Patterns of Humanity

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Abstract: The patterns community has been prolific: writing patterns of use in almost every domain imaginable, from architecture to software to design to education. In doing so they constantly refer to, involve, and discuss human beings and the role they play within the patterns and how they use, or are affected, by use of the patterns. This paper looks at humanity, individually and collectively, to explore the question: "Are there patterns of humanity?"

The year is 1969. I am traveling with three other students and one faculty member on our way to San Francisco to attend the annual meeting of the American Anthropological Association. The Vietnam War is in full fury. The psychedelic counter-culture is in full flower. The anti-war movement is on the march.

Tensions ran high in the conference hall because of a developing schism between those that believed anthropology, especially ethnography, was an academic endeavor, independent of and above mere politics; and those who feared that anthropological research was being used, unethically, by the military and government to advance and support war objectives.

A rupture in the ranks occurred with about a third of the attendees forming their own organization — Society of Concerned Asian Scholars.

The "concerned scholars" were concerned about how their work, their insights into the values, practices, worldview, and organization of the people they studied, might be exploited and misused by the U.S. Military to harm those very people. An exemplary of how they feared this might happen was the work of Ruth Benedict in World War II.

During World War II, Benedict worked for the Bureau of Overseas Intelligence, studying the Japanese on behalf of the U.S. government and military. Her findings were later published as a book, ***The Chrysanthemum and the Sword***. Although Benedict did predict previously unseen behavior — like the kamikaze suicide bombers — her work probably had little or no impact on the overall war effort.

The point made by SCAS, was that it could have. And, if it did it would have been immoral and unethical.

The work that motivated the recruitment of Benedict to government service was best captured in her book, ***Patterns of Culture***. The central thesis of that book: culture is a

"consistent pattern of thought and action" chosen from *"the great arc of human potentialities."* Further she thought that the observed patterns could be summarized in a label: Apollonian for the Zuni culture in the American Southwest; Dionysian for the plains Indians; paranoid for the Dobu of the South Pacific; or megalomaniacal for the Kwakiutl of the U.S. northwest coast.

Benedict's "patterns" are regarded by most contemporary anthropologists to be overly simplistic but most agree that they are more than simple stereotypes. They do provide a certain degree of insight into and a basis for analysis of cultures and how culture is manifest in individual and group behavior.

Elsewhere in the anthropology community can be found a related topic of interest — the search for "cultural universals." A belief, a practice, a technology, a value would be deemed "universal" if it was found in all cultures, including prehistoric, studied by anthropologists.

Religious people, mired in their ethnocentric perspective, imagine that that their values are grounded in 'natural law' and therefor universal across all cultures. That is far from the case. I used to teach at a religious university — the only class they offered in cultural anthropology — and it was amazing to see those students come to the realization that not everyone believed as they did.

Although there are no discrete cultural universals, there are 'patterns'. I use pattern in the sense of a generalization or abstraction that is constant across cultures although each culture interprets that pattern differently.

This is not the precise definition of a pattern as stated by Alexander and most in the patterns community, but it is not inconsistent with that definition. If a pattern is a "general solution to a problem in context," is has the same purpose: to provide an abstraction or generalization that can be interpreted and applied differently in different contexts.

It seems plausible that we could "mine" patterns of humanity just as we mine patterns in business or education. We observe a multitude of cultural examples looking for commonalities among them (bottom up analysis) at the same time we review "patterns of culture" offered by anthropologists to see how the various implementations extend and modify those patterns (top down analysis).

If we can do this, and I believe we can, of what value is such an exercise. Patterns of Humanity will not contribute to writing more elegant or efficient code. They will not (directly) make us better change agents. They will not (directly) help us build buildings with QWAN.

Patterns of humanity might provide value in two ways.

The first is to provide foundational knowledge that would help us understand and improve more domain specific patterns. For example: a cultural pattern dealing with 'exchange

behavior' might help us understand and improve patterns of collaboration. Understanding human communication pattern(s) might enhance our ability to craft pedagogical patterns.

The second, and probably more profound, contribution arises from our efforts to build large-scale complex systems. One example.

Mark Zuckerberg stated his vision for Facebook:

> *"Our goal is to strengthen existing communities by helping us come together online as well as offline, as well as enabling us to form completely new communities, transcending physical location. ... The path forward is to recognize that a global community needs social infrastructure ... and our community [Facebook] is uniquely positioned to prevent disasters, help during crises, and rebuild afterward."*

AT&T gave us Bell Labs who gave us the transistor and the laser. Xerox spawned Xerox PARC where most of today's computing infrastructure was invented. IBM is offering artificial intelligence (Hello Watson) that will change the future of humanity, for the immeasurable better — or worse.

Deep pocket companies have always funded innovation and that innovation has changed everything. Google is delivering self-driving cars, ubiquitous smart phone software and applications, and even "cures for death." As noted above, Facebook intends to build a global community safety net.

All of these 'systems' are ultra-large, highly dynamic, adaptive, and complex. It is almost certain that they will not be successful if the only, or even primary, worldview of those developing them remains the kind of algorithmic, "engineering," "scientific" mindset that dominates today's software world.

Forgive any hyperbole, but our technology, and the systems we are building and intend to build with it, present an existential threat to humanity. Simultaneously they present a potential to realize a utopian vision of human experience and life. In either case, with either outcome, it is essential that our efforts be informed with knowledge and understanding of human beings and the cultures they have instituted the past tens of thousands of years.

The following five patterns are intended as a tiny step towards developing such an understanding.

Reciprocity

Context: Humans are codependent — they need each other. Procreation, parent and child, group survival, defense, social and economic collaboration — are some of the ways that humans depend upon one another. Each and every one of these examples

hinges of some sort of exchange: like good for good or service for service. An X for X exchange exists at each tier of Maslow's Hierarchy of Needs. Maslow's hierarchy is simple but reasonably comprehensive, and useful to illustrate the point that exchange is ubiquitous across every aspect of individual and collective existence.

Problem: Participation in exchange activity / behavior is "optional" in the sense that there is no innate imperative within individuals that mandates participation. So, how can participation be assured, as "appropriate," or, stated differently, how can exchange be "regulated."

Note: the problem includes quoted terms that are quite ambiguous. The lack of precision, in both definition and valuation, makes the problem complex and highly dynamic. This is a perfect ground for a general pattern amenable to myriad discrete solutions within the domain established by the pattern.

Solution: utilize one, or more, of the four types of reciprocity patterns observed across human culture. The four types being: <u>general</u>, <u>balanced</u>, <u>negative</u> and the subset of negative, <u>market</u>.

> <u>General reciprocity</u> is exemplified within the parent-child relationship. Parents give a lot to their children with no concrete expectation of receiving anything in return. Another example: teachers who give a lot to students with no expectation of repayment. (When a graduate from Harvard gave his professor, who had told all his classes he wanted one when they went on to be hugely successful and affluent, a Mercedes it made national news because it was so incongruent with the pattern of general reciprocity.)

> <u>Balanced reciprocity</u> can be readily observed among groups of friends or close colleagues. With balanced reciprocity there is no overt or explicit "accounting" but there is a deep tacit awareness of whether or not everyone in the group is contributing fairly, that if there were a ledger it would be in balance. Studies have shown that groups are aware of imbalances acutely and precisely — to the penny. Everyone in the group knows f each of the others is participating fairly or if one or more is "freeloading."

> The only sanction for violating the norm of balanced reciprocity is exclusion from the group.

> Balanced reciprocity can be a foundation for a market economy, and is, in many peasant markets. But most markets, especially in first world contexts are grounded in negative reciprocity.

> <u>Negative reciprocity</u> is present when each party in an exchange attempts to maximize their own benefit at the expense of the other. Negatively reciprocal exchanges are further characterized by asymmetric information and/or power.

Market reciprocity is negative reciprocity made abstract and covert. There can be no balanced reciprocity in a market because value/price is determined by only one of the parties involved in the exchange. All kinds of factors further inhibit balance in a market exchange: "rent seeking" where one party can bring to bear the power of the government to protect and enhance their interests and 'marketing' used to convince one party of the existence of "value" when, in fact, none exists; are but two examples.

Discussion: very few, if any, intentionally designed systems get reciprocity right. Anthropological studies (ethnographies) provide consistent evident that the only truly sustainable form of exchange is grounded in balanced reciprocity. An extremely small number of systems have ever been grounded in general reciprocity — which only works if the social distance among participants is very small, e.g. parents and children or in communes or communities like the Amish. Negative reciprocity inevitably leads to breakdown of social ties — all parties to the exchange become isolated and alienated from each other. Market economies inevitably lead to extreme asymmetry in wealth distribution and the social tensions that arise therefrom.

A concrete example of these general statements is PLoP. Self consciously designed as a "gifting economy," a from of generalized reciprocity[1]. Authors contribute their work and offer their assistance to other authors in order that all may improve; shepherds offer their expertise and experience to help authors enhance their efforts; professionals offer writing education and assistance; and organizers "make things happen."

Unfortunately, general exchange ultimately depends on minimal social distance for it to be sustainable and members of the PLoP community have, collectively, less than average social connections.

Lacking the necessary social ties, you would expect a system like PLoP to succumb to pressures arising from the other forms of reciprocity. Negative reciprocity would exhibit itself if (when) some parties attempted to maximize their own value (prestige, influence, power) at the expense of the rest of the community; and, when failing, to withdraw.

More serious threats come when participants "tire" of altruism and seek an exchange that is more "balanced." Author's would diminish in number and enthusiasm as soon as they perceive the benefit of "benign editing" to be of less value than substantive feedback as to ideas and viewpoints presented in their work[2]. Shepherds should be harder and harder to come by, the overall pool shrinking and the difficulty of recruiting replacements increasing. Organizers would begin to expect "compensation" for their efforts, even if limited to reimbursement for costs, e.g. free attendance, travel reimbursement, etc.

Could the admirable objectives that motivated PLoP founders have been realized in a more sustainable manner?

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[1] Typical academic conferences are exemplars of negative reciprocity.
[2] Workshops conducted in the past few years seem to address this particular force; allowing interactive participation of authors and discussion of ideas as well as editing.

Possibly.

Anthropologists tell us that the only balanced reciprocity pattern is stable enough to be long term sustainable. But, like generalized, balanced reciprocity, is dependent on appropriate social distance. This suggests the need for shared participation in a "patterns community" that transcended the discrete event of a PLoP conference.

To use an analogy: the PLoP conference needs to be an event, an instance of generalized reciprocity, like a 'barn raising' within the context of an Amish community. Balanced reciprocity dominates the community and works because the social distance among members of that community is established and maintained by shared activities and values.

Unfortunately, modern society is not particularly amenable to the formation of sub-cultures, especially those incorporating balanced reciprocity. You see some instances in "affinity groups" like motorcycle clubs, but instances are rare.

Another issue arises from questions of scale.

All large-scale societies known to us are economically grounded in negative reciprocity. Should we infer from this that negative reciprocity is the only economic pattern that scales. Hopefully not.

There are societies that are grounded in a mix of balanced and general reciprocity, three with which I am familiar: Amish, the Mennonites, and the "Mormons." All three are centered in religion, but the most salient feature of each society is that the religion is leveraged to define and support community. It is the community and all of the community-centric, technically non-religious, activities that establish the minimal social distance required to make intra-community balanced reciprocity work. Within the context of overall balanced reciprocity, incidents of general reciprocity, e.g. a barn raising, are possible.

Even with religion as an anchor point, scale can interfere. There is no such thing as a "Christian Community" — or Islamic, Judaic, and not even Catholic. You find communities within those religions co-extensive with subsets, e.g. Charismatic Catholics or Ultra-Orthodox Judaism.

The earlier discussion of PloP suggests the possibility of establishing a smaller community based on balanced reciprocity with episodic instances of general reciprocity. But is it possible to scale this model? The Amish and Mennonites thrive in partial seclusion from the society around them and are therefore constrained as to the total membership of their society.

The LDS community is global, millions of members, while small compared to Catholic, Islamic, and even Buddhist communities, and continues to grow. It is also interleaved with

surrounding communities and cultures and not limited by the same constraints as the other two communities.

This is not to say that Mormonism provides an adequate model for those wishing to establish new communities or enhance existing ones, ala Facebook; but it does suggest a rich field for exploration. As one explores the Mormon community — as opposed to the religion — you quickly notice just how many and how varied are the mechanisms for establishing and maintain minimal social distance. Sports leagues, little theatre activities, scouting, communal dinners, an extensive social welfare system, etc. all of which relies on voluntary participation and leadership.

The reciprocity patterns provide less in the way of guidance on "how to do something" than criteria for evaluating the QWAN of something done or built — or planned. If Facebook (Zuckerberg) is serious about strengthening existing communities and forming new ones, the role of reciprocity cannot be ignored. This could be particularly challenging for Facebook, as their entire business and community model is so solidly grounded in negative reciprocity that they are unaware of the alternatives.

It is evident that negative reciprocity is only short term stable. That pattern, applied at large scale societies inevitably leads to inequitable distribution of wealth and violent social upheaval leading only to another cycle of wealth concentration.

Alternatives must be understood and then applied if there is to be any hope of enhancing, reshaping, or creating social systems that support the humans within them.

Essence (aka God)

Context: Every culture: contemporary, historic, and prehistoric shows evidence of believing in the "supernatural." Evidence of this assertion includes intentional burial, often with the inclusion of artifacts of value; "magic;" shamans; or their more abstract incarnation, priests; and organized religion. The field of Neurotheology has found substantial evidence supporting the assertion that our brains are 'hardwired' to "believe."[3] Belief in the supernatural need not take the form of overt religion, deism, polytheism, magic, etc. — it can be as fundamental as the belief that something can be real, can be experienced, but cannot be explained; or, something can be known but cannot be expressed — the ineffable.

The ground of this context is the belief in a metaphysical reality for an essence, a spirit, an 'other', that transcends and complements the ordinary physical reality we all live within.

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[3] Examples include the "white light at the end of the tunnel" reported in so many near death experiences; the "feeling of 'oneness with the universe' characteristic of so many mystical experience reports; even the fundamental sense of 'self' versus 'other'. All of these and more can be induced and/or mitigated with simple application of electrical current to the appropriate areas of the brain.

Problem: Since the "Age of Reason," aka "The Enlightenment," Western and all industrialized (now digitalized) societies have taken on the mien of militant anti-supernaturalism. "God is dead!" Everything can be explained, measured, and predicted — at least "in principle." Even those pesky quanta will someday be incorporated into neat simple equations via some kind of "string theory" or "loop quantum gravity." Systems we design and build, including social systems, are sterile, machinelike, constructs that only Herbert Simon could love.[4]

Solution: Admit the reality of complex adaptive, living, systems and stop "building machines." Admit that human beings are more than "meat machines," and human minds are other than "physical symbol systems." Leverage the ineffable. Incorporate the "essential" in your designs.

Discussion: this pattern is intimately and inextricably linked with both the <u>Story</u> and <u>Divided Labor</u> patterns presented below.

Google provides a classic example on how the 'supernatural' could be incorporated into software design — and, simultaneously, how that 'magic' was lost. Google search page is famous for its simplicity: a text entry field, a link to advanced search, and the "I'm feeling lucky" button. Luck is an epitome of the "supernatural" and, as such, offers a small bit of humanizing whimsy to the search process. Most of that whimsy has been lost. If you enter a search string, the button disappears. In some cases — e.g. sexually explicit searches — it cannot be found at all; in others it will link directly to the highest ranked paid ad and not the one "most likely relevant," as previous algorithms did. If you are lucky enough to be given a list of possible searches (a side effect of the text completion feature of the entry bar) you can find the 'lucky' link but you have to hover over a choice line and then move the select cursor to the right for the link to appear.

 "Magic" was supplanted by clear-eyed economics and/or politically correct censorship.

Humans recognize within themselves something other than mere biology, chemistry, and neural signal processing — a "soul," or "spirit," or "self." Designers of systems, especially computer grounded systems, deny the reality of this transcendent essence.

Interestingly, in a Carnegie Mellon Study of "Ultra-Large Scale" systems — the very kind of system that will dominate future design — human beings are seen as an essential and unavoidable "computational element;" one that cannot be reduced to a deterministic 'black box' with precisely defined inputs yielding predictable outputs. If we are to be at all successful with efforts to build complex systems we cannot treat humans as if they were machines devoid of soul.

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[4] Herbert Simon is author of *The Sciences of the Artificial*, arguably the most influential design treatise for computer science, software engineering, and by extension almost all systems development.

Story

Context: John Donne asserted that "no man is an island," but in point of fact we are. Each consciousness exists within its own isolated space. Our senses provide our 'selves' with massive amounts of data, but the integration and interpretation of that data occurs within a discrete 'mind'.

Individuals are also capable of 'generating' data; of emitting signals and signs. Abstracted and generalized via consensus building, these signals can become language. When "you understand" what "I said" we have communication.

Appropriate and meaningful communication is essential to establish any kind of social, or cultural, system; essential for any kind of cooperative and collaborative interaction among groups of individuals.

Problem: The most effective means of communication is almost unknown, mostly because it is so ubiquitous that we are seldom aware of it, like the fish is unaware of the water, only the lack of it. Making things worse, as our analytical 'left brain'[5] keeps inventing more abstract, convoluted, and formal means of communication that simply makes things worse.

Software developers are among the most egregious offenders in this regard; primarily because they must convey meaning and intent to the *idiot savant* computer that cannot understand "stories." So they invent calculi of requirement specifications, use cases, entity relation diagrams, BNF notations, etc. etc., that try, and fail, to capture the meaning of a common story about a system and a user's dissatisfaction with that system. They even fool themselves, as the Agile community has, by redefining "user stories" as mere verbose "requirement specifications."

Solution: Effective Story Telling. A story is a narrative in a rich, implicit and explicit, context, rife with ambiguity and imprecision. Although the 'narrative' conveys the "meaning" of the story, that meaning is determined by the context rather than anything intrinsic to the narrative, e.g. grammatical structure.

The ability to engage in a sequence of story exchanges among human beings leads to the emergence [critical term] of a shared understanding, or theory in the sense suggested by Peter Naur, about some aspect of our common existence. It might be a theory of where thunder comes from (e.g. gods playing ninepins, or equalization of electrical potential) or a theory of why Microsoft Word insists that my grammar is wrong when I am saying exactly what I intend to say in the way I want to say it with little chance of being misunderstood by my reader.

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[5] Perhaps the best discussion of how our analytical left brain usurped the fundamental power of our much older right brain is found in, *The Master and His Emissary*, by Iain McGilchrist. Yale University Press; Reprint edition (October 9, 2012)

For Peter Naur, the essential[6] difficulties of software development could be resolved only when the team engaged in collective theory building by exchanging stories about "an affair of the world and how the program would handle it." He called this effort, "Theory Building."

Discussion: Human beings have been using story to communicate, very effectively, since our animalistic grunting signals began to standardize and form the foundations of words and eventually language.

Ninety-percent of what you have come to know and understand was communicated to you via story. The lessons you learned in a formal setting, like school, were most effective and long lasting when you learned them via story and not rote memorization. The most memorable professor was the one that told the best stories about the subject matter.

Story telling is the mutual exchange of stories, listening to stories, responding with modified or alternative stories, until understanding held in common. Stories and story telling *always* work; unless rules are broken, e.g. lying or failing to listen, or there is intentional deceit (politician speaking).

The power of story is directly proportional to the amount of context, especially implicit context, evoked by the telling of the story. For example: consider how much context is evoked by the imaginary first line of a joke; "A *penguin*, a *Rabbi*, and a *Freudian Psychologist* walk into a *bar* …" Four words recall to mind all that you know about penguins (real and cartoon), Judaism and the role of a Rabbi plus all the associated cultural stereotypes, and the study of psychology and the particular interpretations of Freud versus, for example, Jung. Not to mention all the stereotypical presentations of bar scenes coupled with your own experiences in multiple varieties and subtypes of such establishments.

But context leads to ambiguity to the exact extent that evoked context is not shared. Different languages, and more importantly different cultures, inevitably result in a lack of shared context, at least superficially. The idea that there are patterns of culture, implies that commonality, a common pattern, can be found across cultures even when the specifics seem to vary. All that is required is a process of story telling.

In software and system design, and even the most complex social systems will inevitably include some non-complex components like computers, you will eventually reach a point where it is necessary to convey a story to an entity incapable of understanding story and where there can be no possibility of shared cultural context.

In those circumstances there will be a need to "translate" the story into a "program." How might this be done?

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[6] Fred Brooks divided the challenge of software development into the easily resolved, "accidental" problems and the incredibly difficult "essential" problems — for which there was "No Silver Bullet."

The real power of object-oriented thinking derives from story. Stories have 'characters' who are expected to perform or speak in a certain manner in certain circumstances. An object (concept not programming construct just yet) is something that performs or speaks in a certain manner in certain circumstances.

To understand, refine, and design an object you tell stories about how in interacts with other objects in varied situations and circumstances. You think of the interaction and communication among a group of objects in the same way as you would characters on stage or in film and create the program as "screenplay." Screenplays, like stories are infinitely modifiable, including the potential for "ad libs" without breaking the program.

If you can use story and anthropomorphic objects to define your needs, programming a computer to accept inputs and return appropriate outputs becomes almost trivial — in the sense that, (and this is demonstrable) no object programming construct requires more than fifty lines of code to implement and no program requires more than a few thousand lines of easily modifiable — including during execution — code.

To better understand and to extend this discussion see almost anything that the author has written about objects and patterns: www.davewest.us. To extend the discussion about story specifically see "Patterns for Story Craft," David West and Jenny Quillien, SugarLoaf PLoP, 2010.

Divided Labor

Context: Individual differences.

Problem: That which must be done seldom is doable, equally in every aspect, by a single individual.

Solution: Apportion work in an equitable fashion according to individual abilities, expertise, interest, and predilections.

Discussion: This pattern is seemingly trivial, as evidenced by the terseness of the context-problem-solution statements.

However …

Although patterns of divided labor exist in even the most 'primitive' societies, there is seldom any kind of 'rational', e.g. resolution of forces, explanation for the patterns.

For instance, in hunter-gatherer societies – the oldest and least sophisticated, least complex, societies of which we are aware there appears to be a universal pattern — Men Hunt and Women Gather. Why, no one has come up with a reasonable explanation, and not for lack of trying. It has been argued that men are bigger and stronger and better able

to handle the rigors of hunting big animals. But the reality is that big animals, like mammoths, were always hunted and killed by groups – men and women. The pattern of hunting, wounding an animal and then running it down for miles and miles before it died, requires stamina, not muscle mass and guess which gender has greater stamina.

Child care has been advanced, but women give birth and within hours are back at hard labor gathering and preparing food while child rearing is a collective activity by those that are not immediately productive, the old and the young and women in advanced stages of pregnancy.

In modern times, no one can point to a set of skills or attributes that are unique to CEOs, ones that would justify their position in comparison to anyone else. The exception is experience, those with the right experience are clearly better at the job, but why is it that they were given the opportunity to have those experiences?

In the United States, the "World's Greatest Democracy", the elected office of Senator, since roughly the 1960s, has been a de facto hereditary office! The kinship involved is not agnate/cognate but 'virtual', grounded in affinity relationships. Jack Weatherford once did a kinship diagram of the US Senate in his work, *Tribes of the Senate.*

Efforts to eliminate gender, racial. and sexual-orientation based discrimination reveals how little justification there is for the assignment of work to any one person or group.

The pattern is clear and imperative: in every social system, every system involving human beings, there will be a distribution of labor. Exactly what mechanism or rationalization is used to enforce and justify that distribution is, at present, purely arbitrary.

We also know that the existing examples of labor distribution are fraught with exceptions, injustices, inconsistencies, and that, in general, the work poorly if at all. And no one is happy — except maybe the queen.

The ill conceived and militantly enforced effort, in the U.S. to literally make everyone equal ensures nothing except the dominance of the lowest common denominator and meticulously eliminates any possibility of excellence is guaranteed to bring about social disaster.

If we are to design human(e) systems we must understand a lot more about Divided Labor, hopefully grounded in a theory of individual differences, in cognitive, anthropological, psychological, and social terms.

This pattern is intimately related to **Rank** and to **Stereotypes**.

Stereotypes

Context: Human beings generalize. It is a necessary survival skill. We categorize, taxonomize (not a word), and label the highly variable world around us to reduce the cognitive burden of making sense. There are two different ways we do this, formally as a kind of set theory and naturally using embedded metaphor (re: the work of Lakoff and Johnson among others).

Problem: Most of our most intractable social problems, racism, sexism, genderism, ethnocentrism, and religious intolerance stem from the indiscriminate and erroneous use of classes and types and generalizations.

Solution: Define and constrain the use of stereotypes at the group level while simultaneously recognizing their absolute impotence when applied to the individual.

Discussion: Stereotypes exist and are useful – essential even. As human beings we lack the cognitive bandwidth to process the world absent their use. Inter-cultural and cross-cultural design would be impossible without the use of cultural stereotypes.

However, some things, especially individual human beings, cannot be stereotyped.

In software we attempt to design for the "typical user" even though we know that no such entity exists. Maybe we get real sophisticated and allow for customization of an interface so that it better suits the "novice" "competent" and "advanced" user – but usually not and certainly not in any way that actually maps to an individuals increasing mastery.

Another limitation of stereotypes is that they are caricature – they abstract only the most obvious characteristics and ignore every nuance. A "joke" tagline suggests that the "worst culture in the world be one that incorporates English cooking, Italian efficiency, and German romance while the best would integrate French cooking, Italian romance and German efficiency." The caricatures of these cultures supports the supposed humor but transcending the caricature, even to the extent of understanding the cultural stereotypes reveals the ridiculous nature of the caricature.

Most importantly of all, no stereotype of a group or of a culture is ever applicable to individual members of that group or culture.

A related issue is how cultural stereotypes apply only to everyone else, never to myself or to my culture. Ethnocentrism is the innate bias for seeing our own culture as "normal" "correct," and obvious while everyone else's is weird, suspect, or wrong and totally captured in the stereotype of each culture. We have a very hard time applying the same lens of stereotyping and caricature to Our culture.

Horace Mitchel Miner wrote a wonderful paper that exemplifies the way we use artificial perspectives and biases to think of other cultures but not our own. His paper was "Body Ritual Among the Nacerima" in 1956.

Rank

"All animals are equal, but,
some animals are more equal than others."
George Orwell, *Animal Farm*

Context: Every society, every human system imposes among its membership some form of ranking, hierarchy, and/or differential status. Rank may be individual versus individual or group versus group.

Problem: with very few exceptions, Rank has become abstract and separated from humanity causing, with even fewer exceptions, inhumane, unfair, and alienating systems within which human beings chafe. A corollary problem: the more dynamic the system the greater the inefficiency and detrimental effects of 'fixed' rank.

Solution: Establish a form of dynamic rank: ephemeral, grounded in circumstance, and instantiated based on individual differences and abilities.

Discussion: In democracies there is a form of such dynamic rank associated with elective office. Power and authority of rank is transient and is coextensive with the term of office. In business, the senior most rank is usually transient as well, but determined by politics and stock prices. Elsewhere in the organization rank is divorced from the human and associated exclusively with the position.

In contrast, there are instances where rank is determined at birth and relinquished at death: royalty and caste are examples.
The less fluid / dynamic the mechanism for assigning and enforcing rank the greater the risk of system failure. This is especially true in complex social systems.

A foundation for beginning to establish a dynamic system of rank, "ephemeral, grounded in circumstance and based on individual differences and abilities" is evidenced in some forms of tribal organization, especially nomadic bands. Unlike sedentary groups tied to land cultivation, nomadic tribes constantly face new situations and new demands. Each situation requires its idiosyncratic solution based on skills, knowledge, or abilities not universally shared among the group.

For instance if the piñon harvest has been bad on the east side of the valley and the tribe over there decides to come and pick yours, you might need a "War Chief" and you would select the bravest, fiercest, and most strategic thinker to assume that office until the threat was past. Maybe you need to decide on where the group should go next and you might turn to the oldest or most experienced member of the group and appoint them "Trip Director."

Another foundation for developing a system of merit-based rank is found in gaming with the notion of reputation. People you play with are able to assess and publish their opinion of your skills. You become a level-6 warrior only when enough people who have fought virtual battles with you state that they believe you merit that status.

Yet another source of inspiration is found in the Agile culture and the Quality culture exemplified by the Maclcom Baldridge Award — transparency. In a group, a development team or a classroom, everyone already knows everyone else's abilities, limitation, and achievements.

If you want to have two well balanced sports teams, you take advantage of this tacit knowledge by appointing two captains and allow them to make alternate selections from the pool of available players.

Unfortunately, this means that the least able person is picked last and even though that is not news to that person, he or she might feel bad and therefore we cannot allow that to happen. Our tacit knowledge is ignored and we use some sort of artificial method for assigning teams which are, inevitably, less balanced and less fair.

In both Agile and Baldridge systems, all the tacit knowledge about the team and individual performance is 'published' — up there, on the wall, in the information radiators and big visible charts. Once this tacit information is made explicit the team is better able to manage itself and even improve the performance of the weakest members of the team.

It also becomes overtly obvious (it was always obvious) which individual possesses the greater skills in coding, analyzing, modeling, coaching, etc. and who should take the lead at different times in the development or learning cycle. [Unfortunately, this only works within the team because HR will not acknowledge individuals, only job titles.]

Conclusion

If you build a habitable structure you WILL need to deal with windows and doors. Architectural patterns ala Alexander will assure your design has the potential for QWAN.

If you build a habitable complex system involving human beings, you WILL need to deal with Rank, Stereotypes, Divided Labor, Story, Essence, and Reciprocity. Only Patterns of Humanity will provide any hope of success.