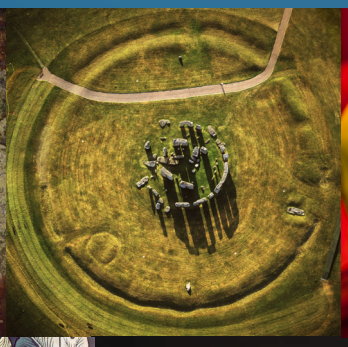
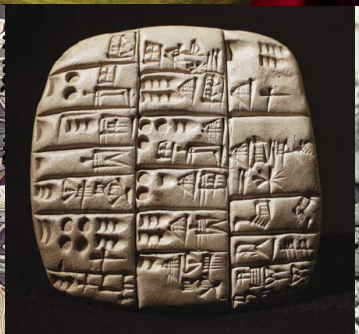
NATURAL DESIGN

THE INSTINCT TO ALTER OUR WORLD

Russell Pinkston



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Jan Smuts [photo: Getty Images]

"The whole is more than the sum of its parts"

-Jan Smuts, former Prime Minister of South Africa

INTRODUCTION: CULTURAL HOLISM

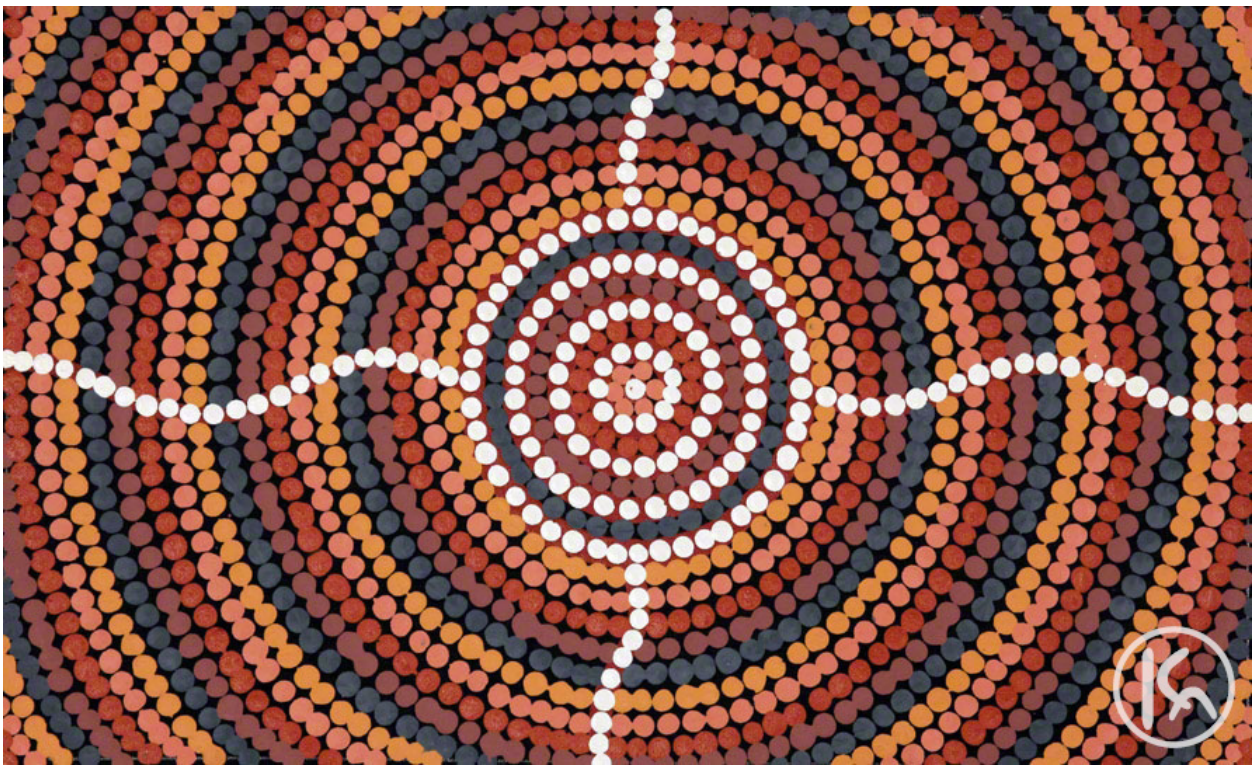
One of the most repeated maxims in the Western sphere is frequently the victim of misquotation. The famous phrase by Jan Smuts, pioneer of the concept of Holism—that the whole is "more than the sum of its parts" (Smuts 88)—is often misquoted as "the whole is *greater* than the sum of its parts." While this may seem like a minor distinction, this miswording serves to actually lessen the meaning of the original phrase. Gestalt psychologist Kurt Koffka, in his seminal text, Principles of Gestalt Psychology, writes:

> It has been said: The whole is more than the sum of its parts. It is more correct to say that the whole is something else than the sum of its parts, because summing is a meaningless procedure, whereas the whole-part relationship is meaningful (Koffka 176).

Thus, in saying that the whole is something more or other than the sum of its parts, we are not merely quantifying the sum as simply numerically greater, but rather allowing it to become something else entirely: an entity which transcends—or goes beyond—a mere sum; an autonomous, dynamic whole which generates its own intrinsic meanings.

The discipline of design is deeply connected to culture as an amalgamation of current need and traditional knowledge. As such, the products of design are tied to cultural anchors which are rooted in the soil of specific traditions and values. Because the cultural experience—the way of life—changes so drastically from one place and time to the next (in turn influencing people's perceptions of the world around them), the impact this has on design is nothing short of profound.

When we look at the impact of culture on the discipline of design, the most obvious question we must ask is: what is culture? In encyclopedic terms, "culture" might refer to the system of shared attitudes, values, goals, and practices that characterizes a group of people. While this



traditional aboriginal art, Bevan Tjampitjimpa, Australia

is a technically accurate definition, the conceptualization of culture in such textbook terms effectively sterilizes the idea. Culture is not a thing which can be understood mathematically; there is no known algorithm to calculate the sum of cultural expression using constant values. Yes, cultures are made up of these parts, but when all of the shared attitudes, values, goals, and practices of a group of people come together through an ever-changing *gesellschaft* of collective understanding, the whole of these factors is simply something more than the sum of its parts.

Culture is about sounds and smells, traditions and feelings. It has a sensorial existence. It is emotional. The cultural whole is not by any means a sum of quantifiable factors; instead, it is an element of the sublime, an all-encompassing way of life that can only be qualified through the experience of cultural immersion.

I have had the opportunity in my lifetime to be immersed in several disparate cultures for extended periods. In 2004, at the age of 19, I spent six dreary months in a hostel in London's Bayswater neighborhood where I worked as a cameraman on a number of low-budget arthouse short films. Being a young and foolish American teenager, I spent almost no time preparing for this venture. I had quite incorrectly assumed that life on the other side of the pond would be relatively similar to the world of Raleigh, NC where I had grown up. I simply packed a bag and got on a plane. It wasn't until I got off the train at Victoria Station that I began to realize I had thrust myself haphazardly into an alternate universe.

I knew that my hostel was on the other side of town but had not studied the maps. I tried to get on

the first bus I saw—a high-tech double-decker monstrosity—only to realize that I no longer had the correct currency. I could not find a place to exchange my useless green paper and so I spent a few hours walking from bus stop to bus stop using the posted maps to navigate my way on foot, lugging my bag over my shoulder. Frustrated, I stopped into a pub for some food, ordering something I had never heard of called "bangers and mash" and a beer. The food was cold, and the beer was warm. I was utterly and hopelessly lost. My only option… was to adapt.

Bit by bit, I adjusted to the new world around me: the food, the language, the transportation system, the ever-present history which lurked around every corner. I learned my way around town and by the end of my time in London could navigate the bus routes by memory. I made friends there, went to parties in their flats and movies on the weekends. I had a girlfriend from Brazil who, like me, found herself lonely in London, "looking for flying saucers in the sky" (Veloso 1971). This humbling experience showed me that understanding another culture is not about seeing the sights but about meeting the people and letting the whole of this exposure change you on a fundamental level that can only be expressed through personal nostalgia and qualitative memory.

"Beefeater" at the Tower of London [photo: Russell Pinkston]

(top to bottom): geishas in Kyoto; street signs in Osaka [photos: Russell Pinkston]

A few years later, when I was 22 and working on film sets in Hollywood, California, I met and married a Japanese fashion designer. Not long after, she took me on a trip to visit her family in Nishinomiya, a small suburb situated between the major Japanese cities of Osaka and Kobe. Here I spent several months with her family in their very traditional Japanese home. I slept on a futon on their tatami-covered floor, I bathed in a tub barely big enough to fit my legs into, and I ate more tiny, salted fish than I care to remember.

It was the New Year in Japan and over the course of several weeks I visited a seemingly endless procession of shrines and temples, wandering awestruck through the ancient gardens and the marketplaces gathered outside their gates. My Japanese in-laws wanted to show me the rich history of their culture, from the idyllic onsen baths of Nara to the futuristic urbanization of Osaka. It was the closest I've ever come to feeling like I was on another planet. Though I had spent a year prior studying the Japanese language, I was helplessly confused. One day, on the train to Kobe, I noticed a small child tug on his mother's sleeve as he pointed up at me in wonder. It was obvious to everyone that, on this planet, I was the alien.

Culture is about sounds and smells, traditions and feelings. It has a sensorial existence. It is emotional.

Being in such a radically different environment was at first admittedly unnerving. I stuck out like a sore thumb: the tallest person in the crowd, equal parts confused and gobsmacked. It was immediately apparent that, even though I had studied Japanese language and culture, the soul of Japan was not something that could be experienced in books. Though we might learn about the history and traditions of a place, it is not until you are in Shirahama, smelling the ocean breeze and watching shopkeepers pound rice into mochi that you experience the weight of a culture as a whole entity which is more than the sum of these deconstructed parts.

Smuts writes:

> Natural wholes are always composed of parts; in fact the whole is not something additional to the parts, but is just the parts in their synthesis, which may be physico-chemical or organic or psychical or personal. As Holism is a process of creative synthesis, the resulting wholes are not static but dynamic, evolutionary, creative (Smuts 89).

In extending this concept of holism to the study of culture, I find that culture is better defined not as the summative attitudes and practices of a group of people but as something more autonomous and dynamic: Culture is people in synthesis.

To extrapolate this even further, let us try to conceptualize the world in its entirety as a global

whole made up of a myriad of cultural parts. What I have learned from my travels—not just to London and Japan but also from the ten years I spent alternating between New York City and Los Angeles—is that our planet is a diverse ombré of cultural diffusion. Though it may not feel like it to the American idiot fumbling through an ancient Japanese temple, these two cultures are inextricably bound, one fading into the other gradually over immense distance.

a Japanese *enso*

culture is better defined not as the summative attitudes and practices of a group of people but as something more autonomous and dynamic: Culture is people in synthesis.

In the recent centuries, and especially with the advent of the Internet, globalization has made this connection more apparent. As the people of disparate cultures come together, they find that, despite their incredible differences, they share an elemental, underlying humanity that is common to us all. Nineteenth-century German anthropologist Adolf Bastian called this the "psychic unity of man," a basic mental framework which we all share. Psychologist Carl Jung called it the "collective unconscious," noting the occurrence of several fundamental archetypes in cultural folklore and declaring that humans have unconscious knowledge beyond their empirical experiences. The father of American anthropology, Franz Boas, wrote extensively about the "parallelism of development" in these disparate cultures, saying, "we find that the same custom, the same idea, occurs among people for whom we cannot establish any historical connection"

(Boas 634). It seems obvious, then, that there is some underlying humanistic whole which binds humanity in all its forms.

What I hope to show in the following pages is the relevance of the idea of cultural holism to the future of design practice. By tracing the diffusions, divergences, and parallelisms of development of the designs of distinct cultures, I hope to reveal a causational framework between design and culture, showing that:

- **Humans possess an underlying instinct to design**
- **The evolution of design is bound to the evolution of culture**
- **The introduction of exogenous design interferes with this evolution**

As the world's cultures become more and more intertwined, it is increasingly important that designers work to include and preserve, rather than overwrite, the knowledge and traditions of local cultures. Design must be used not as a tool of homogenization and colonialism, but as a tool of empowerment, enabling all of the cultures of the world to survive and synthesize into the broader, global whole of humanity of which they are all parts.

Bhimbetka cave drawings, Madhya Pradesh, India

"there are no peoples without religion or without art"

-Franz Boas, Anthropologist

PART 1: DESIGNING HUMANITY

What does it mean to be human? While at first this may seem like a simplistic question, the extraordinary variability of our species makes the answer increasingly complex. Is our humanity found within our biological structure, or is there some deeper soul to the human essence that exists in the cultures we design?

In the late summer of 1977, NASA launched the Voyager space probes. The initial purpose of the Voyager mission was to perform flybys of the planets Jupiter and Saturn and their moons so that scientists could get a closer look at what had previously been blurry dots on our most powerful telescopes. Due to a rare planetary alignment, the probes would be able to travel to these distant planets on a single trajectory. They would transmit their pictures back to Earth by radio before skipping out into the great cosmos like stones across the pond of our solar system. The mission was a resounding success: Voyagers 1 and 2 did their flybys, Voyager 1 was the first spacecraft to cross over into interstellar space, and, as of this writing, they are the most distant human-made objects in the universe (Reynolds).

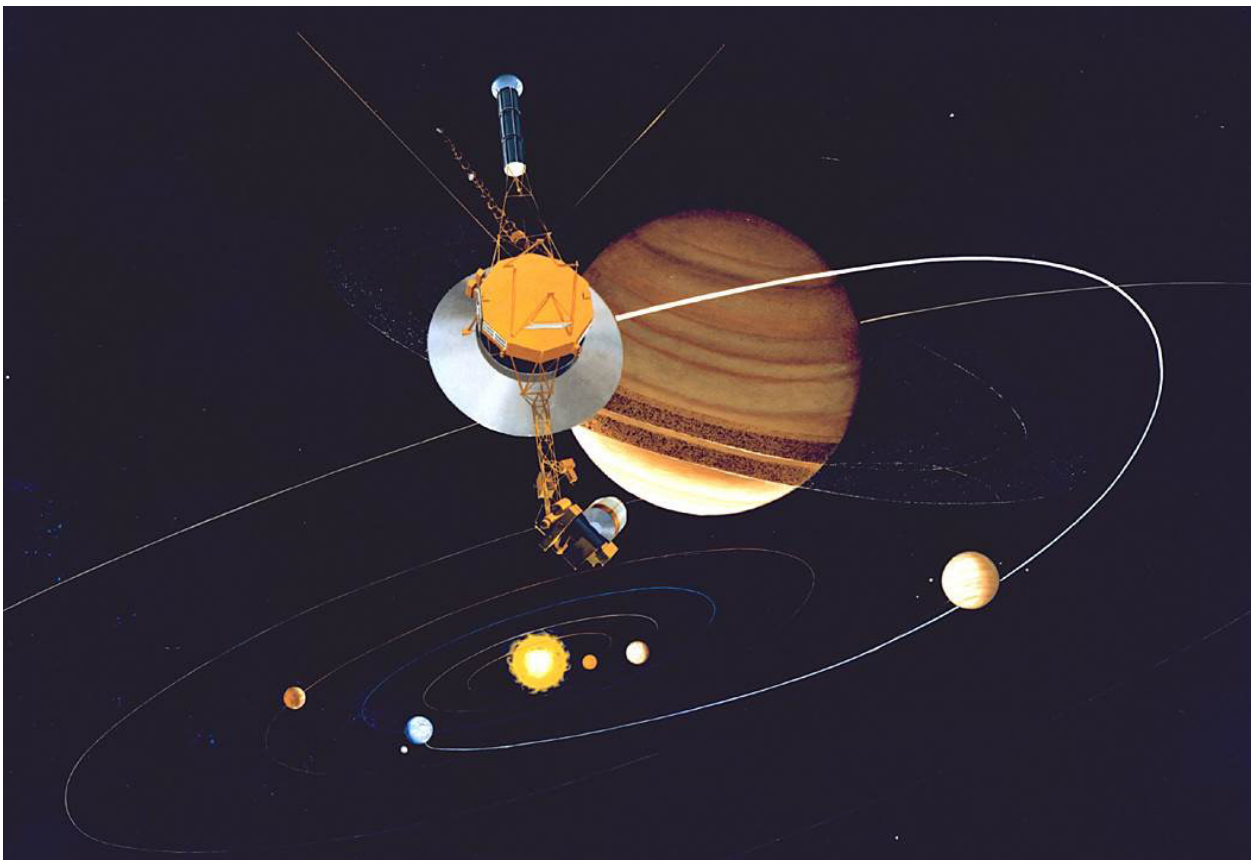
As tremendous an achievement as this was, what continues to captivate people more than 40 years later is not the photographs the Voyager probes sent back but, rather, the symbol of humanity they represent. Upon the completion of their flybys, the Voyager probes were given a secondary mission which is still ongoing. NASA (being NASA) was very mindful of the fact that they were sending human technology into the unknown reaches of space where there just might be some chance of extraterrestrial intelligence. As such, they included on each probe a gold-plated audio-visual disc comprising a wealth of information about humanity, a sort of time capsule or "message in a bottle" reaching out into the cosmos to announce to anyone who might listen what it means

to be a human being.

> The spacecraft will be encountered and the record played only if there are advanced space-faring civilizations in interstellar space, but the launching of this 'bottle' into the cosmic 'ocean' says something very hopeful about life on this planet (Sagan).

The contents of the discs were curated by a committee chaired by renowned astronomer Carl Sagan, whose charge was nothing short of distilling the essence of humanity onto a disc not unlike a vinyl music record. While each of the discs contains information detailing our human anatomy, Sagan felt this was insufficient to encapsulate the whole of our human experience. So, the committee also included information from a broad range of cultures: photographs depicting food, architecture, and the daily lives of various peoples, selections of music from widely different cultures, as well as spoken greetings in 59 languages and other human sounds, like laughter. On each disc is printed the following message from then-US President Jimmy Carter:

> This is a present from a small distant world, a token of our sounds, our science, our images, our music, our thoughts, and our feelings. We are attempting to survive our time so we may live into yours.



Artist's rendering of the Voyager 2 spacecraft, NASA

Should distant travelers ever discover these probes, the portrait of humanity they receive will be exceptionally diverse.

So, I ask you again: What does it mean to be human? If our biological makeup is only a part of our being, where do we find the remainder of our humanity? As the Voyager discs exemplify, perhaps that which makes us human is found in our very diversity, in the fact that we possess, as a species, the innate drive to synthesize with one another in the creation—the design—of our cultures. Though the cultures and traditions of all the world's people vary sometimes beyond recognition, the fundamental element that links them all together is that they exist. As anthropologist Franz Boas so succinctly put it, "there are no peoples without religion or without art" (Boas 634). In other words, there is no humanity without culture.

> ***From the moment we first picked up a rock and lashed it to a stick, we became not only humans, we became designers. The two are inseparable.***

But what is driving the creation of our cultures? Excavations of Shanidar Cave in modern-day Iraq have uncovered evidence from around 50 thousand years ago of perhaps the earliest burial rituals in history. The Neanderthal remains of a prehistoric man known only as Shanidar 4 were found buried with a flower in a way that might suggest a type of proto-religious sentiment. Is this the point when Homo Neanderthalis became human, or was it earlier?

Homo Habilis reconstruction, Museo de la Evolución Humana, Burgos, Elisabeth Daynes

Humans, by their very nature, are creators, organizers, and designers. I would go so far as to suggest that our humanity—that original human instinct which makes us who we are and separates us from the rest of the animal kingdom—originates from our ability to design. Our most ancient "human" ancestor, Homo Habilis (the earliest primate to be classified in the genus homo), is classified as such because of his undisputed use of tools. From the moment we first picked up a rock and lashed it to a stick, we became not only humans, we became designers. The two are inseparable.

Humanity is such an incredibly diverse species because our existence transcends our biology and enters the realm of imagination where we redesign our environments to suit our needs. The influence of environmental factors changes our needs, and so the objects we design differ according to geographical region. These different designs change the way of life of the people living in that region, eventually developing into synthesized cultures. The people who make up the *gesellschaft* of a culture communicate with one another to form belief systems and mythologies which will, in turn, influence the objects of design. This cycle builds upon itself, evolving into distinct cultural systems.

Across history, many examples exist of what Boas referred to as the "parallelism of development" of disparate cultures (Boas 281). Both the ancient Egyptians and the Aztecs, for example, created pyramids (or *ziggurats*) to honor their gods; most utterly disconnected cultures have created writing systems, myths, mathematics, and agricultural practices completely independently of one another. And, while differences between cultures emerged based on specific environmental factors, we can see evidenced quite clearly the underlying humanity these designs share.

(left to right): Aztec calendar; Inuit art; Indian Mandala

All cultures exist because of their underlying humanity; they differ because of their geographic specificity.

The ideology of structural anthropology concerns itself with the underlying causes of these homologies. 19th-century German anthropologist Adolf Bastian wrote about what he called the "psychic unity of mankind," the belief that humans all share a basic mental framework upon which our cultures are built. This framework, as he put it, was made up of *elementargedanken* (elementary ideas) that develop into locally variable *völkergedanken* (folk ideas). These folk ideas are contingent upon geographic location and historical background. Because of this, he argued,

people from the same time and place who share the same histories develop similar folk ideas and thus synthesize into a type of group mind (or *gesellschaft*), a collaborative whole in which the individual is only an embedded part. Bastian then took these theories a step further and suggested a "genetic principle" that cultures evolved naturally over the course of their histories from simple sociocultural institutions to increasingly complex organizations. Unfortunately, this led him to incorrectly assume that tribal cultures were thus less evolved than their more-complex European counterparts. Bastian's fallacy here was the hierarchical bias created by the culture of European colonialism (Uddin). Though he had traveled widely and spent many years among the people of Africa, Burma, Siam, China, etc., he was a European and was swayed by the prevailing mindset of his people. He was unable to see that the differences between these cultures was not due to a genetic cultural evolution but rather to the very cultural relativity he himself espoused. All cultures exist because of their underlying humanity; they differ because of their geographic specificity.

17th century European colonizers often used differences in culture and technology as a measuring stick by which to judge a person's humanity. They saw the "savage" tribesmen of Africa and the Americas as less-than or sub-human because of their pagan belief systems and perceived technological shortcomings; but is an Inuit hunter truly less human than a Wall-Street executive? Is either's cultural knowledge less advanced, or is it simply tailored to survival in his environment? Today, most of us find it ridiculous that our race or culture might be somehow determinate of our humanity; however, this antiquated hierarchy is so deeply ingrained in Western culture that it is still apparent in many Western disciplines—with design being no exception (Tunstall).

While Bastian may have fallen victim to this hierarchical mindset, I believe there is true merit in his ideas concerning the psychic unity of mankind. This notion has been reinforced by the work of scholars across many disciplines: Levi-Strauss, Marx, Hegel, Boas, and Jung, among others. Carl Jung developed this notion into what he dubbed the "collective unconscious" in the field of psychology, the structures of the unconscious mind which are shared by all humans. He believed that people have unconscious (or hereditary) knowledge beyond that of their empirical experiences. He found evidence of this in certain "archetypes" (collectively inherited ideas or images) which exist in several disparate cultures: the great mother, the wise old man, the shadow, the tower, the tree of life, etc. "The psyche," he wrote, "contains all the images that have ever given rise to myths" (Jung 7). Jung argued that the "elementary ideas" which Bastian posited were manifesting as archetypes in the myths of distinct cultures (Jung 6,43). The allegories people use in the creation of their cultural myths seem to be rooted in elementary human ideas but develop differently based on cultural relativity. The important thing to note is that every society has their own versions of these myths.

A large part of the reason why we design comes from our need to communicate. At a formative level, evidence of this can be seen nearly everywhere people have ever existed. From the proto-civilization of Ayn Ghazal in ancient Mesopotamia to modern-day New York City, it would seem that humans find it exceedingly difficult to go anywhere without leaving their mark on something.

I recall a backpacking trip I once took into the Sierra Nevada mountains. After two days and dozens of miles hiking from the nearest town, I arrived at the barren, secluded, volcanic ridge of Ediza Lake, a 13-thousand-foot, snow-capped minaret slowly melting into the frigid waters below. When I finally reached the summit, I looked out over the horizon to find nothing but jagged, inhospitable peaks in all directions. For a moment, I felt like the last man alive on Earth—until I looked down and found, wedged under a rock, a Café Bustelo coffee can. Inside the can was a small notebook and a golf pencil. The pages of the notebook were full of messages scrawled by those who had been there before me.

Ediza Lake, California [photo: Russell Pinkston]

Even in the remotest wilderness, you might find cairns (stacks of stones) or someone's name carved into a tree. If you lock a person in a cell—or a bathroom stall—for long enough, eventually they will start to mark on the walls. There is something in our very nature that drives us to do this.

promotional graffiti for the Moon Tower Comedy Festival, Austin, TX, 2014

Not so different are the cave drawings of our ancient ancestors at sites like Chauvet Cave in France, Gabarnmung Cave in Australia, or Cueva de los Manos in Argentina. Though these ancient artists from 40 thousand years ago could have had no knowledge of each other's existence, they each shared the same desire—the same innate drive—to communicate through design.

> ***cultural ideas and the objects of design spread outwardly much like a virus as they diffuse across cultural lines.***

The interesting effect of this human need for communication is that it causes diffusions of our ideas, cultures, and technologies as the people of different cultures interact. Franz Boas, in addition to noting the parallelism of development of cultural designs, also noted that these designs tend to diffuse outward when cultures come into contact. As they are adopted, the designs take on new meanings:

> All cultural forms rather appear in a constant state of flux and subject to fundamental modifications... A transfer of customs from one region into another without concomitant changes due to acculturation, are very rare... In geographically extreme areas… distinct types of social organization occur, the intermediate regions showing transitional types (Boas 284, 286, 290).

This is essentially a passive, ancient form of globalization at work. Due to the movements and interactions of the people of different cultures, when two cultural systems interact, the dominant system replaces the subordinate one. In this way, cultural ideas and the objects of design spread outwardly much like a virus as they diffuse across cultural lines.

Globalization is accelerating this cultural diffusion. Modern anthropologist Gordon Mathews writes about what he calls "low-end globalization." Defining the term:

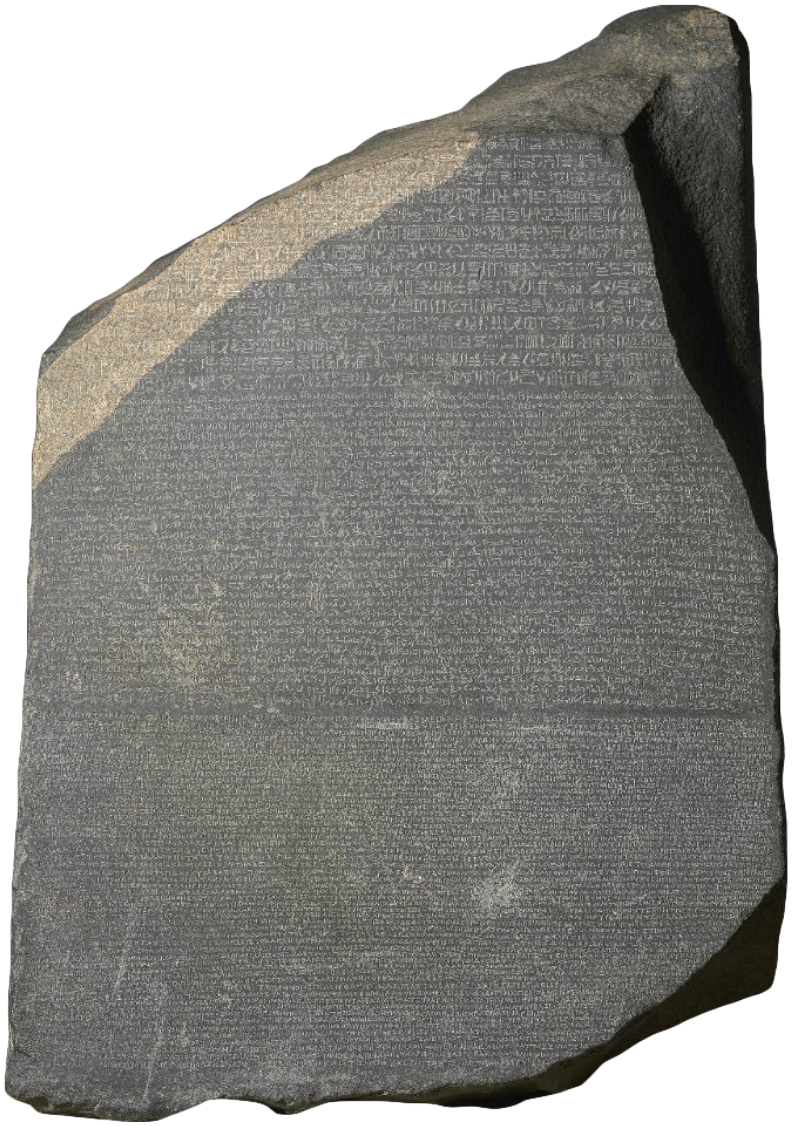
> Low-end globalization is very different from what most readers may associate with the term globalization—it is not the activities of Coca-Cola, Nokia, Sony, McDonald's, and other huge corporations, with their high-rise offices, batteries of lawyers, and vast advertising budgets. Instead it is traders carrying their goods by suitcase, container, or truck across continents and borders with minimal interference from legalities and copyrights, a world run by cash. It is also individuals seeking a better life by fleeing their home countries for opportunities elsewhere, whether as temporary workers, asylum seekers, or sex workers. This is the dominant form of globalization experienced in much of the developing world today (Mathews 10).

Instead of thinking about globalization in terms of "high-end" and "low-end," I find it more compelling to think about it as a process of both "active" and "passive" participation, respectively. While there are corporations that seek to *actively* homogenize the world in order to better sell their products, we are also *passively* homogenizing ourselves through modes of communication, migration, and commerce.

Due to this seemingly inevitable process of globalization and acculturation, designers must be very mindful of the possibility that their designs (and the underlying cultural influences which drive those designs) may serve to supplant the locally existing cultural ideals of other peoples. Just as Adolf Bastian was influenced by the colonial mindset of his European culture, designers must be imminently mindful of the same influence. The mindset that Western ways of thinking and knowing are more advanced than indigenous ways of thinking and knowing is antiquated and colonial. The implementation of exogenous Western design is not only aggressive but is a tool of active globalization, whether or not this was the intention.

To design in a way that is sustainable and respectful of other cultures means being mindful of this

hierarchical bias and being open to the accumulated knowledge of the user (whatever his or her culture may be). It is through this that we may learn from each other's wisdom rather than erase it and may allow for the creation of a more diverse world culture. This, after all, is what it means to be human.



The Rosetta Stone, ca. 196 BCE

"And the LORD said, Behold, the people is one, and they have all one language ... and now nothing will be restrained from them ... let us go down, and there confound their language, that they may not understand one another's speech."

-Genesis 11:6-7 (The Tower of Babel)

PART 2: THE KAIROS OF STYLE

Style, much like a bacterium, does not emerge spontaneously in a vacuum but instead grows organically in the muck and mire, the product of a wide array of social, political, spiritual, and formal factors coming together to create an expression of cultural zeitgeist. As a product of human ingenuity and creativity, style is rarely utilitarian—becoming less and less so as the number of adopters increases. To give a contemporary example, the minimalistic, utilitarian design of Converse's now-iconic "Chuck Taylor" shoes has become increasingly complex after decades in the cultural fore. Generations of schoolkids have kept this simplistic design relevant by personalizing it based on evolving cultural trends, making it their own. This is a collaborative effort, an iterative cultural process of giving meaning to the design and, as a result, that design has emerged as a representation of the cultural zeitgeist because of the meaning it holds.

Changes in design styles, in this respect, are never arbitrary; even the most abstract, nonsensical creations of the Dadaists held cultural meaning. But if style does not emerge independently, what catalysts bring about these cultural paradigm shifts? The origins of many unique, cultural designs are, in fact, deeply rooted in the soils of historical traditions and values that do not always originate from native sources. Often, styles (also like a bacterium) flow from one culture to the next as people interact, changing a little bit each time until finally becoming part of that newly hybridized culture. This process, to put it mildly, is unstable. The ebbs and flows of cultural ideals are ephemeral and forever incomplete. Franz Boas states that "all cultural forms rather appear in a constant state of flux and subject to fundamental modifications" (Boas 284). Contemporary styles are necessarily impermanent, a product of kairos (or "time and place") that are constantly in flux simply because the cultures upon which they depend are constantly in flux. Design, thus,

as it becomes culturally important is never simply form nor function—neither wholly stylistic nor utilitarian—it is, instead, a combination of the two, addressing current needs based on cultural values and expectations.

As we trace the movements and evolutions of style throughout history, we can see how tightly grafted each is to the other, with culture influencing design as a reflection of the zeitgeist and design enabling the evolution of culture. Design historian Phillip Meggs points out the importance of graphic design, in particular, in this process:

> The immediacy and ephemeral nature of graphic design, combined with its link with the social, political, and economic life of its culture, enable it to more closely express the zeitgeist of an epoch than many other forms of human expression (Meggs viii).

If we look at visual design styles in perhaps their most elemental form as tools of communication, we can then include cultural symbols (like writing) in the same canon, which will allow us to trace these symbols and the arbitrary meanings attributed to them by various cultures to the occurrences of major historical events, migrations, and otherwise sociopolitical or spiritual revolutions. This is because changes in these fundamental systems of communication can only be brought on by fundamental changes in culture.

Language is a central, defining factor of every culture. It not only allows for the transmission of basal values, myths, ideas, and archetypes, but it also defines how we communicate and what meanings we embed in the things we say. But, when we look more closely at the history of our written languages, we find that their visual symbols are overwhelmingly foreign in origin. To explain what I mean, let us look, for example, at the symbols which make up the English language. To do so, we must look not at the history of Anglo-Saxon visual culture but rather at the history of the ancient Near East. These two civilizations may seem to have more at odds with one another than they do in common, but when we trace the evolution of their visual symbols, we can see the underlying principles—the shared cultural history—which ties them (and many other cultures) together.

The earliest prehistoric Mesopotamian visual communications were made up of pictographs, elementary pictures or sketches that represented specific objects. To represent the Sun, for example, ancient authors would sketch out a rudimentary drawing of something like a round circle with lines radiating from the center. This system, over time, evolved to include more abstract ideas and concepts, where that same drawing of the Sun would become an ideograph representing the abstract ideas of day or light or life. These early symbols, which were recorded mostly for ritual purposes, eventually formed the basis of writing systems.

> The Paleolithic artist developed a tendency toward simplification and stylization. Figures became increasingly abbreviated and were expressed with a minimum number of lines. By

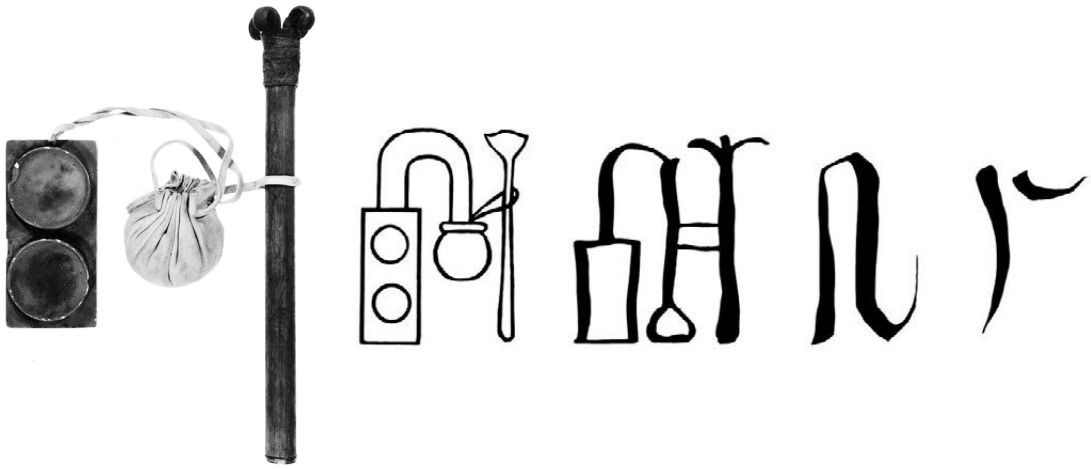
the late Paleolithic period, some petroglyphs and pictographs had been reduced to the point of almost resembling letters (Meggs 7).

(top to bottom): petroglyphs from the Western US; clay tablet showing the evolution of cuneiform; The Blau Monument, early Sumerian

The more ancient Mesopotamians continued to write, the more these symbols became simplified into a writing system known as cuneiform, which involved making indentations with a pointed stick into clay tablets. What started as pictographs representing literal objects had become a system of abstract lines and symbols which represented these things only because of the cultural meaning attributed to them.

Through war and trade, cuneiform spread to Egypt where it branched off into a separate system known as hieroglyphics, a form a rudimentary rebus writing where the pictographs did not represent specific objects but rather were meant to be read aloud to create the phonetic sounds of the Egyptian language. This type of phonetic connection created all sorts of nuanced meaning in ancient Egyptian culture. The ankh, for example, a pictograph representing a mere sandal strap, shared a phonetic similarity to the words for life and immortality and, thus, became widely used as a sacred emblem imbued with these meanings. Hieroglyphics, much like cuneiform, evolved over thousands of years (thanks to the hands of scribes) from this archaic rebus system into the eventual Hieratic and Demotic scripts:

quickly drawn gestures and arbitrary symbols that possessed abstract cultural meaning.



(left to right): hieroglyph, 2700 BCE; hieroglyphic manuscript hand, c. 1500 BCE; hieratic script, c. 1300 BCE; and demotic script, c. 400 BCE

As Phoenician trade networks spread cuneiform to the island of Crete and the northern Semitic tribes of Syria, it was again adopted (and adapted) by these people. This time, the system was simplified into various alphabets; the hundreds of signs and symbols required by cuneiform were replaced by a few dozen easily learned phonetic symbols. From Syrian Aramaic, these letterforms became the Hebrew alphabet and Arabic scripts. From Cretan, they became Greek, then Latin, and eventually English. "From a graphic design standpoint, the Greeks applied geometric structure and order to the uneven Phoenician characters, converting them into art forms of great harmony and beauty" (Meggs 27). True to Greek form, the letters became symmetrical geometric constructions with many letterforms (like the E and M) based on the shape of a square, while others (like the A) were based on the triangle or (like the O) the circle. Alexander the Great's libraries spread Greek culture and writing systems throughout the world to the extent that the ancient Druids of Celtic lore might have actually written some of their mystical knowledge in Greek (Caesar VI.14.3).

With this example, we see how a written language as fundamentally Mesopotamian as cuneiform can move from one culture to the next, diverging as it is adopted by each subsequent culture, evolving from something foreign into something native. Boas states that:

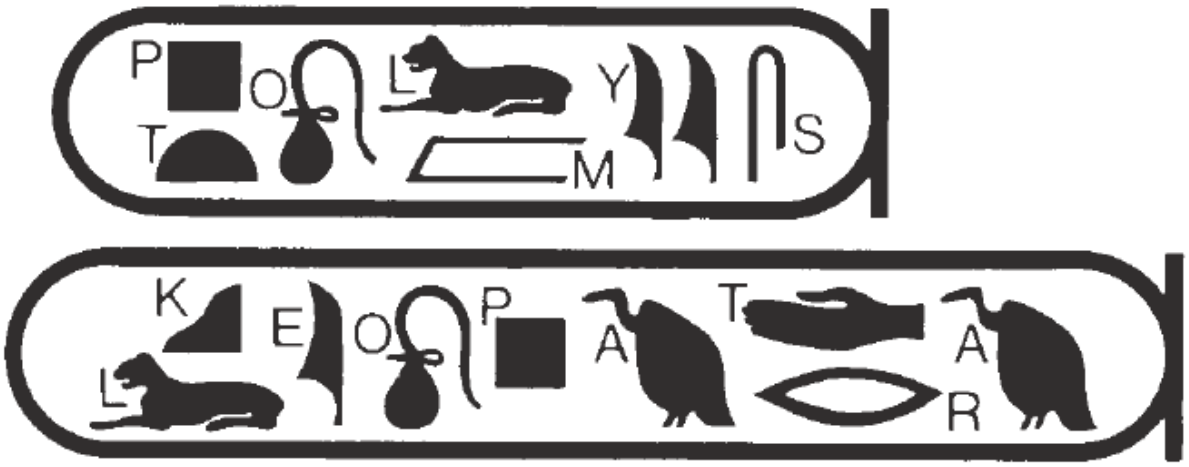
> All special cultural forms are the products of historical growth … the introduction of new ideas must by no means be considered as resulting purely mechanically in additions to the cultural pattern, but also as an important stimulus to new inner developments … independent development as well as diffusion has made each culture what it is" (Boas 290, 291, 436).

Early Name	Probable Meaning	Greek Name	Cretan pictographs	Phoenician	Early Greek	Classical Greek	Latin	Modern English
Ăleph	Ox	Alpha				A	A	A
Bĕth	House	Bĕta				B	B	B
Gimel	Camel	Gamma				Γ	C	C
Dāleth	Folding door	Delta				Δ	D	D
Hē	Lattice window	Epsilon				E	E	E
Wāw	Hook, nail						F	F
							G	G
Zayin	Weapon	Zeta				Z		
Hēth	Fence, Barrier	Ēta				H	H	H
Tēth	A winding (?)	Thēta				θ		
Yōd	Hand	Iōta				I	I	I
								J
Kaph	Bent Hand	Kappa				K	K	K
Lāmed	Ox-goad	Lambda				Λ	L	L
Mēm	Water	Mu				M	M	M
Nūn	Fish	Nu				N	N	N
Sāmek	Prop (?)	Xei				Ξ		
' Ayin	Eye	Ou				O	O	O
Pē	Mouth	Pei				Π	P	P
Sādē	Fish-hook (?)							
Kōph	Eye of needle (?)	Koppa					Q	Q
Rēsh	Head	Rho				P	R	R
Shin, sin	Tooth	Sigma, san				Σ	S	S
Taw	Mark	Tau				T	T	T
						Y	V	U
								V
								W
						X	X	X
							Y	Y
							Z	Z

This diagram displays several evolutionary steps of Western alphabets (Meggs 22)

In other words, cultural styles do not emerge independently, but as a process of outside influences that trigger internal adaptations. We can see these influences reflected in the changing visual styles of cultures throughout history.

Just as style does not emerge from a vacuum, neither does meaning. In order for any form of communication to be successful, it must rely on culturally established rules and systems. This means that the meanings attributed to certain symbols is culturally (and temporally) relative. Even though the ancient Egyptians used their system of hieroglyphics for thousands of years, modern archaeologists were unable to decipher the script until French Army officer Jean-Francois Bouchard stumbled upon the Rosetta Stone during the Napoleonic campaign in Egypt. The text of the Rosetta Stone tablet comprises a decree issued on behalf of King Ptolemy V to his subjects in three different writing systems: hieroglyphic script, Demotic script, and Ancient Greek. It was not until archaeologists had this Greek point of reference that they were able to decipher these symbols; the hieroglyphics themselves are not intuitive but can only be read through the lens of cultural meaning. My point here is that meaning is not inherent, but arbitrary, and decided typically by a collaborative gesellschaft of people in synthesis who share a common cultural understanding. Meaning evolves through generations of usage, interpretation, and adaptation to form systems of values and beliefs that are (generally) agreed upon for a certain place and time. But, as this system is constantly in flux, it devolves in much the same manner, leading the written language of the Egyptian people to evolve over thousands of years until what was once commonplace had eventually lost its meaning.



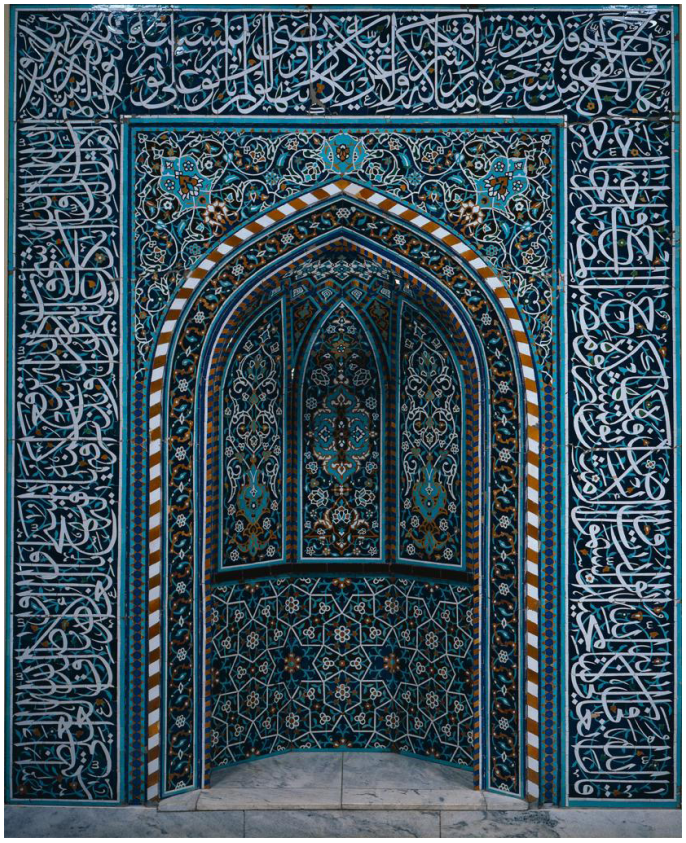
Egyptian hieroglyphics. The rebus writing in these examples spell out "Ptolemys" and "Cleopatra."

The evolution of style, as a form of visual communication, is dependent upon these same transient systems of cultural meaning. In general, the populous works collaboratively over time to validate

or invalidate these meanings and the styles that go with them. However, there are many historical examples of those in power attempting the opposite: to control the populous by controlling how and what they communicate to each other—including (but not limited to) visual styles.

From the first Mesopotamian ritual symbols up until even the Protestant revolution, reading and writing was primarily the work of the religious elite who used this skill to hold power over the populous. The priests of ancient Egypt were the highest educated class of that civilization, intermediaries between the people and the gods who were able to control the populous by proclaiming their edicts as the will of the almighty, which they alone were chosen to deliver. The Roman Catholic church went so far as to declare that the word of God was in Latin, establishing a priestly class of apostolic succession based at the Vatican who were the sole arbiters of God's will throughout Europe. The regulation of these written symbols and the meanings they held was a source of power for those who were able to decipher them, creating systems of hegemony that lasted for centuries.

In the Islamic world, where graven images and idolatry are strictly forbidden, visual styles emerged in the middle ages which were vastly different from those emerging congruently in Europe. Instead of the European style of portraiture, triptychs, and statuary, we see a trend toward patterns and mosaics. Rather than focusing art on the depiction of scenes and people, the focus was on bringing the presence of Allah into the surrounding world, decorating the walls and floors



left: "Deposition of Christ," Bronzino, 1540-1545
right: Islamic mihrab (prayer niche) ca. 1500s, Iran

and architecture in His words, rather than in His image. As breathtakingly beautiful as much of this artwork is, the development of this style was a direct response to cultural beliefs imposed by the religious elite who were able to control the zeitgeist by controlling the use of visual style.

In the Soviet Union (and much of the second world) the control of visual styles via communist, constructivist propaganda was used as a means of attempting control over the proletariat. As the Glavlit (the official censorship and state secret protection organ of the USSR) systematically eliminated any undesirable messages from the press, they were able to form a cult of personality based on Marxist-Leninist ideology that could spin any visual styles to promote the values of the Communist party. This was not merely art to tyrants like Stalin, but a method of re-educating millions of Soviet citizens (Kenez 8).

"Books (Please)! In All Branches of Knowledge," Alexander Rodchenko, 1924

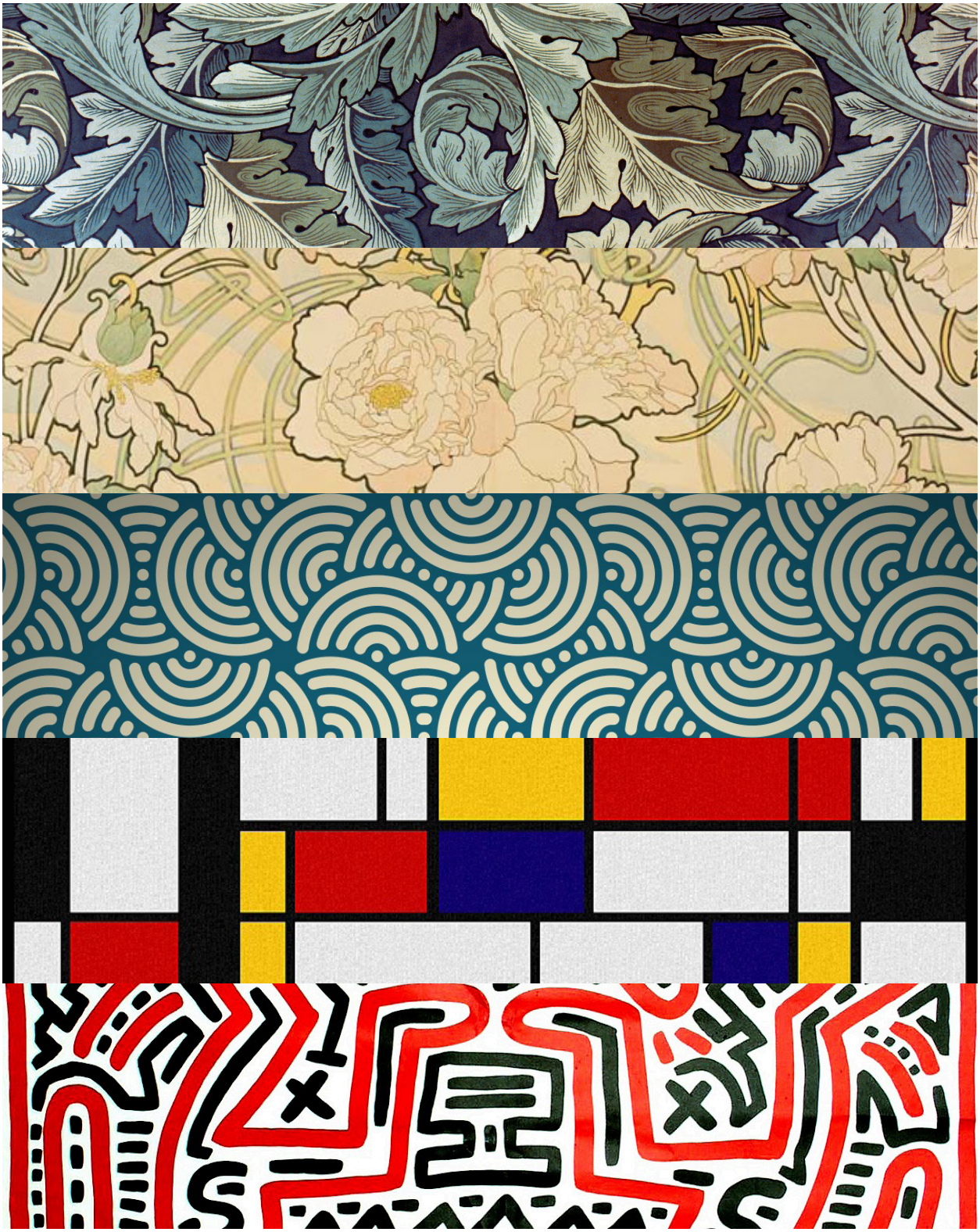
What these examples show is that "Hegemony … is not universal and 'given' to the continuing rule of a particular class. It has to be won, worked for, reproduced, sustained" (Hall, et al. 40). Political power is not something which maintains itself, but rather something which must be actively and continually sought. This is simply because of the ephemeral nature of culture. Just like Chuck Taylors, power structures must remain relevant over generations by either adapting

their methods to changes in culture or adapting culture to fall in line with their methods. We can see this power struggle between the elite and the populous play out like a litmus test in the changing visual styles put forth by the zeitgeist of any culture.

When we look at the progression of Western design styles, especially since the dawn of the Industrial Revolution, we can see the pendulum swing rather dramatically as cultural reactions to political events shifted the dominant style paradigms. In Europe and the American colonies, the gaudy, extravagant style of the Rococo period became suddenly tawdry with the rise of revolutionary ideology. As the French and British monarchies flaunted their wealth before the people, the popular mentality shifted away from this extravagance and toward more democratic ideals of liberté, égalité, fraternité and the Neoclassical styles inspired by Greek and Roman history. The progression of these anti-establishmentarian styles, of course, culminated in political revolutions in both America and, soon after, France—where new cultural ideals were established and even new systems of communication (e.g., the metric system) came into prominence. Clearly, this shows the power of style to both encapsulate the values of culture and enable the further evolution of that culture. It is no wonder that so many regimes have sought to control this influence.

> ***cultural styles do not emerge independently, but as a process of outside influences that trigger internal adaptations.***

As the pendulum continued to swing, a relatively rapid succession of stylistic changes occurred in reaction to paradigm shifts in Western culture. The machinery of the Industrial Revolution brought mass-produced wares to the populous in a way that had never been previously possible. While the Great Exhibition at the Crystal Palace in 1851 showed people that such wares could be made affordable by the tools of industrialization, they soon grew bored of the rather austere-looking designs. As a response to this, a resurgence of artisan styles emerged in William Morris' Arts & Crafts movement. Following this, the French artists of the late 19th century declared that in order for art (and society) to move forward, it must be freed from the past and allowed to create new forms. This mentality is directly reflected in the growing, sinuous vines and spiritually re-birthed butterflies of the Art Nouveau period. As if to combine this cultural re-birthing with the newfound capabilities of industrialization, we then see a move toward the hybridized styles of Art Deco. The Western world, hungry to move forward into bold new Utopian futures as quickly as possible, then sought the streamlined styles of Futurism and Modernism, designing a world through art, architecture, and industrial design that they believed was inevitably on the horizon. When this Utopian ideal failed to arrive, the populous grew embittered by the false hopes they had given



(top to bottom): wallpaper by William Morris; "Peonies," Alphonse Mucha; an example of Art Deco patterns; "Composition VII," Piet Mondrian; poster by Kieth Haring

themselves and with this the cynical, sartorial styles of Postmodernism became the dominant paradigm.

This progress seems to go on ad infinitum, with each style—each cultural ideal—arising as a reaction to its predecessor. These movements are not merely a product of the zeitgeist of each generation, they are also catalysts whose expiration triggers new movements. This is an iterative process. As each style—each cultural zeitgeist—manifests, it holds a mirror to that culture, allowing the people to analyze themselves, to validate or invalidate those ideals and make subsequent changes as they see fit.

> ***meaning is not inherent, but arbitrary, and decided typically by a collaborative gesellschaft of people in synthesis who share a common cultural understanding.***

All this history, of course, brings up the question of how the ebbs and flows of styles might play out in the future. Especially in our increasingly globalized world where the people of many cultures interact constantly, how might design be interfering with the natural progression of style in other cultures? What happens when the zeitgeist of an epoch transcends cultural boundaries? The visual styles of the globalized future, I predict, will be as frenzied and various as the global zeitgeist they represent, a mishmash of cultural influences and meanings that will hopefully be less like the Tower of Babel and more like the Rosetta Stone.

"American Bingo Spirit," Marcus Cadman

"culture and design ... are deeply entangled, complex, and often messy formations and transformations of meanings, spaces, and interactions between people, objects, and histories"

- Ton Otto & Rachel Charlotte Smith

CONCLUSION: THE GLOBAL CULTURE

Though we all find ourselves at various (sometimes opposite) points on this ephemeral spectrum of world culture, it is all of these parts working together that creates the spectral whole that is humanity. The peril of globalization is that, as disparate cultures interact, imperialistic tendencies work to supplant local knowledge, tradition, and design with those of the dominant culture. When this type of *forced acculturation*—or *transculturation*—happens, generations of accumulated history is potentially lost forever to the sands of time. As Cuban anthropologist Fernando Ortiz notes:

> I am of the opinion that the word transculturation better expresses the different phases of the process of transition from one culture to another because it does not consist merely in acquiring another culture (acculturation) . . . but the process also necessarily involves the loss or uprooting of a previous culture (deculturation) . . . and it carries the idea of new cultural phenomena (neoculturation) (Ortiz 102).

The effect this has is viral, using the local infrastructure as a host through which to spread exogenous ideologies. As these cultures are osmosed and their parts are erased from the spectrum, the world becomes perhaps more homogeneous but, in the end, less whole. My fear is that design (especially humanitarian design) might be playing a serious, if unwitting, role in this homogenization.

The history of design discourse is myopic, lacking a broader perspective of the political context of its Eurocentric ideologies and largely ignoring the cultural products of non-Western civilizations. If the products of design are created through a pairing of traditional knowledge with current need, then exogenous designs (those created and introduced by non-native peoples) inherently

lack that cultural anchor. When designers trained in Western traditions take it upon themselves to design for the people of other cultures, they bring with them the wrong set of precedents, effectively structuring their knowledge as hierarchically more important than the local knowledge of native peoples (Tunstall 236). In so doing, the expectation is that the indigenous culture must adapt to fit the design, not the other way around. This is, essentially, imperialism by another name.

As I have shown, there are three primary catalysts which trigger cultural evolution:

1. **Internal, from the top down** – by totalitarian regimes (political and religious leaders) attempting to affect change via the controlling of style
2. **Internal, from the bottom up** – through paradigm shifts and revolutions instigated by the populous
3. **External** – by transculturation brought on by different cultural groups as they commingle

Take, for instance, the German Bauhaus and its influence on American design. The Bauhaus, an innovative type of Art and Architecture school founded by Walter Gropius in Weimar, Germany in 1919, pioneered the German Utopian ideal of modernism that followed their defeat in World War I. The German artists of this time had a renewed liberal spirit to experiment with styles influenced

The Bauhaus

by the Arts & Crafts movement and Soviet constructivism. The zeitgeist of the German people had turned from the more fanciful forms of Expressionism and toward more rational, functional, standardized forms. The United States, at this same time, was in the throes of a very different, Gatsby-esque period of Art Deco extravagance. What caused these two styles to coincide was the diaspora created by the onset of World War II.

When many of the founders and professors of the Bauhaus fled Hitler's Nazi Germany in the 1930s, they sought refuge in the United States, where they continued to teach these German modernist principles in schools like the famous Black Mountain College in North Carolina. As the influence of the Bauhaus seeped into American culture, we can see the effects of this in the post-war modernism of American architecture and suburban culture. Many of the ideologies still taught at American design schools today find their origins in the methods of Laszlo Moholy-Nagy, El Lissitzky, and Theo van Doesburg. It makes one wonder just what American design styles might look like today if not for this foreign influence.

Students of Josef Albers' course in color theory at Black Mountain College

The point here is that, while the design styles of each culture follow a natural, evolutionary arc that is decided by the gesellschaft—by changes in cultural zeitgeist—the introduction of exogenous design styles derails this natural evolution and, instead, inserts the values and ideals of a different culture, one which may not be compatible. As design theorist Victor Papanek writes: "It is not possible to just move objects, tools, or artifacts from one culture to another and then expect them to work" (Papanek 18). Instead, designers must be careful of the knowledge and culture that is potentially lost via transculturation and the introduction of exogenous designs and design methods.

> ***When designers trained in Western traditions take it upon themselves to design for the people of other cultures, they bring with them the wrong set of precedents***

I firmly believe that holistic, collaborative (or "participatory") design is the most ethical and sustainable method of designing across cultural lines, and that this is the future of design practice in the era of globalization. The role of the designer must change from someone who designs *at* the user to someone who designs *with* the user. The more seamlessly designers can integrate design with culture, the more impactful and sustainable those designs will be.

The natural evolution of design (from Neolithic carvings to post-modernism) is inherently tied to specific cultural meanings. To allow ourselves to be open to other cultures and other ways of knowing is to understand our collective humanity as a synthetic whole which transcends any or all of its individual parts.

> culture and design are not separate analytical domains or extensions of each other. Rather they are deeply entangled, complex, and often messy formations and transformations of meanings, spaces, and interactions between people, objects, and histories (Otto 13).

By designing in a way that respects, preserves, and strengthens these parts, we work to strengthen the whole. Rather than supplanting local knowledge, we can use design to enhance and learn from it. By including and empowering, rather than marginalizing, the people of other cultures, we work together to better ourselves and the world for all of its people.

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NATURAL DESIGN

THE INSTINCT TO ALTER OUR WORLD

The discipline of design is deeply connected to culture as an amalgamation of current need and traditional knowledge. As such, the products of design are tied to cultural anchors which are rooted in the soils of specific traditions and values. Because the cultural experience—the way of life—changes so drastically from one place and time to the next, the impact this has on design is nothing short of profound. In the same respect, the styles and products of design are not only reflections of the cultural zeitgeist, but can also serve as catalysts which hold a mirror up to society, allowing it to change along with changes in cultural ideology. The styles of each of the world's cultures follows this evolutionary path. However, as disparate cultures interact, this path is altered. The future of design must take care to preserve local knowledge, rather than displace it, else we risk losing pieces of our very humanity.