, she could make a difference here...I just kept getting this intuition. John Johnson was one of the people that started this school. I thought ‘it will just go back to the way it was’ (J. Hatcher March 14 2016).*

#### **CLEANING HOUSE—2008-2012 RENEE DRAWS ON THE “SPIRIT OF RAINBOW TO REFORM**

In a school that had been founded by charismatic spiritual leaders. And, the board of directors with the input of staff, and parents, chose not to select its founder. For the first time it selected an outsider, and its path changed. Renee was offered the job on February 1. Two days after she accepted and the administrators announced the job, John Johnson announced that he was opening Odyssey Community School.

*So I came for my spring break to Asheville. This is while I'm trying to find a replacement for myself in Paradox Valley. I met with every single member of the administration and every staff member. And the board. One-on-one office hours with each of them. And oh Lordy! Had people crying in there! I found out what was actually going on at Rainbow. People were just going for it (R. Owen March 29 2016).*

Renee made it a condition of her hire for the board to take on a policy governance structure. She was a trainer in policy governance, and would train the board members. Some of what she found when she arrived included that the playground was still pathetic. The buildings were dark, overcrowded, and badly in need of renovation (R. Owen March 28 2016). The class quality was inconsistent.

*They had some real issues with the middle school, which had been added during John Johnson's time it never really gotten on its feet. It was a mess. I was so disappointed when I observed. Sixth grade, and seventh eighth. I'll man the kids were just blurting things out. So disrespectful. So messy. So terrible (R. Owen March 28 2016).*

Within her first year, Renee implemented an annual teacher review. Renee and the Board implemented a plan to raise tuition and staff salaries to get the school in the black. With the staff, she built a balanced budget. She fired a number of teachers and staff, some for



reasons of budget, others for reasons of quality. After that first year, Jenny Hatcher remembers she

*felt relief. Tuition went up. Renee had fired a number of teachers that didn't fit in. It needed to be done. Budget cuts that they could not afford. It was hard at first, splitting assistant teachers across two classrooms. The school needed shaping, and she was willing to do that crafting. Those that were here took on a lot. Renee was a hard ass. Budget was central. We increased fund-raisers. The changes hurt, but the board supported her and the staff came to trust her (J. Hatcher March 14 2016).*

Rainbow needed shaping. Aside from occasional personality conflicts, the Rainbow community—its parents, students, teachers and staff—seemed willing collaborators in that shaping. Over the course of the next two years, they engaged in a curriculum mapping project that aligned the learning objectives and modules for each year with their goals for graduation. Out of this process came the Seven Domains model, the foundation for the curriculum. The Seven Domains model frames education in terms of spiritual, emotional, mental, creative, physical, social, and natural growth. Rainbow worked with John Buck to adopt Dynamic Governance. Dynamic Governance uses consent, various circles of authority, and double linking between those circles to help hierarchical organizations migrate to collective decision-making. Claudia, who was initially against the Renee hire and had early conflicts with her as a parent, offered:

*Renee is an across-the-board strong leader, but she has some particular things that are really her strengths. One is her financial stewardship and, financial planning style. The others she was really good at hiring good people. There's been very few duds in the years that she's been hiring. Over several years that has really created trust. She has really shown what she can do (C. Konjin March 14 2016).*

#### **THE BIG EXPANSION: 2012-2015 STRATEGIC VISIONING LEADS TO BIG CHANGES**

This more intentionally shaped Rainbow saw itself and its options with a new light. At its current size and enrollment, it was in a financial no man's land. Rainbow had overhead to great to be a small school, and enrollment too small to support it. To keep good teachers, it needed more resources to pay them, and better classrooms to work in. Renee and the board became clear that they faced a choice: get big or get small (R. Owen March 28 2016; C. Konjin March 23 2016).

GRAPHIC 17: SEVEN DOMAINS MODEL (RAINBOW WEBSITE, ACCESSED JUNE 10 2016)



Renee was clear what she thought was best, to grow, but wanted a process by which the community would come to understand their situation and choose a path as a community.

Stewart Stokes tells the story of what follows next. Stewart joined the board around this time, and took on the task of organizing an Appreciative Inquiry summit to help develop a future vision and clearer mission for Rainbow (C. Konjin March 23 2016). They worked with an Appreciative Inquiry facilitator to design an event that would involve the full parent, student, teacher, staff and alumni community.

To the south of the school was a large church that had been there for close to 100 years. It had a strong congregation. Its site was awkwardly shaped parcel, where part thrust up into the field area below the school that was used as a playground. This “triangle” of land was fenced, and made it impossible to see the lower playground from the rest of the school.

*The lower part of playground was on church property. A fence ran from right below the climbing structure rather there is a little corner of the church property came into the playground like this [gesturing with his hands]. So there's this portion of the school playground with the kids can play up there where they could not be seen by the teachers and the rest of the playground down here. So Renee went down to talk to the minister. “Hey, would it be possible to buy that land, or could we just use it that triangle so we can move the fence? So the pastor went to his board of deacons and they said no. They were thinking about renovating the church, and they felt they would need every square inch of property, green space, for whatever the city rules are. We just been through a lot of visioning and Appreciative Inquiry work. We got clear on a new mission, approach and values. All that turned loose bunch of energy. All that felt like a very spiritual process. And so we got to know the minister better. He's a good guy. So, 12 months later Renee goes back. She asks would*

*you reconsider? He looked right at her and he said no, but would you be interested in buying the church?*

*I was involved in some of these conversations with this minister. I can say that we had become a lot clear about who we are and what our mission was. Our identity had gotten really clarified. The same thing had been happening at the church. They started really examining who they are and what their ministry needed to be about. In so many words, the pastor said we are a restaurant that serving a menu the nobody around here wants to eat. We are a NASCAR loving softball playing grillin' out in the country crowd. There's very few people who actually attended the church who lived in West Asheville anymore. It was a working-class middle-class blue-collar white kind of church. So, they decided to sell the church and move out to the country. So, a lot of important energy was getting turned loose on their side of the fence. I was talking to the minister one day and I said to him "your angel and our angel seem to have been talking."*

*I relate the story as an example of the Spirit of Rainbow, or that Angel. For that church to decide to pack up and move and to sell their facility to this place is huge. Huge! I can't emphasize how huge that is. There was a lot that changed here and changed they are in very intentional ways that was bigger than anybody here or anybody there. How do you describe what that Bigger is? I called the Spirit of Rainbow. I always cry when I tell the story. The emotion, the tears that I feel about it are an affirmation that that is real. Spiritual manifestation is a real phenomenon. It is a very personal experience with other people say that way I don't know. I think other people experience it. That's what motivates my energy here and that's what channels my energy here. That's the Spirit of Rainbow.*

Within months of the summit supporting the community to find and articulate its vision for the future, an obvious opportunity for expansion had presented itself. To seize the opportunity, Renee hired a professional fundraiser to oversee a capital campaign. In the course of the next year and a half, the Rainbow community raised half a million dollars—more money than it raised for projects in the entirety of its history to date. In 2014, school purchased the church. Over the summer it renovated its lower classrooms, and the Omega program moved in in the fall. With significantly added space, Rainbow could now push to increase its enrollment across the entire school.

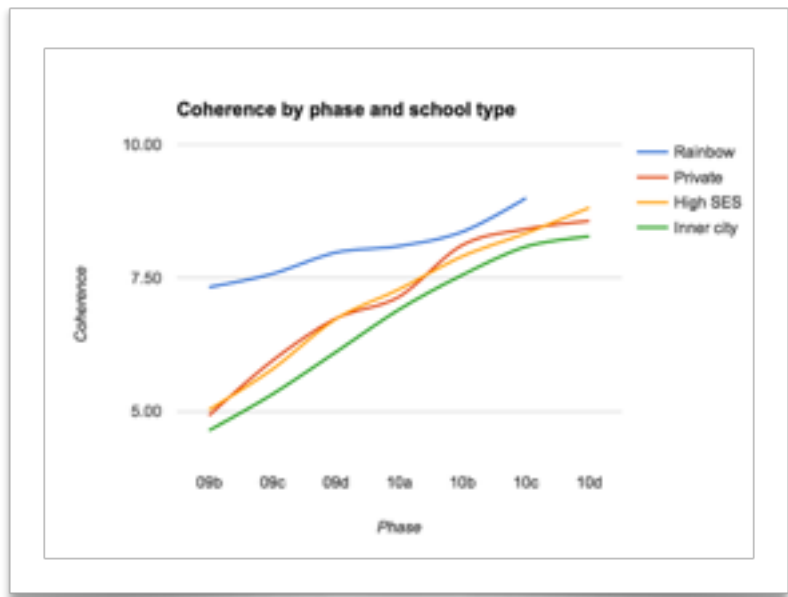
#### **RAINBOW INSTITUTE & THE XQ PROJECT: 2015-2016**

Seven years of growth brings us to the present. As of 2016, the school has more than 200 students spread across eight grades and their early childhood education and kindergarten programs. Some of the external attention it has received is worth noting. In 2015, Rainbow was recognized as a Green School of Excellence by the NC green schools program. Jenny Armocida, the 6th grade teacher, was the 2015 Leavey Award winner. Most significantly, Rainbow was one of only 44 schools in the nation to be recognized as an Ashoka Change Makers School.

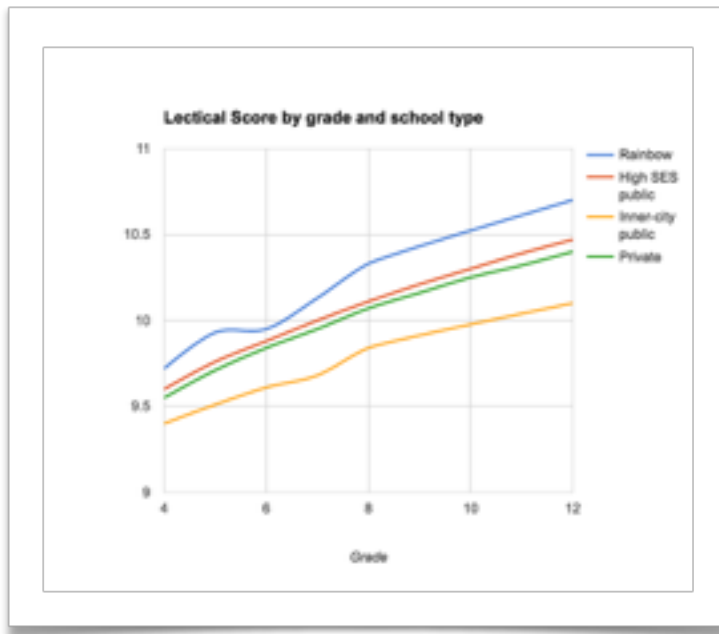
The Ashoka Changemaker School project focuses on identifying, connecting and promoting schools that prioritize “empathy, teamwork, leadership, problem-solving and changemaking as student outcomes” ([Ashoka Changemaker website](#), accessed June 23 2016). Ashoka views these outcomes as critical to foster young learners’ capacity to become active agents of transformation within their communities. Rainbow was chosen particularly for its emphasis on capacity for empathy as a student outcome, as demonstrated through "6th grade entrepreneur projects, Omega projects, various service projects and the many ways we develop and nurture empathy skills at the school on a regular basis” (S. McCassim June 22 2016).

### GRAPHIC 18: LECTICA COHERENCE

Its educational model captured the attention of this research, as well as others. One is a joint project between the Columbia Teachers College and Louisiana State University. Dr. York from Columbia led a pilot implementation of Blue Ocean business strategy with Rainbow. Blue Ocean is a strategy usually employed with corporate clients, and the project was to adapt and study its effectiveness with schools (R. Owen June 25 2016).



## GRAPHIC 19: LECTICA SCORE BY GRADE



The other research team is from Lectica. Lectica is educational testing and consulting organization. It has developed a series of tests based on *developmental maieutics*, which builds on Dr. Kurt Fischer's work on Dynamic Skill Theory (Lectica Website June 22 2016).

Their testing employed at

Rainbow assess the ability to to learn robustly, as measured through their coherence of argumentation and ability to understand emotional and ethical complexity. Their findings indicate a remarkable advantage in argumentation coherence, and therefore robust learning, by Rainbow students over private schools, high socio-economic status public and inner city public schools alike. They attribute this to the virtuous cycles of learning created by Rainbows education model. Rather than being content focused, Rainbow is skill focused. To build the skills, learning environments created involve active and engaged Information-Gathering application reflecting and goalsetting. As a result, Students not only learn content, they learn to use it effectively in their everyday lives. It becomes part of them. We call this embodied learning" (Lectica Blog June 22 2016). For a full run down of the assessment, visit the [Lectica Blog](#). Both research teams connected Rainbow through the Columbia teachers College, where Renee is currently working toward a doctorate in education at Columbia.

In 2015, Rainbow's board retreat focused on the future: Where do we find ourselves, and what do we make of that, and what comes next? It seemed clear that one chapter of Rainbow's history was coming to a close, and another chapter was opening. Rainbow finds itself enmeshed in the larger transformations of Asheville: a move towards being wealthier, whiter, and more white-collar. Rainbow is a school in a growing community with an in-demand educational model. It has waiting lists for all grades. This has meant that the

applicants to Rainbow are more able to pay. It has raised its tuition every year, and has plans to do so for the next five. Rainbow now has financial reserves of a quarter of a million dollars (Community Meeting March 8th). Challenges still exist. Teacher salaries are still were not on par with the state public school average, and the school still has not fulfilled its longstanding diversity goals. The loss of diversity in the community at large has reduced the pool from which Rainbow could craft a diverse school.

The board retreat had been introduced focusing on an idea: cracking the nut. The nut was this seemingly intermingled problem of diversity and affordability. How could Rainbow continue to move towards respectful pay for its staff while maintaining and deepening the diversity of its students? After a Participatory Systems Mapping exercise, the researchers/facilitator's reflection to the board was that Rainbow had developed remarkable body of group tacit knowledge. Tacit knowledge is embodied knowledge that can be used within action, but is often difficult to translate into explanation. Group tacit knowledge is a body of understanding that, through performance, organizations or ensembles can access (Erden 2008). Otherwise, the group tacit knowledge seems inaccessible. After offering this reflection the group discussed and agreed: Rainbow had developed a body of group tacit knowledge, which was the basis for its powerful educational model. This was also why it was often said it took 3 years to become "Rainbow teacher". But, the problem was exactly that this knowledge remains tacit. Exploring what to do with this body of tacit knowledge, the group decided that a priority for the staff over the coming year should be to identify ways to articulate and make explicit aspects of the Rainbow model. The hope was that in doing this, Rainbow could begin to offer its model to others as an act of service. And, Rainbow could potentially find revenue streams that would help to "crack the nut". Since its founding, its mission had always been to transform education, not just transform education within one school. How could Rainbow turn outward to fulfill this larger mission?

Over the course of the following year, the board explored how best to take forward and disseminate this body of tacit knowledge. They settled on the Rainbow Institute, a non-profit whose mission would be to steward that knowledge and explore means to make it available to other educators and schools. A few weeks after the board retreat, West Wilmore, the Curriculum Director, discovered the XQ project. The XQ project is a competition funded by the widow of Steve Jobs, intended to jumpstart the development of a new generation of

high schools. The winner would receive \$10 million in funding, and support for execution of a new high school. They assembled a team of educators and experts from around the nation to support them in developing an application. As of this writing, Rainbow's XQ project, rEVOLution High, is one of the semifinalists.

#### **REFLECTION: CONTINUITY & GROWTH FORM FOUNDING TO THE PRESENT**

In telling the story of Rainbow's history, I have made an effort to tell it with the words and voices of the individuals involved. These are particular individuals, with particular perspectives on that history. This creates a bias towards individual action explaining the Rainbow's history. What the researcher gleaned through many conversations and through observations was that it is rarely as simple as simply a mess. When Jenny Hatcher explains her visceral emotional response to Renee Owen, Jenny described the yearning and longing for shaping, control and greater order that many of her fellow parents shared. When the board picks up an idea like Rainbow Institute, the idea had often percolated in multiple separate conversations before it was brought into a board meeting.

This method of telling from individual voices also creates the impression that Rainbow's history lacks continuity. The narrative thus far not quite convey the continuity and growth they underly the messy reality. When asked what threads, if any, provided continuity from the founding of Rainbow until now. Renee responded that there were four, "educating from the Heart (in fact, this is the title of Aostre Johnson's latest book), the domains (used to be 5, now 7, but the same essence), Education that is about human development, rather than merely achievement, Community and fellowship" (R. Owen, personal communication June 24 2016). To return to Rainbow's founding, several threads of Inayat's approach to Sufism can be seen providing continuity throughout Rainbow's history. First is the dedication to the awakening of human potential, and conceptualizing human potential in broader terms than simply intellectual. That can also be seen within Rainbow's heart-centered approach, and its five domains model (which became the seven domains model) which is based on Inayat's Sufi teachings (R. Owen June 24 2016). Of community and fellowship, it was a group of parents who banded together to start the school in the first place. That spirit of fellowship is carried through to the present, where parents continue to be heavily involved in school trips, fundraising, and the series is a rituals and festivals for its own community and for the wider Asheville community.

There is one more thread of continuity that I would add to Renee's. There is a pragmatism to Rainbow's approach to education. The Rainbow educational model built is on John Dewey's pragmatic constructivist approach to education. "Using best practices is an essential part of our model. We don't have our own pedagogy, such as Waldorf or Montessori, we simply use the best of what is out there in educational theory and practice." This pragmatism towards educational practice is evidenced throughout its history, as Rainbow absorbed new practices, adapted and hybridized them, and incorporated them into the Rainbow model of education.

We can see this pragmatism at play with its adoption of Dynamic Governance. After encountering John Buck, Renee invited him to come to Rainbow and train the staff in Dynamic Governance. The organization adopted Dynamic Governance as a core practice for sense making and decision-making. That said, teachers and staff at Rainbow do not call it a Dynamic Governance organization. While it is used as a practice, it's so well integrated into the broader practice life that it's almost invisible.

This seems to be for two interconnected reasons. One is that Rainbow already had a number of existing strong organizational practices, and has acquired even more since. Dynamic governance is just one of many practices within Rainbow's bundle. Second is that Dynamic Governance wasn't adopted rigidly or strictly. While the basic three principles are adhered to, how they get practiced and when they get practiced is quite flexible. As a result, some clear footprint of Dynamic Governance as an overt practice is not as visible in the day-to-day activities of Rainbow.

These five elements have provided the core to Rainbows culture since founding. Through its many twists and turns, that core has been present as a reference point to return to in times of turbulence and doubt. Rainbow today, and it's growing visibility and respect is not purely an outgrowth of recent decisions. It is the product of deep-rooted seeds that have been tended and stewarded over the course of 40 years. They provided a core around which Rainbows growth, though winding and nonlinear, has occurred.

There are many metaphors that could be used to describe Rainbow's history. One way to describe Rainbow's history is as a life of a distinct individual. Rainbow had a precocious childhood, an awkward and tumultuous adolescence, a headstrong young adulthood, a thirtysomething crisis, and a more humble and confident adulthood. Claudia described for me



her personal transformation from parent to Parent. I think it not only describes the experience of many parents at Rainbow, but Rainbow itself.

*[My daughter] was five, I was all about my child getting the best. I worked three jobs a day. Both my husband and I had a horrible time in school. Bullying, completely shutting down. Just horrible. We were convinced kids were to get the best possible school experience out there. That was all. I didn't care about anything else. I didn't care about other children. And care about who could afford it I was out for myself. I was out for my family my little nuclear family. Very much on island. The door could slam behind us! [Today] We feel more and more urgently that this need to be accessible for more children and families. That has been a real growth area for me. Like I said, I showed up feeling I was in this only for myself and my kids.*

*A: Why did this change for you?*

*C: It changed because my children have grown up. They're going out in the world and I'm going out to the world with them, but now from the perspective of a "Parent"— not just the parent of my kids but from a perspective of a Parent. I see kids, and I see the world through a very different lens now than I did when they were three or five or ten. I feel a sense of responsibility that this [Rainbow's model of education] needs to be opened up and disseminated much more widely.*

This sense of responsibility has been focusing for Claudia; in subordinating to a larger goal she has become clearer about which concerns to attend, which practices to deepen. It has also been healing. It has been healing in the sense that it asked Claudia to connect their own experience with the experience of others. In so doing, it changed her experience of herself in ways that dampen distress and amplify gratitude.

Claudia herself would be the first to say that the parents' experience at Rainbow falls along a spectrum. Some have a transactional relationship with the school, paying their money and dropping off their child. Many more feel a sense of belonging and ownership. Some have Claudia's experience of healing and transformation through their experiences at Rainbow, that brings them to a different relationship with parenting. In order to follow their calling as a parent, they must consider all children as a part of the scope of their Parenting. When they do that, it calls them to act in the world.

Rainbow as an organization has always held changing education as a part of its mission. Where its growth can be seen is in its embodied ability to follow through on that

mission. As Rainbow has become more able to respond to the challenge that its founders set out for it—to perceive as Parents, to create schools that nurture all children—it has entered into a mode of operating that more fully integrates its potential into cohesive expression. Perhaps Rainbow is now ready to organizationally act as a Parent.

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### 3) WHAT MAKES RAINBOW THE PLACE IT IS?

It's 10 minutes before school starts, the day after spring break. 7th and 8th graders mill around in the hall, swapping stories about spring break. They greet each other with hugs, the gestures of familiarity and tribeness that all youth groups develop with enough time around one another. Two minutes before the start of class, most everyone files in and sits down. There is a murmur of conversation, but it's low. They begin writing in their journals. The chime is struck. The group is entirely silent for a minute, still even. It is hard to overstate the power this moment seems to have. There are 20 7th graders, sitting on the floor in complete silence, with eyes closed or open, thinking their own thoughts. The feeling is contemplative, not bored. It is still, not frozen. It is reverently silent. A group of 7th graders who haven't seen each other in a week and are able to be completely, reverently silent. It's arresting.

A student is asked to bring fire. One carries a kind of altar of objects into the center of the room, and lights a beeswax candle. He offers the focus, which is relativity. They read a quote on relativity from Einstein, "When you are courting a nice girl an hour seems like a second. When you sit on a red-hot cinder a second seems like an hour. That's relativity." The teacher asks them to reflect on relativity in their lives, its meaning. We write. We then go around the circle and offer our short stories. After that, the teacher talks about the experience of time from now until the end of the school year. They end the circle, blow out the candle, and move on to their first class.

The whole ritual took 20 minutes, but speaks volumes. These students are some of the most grounded, present young people I have ever spent time around. What effect might the opportunity, the requirement to sit in stillness, reflect, and articulate their experience every day for nine years have on the development of a brain, a personality? Think for a minute: how many adults do you know who can sit in stillness? How many 12 year olds have you met who cannot merely sit still, but sit with focused presence for 20 minutes? There is something interesting going on here. What is it?

The previous section was one telling of Rainbows history. This next section will be a telling of some of its memes. These memes were identified from analysis of two data sets, the observations and interviews at Rainbow, and the storytelling project. Both were coded inductively, allowing themes and connections to emerge. These memes seem important to explaining the behavior of the place as a cohesive whole. As such, there is an emphasis in linking individual actions and behavior to emergent qualities and patterns. This chapter will not examine qualities of resilience or leadership just yet. There are four memes to explore: Acceptance & Permission, Conflict, Collaboration and Improvisation, and Spirit. These memes will set up our exploration of what form leadership takes at Rainbow, and what effect that might have on the resilience of Rainbow as an urban system.

### **MEME: ACCEPTANCE & PERMISSION**

Members of Rainbow as an urban system feel fully seen, considered, cared for, and accepted. As a consequence, they feel trusted and granted permission to be their full selves. When asked about the experience of trust at Rainbow or at previous public school teaching experiences, one teacher explained it this way:

*Experience of trust? Um, It's vastly different. I mean...I guess I never really tried to articulate it to myself or anyone before. But I didn't ever, as a student and as an adult teacher, I never felt completely cared for. I never felt considered or understood, and that equates to being cared for in some really important ways. There were some things that were happening that I didn't feel included in or I didn't feel considered or I didn't feel heard. So I guess I didn't fully trust and could not fully invest in that whereas here, I definitely feel considered and heard and cared for... It gives me a lot of freedom for creativity because I kind of feel like, if I make a mistake that I'm not going to be viewed as a bad person. I feel like they will understand that my intentions were good and I will have the opportunity to explain why that happened. But before I even have the opportunity to explain it, I just feel like I would be considered in any circumstance where I make a mistake, I would be given the benefit of the doubt. I wouldn't be automatically viewed as bad or wrong. There is nothing that I could really do, that I'm really capable of doing, that somebody around here would look at as unacceptable or anything like that. So I do have this trust that, if I mess up, I will be given the opportunity to explain myself but I will also be approached not as a villain or some sort of bad character.*

This acceptance I would call *radical*, in the sense that it is enormously open. When that culture of acceptance finds edges, it pushes on those edges. The storytelling project offered this experience from the seventh grade:

*A true story about the Spirit of Rainbow that happened for our family was when we told my son's seventh grade class and parents about our family's journey since discovering that he was transgender; and, that when he returned from the winter break he wanted to be called by a different name and be addressed with male pronouns. We were immediately surrounded by an outpouring of compassion and love by both parents and students. We had not one negative response from parents or students and the students told our son that they were proud of his courage at wanting to be his true self and that male or female he was still the same person on the inside.*

*Words cannot express how thankful we are for the Rainbow community. They have embraced our family and our son and changed his life forever by supporting him in probably the most important and difficult decision he has/will ever make. Parents and staff often come up to me and tell me how amazed and happy they are to see the transformation in our son. They now see true smiles and a more confident child who is happy to be himself.*

*As parents, we are so grateful and thankful because we are so aware that our son has been blessed to be part of this amazing community, while so many other transgender children experience unspeakable pain when they try to be their true self in their homes, schools and communities.*

Permission to be *unique* is a descriptor used often in such moments. It does not go deeply enough to describe the *wildness* that is revealed in everyone when they feel such acceptance. This deep trust and acceptance gives the staff and the students permission to be their *deeply strange* selves. What becomes possible with this permission is flow, creativity, collaboration, and improvisation.

*The number one thing that comes to mind is cooperation. It definitely makes me feel more cooperative and, obviously, accepting. That makes me relax and when I relax, I can get more creative. And when I get more creative, I enjoy myself more. So it kind of fosters a lot of really positive aspects of myself which I definitely didn't feel when I worked in other systems. I felt stifled a lot and I felt like there was a lot of hidden rules and systems that I didn't understand and were kind of not working in my favor but I didn't know why they weren't working in my favor. But I could cross those boundaries at any time and I wouldn't be given an opportunity to redeem myself. So I was*

*always trying to avoid errors. And so, again, I didn't feel completely relaxed and I didn't feel like I was able to actually work from a genuine place. ... [When working from that genuine place] I can really connect with them. I can take them on a person by person basis and not lump them all up into one thing--one definition of a child, one definition of right or good. I can see them individually and I can see the circumstances individually, and I can basically respond to whatever the need is in the moment and not have some sort of canned response that I answer to everything (J. Cox March 23 2016).*

This permission allows students to relax, enabling attunement, cooperation and creativity. For teachers, this sets up teaching being fully present and teaching in flow. When fully present, anger, idiosyncrasy, frustration, having a bad day are not mistakes:

*Those are teaching opportunities. They're really great teaching opportunities for me to just own it, and you know what? I'm human, I get frustrated sometimes or I'm tired sometimes or I'm cranky sometimes. Or this is what I did wrong and this is what I'd like to do differently next time. Which is what I expect of them and kind of how I walk them through things when they come from a place that isn't the best place for them or a place that I would want them to stay. I help them to work through it. So I kind of then do the same thing in return. When I have those moments when I'm off, I walk them through it from the flip side (J. Cox March 23 2016).*

This acceptance enables a reciprocal trust in the collective, even when it does not make sense or involves decisions with which one may not agree:

*So, not only do I trust that, even when I don't understand things, they tend to work out for the good of the whole which also includes me. But also the understanding typically comes at some point in time. Like it is usually explained to me so it is easy to trust things even when I'm not at a point of understanding that point of the process. In turn, I can relax a little bit more. I don't always have to understand everything or agree with it (J. Cox March 23 2016).*

### **MEME: CONFLICT MATURITY EQUIPOISE & EMOTIONAL INTELLIGENCE**

One of the focal points of teaching at Rainbow is emotions. The staff and teachers see their work in terms of navigating emotions, and enabling students to develop the skills to navigate emotions. Another key difference identified between others schools and Rainbow was as explicit as the following:

*“...emotional component in our teaching, a very heavy component. This setting [of Rainbow] definitely encompasses all aspects of the human being through the seven domains but that emotional component is a big one that comes up a lot. When you come together as a community, when you're learning, there are so many emotions that go along with learning. When you're socializing as the kids do on the playground or at lunch or within the classroom, when you're interacting with your teacher—I mean there are so many varieties of emotion that come up along all day long. A big part of our job is helping the kids navigate through those emotions: navigate their emotions, navigate others' emotions. Since that is part of our job, part of what we stand for, it makes it really easy to add that component, and for the kids to be responsive to it (J. Cox March 23 2016).*

As a result, the students at Rainbow are able to name their emotions and explain them to others. Rainbow community members are able to identify internal emotional signals of dissonance, identifying conflict. They are also able to sense and identify the emotional signals of dissonance in others. This comes from a sixth grader:

*I was talking with my friend on Skype, and I was getting upset with something that she said. At first, I wanted to get angry and yell. Instead of doing this, I tried to calm down and explain why I was upset. This helped me solve the problem, instead of escalating it just like we had practiced in our problem solving workshops.*

#### EMOTIONAL CAPACITY

All of these layers of emotional intelligence and conflict maturity enable episodes like this one, from an eighth grader who shared this when asked about a moment when she felt the Spirit of Rainbow in her life:

*For 11 years now, I have been at Rainbow Community School (or should I say Rainbow Mountain Children's School). It has been the place that I have been able to call home. It has become part of me. Its very essence has been intertwined with my brain and everyday actions. Because of this, nearly every story of mine connects with the Spirit of Rainbow.*

*One story in particular stands out in my mind. It is not of an act of kindness, nor is it of the community. It is a story that takes a turn for the interior. The Omega class took a trip to Raleigh with its goal being to view the art museum there. It was all very fun and there were many takeaways from what I saw, but that is not where the story takes place. It was on the way back that my experience takes place. The time was in the evening. The night sky was clear and shining, but not enough to fight past the eerie green that the*

*bus's lights produced. Like on the way to Raleigh, I sat alone. This, however quite nice at first, brought down my spirits a bit. My brain began to delve into that exact conflict. It was a piece within me, an unrelenting tension, that this problem created. Naturally, my mind took the sides of two arguing opinions. This was not odd in comparison to other times where I would form debates or conversations in my head, but I had always thought that I did them for fun. This is where I proved myself wrong. Relating to the Spirit of Rainbow, I observed the grinding conflict in my mind, not stopping it, but bringing further awareness to it. I tracked my thoughts and emotions as my mind mingled with the ideas in my head. I hadn't noticed the depth of my arguing sides before, but as I shifted opinions from one side to another, I felt very different and strong emotions. I would go from slightly shameful to a deep sorrow, from displeasure into anger, from desire into repulsion. This took place in a matter of around 20 minutes. Although it was not easy, the end result shined through. I had won! I felt like jumping up and celebrating, but being in a bus, I chose not to. From what once was a conflict of perspectives and beliefs turned into an understanding and new respect. As an experience of mine, it is one that I hold at a very high value.*

*This wouldn't have happened without Rainbow. The way that I can connect this experience to the things that Rainbow has taught me goes straight to the emotional domain. The fact that I was able to observe my emotions while not altering them; the way that although I didn't have control over them, yet I could contain them within my mind: I had an awareness of their flow. During my time at Rainbow, I have grown an amazing connection with the flow of emotions in me. I am now able to predict where I might go with a situation, think over and understand why I feel a certain way, and even sense the flow of energy that my emotions bring. This would not be possible without Rainbow. I am so grateful for the opportunities I have been exposed to. If the world were to take a direction like Rainbow, many problems would solve themselves. Everyone has this Rainbow energy within them, but it is a matter of understanding it that dictates how well one can apply it.*

#### CONFLICT MATURITY

This equipoise enables Rainbow community members to take their internal signals that indicate conflict, and set the stage internally for productive engagement. They accomplish this through mindfulness practices that allow them to suspend their heightened emotional state, attend to what it tells them as a signal, and redirect that into an understanding of a learning opportunity through engaging with others about the conflict. The first story is from a fourth

grader, and is indicative of the most common type of story from the storytelling project: emotional redirection using mindfulness practice.

*When I get really frustrated and stuff I take breaths like we do in centering. For example, when my sister and I don't agree on something, I might say elephants have four legs and she says they have 6. I know I am right and she won't listen. This makes me frustrated.*

This ability to re-center enables productive engagement around conflict, where both parties are able to communicate in ways where they can learn and come to new understanding. Both teachers and students demonstrate an ability to think about and frame productive engagement around conflict. This story comes from a 6th grade parent:

*My son was having some issues and conflicts with a boy in class who he has been friends with for the past year. After an incident in Afterschool, I mentioned it to my son's teacher the next day so he was aware of the issues and could keep an eye on the boys to make sure no further problems occurred. I found out later that the teacher was concerned for the boys' friendship and decided to take the boys out of class for a special "experiment". He had previously made a giant "see-saw" and he made the boys lug it out of the shed and set it up together. Then he made them work together to balance on it and keep it balanced for 60 seconds. Once they achieved the goal he had the boys bring the device back to the shed while he casually discussed their relationship issues. The boys ended up talking out their issues and their friendship was repaired. That teacher didn't need to take time out of his day to help the kids with their friendship but he did. And he did it in a very unique way to help them work together in a physical way. It was brilliant and above and beyond the call of duty! This is a typical example of the Spirit of Rainbow that I see regularly with the amazing teachers and faculty.*

This capacity for framing engagement that is modeled by the staff and teachers becomes a part of the toolset for conflict by students. This story comes from a 6th grader:

*There have been a couple of times where I have been able to calm myself down when I am mad about something. For example, last night my mom asked me to put her coat on the coat rack...and I was frustrated because she had made the mess and was asking me to pick it up. I asked her to talk about it. She was surprised that I was upset about it, and we both talked about our points of view, and I think I understand that she was tired and needed help.*

This ability for mindfulness, framing engagement and communication sets up empathy and an ability to respond in new ways. As a result, Rainbow community members are able to



offer perceptions and needs, and receive the perceptions and needs of others in ways that enable connection, attunement and openness. This story comes from a 7th grader:

*I just got in an argument with my mom a few minutes ago. I asked if she would take my friend and I swimming. She said no and that the reason was because she was tired from driving all day yesterday. I lashed out and got upset because I had been bored at home all week and didn't realize how she was feeling. I decided to problem solve like we do at school and put myself in her shoes. I then understood that she just needed her time to rest. I apologized and she accepted and I found other ways to entertain myself.*

This conflict maturity sets up conation. Rainbow community members have developed moral identities. In situations of conflict, they are able to draw on this identity to take ownership over their role in conflict, develop a sense of efficacy in how they might respond, and have the courage motivation to respond to the conflict through action. While this is notable in all parties, it seems particularly important in the listener/receiver of conflict. One eighth grader told this story about his family, their habits with time, and the persistent conflicts it created in the home and with the school:

*Once upon a time, in Cart-landia (my house), we were getting out the door late almost every day. Everyday we would get up late, at around 7:45, eat little breakfast, pack a meager lunch, and be out the door. One day, after this had gone on one for a month or two, I knew it had to change. Because of that, that night, I researched how to pack quickly. I found that packing lunch the night before can help, as well as setting an alarm. That next day, I put my learned methods to action. I was out the door before anyone that day! After school, I taught my family how to do it. It took us awhile, but each morning, we got closer and closer. One morning, it just clicked. We got out the door at about 7:30! As we drove to school, we all talked about how great we had done that morning. With so much free time, we could take our time getting to school and not be stressed. We could also check over our homework one more time. After school that day, we all went out for ice cream to celebrate our success. Finally, we were not always late.*

Finally, this conflict maturity also enables a virtuous cycle of learning. A virtuous cycle of learning involves setting a goal, seeking information, engaging in trials to meet that goal, and reflection. When a learner succeeds in achieving their goals just often enough, this produces opioids to reward the learning, and dopamine in the brain, driving us to strive for another goal (Fabian & Dunlop 2007). The zone where the challenge is just hard enough can

be thought of as the Goldilocks Zone (Theo Dawson, Blog, Accessed 5.26.2016). When learning comes from successfully navigating conflict, this becomes a rewarded practice. In a very real sense, embracing conflict becomes addictive. Rainbow community members grow and learn in ways that are rewarding when they engage productively in conflict, and they can engage productively in conflict because they have been supported in developing conflict maturity.

What emerges from this is a culture that embraces conflict as integral to growth. This has both an intrinsic but also instrumental value. This first story comes from an impromptu conversation on the deck at Rainbow one morning during drop off between Renee and a mother of an eighth grader. In one class, there was a case of is of “bullying” where parents placed demands on the school to remove a child who is annoying and disruptive. In contrast, the eighth grade class did the opposite: with a disruptive child, they banded together and decided they were going to support the process of that child’s development and support the family in their struggles. This meant accepting that occasionally someone’s daughter “got punched in the stomach.” This could have been an environment where parents perceived the student as an aggressor who needed to be contained, the parents as enabling, and the school as responsible for a violation of safety. Instead, they viewed the disruptive child as being in the midst of growth challenges, the family as needing of support, the school as a environment for dealing with conflict productively, and the situation as a learning opportunity for their kids, the class, and the parents as a group (C. Hannah March 29th 2016).

This illustrates two consistent patterns: a growth mindset around conflict, and a culture of support for those in conflict. The cultural stories about conflict are that it is natural, inevitable, something that good people experience, and an opportunity for learning and deepening relationships. Their stories around conflict are not that conflict is violent, scary, volatile, unmanageable and to be avoided. Episodes of conflict often arouse the interest of others in the community who choose to provide various kinds of support at each stage of the process to ensure the conflict finds a resolution. This cultural growth mindset around conflict and support enables actions by the community that keep individual episodes of conflict in the “goldilocks zone” of growth, thereby ensuring that it reproduces the learning loop and the culture of growth.

This conflict maturity is valuable on its own, but perhaps its deepest value as expressed by the community is because it enables them to strive for their deep purpose. Claudia talked about her anger surfacing during one event that seemed like a violation of Rainbow's rules:

*So shit went really wrong two meetings ago. Somebody went completely out of bounds and I panicked and I lost control the meeting. It was very painful. I think some people were completely shocked like 'what?' They'd never anticipated this kind of antagonistic contentious meeting. I felt extra bad because I felt like I let it away for me. Renee and Stewart both not there, which – Suwie did her heroic best to redirect some of the energy. So the person they had brought a lot of this negative energy to the meeting, I went and talked to them afterwards. I was so mad. First of all I was mad at myself but also him. I was thinking what the hell! So I had to work through a lot of anger. When I went to talk to him I had worked through it and I said look this is not how we work. And, this is especially not how I want to work. This is so precious to me, so valuable to me to be able to work and deal with everything that comes up in a way that is in service of this larger goal. So I laid all this out for him and he totally heard me and it was a very good exchange (C. Konjin March 25 2016).*

The violation was not that they had experienced conflict. The violation was that they had allowed emotions to strain their relationship. They had lost sight of their shared purpose that held them in the service of the Spirit of Rainbow. Embracing conflict, and what it has to teach, is a part of “how we do things at Rainbow” and how one follows through on the Spirit of Rainbow.

### **MEME: COLLABORATION & IMPROVISATION**

Collaboration and improvisation are fundamental operating conditions that infuse how Rainbow works as an urban system. We see that reflected within the structure of the school, and the nature of its relationships.

Much of the school is designed in such a way that collaboration is a part of its function. Decisions that impact the entire school often go through both the board and the full staff. Both must reach consent, and often develop a team to think through and implement change. Themes are often introduced that will be school wide, with the faculty as a body choosing those themes and deciding how they are to be implemented. All grades are co-taught, with a lead instructor and assistant. Anytime there's a student incident that refers student to

support services, a team forms between the assistant teacher, the lead support service staff, and the lead counselor (S. McCassim March 28 2016). Much of the structure has been crafted to create the opportunity for collaboration towards goals—a necessary but insufficient condition for a collaborative organization.

The culture of radical acceptance and permission at Rainbow removes much of the stigma against failure and friction. Removing the stigma against failure and friction provides permission for experimentation and play. Permission to play removes an important barrier to improvisation. The capacity for improvisation is needed to integrate the many signals, learning and conflict that arises daily at Rainbow:

*“A capacity to improvise is related to comfort in this culture. It is wired into the DNA here. We want diversity, but people who don’t improvise much struggle. When people don’t get improvisation, that’s when it’s not a match with the culture. Improvisation is a part of learning literacy in dealing with conflict (Sandra McCassim March 28 2016).”*

Improvisation is essential to co-creativity, the ability to “yes, and” with your fellow instructors, students and the world.

As a result, Rainbow community members demonstrate a willingness to “risk collaboration”. One of my favorite collaborations to observe was from the Omega instructors Jason and Susan. Jason and Susan have grades 7-8, totaling some 30 students, with 1-2 support staff present. Students flow in and out of groups of various sizes, from both grades combined to small working groups. At the start of the second half of the term, Susan was explaining the lesson that the class would be working on over the course of the next week. Jason was pacing the room watching students’ body language and listening. When some instruction Susan gave was vague, Jason jumped in to clarify. And, that did not seem to trigger or faze Susan. With another teaching pair, this would have been stepping on toes, or a telltale of conflict and invisible resentment between the two. This just a part of the culture of teaching here. When asked about the incident, both said they did not remember. Such finishing of each other’s thoughts was pedestrian and commonplace (J. Cannoncro April 12 2016; S. Ainsley April 13 2016). They deeply trust each other. They are also so familiar with each other that they know what strengths and weaknesses to listen for, know they both have permission to compliment each other’s work by jumping in, and trust their own contributions and insights enough to be comfortable jumping in and playing off of each other. Neither of

them thought of themselves as the sole creator of a lesson or learning environment. They were co-creators. In fact, they were co-creators with the class. As a result there was a fluidity, non-attachment and capacity for improvisation.

Another way this quality of relationship manifests in collaboration is during “Child Study.” The teachers use “Child Study” to collaborate on shared strategies for supporting students during some type of challenge. The “specials” instructors, for subjects such as Art, Spanish, etc, work with all grade levels. One of the teachers who teaches a special focus offered this:

*Once a month, teachers meet for “Child Study.” Teachers bring the names (and often a photo) of a student or students who are particularly struggling whether it be academically socially, emotionally or in other ways. The child’s situation is shared with the group in an effort to build a support system for that child. We share ideas on how to further help the child; often teachers who have taught the child in previous years can offer insight and support as well. Usually a photo is shared so that when teachers encounter the child on campus or on the playground they can recognize him or her and offer needed support. Finally, we take a moment to lovingly hold the child in our hearts. As a specials teacher[someone who teaches Spanish, Art, etc] I teach all the children for a short time each week; I do not know them as well as their classroom teachers do. I value this time to learn more about my students and how to support them. I am not required to attend these meetings as a part time teacher, however I rarely miss them! The love, compassion and dedication that is present in the room is very powerful, it’s an honor to work with these teachers.*

### **MEME: SPIRIT**

Rainbow is a community with a spiritual dimension. Lisa Miller, author of *The Spiritual Child*, defines spirituality as “an inner sense of living relationship to a higher power (God, nature, spirit, universe, the creator, or whatever your word is for the ultimate loving, guiding force)” (Miller 2015 p17). Spirituality within Rainbow seems to be an acknowledgement of mystery, permission to engage with that mystery, to ask questions of why, and embrace the transformation generated by engaging with mystery.

**Acknowledgement**—Rainbow community members broaden their attunement through an acknowledgement of mystery. A central practice to Rainbow is centering, and a key aspect of centering is acknowledgement of mystery. Centering involves gathering in a

circle around some object or objects of focus. A candle is lit, and some focus is offered for meditation. The group sits in silence for a few minutes. After the silence, the group shares what is present for its members in a round. Including the stories for resilience that included centering, the researcher has observed over 60 centerings at Rainbow. Consistently, this involves sharing an event of heightened emotional arousal. This can be positive in the form of gratitude or appreciation, or negative in the form of conflict or stress. Gratitude stories often involve seeing detail that reveals wholeness, in so doing acknowledging the mystery that binds it all together. Stress or conflict stories involve challenge that a particular individual is experiencing currently. These stories usually provide an opportunity for the teller to identify where they are “stuck” and how they do not understand how to move past where they are. Centering as a spiritual practice uses stories to broaden attunement to internal and external mystery. They have an opportunity to name the limits of their understanding and their confrontation with a mysterious world, witnessed by others. This opportunity to hear multiple stories of mystery a day every day for years reinforces the belief by Rainbow member that they are constantly confronting mystery and their own limitations—and that is okay. This consistent relationship with mystery allows its members to develop a degree of comfort or peace in a complex, uncertain, ambiguous world.

**Engagement & Questions—** Members of the Rainbow community have a relationship with mystery through what they call Spirit. Members of the Rainbow community refer to the Spirit of Rainbow as an entity. The Spirit of Rainbow becomes the embodiment of mystery, an entity with which the community can interact and engage. During meetings, staff will pose questions like “what does the Spirit of Rainbow call us to do in this instance?” They see it manifest in the actions of others, as is evidenced by the Storytelling for Resilience responses. They occasionally attribute action to it directly (S. Stokes). To describe a familiar elementary school event, a festival fund-raiser, board member Steward Stokes personified the Spirit of Rainbow as an entity with which one can have a living relationship:

*I think there's a community value here of collaboration and teamwork. There are certainly volunteers and leaders bear the work on their own, but for the most part the people get involved here are feeding off the ideas of other people and co-creating with them. Once they work on a project here, such as the fall Festival hoedown. Have you ever been to that?*

*A: I haven't. I keep hearing stories of about it.*

*S: Well this fall you'll have to come and check it out. The hoedown is a huge project that involves a lot of people. It's a perfect example of co-creation here. There's a tradition of certain things that we do every year. One of the ways that co-creation happens here is that folks don't feel like they have to do it by themselves. There is other energy that they can partner with. That energy that they partner with is bigger than anybody, and that energizes them (S. Stokes April 12 2016).*

At Rainbow, the Spirit of Rainbow is cast as an entity that can be collaborated with.

**Embracing Transformation**—Engaging with the world with a sacred or spiritual attunement opens us to transformation. Spirituality at Rainbow contains a subordination to something greater—the Spirit of Rainbow—and a surrender to the transformation that subordination enables. Renee Owen, the current Director at Rainbow, talked about this in her conflict mediation work with parents and students:

*R: There is one more thing as we get into conflict that is not just about emotions. Those deep one on one interactions with parents or with kids, with a child that was having some big issue, I'm able to go to a spiritual place. That is so much more than just being able to go through non violent communication—here is my emotions, here is my need, here is my request.*

*A: What is the difference?*

*R: The difference to me is that Spirit enters the room, and we become bound by Spirit in some way. We become connected. We don't just cognitively understand each other's emotions—compassion arises. Spiritual empathy. Is compassion spiritual empathy maybe? Maybe that is the difference between compassion and empathy. That feeling is so hard to describe except for. Some people say everything you do is either sacred or profane. I think there is a grey area. When something becomes clearly sacred, you know. Profane is when something is purely a transaction. You come into my office and I have to convince you there is not a problem, or that I'm going to solve it so you pay your tuition—that's profane. Sacred is almost impossible to describe; you know it when it happens. you can tell we can understand one another. This is your child, and you're deeply concerned. You're fearful, and I get that and I hear it. I don't exactly know how to solve it but you know I hear it, and will call on the powers I have to solve it. Something greater has come between us. What is awesome about Rainbow is that I can use spiritual language. It [Rainbow] brings Spirit in. When we met with that family the other day we*

*started with a centering, we lit a candle with that child and I asked the two parents and grandparent to say a word about that child. I was able to reference that throughout the meeting. It is so different than a transactional conflict mediation. It sped us transformation. That is what transformation is. Transformation isn't just we're going to plod through this agreement.*

*Transformation is when Spirit comes into the picture and it all changes.*

*A: Having the playing field that we are all on be a spiritual one sets up our engaging with each other in ways that make transformation more readily accessible to us.*

*R: Yeah, it becomes fluid. It is like the great elixir.*

*A: Which is why working from a spiritual playing field is a powerful way to set up the resilience of an organization or a community. If the difference between the sacred and the profane is that anything profane is accepting or accelerating the fragmentation of our world, and the other is working to integrate it. Then it's that constant pull towards integration that provides the ability to be continually transforming in ways not just as individuals but as organizations and communities.*

In the Rainbow worldview, sacred is the work of integration. When members of the Rainbow community engage with the Spirit of Rainbow, they are engaging in the intra, inter and extra-personal work of integration. There is a tension within this construction of spirituality: seeking wholeness while being at peace with incompleteness.

#### **RECAP: THE CULTURE OF RAINBOW**

This section has described key aspects of the culture of Rainbow. Acceptance of one's full self, and permission to be deeply strange enables attunement, creativity, and flow. The school has a focus on equipoise and emotional intelligence. Employing mindfulness practices enables Rainbow members to frame engagement around conflict, communicating and problem-solving together. This conflict maturity sets up conation and a virtuous cycle of learning from conflicts. These have produced a growth mindset around conflict, and a culture of support to those navigating conflict. This healthy conflict culture works in the service not only of learning but of the deep purpose of the community. Collaboration is visible in the structures of the school and in the quality of its relationships to the extent that improvisation is a part of the cultural DNA. Rainbow is a community with a spiritual dimension, where its practices extend members' capacity for attunement and engagement with mystery. Engagement with the world with spiritual attunement opens members to transformation. This



dissertation will return to these memes later in Chapter 5, exploring how they create the enabling conditions for Complexity Leadership.

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### **RECAP: THE RESIDENTS' COUNCIL & THE RAINBOW COMMUNITY SCHOOL**

To recap what was covered in this chapter, it opened with a brief history of Asheville. That history discussed some of the underlying patterns in its African-American community and spiritual communities. Next was a four-part history of the Residents' Council of public housing in Asheville, as told through a combination of story vignettes and memes. This narrative covered the founding period for the Residents' Council, the recent context of public housing in which the Residents' Council operates, the sea change in which the current leadership took office, and the slog they've engaged in in the year and a half since. Next was a thick description of the Rainbow Community School, divided into two parts. The first part narrated its history from the founding to the present. The second used story vignettes and interview to illustrate some of the key qualities of Rainbow Community School as an urban system. This degree of thick description is necessary because it enables a set of arguments in the next chapter. For example, as the next chapter steps through its argument about Complexity Leadership at Rainbow, it will be useful to reference various stories, memes, and emergent qualities without going into deep explanation. It may be useful to keep this chapter separate and available for reference as you read through Chapter 5.

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# CHAPTER FIVE: RESILIENCE & LEADERSHIP WITHIN RAINBOW COMMUNITY SCHOOL

## ROAD MAP

The focus of this chapter is to share the analysis that has been done on Rainbow Community School as an urban system. This analysis will begin to address the research questions posed at the end of Chapter Three. To remind the reader, this research is attempting to address:

1. What practices by individuals and groups create conditions for Complexity Leadership to emerge within an urban system?
  1. Does Dynamic Governance play a role in fostering Complexity Leadership?
2. Does Complexity Leadership foster resilience in urban systems?
  1. Is Complexity Leadership by itself sufficient to foster resilience in urban systems?
  2. Does Complexity Leadership generate panarchy in urban systems? Does panarchy contribute to resilience in urban systems?
3. When Complexity Leadership is observed, what is offering a deeper cohesion across these many functions of leadership?
  1. When urban systems are resilient, is there something unique about that cohesion?

To set up and address these questions, the first section of this chapter will deal with the resilience of Rainbow Community School as an urban system, and will offer a series of arguments about which qualities of resilience are observed within the data and why those qualities are present within Rainbow Community School. To accomplish this, the section will share the data from the storytelling for resilience project, and the set theoretic analysis of that data. Following that will be propositions about which qualities of resilience are present within Rainbow Community School, and the role of the various aspects of Rainbow Community School as an urban system play in generating these resilience outcomes. The second section will deal with leadership within Rainbow Community School, and will offer a series of arguments about the role that Complexity Leadership, Individual Strategic Leadership and Spiritual Leadership play within Rainbow Community School. These arguments will be supported with findings from the qualitative analysis, and illustrated with examples. The third

section will examine Dynamic Governance as a practice. This is a comparative analysis, using both the Residents' Council and Rainbow cases identify what role it might play within Complexity Leadership, and to situate its use in different environments. This chapter will close with a series of questions about the connection between leadership practices and resilience outcomes. Responding to these questions will be the focus of our conclusion chapter.

To give a sense of where these next two chapters address the research questions, question one will be addressed in the second half of this chapter during our analysis of leadership in Rainbow Community School and of Dynamic Governance as a specific practice. Question two will be set up during the first section of this chapter on resilience in Rainbow Community School, and addressed in the Conclusion chapter. Question three will be addressed during the Conclusion chapter.

To remind the reader, this chapter includes only a brief analysis of the Residents' Council of Public Housing. The original intent was to use the same research design within the Residents' Council. The research design, and its intended form with the Residents' Council, is covered in the Methods Chapter. An explanation as to why it was not used is also within the Methods chapter. A discussion of the lessons learned from that experience are offered in the Conclusion Chapter.

#### **MAIN ARGUMENT**

To set up the main arguments from this chapter, there is evidence for qualities of resilience present within Rainbow Community School. Namely, there is evidence for inclusion, integration, effectiveness and flexibility. Rainbows culture and community are drivers of integration and inclusion. The organization also plays an important role in fostering integration. The physical site of Rainbow complements the role of the organization in setting the conditions for reflection and reflective practice. An important outcome of the Rainbow curriculum is a greater flexibility to challenges of an emotional, social, or intellectual nature. Rainbow's curriculum and organization plays a supportive rather than dominant role in driving these resilience outcomes.

—

There is strong evidence for Complexity Leadership at Rainbow Community School throughout its history. Rainbow Community School has developed specific practices that

animate each of the functions of Complexity Leadership. That said, they are not sufficient to fully explain the patterns seen across Rainbow's history. That history is better explained through incorporating Individual Strategic Leadership (StL), and a sixth function of Complexity Leadership, Spiritual Leadership (SpL). We theorize from the Rainbow Community School case that Individual Strategic Leadership's role within complexity is rebalancing, or the active identification and strengthening of the weaker functions of leadership. We theorize from the Rainbow Community School case that Spiritual Leadership provides cohesion and coordination to the other five functions of leadership through subordination and tuning. Subordination is a submission to a larger purpose in the face of uncertainty. Tuning is the active alignment and coordination of various functions of leadership. Each of the functions of Complexity Leadership has interactions and exchanges with spiritual leadership, through which tuning emerges. These six functions of Complexity Leadership, in concert with Individual Strategic Leadership, acts to ground and dynamically rebalance the expression of leadership within an urban system.

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## 1) RESILIENCE AT RAINBOW COMMUNITY SCHOOL

### KEY ARGUMENT

In the data from the distributed ethnography, there is evidence for the presence of four qualities of resilience: inclusion, integration, reflection, and flexibility. Of the seven qualities of resilience, these four are the most relevant and most likely to be observed in social systems. Given the bias of our observations towards observations about social network, institutions, and organization will ecosystem, the presence of these four (and absence of the other three) is consistent with the expectations of this research. The observational data is consistent with a resilient urban system, but inconclusive to definitively demonstrate that Rainbow Community School is a resilient urban system.

We can say some more specific things about the participant-observers' impressions of the role of various system elements in generating those outcomes. Rainbow's culture and community are drivers of integration and inclusion. Rainbow as a place, in combination with the curriculum, is a driver of reflection. Outside of its role in creating spaces for reflection, the physical space of Rainbow is rarely perceived as an important driver. An important outcome of the Rainbow Curriculum is a greater flexibility in responding to challenges. This

isn't limited to academic or intellectual challenges, but emotional, practical and social challenges as well. Rainbow as an organization is perceived as playing an active role in driving integration. Rather than playing a dominant role, Rainbow's curriculum and the organization play a supportive role in driving most resilience outcomes. From the perspective of the classic expectations about a school, this is somewhat surprising.

### ROAD MAP

To substantiate these arguments, the first section will do several things. First is a very specific look at the survey data that was collected and how it enabled us to perform a theoretic analysis. Second is a look at that data, and some specific examples. Third is to walk through our analysis of the data, and how these propositions were reached. Fourth is to enumerate some of the limitations to the data, and their implications for the findings.

### GRAPHIC 20: SURVEY EXAMPLE

For each of the parts of Rainbow that are important to your story, tell me how important they are to the story. \*

	0-not important to the story.	1- somewhat important to the story.	2- important to the story.	3- essential to the story.
The Rainbow Community.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rainbow's Culture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Rainbow's Curriculum.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rainbow as a Place.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rainbow as an Organization.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
If you added one above, Some Other aspect of Rainbow.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### RECAP OF DATA

To remind the reader, a key aspect of this research design was to use a distributed ethnography to acquire observational data from throughout Rainbow Community School is an urban system. The entirety of this process is described in more detail in Chapter 3. The data analysis will be detailed here. The distributed ethnography was operationalized

through a Google survey. The survey had several stages. First was to acquire some general information about the respondent: their name and email address, their relationship to Rainbow (I am a student, parent, alumni, this staff member, etc.). Next was the story prompt: "Tell me a story about a time in the past month where you were aware of the Spirit of Rainbow in your life in some way." This question follows a general appreciative inquiry format, and was generated in collaboration with the staff at Rainbow. "The Spirit of Rainbow" was used as a phrase because of its resonance for Rainbow Community School members, and

its capacity during survey and interview testing to elicit episodes of leadership. After respondents had finished telling their story, they were asked to interpret their story using two frameworks. The first asked: What parts of Rainbow are important to the story? Then, For each of the parts of Rainbow that are important to your story, tell me how important they are to the story. The categories used were:

- 1) The Rainbow Community: Your friends, family, teachers at Rainbow Community School.
- 2) Rainbow's Culture: the way Rainbow feels, how people treat each other, what it means to be a part of Rainbow.
- 3) Rainbow's Curriculum: the activities, special events, the stuff that you get to do during the school day at Rainbow.
- 4) Rainbow as a Place: did your story take place at Rainbow Community School.
- 5) Rainbow as an Organization. The non-profit, its staff, board, and official activities and practices outside of the act of teaching the curriculum.

These categories were used as the closest approximation to our five elements urban system framework that retained reference to elements at Rainbow Community School that our testing respondents recognized and readily responded to. These responses were set up on a zero to three scale, with zero being not important, one being somewhat important, two being important, and three being essential. This scaling is a traditional set theoretic scaling, providing a coding for cases that are fully out of a set, one third in, two thirds in, and fully in a set (Ragin 2008).

The second framework inquired about qualities of resilience, and asked: *How much does each of the following qualities figure into your story?* This framework described each quality in this way:

- 1) Grit. Jessica has been building a fort in the woods with her father. Even though the snow storm knocked most of it down, she's determined to finish it before spring!
- 2) Redundancy. If one light bulb burns out, it's okay because there are three others that are still glowing.
- 3) Resourcefulness. Well, if I can't use that... maybe this will work?
- 4) Reflection. Learning from experience because you actually thought about it.
- 5) Flexibility. Sure, I'm okay with doing it that way.
- 6) Integration. The parts being connected so that they are a greater whole.
- 7) Inclusion. Everyone/everything can participate.

Grit was used in replace of robustness, because the concept did not have meaning for our testing groups at Rainbow Community School. Grit, while focused on individual experience, retains the essential quality of “the ability to withstand disruption and pressure.” Respondents were asked to teach the importance of each of these concepts to the story using the same framework as above. The survey yielded 99 responses, 61 from youth and 38 from adults.

There are couple of things to keep in mind when looking at this analysis. It is, in essence an analysis by the community on the question of whether resilience outcomes are generated, and if so what causal combination of urban system elements are doing so. Set Theoretic analysis gives us internally consistent determination on drivers of outcomes across a series of observations. This analysis also has two external points of contact. The first through calibration. To remind the reader, calibration is the adjustment of a set of observations to match externally verified values. For this analysis, calibration was indirect. In indirect calibration, the researcher calibrates the set by their own analysis of various stories within the set. The second point of external contact is through comparison with the traditional ethnography, to see whether the arguments about causal drivers and outcomes generated by the set theoretic analysis seem plausible given observations within the ethnography.



## GRAPHIC 21: SURVEY EXAMPLE

**How much does each of the following qualities figure into your story? \***

This is going to involve some pondering.

	0- doesn't figure into the story.	1- somewhat figures into the story.	2- important to the story.	3- essential to the story.
Grit. Jessica has been building a fort in the woods with her father. Even though the snow storm knocked most of it down, she's determined to finish it before spring!	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Redundancy. If one light bulb burns out, its okay because there are three others that are still glowing.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resourcefulness. We'll, if I can't use that... maybe this will work?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflection. Learning from experience because you actually thought about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Flexibility. Sure, I'm okay with doing it that way.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Integration. The parts being connected so that they are a greater whole.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Inclusion. Everyone/everything can participate.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
If you had an Other:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## GRAPHIC 22: DATAPOINT EXAMPLE

Looking at a single data point, a story in combination with its self – analysis data looks like this:

### Survey Data Example: a typical story & responses

Tell me a story about a time in the past months where you were aware of the spirit of Rainbow in your life in some way. When you are done, click Next.

The night of Gourmega was an incredible night, and something that I will always remember and hold on to. Part of what made it so special and memorable was the people in it, and I really felt the spirit of Rainbow when it came to the people. This is because Gourmega wouldn't have worked if everyone hadn't worked together and tried their hardest to make it work, and if they hadn't been themselves encouraged by the spirit of Rainbow to do their best and try to benefit the whole. And it was in this unanimous effort on everyone's part that we were able to do Gourmega. I felt the spirit of Rainbow with me in many different ways throughout Gourmega, but the one way that really stands out to me from that night was when my friends were able to lift me up using the spirit of Rainbow inside of them, and were able to lighten my mood and cheer me up and make the whole experience so much brighter! It was towards the end of the night that I really began to feel the spirit of Rainbow surrounding me. I was a server, and I was busy waiting on two tables; one was a five top that consisted of XXX and XXX's families, and the eight top was made up of XXX and XXX's as well as XXX's families. After one of the food orders was put in, I went back to see if the other table was doing okay, only to realise that it would have been wise to stay in the kitchen and wait for the food to come out. I began to get a little stressed out that I wouldn't be able to accommodate everyone. Then I went back to the kitchen and stood with the runners as we waited for our food to be ready. I must have stood there for a few minutes when it dawned on me just how long I had been waiting, and I felt conflicted as to whether I should continue to wait as I was, or if I should go tend to the tables in the other room. I decided to wait a few minutes longer in the kitchen, thinking that the food would be done soon, and hoping that the tables didn't need anything while I was gone. After a few more minutes of eager standing around, I started to worry. I had hoped that my ticket hadn't gotten lost, or I hadn't misplaced it after getting the table's order. I then decided that I should go ask Jason if the ticket was in the in-box. I asked him, and he began to look through the past tickets with my dad. He seemed hurried; rushed, and frowned as he got to the last of them. When he had finished leafing through them, I realised that the ticket wasn't there, which meant that I had either lost or misplaced it, or the food was already sent out. Pondering the latter, I decided upon going back into the room and checking to see if the food had arrived at the table without my knowledge. This turned out to be true, as I shortly found out after seeing my table. I was still kind of stressed because in my time and worry spent over waiting for the food, I hadn't been able to tend to my other table. That is when I felt the spirit of Rainbow.... I felt the spirit of Rainbow as I went into the dining room and I heard XXX calling me over. He beckoned me over and started talking to me in a lighthearted, joking way, and making me laugh. Him talking to me like that completely lightened my mood and made me relax and be more at ease. It was in that moment that I saw and recognized the spirit of Rainbow and watched as it surrounded me and filled me with happiness. In that second, XXX was able to make me feel so welcome and grateful, and I became even more aware of the Rainbow spirit. In conclusion, the whole night of Gourmega was a wonderful and great experience that I will hold onto and cherish forever, and with it was a certain spectacular moment where I really was able to feel and embody the spirit of Rainbow, and in that moment, the happiness and gratefulness I felt was the spirit of Rainbow. I felt so grateful for my wonderful friends who could cheer me up and make me laugh and smile and lighten my mood, and who were there for me. Just having XXX, XXX, XXX, XXX, and XXX at my tables was so much fun, and they made waiting tables so much less stressful, and an even better experience!

The Spirit of Rainbow

I am a... Student

I am in or connected to...  
8th Grade

For each of the parts of Rainbow that are important to your story, tell me how important they are to the story.

Community	3-essential
Culture	3-essential
Cirriculum	0-not important
Physical Place	0-not important
The Organization	0-not important

How much does each of the following qualities figure into your story?

Grit	2-important
Redundancy	0-not important
Resourcefulness	0-not important
Reflection	3-essential
Flexibility	0-not important
Integration	3-essential
Inclusion	3-essential

**TABLE 23: RESULTS**

After calibration was performed, Kirq (a software program used for fuzzy set analysis) was used to generate the necessity analysis. There are two versions of this necessity analysis shared here. The first table is all of the causal configurations with a consistency greater than .75. To remind the reader, consistency is like significance in statistical analysis. .75 is the threshold used as a rule of thumb to filter causal conditions worth reporting (Ragin 2008). The second table is a subset of the second. It includes only those causal conditions that are both sufficient in consistency and also high in coverage. To remind the reader, coverage is like strength in statistical analysis. For context, the traditional threshold for a remarkably strong causal condition is .9, with causal conditions with consistencies of .66 or above considered meaningful and reportable.

Table: Causal configurations w/Consistency &gt;.75-1

Outcome	Variables	Consistency	Coverage
Redundancy	Rainbow Curriculum	0.77	0.5
Resourcefulness	Rainbow Curriculum + Rainbow as a Place	0.76	0.51
Resourcefulness	Rainbow Curriculum + Rainbow community	0.75	0.54
Flexibility	rainbowcurriculum+rainbowasanorganization*	0.78	0.56
Flexibility	RAINBOWASAPLACE +rainbowasanorganization*	0.85	0.58
Flexibility	RAINBOWASANORGANIZATION +rainbowasaplace*	0.81	0.59
Flexibility	RAINBOWCIRRICULUM +rainbowasanorganization*	0.81	0.59
Flexibility	RAINBOWCIRRICULUM+rainbowasaplace*	0.81	0.59
Inclusion	RAINBOWCIRRICULUM +rainbowasanorganization*	0.75	0.61
Inclusion	rainbowcurriculum+rainbowasanorganization*	0.77	0.61

Table: Causal configurations w/Consistency >.75-1

Outcome	Variables	Consistency	Coverage
Flexibility	RAINBOWASAPLACE+rainbowcirriculum*	0.78	0.63
Inclusion	RAINBOWASANORGANIZATION +rainbowasaplace*	0.78	0.63
Integration	rainbowcirriculum+rainbowasanorganization*	0.77	0.63
Flexibility	RAINBOWCOMMUNITY*	0.85	0.64
Flexibility	RAINBOWCULTURE*	0.89	0.64
Inclusion	RAINBOWASAPLACE +rainbowasanorganization*	0.84	0.64
Integration	rainbowcirriculum+rainbowasaplace*	0.75	0.64
Integration	RAINBOWCIRRICULUM +rainbowasanorganization*	0.79	0.65
Integration	RAINBOWCIRRICULUM+rainbowasaplace*	0.8	0.66
Integration	RAINBOWASAPLACE +rainbowasanorganization*	0.84	0.66
Flexibility	RAINBOWCIRRICULUM +RAINBOWASAPLACE*	0.75	0.67
Inclusion	RAINBOWCULTURE*	0.85	0.68
Integration	RAINBOWASANORGANIZATION +rainbowasaplace*	0.84	0.69
Inclusion	RAINBOWASAPLACE+rainbowcirriculum*	0.8	0.72
Inclusion	RAINBOWASANORGANIZATION +rainbowcirriculum*	0.76	0.73
Integration	RAINBOWCULTURE*	0.89	0.73
Reflection	rainbowcirriculum+rainbowasaplace*	0.75	0.73
Reflection	rainbowasaplace+rainbowasanorganization*	0.75	0.73
Reflection	rainbowcirriculum+rainbowasanorganization*	0.79	0.73
Reflection	RAINBOWASAPLACE +rainbowasanorganization*	0.84	0.74

Table: Causal configurations w/Consistency >.75-1

Outcome	Variables	Consistency	Coverage
Inclusion	RAINBOWCOMMUNITY*	0.88	0.75
Integration	RAINBOWCOMMUNITY*	0.87	0.75
Reflection	RAINBOWCIRRICULUM +rainbowasanorganization*	0.8	0.75
Reflection	RAINBOWCIRRICULUM+rainbowasaplace*	0.8	0.76
Integration	RAINBOWCIRRICULUM +RAINBOWASAPLACE*	0.75	0.77
Reflection	RAINBOWASANORGANIZATION +rainbowasaplace*	0.82	0.77
Reflection	RAINBOWASAPLACE+rainbowcirriculum*	0.76	0.78
Integration	RAINBOWCIRRICULUM +RAINBOWASANORGANIZATION*	0.77	0.79
Reflection	RAINBOWCULTURE*	0.86	0.79
Reflection	RAINBOWCOMMUNITY*	0.81	0.8

Table: Causal configurations w/Consistency >.75 & Coverage >.66

Outcome	Variables	Consistency	Coverage
Integration	RAINBOWCIRRICULUM+rainbowasaplace*	0.8	0.66
Integration	RAINBOWASAPLACE +rainbowasanorganization*	0.84	0.66
Flexibility	RAINBOWCIRRICULUM +RAINBOWASAPLACE*	0.75	0.67
Inclusion	RAINBOWCULTURE*	0.85	0.68
Integration	RAINBOWASANORGANIZATION +rainbowasaplace*	0.84	0.69
Inclusion	RAINBOWASAPLACE+rainbowcirriculum*	0.8	0.72

Table: Causal configurations w/Consistency >.75 & Coverage >.66

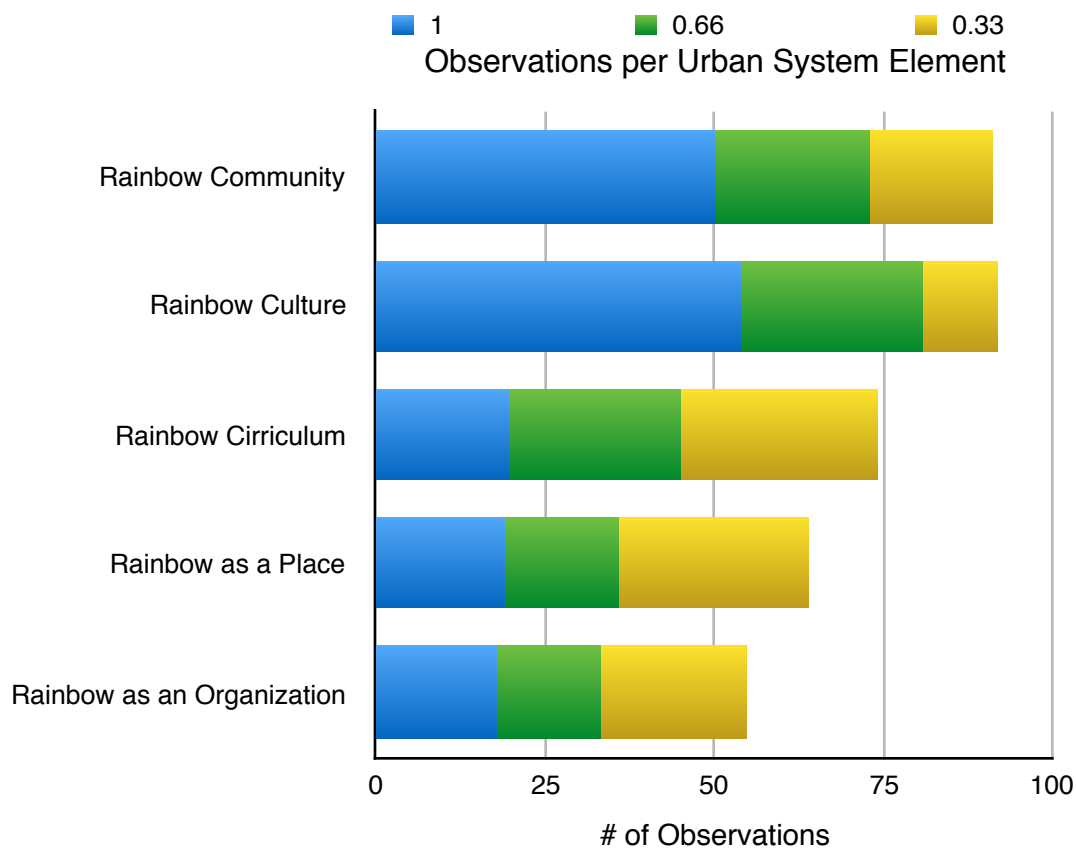
Outcome	Variables	Consistency	Coverage
Inclusion	RAINBOWASANORGANIZATION +rainbowcirriculum*	0.76	0.73
Integration	RAINBOWCULTURE*	0.89	0.73
Reflection	rainbowcirriculum+rainbowasaplace*	0.75	0.73
Reflection	rainbowasaplace+rainbowasanorganization*	0.75	0.73
Reflection	rainbowcirriculum+rainbowasanorganization*	0.79	0.73
Reflection	RAINBOWASAPLACE +rainbowasanorganization*	0.84	0.74
Inclusion	RAINBOWCOMMUNITY*	0.88	0.75
Integration	RAINBOWCOMMUNITY*	0.87	0.75
Reflection	RAINBOWCIRRICULUM +rainbowasanorganization*	0.8	0.75
Reflection	RAINBOWCIRRICULUM+rainbowasaplace*	0.8	0.76
Integration	RAINBOWCIRRICULUM +RAINBOWASAPLACE*	0.75	0.77
Reflection	RAINBOWASANORGANIZATION +rainbowasaplace*	0.82	0.77
Reflection	RAINBOWASAPLACE+rainbowcirriculum*	0.76	0.78
Integration	RAINBOWCIRRICULUM +RAINBOWASANORGANIZATION*	0.77	0.79
Reflection	RAINBOWCULTURE*	0.86	0.79
Reflection	RAINBOWCOMMUNITY*	0.81	0.8

### INTERPRETATION

So, how best to sort through this analysis? At first glance, the output of this set theoretic analysis seems quite noisy. There are number of consistent outcomes. For each of those outcomes, there are also a number of causal sets with coverage. To make sense of this,

there are a three things to keep in mind. The analysis provides a clear sense of what was not observed: resourcefulness, redundancy, and for the most part flexibility. (There is one set of causal conditions with flexibility as an outcome, but it is one of the weakest of our causal conditions over the threshold.) Why this is the case may have to do with a kind of *observational bias*. For outcomes with high coverage (strength) there are a number of different causal configurations that generate them. Why this is the case may have to do with a *strength bias*, and the *coarseness of the concepts* involved. Each of these three is important to take some time to explore.

**GRAPHIC 24: DATA POINT DISTRIBUTION**



#### **OBSERVATIONAL BIAS**

There is one more aspect to our data and analysis worth mentioning: an observational bias. In our 99 responses, there was a clear observational bias towards observing qualities of a relationship in the social system, the organization, and to a lesser extent the presence of institutions. We can see this reflected in the chart below. The chart stacks numbers of observations, where an episode of leadership was attributed to an aspect of the urban system.

Blue indicates (1) indicates an data point where an episode where an urban system element (such as the community) was believed essential. Green (.66) indicates it was important, while yellow (.33) indicates it was somewhat important. Most observations identify Rainbow's community or culture as essential to the observed episode of leadership. Rainbow's curriculum is often observed playing a role, but not frequently an essential role. There are significantly fewer observations made of Rainbow as a place or organization, and most do not attribute the organization or place as essential to the observed episode of leadership. This means generally the observations made in this data set are of the institutions, social relationships and practices that compose the social side of an urban system, not the more tangible physical technical, infrastructural or ecological aspects of an urban system.

This may illuminate something about the resilience of schools as urban systems, or it may illuminate something about the bias to implementing a distributed ethnography amongst lay participants in an urban system. Given that our research looks at a school and only at a single school, it may be reasonable to say that the qualities of resilience relevant to an analysis of this kind of urban system are qualities that emerge through social interaction. It also might be reasonable to say that given the observational bias of our data, other aspects of the urban system like its geographical site and physical infrastructure are important, but go un-observed by this distributed ethnography. It is likely to be a bit of both. What this means about the data is that there is evidence for the four necessary elements of resilience in a socially-oriented urban system. And, given the extent of the data, there is not sufficient evidence to make a robust argument about the resilience (or lack thereof) at Rainbow Community School.

#### **STRENGTH BIAS**

One possible explanation for the high number of causal sets is that observations made by participant observers seem to hold a kind of strength bias. Observer attributes some quality of resilience to be essential to explaining some episode of leadership – probably more important than it actually was to the outcome. For example, there are a number of stories where participant observers coded a story as holding being fully in the integration set ( the story was quoted as a 1, Integration was essential to the story). From the perspective of the researcher, for many of the stories integration was somewhat important (.33) to the episode of leadership, but integration was not essential (1) to the story. Strength bias is corrected by calibration – to a degree. There no existing reference points within the resilient scholarship on



which direct calibration could be based. Because of that, calibration was done indirectly, where the the researcher is coding cases themselves.

This brings out one's great strength and one great weakness of coupling distributed ethnography with a set theoretic approach. Observer participants do not have as clearly defined sense of the concepts employed. Even with description and conversation, just when observers don't necessarily know what it is that the researcher the research instrument is asking for. Countering this, participant observers do have a sophisticated sense of the their perceptions of the causal sets that drive outcomes. from the perspective of an outsider like the researcher, it may be entirely invisible lie integration was so important to a particular episode of leadership. Because of that, the researcher might coded as 0 or .33. Because the participant observer is intimately aware of the activities that contextualize some episode leadership, they might understand better what role integration played in creating some episodes leadership, and code it as a 1. This conundrum comes up again in the conclusion chapter, during the discussion on methodological lessons learned.

#### CONCEPTUAL COARSENESS

Another possible explanation for high number of causal configurations is that for each of our outcome concepts (such as Integration), these qualities of resilience may signify more than one substantive outcome. To put that another way, Integration is referring to more than one outcome, and each of those outcomes within integration has, in and of itself, sufficient coverage to be a meaningful outcome.

To offer a metaphor to explain, think of a thunderstorm over the city. The city has many different buildings. These are our causal outcomes. There also many different clouds. These are our causal conditions. At the moment, the way this is analyzed involves thinking of the city only in terms of a fairly large grid. Any particular neighborhood could be inclusion, or integration. Within the neighborhood, there are a number of different buildings. For any particular lightning strike, lightning might have come out of several different clouds in order strike a neighborhood. Given the structure of our research instrument, it is not possible to determine what building it is striking, only what neighborhood the lightning strikes in. What can be said is that lightning is coming out of some particular set of clouds, and striking in the neighborhood of integration. It can also be said that lighting is coming out of a number of different cloud configurations in order to strike the neighborhood of integration.

A more fine-grained picture of causal conditions and outcomes would be more useful. In terms of our metaphor, a better idea of which specific clouds the lighting is coming from, and which specific buildings in the striking would be helpful in practice. Greater granularity gives us consistency and coverage values that are greater. How to design a research instrument around the resilience of urban systems that might develop this granularity and how to obtain more data points is a topic that will be covered in the conclusion chapter.

There is one last issue to touch on, which is sample size. A possible explanation for the many causal configurations to rule out is that the large numbers of causal conditions with coverage, and lack of causal conditions with consistency above .9 is due to a small sample size. Set theoretic analysis is often used in organizational contexts, with 10 to 50 data points (Fiss 2007). 99 constitutes a large set.

#### **HOW TO INTERPRET THIS ANALYSIS?**

In order to generate a clear sense of what functions of leadership might be generating the resilience qualities for which there is evidence, a further layer of analysis was conducted. To remind the reader, this set theoretic story data set was analyzed qualitatively. Coding was done within Atlas TI in two rounds. The first round was inductive, working up from observations to common themes. The second round was deductive, working down from aspects of conation. This generated 168 codes in 13 groups. Themes emerged around the consistent learning environments involved in episodes of leadership, the drivers of transformation within a story, the sorts of outcomes from transformation, cultural consistent cultural elements, and individual capacity for managing and expressing emotions, managing conflict, and translating values into action. This analysis hopes to provide a clear sense of what role each of the different aspects of Rainbow Community School as an urban system was offering to the resilience of the system is a whole.

This coding assists in drawing out more specific conclusions about the role of various system elements in generating resilience outcomes. To put it differently, what simple propositions can be offered about the role that each of the urban system elements play in fostering qualities of resilience? There are several more focused specific themes to draw out. Rainbow's culture and community are drivers of integration and inclusion. One story, about how a child with different physical ability was supported during a challenge, illustrates this:

*I was a chaperone for the last field trip of the year last year, to the NC Arboretum. One boy in the class had typically struggled with physical issues of coordination, being overwhelmed easily, and having a little slower development in some areas than his peers. We were on a trail walk, and at one point in the trail, there is a huge hollow log that kids love to crawl through, like a long wooden tunnel. So kids lined up, scrambled through, loved it or took it in stride or opted out. Then this boy's turn came. He was hesitant, but wanted to try to do it. His progress was slow and he was really not sure... but there was a teacher at the front, a teacher at the end, and then all the chaperones and kids were giving encouragement, telling him he was doing a great job, keep it up, you can do it, and when he came through the other side, he had the biggest smile on his face and everyone cheered. I heard later that he had never done anything like that before, with such close physical quarters and kind of an intense stretch where you're stuck in a wooden tunnel and can't really back up. This cost some time, which the group was willing to give. It cost some repeat turns of other kids who were faster, which they were willing to forego. It was just the sweetest moment, and I found myself thinking, this time, attention, encouragement, and recognition that this is something special for this person to want to accomplish - and then succeed, that these offerings were what Rainbow can give, and encourage others to give.*

During the event, the community was intentional to integrate the boy into the larger group and its activities, and intentional to ensure he could be included in their activities as well.

Rainbow as a Place plays a role in supporting the curriculum as a drivers of reflection. One story exemplifies this, in which a father tells a story of how a teacher used the playground as a space for conflict mediation and reflection:

*My son was having some issues and conflicts with a boy in class who he has been friends with for the past year. After an incident in Afterschool, I mentioned it to my son's teacher the next day so he was aware of the issues and could keep an eye on the boys to make sure no further problems occurred. I found out later that the teacher was concerned for the boys' friendship and decided to take the boys out of class for a special "experiment". He had previously made a giant "see-saw" and he made the boys lug it out of the shed and set it up together. Then he made them work together to balance on it and keep it balanced for 60 seconds. Once they achieved the goal he had the boys bring the device back to the shed while he casually discussed their relationship issues. The boys ended up talking out their issues and their friendship was repaired. That teacher didn't need to take time out of his day to help the kids*

*with their friendship but he did. And he did it in a very unique way to help them work together in a physical way. It was brilliant and above and beyond the call of duty! This is a typical example of the Spirit of Rainbow that I see regularly with the amazing teachers and faculty.*

Rainbow's physical site has required a great deal of flexibility from its staff and students over the years. Until the recent expansion, in order to match classroom to class size, every class would relocate classrooms every year (R. Owen March 28 2016; C. Konjin March 23 2016). Shortages of space and materials, has driven a culture of "rolling with it" that extended to day to day operations. Outside of its role in driving flexibility and fostering spaces for reflection, the physical space of Rainbow is rarely perceived as an important driver.

An important outcome of the Rainbow Curriculum is a greater flexibility in responding to challenges. In one episode, a teacher used team project-based learning to create productive tension for two fourth graders:

*In the beginning of the year Ariel and I were not very good friends. Then for a little while, after Susie put us in a partnership, we learned more about each other, and became much better friends. This makes me feel good to have someone I can count on. This school encourages you to make more friends and not to have enemies.*

This isn't limited to academic or intellectual challenges, but emotional, practical and social challenges as well.

Rainbow as an organization is perceived as playing an active role in driving integration. The clearest example of this is the team support practices such as Child Study. One staff member offered this perspective:

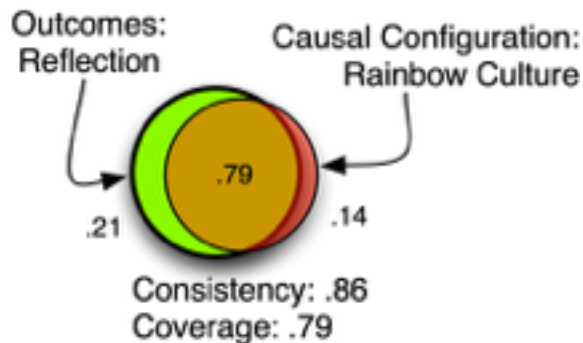
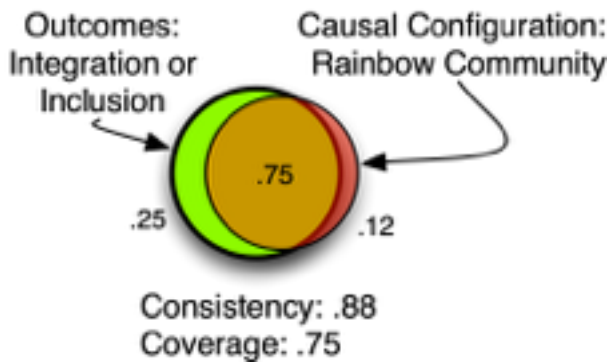
*Once a month, teachers meet for "Child Study." Teachers bring the names (and often a photo) of a student or students who are particularly struggling whether it be academically socially, emotionally or in other ways. The child's situation is shared with the group in an effort to build a support system for that child. We share ideas on how to further help the child; often teachers who have taught the child in previous years can offer insight and support as well. Usually a photo is shared so that when teachers encounter the child on campus or on the playground they can recognize him or her and offer needed support. Finally, we take a moment to lovingly hold the child in our hearts. As a specials teacher I teach all the children for a short time each week; I do not know them as well as their classroom teachers do. I value this time to learn more about my students and how to support them. I am not required to*

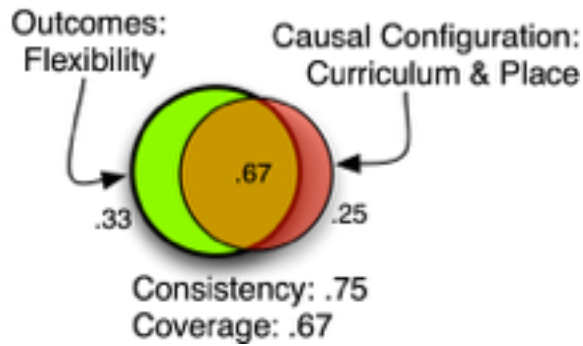
*attend these meetings as a part time teacher; however I rarely miss them! The love, compassion and dedication that is present in the room is very powerful, it's an honor to work with these teachers.*

In Child Study, knowledge about any one child is integrated across staff members to sense-make a cohesive portrait of where they are on their learning journey.

Last but perhaps importantly, rather than playing a dominant role Rainbow's curriculum and the organization play a supportive role in driving most resilience outcomes. From the perspective of the classic expectations about a school, this is somewhat surprising. This is perhaps best explained less by a diminished presence of an active organization or impactful curriculum as it is by the more powerful and overt presence of the other elements, particularly community and culture.

#### GRAPHICS 25: VENN DIAGRAMS OF KEY SET THEORETIC RELATIONSHIPS





### RECAP

To recap, this section has provided description of what specific data was acquired, and how the survey instrument was designed to acquire it. It offered a window on that data, and how it was analyzed in two stages. The first stage was set theoretic. After calibration, a necessity analysis was conducted. This revealed two strong themes: the clear absence of redundancy, resourcefulness, and to a lesser extent flexibility. For the observed resilience outcomes of reflection, integration, inclusion there is the clear presence of a number of causal consistent conditions with high coverage. This is due primarily to the coarseness of the concepts used in the distributed ethnography, and to a lesser extent the number of data points. A second round of analysis was conducted, using qualitative coding to distill out important themes. This revealed clear relationships between specific elements of Rainbow Community School as an urban system, and our the emergent qualities of resilience. Some examples of where these relationships could be seen were offered. From this data, it's possible make a strong argument for the presence of some qualities considered necessary to resilience. It is not possible from the data to make a strong argument for the presence of all qualities necessary for the presence of resilience. For a socially oriented urban system like Rainbow Community School, it is not clear what constitutes the sufficient qualities for resilience. So, it may be that Rainbow Community School is a resilient urban system. Nevertheless, given the current analysis, it is not possible to say definitively that Rainbow Community School is a resilient urban system. This next section will analyze the data acquired around leadership within Rainbow Community School. The analysis will return to resilience in when these themes are brought together in the conclusion chapter.

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## 2) LEADERSHIP AT RAINBOW COMMUNITY SCHOOL

### KEY ARGUMENT

What forms does leadership take at Rainbow Community School? This next section will explore this question, using the evidence from the Rainbow Community School case to examine the role of Complexity Leadership, Individual Strategic Leadership, and spiritual leadership within Rainbow Community School. From this, I will offer some propositions about the interrelationships between these three modes of leadership.

There is clear evidence for each of the functions of Complexity Leadership within the operations at Rainbow. That said, Complexity Leadership by itself is not sufficient to account for the patterns of leadership observed within Rainbow Community School. There are two other elements that are necessary to account for these patterns: Individual Strategic Leadership, and spiritual leadership. In the recent past, Individual Strategic Leadership plays an essential role at Rainbow Community School through providing Administrative Leadership and Information Using Leadership. Looking at the larger span of Rainbow Community School's history, the Rainbow Community School case suggests that Individual Strategic Leadership's greatest utility with Complexity Leadership may be *rebalancing*: to identify the weakest functions of leadership and strengthen those functions.

We propose the presence of an additional function to Complexity Leadership: *Spiritual Leadership*. Spiritual Leadership's function is to acknowledge mystery, provide permission to engage with that mystery, to ask questions of why, and to embrace that transformation generated by engaging with mystery. Spiritual leadership generates two outcomes: *subordination* and *tuning*. Subordination is a submission to a larger purpose in the face of uncertainty. Tuning is the active alignment and coordination of various functions leadership.

This gives us a six function framework for Complexity Leadership, complemented by Individual Strategic Leadership. This configuration of leadership better accounts for the behavior leadership at Rainbow Community School, and offers a jumping off point to connecting leadership with resilience—which will be the focus of the conclusion.

### ROAD MAP

In order to substantiate these arguments, this section will have four steps. The first will be to explore the functions of Complexity Leadership within Rainbow, explaining how each function of leadership manifests within observed behavior. The second will be to explore in what forms Individual Strategic Leadership manifests at Rainbow Community School, and to offer propositions on the relationship between Complexity Leadership and Individual

Strategic Leadership. Third will be to introduce the proposed addition to the Complexity Leadership framework from this research: Spiritual Leadership. After offering a definition and the core functions to Spiritual Leadership, the Rainbow Community School case will be used to explain the relationships between spiritual leadership and other functions of leadership, followed by some propositions about spiritual leadership. Having assembled these three building blocks, the next step is to examine RCPH in brief, and compare and contrast the forms that leadership takes in Rainbow Community School and RCPH. The chapter will close with a recap of our separate arguments about the resilience and leadership, and pose the questions that will be addressed within the [Conclusion](#).

### **COMPLEXITY LEADERSHIP AT RAINBOW**

Before beginning, I wish to cue the reader on a key aspect of how this explanation of leadership is organized: time. While examining Complexity Leadership, this next section will be looking specifically at Rainbow Community School during one specific slice of time: the present. In the conclusion, the Complexity Leadership section will broaden the scope of time to include Rainbow's past. With the new scope of time and focus, it will become clear why Complexity Leadership as it stands is not sufficient to explain the narrative history of Rainbow.

To remind the reader, from the complexity perspective leadership is a relational process, where leadership "can be seen as a complex dynamic process that emerges in the interactive 'spaces between' people and ideas" (Gronn 2002; Lichtenstein et al 2006). In order to maintain a complex adaptive system, there are five functional demands that configurations of leadership must perform in order for those systems to maintain themselves: Community building, Information-Gathering, information using, generativeness, and administration.

Within the contemporary Rainbow Community School, there is strong evidence for each of the functions of Complexity Leadership. In order to demonstrate this, this next section will step through each of the functions of leadership. For each, it will identify what qualities and practices drive that leadership function, and what events and outcomes exemplify this function's presence at Rainbow Community School.

### **COMMUNITY BUILDING AT RAINBOW COMMUNITY SCHOOL**

The [Community Building \(CB\) function](#) of leadership fosters and reproduces a sense of trust, belonging, and the collective identity. Rainbow Community School has a rich set of



practices that contributes to its community building. The most simple and consistent is centering. To remind the reader, centering is the practice of lighting a candle and spending a few minutes in contemplation silently and then in conversational reflection. Other formal practices that play an important role are festivals such as the Hoedown, Holiday Festival, and graduation ceremony. Equally important are the institutions and social norms around engagement and relationship between teachers and parents, teachers and students, and students and parents. The informal mixing zones of pickup and drop-off hold expectations of presence and collective purpose. Parents are not allowed to pull out cell phones. Teachers and parents converse regularly, connecting over the small events and frictions of the day. Students engage with the parents of others (and even strangers like myself) with the presence and engagement reserved in other cultures for one's most intimate family. The cumulative experience of these formal and informal institutions is one of the presence of *we*: the Rainbow community has a clear collective identity. [The culture of radical acceptance and permission for deep strangeness](#) that this fosters provides the foundation to each of the other functions of leadership.

#### INFORMATION GATHERING AT RAINBOW COMMUNITY SCHOOL

The [Information Gathering \(IGL\)](#) function of leadership is to sense the state of the system, and make sense of those signals. Rainbow Community School employs a range of formal and informal practices to do so. Formal practices such as Dynamic Governance and Child Study provide structured environments for the pooling and synthesis of information. These formal practices provide sensing and sense making on issues of consistent importance to the organization. Of equal or greater importance are the institutions that emerge out of community building around exchange informal exchange of information and sense making. These are capacities for equipoise, emotional intelligence, and conflict maturity that were discussed in the exploration of [what makes Rainbow Community School the place it is](#). These informal institutions play an essential role in distributed sense-making at Rainbow Community School, as well as feeding valuable information into the more formal sense-making processes.

We can think of Rainbow Community School's conflict maturity as one of the most prominent expressions of its Information Gathering Leadership function. Because this conflict maturity enables Rainbow Community School members to feel deeply seen and understood, it

reinforces the Community Building function of leadership. This creates a mutually reinforcing feedback. The radical acceptance and permission for deep strangeness fostered by Community Building enables conflict maturity. The Information Gathering fostered by this conflict maturity creates the conditions for radical acceptance and permission of deep strangeness.

#### **INFORMATION USING AT RAINBOW COMMUNITY SCHOOL**

The [Information-Using function of leadership \(IUL\)](#) helps a complex system migrate across a fitness landscape, once it has determined that change is necessary. To do so involves Ratcheting from one set of emergent patterns and fine-grained practices, to an entirely different set of coarse-grained emergent patterns and fine-grained processes.

The Information-Using function is episodic: not every day (or year) requires Ratcheting in the transformation of an entire system from one configuration to another. Evidence for its presence, then, is best seen within particular episodes. The clearest example within Rainbow's recent history is its efforts at growth. As was [discussed in Rainbow's historical narrative](#), Rainbow Community School faced a choice. In order to be financially solvent, it could either shrink and become a small school, or grow and become a large school. After the Appreciative Inquiry Summit, the community had determined that it wanted to grow. Once committed, decisions by Renee, the board, and the staff all reinforced this choice, making it unavoidable and irreversible.

#### **GENERATIVE LEADERSHIP AT RAINBOW COMMUNITY SCHOOL**

The [Generative Function of Leadership \(GL\)](#) fosters entirely new large-scale, coarse-grain emergent patterns within a complex system. The generative function at Rainbow Community School is expressed in both focused and diffuse ways. One venue is the Un-Conference format meetings held by staff every month. The Un-Conference format is an approach to meetings or conferences where participants self organize: they determine the subjects of sessions, order of events, and then choose when and where to participate. At Rainbow Community School, these meetings are an opportunity for new subjects of focus to emerge, and then a collaborative team of staff to explore it. Often times this leads to new curriculum ideas, such as an approach to teaching mathematics that integrates instruction across grade levels (Unconference Observations March 27). Rainbow Community School's use of formal spaces for generativeness is fairly limited. This said, Rainbow Community School's creative culture is remarkably strong. [Its strong culture of play, improvisation, and](#)

[collaboration leads](#) to generativeness distributed across Rainbow Community School. This seems to have been true at Rainbow Community School since its early days and continues to be true to the present.

#### **ADMINISTRATIVE LEADERSHIP AT RAINBOW COMMUNITY SCHOOL**

The Administration function of Leadership (AL) provides entrainment, or the alignment of fine-grained practices and daily patterns with coarse grain emergent properties and goals. Administrative Leadership can be observed through a number of specific events and consistent practices. The curriculum alignment project that built Rainbow Community School's contemporary curriculum is one stand-out example. Staff review, budget review, and board oversight exercised through policy governance are consistent practices of administrative leadership. The narratives used by teachers to convey children's progress and expectations can be viewed as another form of administrative leadership. These child narratives provide entrainment of parent expectations and child behaviors to the cultural institutions at Rainbow.

It's useful to provide some context on Administrative Leadership. In contrast to other schools, AL at Rainbow Community School is quite weak. The product of city scale bureaucracies that must answer to state and national metrics and performance requirements, public schools are designed almost entirely around Administrative Leadership. Weaker AL than observed in these settings is not necessarily a bad thing. And, AL at Rainbow is significantly stronger than it has been in the past. Previous eras, such as under the leadership of John Shackleton, were characterized by an absence of AL. AL is perhaps a potential source of weakness for the school currently. Entrainment of curriculum practices at grade levels to some larger emergent goal can be inconsistent. That said, AL seems quite strong when clear goals have been established.

#### **CONCLUSION: NECESSARY BUT NOT SUFFICIENT**

As has been described so far, Rainbow Community School is an urban system with strong Complexity Leadership. There certainly are other themes that could be talked about, but none of them seem necessary to explain Rainbow Community School's capacity and performance. That is, until its history is given a closer look. Nine years ago Rainbow Community School was a very different place. It was smaller in enrollment, staffing and physical site. Its curriculum was less cohesive, unfocused, and vague. Its organizational

culture was complicated at best, and caustic at worst. What changed? Explaining this begins to unravel why two other elements of leadership are required to explain leadership—and resilience—at Rainbow.

### **INDIVIDUAL STRATEGIC LEADERSHIP AT RAINBOW**

*When I first met Renee I thought she was nuts. I thought, I like this woman, but she's kind of nuts. The things she sees to do seem impossible. But the more time you spend around her, the more you see that she has a vision and it manifests (S. McCassim March 28 2016).*

In a word, what changed was Renee. Either directly or indirectly, Renee's Owen's presence and leadership led to much of the leadership capacity that Rainbow Community School as an urban system now holds. Nine years ago, Rainbow Community School needed strong Individual Strategic Leadership. Between now and then, she's provided strong leadership. More important than her direct leadership is how Renee has acted to strengthen the leadership capacity of Rainbow Community School. And, more important than her work to strengthen the leadership functions at Rainbow Community School was the adaptability with which she approached the challenge.

### **KEY ARGUMENTS**

From the narrative of Renee's history at Rainbow Community School, an important lesson about the role of Individual Strategic Leadership within Complexity Leadership can be extracted. The most important capacity of a strategic leader operating within an urban system is their adaptability. Adaptable Individual Strategic Leadership can listen to a broad spectrum of signals, synthesize those signals into a cohesive understanding of the state of that system, identify the weaknesses the existing weaknesses in the functions of leadership, and then change their behavior to strengthen those weaknesses. Effective Individual Strategic Leadership within Complexity Leadership is characterized by rebalancing, or the ability to foster strong leadership across all functions through leveraging existing strengths.

In order to substantiate this argument, the section will identify some of the functions of leadership that Renee provided, and explain how Renee took steps to strengthen other functions of leadership. Then, it will briefly outline the transformations that Renee underwent during her time at Rainbow Community School and how these illustrate her adaptability. This section will close with an important unanswered question—which cues our next section on the spiritual leadership.

### PROVIDING FUNCTIONS OF LEADERSHIP

*Renee is an across-the-board strong leader, but she has some particular things that are really her strengths. One is her financial stewardship and, financial planning style. The other is she was really good at hiring good people. There's been very few duds in the years that she's been hiring. Over several years that has really created trust. She is really shown what you can do. So, even though the board needs to sign off on these big decisions, but were also setting direction. But we're not doing that in a vacuum. She is also good at communicating what she is doing, so it is never hard to look ahead (C Konjin March 23 2016).*

Staff and parents at Rainbow like to tell stories about Renee. Of their stories about the early years of her leadership, there are two clear functions of leadership that stand out: Generative (GL) and Administrative (AL). Not only was Renee “a hard ass, who came in and cleaned house” she was also an excellent manager of finances and people (J. Hatcher). We can see evidence for entrainment in both cases. In the first, her early work consisted of putting the financial house in order, and entraining existing budget line items to larger goals, and cutting costs where expenses were not clearly aligned with larger goals. With staff, she accomplished the same, taking the hard steps to remove staff that were clearly not a good fit. Another example was the [curriculum alignment project](#). Working from a set of learning objectives upon graduation, she and the staff aligned with the pedagogical strategies and objectives for all grades with those learning objectives. It was one large exercise in entrainment.

The power of her early administrative leadership left few areas of Rainbow untouched, and left a much cleaner and cohesive picture of what Rainbow what constitutes Rainbow as a distinctive school as a consequence as a result.

Comments like, “I like her, but she’s kind of nuts” often come out amidst stories about her wild creativity (S McCassim March 28 2016). Not only was her generative creativity essential in introducing new practices and patterns to the Rainbow toolset, such as Dynamic Governance, it came out most powerfully in helping instructors workshop problems in the classroom (S. Robidoux March 22 2016). Often these collaborations between Renee and a teacher would result in a larger learning opportunity about how to address a systemic issue. That systemic issue would then get scaled up across the school. Rainbows reputation as an innovative educational space is due in no small part to Renee’s creative force.

### **STRENGTHENING FUNCTIONS OF LEADERSHIP**

As important as her capacity to directly provide Administrative and Generative Leadership has been, both are overshadowed by the importance of how she fostered other functions of leadership throughout Rainbow Community School. The primary means by which she did so was the introduction of effective new practices. This can be seen within three areas.

The capacity for Administrative Leadership has been strengthened at Rainbow through the introduction of specific management practices. One example is the end of year review. For two whole weeks after class ends, the staff gathers every day to process the events and learn from the year. From this, they determine what strengths and weaknesses their pedagogical strategies had, and what should be dropped, improved and refined for next year. The practice creates the capacity for the staff as an ensemble to determine what fits and what does not.

The capacity for Information-Gathering has been strengthened at Rainbow through the introduction of sense making practices. The most visible example of this (which connects Rainbow Community School with the residents Council public housing) is the adoption of Dynamic Governance. Dynamic Governance supports sense making within the staff, and enables the signal processing capacity that the organization would otherwise not have.

The capacity for Information-Using has been strengthened through the introduction of governance practices. Renee's condition of hire was that the board adopt Policy Governance. This shifted the board's role from one of being a working board to being an instrument of direction and accountability. The board's capacity to provide direction in the following nine years was instrumental to Rainbow's growth and transformation.

### **LESSONS: THE RELATIONSHIP BETWEEN STRATEGIC & COMPLEXITY LEADERSHIP**

With the first two examples, Renee provided leadership directly. With the next three, she created conditions for others to provide leadership. Many strategic leaders become the only source of some essential function of leadership. They become indispensable to the organization; if they leave, the organization is crippled by the loss of that leadership function. Renee's style is quite the opposite. Even in the two domains where she provided leadership directly, she was at the least not suppressing and quite often fostering the conditions for others

to provide that leadership function as well. Renee's leadership is empowering: it fosters leadership from others.

With the exception of policy governance, none of the strategies that Renee introduced were part of her leadership toolset before she arrived at Rainbow. During many of the researcher's conversations with Renee, she was actively working to identify the signals of internal challenges within Rainbow. Then, she was hunting externally for solutions. Renee acts as a kind of conduit for useful knowledge from the outside. Whenever a practice was needed to strengthen some function of leadership, Renee would seek a practice that could be used to strengthen that function. When she discovered one, she would bring it to Rainbow Community School, test it, adapt it, and help it find adoption within the organization.

When viewed from this lens, a strategic leader like Renee has an important domain of expertise: knowledge about process. To balance the functioning of leadership within their organizations, strategic leaders must develop a sense of what qualities of process are needed, use external sources to identify a related process, adapt it, and then facilitate its introduction and adoption within their organization.

Each of these aspects of Renee's leadership style can be thought of under one heading: *rebalancing*. Renee's primary function as a strategic leader was to rebalance the expression of leadership within Rainbow Community School as an urban system. To do so, she either provided or fostered functions of leadership that had been weakly expressed.

#### **CONCLUSION: REBALANCING FROM INDIVIDUAL STRATEGIC LEADERSHIP**

To recap, there are several lessons about the role of Individual Strategic Leadership within Complexity Leadership for us to draw from Renee as an example. Individual Strategic Leadership can foster effective Complexity Leadership. It does so through identifying the weak functions of leadership within an urban system, and strengthening those functions. It strengthens those functions through providing that functional leadership directly, and by creating the conditions for others to provide that functional leadership. To foster various functions of leadership, strategic leaders develop process expertise.

The impact of her leadership is quite easy to follow. The driver of what makes her an excellent strategic leader within complexity is more subtle. Renee is an excellent strategic leader not simply because she was a hard ass who is good with budgets, but because

underneath that, she is listening deeply to the needs of the system, and adapting herself and her leadership style to fit those needs.

One question to ask is why was Renee such an adaptive leader? This offers an interesting line of inquiry, but is perhaps a distraction from a more important question. Why was Renee at Rainbow at all? Ultimately, the two questions have the same root answer.

### **SPIRITUAL LEADERSHIP (SL) AT RAINBOW**

Renee was selected by the Rainbow community over a founder of the school. This was a fairly remarkable event. To explain why Rainbow Community School selected Renee requires pulling another thread from the tapestry of its historical experience. What they sensed in Renee was not merely a capacity for strong leadership. They could see that she was a hard ass that could get things done. Her record in Paradox Valley was quite impressive. But Renee was, after all, competing for the position with one of the founders, John Johnson. John Johnson is a charismatic man, and one capable of strong leadership.

But there is something more than that. Rainbow Community School was from its founding a spiritual school. The community members that it attracted were parents who wanted their children to grow up in a spiritual environment that was nonreligious. At its core, there was something about engaging with mystery, and with the unknown.

The school was facing a confrontation with the unknown. It knew that it was in a kind of silent crisis, and that the leadership they had experienced thus far could not carry it where it needed to go. They were seeking something new and unfamiliar.

In Renee, they sensed that she had a spiritual core to what animated her. They perceived her capacity for *subordination*. She was willing to subordinate herself to the needs of something larger than herself, and allow it to shape her. She was humble, reflective, and adaptable. The world molded her, and she allowed the world to mold her. The Rainbow community could see evidence for her capacity to subordinate within her record at Paradox Valley. In the founding of the Paradox Valley school, Renee had become what that school required that she become: a hard-nosed fighter who could hold physically threatening neighbors and school board at bay, while empathizing with traumatized children of this unusual and extraordinary backcountry. And, she could articulate a vision for something no one in that part of the world had seen before: a transformative school.



It was the capacity for subordination, and the adaptability that it lent her, that John Johnson lacked. Because of that, the community rejected one of its founders and went with someone almost entirely unknown to them. But this new someone engaged with mystery in ways they found compelling. She could lead Rainbow out of where they were towards where they needed to go.

#### MAIN ARGUMENT

While the traditional five functions of Complexity Leadership are necessary to explain Rainbow Community School as a case, they are not sufficient. This research theorizes from Rainbow Community School as a case to propose a sixth function of leadership within complexity: *spiritual leadership*. This research theorizes that Spiritual Leadership's (SpL) function is to provide a sense of meaning through acknowledging mystery, providing permission to engage with that mystery and to ask questions of why, and to embrace the transformation generated by holding meaning within conditions of mystery. Mystery is something that is not fully understood, or baffles or eludes understanding (The American Heritage Dictionary 1993). In the context of complexity theory, mystery can be thought of as uncertainty. To give something the label mystery is to label it as uncertain, and to enter into relationship with that uncertainty. Spiritual Leadership operates through three basic activities: pondering, prophecy, and prodding. Each of these three play a role in integrating existing aspects of Complexity Leadership. Spiritual leadership generates two general outcomes: subordination and tuning. Subordination is a submission to a larger purpose in the face of uncertainty. Tuning is the active alignment and coordination of various functions of leadership. Spiritual leadership provides this coordination through interaction with each of the other functions of leadership. Spiritual leadership constitutes a distinct function of leadership (rather than a subset of another function of leadership) because its actions respond to different fundamental questions. This grounding around purpose provides an ability to orient, align, and harmonize the activities of other functions of leadership.

#### ROAD MAP

To substantiate these arguments and this concept of spiritual leadership, this next section will briefly describe these three activities of spiritual leadership. Then it will go into much more detail about how spiritual leadership provides interaction and integration across

the existing functions leadership, and provide examples from Rainbow Community School for each.

### **ACTIONS OF SPIRITUAL LEADERSHIP**

Pondering engages the senses with mystery in order to articulate a deep why. It is about being. This is a key activity during centering, and one of the key personal capacities fostered at Rainbow Community School. Pondering can be thought of as forging or fostering a connection between Information-Gathering and community building functions of leadership.

Prophecy takes internal and external signals and synthesizes them into a story about what it means to practice those values. It is an articulation of normative purpose. It is about expectations: we should enact these values. When we enact our being, this is the world that we will have. Prophecy can be thought of as fostering or forging a connection between Information-Gathering, and the generative function of leadership. Prophecy is expressed by Renee in her role as Executive Director, and by board members such as Stewart Stokes.

Prodding is a call to moral action. If these are our values, we have a responsibility to engage in action. Prodding is the activation of individual conation, marshaling into a collective force. We can think of prodding as fostering or forging a connection between Information-Gathering and the administrative for information using functions of leadership, either by inspiring an adherence to entrainment, or by inspiring a dedication to Ratcheting. Examples include Claudia's role on the board, and using the board to prod the social network as a whole.

### **SUBORDINATION & BELONGING**

Spiritual leadership provides coordination and integration across the other functions of leadership through more specific exchanges with each function. Spiritual leadership constitutes a distinct function of leadership (rather than a subset of another function of leadership) because its actions respond to different fundamental questions. Of our six functions of leadership, Information Gathering (IGL) and Generative Leadership (GL) can be thought of as divergent. The other four are convergent. Community-Building asks for alignment around identity: who. Administrative Leadership (AL) asks for alignment around process: how. Information-Using Leadership asks for alignment around goal: what. Spiritual Leadership asks for alignment around purpose or values: why. This grounding around

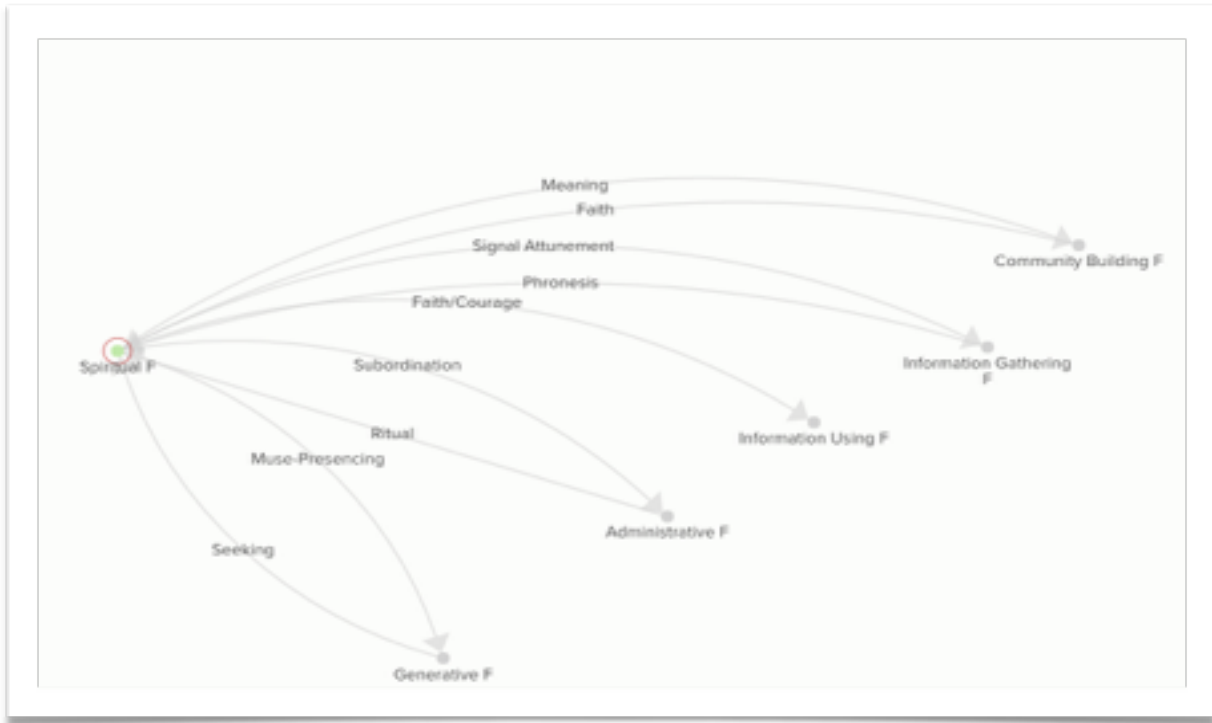
purpose provides an ability to orient, align, and harmonize the activities of other functions of leadership.

For clarity's sake, there are two concepts integral to community to dis-entangle before going on: belonging and subordination. Belonging is a close and secure relationship (American Heritage Dictionary 1991). This is usually referring to relations to a person or persons. Belonging does not refer to an idea or concept. Within Rainbow Community School, this research has also observed subordination. For the purpose of this research, subordination is the ability to submit oneself to some cohesive set of larger ideas, meaning or purpose. Within Rainbow Community School, this cohesive set is referred to as the Spirit of Rainbow. For the purpose of this research, a cohesive set that is the focus of subordination will be thought of as a Spirit of an Urban System.

At Rainbow, there is a clear sense of belonging. Belonging is felt to the Rainbow community. There is also a clear sense of subordination. Subordination is felt in the Spirit of Rainbow. These are distinct experiences, though interrelated. This distinction is important for the following reason: community founded solely on belonging conforms to the concept of a stage Four tribe. Communities founded on both belonging and subordination conform to the concept of a stage Five tribe. To remind the reader, there is a discussion of tribal leadership within the Literature Chapter section on Leadership.

In its orientation and focus, Rainbow Community School is a stage five tribe. Rainbow Community School has a sense of community to which its individuals feel belonging. It also has a higher purpose to which its individuals feel subordinate: transforming education (S. Stokes April 12 2016; S. Robidoux March 22 2016, C. Konjin March 23 2016). Given that the observations at Rainbow Community School, part of the challenge for this research was to explain what was the source of subordination. This is one of the threads that led to theorizing on spiritual leadership at Rainbow Community School.

## GRAPHIC 26: COMPLEXITY THEORY FUNCTIONS WITH SPIRITUAL LEADERSHIP



### COMMUNITY BUILDING & SPIRITUAL FUNCTIONS

The Spiritual function influences Community Building by providing core values and a sense of meaning. It does so through many distributed actions of Pondering, as individuals engage with the mystery in their lives. Practices such as centering provide space for Pondering. This fosters moral maturity and a moral identity, aspects of [conation](#) (Hannah 2011). Prophecy, within centering and other collective gatherings, enables the assembly of many individual explorations of meaning and morality into shared constructions of meaning. Through collective Pondering and Prophecy, Rainbow Community School has developed a shared sense of meaning, and moral identity that they call the Spirit of Rainbow. As a result, within Rainbow Community School, community is founded both on belonging and subordination to a shared sense of meaning.

To use Rainbow Community School to illustrate, Claudia talked about the shared purpose of all involved with Rainbow in terms of a core value of stewardship:

*There's a sense of stewardship. We are stewarding along something that's been going for a long time and will go on for a long time. Because it's what's*

*needed in the world. We are entrusted this for now (C Konjin March 22 2016).*

Stewardship, as she explains it, is an act of subordination. The actions and purpose of the community is subordinated to care-taking for this school. Claudia engages in careful community building in order to foster community that supports stewardship:

*If I feel somebody is not participating as much as they usually do I'll call them and say hey what's up? It's more of a personal strategy than it is a leadership strategy.*

*A: What's the difference?*

*C: Well, there is a lot in it for me. In the sense, that I really want everyone on the same page. This is the theme in my life. To the extent that I can try to do that. The payoff is for me too. It's for me too, but there is an alignment from what I need and what the group needs to work together effectively. When an act service meets some of my own needs, it ends up creating the container the group needs in order to function (C. Konjin March 22 2016).*

Conceptualizing Community Building in exchange with Spiritual Leadership helps to explain why Rainbow Community School is a community characterized not by identity, but identity bound with meaning. This research proposes that when urban systems possess Spiritual Leadership, community can be based on belonging and subordination. Through subordinating to a Spirit, an urban system can develop a shared sense of meaning that animates community.

#### INFORMATION GATHERING & SPIRITUAL FUNCTIONS

The Spiritual function influences Information Gathering through directing attunement. SpL at Rainbow Community School invites pondering: what signals are relevant to engaging with the mystery that is in front of us? This openness provokes Rainbow Community School to acquire an unconventional spectrum of permissible attuned signals. This is reflected in its educational model. There are seven domains of signals to attune to: mental, physical, social, natural, emotional, creative, and spiritual. All of this creates an orientation of un-certainness; do not assume that all relevant signals to engaging with mystery are being listened to. This provides permission to seek new signals and explore their meaning.

In turn, Information Gathering offers Spiritual Leadership [Phronesis](#). Sense-making when attuned to mystery and a sense of shared meaning provokes questions, such as where do we find ourselves, what do we make of that, and what should we do?

An example from Rainbow Community School is recent board discussions about diversity. The pondering about the shifting demographic landscape of Asheville and Rainbow Community School led to a renewed sense that racial diversity must become a stronger priority. As a result, the group began prophesying a shift towards a school with broad inclusion, and the budget to provide widespread scholarships. This led to prodding by Claudia to translate this into action. As a result, a community meeting to broach the interrelated issues of budget, teacher pay, and diversity was opened in February of 2016.

Conceptualizing IGL as in relationship with SpL more thoroughly explains its breadth of attunement, moral sensitivity, and moral motivation observed at Rainbow. This research proposes that urban systems with SpL attune to a greater range of signals, and are more curious and questioning about what signals to attune to. This sensitivity to conditions fuels sense-making around meaning. As a result, urban systems with SpL cultivate greater capacity for phronesis.

#### INFORMATION USING & SPIRITUAL FUNCTIONS

The Spiritual function influences Information-Using through faith and moral conation. At Rainbow Community School, faith seems to be a carrot, with moral conation being the stick. Faith, as observed at Rainbow Community School, is the courage to do those things that seem impossible. Spiritual Leadership provides faith through offering the sense that amidst the mystery and uncertainty, meaning exists. Engaging with mystery provides meaning. This meaning amidst the darkness offers us the faith to continue moving forward, even when there are no overt signals telling us what direction to go. A number of Rainbow Community School growth moments are characterized by faith, Rainbow Community School's many relocations in its early growth period, its near financial collapse, and the church expansion. The church story is perhaps the most vivid. After it was clear that Rainbow Community School needed to grow in order to become financially sound, there was no clear strategy for doing so. What was present was the sense that somehow it would be able to, and to start preparing for the moment when it came. Within a couple of months, conversation between Renee and the pastor to the church south of the school revealed that the church members were open to selling their building. In a story that still brings tears to his eyes every time he tells it, Stewart Stokes described that stroke of luck as a moment when "the Angel of Rainbow and the Angel of that church had got to talking and figured some things out for us."

Moral conation is the classic outcome from prodding. Moral conation is the drive to convert an understanding of what values mean on a moral landscape into action (Hannah 2011). Moral conation is one of the capacities that comprises [conation](#) (Hannah 2011). Conation is the capacity to act within a complex moral landscape. Conation plays a role within Complexity Leadership through enabling [Ratcheting](#). Moral conation is frequently the missing link between a richly developed moral identity and actually bringing those values into action (Hannah 2011). Prodding can be seen as the externalization of individually experienced moral conation into the shared landscape for a group. For example, Claudia's role on the board is as the moral prod. In recent years, shifting demographics in Asheville and within Rainbow Community School simultaneously made a more homogenous student makeup likely, and higher tuition rates possible. To follow through on the Spirit of Rainbow required that the school generate strategies to recruit and then support low income and African-American students. She and the board were aware that this would become an increasingly difficult argument to make to their increasingly wealthy and isolated parents. Regardless, she convinced the board to make this argument in a series of community meetings (C.Konjin, Community Meeting February 11).

Information-Using provides Spiritual Leadership with opportunities for engagement with mystery and moral action. When these moments result in change and provide transformation, they create a feedback loop. This feedback loop reinforces the belief that through faith and moral action, meaningful outcomes actually emerge. This is what leads to a belief like Sandra's about Renee, *"The things she sees to do seem impossible. But the more time you spend around her, the more you see that she has a vision and it manifests"* (S. McCassim March 28 2016).

Conceptualizing Information-Using in relationship with Spiritual Leadership more fully explains the conation and capacity for Ratcheting observed at Rainbow. From these observations, this research proposes that through faith and moral conation, Spiritual Leadership plays a critical role in fostering Information Using's ability to ratchet an urban system.

#### GENERATIVE & SPIRITUAL FUNCTIONS

Spiritual Leadership influences Generative Leadership through focusing the muse. We can think of this focus as *presencing* (Scharmer 2009; Senge et al 2004). Presencing is the act of "letting go and letting come," when one opens their mind, heart, and will to the signals

of the present, allowing emergence to flow through them. Spiritual Leadership sets up presencing by creating the conditions for the generative moment. It does so through practices that foster letting go and letting come such as centering, and through creating a common creative reference point: working in the Spirit of Rainbow. In this quiet way, SpL fosters alignment by the creative efforts of many across a community. This leads to synchronicity, where ideas dovetail and integrate. This integration of many separate acts of creativity strengthens emergence from GL.

The most widespread example of this comes from the Rainbow curriculum. Pedagogical strategies are generated in alignment with the Spirit of Rainbow. As a result, it is as though Rainbow Community School teachers are all playing in the same key signature. This sets up the collaborative nature of teaching at Rainbow, as teachers share ideas and can grab “riffs” from each other easily. As a result, teachers are often taking each others’ pedagogical strategies, adapting them, and applying them within their own classroom.

In return, generative leadership provides Moral Imagination to Spiritual Leadership. One example comes from a mother of a 7 grader,

*In science the girls have learned to put their ideas into action. My older was concerned about the homeless and put together a care package for homeless people. Not only food and water , but also grooming items. My younger was focused on clothing in stores which are gender specific ie Mens Womens etc and noted that clothing items should reflect a personality , not gender. She made a plan to address local department stores with the idea of making clothing unisex and for it to be divided by size only, with the exception of clothing designed specifically for the way womens bodies are shaped vs mens. She put together a rack of clothing and had participants divide the clothes into what they felt was gender specific and what would be considered unisex. The result was that women go to the mens department for specific items but men do not tend to go to the womens department. She is providing education about the value of a unisex section.*

The story not only demonstrates Rainbow Community School students’ moral identity, but their desire to use their creativity in acts of service.

Conceptualizing Generative Leadership in exchange with Spiritual Leadership more fully explains the alignment and moral imagination present at Rainbow. This research proposes that urban systems that possess Spiritual Leadership experience a greater capacity



to foster emergence, particularly of patterns that respond to moral imperatives. This is due to a greater alignment of creativity across many distributed creative acts.

#### ADMINISTRATIVE & SPIRITUAL FUNCTIONS

Spiritual Leadership influences Administrative Leadership through inspiring subordination to practices derived from the Spirit. This is both in a constraining force “that’s not how we do things around here”, as well as an inspiring force “in the service of Rainbow, amazing things are possible.” As an inspiring force, subordination counteracts the belief that “one vote doesn’t matter.” This subordination to a larger purpose in the face of uncertainty is the foundation of spiritual discipline.

At Rainbow, evidence for both is present with the actions of students. One story told by a teacher was about a new student (J Cannoncro). He was larger than other students, and was bullying a smaller student. A few others students noticed, and confronted him, telling him “Rainbow is different. That’s not how we do things around here.” Existing students entrained the new student’s behavior to the norms of conduct.

A story about Gourmega, a fund raiser for the Omega program, illustrates subordination as an inspiring force:

*I recently had the remarkable opportunity of working with the middle school kids on their "Gourmega" fundraiser. This is an event where they raise money for their end of year trip by transforming their classrooms into a full service restaurant for one night. I work in the food industry and run several restaurants, so training and working with young people in a food event capacity is pretty familiar to me. What was remarkable about working with the Rainbow 7th and 8th graders is the level of emotional intelligence that they brought to the job. They demonstrated in countless ways that they cared about what they were doing. Even in the peaks of chaos, the bulk of them remained centered and focused on the job at hand. They ran the restaurant for the night—functioning as the servers, food runners, kitchen crew, etc. There are many 20 year olds that can't pull that off! I was truly impressed and moved by their commitment, focus, and ability to hold their intention and let their Spirit shine throughout the event. I will always remember it!*

Attributing this simply to routine or rote discipline seems to miss the point; their discipline feels inspired.

Conceptualizing Administrative Leadership in relationship with Spiritual Leadership more fully explains the why beneath the actions of discipline observed at Rainbow. Based on

Rainbow Community School, this research proposes that urban systems with Spiritual Leadership are more likely to develop inspired discipline.

#### INDIVIDUAL STRATEGIC LEADERSHIP & SPIRITUAL FUNCTION OF COMPLEXITY LEADERSHIP

In order to play the role of guide to Complexity leadership, Individual Strategic Leadership must have a spiritual core. Having a spiritual core enables much the same capacities for the individual that it does for an urban system. That spiritual core fosters an engagement with mystery. This engagement with mystery leaves them open to subordinating themselves to a Spirit (Community-Building). A relationship with mystery fosters attuning focus of a strategic leader towards soft signals (IGL). It is those soft signals that help them identify and strengthen the weak functions of leadership. This can provoke the sense that they must transform themselves in order to become the leader they need to be (IUL). To become, they open themselves to presencing (GL) allowing new aspects of their leadership to emerge, and using discipline (AL) to help them accomplish it.

Renee describes her work in terms of spiritual engagement that provides the opportunity for transformation:

*R: There is one more thing as we get into conflict—that is not just about emotions. Those deep one on one interactions with parents or with kids, with a child was having some big issue, I'm able to go to a spiritual place. That is so much more than just being able to go through non violent communication—here is my emotions, here is my need, here is my request.*

*A: What is the difference?*

*R: The difference to me is that Spirit enters the room and we become bound by Spirit in some way. We become connected. We don't just cognitively understand each other's emotions—compassion arises. Spiritual empathy. Is compassion spiritual empathy maybe? Maybe that is the difference between compassion and empathy. That feeling is so hard to describe except for some people say everything you do is either sacred or profane. I think there is a grey area. When something becomes clearly sacred, you know. Profane is when something is purely a transaction. You come into my office and I have to convince you there is not a problem, or that I'm going to solve it so you pay your tuition—that's profane. Sacred is almost impossible to describe; you know it when it happens. You can tell we can understand one another. This is your child, and you're deeply concerned. You're fearful, and I get that and I hear it. I don't exactly know how to solve it but you know I hear it, and will*

*call on the powers I have to solve it. Something greater has come between us. What is awesome about Rainbow is that I can use spiritual language. It brings Spirit in. When we met with that family the other day we started with a centering, we lit a candle with that child and I asked the two parents and grandparent to say a word about that child. I was able to reference that throughout the meeting. It is so different than a transactional conflict mediation. It speed us transformation. That is what transformation is. Transformation isn't just we're going to plod through this agreement. Transformation is Spirit comes into the picture and it all changes. Having this playing field that we are all on be a spiritual one sets up our engaging with each other in ways that make transformation more readily accessible to us.*

This was not how she arrived at Rainbow, however. She has undergone a remarkable transformation herself. Renee described her own internal experience of arrival at Rainbow like this:

*It's so new to me, Alan. I was so emotionally unaware and immature when I first got here. I grew up amongst retentive socially conventional family. We didn't talk about those things. Holy cow, when I took compassionate communication I felt how hard it was for me to name my feelings. When you get into more detail and really naming it, these kids were so much more emotionally mature than I was at the time. It was also really exciting for me. I was learning it along with everyone else and enthusiastic about getting into it with other people.*

Her own transformation was much like the school's; she was learning to engage with the world with a kind of spiritual empathy, compassion. That compassion compelled her to act—upon herself as much as Rainbow.

Theorizing from the Rainbow Community School case, this research proposes that a necessary condition for Individual Strategic Leadership to operate effectively within an urban system is alignment with its spiritual core. Subordination by a strategic leader to that spiritual core inspires the adaptability required to be an effective strategic leader within complexity.

### TUNING

In its engagement with the other five functions of Complexity Leadership and with Individual Strategic Leadership, the Spiritual function of leadership provides a critical tuning effect. At Rainbow, subordination enables this tuning along two dimensions. A musical metaphor is useful to explain. Jazz music will sometimes use something called a “real book.” A

real book in jazz is a reference sheet for a piece of music. It doesn't actually tell musicians what to play, but instead gives the barest outline of the music. It gives a sense of when the theme is strong, when the theme pulls back, and when key and time signature changes will happen. One aspect of the real book is the key signature. It enables musicians to improvise in tonal alignment. Similarly at Rainbow, subordination to Spirit allows Rainbow Community School members to improvise in alignment with that Spirit. Many disparate efforts, which may not even be aware of each others' presence, can contribute to the expression of Spirit in ways that complement and strengthen each other.

The second aspect of a real book is the time signature. The time signature in music provides a sense of tempo and the rhythm at which things will be played. When a musician sees a time signature change on the real book, they know a transition is coming that they need to be prepared for. Similarly at Rainbow, members play with an ear to the time signature. They listen for what tempo things are being played at now, and anticipate when transitions might come and how that ought to change their playing.

It is this ability to improvise together by listening to the Spirit of Rainbow Stewart was referring to when he talked about the experience of volunteering at Rainbow:

*The hoedown is a huge project that involves a lot of people. It's a perfect example of co-creation here. It one of the traditions of certain things that we do every year. One of the ways that co-creation happens here is that folks don't feel like they have to do it by themselves. There is other energy that they can partner with. That energy that they partner with is bigger than anybody, and that energizes them.*

*A: Who are they partnering with there?*

*S: Other people. Obviously. I mean more partnering with the spiritual realm here, because I think about it that way. I think it happens whether people are aware of it or not. Spirit is working through folks here to manifest its own agenda (S. Stokes).*

Theorizing off of the Rainbow Community School case, this research proposes that one of the primary functions of Spiritual Leadership is providing tuning across all other functions in an urban system. That tuning enables collective performance and improvisation.

#### **THE SHADOW SIDE OF SPIRITUAL LEADERSHIP**

The Rainbow Community School case also seems to illuminate one way in which Complexity Leadership collapses, and one potential dark side to the spiritual function

leadership: wallowing. Think of an urban system as an organism with metabolism. It has only so much energy to devote to its six functions of leadership. When too much energy is given to any one function, the system is out of alignment and begins to bog down. When spiritual leadership is given too much energy, it bogs down through excessive pondering. Wallowing through continual and obsessive engagement with questions of why and mystery can deprive energy from the tuning capacity of spiritual leadership, and other functions.

The period in Rainbow Community School's history right [before Renee's arrival](#) seems to be an example of this. The information using, Information-Gathering, and administrative functions of leadership all decayed to a point of weakness. While the spiritual function of leadership was still strong, it had ceased providing meaning to the community in the way that it had done previously. As a result, distrust was high, with conflicting identities and a caustic internal culture.

What enabled Rainbow to navigate out of this was a pocket of strong Individual Strategic Leadership in the form of the board. The board formed a sub-system of balanced Complexity Leadership. From there, it enabled the hiring of another strong strategic leader with the authority to challenge Rainbow Community School in the ways necessary for it to recover.

Without knowing more about Rainbow Community School' history, it is difficult to theorize about the role of the spiritual function of leadership in Rainbow Community School collapse. Nevertheless, this research can offer the dark side to the spiritual functional leadership: wallowing.

#### **RECAP: SPIRITUAL LEADERSHIP**

This section has argued that it is necessary to introduce a new function of Complexity Leadership in order to more fully explain the Rainbow Community School case: Spiritual Leadership. Spiritual leadership operates through three basic activities, pondering, prophecy, and prodding. These activities generate two basic kinds of outcomes, subordination and tuning. Subordination is the submission to a larger purpose or meaning in the face of uncertainty. Tuning is the act of alignment and coordination across various functions of leadership. Including the Spiritual function of leadership helps to more fully explain Rainbow Community School's capacity to transform itself over time.



**TABLE 27: LEADERSHIP AT RAINBOW COMMUNITY SCHOOL & RCPH**  
Leadership Analysis: Rainbow Community School & Residents' Council of Public Housing

Rainbow Community School with Renee				
	Intentional Practices	Sources	Qualities	Degree of Expression
<b>CB-Community Building</b>	Centering, Gatherings, Festivals	many. 8th Grade Parents, Informal contact.	Radical Acceptance, Permission for Deep Strangeness,	Strong
<b>IU-Information Using</b>	Board: Policy Governance; Community Summits; Building Campaign.	Board, R. Owen.	strong subordination to Spirit of Rainbow.	Strong
<b>IG-Information Gathering</b>	Dynamic Governance, Child Study, informal meetings	structured, self-organizing.	culture of disclosure & exchange	Strong
<b>AL-Administrative Leadership</b>	Curriculum Alignment, Child Narratives, Staff Review, Budget Review, Board Oversight	S. McCassim, W. Willmore, R. Owen.	Inconsistent, responsive when clear on goals.	Moderate
<b>GL-Generative Leadership</b>	Unconference-design staff meetings.	Staff, Classrooms, Staff Meetings, R. Owen, Unconference	Permission to Experiment & Fail.	Strong
<b>SpL-Spiritual Leadership</b>	engaging with the Spirit of Rainbow	<b><i>Spirit of Rainbow</i></b> , Board.	The Spirit of Rainbow feels like a presence.	Strong
<b>StL-Individual Strategic Leadership</b>	Renee asking: "where am I needed?"; What is the Spirit of Rainbow calling me to do?	R. Owen.	dynamic, flexible.	Strong

Leadership Analysis: Rainbow Community School & Residents' Council of Public Housing-2

Rainbow Community School				
	Intentional Practices	Sources	Qualities	Degree of Expression
<b>CB-Community Building</b>	Centering, Gatherings, Festivals	conflicting memes: purpose of Rainbow.	Distrust is high; conflicting identities; caustic culture	Moderate
<b>IU-Information Using</b>	none.	non-existent across most of school. Strong in board.	Conflicting Memes	Weak
<b>IG-Information Gathering</b>	parking lot gossip.	Fragmented, Limited.	informal contact, fragmented by camps.	Weak
<b>AL-Administrative Leadership</b>	none.	authority lacks permission for entrainment.	Budget is in Red, curriculum is disconnected.	Weak
<b>GL-Generative Leadership</b>	none.	Strong in Classrooms but Fragmented, weak in organizational design.	unfocused	Moderate
<b>SpL-Spiritual Leadership</b>	engaging with the Spirit of Rainbow	Spirit of Rainbow, Board.	The Spirit of Rainbow feels like a presence.	Strong
<b>StL-Individual Strategic Leadership</b>	What is the Spirit of Rainbow calling me to do?	John Shackleton, <b>Board</b>	undirected. <b>Dynamic, empowered.</b>	Moderate: Weak exec. <b>Strong Board.</b>



Leadership Analysis: Rainbow Community School & Residents' Council of Public Housing-1

Residents' Council of Public Housing				
	Intentional Practices	Sources	Qualities	Degree of Expression
<b>CB-Community Building</b>	none.	<b>Conflicting Memes.</b>	consistent contact, confronting challenges together.	Moderate: Strong in Exec Team, <b>Weak in Organization.</b>
<b>IU-Information Using</b>	Consent (internal to exec team).	Conflicting Memes	distrustful of change.	Weak
<b>IG-Information Gathering</b>	Dynamic Governance, none.	strong sense of team; no sense of shared identity.	fragmented, isolated.	Moderate: Strong in Exec Team, Weak.
<b>AL-Administrative Leadership</b>	Dynamic Governance.	authority lacks permission for entrainment.	resentful of authority.	Weak
<b>GL-Generative Leadership</b>	none.	Exec Team.	focused creativity.	Moderate
<b>SpL-Spiritual Leadership</b>	none.	conflicting memes; <b>subordination to needs of community</b> ; lack of subordination.	lack of tuning & subordination.	Weak: <b>Moderate in Exec Team</b> , Weak.
<b>StL-Individual Strategic Leadership</b>	mentorship from G. Bell.	<b>S. Charles</b> , S. Harper.	<b>Authoritarian.</b> Collaborative.	Strong

### **QUICK COMPLEXITY NARRATIVE OF RAINBOW**

What does a Complexity Leadership reading of Rainbow's history reveal? The founders imbued the school with strong generative capacity (autonomy within classrooms) and strong community building capacity (to the point of being cult-ish). After its initial growth period, its Administrative, Info-Gathering and Info Using capacity functions atrophied. Left fallow for too long, the decay of these functions began to erode the Community Building function as well. Before Renee arrived, a cult mentality of entrenchment had developed, with great resistance toward change. The culture was averse to conflict (poor IGL), and trust had collapsed (poor Community-Building). A new group for board members saw the need for change. To do this, they created a bylaws document that was enabling of Individual Strategic Leadership. This offered a path out. Renee started by implementing a policy governance board, strengthening its capacity to provide Information Using Leadership. This in turn led to a set of longer term goals with the board (community building). The goals required them to clean house (Administrative Leadership). She cut people and programs that didn't fit (administrative functions) found the right people for the right jobs (information using), empowered staff (generative function). When it became clear from the budget numbers that Rainbow either needed to shrink or grow (set up by Information-Gathering). Renee and the board then helped the community develop a sense of where it might go through Dynamic Governance and Appreciative Inquiry summits (Information-Gathering; Community Building). Once articulated, it was clear that growth was required. This increased their luck surface area, resulting in a strike with the church. Once a path forward was clear, Rainbow ratcheted (Information-Using) from their existing arrangement into uncharted territory.

### **TOP METAPHOR OF LEADERSHIP**

How do these six functions of Complexity Leadership and Individual Strategic Leadership work in concert to provide a dynamic expression of leadership in an urban system? Picture a child's top. On the bottom, some point, the pivot, makes contact with the earth, around which everything else rotates. This is the spiritual function of leadership. The top itself is composed of the other five functions of leadership. Let's say the child pumps the top up to speed. When the top is in motion, if any one function leadership becomes too light or too heavy, the top becomes unbalanced. The child can figure out which section of the top is

too light or too heavy, they can take a quarter and tape it to the top. This is like the Individual Strategic Leadership, working to rebalance the top. These three elements grasp the basic relationships of leadership observed at Rainbow: a strong connection to the ground, a balanced top, and some intentional work to rebalance as it spins.

#### **COMPLEXITY LEADERSHIP SUITE**

This research theorizes that this suite—Complexity Leadership including the Spiritual Function of Leadership, and Individual Strategic Leadership as a necessary component of Complexity Leadership—more fully explains the dynamics observed within Rainbow Community School, and may serve as a more effective starting point for further research on leadership in complexity. For the remainder of this dissertation, these elements will be referred to as the Complexity Leadership Suite (CLS).

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### **3) DYNAMIC GOVERNANCE**

What can this research tell us about how to use practices to foster Complexity Leadership, and what specific practices to use? This next section uses a comparative analysis of the Rainbow Community School and the residence Council public housing cases. It will use these cases to illustrate the role of practices generally in fostering complexity leadership, and Dynamic Governance in particular. In a nutshell, the utility of a practice has in fostering Complexity Leadership depends several dimensions. How it is introduced into a culture affects its likelihood of adoption. If and how a practice responds to the constraints of context affects its integration. What other practices are used, and if they supplement and compliment the new practice to compose a spectrum of leadership functions determines its impact. This explanation will have three parts: exploring adoption, integration, and impact.

#### **PRACTICE ADOPTION**

The adoption of a practice depends on how it is introduced into a cultural context. Who introduces the idea affects how it is perceived. How that idea is introduced affect how people interact with it. Any new practice carries with it a set of new memes. Those memes may be aligned with existing memes, or may not.

To remind the reader, the plan to introduce Dynamic Governance into the Residents' Council was a collaborative effort amongst city staff, resident council members, and Social Profit Strategies. Introducing it into the whole of the Residents' Council became an idea over

which the Executive Committee had ownership. The perception remained, however, that Dynamic Governance was “an outside idea, being rammed down our throats” (S Harper Sept 10 2016).

To remind the reader, the residence Council has one representative body—an association—per project. Each Association is intended to send a representative to the Executive Committee. At least, that’s how the original charter was designed. In recent years, the associations in the Executive Committee have operated somewhat separately. There are members from associations on the Executive Committee, but they are not elected and sent. As a result, there is a lack of ownership over the Executive Committee by associations, and a lack of identification with the Executive Committee leadership. Dynamic Governance was introduced as a change in the operating rules. There were conversations about what that would mean, and why it was a good idea. There was not a consensus-building process amongst the associations, and then some kind of request for consent. As a result, when Dynamic Governance was proposed to be rolled out into the associations, the perception was that this was something the “leadership was imposing on us” even though the leadership proposing the change were fellow residents (S. Harper Sept 10 2016).

As a result, the Residents’ Council had what amounts to an immune response to the introduction of Dynamic Governance. A foreign practice with unaligned memes, introduced through parties that were mistrusted, in ways that seemed unfamiliar was threatening. The Dynamic Governance introduction process triggered a number of existing memes. First it triggered the distrust in leadership: leaders are just out “to get mine.” Second, it triggered the distrust of outsiders: the system is rigged. Third, it triggered the fear of transformation: any time change happens, it’s bad. In short, the introduction of Dynamic Governance received a very strong immune response by the incumbent culture.

The process at Rainbow was different. Renee described the process of introduction like this:

*A parent who know about DG told me about it and told me about John Buck. I was intrigued. So we arranged for John to give me and the board a little overview of it at a board meeting. This must have been 2009-10 school year, I think. We decided to do a one day workshop with John the summer of 2010 and invited the board and some key staff and parents to learn more about the*

*model and decide if we want to adopt it. We were so impressed with the one day workshop that we decided to adopt it.*

*We mapped out the circles for the school, and decided to start with just the faculty circle. I brought in John for a 1.5 day workshop August 2011 (so it was part of our pre-year faculty training). The faculty implemented it for that school year, and it was a very successful pilot. The rest of the school implemented the next year. Ironically, the board is the only exception. They waited an extra year, and now have a hybrid of DG combined with Carver Policy Governance. However, the school is organized according to Dynamic Governance, which also influences the culture and mindsets to a great degree (R. Owen June 28 2016).*

In the context of the adoption of another practice, Renee discussed her process for introducing a new practice. First, she determines the need. Second she finds some practice that fits – at least well enough. Third, she identifies the key allies, who will perceive the value of the practice, and be able to contribute to its hybridization before implementation. She works with that small group to develop a hybridized sense of the practice. Then, someone else from within the organization suggests the practice and its adoption. Next, the task is to support education on the practice, and entrainment to it. This continues for some time, then the support and pressure is released. This allows the practice to change and adapt. As a result, the organization has the ability to demonstrate strong entrainment, and they become adapted to context (R. Owen March 29 2016).

This process will be familiar to anyone familiar with participatory planning. It is, more or less, the process used for participatory engagement by planners. This illustrates the political and process savvy that not only Renee but Rainbow has as an organization. It is no wonder that they've adopted, adapted and integrated as many practices as they have.

The adoption of Dynamic Governance was aided by several memes within Rainbow. First is the culture of pragmatism discussed in chapter four. There also is strong subordination, a willingness to say “well if we are going to do it, let's really do it.” In contrast to the Residents' Council, both memes at Rainbow made the adoption process at Rainbow a smooth one.

#### INTEGRATION & COMPLEMENTARITY

The integration of a practice depends on how it responds to the constraints of an environment. We can think about this in terms of complementarity. Within the Residents'

Council, Dynamic Governance faced quite a bit of friction, and was not complementary to the existing cultural practices. Within Rainbow, Dynamic Governance was complementary to existing cultural practices.

One way to describe Dynamic Governance as is a dry, fairly unemotional means for bringing a group towards consensus. The Executive Committee had a very the talkative, expressive, occasionally emotionally intense or conflictual style. In some ways, these dovetailed. The group felt very comfortable voicing their opinions and rounds. As a result, making sure all voices were heard was rarely an issue (S Harper Sept 10 2016). That said, it didn't always jive with the stoic style of Dynamic Governance. Gene Bell, mentor to Sir Charles and director of the Asheville Housing Authority, had this commentary on Dynamic Governance:

*Dynamic Governance is the right aim in that it's structured around process. But, it hasn't dealt with or come up with a process way to deal with the emotional side of the group that they're working with. Without dealing with that, it's going to be rejected. If you can come up with some way to deal with that effectively, it might be adopted and be a process that helps them (G. Bell March 23 2015).*

Dynamic Governance, in and of itself, did not provide a sufficient process container to channel that conflict into productive learning and agreement. It is important to note here that the emotional intensity, expressive way of operating at the Residents' Council isn't some kind of problem. There are a number of different practices that could complement the style, leverage it, and use it to drive various functions of Complexity Leadership. The issue is that Dynamic Governance seems not to be one of them.

In contrast, Dynamic Governance complemented Rainbow's existing cultural practices. Their memes of emotional equipoise and conflict maturity filled the vessel of Dynamic Governance like water into a vase. Dynamic governance leveraged rainbow's existing strengths, and used it in the service of Information-Gathering and administrative leadership.

#### **SUPPLEMENTARITY & IMPACT**

The impact of the practice is influenced not only by its complementarity, but by its supplementarity as well. Within Complexity Leadership, relationships amongst each of the

functions is as important as the functions themselves. As a result, the impact of anyone practice depends upon the bundle of other practices into which it is integrated.

The Residents' Council and Rainbow provide a stark contrast in this regard. The Residents' Council adopted Dynamic Governance almost as a solo isolated practice. Its proponents in Asheville bill as a totalizing transformation, or even a kind of panacea. The belief seems to be that Dynamic Governance is able to help organizations of any kind respond to any challenge more effectively. It was pitched to the Residents' Council from the perspective. As a result, the Executive Committee, who are not process experts, were thinking about Dynamic Governance as a solution to their need for structure, and were not thinking about Dynamic Governance as one practice amongst many that the organization should incorporate.

In contrast, At Rainbow Dynamic Governance was introduced into an already rich practice environment. A strong cultural meme of collaboration and improvisation existed. The organization would already use un-conference gatherings and study circles to support generative leadership. Policy governance had been introduced on the board, providing both Information-Gathering and Information-Using Leadership. A number of ritual practices including centering supported Community-Building. As a result, Dynamic Governance was able to feed off of the capacity and effectiveness provided by a number of other practices. Within a larger bundle of leadership, Dynamic Governance could play its role effectively – and quietly.

A quick Complexity Leadership analysis of Dynamic Governance seems useful. Where does Dynamic Governance make contributions? Despite the strong differences in both cases, there are some commonalities. Dynamic Governance fosters information – gathering leadership. Each of its three major principles contribute to this. The use of rounds surfaces signals from all parties. Bidirectional linking encourages the exchange of information across groups. Use of consents encourages sense making before decisions are made. To a lesser degree, the consent mechanism seems to encourage entrainment and Administrative Leadership. Once a decision has been made using consent, there is a greater conformity to the decision made. The adoption of Dynamic Governance into the Residents' Council initially driven by one desire: checking strategic authority. Members of the Residents' Council were tired of president and vice president dominating meetings, dominating decisions, setting

agenda, and preventing the rest of the organization from engaging in substantive work (S. Harper Sept 10 2015). In this regard, it illustrates a larger potential value of Dynamic Governance within Complexity Leadership. In environments where Individual Strategic Leadership outweighs the other functions of Complexity Leadership, Dynamic Governance can be used to bring it back in balance. That is, it can be used if a process for its adoption and integration can be developed. These seem to be Dynamic Governance's important contributions to Complexity Leadership.

Given the observations within these two contexts, it seems plausible that Dynamic Governance in other environments might contribute to Information-Using Leadership. They do not seem strong evidence for this in either the cases to this research. Dynamic Governance did not seem to contribute to other aspects of Complexity Leadership. While Generative Leadership and Community Building are aspects of Dynamic Governance touted by proponents, there seemed no evidence for either within both cases to this research. In short, Dynamic Governance can play a role as one amongst many practices supporting Complexity Leadership. That is, can play a role in cultural contexts conducive to its adoption, and where there is a need for *convergence*: sense-making given information at hand, and entrainment to decisions once made.

One last point seems worth emphasizing. In the rich practice environment of Rainbow, Dynamic Governance as a specific practice seems unimportant. To be sure, it is making contributions to the Complexity Leadership within Rainbow. But, how it is situated within the bundle of other practices makes clear that other practices could play the same role as Dynamic Governance. This connects to the process-pragmatism at Rainbow. The surprise for the researcher was the insight that any particular practice is not necessarily that important. What is important is that practices alignment with the larger Spirit, and integration into a set of practices employed by the organization.

#### **RECAP: ARGUMENTS ON RESILIENCE & LEADERSHIP**

To recap the arguments from this chapter, there is evidence for qualities of resilience present within Rainbow Community School. Namely, there is evidence for inclusion, integration, effectiveness and flexibility. Rainbow's culture and community are drivers of integration and inclusion. The organization also plays an important role in fostering



integration. The physical site of Rainbow complements the role of the organization in setting the conditions for reflection and reflective practice. An important outcome of the Rainbow curriculum is a greater flexibility to challenges of an emotional, social, or intellectual nature. Rainbow's curriculum and organization play supportive rather than dominant roles in driving these resilience outcomes.

There is strong evidence for Complexity Leadership at Rainbow Community School throughout its history. Rainbow Community School has developed specific practices that animate each of the functions of Complexity Leadership. That said, they are not sufficient to fully explain the patterns observed across Rainbows' history. That history is better explained through incorporating Individual Strategic Leadership (StL), and a sixth function of Complexity Leadership, Spiritual Leadership (SpL). We theorize from the Rainbow Community School case that Individual Strategic Leadership role within complexity is rebalancing, or the active identification and strengthening of the weaker functions of leadership. We theorize from the Rainbow Community School case that Spiritual Leadership provides cohesion and coordination to the other five functions of leadership through subordination and tuning. Subordination is a submission to a larger purpose in the face of uncertainty. Tuning is the active alignment and coordination of various functions of leadership. Each of the functions of Complexity Leadership have interactions and exchanges with spiritual leadership, through which tuning emerges. These six functions of Complexity Leadership, in concert with Individual Strategic Leadership, act to ground and dynamically rebalance the expression of leadership within an urban system.

This research proposes that practices play a key role in each of the functions of complexity leadership. and that the use of any one specific practice will not be sufficient generate complexity leadership. The utility of a practice has in fostering complexity leadership depends several dimensions. How it is introduced into a culture affects its likelihood adoption. If and how a practice responds to the constraints of context affects its integration. What other practices are used, and if they supplement and compliment the new practice to compose a spectrum of leadership functions determines its impact. To reiterate, which practices are used seemed less important than how they are introduced, that they respond to the constraints of context, that they covered a spectrum of leadership functions, and integrate with one another.

Thus far in our dissertation, our analysis has kept these two threads of our inquiry separate. Resilience has been examined as an emergent quality at the urban system scale, with connections to elements of that urban system such as the site, organization, or curriculum. Meanwhile, leadership has been explored primarily as an emergent quality from the relationships amongst individuals. Do these various functions of leadership generate resilience? If so, what is the connection between these various scales? What is the mechanism that translates the diffuse actions of many into stable qualities at the scale of an urban system? These questions will be addressed in the conclusion chapter.

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# CHAPTER SIX: CONCLUSIONS

## ROAD MAP

In this final chapter, the purpose will be to do four things. The first is to (at long last) bring together our themes of resilience and leadership with some theorizing on their connections. The second will be to distill a series of lessons for planning practice and practitioners within urban systems. The third will be to explore the lessons learned on the methodology used within this research. Fourth will be to identify some questions and avenues for future research that can build upon the lessons from this dissertation.

## THEORIZING ON LEADERSHIP FOR RESILIENCE IN URBAN SYSTEMS THEORY—MAIN ARGUMENT

The literature chapter theorized a potential connection between Complexity Leadership and resilience through Panarchy. To remind the reader, Panarchy is the co-adaptive cycle of nested scales within a socio-ecological system. This section can finally return to this proposition and interrogate it using our two cases from this research. From the Rainbow case, there is evidence that Complexity Leadership does foster the conditions for Panarchy. And, that Panarchy does foster resilience.

There are several additions to make to this initial argument. First, the initial propositions were that a necessary condition for Revolt was strong Generative Leadership. A necessary condition for Remembrance was strong Administrative Leadership. And a necessary condition for Ratcheting is strong Information-Using Leadership. It was proposed that through these three mechanisms, Revolt, Remembrance and Ratcheting, Complexity Leadership generates resilience.

This is consistent with the Rainbow case. That said, with each a single function of leadership is not sufficient to explain the observed episodes of Revolt, Remembrance, or Ratcheting. We theorize from the Rainbow case that an additional condition must be met: *Scale Resonance*. Scale Resonance is the synchronized or harmonic movement of multiple nested scales within the system. Scale Resonance is generated by the Spiritual function of leadership (SpL).

To unpack these arguments, this section will do four things. The first task is to define scale resonance, and provide some context on the concept. The second task is to offer four

episodes as examples of Panarchy. The first three are from Rainbow. In each, the emphasis is on explaining how each mechanism of Panarchy was generated, and what qualities of resilience resulted. The last example is from the Residents' Council of Public Housing, and the emphasis in the explanation is on using Panarchy not to explain what did happen, but what did not. The fourth task will be to offer some directions for further development based on this research. Last will be to recap our propositions on Panarchy, resilience and leadership.

### **SCALE RESONANCE**

Scale Resonance is the synchronized or harmonic movement of multiple nested scales within the system. To make sense of the concept and explain, why it is necessary, some description and some examples are useful.

Different scales within a system generally have different timing or rhythms to their Panarchy cycles (Berkes & Ross 2015). Smaller systems generally move more quickly than larger ones. For instance, patterns of transformation in a stand of trees can take 50-100 years, where a pattern of transformation within the larger forest can take several hundred years. What is proposed from this research is that Revolt occurs if and only if cycles of multiple scales are synchronized in such a way that patterns from a small scale can propagate outward to a larger one.

Synchrony might occur in several ways. One is through disruption. Picture the forest around the Yellowstone National Monument. Patches of that forest are in various stages of maturity. Some are newly regrowing from the fire. Other ones are in the first or second stage of succession. Other sections are climax forest. Let's say the Yellowstone volcano erupts, burning the entire forest to the ground within a week. That fire creates a disruption on all of these patches simultaneously, making it a top-down disruption. In essence, it hits the reset clock on all of these connected patches simultaneously. At least for a brief time, patch scale and forest scale are aligned.<sup>2</sup> It seems reasonable to believe that disruption as a mechanism should operate within socio-ecological systems, (or urban systems). Disruption is not at play in either of the cases to this research.

### **RHYTHM**

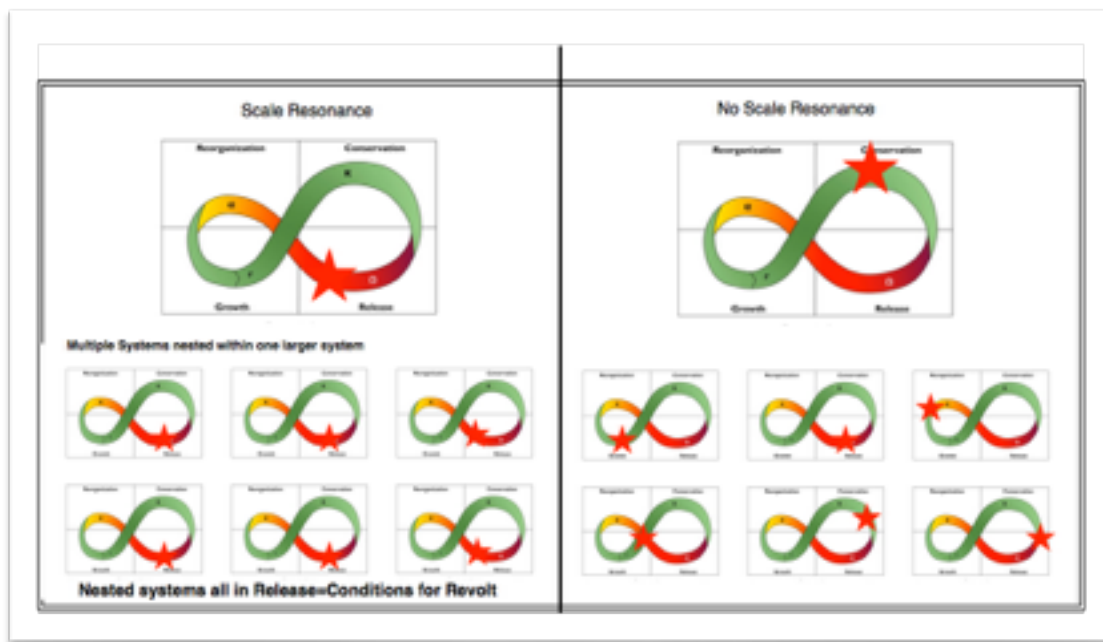
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<sup>2</sup> After some thought, I cannot come up with any bottom-up disruption that isn't upon closer examination the effect of one large-scale socio-ecological system on another. In which case, the disruption is a lateral effect that then propagates downward, not a bottom-up disruption.

A second potential mechanism for synchrony is rhythm. Think about this in terms of music. Think of the time signature for group work as in four-four, meaning there are four quarter notes to measure. For the larger organization, the time signature might be four-one, meaning there are four whole notes to a measure. If the group and organization are each playing in their time signatures, in every four measures for the group their downbeat aligns with the downbeat of the organization. Those are moments of synchrony when Revolt can happen.

What generates rhythm? Within ecological systems, rhythm is generated by seasonality, daily cycles, and long-range climate cycles. Multiple scales come into Scale Resonance because their rhythms are aligned with the seasons. In traditional societies, seasonality was also used as a mechanism of rhythm for social systems. Rituals were built around those seasonal rhythms. The driving purpose two rituals was quite simple: because it's time to plant, harvest, or prepare for winter. Rituals that are not directly connected ecological rhythms retain this character: there is a driving why for the ritual, and that purpose determines the rhythm. Theorizing from the Rainbow case, it is Spirit (from Spiritual Leadership) and discipline (from Administrative Leadership) that generate ritual. These rituals generate the rhythms that foster Scale Resonance.

## GRAPHIC 29: SCALE RESONANCE



### RHYTHM EXAMPLE

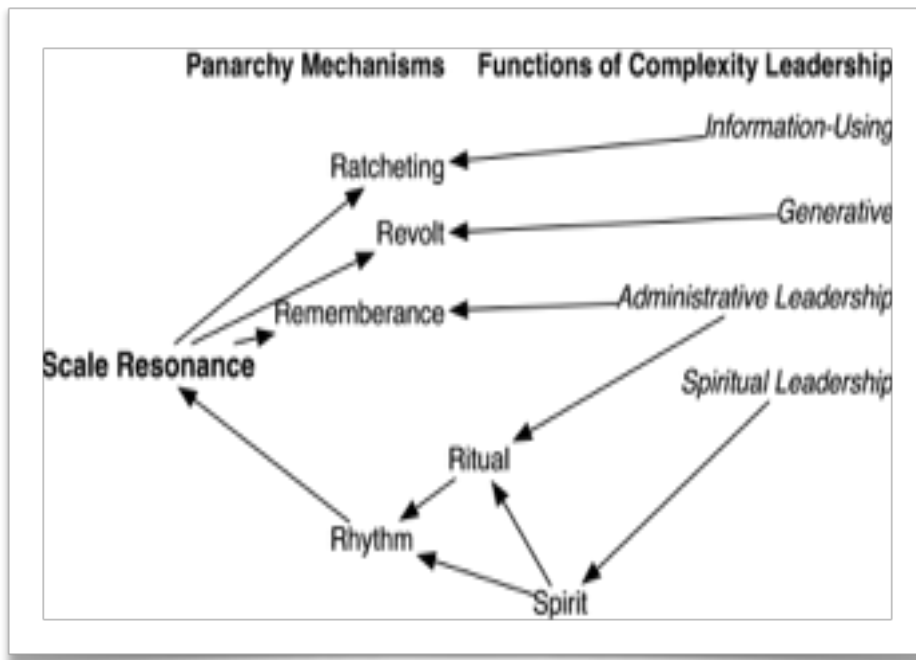
Within Rainbow, Spirit has a rhythm that generates Scale Resonance. A common theme in conversations early this spring was that the curriculum had become too full. Each individual teacher had generated new exciting pedagogical material. And, there had been lots of cross adoption between classrooms. What has not happened is weeding out. The pedagogical strategies that were not as strong as others that have emerged had not been intentionally cut. The result was that class agendas were packed, and teachers were stressed.

While this was brought up as an issue consistently, the various groups pondering the problem didn't bring it up within the staff meeting. They knew that the downbeat for synchrony on between teaching challenges and organizational practices is the staff review period at the end of the year.

Why were teachers concerns not brought up earlier? In a different environment, the explanation might be something like this. Attempts to challenge the school administration, to get them to loosen up the teaching curriculum will not work until the staff review period when they are open to such things. So, it will not even be attempted until then. At Rainbow, the reasons are different. There's a deep trust in how the organization will process information and resolve tension. There is also a deep trust in process, borne of experience. There is also a deep alignment through subordination with the Spirit of Rainbow. The staff know and trust from experience that the processes used at the school aligned with that Spirit. Because they trust Spirit, they can trust processes. So, they are more than content to wait, they are supportive of holding off on such important but big picture challenges until there is space to do so.

The expression of Spirit that happens through ritual creates rhythm. The relationship between spiritual leadership and administrative leadership is critical to creating this rhythm. When practices become ritualized, participants know *when* to expect. Members of Rainbow know that they will have an opportunity to grapple with death during the all souls Festival. The staff know they will have an opportunity to grapple with strategic pedagogical issues during staff review. Students know that they will have an opportunity to engage with the mystery and uncertainty in their lives during daily centering. Well-articulated rituals generate Scale Resonance in urban systems.

**GRAPHIC 30: SCALE RESONANCE**



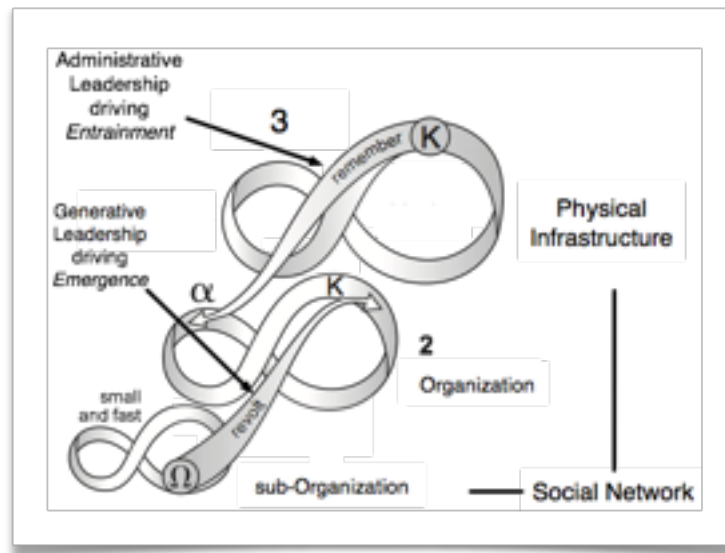
## **EXAMPLES: PANARCHY & RESILIENCE**

### **REVOLT & REMEMBRANCE**

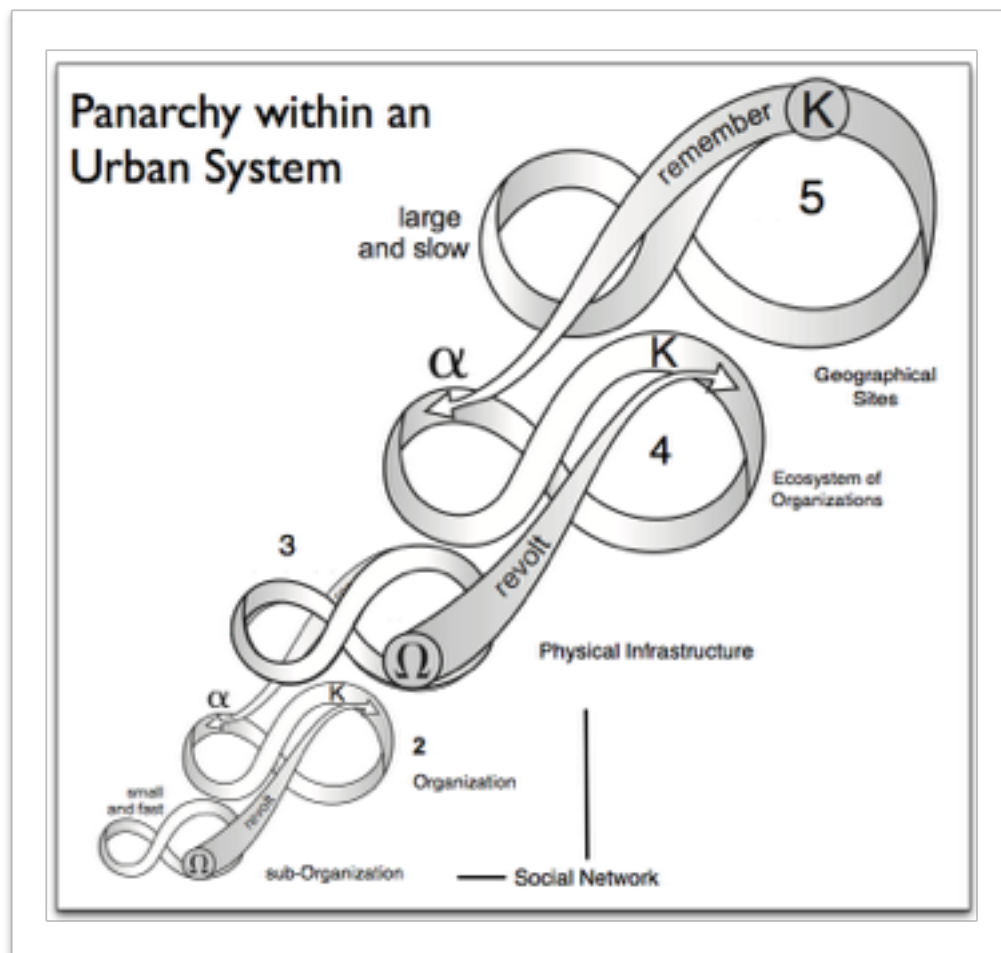
We theorize from the Rainbow case that Scale Resonance in combination with Emergence fosters Revolt. Revolt, in turn, propagates practices or elements that accentuate qualities of resilience. An episode that exemplifies this from the Rainbow case is the [adoption of Policy Governance](#). Policy Governance was adopted by the board as Renee was brought on as director. In 2008, the legal articles of policy governance, were adopted, and the board underwent training in policy governance.

The effect of adoption of policy governance is to tune down the board's role in the active day-to-day affairs, and tune up its role in Information Gathering (IGL) and Information Using Leadership (IUL). By focusing its efforts on these two functions of leadership, the board itself accentuated its expression of inclusion, integration, and reflection capacity. In turn, these relationships between this shift within the board began to affect its relationships with other parts of Rainbow. The board engaged differently with parents, consulting them more closely on potential changes. It actively consulted the staff as it contemplated budgetary challenges.

GRAPHIC 31: PANARCHY, REVOLT & REMEMBRANCE



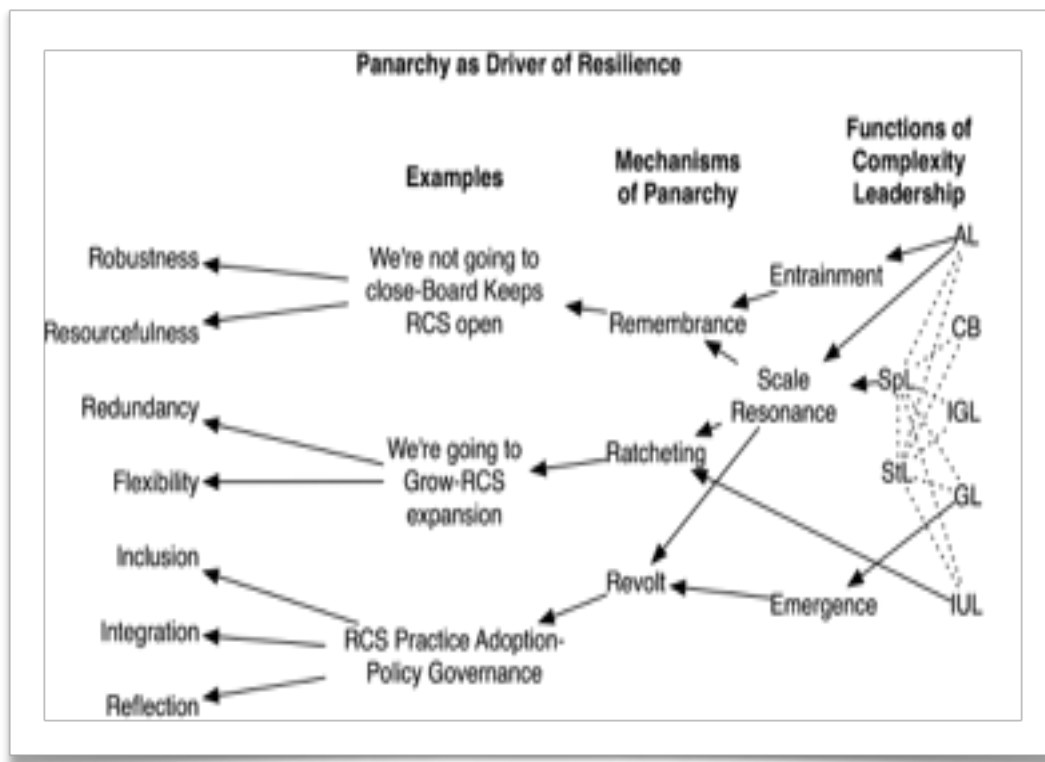
GRAPHIC 32: URBAN SYSTEM PANARCHY





As a result, these qualities of resilience propagated outward from the board (at one scale) through the whole urban system (at a larger scale). The adoption of policy governance was, in effect, a successful Revolt from the board outward. It changed not only the board's functioning, but how information and decision-making flowed across the entire system. As a result the urban system's expression of inclusion in decision-making, integration of knowledge, and reflection on learning was accentuated. Keep this example in mind later when the fourth example examines the failed Revolt from the Residents' Council.

### GRAPHIC 33: PANARCHY AS RESILIENCE DRIVER



#### REMEMBRANCE & RESILIENCE

We theorize from the Rainbow case that Scale Resonance in combination with Entrainment fosters Remembrance. Remembrance, in turn, amplifies key qualities of resilience in moments of crisis. The example comes from perhaps the greatest moment of crisis in Rainbow's history, when [John Johnson and the board stepped in to keep Rainbow open](#). At the time, the current director had been asleep at the wheel. A number of significant threats (such as tight cash flow, impending large overhead costs to fix a boiler, and a lack of enrollment for the fall) had been allowed to accumulate. Without immediate action, Rainbow was going to close as a school. Coming into that meeting, the board had been disengaged, with

a general feeling of apathy or antipathy towards the continuing frustrations the school caused them. Instead, John and the board called upon Spirit of Rainbow asking “what does it call us to do right now?” The uniform answer was that they desired to keep the school open. As a result, they resolved to confront a series of crises, and raise whatever funds were necessary. The board hired John to lead Rainbow out of the crisis. The effect was to entrain the actions of the board to the Spirit of Rainbow, and to entrain the actions of the organization to the leadership of the board. As a result, the robustness to failure that the board exhibited, and its resourcefulness in raising necessary funds to keep Rainbow open were renewed as an organizational value. These two qualities of resilience were called on again and again over the course of the next four years, as John repeatedly had to go out into the community and ask for thousands of dollars at a time in order to keep the school open.

#### RATCHETING & RESILIENCE

We theorize from the Rainbow case that scale resonance enables Ratcheting. Ratcheting, in turn, primes and amplifies key resilience qualities within an urban system. To remind the reader, Ratcheting, unlike Remembrance and Revolt is the simultaneous transformation of scales (rather than the propagating of change up or down). This simultaneous transformation happens as a system migrates across the fitness landscape. This example from Rainbow comes from its growth after the signing of Renee. After the church was offered and purchased, the challenge became to actually grow the school. This occurred simultaneously across every aspect of the organization, the buildings and physical site, to admissions, to curriculum, to staffing, to budget and finance, to social network and culture. Classrooms suddenly had 40% more students, straining the previous redundancy that had been built into the teaching loads. In many different ways, the same problem was encountered: more is not merely more but *different*. Managing a number of emergent challenges from this growth often required flexibility, as administrators and staff grew lighter on their feet to deal with unexpected challenges. As the same time as the organizational growth called on these resilience qualities, it also promoted them. While this expansion had a number of effects, its most obvious was to amplify the flexibility and redundancy to the organization through enlarging and diversifying its physical site and resources. Considerable energy had been expended previously maintaining the organizations flexibility and redundancy around classrooms and physical space. The improved and increased square

footage reduced this pressure considerably, allowing the organization to focus its energy on other challenges. This commitment to Ratcheting the organization to a larger sizes not only called on the organization's flexibility and redundancy, but amplified it and expanded it its expression, taking it from being a interpersonal and organizational quality to being a physical quality as well.

#### FAILURE TO REVOLT

We began this section with a new proposition, namely that there were more necessary conditions to Revolt than simply emergence. An example can provide some context. The Residents' Council of Public Housing had recently gone through a sweeping change in leadership. Given its experience with Dynamic Governance, its members held the belief that it could provide a means for greater integration and inclusion in decision-making. The Executive Committee desired to expand it to all of the Associations in the Residents' Council under the Executive Committee. Over the course of 2015 and 2016, they made several attempts to do so each of which failed.

There are several things one can say about this episode. There was quite a lot of creativity going on within the Executive Committee. This found expression in the range of projects that were proposed, and a smaller but still impressive range of projects that were initiated. The Executive Committee Members were also remarkably creative in thinking about how to go about introducing and expanding Dynamic Governance within the associations. We can consider their three projects of the past year emergent, and successful. And, their work to expand Dynamic Governance as a clear failure.

The difference seems to be this quality of Scale Resonance. We can think of the Residents' Council as nested within the larger system of public Housing. Previously, this research is described the range of memes present within Public Housing. They paint a picture not only contrary to Individual Strategic Leadership, but to the adoption of anything new and novel in general. And, they speak to an underlying absence of a shared *why*. The Residents' Council for public housing lacks a shared Spirit that animates their work together. Without its own shared Spirit, the Spirit of the larger system, Public Housing, dominates the relationships of the Residents' Council. As a result, there is very little soil for new and fruitful ideas to find purchase outside of the careful seedbed where they germinated.

We compare these two episodes together to make this point more clearly. At Rainbow Community School, a shared Spirit animated Scale Resonance across the urban system. As a result, when ideas aligned with Spirit emerged, Revolt could take place, allowing them to propagate. In contrast, the Residents' Council of Public housing lacked a shared Spirit. As a result, when novel ideas with potential emerged, they encountered what can be considered Remembrance: the reassertion of the core memes, ideas, and Spirit of Public Housing. Without Scale Resonance, moments of Revolt become moments of Remembrance.

### **CONCLUSION: THEORETICAL PROPOSITIONS FROM THIS RESEARCH**

To recap the theoretical propositions from this dissertation, there are six.

1. Complexity Leadership is able to more fully explain our cases when extended to include a Spiritual function of Leadership (SpL). Spiritual Leadership's (SpL) function is to provide a sense of meaning through acknowledging mystery, providing permission to engage with that mystery and to ask questions of why, and to embrace the transformation generated by holding meaning within conditions of mystery.
  - A. Spiritual Leadership operates through three basic activities: pondering, prophecy, and prodding. Each of these three play a role in integrating existing aspects of Complexity Leadership.
  - B. Spiritual leadership generates two general outcomes: subordination and tuning.
    - A. Subordination is a submission to a larger purpose in the face of uncertainty.
    - B. Tuning is the active alignment and coordination of various functions of leadership. Spiritual leadership provides this coordination through interaction with each of the other functions of leadership.
    - C. Spiritual leadership constitutes a distinct function of leadership (rather than a subset of another function of leadership) because its actions respond to different fundamental questions. This grounding around purpose provides an ability to orient, align, and harmonize the activities of other functions of leadership.
2. Individual Strategic Leadership can play an integral role in Complexity Leadership through rebalancing. Rebalancing is the active identification and strengthening of the weaker functions of leadership through leveraging existing strengths.
3. Complexity Leadership including Spiritual Leadership (SpL), when combined with Individual Strategic Leadership (StL), can be thought of as the Complexity Leadership Suite (CLS).

4. The Complexity Leadership Suite (CLS) can play an integral role in fostering resilience in urban systems.
5. Complexity Leadership fosters resilience through mechanisms of Panarchy.
  - A. Revolt, or the emergence or propagation of new patterns from smaller scale to larger scale. Revolt is driven by emergence from Generative Leadership (GL), and Scale Resonance from Spiritual Leadership (SpL).
  - B. Remembrance, or the propagation or maintenance of large-scale patterns enforced on the smaller scale. Remembrance is driven by entrainment from Administrative Leadership (AL), and Scale Resonance from Spiritual Leadership (SpL).
  - C. Ratcheting, or the simultaneous adaptation of a multi scalar system. Ratcheting is enabled through Scale Resonance from Spiritual Leadership (SpL) and driven by Information-Using leadership (IUL).
6. A necessary condition to all three mechanisms of Panarchy is Scale Resonance, or the synchronized or harmonic movement of multiple nested scales within the system.
  - A. Scale Resonance can be generated in urban systems through rhythm, which can be generated by well-articulated rituals.
  - B. Spirit (from Spiritual Leadership) and discipline (from Administrative Leadership) generate well-articulated rituals. These rituals generate the rhythms that foster Scale Resonance.

## **LESSONS FOR PRACTICE**

### **PRACTICE & SPIRITUAL LEADERSHIP**

From the experience of this research, there are four brief practical propositions to offer:

1. The Spiritual Dimension—Urban planners and practitioners in urban systems must be willing to acknowledge and engage with the spiritual dimension of urban systems.
2. Pondering— In order to connect and find alignment with an urban system, practitioners within urban systems must have their own spiritual practice. Whatever practices they choose, Pondering the mysteries of the urban systems in which they work and dwell is a critical practice.
3. Prophecy—To foster resilience, one role for practitioners is to influence and or articulate the core Spirit of an urban system through Prophecy. Given the stigma around spirituality and how un – expressed spiritual underpinnings are within many urban systems, this is a particularly important vacuum that practitioners can fill.
4. Prodding— Practitioners can use Prodding within Panarchy to increase the likelihood of some transformations, and reduce the likelihood of others. The possibilities available during any particular point in the Panarchy cycle are constrained. Opportunities for Revolt only emerge when there is Scale Resonance. Because of that, one of the key

leverage points in urban system Panarchy is timing. Practitioners can use their influence to Prod an urban system. Through Prodding, they can speed up or slow down and unfolding Panarchy cycle. By doing so they can make Revolt or Remembrance more or less likely.

### **PRACTICE & INDIVIDUAL STRATEGIC LEADERSHIP**

This research suggests two propositions on planning practice from its insights on Individual Strategic Leadership.

1. To foster resilience in urban systems, planners can identify and support strategic leaders developing process expertise. Planning is one of the professional domains that carries a body of process knowledge. Partnerships between planners and strategic leaders develop process knowledge that is useful to the rebalancing of urban systems.
2. Effective strategic leaders in urban systems require adaptability, skill at various leadership functions, and the process expertise to empower leadership from others. Given the breadth of expertise and emphasis on process design in professional planning, planners can be effective strategic leaders within urban systems.

### **PRACTICES**

Two lessons for practice comes from our analysis of practices and Dynamic Governance.

1. To foster resilience in urban systems, a broad practice toolkit is needed. There is a role for planners to develop practices for Complexity Leadership, and to learn many.
2. Process knowledge is important. Over-attachment to a process is dangerous. Any practice should be held lightly enough to have perspective on if the practice is appropriate to the context—and dropped if it is not.

### **METHODS**

Articulating the methodological learning will be done in this section in four parts. The first is to offer some general lessons on the practice of action research. The second is to offer the methodological contributions of this research. Third will be to speak to the mechanics of distributed ethnography on leadership and resilience, the strengths and limitations uncovered within this research, and how these methods could be refined and implemented in the future. Last will be to offer some reflections on the practice and challenges of Participatory Action Research.

### **GENERAL LESSONS FROM THE PRACTICE OF RESEARCH**

This research offered some general lessons on the practice of research that I can relay in brief before unpacking a few issues that deserve more space. Breadth comes from having many points of observation. Use the participants in a system as your observers. Any set of

cases that is an effective set of cases will be fairly strange. Depth comes from presence. A good interview, and attuned observation has presence. Good stories have presence. Stories absorb the complexity of the world they describe. Use stories to capture complexity. Use this characteristic of language to tease out the embedded understanding that observers have about causality in their environments. Stories capture the unexpected. Good questions guide insightful and unexpected stories. Good questions come from rounds of dialogue and shared inquiry. Employ methods that enable building questions over rounds of shared dialogue. Language contains embedded causal relationships. Appropriate methods of engagement enable building deep and meaningful relationships, in ways that are flexible enough to be appropriate in an enormous range of communities. Embrace the disruptiveness of being an outsider. Important signals are easy to miss in the flow of observation, or an interview. Use reflective practice to tease out easily missed important themes. Look at your observations systematically and find what patterns emerge. Expect to be surprised.

#### **METHODOLOGICAL CONTRIBUTIONS OF THIS RESEARCH**

There is one general, and two more specific methodological contributions from this research. This research is employed a novel hybridization of traditional ethnography and distributed ethnography. Ethnography and thick description enabled the use of qualitative analysis to work inductively to identify drivers to emergence. Distributed Ethnography enabled a set theoretic analysis that could deductively trace these emergent causal sets to outcomes. This inductive-deductive combination circumvents many of the traditional limitations of social science research, enabling a more effective approach to the study within and of complex systems.

More specifically, this research has made a contribution to research on resilience. Using these methods it is possible to trace the projection of resilience qualities as outcomes to causal sets of specific individual and organizational practices that produce them. These methods can be used to address three identified areas for further resilience research: the lived experience of resilience (Goldstein 2010), how issues of power and agency connect to resilience (Lajano 2012), the elements of resilience cultures (Arora-Johsson 2016). Progress towards each of these will be in service of the larger goal, making resilience actionable and a useful concept to planners (Wilkinson et al 2010).

This research also made an unexpected contribution to spiritual and integral scholarship. Research on spiritual and emotional practices has faced a challenge to identify and explain the impact of spiritual practice on the organizational or systemic scale (). These methods of research provides a means to connect outcomes, such as emergent qualities of an urban system, with drivers, such as spiritual or emotional practice. this enables a different avenue to explore and articulate how spiritual practice and engagement with mystery affects the behavior of larger scale systems.

Both methodological contributions rest on this one attribute: the ability to study scale transgressing phenomena. In this regard, it is hoped that the small contribution of this research will nudge the study of complex systems toward being more human, more tactile, and more useful.

#### **DISTRIBUTED ETHNOGRAPHIC RESEARCH: RESILIENCE IN URBAN SYSTEMS**

Exploring the identified research questions involved assembling a novel approach to research. What was developed was an ethnographic method that blended traditional and distributed ethnography, and employed both qualitative and set theoretic analysis. Concepts of resilience and leadership were operationalized through episodes of leadership, and qualities of resilience. The employment of this approach in the Rainbow case was generally a success. Traditional and distributed ethnographic techniques, with their depth and breadth, complement each other effectively. Qualitative and set theoretic analysis, with their capacity for inductive and deductive causation building, created a palette for theory-building. Operationalizing leadership through episodes of leadership made for an effective storytelling survey – as far as it went. Operationalizing resilience through qualities of resilience enabled us to link particular aspects of the urban system to those qualities. Another way to characterize this research is as an exploratory test of a rough-cut new approach. As such, it was a success. There is certainly room for improvement.

One avenue for development of this approach is towards a battery for assessment of urban systems. Using a distributed ethnography and some targeted ethnographic research, researchers could develop an effective and reasonable gauge of the resilience of an urban system, and its strengths and weaknesses and what leadership is present to cultivate it. In order to develop such a battery for assessment, there are several key areas for development.



One area for improvement is the coarseness of the concepts employed. This was touched on in the analysis chapter. To return to our storm clouds over the city metaphor, this design could tell us whether lighting was coming from one group of clouds (some element of an urban system) and striking in some particular neighborhood (generating some quality of resilience). A more effective research design would help identify what particular clouds (practices of leadership) were the source of lightning that struck any particular building (refined qualities of resilience).

To develop this more effective research design requires several things. One is a more refined model of operationalizing resilience in urban systems. To date, the most effective operationalization was the one used in this research. This makes this an area for future work.

Another design improvement would enable respondents to the distributed ethnography to identify what qualities or functions of leadership are present within an episode of leadership. This would enable a set theoretic analysis that could determine causal relationships between various functions of leadership and resilience qualities. Practically speaking, this begins to give us the granularity that makes the instrument useful as an assessment battery.

Distributed ethnography based on a survey instrument faces a familiar limitation. The data it generates is only as good as the questions it asks, and the responses it garners. A substantial improvement would be enabling respondents to code their own story. In essence, this would create a distributed inductive research tool. Such an instrument would enable us to identify emergent causal sets (such as what practices are used for Generative Leadership) that drive resilience qualities. This would require augmentation to the tools used. This could no longer be done within a simple Google survey.<sup>3</sup>

Calibration is a challenge. Given the relative newness of these concepts and their application within urban systems, there is little reference to provide internal calibration. The researcher's experience with offering external calibration was one of anxiety: I could not tell if calibrating was adding more noise to the data, or removing it. This is an important theoretical challenge to overcome if this method is to become a tool useful to practitioners.

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<sup>3</sup> As an aside, adding this functionality was attempted with the help of a startup software company in Asheville. Unfortunately, the project ran out of funding before this research was able to launch.

Every year I attend the International Symposium on Sustainable Systems and Technology. There, researchers on resilience gather from all over the world. Focusing on different aspects of city and urban system scale resilience, the general theme of late has been consistent, “we are still flying blind.” There are a number of limitations to overcome to develop this research method into a battery for assessment. That said, it offers a possible means for resilience assessment that does not fall into the previous theoretical traps. Because of that, the takeaway from this research is that this method holds potential and is worth further development.

## **CASES**

The original intent in working with both urban systems had been the same: through collaboration, to create knowledge that was useful to the practitioners “in the game”, and to offer lessons that might be useful in other contexts. The Spirit of Participatory Action Research is to partner with the community to generate useful knowledge, and then to translate useful knowledge and action. With both cases, following through on this intent took some time. In both cases, translating useful knowledge into action outstripped the period of “research,” and ultimately did not take the form originally envisioned. This next section will briefly offer an epilogue recounting how the relationships in both cases developed, and offer lessons learned on the practice of Participatory Action Research.

### **EPILOGUE: SYSTEMS UNDER (INTOLERABLE) TOLERANCE, LEARNINGS ABOUT THE PERSONAL LIMITATIONS AS A PRACTITIONER RESEARCHER**

Another way to think about the PAR process is in terms of the Cynefin framework. In the Cynefin framework, the way one leads within conditions of complexity is through probing, sensing, and responding. To reflect on my own experience as a researcher, I was not giving myself permission to probe. In public housing case, practically anything that I might try to do would be disruptive. My intentions would be read with suspicion. I was aware of how this could take ideas that on their face were good ones, and turn them into contentious disruptive ones. This made me afraid to act.

Part of my learning within both environments was how powerfully memes reproduce culture and reproduce themselves. Previously in my life I have had some distance, and did not feel enmeshed in the stories. Working public housing I did. How can I act in ways that do not reproduce the stories about power, oppression, and extractiveness? I do not have control over

how my actions are perceived. I cannot ensure that my actions don't contribute to those stories. Hearing this narrative in my head produced a fear to act.

In other points of my life as a practitioner, I have been quite willing to engage. What is the difference between this case and others? Previously in my life, I have mostly worked abroad. Outside of my own cultural context, but aware enough to understand the cultural cues, I nevertheless did not feel bound by the way memes and cultural conventions that I confronted. I felt free to act curiously, generously, and disruptively. I trusted that over time the true character of how I engaged would come through, they could come to trust my intentions and actions. Gradually the story would change.

I did not trust that in the environment of the Residents' Council. I can discern three aspects why this was the case. I can give these in shorthand in the following form (please forgive the expletives): we expect you to fuck this up, don't fuck this up, and there's no way you can't fuck this up because you've already fucked this up.

One is the fear I developed through going through the IRB approval process. The process is framed in terms of risk and harm. What value a collaborative process with the community could have seems illegible, aside from in the form of knowledge generated. And, at least in my experience of the process, it was very skeptical of the sophistication of the researcher. Or, at least it was of me. The process conveys in so many words "we expect you to fuck this up, so we're going to micromanage you in thinking through the risks so that when you fuck it up, it doesn't do all that much damage." Through a focus on risk and harm, the IRB approval process creates a narrative of fear, distrust, and a presumption of responsibility and fault on the part of the researcher. This is the context created for academics to engage in collaborative work with communities.

Second is about tone and implicit cultural norms around PhD research. I am sure that PhD candidates have quite a range of experiences in doing that research. The *story* about PhD research reproduced by PhD candidates with each other is this: it's high-stakes, your career depends on it, and you're being judged all the way along. The story about the oppositional nature of PhD research is hard to shake, regardless of what the actual experience and support I have received in my program. The story encourages the paralyzing belief that I should only take actions that are safe.

The third is about the experience of working with African-American disenfranchised populations as a white middle-class academic. White guilt is a strong meme. Part of my inheritance as a native of Cleveland whose parents were active in the civil rights movement, whose father did voter registration and cross racial work in Louisiana during the 1960s, is a set of parallel values: gratitude and responsibility. As a white person, being aware of the role of white privilege in American history makes it hard not to feel some personal responsibility for the seemingly intractable situations that public housing residents find themselves in.

Fourth is about the particular relationship between public housing in Asheville and the larger city. There's a pervasive belief within public housing that nothing ever changes, and a consistent belief outside of public housing that it's a mess to steer clear of. I watched this meme grinding down members of the Executive team for the Residents' Council, who were constantly encountering other residents that simply could not believe that they were interested in change, or even if they were that they can accomplish it. Add to this how maxed out and strained all of the individuals who are potential collaborators in this project, and added up to a pretty high bar for entry. To do something, I had to do it basically all myself. If I did it all myself, my intentions would be misunderstood (because I'm a white outsider who has no business being there). When my intentions are misunderstood, nobody's going to believe that this is going to go anywhere. If nobody believes this is going to go anywhere, no one will support it. And thus I have a self-filling prophecy about engagement.

Where this places me is reflecting on the role of spirituality within research practice. Research practice involves placing ones self in complex uncertain environments with strong memes about who that researcher might be and what their intentions are. In order to it retain that core that I consider to be myself, I needed my own spiritual practice that engaged with that uncertainty and mystery. I needed practices that helped me remind myself who I was even when I was in an environment that told me I was something else. I needed practices that reminded me what was possible when I engage with mystery, even when the environment around me was telling me that none of that was true. Because I didn't have strong spiritual practice, I wasn't able to be an effective research practitioner within public housing.

#### **EPILOGUE: RESIDENTS' COUNCIL**

I wish to offer a quick epilogue on my engagement with the Residents' Council. I never perceived an opportunity to partner in action with the Residents' Council for public

housing directly. What did present itself was an opportunity to collaborate with African-American leadership in Asheville more broadly. By October 2015, I was feeling frustrated and panicky about my research. It seemed clear that the collaboration with the Residents' Council wasn't going anywhere. I wasn't sure what to do next. Next, I met Sheneika Smith. Sheneika Smith is a staff member at Green Opportunities, an organization in the public housing ecosystem that does workforce training. Sheneika had returned Asheville in recent years, and started something called Date My City. With a catchy name and a façade seemingly oriented towards entertainment, its purpose was to draw the African-American community of Asheville downtown. It had three prongs of engagement. One was entertainment, the second education about the history of black Asheville, and the third a call to action.

When we met, Sheneika was beginning to feel like Date My City needed to evolve. She wished to create conditions for leadership, but was not sure quite what that would mean. In the course of our conversation, I felt kinship and attunement. As we talked, we developed ideas about ensemble leadership. Given the caustic memes around Individual Strategic Leadership, the African-American community was needing leadership and not from charismatic or strategic individuals. In her view it was needing ensemble leadership. But, with its historical infighting and antagonisms, how could one be cultivated? This led to a series of conversations that ultimately led to Sheneika applying for and receiving a foundation grant to host a leadership retreat. I and a few colleagues have worked with Sheneika to help her and a team design the retreat, and support them in facilitating it. At the time of this writing, Sheneika's leadership retreat is planned for early this summer.

This experience helped me realize something. I felt a temptation to think about Participatory Action Research from a transactional point of view. You and I work together to develop useful knowledge, and then you and I do something with it. This research forced me to think about it in slightly different terms. You and I might develop useful knowledge. Then I and someone else in the urban system might take that and do something with it. Is that still Participatory Action Research? Or, you and I might develop relationships. That'll lead to someone else developing useful knowledge. That leads to someone else taking action with it. If I decompose Participatory Action Research from its direct exchange to a series of value and capacity-building actions, at what point is it no longer Participatory Action Research? I have

no good answer for this. What I can offer is that from my experiences thus far, Participatory Action Research within urban systems will involve a looser understanding of the karmic loop.

#### **EPILOGUE: RAINBOW COMMUNITY SCHOOL**

My involvement with the Rainbow Community School evolved considerably over the course of research. My roles have included serving as a facilitator of the Rainbow board retreat, an Executive coach to the Director, a founding member of Rainbows XQ project team (to design a new high school), research partner collaborator, and an invited future board member for the Rainbow Institute. This progression has offered a few important lessons on the practice of research. Developing relationships that can support meaningful research take time, and vulnerability. Understanding what questions need to be asked asking good questions is essential to generating useful knowledge. Asking good questions takes interactional expertise, and immersion in the world of your research collaborators. None of these are new insights, and are things that I knew (though have deepened in understanding). The real learning was about the experience of time and trust. I can boil it down to this: trust doesn't take time, it takes attunement.

With attunement, or a deep presence and vulnerability, my heart opens to connection. I am willing to engage and be present, regardless of who I thought I was engaging with. And, I have experienced the same in return. The abiding challenge that I have encountered in this research is creating moments for true attunement across difference. In the moments that I can find it, the world opens. People are willing to share their deepest insights about the pain and beauty of the world, and co-construct a more useful understanding of it with me. As this research has drawn me closer to issues of spirituality, it has drawn me closer to the edge of a scary chasm. Vulnerability is necessary for this work, subtlety and consideration. It can't be rushed. Engaging in this research further will take dexterity, grace. Trust may come with attunement, but grace comes with time.

#### **QUESTIONS FOR FURTHER RESEARCH**

In closing, I offer three directions for future research. One has already been addressed. Developing a battery of assessment for the resilience of urban systems is an essential tool for planners to develop. It is possible that through refinement, this research approach could become such a tool.

The second is related to one of the limitations of this set of cases. As was mentioned in the Methods chapter, Rainbow as an imperfect urban system. It lacks the ecosystem of organizations and multiple sites that characterized most urban systems. As a result, it may be easier for it to reach Scale Resonance. Even more sticky, what happens when urban systems are loosely coupled? Loosely coupled or radically open urban systems are the norm. What effect does the loose coupling of urban systems have on Panarchy? What implications do these different Panarchy dynamics have for leadership for resilience? Future research could focus a distributed ethnography on a set of loosely coupled urban systems.

The third is somewhat different. Tainter & Taylor (2014) identified a consistent pattern in societies' cities and urban systems. As they encounter new problems, they generate greater problem-solving capacity. This greater problem-solving capacity requires greater complexity. Greater complexity involves a larger metabolic overhead. This poses a conundrum. A larger metabolism makes a society, city, or urban system more vulnerable to fluctuations in its metabolism. It may be better at adapting and solving problems, but it has to keep its metabolism extremely high. This next era will likely be one of greater socio-ecological volatility. This may involve decreased societal metabolisms, which poses a serious threat. Without being able to maintain important problem-solving capacity while reducing metabolic overhead, our societies, cities and urban systems are vulnerable to collapse. This metabolic vulnerability is a key threat to the resilience of urban systems.

Complexity leadership theory offers a potential way out: through entrainment and Ratcheting, it is possible to reduce the metabolic overhead of an urban system. Can Complexity Leadership enable dissolving or decomposing complexity, which addresses Tainter's complexity overhead conundrum? This research would involve several stages. The first stage would be to scan for urban systems that have retained their problem-solving capacity while significantly reducing their metabolic overhead. The second stage would be to do a to use the approach from this research. The purpose would be to understand if metabolic reductions were possible while retaining problem-solving capacity, thereby fostering resilience. The last would be to answer the question of whether it is possible to identify how this was accomplished, and if functions of Complexity Leadership were involved in doing so. Findings from this research could be important in cities under adaptation, as they learn how to retain quality of life using fewer resources.

## CONCLUSION: PLANNING FROM A COMPLEXITY SUITE PERSPECTIVE

The goal of this chapter has been to synthesize a learning from this research, tie up loose ends, and offer useful building blocks in theory, research and practice going forward. To close this chapter, I wish to return to a question from the introduction: how might intentions to foster resilience be translated into action? I would like to take the Complexity Leadership Suite and use it as a lens on contemporary planning practice to answer this question. This is highly speculative, to be taken with a grain of salt, but may offer insight into what it might look like for planning to provide leadership on resilience. We can think about contemporary planning practice in terms of the seven elements of the Complexity Leadership suite.

- 1) **Community Building**—Planning has developed real capacity and expertise in community building. Participatory Planning can make substantive contributions to collective identity within the community. That said, planners functioning as Community Builders often comes in conflict with planners functioning as administrators or enforcers.
- 2) **Generative Leadership**—Planning culture has cultivated a collaborative approach to creativity. While planners can be quite creative in envisioning and interpreting the urban landscape, planners have generally ceded this territory to architects. Architects have a much stronger brand (and ego) around creative capacity as an individual act of a designer. This is a shame, as the nature of Generative Leadership needed within complex urban systems to foster resilience is a collaborative one.
- 3) **Administrative Leadership**—This is how urban planners have become pigeonholed. Urban planners are the entrainment army, providing alignment with and enforcement of a highly codified and bureaucratic set of rules about the use of space.
- 4) **Information Gathering Leadership**—IGL is probably the area of greatest strength for planners, both within professional domains and public ones. Broadly trained and enculturated to develop interactional expertise, planners are natural facilitators of collaboration and sense-making amongst professionals. With a developed body of techniques for participatory methods of public sense-making, it is also a public domain where planners have much to contribute.
- 5) **Information Using Leadership**—This is where the rubber hits the road. And, this is where planners suck. In the post-urban renewal era, planners have capitulated this territory to politicians and the private sector actors, who are more than happy to play the role of systems – transformers, whether they are conscious of it or not. In an era when urban systems will be under constant stress, and cultivating resilience will require Ratcheting, this is a domain where leadership is needed.



- 6) Individual Strategic Leadership— Urban renewal shamed planning away from the use of Individual Strategic Leadership. The trauma of the experience has become a source of learning and much reflection for planning, and is the wellspring of its well-developed spiritual core. That said, planning has never confronted its old scars. Damn you Robert Moses!
- 7) Spiritual Leadership—After two generations of penitence, planners have cultivated a solid spiritual core to their work. Planners can engage with the mystery that emerges from complex urban systems in a way few other professions can, by virtue both of training, enculturation, and situation. We seem afraid to own it, be explicit about its spiritual nature, and draw on it publicly.

In the coming generation, many of our urban systems will need to ratchet, to transform. Sometimes this will be because of changing needs of its members. Other times this will be because there is a normative imperative to do so. At other times, this will be a response to changing ecological, social, or economic conditions. Our urban systems will need to engage with mystery during this era over and over. These will involve terrifying conditions, when people are frightened, cannot see the future, and are scared of what may happen to them. These are the moments that will require spiritual leadership, to ponder where we find ourselves, prophesy what is possible, and prod us to do what needs to be done.

Those alive in America today live in an era starved of spiritual leadership. This was a recurring theme of my conversation in the African American leadership community, but it certainly is not confined to the African American community. What was yearned for was pragmatic spiritual leadership, down on the streets working within urban systems. The personal and collective practices of engaging with mystery that can keep us sane during this era do exist. But, they are confined to pockets of our society, the seed stock in cultural sky islands. Making the practices these sky islands hold useful to many urban systems will take hard work of translation, adaptation. So far, they have spread but a little.

Planners can be the spiritual leaders that are needed during this era. And, in my opinion, planning *should* offer this spiritual leadership. This may seem anathema to its technocratic, managerial, objective, scientific roots. That need not be scary or squishy, but simply possess a comforting relationship with mystery. Planning itself must ratchet. It must become the profession this era needs it to be, drawing on its past. I think we will find that people, communities and urban systems will welcome such leadership from planning. It is

from that place of spiritual leadership that planning will again find its calling, leading us through a challenging time of mystery and transformation

<sup>1</sup> (at least I, as yet, have not come up with one that it does not)

# APPENDIX A

Below are seven stories that provide stories that illustrate qualities of resilience, namely flexibility, integration, inclusion, resourceful, redundant, robustness (grit), and reflectiveness. For further reference, please refer to the separate table appendix of all of the stories from the storytelling for resilience project. These are organized by quality of resilience, and grouped so that all stories coded fully in a quality are included in the group. Put another way, in order for a story to be included below in the robustness group, the story author believe robustness was essential to explain the story. All of the stories from the storytelling for resilience project are included in the supplementary attachment.

Examples of each quality:

## INCLUSION

I was a chaperone for the last field trip of the year last year, to the NC Arboretum. One boy in the class had typically struggled with physical issues of coordination, being overwhelmed easily, and having a little slower development in some areas than his peers. We were on a trail walk, and at one point in the trail, there is a huge hollow log that kids love to crawl through, like a long wooden tunnel. So kids lined up, scrambled through, loved it or took it in stride or opted out. Then this boy's turn came. He was hesitant, but wanted to try to do it. His progress was slow and he was really not sure... but there was a teacher at the front, a teacher at the end, and then all the chaperones and kids were giving encouragement, telling him he was doing a great job, keep it up, you can do it, and when he came through the other side, he had the biggest smile on his face and everyone cheered. I heard later that he had never done anything like that before, with such close physical quarters and kind of an intense stretch where you're stuck in a wooden tunnel and can't really back up. This cost some time, which the group was willing to give. It cost some repeat turns of other kids who were faster, which they were willing to forego. It was just the sweetest moment, and I found myself thinking, this time, attention, encouragement, and recognition that this is something special for this person to want to accomplish - and then succeed, that these offerings were what Rainbow can give, and encourage others to give.

## GRIT

On a recent hike, I noticed myself tensing up each time I had to cross over the river on man-placed stepping stones. I knew my apprehension came from previous experiences where I slipped off the stones into the river. Knowing that I had to force myself to proceed, instead of running away, I immediately related this to a student of mine who frequently had to push himself through math lessons in this way. Making this connection shifted my perspective and softened my approach. Then I was able to see that I had been looking at the river in its entirety, which was overwhelming and defeating. When I narrowed my focus to one step at a time, I was not only more concentrated, but I was also able to individually connect with each stepping stone. It quickly became clear that my foot fit uniquely on each stone and that, simply by tending to that individual stone, I could make it across safely as well as calmly. Since then, I have used this analogy to assist my students in focusing on a small portion at a time and allowing that to accumulate into an entire task.

#### REFLECTION

My son, an 8th grader, recently decided to spend a day during a weekend in what he called a quiet meditation and examination of his thoughts. This introspection was brought forth currently by an elective he took last trimester, Poyodoshi, but I believe builds on a path he has developed from his last 11 years at Rainbow. After the day, he stated he found some areas within his self that was holding back because of fear and desiring a place of comfort. He made the pledge to himself to try and push himself to the edge of his comfort and try new experiences and be around new people. He has followed through with this in action! I truly believe that this embodies some of the spirit of Rainbow!

#### INTEGRATION

Once a month, teachers meet for “Child Study.” Teachers bring the names (and often a photo) of a student or students who are particularly struggling whether it be academically, socially, emotionally or in other ways. The child's situation is shared with the group in an effort to build a support system for that child. We share ideas on how to further help the child; often teachers who have taught the child in previous years can offer insight and support as well. Usually a photo is shared so that when teachers encounter the child on campus or on the playground they can recognize him or her and offer needed support. Finally, we take a moment to lovingly hold the child in our hearts. As a specials teacher I teach all the children for a short time each week; I do not know them as well as their classroom teachers do. I value

this time to learn more about my students and how to support them. I am not required to attend these meetings as a part time teacher, however I rarely miss them! The love, compassion and dedication that is present in the room is very powerful, its an honor to work with these teachers.

#### **RESOURCEFULNESS**

My son has always been more interested in playing than reading. From 3rd grade through sixth grade we have done extra work with him in order to help his reading skills. In sixth grade, things began to change. His teachers, Jenny and Justin, helped us find extra work that would support his reading abilities. My son was not happy about the extra work, but he grudgingly did it. Those teachers went beyond the call of duty in supporting him in extra work after school as well as when he had tests. At that time he was reading at a fourth grade level according to the state assessments. They told us he would be in a three year Omega program. Jenny found extra materials for Ryan to work on during the summer also. Once he got to Omega, his progress steadily progressed. Susan and Jason has found different materials for furthering his reading skills and now he is reading at an eighth grade level. He will graduate with his class that he has been with since Preschool. The teachers here go way beyond the call of duty.

#### **REDUNDANCY**

I recently had the remarkable opportunity of working with the middle school kids on their "Gourmega" fundraiser. This is an event where they raise money for their end of year trip by transforming their classrooms into a full service restaurant for one night. I work in the food industry and run several restaurants, so training and working with young people in a food event capacity is pretty familiar to me. What was remarkable about working with the Rainbow 7th and 8th graders is the level of emotional intelligence that they brought to the job. They demonstrated in countless ways that they cared about what they were doing. Even in the peaks of chaos, the bulk of them remained centered and focused on the job at hand. They ran the restaurant for the night - functioning as the servers, food runners, kitchen crew, etc. There are many 20 year olds that can't pull that off! I was truly impressed and moved by their commitment, focus, and ability to hold their intention and let their spirit shine throughout the event. I will always remember it!

#### **FLEXIBILITY**

"A true story about the spirit of Rainbow that happened for our family was when we told my son's seventh grade class and parents about our family's journey since discovering that he was transgender; and, that when he returned from the winter break he wanted to be called by a different name and be addressed with male pronouns. We were immediately surrounded by an outpouring of compassion and love by both parents and students. We had not one negative response from parents or students and the students told our son that they were proud of his courage at wanting to be his true self and that male or female he was still the same person on the inside.

Words cannot express how thankful we are for the Rainbow community. They have embraced our family and our son and changed his life forever by supporting him in probably the most important and difficult decision he has/will ever make. Parents and staff often come up to me and tell me how amazed and happy they are to see the transformation in our son. They now see true smiles and a more confident child who is happy to be himself.

As parents, we are so grateful and thankful because we are so aware that our son has been blessed to be part of this amazing community, while so many other transgender children experience unspeakable pain when they try to be their true self in their homes, schools and communities."

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