The chapter "A Major Challenge" (from the book *THE IMAGE OF LANGUAGE* by Michael Winkler) discusses the philosophical implications of geometric visualizations of the alphabetic patterning encoded in the orthography of words (references and a project showing examples of the visualizations are included).

Introductory Note: The letter-sequences of the spelling of words have a design that was created unintentionally through the natural evolution of the collective choices of our linguistic ancestors. The patterning of this encoded design is revealed using a rigorous process of visual transliteration. A spatial model of the alphabetic system was created by constructing a circular configuration of alphabetic points (a circle is the only two-dimensional shape with no pre-existing point locations). The vowel/consonant distinction inherent in the structure of the alphabet creates the unique spacing of the configuration (the five regular vowels are spaced equally around the circle; the consonants are spaced equally on the arc-segments between the vowels).
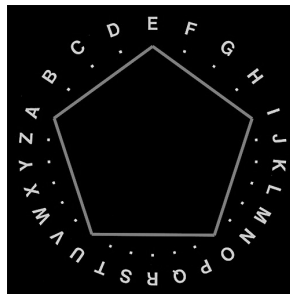
The configuration of alphabetic points is fixed. The process of generating the spatial models of the encoded patterns consists of simply inscribing lines from letter-point to letter-point according to a word's orthography or spelling. The resulting geometric variations are an isomorphic spatial model of the encoded pattern of a word's alphabetic sequence.

INEXPLICABLE BEHAVIORS OF THE APPELLATIVE PROCESS INVENT ALPHABET SEQUENCES OF REMARKABLE AFFINITY.

AXIAL, ABAXIAL, COAXIAL, REGULAR, IRREGULAR RAMBLE STRUCTURES UNSTRUCTURED WORDS INTO UNSHAPED SHAPES.

A CHAOTIC CORE CURLED AND BENT A FLAT EDGE TO ENVISAGE COINCIDENCE.

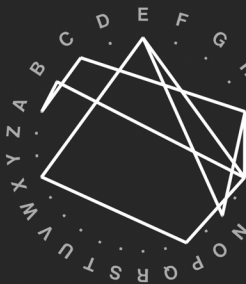ENIGMATICALLY AND UNINTENTIONALLY, "THE TRANSCENDENTAL SIGNIFIED" IS RECORDED WITHIN THE SIGN ITSELF.

LOGICAL CONTRASTS COINCIDE WHEN ARCHETYPES REASSEMBLE: 'CAUSE' RELATES 'CAUSE-EFFECT;' 'VOID' IS 'ALL-VOID.'

EVEN UNEVEN ASSOCIATIONS FULFILL INTUITIVE EXTENT — MYSTIFYINGLY DISCOMBOBULATED CORRESPONDENCES BEING CLEARLY DEFINABLE.

THE LEXICAL IMAGES EMBODIED WITHIN TEXT-READ EVOKE AND DEPICT THEIR ABSTRACT LANGUAGE.

ANCIENT SUMERIAN, EGYPTIAN, AND 'THIS-LANGUAGE' RECONFIGURE A NEVER FADING ATTUNEMENT—CHANGES RECUR.

NO AMBIGUOUS ALTERNATIVE CAN ARBITRARILY REPLICATE THE IMAGINED TOMORROW WHERE THOUGHTS FLOWER.

INEXPLICABLE BEHAVIORS OF

THE APPELLATIVE PROCESS

INVENT ALPHABET SEQUENCES

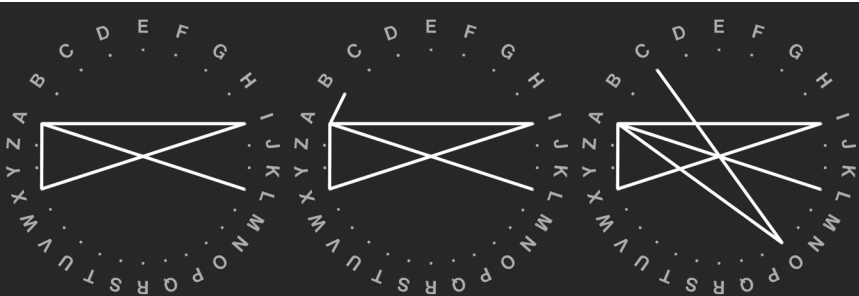OF REMARKABLE AFFINITY

AXIAL   ABAXIAL   COAXIAL

REGULAR   IRREGULAR   RAMBLE

STRUCTURES   UNSTRUCTURED   WORDS

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A

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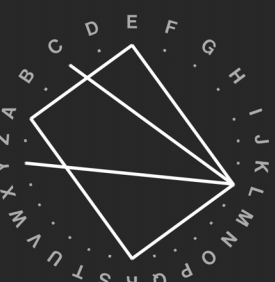
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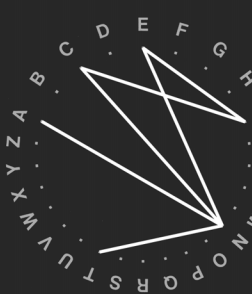
THEIR   ABSTRACT   LANGUAGE

ANCIENT SUMERIAN EGYPTIAN

AND THIS-LANGUAGE RECONFIGURE

A NEVER FADING

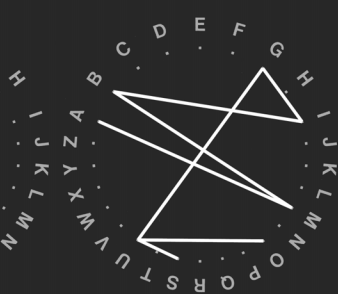ATTUNEMENT CHANGES RECUR

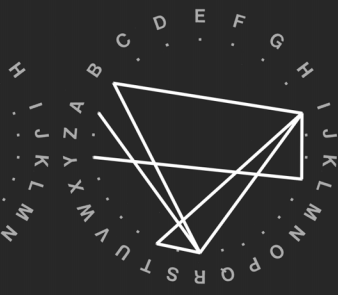NO   AMBIGUOUS   ALTERNATIVE
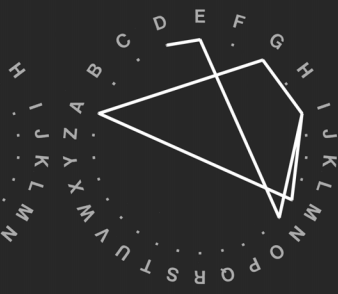
CAN   ARBITRARILY   REPLICATE

THE   IMAGINED   TOMORROW

WHERE   THOUGHTS   FLOWER

A MAJOR CHALLENGE

Facilitating the viewer/reader's awareness of the process isn't the only obstacle I face. My project isn't aligned with the current philosophical ideas that underlie the critical context and institutional priorities of contemporary art. In fact, my work is antithetical to the accepted philosophical point of view. It challenges a conception of the signs of language that is at the foundation of contemporary philosophy, linguistics, semiotics, and cultural theory.

The assumption that the signs of language are arbitrary was initially made over a century ago by a man named Ferdinand de Saussure (a founder of linguistics). He based his assumption on the observation that, other than a few instances of onomatopoeia and sound symbolism, there is no apparent connection between the sound of a word and its meaning. His assumption of the arbitrariness of signs was later applied to written language. Bouma Theory, a theory of how words are read, supported it. Bouma Theory is based on the belief that we read words by recognizing their overall shape or outline. Saussure's assumption of the arbitrariness of

signs came to the attention of cultural theorists primarily through the English translation of Roland Barthes' *Mythologies*, which appeared in the 70s (translations of his other writings became available in the 80s). Barthes believed the study of all signs, not just the signs of language, should be treated as a branch of linguistics. His idea of applying Saussure's theory of the arbitrariness of signs in a broader social and cultural context was further extended by Jean Baudrillard.

Interest in the ideas of Barthes and Baudrillard fostered a shift in contemporary art from a focus on signs to a focus on language-based process. As a result, there was an explosion of the use of language in visual art (if all signs are arbitrary, a text can be treated as being equivalent to an image). The focus on a language-based cultural philosophy was taken even further by Jacques Derrida. In his opinion, not only are the signs themselves not inherently connected to their meaning, the meaning they reference is not fixed. For Derrida, human experience is comprised of "a world of signs without fault, without truth, and without origin." He believed our conception of meaning happens as a result of each individual's processing of the relational dynamics of an all-encompassing 'Text.' This Text can be philosophically analyzed by *deconstructing* it (it's analyzed from the perspective of inherent inconsistencies, contradictions, and alternative readings). The possibilities for alternative readings are theorized to be infinite because they depend on the reader's personal experience.

Most contemporary art institutions and academic curriculums

embraced the shift from signs to language-centered process. It offered extreme flexibility in its application. It allows the context of contemporary art to be broadened to where virtually anything can be presented in an art gallery or museum. This radical change in the philosophical foundation of cultural theory was connected to art history primarily by linking it to Marcel Duchamp's action of exhibiting *readymades* (he placed commercially produced functional objects in art exhibitions). Duchamp challenged the established conception of what constitutes an art-object, subjecting its conception to an alternative reading (this alternative reading shows that infinite re-readings are possible—anything can be presented as a work of art). As a result, works of art were no longer required to be primarily concerned with visually based expressions of meaning.

The new cultural theory is problematic from the standpoint of my project. People who subscribe to the new theory have a mandate to treat any perception of a meaningful relationship between the spelled-forms and the words which generate them as purely accidental. If they don't, the entire philosophical justification for cultural theory is challenged (along with the foundation of linguistics and post-structuralist philosophy). If the spelled-forms are treated as evidence that the signs of language have some level of inherent association to senses of meaning they convey, the status of institutions will be diminished (and careers will be adversely impacted). Not surprisingly, most people in the fields of linguistics, philosophy, and cultural theory are not open to that possibility. Several curators and some experts in linguistics have admonished

me for even suggesting that the meaning perceived in the spelled-forms might not be entirely coincidental. I often respond by mentioning how a superficial observation, like Saussure's, was responsible for the assumption that the earth was flat. One linguistics expert countered with a different argument to support the arbitrariness of signs. He cited our inability to understand words in a foreign language without learning it, and that we have different signs in the various languages for the same thing.

Such an argument doesn't consider that the perception of meaning is mediated by influences which are both sensory and cultural. For example, it would seem like the French word *eau* and the English word *water* have exactly the same meaning. But they don't. The French conception of water during the time of their sign's evolutionary development was not the same as the English conception of water during the time of that sign's development—sensory experience of water was different in the region of each culture, and each experience of water was culturally mediated (we know cultural mediation occurs because it has been discovered that people perceive colors slightly differently when they have different words for colors in their language). Translation of literary works is so challenging because words in different languages never mean exactly the same thing.

Nevertheless, if the signs of language are not arbitrary, we would expect to see some similarities in how the signs of different languages are structured. In his book, *The Origin of Language*, Merritt Ruhlen provides some evidence that all the world's languages

are related. His ideas are controversial. But language experts freely acknowledge that many of the world's languages have signs that are clearly related. The similarities were first discovered in around 1780 by Sir William Jones. He was attempting to learn Sanskrit. Jones noticed the Sanskrit words for numbers like *three* and *five*, and concepts like *god* and *divine*, showed clear similarities to Greek and Latin words. After two centuries of further research, Greek, Latin, English, French, German, Spanish, Portuguese, Italian, Swedish, Dutch, Norwegian, Danish, Russian, Ukrainian, Polish, Czech, Slovak, Romanian, Bulgarian, Macedonian, Serbo-Croatian, Bengali, Hindi, Punjabi, Singhalese, Persian, Dard, Tocharian, Lithuanian, and several other languages have all been found to display features of a shared origin. The researchers never considered the possibility that the origin of the similarities might be the innate mechanism of perception we all have in common (the aspect of shared experience that makes language possible). Instead, they decided these languages must all have descended from the same earlier language. They postulated an entire culture based on that assumption.

A prehistoric Indo-European culture (existing at least 6,000 years ago) would need to have an extremely unlikely capacity for global travel, trading, and colonizing. Its influence would have to far outweigh that of the Roman Empire, since it had a much greater influence than Latin on the development of the world's languages. But since the experts insist the signs of language are arbitrary, their only plausible explanation for the similarity is the idea that all

these languages evolved from the same earlier language. The idea that the structural similarities resulted from independent choices that were rooted in the innate aspects of human perception and language-creation can't even be considered.

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Some suggest that my approach to creating transformations of the signs of language should be based on the International Phonetic Alphabet (IPA) rather than the Roman Alphabet. However, the IPA isn't really an alphabet. The conception of an alphabet is based entirely on written language. Alphabets evolved naturally over time in relation to the lexical structure of languages. The phonetic sounds of the IPA do not naturally exist as discrete elements of spoken language. In natural speech, each phonetic component is influenced by the phonetic components which both precede it and follow it. And the phonetic sounds overlap, they do not occur in linear sequence. The IPA expresses an entirely artificial segmentation of a spoken word.

The speech code is actually composed of continuously flowing chains of articulatory gestures. These vocalic gestures result in expressions of phonetic sound which vary from person to person, and from one linguistic context to another. The phonetic sounds of spoken language are related to vocalic gestures in a manner which is somewhat similar to how an object's shadow is related to its shape. Perceptual and environmental factors can influence the na-

ture of the correspondence. We can usually tell the difference between the shadow of a flower and the shadow of a person, but both shadows can vary greatly depending on factors such as the source of light, the position of the viewer, and the physical features of the environment.

The letter-characters of written words were originally invented to represent specific phonetic sounds, but they became an alphabet through the natural evolution of written language. The quote below is an excerpt from the article, "Finds in Egypt Date Alphabet in Earlier Era" in *The New York Times* on November 14th, 1999:

"'It was the accidental genius of these Semitic people who were at first illiterate, living in a very literate society,' Dr. McCarter said, interpreting how the alphabet may have arisen. 'Only a scribe trained over a lifetime could handle the many different types of signs in the formal writing (Egyptian hieroglyphs). So these people adopted a crude system of writing within the Egyptian system, something they could learn in hours, instead of a lifetime. It was a utilitarian invention for soldiers, traders, merchants for their own practical purposes.'

The scholars who have examined the short Wadi el-Hol inscriptions are having trouble deciphering the messages, though they think they are close to understanding some letters and words. 'A few of these signs just jump out at you, at anyone familiar with proto-Sinaitic material,' said Dr. F. W. Dodds-Allsop, who teaches at the Princeton Theological Seminary in New Jersey and is a specialist in the languages and history of the Middle East. 'They look just like you would expect.'

The symbol for M in the inscriptions, for example, is a wavy line derived from the hieroglyphic sign for water and almost identical to the symbol for M in later Semitic writing. The meaning of some signs is less certain. The figure of a stick man, with arms raised, appears to have developed into an H in the alphabet, for reasons unknown."

The Semitic creators of the letters of the alphabet based their invention on crude versions of Egyptian Hieroglyphs for words having specific phonetic sounds. They used the glyphs to represent the phonetic sounds in the Semitic word they wanted to convey. The borrowed glyphs were assembled in a sequence to show the overall phonetic sound of the Semitic word. The collection of glyphs gradually developed into an alphabet, and that original alphabet has continued to evolve over thousands of years through various applications to a myriad of languages (our letter *M* still resembles its original hieroglyphic image of waves, but we now use a flipped version for the first letter of *Water*). The components of the signs of language originated in reasoned invention, but the invention was modified through the natural evolution of language (until standardization was institutionally imposed).

The orthography or spelling of some modern English words is actually for words in Middle English, Old English, French, Latin, etcetera. But that doesn't change the fact that all our written words are signs for actual words. I use the same configuration of the Roman Alphabet when I produce works in other Romanized languages. From the perspective of my project, it makes no difference if the word's spelling is from an earlier language or a foreign language.

When the Oxford English Dictionary was being created (1857-1928), its editors researched the various spellings of words. Phonetic accuracy was not the deciding factor in the standardization of spelling (spoken language had already evolved to include

some words that were phonetically out of sync with the written version of the word). The dictionary's editors included the most widely used version of a word's spelling, even if it wasn't the most phonetically accurate. All efforts to reform English spelling to make it more phonetically accurate have failed. This could have something to do with recent discoveries in how written and spoken language is actually processed.

As previously mentioned, the fixation on the spoken sound of the word is misguided (the fundamental elements of the speech code are vocalic gestures, and the relationship between the vocalic gestures and phonetic sounds is not consistent). When Saussure assumed that the signs for words are arbitrary, he was comparing the meaning of words to the wrong aspect of the phenomena of speech. Perception of the speech code is an active area of research. Many aspects of the process are not yet fully understood. However, a similar discovery was made concerning the signs of written language.

Advances in eye-tracking technology have shown *Bouma Theory* was incorrect. We don't read words by their overall shape or outline. We actually decipher the sequencing of the individual letters. The new theory is called *Parallel Letter Recognition*. When we become proficient readers, we use a different process than when we learn to read. At the initial level of recognition, the visual features of the individual characters of the letter-sequence are all perceived simultaneously. The individual letter-forms are recognized at the next level of recognition. The order of the letters comprising the

sequence is processed at the deepest level, the level of word-detection.

The symbols for the letters have very little to do with language. That is why the alphabet can be presented in a visually diverse variety of uppercase and lowercase typefaces, or as handwritten script, or even as flashes of light or intervals of sound in Morse Code, or as the tactile letter-forms of Braille. Our printed symbols for letters are highly efficient in terms of their ease of visual perception. However, we could learn to read any distinctly recognizable set of 26 characters as letter-forms. It is the sequencing of the letters in relation to their specific roles within the lexicon of the language that conveys the word. There are 829,000 words in the Oxford English Dictionary, and they're all conveyed by different arrangements of a set of only 26 symbols. And the same set of symbols can convey the millions of words in all the languages that can be written using the Roman Alphabet. The important point is, a letter's identity is not defined by the symbol used to convey it. Each letter has a specific identity that is based on its relative position within the alphabetic system (its position is tied to a particular lexical function). Some letters have broadly apparent functions besides their role within specific words. For example, an *S* at the end of a letter-sequence pluralizes a huge number of words, *N* most often occurs in prefixes that reverse meaning (un-, non-). It's noteworthy that *E*, the letter that occurs most frequently in words, moved to the top (0° or 360°) when I rotated the alphabetic configuration to balance its design.

In the image below, we know which letter is missing by the natural order of the sequence, but we don't know what the missing letter looks like.

These recent discoveries may explain why the spelling of words does not always accurately reflect the phonetic sequence of the spoken word. When an alphabetic version of a word is first created, it is usually based primarily on phonetic correspondences. But the primary factor affecting the evolution of written language is readability. As previously discussed, proficient readers do not read words based on their phonetic correspondence to spoken words. The evolution of written language is driven by the need to process the recognition of alphabetic sequences efficiently. The efficient processing of the alphabetic sequence needs to be effective in re-

calling the signified meaning of the spoken word; however, as discussed earlier, spoken words are based on the recognition of vocalic gestures that can be conveyed by a variety of different phonetic sounds. To insure efficient readability, the spelling can be based on any variation of letter-sequencing that retains the underlying neuropsychological attachment to the specific meaning. Readers will have a natural tendency to reject any changes in the original spelling of a word if the existing spelling is easier to read than the new spelling. The original spelling already has a naturally established association to the word's meaning, and that association is continually reinforced in the context of its use in written language. If we make the spelling more phonetic, it may make the word more difficult to read. The word *spacial* is more phonetically accurate than *spatial,* but the less phonetically accurate spelling is preferred because it prevents it from being misread as the more commonly occurring word, *special.* The recognition of vowels is prioritized in spoken language, but the recognition of consonants is prioritized in written language (because they make up the key differences in the perception of written words). English spelling, as it stands, is extremely successful in giving our language a readable form (the average reading speed for an adult is 200 to 300 words per minute).

It is possible for a modified, or even entirely different, physical expression of the sign for a word to be 'functionally' the same sign for the word. As explained earlier, the sign resides entirely in the sequence's patterning, not in the physical components that transmit the sequence. Some letter-characters of the Roman Alphabet

were used to represent different letters in the past. We could reassign our current letter-characters to represent different letters and still learn to read the language. The signs of written language don't have any inherent physical manifestation. It's important that each letter is positioned in a proper alphabetical relationship correlated to the language's underlying lexical patterns, but it doesn't matter what physical forms are used to convey the alphabetic patterns (as long as the letter-forms are uniquely distinguishable from one another, and mutually agreed upon). Since the sign for a written word resides entirely in the sequencing of a properly interrelated set of alphabetic components, and those components can be presented in any physical form, it's possible that spoken language is similarly structured at an underlying level. Looking at the physical differences between written and spoken manifestations of the sign may not tell us how the different signs for the word are related.

If we could discover how the inherent structure of the process which defines the formation of the vocalic gestures is organized, we could compare it to the structure of the alphabetic system. It's possible we might discover an underlying correspondence. The vowel/consonant distinction is important in written language, although the phonetic differences are functionally irrelevant. Perhaps the 'pentagonal' relationship of the regular vowels is not rooted in their phonetic difference from the consonants. The vowel/consonant distinction could arise from an underlying structural feature of the innate mechanism of meaningful awareness. It's noteworthy that the genetic code (the code which establishes, not only the de-

sign of the Central Nervous System, but the design of all the mechanisms of awareness) is illustrated using letter-sequences. Furthermore, its molecular structure is a spiral of 'pentagonal' forms (the pentagonal structure of the double helix is visible in an axial view).

The signs of written and spoken English are undoubtedly related at a fundamental level because, despite having evolved based on factors other than phonetic sound, a phonetic correspondence is still fairly strong. About 50% of all English words can be spelled accurately through an understanding of symbolic correspondence between letters and phonetic sounds, and another 36% can be spelled accurately except for one phonetic sound, most often a vowel. According to the *Cambridge Encyclopedia of the English Language*, only about 3% of English words have a spelling so irregular that it has to be learned by heart (we retained most of these spellings from Old English).

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Now we come to the big question. How could our linguistic ancestors have formulated structural associations influenced by an awareness of senses of meaning without having any intention of doing so? The signs for words did not originate in any kind of plan, so any meaningfully related patterning encoded within the letter-sequence had to be formulated unintentionally.

Research has shown that most of the decisions we make

throughout our lives, including the most important ones, are ultimately based on intuitive rather than rational criteria. Intuitive processes have access to all levels of consciousness. When an awareness of the meaning associated with a sign for a word is not being actively recalled or contemplated, it is still neuropsychologically accessible within the realm of intuitively formulated associations. During the natural evolution of a word's sign, it was either altered or reaffirmed every time it was used. The version of the word's spelling most widely accepted became the standardized version in the dictionary. The current spelling of words is, at its origin, an intuitive product of a collective consciousness. It may have arisen in a different culture from which the word was borrowed, but nonetheless, it naturally evolved from intuitive choices that were mutually affirmed. *The choices involved in formulating the vocalic/alphabetic codifications were made in the context of a collective desire to express specific senses of meaning. Those senses of meaning were accessible in the realm of intuitive awareness at the time the intuitive choices were made or affirmed.* The vocalic sequence and related alphabetic-sequence had to *feel right* in relation to the sense of meaning being recalled. This basic idea can be taken to a more radical extreme. The following quote is from M. L. von Franz in *Man and His Symbols* concerning the ideas of Carl Jung:

"If we call something 'rational' or 'meaningful' in our conscious mind, and accept it as a satisfactory 'explanation' of things, it is probably due to the fact that our conscious explanation is in harmony with some preconscious constellation of contents in our unconscious.

In other words, our conscious representations are sometimes ordered (or arranged in a pattern) <u>before</u> they have become conscious to us."

The sciences exist because Nature's design is structured in a way we can understand. The reason we can understand natural processes is that the human mind is structured using those same processes. Contemporary philosophers have attempted to disconnect our ability to think logically from the logical relationships we perceive in the world. But it's illogical to believe such a precisely mirrored reflection isn't a feature of mutual design.

The rational features of human awareness aren't the only features aligned with the natural structures of our environment. We couldn't survive if our sensory mechanism wasn't in sync with the physical world. Sensory attunement to the structure of materiality is necessary to the survival of all living creatures.

In contemporary philosophy, the prevalent view of the human mind is that it is a blank slate with no inherent structural dynamics. This conception conflicts with what we've learned happens to the mind when it is blank. Sensory deprivation induced by physical circumstances, drugs, illness, or certain types of head injuries causes the Central Nervous System to 'spontaneously' produce *entoptic forms.* These *s*imple forms (dots, lines, grids, circles, zigzags, spirals, meanders,…) are sent to the optic nerve when no sensory information is being received by the brain (we don't choose to gaze at these forms; their appearance arises because of an innate process). Presumably, the nervous system is reversing the process

of sensory awareness to see if the sensory mechanism is functioning properly. The entoptic forms may reflect the basic structural components the brain uses to decipher the sensory field into the recognizable forms which comprise meaningful experience. If no sensory information is received for an extended period, the human mind ceases to function properly (it can no longer formulate meaningful experience).

It's interesting to note that our letter-characters have evolved to resemble entoptic forms: *O* is a circle, *S* is a meander, *E* is a partial grid, lowercase *e* is a line within a broken circle, *i* is a dot and line, etcetera. It makes sense that our letter-characters resemble entoptic forms (the design of typefaces is driven by the goal of making the letter-characters easily recognizable—this would naturally lead to the creation of characters which mirror the fundamental components of visual perception).

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As mentioned earlier, recent research suggests spoken language is based on recognition of vocalic gestures. Gesture also sets the stage for language development. Before learning to use language, children make gestures to indicate object recognition (reaching for something or pointing at something). The next stage of development is based on using gestures to mimic actions (peekaboo). A community of deaf children in Nicaragua spontaneously developed their own fully syntactical sign language from basic gestures.

In Chinese ideograms, the overall image isn't the sign; what is read is a sequence of strokes taken from a basic alphabet of calligraphic gestures.

Michael Corballis has made a strong case for the gestural origins of language. He discusses how "human language may have evolved from manual gestures which survive today as a 'behavioral fossil' coupled to speech." Corballis cites various scientific studies to build his case, but one by Susan Goldin-Meadow and her colleague Jana Iverson is particularly interesting because the research involves the congenitally blind. Golden-Meadow and Iverson "observed that 12 blind speakers gestured as they spoke at the same rate as a group of sighted people, conveying the same information and using the same range of gesture forms! (For example, a tilted C-shaped hand in the air was used to indicate that a liquid had been poured from a container.) Remarkably, the blind people would gesture while they spoke regardless of whether the listener was sighted or not, suggesting that gestures are tightly coupled to the act of speaking."

In 2000, a group of scientists (Zeffiro, Eden, Jones, and Brown) concluded that "reading appears to depend on normal functioning of the system for motor control of articulation that is required for successful mapping of visual and auditory representations into articulatory gestures."

Drawing the lines to create a spelled-form is essentially a process of creating a geometrically patterned gesture. Spelled-forms transform the sequences of individual alphabetic compo-

nents into continuous gestural forms. They create an expression of the code of written words that is very similar to the continuous articulatory gestures of the speech code. Sometimes a spelled-form appears more meaningful when the movement is illustrated.

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AVOID

WAVERING

FLIP

FLOP

ROLL

WOBBLE

REVOLVE

ORBIT

CIRC-

ENCIRCLE

The very foundation of linguistics and contemporary philosophy is challenged by any suggestion that a particular sense of meaning unintentionally influenced the sign used to convey it. The ancient belief in an inherent relationship between the signs for words and their meanings was abandoned long ago. Few professionals in the fields of linguistics and philosophy will even consider the idea of any inherent connection between the meaning perceived in a spelled-form and the word that generated it. But let's look at the evidence.

The process of transformation is as rigorous as any scientific approach to creating models of natural phenomena. The alphabetic configuration is based on a circle (the only two-dimensional shape with no pre-established point locations). The vowel/consonant distinction inherent in the alphabet's structure is the only organizing factor involved in determining the design of the configuration. The alphabetic configuration is fixed (it doesn't change from word to word). And the process of generating the forms consists simply of drawing lines from letter-point to letter-point according to the sequence of a word's spelling. *The fact that all variations in the imagery of the spelled-forms result entirely from the spelling of the words is indisputable.*

We can easily prove some kind of structure is present. The word-generated forms can be compared to forms created by randomly inscribing lines in a circle of 26 points. However, we have no visual references to assess whether the spelled-forms of most words illustrate something inherently related to a sense of their

meaning. For example, imagine trying to evaluate the spelled-forms of the words in the simple question: *How are you feeling to-day?*—we must base their assessment on purely subjective responses. We can't prove scientifically that we're seeing something related to a word's meaning, even if it appears to be self-evident that we are.

On the other hand, an argument that the meaning we're perceiving is purely accidental doesn't seem plausible. Perceptions of meaning in the spelled-forms are emerging from thematic relationships. Not just the thematic oppositions like *Even* and *Uneven* or *Regular* and *Irregular*. The patterning of the forms results from the entire sequence of letter-relationships—*each letter in the sequence was a choice (despite not being made intentionally).* If we perceive meaning in the spelled-form of a word with 15 letters, the image is arising from a chain of 15 choices. A sequence of 15 accidental choices working together to create a descriptive meaning is nonsensical.

DISCOMBOBULATED   CORRESPONDENCES
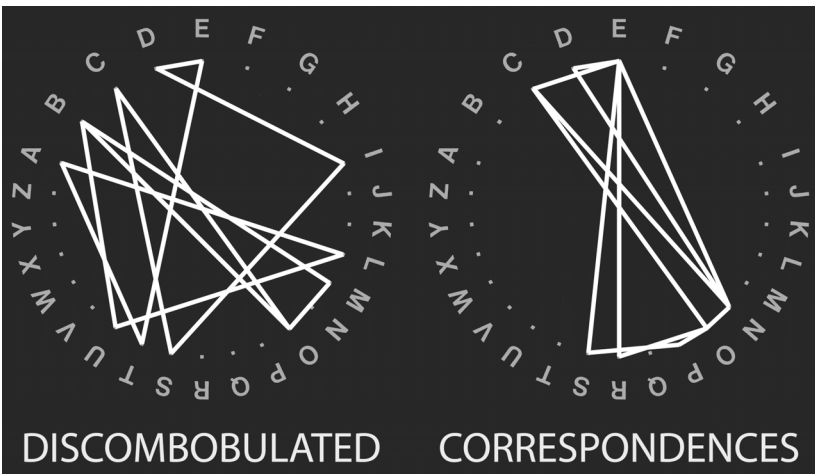
I will acknowledge that there are some spelled-forms I don't find meaningful in relation to the words. However, some forms didn't appear meaningful until I viewed them over time. An example is the spelled-form *Evoke.* Initially, the image didn't seem to relate to the word's meaning. But when I looked at it for an extended period, an imaginary line appeared between *E* and *O.* The imaginary line changed the two-dimensional figure into a three-dimensional pyramid. The point at *O* became the nearest corner of the pyramid's base, and the point at E became its top. After seeing an edge created by the imaginary line between those points, it is difficult not to evoke it when I look at the form.
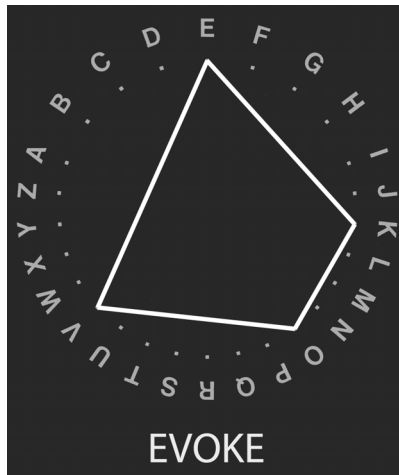
Some spelled-forms do not appear to be meaningful on their own. But when they're presented with the spelled-form of another word, a meaningful connection becomes apparent.

LETTER   SEQUENCE   LETTER-SEQUENCE
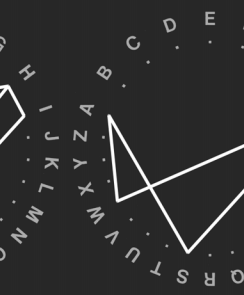
ME-WE-OUR   THIS-THAT   WAS-IS-WILL
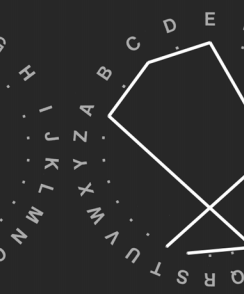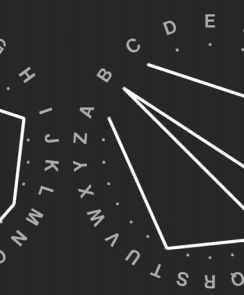
TIME   SPACE   SPACE-TIME

BOMB   ATOMIC   ATOMIC-BOMB

Inconsistencies in the meaning expressed by the spelled-forms do not disprove the existence of an inherent relationship. What is being depicted is not visual in origin. The origin of the choices which create the patterning is neuropsychological. The choices were not based on the desire to create meaningful imagery. We may be seeing patterns created by a process of organization that is taking place at a deep level. The spelled-forms of words having meanings associated with the features of visual phenomena are often striking (*Axial, Regular, Design, Shapes, Structures*, etc); however, their imagery could be a byproduct of relational interactions associated with the innate capacity to formulate, recognize, and/or recall their meanings. The spelled-forms of words for objects don't normally depict the image of the object, possibly because the name is often conceptually associated with the object's function, not its visual recognition. Named objects can have different appearances.

Now, lets look at the evidence that the signs for words are arbitrary. Actually, there isn't any. Saussure's assumption is based on an inaccurate assessment of what constitutes the sign for a word. At this point, there is no evidence whatsoever to support the idea that the signs of language are arbitrary. It must be acknowledged that the question is unresolved.

My view of the origin of the meaning in the spelled-forms is rooted in the belief that language (the foundation of culture) is ultimately a product of Nature. If we think of human consciousness as a creation of Nature, and we accept that everything in the universe is meaningfully patterned, the natural source of meaning

would have to be innately present within us. If this is true, the meaning in the spelled-forms is emerging from innately motivated tendencies that arise from transcendental foundations of meaning that underlie the mechanism of human experience.

I have no argument with the idea that coincidence is responsible for the meaning in spelled-forms. *Coincidence* is just another way of saying the presence of meaning is inexplicable (its definition is, "occurrence together 'apparently' without reason." I subscribe to the Jungian idea that all coincidences arise from the underlying synchronicity of the universe.

My ideas and opinions about the spelled-forms influence the way I develop the works in my project, but I try to respect the mystery of their origin. If it were not for the fact that the established view of the signs of language, and the current cultural theory derived from it, negatively impact my project, I wouldn't have felt the need to engage in many of the previous technical and philosophical arguments. As with all works of art, every viewer/reader will experience the imagery and its relation to the words differently. My goal is simply to get the work seen, and insure it is approached with an open mind.

All Words and Non-Words

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AN ARTIST'S MEMOIR

Michael Winkler