

Sisyphus Planning

The Eternal Struggle of Planning for Complexity

It is the sign of a sage to admit ignorance. Socrates knew only one thing, which was that he knew nothing (West et al. 1979). Aristotle proposed the theory of non-contradiction, the idea that a thing cannot be itself and its opposite simultaneously. The Tao argues that all things are inherently both. That nature constantly demonstrates duality and only through the equilibrium of duality can one attain wholeness. The yin yang may feel paradoxical, but demonstrates the balance of perpetual motion and wholeness found between two extremes (Fang 2012). The acceptance of this paradox is freeing. Believing that one can understand a context or scenario and put it in a neat box is the hubris that will lead to catastrophe. Embracing the paradox of chaotic order, that a system can autonomously fluctuate and change in the pursuit of equilibrium, frees the planner to combat the wicked problem of a constant and unpredictable change of the urban landscape (De Roo, 2010, Rittel and Webber 1973). One must embrace paradox. One must embrace ignorance. One must accept the inevitability and unpredictability of change. Only through this can one plan for a future.

Cascading Complexity of the Cosmopolitan

Planning for the future demands the embrace of the paradox of planning for the inevitability of unpredictable change. Change occurs constantly across different spatial and temporal scales and there is no way of predicting the implications or extent of this change (Lorentz 1963, Gleick 1987). This is a healthy perspective for a planner to have. Cities demonstrate constant change across scales with unpredictable reactions yet they also retain the ability to adapt to these changes and demonstrate an impressive resilience (Byrne 2003). Like a buzzing hive, cities are in constant fluctuation but never dissipate (Waldrop 1992). As a complex system, cities retain the benefits of stability and perpetual change (Phelan 1995). Cities thrive on the edge between order and chaos (De Roo 2010). One must observe this chaotic order to both plan for the city and allow it to adapt autonomously.

Planning Strategies for Complex Systems

Complex adaptive systems (CAS), a concept of the complexity sciences, describe an open system in constant flux. CAS can be described in different ways but general characteristics include non-linear causal effects between systems, self-organization, co-evolution, and limited system predictability (Duit and Galaz 2008). Without delving into detail, these attributes describe the paradoxical chaotic order found in the urban form. Planners should appreciate this chaotic order in their development plans. Anticipating the inevitability of unpredictable change and making long term development plans more flexible and capable of adapting to changes in the

context would make plans more successful (Rauws Cook and Van Dijk 2014). Development in a complex adaptive system should be capable of adapting to complex change within that system; however, a planner must balance the flexibility and the strength of a development plan.

Taking potential contingencies into account while planning is logical. One should always hedge their bets. Planning those contingencies ahead of time requires assumptions to be made on future contexts, while not planning for potential outcomes due to infinite possibilities is defeatist. Despite the prevalence of uncertainty, a planner must make use of any certainty available (De Roo 2010). Dynamic adaptive planning (DAP) attempts to avoid the pitfalls of complexity. DAP plans for, actively observes for, and responds to potential changes in the context to maintain and improve the trajectory of a plan (Wall Walker Marchau and Bertolini 2015). DAP attempts to tackle deep uncertainty, or known unknowns, by planning for potential contingencies. However, the strategy would be more adaptable and expedient if it allowed for the independent and autonomous reactions by stakeholders in response to unexpected changes (Rauws et al. 2014). A CAS has an impressive ability to self-organize; the fear being that action taken in self-organization is not taken in the pursuit of the public good. Development plans that maximize adaptability may also compromise their moral compass. Developers could make changes to a plan to minimize financial risk if the economic context becomes volatile, however, these changes could be at the expense of the public. Hence, a planner must balance the flexibility and strength of a plan to avoid the dangers of both an unadaptive and an overly adaptive plan.

Conclusion: Perpetual Balance of Complexity Planning

Planning for a complex adaptive system, which demonstrates an autonomous and chaotic nature, seems paradoxical. There are methods to make development plans more adaptable to changing contexts. However, there is now a perpetual balancing act between the flexibility and strength of a development plan. The yin and the yang are in constant motion, pursuing each other in hopes of equilibrium. Should that equilibrium be found, it is only for a moment before a disruption sets them off again. Planning for CAS's demonstrate a similar perpetual motion for similar ends. A planner anticipating perpetual and unpredictable change in a system must plan for uncertainty. Equilibrium, or perfect balance of flexibility and strength, is rare if possible and short lived if experienced. Ours is a world of ordered chaos and perpetual cascades into complexity. The task of planning in this environment is an eternal struggle. However, the appreciation of this eternal struggle to tackle infinite complexity and the embrace of paradox and ignorance is a liberating perspective for the planner. One cannot be expected to solve a wicked problem, only combat it. This alleviates the substantial pressure placed on the planner to pull order from chaos. Instead one embraces the paradox, strives for balance, and appreciates the order within chaos.

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