

PLAYING IN OTHER PEOPLE'S SANDBOXES...

MIXING MULTI-DISCIPLINARY DESIGN METHODOLOGIES

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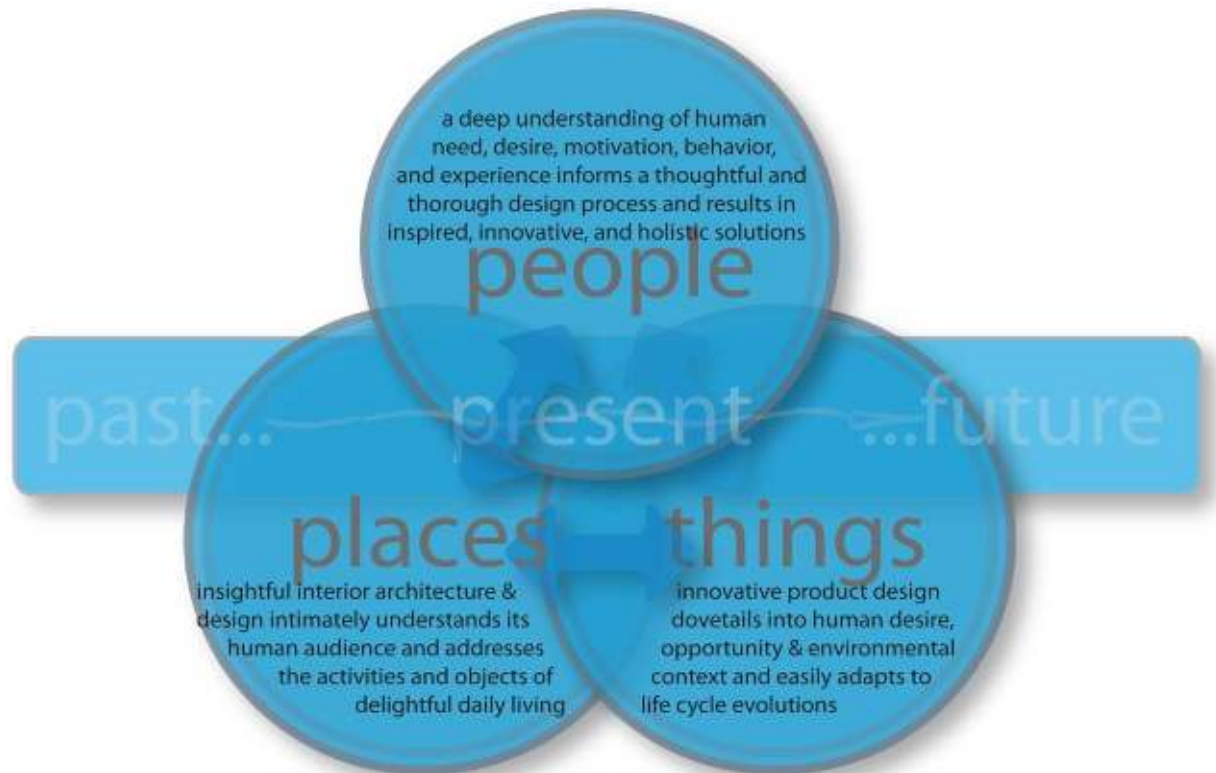
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Throughout both human and design history, many of the most prolific and admired designers have been individuals that blurred the boundaries between specialization and generalization and embraced a creative bandwidth that included objects, surfaces, furniture, built environments, interaction and experience. Robert Adams, William Morris, Frank Lloyd Wright, Ludwig Mies van der Rohe are a few who became known for their holistic approaches to the integrated design of **'places'** and **'things'** for the cohesive comfort and benefit of the **'people'** that would populate them. Industrial Designers have been speaking the language of boundary blurring and cross disciplinary design methodologies for decades as a natural progression pathway for the profession's power and influence.

Design Educators may best serve their students by mixing discipline specific skill building with generalized exposure to the design process at a 30,000 ft. level to enable young designers to seamlessly move between scales- from the intimate to the personal, social and public and back again. (Hall 1966)



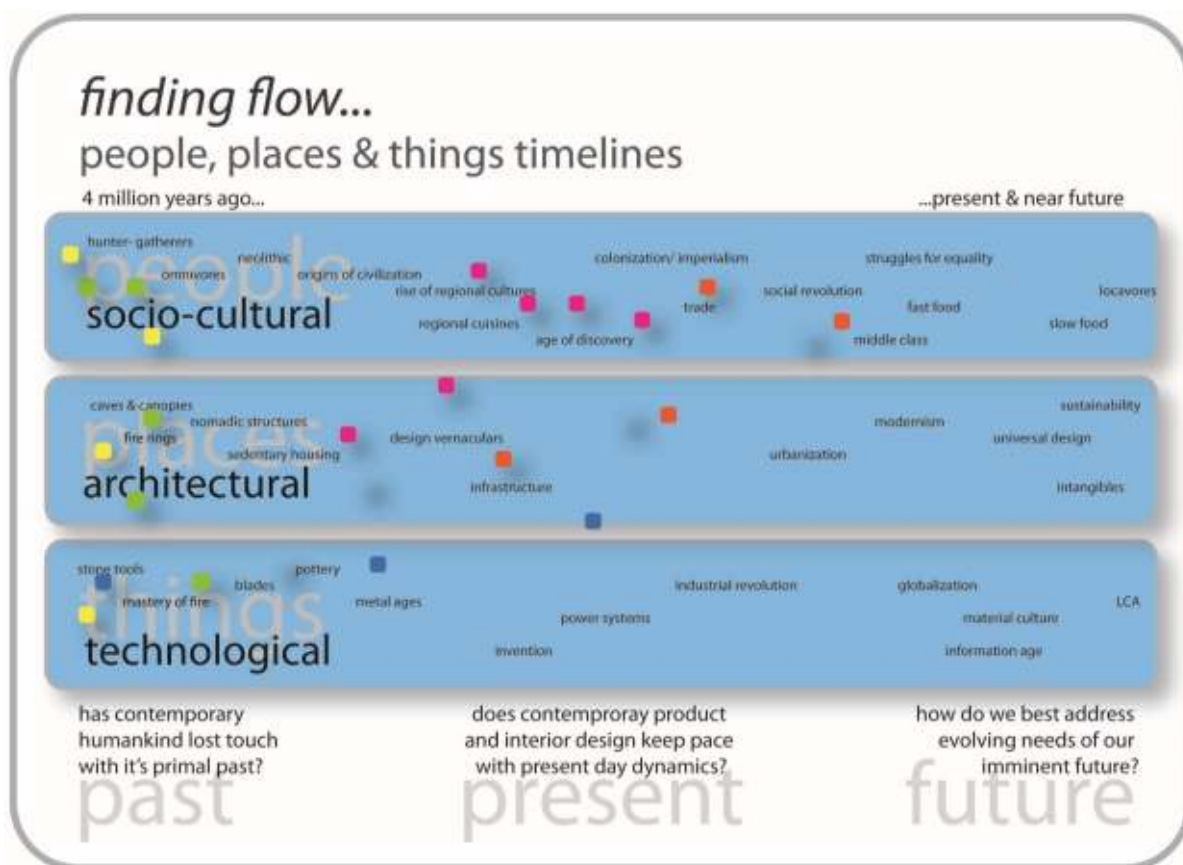
As the triad of **people** (human centered design), **places** (Interior and exterior architecture and design), and **things** (industrial design) hurtle through time, “themes of continuity and change constantly recur” (Heskett 1980). Rapoport argues, in *house form and culture*, that “the nature of man and his institutions contains elements of both constancy and change” that affect built form, design, perception and behavior. (Rapoport 1969) The purpose of this paper is to argue that a new approach to multidisciplinary design can be morphed from these basic tenets of ‘constancy’ and ‘continuity’ and a deep understanding of the timelines of human cultural development.

The components of culture are varied and open to interpretation but generally consist of “the whole of any society’s knowledge, beliefs and practices” (Wright 2004), including the developments of social systems, governance, communication, commerce, arts, architecture and technology. For the purposes of experimenting with new multi-disciplinary design methodologies that incorporate the interaction between people, places and things through time, we need a way to organize design factors in culturally meaningful ways. Cagan and Vogel considered past, present and future trends in Societal, Economic and Technological organizers in the development of ‘breakthrough’ products (Cagan, Vogel 2000). For the purposes of this investigation, I have included Socio-Cultural (people), Architectural (places), and Technological (things) timelines to understand the design history and attributes of a particular design problem. The design of residential kitchens was chosen as a pilot project as this space is deeply rooted in human history, culture, ritual and behavior.

METHODOLOGY-

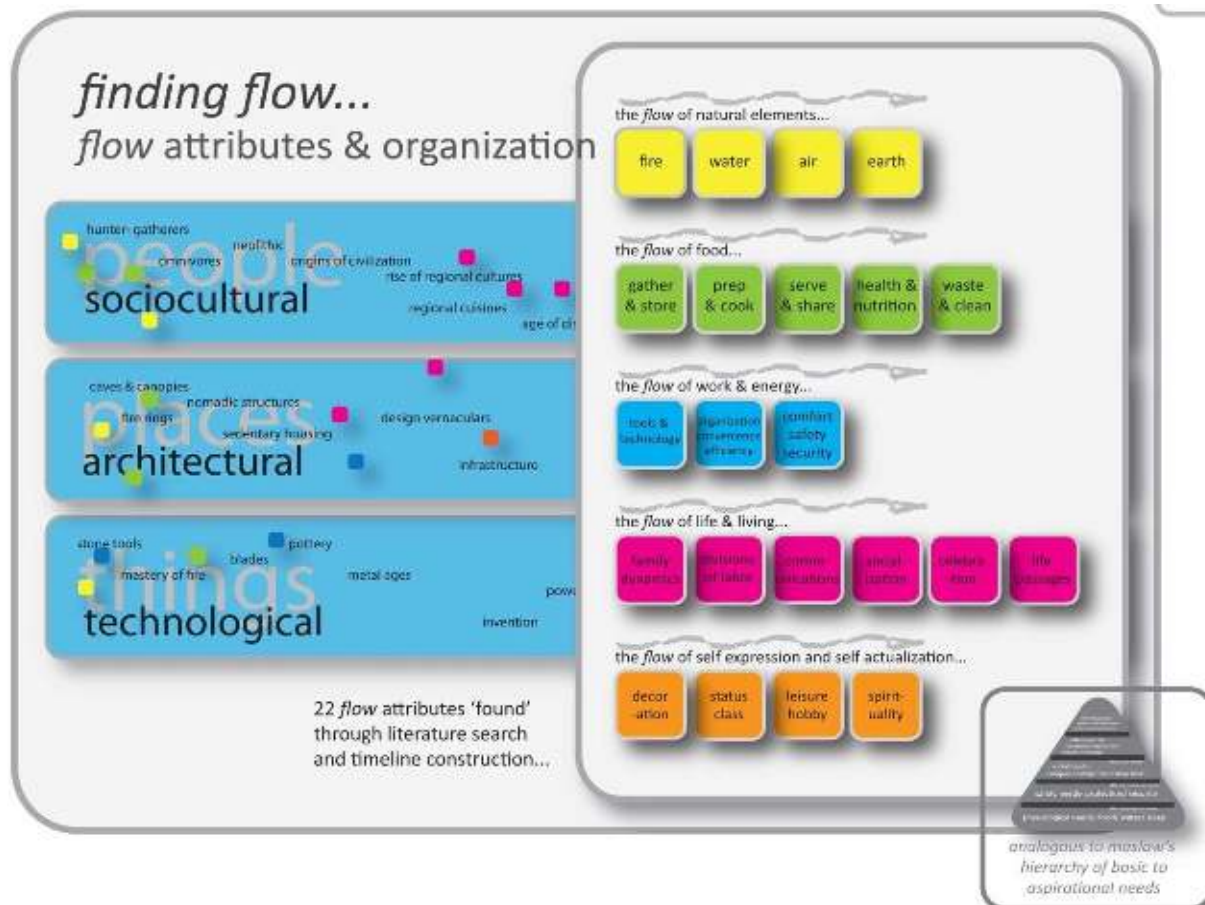
Research- Beginning 4 million years ago with the emergence of the first walking pre-humans and arcing to the present, identifying significant events, inventions, and milestones in human and kitchen history.

- **Socio-Cultural-** encompasses human evolution from hunter gathers to agrarians, food, diet, social dynamics, communication, gender issues, class/ status inequality, family issues.
- **Architectural-** natural environment, atmospheric attributes, building materials, built environment, infrastructure, space allocation, residential structures and strategies.
- **Technological-** tools, materials- stone knapping to iPhone 'apping', craft, manufacturing/ industry, science, information/data.



Analysis- The 'continuity' and 'constancy' previously discussed represents significant continuums, threads, themes, attributes, and tendencies that have remained cohesive over human history and continue to shape, affect and define residential kitchen spaces. Retitled as 'flow' attributes, they represent continuous dynamic 'currents' through time. 'Flow' attributes take on many levels of human need from basic to aspirational and identify issues and opportunities within the five levels of Maslow's 'hierarchy of needs' framework (Maslow 1943).

Flow attributes can have tangible and intangible properties... real and perceived... concrete and symbolic. They also have sub-timelines of their own that describe points of invention and innovation, flux and change, arcs of evolution and revolution through time that are still contributing factors in contemporary design. The investigation of residential kitchens yielded 22 flow attributes

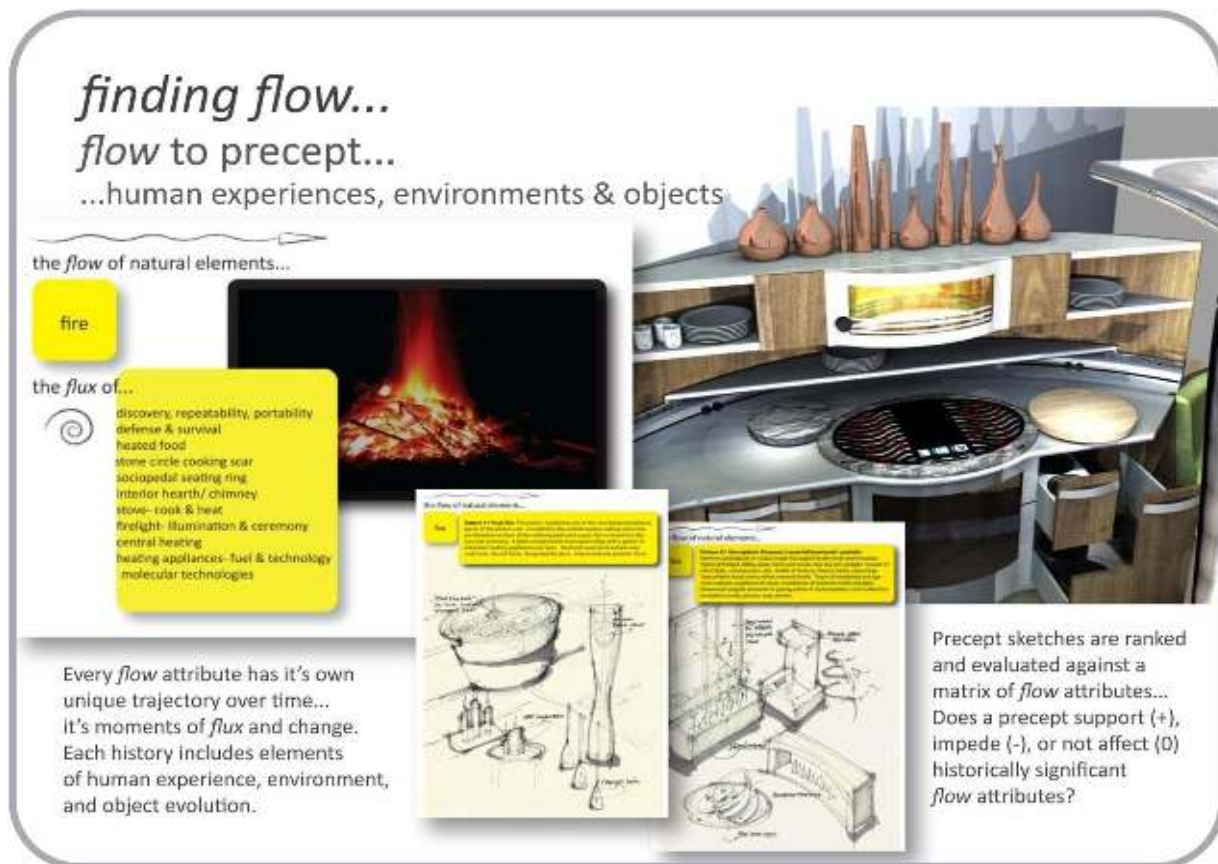


For residential kitchens the flow attributes identified were:

- **Natural elements**...fire; water; air; earthen materials.
- **Food**- gather & store; prep & cook; serve & share; health & nutrition; waste and clean.
- **Work & Energy**- tools & technology; organization, convenience & efficiency; comfort, safety & security.
- **Life & Living**- family dynamics; divisions of labor; communication; socialization; celebration; life passages.
- **Self-Expression & Self Actualization**- decoration; status & class; leisure & hobby; spirituality

Synthesis- The next step was to translate flow attributes into actionable tools to be used in the conceptualization and design of places and things- reimagined residential kitchens. A model process pathway for the translation of theoretical and ethereal spatial and behavioral attributes into a list of design

'patterns' or guidelines and objectives exists in the writings of visionary architect Christopher Alexander, "*A Pattern Language*" (Alexander 1977) and "*The Timeless way of Building*" (Alexander 1979).



Alexander's work is built around an architectural design process incorporating some 253 individual 'patterns' in cascading order from regional planning level all the way down to minute interior features and details. The list is edited down to a workable size for any given project using only the patterns specific to any individual project and becomes a specific 'design language' for that project. Alexander warned that any language can create both prose and poetry and he advocated deep overlaps of patterns with "enormous density of interlocking meanings" (Alexander 1977) that would make the leap from the loosely prosaic to the richly poetic. He writes of discovering an innate understanding of 'building' and 'making' that humans have buried in their collective past that when allowed to surface, by using these organic conceptualization tools allows us to unearth qualities and dynamics of spaces that "are timeless" (Alexander 1979). Deep mysteries of built environments that are more discovered than created.

The Interior Design profession uses an analogous term 'precept' for such design guidelines. Merriam Webster's Dictionary defines 'precept' as "a command or principle intended especially as a general rule of action". As this term is often used in the realm of Interior Architecture and Design, it is adopted in this project to describe these fundamental design guidelines, drivers, and directives.



The lists of new kitchen design 'precepts' collectively become a new pathway' for the design of timeless residential kitchens. Each individual precept is used to conceptualize and evaluate unique product and room features and concepts. As patterns interlock the strength and value of individual solutions grows as it takes on additional support responsibilities and interconnected meaning. The importance of interconnecting precepts cannot be overstated as it represents the mechanism for individually focused solutions to become foundational 'system components' that multiple activities and actions rely on for depth and richness of performance qualities. Five significant kitchen product and space collections resulted from this research:

- **The gathering-** entrance island provides sociopedal axis mundi for residents and guests to gather around, interact, cook and share food events.
- **The fire ring-** food prep and cooking core with central flame and multi-user cooking surfaces and spaces. A range of technology from primal fire to induction.
- **The worldview-** integrated window wall opens interior to exterior- food, daylight, air, living
- **The marketplace-** open air pantry and food storage from fresh to frozen
- **The nestings-** surfaces and seating sets to promote gathering sharing and interpersonal interaction in the comfort and safety of protected rings

The process and methodology result is a new design tool that works in tandem with existing trade and professional techniques and guidelines and adds the dimension of human history and endeavor. Insights gained in the flow/ precept process support the conceptualize of kitchen components, systems and spaces that embody all the flows and continuums the timelines suggest, and showcase a quality of

'timelessness' and homage to intrinsic human need and desire. After all, the most successful design "requires greater knowledge about the human condition and how the spaces people inhabit power their ability to achieve success." (Augustin 2010)



Further research and development to future experiment with the of 'flow' methodology is currently being conducted on furniture and office systems retracing early human history of collective work sites and behaviors, cooperative and competitive group dynamics, shared work environments, defensible spaces, privacy, prospect and refuge, etc.

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