

Shaping a Creative Milieu:

*Creativity, Process, Pedagogy,
Leadership, and Place*

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Abstract

This paper surveys research in relation to the conditions and processes considered important in fostering creativity in a variety of contexts including cities, organizations, and learning environments. Two established schools of the arts, and their leaders, serve as case studies in the examination of milieu designed to foster creative thinking and work. The paper identifies ten characteristics found to be common in the formation of creative milieu by scholars in psychology, business, economics, anthropology, geography, leadership, urban studies, education, and the arts. Characteristics include exchanges across cultures and domains of knowledge, opportunities for serendipitous interactions and for solitude, risk-taking, stable economic conditions, inclusive leadership, open communication, and the presence of visual stimulants and other creative people and activity.

Keywords: *Creativity, Creative Pedagogy, Leadership, Creative Milieu, Cross-cultural Interaction*

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Creativity has thrived and been nurtured in a variety of environments. This paper attempts to connect thinking about how creativity is fostered, and how creative environments or milieu are formed or enhanced. It surveys research from the fields of psychology, business, economics, geography, leadership, anthropology, urban studies, education, and the arts. The paper reviews creative process models, creative place characteristics, educational pedagogies designed to foster creativity, and leadership theories pertaining to creative organizations. Ingredients thought to foster creativity were found across this research, suggesting a roster of characteristics important to successful creative environments or places.

Since the 1950s, most research into creativity was conducted in the fields of psychology, business, and the sciences. Much of this focused on understanding creativity so as to enhance the creative output of individuals, work groups, and organizations. Cities as creative places have been increasingly popular for research since the 1990s, as have studies of creativity in education. This article will identify some of the common creative ingredients found to be at work in various contexts.

Two highly regarded arts educators, and the institutions they lead, serve as case studies in this paper to explore intentional creative environments. Subjects interviewed were: 1) Jay Coogan, President of the Minneapolis College of Art and Design (MCAD) since 2009, a 124-year-old degree-granting campus with 700 full-time students, and 2) Dr. David O'Fallon, CEO of the MacPhail Center for Music (MacPhail) since 2002, a 103-year-old school with 7,500 part-time students at its Minneapolis headquarters and dozens of sites across the state of Minnesota.

In the evolving world economy, technological change, global competition, and social and cultural diversity have driven business, as well as regional and national economies to seek new knowledge and greater creativity (Florida, 2002; Mumford, Connelly & Gaddis, 2003; Uhl-Bien, Marion & McKelvey, 2007). Being able to solve problems and to learn and adapt quickly is an increasingly critical capacity (Uhl-Bien et al., 2007). Competitive advantages depend more than ever on a capacity for sustained innovation (Mumford, 2004).

Pink (2006) argued that the people who will accrue the most influence in the emerging knowledge age or creative economy will be those with well-developed right and left brain functions, in other words people with strong creative skills who can apply those skills in practical ways.

While creativity may be one of the most distinguishing characteristics of the human species, it is not commonly understood. Rather than attempt to define it, this paper looks at how it has been perceived, dissected, and fostered in the pursuit of enhancing creative abilities of individuals and groups.

Meanings of Creativity

The definition of creativity and the contexts in which it operates can be elusive (Mednick, 1962; Amabile, 1983; McCoy & Evans, 2002). Most scholars and theorists

consider creativity in its broadest terms as a human capacity exercised across fields, domains, or disciplines in all forms of art, science, and human activity (Ghiselin, 1952; Barron, 1969; Amabile 1983; Amabile, Conti, Coon, Lazenby, & Herron, 1996; Csikszentmihalyi, 1996; Root-Bernstein, 1999). Given its profound significance and broad applications, the term itself may be among the most used and abused (Negus & Pickering, 2000). As a basic yet complex human attribute, creativity has historically been a contested concept (Drake, 2003; Welz, 2003).

Amabile (1988) offered a brief definition in relation to its social function: “creativity is the production of novel and useful ideas by an individual or small groups of individuals working together” (p. 126). McCoy and Evans (2002) suggested: “creativity is the ability to fluently solve problems with original, innovative, novel, and appropriate solutions”. Updating the definition, Amabile et al. (1996) referred to creativity as “the production of novel and useful ideas in any domain”. They added that the related phenomenon of innovation represents the successful implementation of creative ideas. Welz (2003) described innovation from the field of anthropology as “the invention and implementation of new things, knowledges and practices” (p. 255).

O’Fallon (personal communication, April 23, 2010) suggested a different idea in which imagination was considered the basis of both creativity and innovation. He illustrated a triangular concept with imagination, creativity, and innovation as three distinct points. “Imagination is the capacity to create mental images that did not exist. Creativity represents the ways imagination is expressed or takes shape. Innovation is how you improve, refine, and apply what’s created in new ways”.

Coogan (2009) agreed, “stimulating the imagination strengthens creative inclinations” (p. 123). Gardner (1993) suggested the creative person is one “who regularly solves problems, fashions products or defines new questions in a domain in a way that is initially considered novel but that ultimately becomes accepted in a particular cultural setting” (p. 35).

Based on studies of highly creative individuals in a variety of fields, Csikszentmihalyi (1996) concluded that the most consistent and important quality of the creative person is that they enjoy the process of creation or discovery for its own sake. Using a similar approach of interviewing and studying highly creative individuals, Root-Bernstein (1999) isolated 13 mental tools or devices they found their subjects employed in the creative process. Some of these, including play, abstraction, pattern recognition, analogizing, imaging, and empathizing were common among the work of other scholars (Gardner, 1993; Bonnardel, 2000; Loi & Dillon, 2006; Pink, 2006).

In addition, some have suggested a continuum or value level of creativity. Amabile (1983) referred to the difference between garden-variety creativity and historically significant advances. Csikszentmihalyi (1996) described everyday creativity, as well as what he called big C creativity. He indicated that creativity is exercised or expressed routinely in daily life, while a more rare form appears occasionally

offering significant change within its respective domain. Lubart (2001) similarly described creativity in the category of eminent work compared to creativity in everyday activities.

Many scholars divided creativity into four elements: the person, the product, the process, and the environment or place (Csikszentmihalyi, 1996; McCoy & Evans, 2002; Fleith, 2000; Woodman, Sawyer & Griffin, 1993). Prior to the 1980s, most research focused on personal traits. Until 2000, some considered the social/psychological environment, but excluded physical place and space (Hall, 2000; Drake, 2003; McCoy & Evans, 2002; Loi & Dillon, 2006; McCormack, 2006).

Historical Path of Thinking About Creativity

In a longer arc of human history, creativity has been a contested concept (Drake, 2003; Welz, 2003). In Western cultures, prior to the Renaissance, the notion that god, or the divine, served as the solitary source of creativity was dominant. For most of modern history, creativity was considered a trait exclusive to mystically or divinely inspired individuals or creative geniuses (Cagle, 1985; Negus & Pickering, 2000; Welz, 2003). Negus and Pickering (2000) traced this long process of creativity's secularization as it moved to the idea that creativity is resident in every individual and can be nurtured or taught.

According to Rentschler (2001) the traditional view within art museums had been that creativity existed within the objects collected – objects created by specially gifted individuals. Debate continues within Western art circles whether creativity belongs in the domain of special individuals or can come from individuals from every walk of life (Ivey, 2008). “A lot of people can only see imagination, creativity, and innovation as belonging to a small set of people” (D. O’Fallon, personal communication, April 23, 2010).

Since the mid 20th Century, scholars began to acknowledge creativity as a basic human characteristic. Child psychologist, Piaget considered it a fundamental trait, but one often suppressed between ages eight and twelve (cited in McMullen & Woo, 2001). Coogan (personal communication, April 12, 2010) agreed: “it’s innate in all humans. I think part of what we do is to resurrect it from where its been expunged along the way through K – 12 education and just through life and the pressures to be practical”.

Gardner (1993) considered creativity a universal capacity among the multiple intelligences, with some people having more highly developed abilities than others. “Although different individuals may be quite distinct in their potential for creative performance in a given domain, it does appear to be possible to increase creativity to some extent” (Amabile, 1983, p. 361).

In efforts to better understand creative capacities, early research focused on personal characteristics or traits (Barron, 1969; deBono, 1993; Root-Bernstein,

1999). Recent work, aided by new technologies focused on neurobiology and genetics (Heilman, Nadeau & Beversdorf, 2003; Pink, 2006; Shenk, 2010).

An often-cited watershed moment in creativity research came in 1949, when J. P. Guilford, then President of the American Psychological Association recognized it within the field of psychology. Leading up to and during WWII, Guilford examined skills that set some combat pilots apart for the US Army. His work on creativity and divergent thinking, (Guilford, 1950), opened a new era (Amabile, 1983; Csikszentmihalyi, 1996; Lubart 2001).

While it is generally agreed that in-born creative traits can be nurtured, general intelligence and education in its standard form do not alone foster creativity. Research found that individuals with low levels of conventional intelligence uniformly exhibited low levels of creativity. Those with high levels of intelligence possessed all levels of creativity (Amabile, 1983; Csikszentmihalyi, 1996). Coogan (2009) agreed: “To achieve a good education, one needs to be creative; one does not become creative as the outcome of an education” (p. 124).

Creative Process in Individuals and Groups

Recent efforts to populate creative enterprises, institutions, and places with creative individuals and leaders have relied on understanding frameworks in which creativity takes place, and factors that influence it.

Mednick (1962) concluded that associative thinking – seeing connections and forming new combinations – served as the core. He looked for manipulable variables that produced creativity, and cited three ways associative thinking comes about: serendipity, similarity, and mediation. Associative thinking, or connecting unrelated matrices of thought to produce new insights or inventions, continued as a fundamental factor in understanding the creative process, but did not provide a recipe for nurturing it (Amabile, 1983).

Seeing analogies others do not was a key ingredient in what Bonnardel (2000) called the evocation process. Creative individuals or groups use data from external contexts to activate creative thought. This includes what he called inter-domain sources of knowledge or the blending of ideas from different disciplines, fields, places, and cultures.

A variety of theories have been advanced with regard to stages in the creative process. Wallas (1926) (as cited by Cagle, 1985) described four stages: 1) preparation, 2) incubation, 3) illumination, and 4) verification. These were echoed by Guilford (1950) and long considered the standard by researchers (Lubart, 2001). Cagle (1985) recognized that most theorists considered evaluation a step taking place throughout the creative process, yet he advocated a model with five stages: 1) identification, 2) revelation, 3) synthesis, 4) evaluation, and 5) verification. While the difference between illumination and revelation appear less significant, including both verification and evaluation reflected an acknowledgment that the external environment plays an important role.

Amabile (1988) postulated a different model geared for workplaces: 1) task presentation, 2) preparation, 3) idea generation, 4) validation, and 5) outcome assessment. Cagle (1985) looked outside the process steps to personal attributes of creative individuals. He described a number of mental attitudes or characteristics: 1) flexibility, 2) curiosity, 3) risk taking, 4) tolerance of ambiguity, 5) devotion of time, and 6) imagination. Coogan (2009) reflected similar thoughts: “Creative individuals display a range of characteristics. These include a willingness to tolerate ambiguity, to play with ideas, materials, and processes, and a desire to grapple with finding solutions to problems or ideas” (p. 123).

Wierzbicki and Nakamori (2005) proposed an intuitive, decision-making process in six steps: 1) recognition, 2) deliberation or analysis, 3) gestation, 4) enlightenment, 5) rationalization, and 5) implementation. They noted that gestation and enlightenment rely on preverbal processing and are less bothered by conscious or rational thought. They claimed that until the last decade of the 20th Century, prevailing theories refused to see creative acts as irrational, and asserted that creative abilities are largely irrational, intuitive, instinctive, and subconscious.

Csikszentmihalyi (1996) framed the creative process outside the individual as taking place between the domain, the field, and the individual. He referred to the domain as the discipline or area of activity. This might be medicine or geology, visual arts or music – or any of their subsets. As a pivotal factor, he asserted there is no way to know if an idea is new except with reference to accepted standards. Csikszentmihalyi argued that the field contains knowledge and sets standards within each domain. The academy, journal editors, curators, critics, professional associations, and the like, govern which new ideas become standards or are considered innovative in any domain. Finally, Csikszentmihalyi considered the individual, the researcher, artist, explorer, etc., as the catalytic agent devising new ideas or products within each domain and interacting with their respective field(s).

Most researchers have agreed that a creative individual is aided by relevant domain knowledge (Mednick, 1962; Amabile, 1983; Woodman et al., 1993), but Csikszentmihalyi argued that knowledge of and connections within a field are also significant to the process of discovery or invention.

Bringing diverse ideas and cultures together in a creative work team, an educational setting, or a city is frequently cited as key to creativity. The idea of cultural swirl (Hannerz, 1992; Welz, 2003), the mixing of and tensions between cultures (Weatherford, 1994; Hall, 2000; Wood & Landry, 2008), where analogizing and blending take place (Loi & Dillon, 2006) are the most productive environments for creativity. Welz (2003) calls for more occasions for serendipity and stresses the importance of openness. Csikszentmihalyi (1996) asserted that the best work bridged realms of ideas and that some of the most creative breakthroughs came when thinking in one domain was grafted into another.

Amabile (1988) set forth a rank order of environmental factors promoting creativity in the workplace: 1) freedom, 2) good project management, 3) sufficient

resources, 4) encouragement, 5) various other organizational characteristics, 6) recognition, 7) sufficient time, 8) challenge, and 9) pressure.

On the flip side Amabile (1988) acknowledged deterrents including restrictive environments, insufficient resources, insufficient information, discouraging team members, and unrealistic time pressures. Among the most significant deterrents were ill-considered and ill-delivered evaluations by supervisors or teachers and insufficient time for gestation of ideas (Lubart, 2001). O’Fallon (personal communication, April 23, 2010) cited discouraging statements such as: it’s too big, it can’t happen, it’s too soon, or how are you going to get that done?

Lubart (2001) considered the capacity to see old problems from new angles essential, as well as a cluster of characteristics such as sensitivity to problems, capacity to provide many ideas, ability to change one’s mental state, ability to reorganize thinking, ability to deal with complexity, and ability to evaluate. These, Lubart said, might be embodied by one individual or among members of a group.

Many scholars acknowledged that groups appear to go through the same stages as individuals, and that characteristics assigned to creative people can also be contained and function within a group (Amabile, 1988; Woodman et al., 1993).

O’Fallon, agreed and found more creativity coming from groups. “Individuals need the group. There are creative geniuses, but for the human community creativity is best supported and fostered – and most fulfilling – with others. But it’s not an either/or” (D. O’Fallon, personal communication, April 23, 2010). Coogan stressed collaboration, team teaching, and interdisciplinary work to better prepare students to work with other people and benefit from new ideas coming from cross-domain thinking. (J. Coogan, personal communication, April 12, 2010).

Physical Place and Space

Based on his historical study of cities, Hall (2000) observed,

We find a vast literature on creativity, but relatively little that is relevant because virtually none of it addresses the question of location. Psychologists and psychoanalysts treat it almost exclusively in terms of the individual personality; so do students of management, who have looked at company innovation. Few studies mention the social context; even fewer are specific (p. 642).

Creative city researchers and theorists point to a variety of characteristics that stimulate creativity among individuals and groups. Many of these parallel conditions are cited by researchers in other fields. According to Csikszentmihalyi (1996), the characteristics of a spatial or geographic environment cannot be divorced from the creative person, process, product, or psychosocial conditions. They are always interacting in complex ways to motivate or facilitate creativity.

According to Welz (2003) the field of anthropology studied creative cultures but avoided analyzing factors involved in creativity for fear of enabling social engineering. “Anthropologists have long cautioned against the expectation that such innovative environments can be planned and purposefully built” (p. 263).

Considerable anecdotal writing exists on the significance of place in stimulating the muse, or its impact on highly creative individuals (Csikszentmihalyi, 1996; Lippard, 1997; Miller & Kenedi, 2003), yet physical environments in general, and those that affect garden variety or everyday creativity received little attention prior to 2000 (Hall, 2000; Drake, 2003; McCoy & Evans, 2002; Loi & Dillon, 2006). McCormack (2006) argued, “The design of environments from which creative behavior is expected to emerge is at least as important as the design of the agents who are expected to evolve this behavior” (p. 9).

Most major creative breakthroughs throughout history have come in places that were crossroads of cultures, provided a density of interactions, experienced social change, and where nonviolent conflicts between ethnic, economic, and social groups took place (Weatherford, 1994; Hannerz, 1996; Csikszentmihalyi, 1996; Hall, 2000; Welz, 2003; Wood & Landry, 2008). According to Hall (2000) no city has ever produced a creative milieu without a continued renewal of the creative bloodstream through immigration, trade, and tourism, as well as a certain level of social imbalance.

Creativity models, presented by Cagle (1985), Amabile (1988), Wierzbicki (1997), and Lubart (2001) showed links between creative persons, process, environments, and products, all of which included openness, communication, and group diversity as ingredients (Woodman et al., 1993).

French geographer Philippe Aydalot advanced a model of the creative milieu (cited by Hall, 2000) containing four key features: 1) information transmitted among people, 2) knowledge both stored and in memories, 3) competence in certain relevant activities (such as arts and industry clusters), and 4) creativity, described as a kind of synergy.

Examining environments from an economic viewpoint, Scott (2000) asserted that cities function as creative fields generating streams of both cultural and technological innovation and pondered why only some cities thrive. Asking the same question, Porter (1990) found that some possessed a culture of innovation or set of historically generated and socially embedded types of knowledge, values, and practices. Some cities built or attracted clusters of specialized industries, usually sprouting from natural resources, location, and local skills, all of which became one with local culture.

Hall (2000) outlined several prerequisites for a creative milieu which may serve either a geographic place or an institutional setting: 1) sound financial basis, 2) basic organizational knowledge and competence, 3) imbalance between experiences, needs, and actual opportunities, 4) diverse cultural mix, 5) good

internal and external possibilities for transportation and communication, and 6) structured uncertainty about the future – meaning open ended possibilities for change within an otherwise stable environment.

Drake (2003) looked at how the perceived attributes of a geographic place provided inspiration in the creative process. He sought to understand how the aesthetic inspiration of creative workers was affected by their personal or emotional responses to particular places. He saw four conditions that served as a stimuli: 1) locality as a resource of visual raw materials, 2) locality-based intense social and cultural networks, 3) locality as a brand based on reputation and tradition, and 4) locality-specific communities of creative workers.

Creative cities, businesses, and learning environments share many of the same attributes. One is that creative people seek centers of innovative activity. “It’s important for them to see and hear what other creative people are doing” (J. Coogan, personal communication, April 12, 2010).

Learning Creativity

Some classroom characteristics and pedagogical approaches were found by educators and students to enhance creativity. Successful creative spaces were those conducive to collaboration, places where ideas can be analyzed, synthesized, and applied (Loi & Dillon, 2006). These environments provided students with choices, accepted different ideas, boosted self-confidence, and focused on students’ strengths and interests. Other factors were found to inhibit creativity. These included when teachers ignored ideas, exercised controlling styles, and imposed excessive structure (Fleith, 2000).

Having completed design and construction of MacPhail’s 55,000 square-foot headquarters in 2008, O’Fallon (personal communication, April 23, 2010) felt that good design and great working spaces fostered creative learning and work. He asserted that people push themselves to excel when they form a psychological bond to a place that is highly regarded, describing MacPhail as a magnetic energy field where no individual controls what happens. “The chemistry is greater than any one of us”.

For Coogan, psychological or social environments supporting creativity were inter-connected with the physical. “Creative people need time to isolate in their private thoughts and time to interact and put their work out there” (J. Coogan, personal communication, April 12, 2010).

Not looking specifically at art schools, Fleith (2000) enumerated related conditions found to promote creativity in educational environments: 1) time for creative thinking, 2) rewarding creative ideas and products, 3) encouraging sensible risks, 4) allowing mistakes, 5) imagining other viewpoints, 6) exploring the environment, 7) questioning assumptions, 8) finding interests and problems, 9) generating multiple hypotheses, 10) focusing on broad ideas rather than specific facts, and 11) thinking about the thinking process.

Connecting creative learning environments to the emerging knowledge economy, Warner and Myers (2010) pointed to the importance of creativity-rich environments that provided cognitive stimulation that engaged both domain-relevant and creativity-relevant skills. However, they warned that these environments provided stimulation only to the degree that aesthetic training allowed learners to use the cues. Loi and Dillon (2006) found that collaborative learning environments enabled people to better experiment, contribute, change their thinking, and devise creative ideas or products.

Coogan (personal communication, April 12, 2010) believed creative learning is enhanced within a setting rich and diverse in people, ideas, and disciplines with active cross-pollination. His efforts to connect art students with a variety of external agencies, businesses, and community groups was designed to seed cross-disciplinary, cross-cultural, and inter-domain thinking considered critical to creativity and creative environments (Hall, 2000; Welz, 2003; Loi & Dillon, 2006; Wood & Landry, 2008).

“We need a new wave of holistic thinking; we’re moving from a world economy defined by physical labor to one with greater emphasis on mental labor” (Coogan, 2009, p. 129). Art and design schools, Coogan asserted, bring value to the larger society and the economy because they create environments that promote creative thinking and practical applications of creative ideas.

Like Hall (2000), who asserted that creativity in cities increased when there was a certain level of imbalance and uncertainty in the future, Loi and Dillon (2006) found that educational environments in stasis were not conducive to promoting creativity. To open up and create space for deep learning and to make rich connections, “the logic of educational systems should be reversed so that it is the system that conforms to the learner, rather than the learner to the system” (Green et al., 2005, p. 3). Coogan shared a similar pedagogy. “One means of increasing motivation is to give students more voice in shaping their education program” (Coogan, 2009, p. 127).

During the past several decades, the pedagogical approach in most art and design schools around the world were opened to outside influences to enhance the value of art education. Traditional guild systems and mentorship under a master, gave way to a broader curriculum and exposure to multiple voices (Talbot, 2002; Frankham, 2006; Coogan, 2009).

O’Fallon acknowledged failure as an important part of the creative process. “How do we support a culture where it’s ok to fail?” he asked. “No one expects you to perform badly, but we have a ways to go to create space for failure” (D. O’Fallon, personal communication, April 23, 2010).

Other researchers found creativity was enhanced through specially-designed, dedicated innovation labs (Gill & Oldfield, 2007) or creative learning spaces (Jankowska & Atlay, 2008) combined with activities or facilitated techniques. Facilitation encouraged collaborative ways of working and playfulness. It provided

participants a sense of breaking the rules where they shifted back and forth from formal to informal, wild to logical, and creative to conformist (Gill & Oldfield, 2007). Jankowska and Atlay (2008) examined ways to develop a habit of innovation among students. They found aesthetics, a unique atmosphere, flexibility of uses, and interactivity fostered by spatial design to be contributors. They also cited the importance of the ability of participants to work at their own pace.

Coogan (2009) advocated an atmosphere conducive to reflective practice with emphasis on crossing disciplines to create integration of ideas. He echoed Csikszentmihalyi (1996) and Wood and Landry (2008) asserting that “much of the creative work of the world has happened at the crossroads of cultures and fields of knowledge” (Coogan, 2009, p. 128). Art schools, Coogan found, have built silos rather than town squares, advocating they work towards a more collective and open way of working. He also recommended transferring principles from the open source software movement in collaborative knowledge generation (Coogan, 2009). This involves open participation by many contributors to a project, none of whom individually own or control the outcome.

Leadership for a Creative Milieu

A key ingredient in propelling creative environments is leadership. To generate and share new ideas and produce needed innovation, organizations of all kinds are increasingly concerned with the effective direction or management of creative work (Mumford et al., 2003).

Top-down hierarchical models fashioned during the industrial age are not well suited for a creative or knowledge-based economy (Mumford, 2003; Uhl-Bien et al., 2007), and despite these changing needs, most leadership theory remains grounded in industrial age frameworks (Gronn, 1999; Mumford, 2004; Uhl-Bien et al., 2007).

Leaders of creative teams or enterprises have been most successful when they possess substantial technical and professional expertise as well as creative thinking skills (Mumford & Licuanan, 2004). The best leaders for producing higher levels of creativity, in situations where they have day-to-day responsibility for creative people, were those who exhibited unconventional behavior as expressed through role modeling, creative mission articulation, and the establishment of a creative group identity (Jaussi & Dionne, 2003; Mumford & Licuanan 2004). Diversity of ideas, viewpoints, and cultures pushed leaders and individuals to adapt to differences resulting in more creative outcomes (Uhl-Bien et al., 2007; Wood & Landry, 2008).

Both Coogan, and O’Fallon articulated how their own backgrounds as artists informed their leadership. Coogan, a sculptor, expressed excitement about shaping an educational environment that prepares people to go into the world and to be motivated. He described his experience understanding raw materials, conceptualizing form, and intersecting with others possessing skills to realize the work (J. Coogan, personal communication, April 12, 2010). O’Fallon referenced his work in community-based theater describing how it affected the way he practices collaboration, trust, and storytelling.

Upon his arrival at the art school, Coogan engaged in a planning process seeking the visions and goals of stakeholders. His results emphasized more permeable boundaries between the college and community, and working more “on the edges and on the in-between”. His subsequent educational agenda addressed inter-connecting the institution’s silos and hierarchy – while not eliminating them – and forging cross-disciplinary and inter-departmental collaborations (J. Coogan, personal communication, April 12, 2010).

Uhl-Bein et al., (2007) described such organizations as Complex Adaptive Systems, which they asserted increase organizational capacity, enhance ability to process data, solve problems, learn, and change creatively. In complex systems, ideas combine, diverge, become extinct, conflict with one another, adapt, and change with the primary outputs being adaptability, creativity, and learning.

Another quality considered appropriate in complex entities is concern for balance. Negotiation between obligations to, and interests of, internal and external stakeholders are key, as are commitments to social goals and broader moral norms (Hernandez, 2007). In situations of significant change or transformation, leadership may not bring answers or assured visions but need to act to clarify values (Heifetz, 1994). Such transformational leaders emphasize vision, values, and intellectual stimulation (Brown & Trevino, 2006).

Leadership that fosters creative behaviors enable an atmosphere that tolerates dissent and divergent perspectives on problems, one in which personnel are charged with resolving differences and finding solutions to problems (Uhl-Bien, et al., 2007, p. 311).

Two broad leadership concepts informed O’Fallon’s style: authenticity and stewardship. Authentic Leadership and the concept of courageous action in public for the common good as described by Terry (2005) were fundamental to O’Fallon’s philosophy (D. O’Fallon, personal communication, April 23, 2010).

Authentic leadership is typified by concern for others, integrity, ethical decision-making, awareness of the other and self-awareness. It is closely tied with the ideas of ethical leadership. Followers are more likely to pay attention to such leaders whose behavior demonstrates care and concern for others, listening, and treating others fairly (Brown & Trevino, 2006).

Stewardship includes clarity on values, inclusiveness, collaboration, common sense, and the need to separate leadership from position. Stewards inspire a sense of personal responsibility in their followers and the well being of the organization and society (Keith, 2008). These leaders do what they do for something larger than themselves, demonstrating responsibility to future generations (Hernandez, 2007).

One of the most important contributions to a creative environment is certainty – certainty in the stability of the organization, the availability of facilities and resources, and confidence in leadership (D. O’Fallon, personal communication,

April 23, 2010). A leader earns influence by adjusting to the expectations of their followers and by reducing uncertainty and providing followers a basis for action (Heifetz, 1994). Like Hall (2000), O'Fallon pointed to economic stability, as well as open-endedness about future possibilities as ingredients for a creative milieu.

Finding comfort with ambiguity, paradox, the unknown, and variables is also important in a creative environment (D. O'Fallon, personal communication, April 23, 2010). Learning to embrace paradox can be key to effective leadership in times of complexity. While most organizations are predicated on the idea that someone at the top is in control and has the answers, sometimes no one person is in control, and there are no answers (Hall, 2001).

Hall (2001) described several paradoxes that are important for leaders to embrace: to be both swift and mindful, to consider the individual and community, to be top down and grassroots, to manage details and the big picture, and to be flexible and steady. She pointed out that few individuals can bridge all leadership paradoxes, and that complex organizations and challenges require shared leadership.

Conditions found to affect leaders' ability to influence creativity included: 1) creativity of followers, 2) work group process including clarity of objectives, emphasis on quality, emphasis on participation and support for innovation, 3) control of rewards, 4) job characteristics such as complexity and challenge, and 5) organizational climate and structure (Mumford & Licuanan, 2004).

Some held that leaders are not part of the creative process – the generation and implementation of new ideas. Instead they play a supporting role, stimulating and facilitating the work of others. While leaders' technical skills were the biggest single predictor of group performance, the role of evaluator was the most common for leaders in a creative environment (Mumford et al., 2003).

However, idea evaluation did not always encourage creativity. While leaders' evaluation efforts generally had a distinctly practical bent, quality of feedback was critical. Success depended on how it was delivered and how followers reacted (Mumford et al., 2003).

Coogan cited servant leadership as the most influential concept in his approach. He also expressed an appreciation of adapting to situations as needed (Heifetz, 1994), and described serving as an inclusive convener to formulate direction and shape policies.

Keith (2008) listed ten roles of servant leaders: listening, empathizing, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community. Servant leaders focus on others not on themselves and make life better for others. "The servant leader is by far the best leader to take an organization through a period of change" (p. 27).

In a creative environment, if the vision of a leader is too strong or evident, it prevented people from forming their own unique ideas and pursuing their own vision of the work (Mumford & Licuanan, 2004). Based in interactional psychology, researchers found creativity decreased in the presence of autocratic leadership and by restricted information flow. At the same time creative performance increased with use of highly participative structures and cultures, and by use of organic organizational designs, and collaborative group structures (Woodman et al., 1993).

Conclusion

This paper surveyed thinking about creativity and ways it was fostered in a variety of contexts. Researchers and practitioners in psychology, business, economics, anthropology, geography, leadership, urban sociology, education, and the arts shared similar theories about processes and conditions that fostered creative activity, learning, and work. Some positive contributors to forming a creative milieu commonly cited included:

1. Density of interactions across cultures and between a variety of ideas with structured and serendipitous opportunities for contact
2. Stable environments with open-ended future possibilities
3. Opportunities for solitude as well as interaction where people determine their own pace
4. The presence of other creative people and activities generating new and divergent ideas
5. Inclusive leadership that clarifies values and presents challenges constructively
6. Paradox, risk-taking, failure, and ambiguity are embraced
7. Open communication and free exchange of ideas are prevalent
8. Visual and aural stimulants are present in the physical environment
9. Reflective thinking and practices are encouraged
10. Interconnected silos of domain knowledge and expertise are readily available

While no blueprint or recipe can ensure heightened creative output in any place, environment, or milieu, these ingredients referenced by scholars across disciplines provide opportunity for future research and practice. Drawing on research across multiple disciplines serves as one strategy to advance the understanding of how creativity is fostered and creative milieus are formed.

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