Taking "Visual Language" Literally:
Beyond Literacy towards a 21st Century Design Curriculum

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Abstract

The ways in which we currently teach visual design is largely grounded on a sound analogy but a faulty model. The analogy is that visual communication constitutes a language. However, the importance of this insight has remained largely unrealized because educators have unduly focused upon reading literacy to provide many of the pedagogical models for design curricula. Taking the concept of "visual language" seriously means reexamining the institutional history of design instruction, and the consideration of alternative paradigms based on language acquisition.

Contemporary visual design curricula are largely based on a distinctly American vocational interpretation of Bauhaus formalism and European structuralism, which were, in turn, reactions to the academic traditions of the 18th and 19th centuries. Academic instruction was rooted in drawing and observation from nature. These skills were ill-suited for teaching the non-representational design principles needed for the production of mass produced consumer goods and the burgeoning mass media. In addition, the academy's privileged modes of representation: allegory, personification and historical narrative were increasingly out of step with the directions that the contemporary fine arts were taking at the turn of the last century.

In reaction, the Bauhaus ideal championed by Walter Gropius in 1919 desired to erase the distinctions between fine art and craft, and sought to establish "a new guild of craftsmen" (Wingler 1969, p.31). Here emphasis was placed on teaching abstract design, formal compositional principles, and the practical applications of design for everyday life. Students were encouraged to innovate rather than copy, and an increasing value was placed on creativity over convention. However, even though the Bauhaus was instrumental in the institution of these progressive practices, its vision of the future, at least initially, lay in the past. Central to its mission was, in fact, a revival of many medieval practices: unifying all the arts under the aegis of architecture, ("cathedral culture"); reinstitution of artists guilds; and, as a promotional brochure proclaimed, "…a return to handicraft, for there is no such thing as a 'profession of art'" (Wingler 1969, p. 31). After 1922, the focus of Bauhaus teaching and philosophy shifted dramatically towards industrial production. But the tensions created by the clash between Gropius' initial conception and the school's later direction caused much confusion and division within the Bauhaus and supplied its critics with ample ammunition.

The Bauhaus experiment was slow to catch on in the United States. This in spite of the fact that many former Bauhaus faculty such as Josph Albers and Gropius himself quickly took up teaching positions upon emigration to the U.S. in the early to mid '30s. Certainly our preoccupation with WWII was a major factor, but it was also a product of a general uncertainty among American institutions as to the role that the arts should play in higher education. Although American universities were unsympathetic to political tenor of Bauhaus experiment, its emphasis on abstract design, the codification formal principles based on "objective" analysis, and the practical application of design resonated with the capitalist spirit, civil mindedness and vocational impulses of American state-funded universities, many of which had only years earlier been agricultural institutes, vocational schools or teaching colleges. The absorption of German expatriates and their pupils into the professorial ranks ensured the Bauhaus' lasting influence on design education.

In the meantime, the academic tradition had not just withered away. Its teaching methods based on the observation and description of nature, and its humanist aspirations, still held considerable sway. Contemporary design curricula continue to reflect the uneasy balance struck between these two pedagogical approaches, the most obvious example being the requirement, found at most American universities, that mandates design students to take at least a minimum of drawing "studio" courses to compliment their design or "lab" courses.

To further complicate matters we must add a third development that would have a profound effect on how design is currently taught. The nineteenth century fascination with etymology had led to the development of the science of linguistics. Linguistics was soon subsumed into the larger study of semiotics, (the study of all sign and representational systems, including but not limited to spoken and written languages). Linguistics, in turn, gave rise to structuralism, the belief that objects should be analyzed in terms of their systemic relationships rather than as positive entities. Structuralism begat poststructuralism which begat deconstruction, which begat postmodernism…

The upshot is that this "New French Left" thought percolated into every field of study. The visual arts were particularly affected.

There had always been the intuition that visual design was a visual language, a suspicion reinforced and institutionalized by the formalist "elements and principles" approach pioneered at the Bauhaus. The influence of the New French Left during the 50's and 60's was so ubiquitous that by the early 1970's this suspicion had become a universal *de facto* assumption: visual design is a language-- a semiotic system with its own complex system of syntax, pragmatics and semantics. Having recognized the similarities between spoken and visual language, it took very little for American institutions to follow their vocational impulses mirroring in design curricula many of the pedagogical methods that had been developed to teach reading literacy. The process of formalizing and codifying visual design begun at the Bauhaus was taken up in earnest and greatly elaborated in the United States.

A point of clarification is needed. The Bauhaus is usually identified as the paragon of formalist design education. It is assumed by many that its instruction was highly structured, and codified. Close inspection of the actual curricula of the Preliminary Course reveals a more complex reality. By today's standards, the curriculum was rather unstructured and experiential, especially during the first half of the Bauhaus' existence. When one examines the existing photos of student work and classroom activities, or reads curricula notes or first-hand accounts from Bauhaus students (Wingler, 1965, Dearstyne 1986, and Itten, 1975), one does not often encounter anything even resembling the formalism of the "elements and principles" approach in the Bauhaus Preliminary Course. This is especially true of the courses taught by Itten and Klee whose approaches were more experientially, materially and psychologically based. After the first seven years, instruction in the Preliminary Course as taught by Albers and Kandinski did become increasingly structured and formalized, but even Albers favored a formalism that had his students deduce abstract principles from radical experimentation with materials. Perhaps the misapprehension is due to the fact that two of the most visible Bauhaus alums, Mies van der Rho and Joseph Albers shared a reductive and regimented aesthetic that was evident in their own work. While it is true that many of the formalist methods that would eventually form the core of design education were introduced by Bauhaus faculty, it took American universities with their empiricist spirit and vocational roots to turn it into a system: the regimented and linear "elements and principles" approach which mirrors in its structure the basal method that has been used to teach reading for well over one-hundred years.

The way reading had been taught in the U.S. had changed little since the founding and centralization of public schools in the 1880's. The basal method, involving a reader and workbook, is still the most common method of instruction. This system called for a strictly linear progression of passive lessons followed by active exercises each designed to isolate, define, classify and drill some basic element (the letter "c" for example), to combine it with other previously isolated elements ("c-a-t"), but only in prescribed ways, (never "c-t-a"), and to move on to the next level of complexity only when the previous level had been "mastered", meaning that student responses were anticipated and predictable. Little attention was paid to expression, (What would you like to write?), or functional motivation, (What would you like to read?), until well into the process, if at all.

During the 1960's and 70's the preferred method of design instruction became increasingly indistinguishable from the basal method. Courses were developed that began by individually presenting each design element such as point, line, shape, or value in turn. Each was singled out and defined. Its effects/characteristics were passively analyzed (by lecture and/or textbook) and then actively utilized by the student in tightly controlled exercises that would yield highly predictable results. As students advanced along this linear progression and the exercises became increasingly complex, the students received more freedom to arrive at novel solutions. At the advanced stage, practical "real world" design problems were introduced as the culmination of their vocational training. Few, if any, of the contemporary design curricula currently in use rigidly adhere to this literacy model. As detailed earlier, visual design programs are based on a confluence of the academic, Bauhaus, and vocational paradigms in addition to the literacy model. But to this day, it is still the literacy model that forms the pedagogical backbone of nearly all of the large university design programs in the U.S.

It is surprising that the conviction that visual design constitutes a language should have led design instructors to even more firmly embrace the literacy model, when literacy, the ability to read and write, is only a single and relatively late aspect of language acquisition and proficiency. A four-year-old displays descriptive, expressive, and creative uses of language, often with alarming sophistication, all without the benefit of reading or writing, of knowing a single vowel or being able to diagram a sentence. Most children could not define the majority of the words in their vocabulary. And yet, an inordinate amount of

time in beginning design courses is spent isolating, defining and dissecting. At least on an institutional level, it seems that we have failed to notice that learning to read is not the same as learning a language! Language acquisition proceeds along lines that are cognitively, functionally and methodologically divergent from the ways we typically teach reading and writing.

Literacy, at least in its narrowest definition as the ability to functionally read and write, is not concerned with language acquisition at all. Its focus is to *translate* an auditory system of phonic differences into its visual equivalent, and vice-versa, to turn the letters on the page into their spoken representatives. It is precisely upon this distinction between a translation and a language that my argument rests. Do we want our design students to be "translators", or "native speakers"? Do we want them to translate their thoughts and experiences into visual forms or do we want them to *think visually*? I might be content with the former, but I would prefer the latter. Pragmatically speaking, I have found that by modifying the "elements and principles" approach to more fully integrate elements of language acquisition models into my design curriculum, my students learn faster, their projects display increased levels of visual sophistication, and they seem more at ease discussing and critiquing each others work.

These experiences in the classroom have led me to the conviction that if we are to take the notion of "visual language" seriously, instructors need to look at how it is that we actually acquire language, and examine the ways in which cognition is linked to these processes and to language proficiency. Alternative paradigms for design instruction can be developed based on what the disciplines of developmental psychology and semiotics can tell us about the ways in which children learn to use and think their language.

In order to realize what the impact that this approach might have upon foundations design curricula, it would be useful to identify some of the more important aspects of language acquisition and hint at their applicability in beginning design classrooms.

Language Acquisition Is Non-linear

Language acquisition in children does not graph a nice linear path that runs from an infantile null point to a three-year-old's proficiency. The actual brain functions involved are far from being understood, but a general picture has become apparent. Experience and more formal learning activities inform co-reinforcing developmental processes. These are all at work simultaneously, and as the child develops others are added with clockwork regularity. If graphed, a child's linguistic progress looks more like an exponential then a linear equation. One of the most salient points for instructors to note is the fact that although initially children seem to progress from simple to complex, there is no evidence to support that their exposure to, or their instruction in language should therefore likewise proceed apace from the simple to the complex. On the contrary, children who are consistently exposed from the earliest stages to sophisticated examples of "adult" language rather then simplified forms ("baby talk") acquire language proficiency significantly faster, and the positive effects of this "head start" seem to persist well into their school age years.

The insight that design instructors can take from this is fairly straightforward. If beginning students are provided with sufficient curricular support and carefully crafted assignments, they can benefit from tackling projects that include sophisticated visual and conceptual issues right from the very start.

Language Acquisition Is Informal

Three of the most important processes by which children learn language are through *immersion*, *modeling* and *play*. In certain quarters these are still referred to as "passive" learning strategies. Adults may sense this passivity in that they are not consciously attempting to instruct, but the learning that occurs on the part of the child is in fact some of the most dynamic and multi-valenced. In pre-verbal children consistent exposure to environments in which language exposure is coupled with rich, varied experiences that include interaction with peers and adults are directly correlated to language proficiency.

Structured learning involving lecturing, textbooks, and a logical curricular structure are indispensable for design instructors, but we must look carefully to see what kinds of thinking and practice these structured activities model. Do they unnecessarily encourage our students to distinguish thinking from doing, or to separate form from content? Do they privilege the written and the spoken over the sensed and seen? Are there sufficient opportunities for students to actively learn from each other apart from the critique? Have we actually given them the tools, techniques and the license to engage in constructive forms of wholesale experimentation, creativity and play? Or as is often the case, have we simply *expected* creativity as a natural consequence of their being art students and this being a design course?

Undoubtedly, immersion, modeling and play take place in all design classrooms, and I don't mean to imply otherwise. However, it is important for design instructors to assess what is being subconsciously modeled and reinforced by the curricular structure and to determine whether or not they are taking full advantage of the opportunities that these informal learning strategies can offer. How the curriculum

models behavior is critical. Ultimately, students are more likely to do as we do then to do as we say.

Learning Follows Latency

Early in development there is a latency period in which a child's comprehension of speech far outstrips their ability to actively use language. This is sometimes described as an apprenticeship. During latency, most meanings that are created in the mind of the child are superficial, emotional and associative, with language functioning more like another sense than as a tool for thought. It appears as if these kinds of reflective and affective links must be forged in the brain before creative expressions of language can occur in earnest.

Design instructors might consider this latency period as corresponding to the first twenty years of our student's lives in which they will have been exposed to more then 20,000 hours of television, according to Neilson Media Research (1993). This can be thought of as the equivalent of a ten-year, 40 hours-per-week apprenticeship in visual design. Granted, this apprenticeship has been a largely one-way affair, resulting in a latent "dash board" understanding of visual language. Most students understand images in the same way that they understand the family car. They all know what the car will do when they shift it into "drive" even though most have little real knowledge of the how: the things actually going on under the hood. Similarly, students are intimately aware of the effects of visual images even though they may not have pondered the formal characteristics of design, editing and juxtaposition that made these effects possible.

Clearly then, our design students are not visual infants. They have complex, albeit latent understandings of the structure and logic of visual language. This insight can be liberating for the introductory design curriculum. Instructors don't have to start from scratch. Rather than proceeding to construct a scaffolding of design basics upon a level base of assumed unfamiliarity, instructors can instead develop curricula designed activate student latency. This approach would focus on providing students with the critical apparatus that allows them to take advantage of what they already know about design and to apply this knowledge to create more sophisticated and innovative solutions to visual design problems.

Functional Motivation Fuels Language Acquisition

Simply stated, children learn to speak because they have something to say. Put in these terms, it's not particularly nuanced, but it cuts to the heart of the matter. Children seem to have an innate need to understand and to be understood. For them language acquisition is not an academic exercise. However, for our design students it is, quite literally, an academic exercise. Therein lies the problem of motivation. The challenge then becomes: Can instructors tweak content and create assignments to replicate in young adults a similar psychological desire to learn/use visual language so prevalent in the way that children are motivated to learn/use spoken language? How can instructors develop design assignments to include functional motivation so that projects are *perceived by the students* to be important new ways of understanding themselves and the world, and of expressing that understanding?

The Fallacy Of "Born Literalness"

One popular conception of language has it that as children to learn to speak, they begin by associating the words that they hear with objects or clearly perceivable events in the world around them. Only later do they begin to enlist these "outside" words to give voice to their interior world of feelings and thoughts. In this scheme, words are born literal and then, primarily through the mechanism of metaphor, language comes to be applied to non-sensory "objects" such as emotional contents, abstract concepts or poetic expressions. The difficulty with this apparently sensible hypothesis is that it presumes that these sorts of non-sensory concepts already pre-exist in the mind of the child and that they are simply awaiting the proper word association to find expression. In fact, these are exactly the kinds of mental contents that *cannot* exist until language makes them possible.

For example a six month old may be hungry, but she does not possess a clear concept of hunger that allows her to distinguish it from other psychological tensions or forms of emotional distresses that might just as well be caused by gas, tiredness, physical pain, etc. For her, "hunger" as such comes into existence at the same time as the word "hungry". (There is nothing magical about the word; "naa naa" would work just as well.) Through repeated pairing with experiences, the word comes to function as a place holder, pivot point and a focus for those internal sensations that are particular to having an empty belly, and by extension, to any external sense contents and experiences that she has come to associate with that particular kind discomfort or its relief. The word functions as a nexus that internal and external sensations can cluster around. This is the very beginning of what might properly be called thinking, as we adults understand it. It is language that molds the undifferentiated, buzzing cacophony of infantile experience into thought. From their very inception words have both external/literal and internal/abstract meanings.

Visual language is no different. Images certainly have literal descriptive content, but their true impact lies in their "abstract" "non-visual meanings. Formal

design projects that defer issues of meaning until later in the semester tutor students in the habit of deploying design elements and principles to *illustrate* concepts. By contrast, welding non-visual concepts to concretely visual forms from the very beginning, like we did as nascently lingual children, encourages students to *think visually.* Admittedly, this is a fairly nuanced distinction, but I believe that it is an important one that can help to explain different levels of students' visual language proficiency and sophistication.

Language Acquisition Relies More on Semantics And Pragmatics Than On Syntax

Semiotics divides language into three main elements. Semantics deals with meaning. Pragmatics refers to the context in which a communication is made, and syntax is used to describe how the message is internally structured. Studies seem to indicate that in the earliest stages of language acquisition children rely more heavily on semantic and pragmatic features than on syntax to guide comprehension and expression. Children ascribe meaning by taking the whole of the situation into account. Only later does the structure of language play a more active role in the creation and determination of meaning.

The "elements and principles' approach to design instruction is more focused (although certainly not solely focused) on a syntactical understanding of visual language. It has been my experience that students learn faster if early on I place greater emphasis on context and the overall meaning of images, and then we "work backwards" to dissect syntactical issues of structure. This approach still reserves a central place for the elements and principles of design, but it seeks to derive them from considering images as wholes rather then constructing images as collections of formal, syntactic traits.

Language Acquisition Relies On "Deep Structure"

Many theorists including Noam Chomsky have put forward the notion of "deep structure" to help explain many puzzling features of language use and acquisition. Some researchers posit that this deep structure is a consequence of the "hard wiring" of the brain. Others prefer to use deep structure to refer to the relationships among the most basic units of meaning, or lexemes, that occur within the syntax of language itself. For our purposes it is not particularly important which, if either, hypothesis turns out to be correct. It is enough to recognize that the need to imagine a concept such as deep structure helps to reinforce the notion that beginning design students already possess a "primal" ability to decode visual images. Seen in this light, the role of the instructor changes somewhat from one of providing students with the building blocks of visual language and elucidating the various ways they

might be combined, to a strategy that strives to transition them from latent to active users of visual language by making them aware of the complex decoding mechanisms that they already possess and have, up till now, been using unconsciously.

Since I have presented some of the features of a language acquisition model and briefly hinted at how these might be applied to teaching beginning visual design, it seems appropriate to conclude by presenting what amounts to an informal case study: an example of the second project that I assign to my beginning two-dimensional design students. I detail it here, not so much because it is particularly innovative or spectacular, but rather as an indication of how some of the curricular insights offered by a language acquisition model might actually be applied in the real world.

At Bowling Green we have instituted a set of Project Design Standards that apply to all instructors in our first year program. These were implemented in order to assure continuity of instruction and to repeatedly model with the curriculum a useful strategy that students can use for visual research. These standards reflect the influence of the language acquisition paradigm, and guide the development of course curricula for 2-D and 3-D design classes. Listed below are the features that every project must have.

Research Component:
This component includes background material and visuals provided by the instructor. Issues of methodology should be expressly covered. Simple introduction of the assignment, demos of technique, or discussion of the project does not satisfy the support component.

Field Work Component:
This must consist of research conducted by the students and must generate visual information or ideas not expressly supplied by the research component. This is meant to include a wide variety of activities and should not be limited to traditional research strategies. Opportunities for student cooperation and collaboration are strongly encouraged.

Formal Component:
This deals directly with issues of media manipulation, technical skill, craftsmanship and the understanding of design fundamentals. While these are extremely important concepts, they are often elevated to the point to where they dominate course content. A balance should be struck between formal and conceptual issues which points to their inter-relatedness.

Conceptual Component:

The conceptual component should address issues, ideas or concerns that move beyond concerns of materials, processes or design fundamentals. The conceptual component is meant to force students to grapple with the expressive/communicative dimension of visual works. Special attention should be placed on exploring concepts that offer students new ways of envisioning themselves or the world around them.

Reflective/Evaluative Component:

The final component of each major project should include some sort of student evaluation or reflection in addition to the instructor's final grade for the project and an instructor led group critique. Students benefit from developing critical and evaluative tools with which to assess their own success and growth.

These standards shaped the development of my second 2-D design project entitled, *Transforming your Senses: A Texture Duet.* In this assignment students are asked to give visual form to various non-visual sensations. On three separate panels they must represent:

1. Sea Sounds-   the sound of a foghorn and the
                               sound of birds
2. Hospital Smells-   the smell of antiseptic and the
                               smell of flowers
3. Night Sensations- the feeling of cozy covers and the
                               sound of an intruder

Their problem is actually twofold: First they must use texture to develop an appropriate representation for each sensation. Then they must visualize ways in which these representations interact compositionally within the picture plane that would be consistent with how these sensations might actually be experienced in the real world.

The Research Component introduces and prepares them for the project. I begin with a brief introduction to Marshall Mcluhan's "Impact Theory of Technology", (1964). This draws in their knowledge of popular media and segues nicely into a discussion of synesthesia, the

Figure 2
Student Example of Sea Sounds
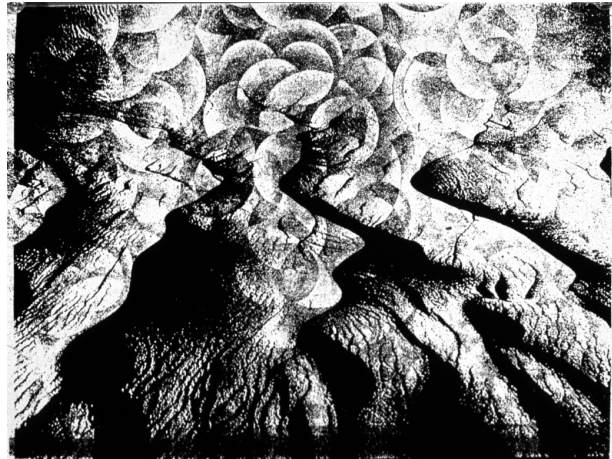
process of translating one sense into another. I go on to detail how synesthesia can function as a methodological model for generating images that are creative and resist lapsing into cliché. Because this lecture is difficult to summarize in a paragraph or two, I have provided a version of it, somewhat modified for an academic audience, at the end of the paper.

The Field Work consists of collecting various textures from rubbings, magazines and found objects. Students assemble into groups of four and pool all of their textures together as a common resource. They then sort them into piles based on the groups' best estimation of each texture's potential to serve synesthetically as the visual equivalents of the sensations that I have asked them to represent. This activity generates lots of good discussion and debate. They are then each asked to share, in as much sensory detail as possible, an actual or imagined experience that relates to one of the three scenes I am asking them to produce.

Over the course of two class periods they cut and paste their way toward solutions. Textures are modified and transformed using the photocopier and traditional painting/drawing media. Some computer manipulation is permitted, but it is kept to a minimum.

The Evaluative/Reflective Component for *Transforming Your Senses* consists of two critique games. In the first round students put up all their panels, careful to mix up the three categories of Sea Sounds, Hospital Smells and Night Sensations. Students then have to guess which scene they are witnessing, and give explanations for how they arrived at their answers. The second part of the critique game consists of dividing up the class into groups of three. Each team picks two panels of their choice. They then have twenty minutes to devise the longest, most detailed, and imaginative narrative that they can for one of the two panels they have chosen. The hitch is that each group's "tall tale" or

Figure 3
Student Example of Hospital Smells
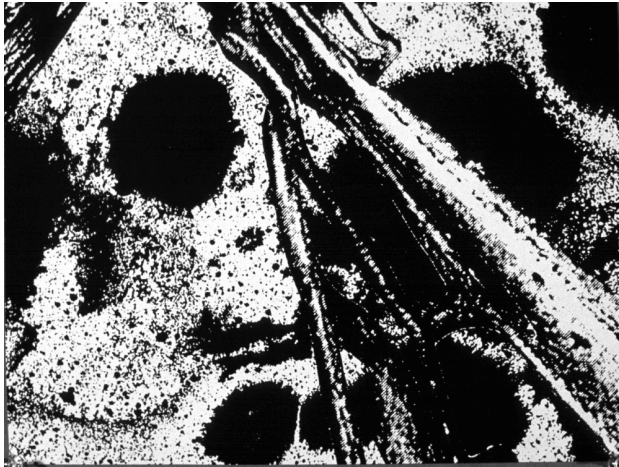
"meticulous memoir" must stay true to the panel's designation (Sea Sounds for instance) and correlate as closely as possible to the visual information on the panel. Groups attempt to outdo each other in the scrutiny and cleverness of their readings. It's fun, often hilariously so, but it is also serious training in the ability to identify and decipher visual clues and create meaning.

Figure 4
Student Example of Night Sensations
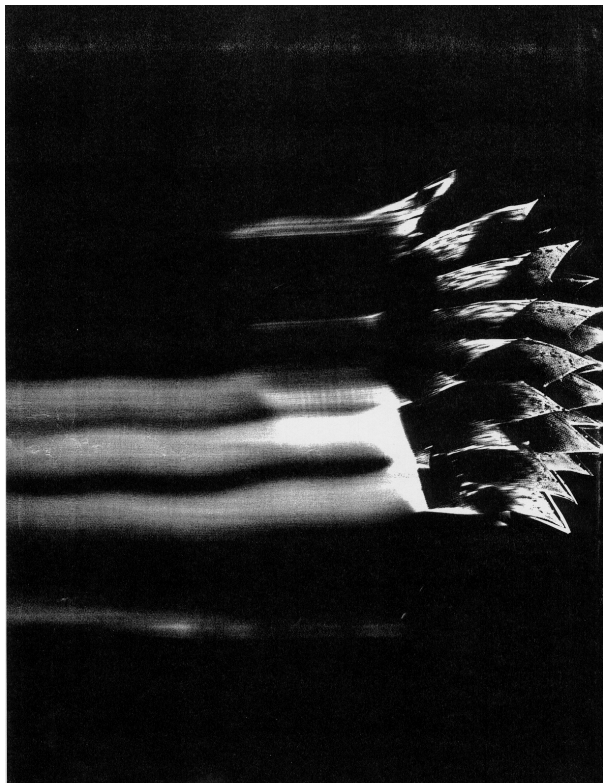
Summmery

Transforming Your Senses demonstrates that taking the concept of "visual language" literally doesn't entail a radical overhaul of the design curriculum. The content and goals remain much the same. However, by applying strategies based on the ways humans actually learn language, instructors can hasten the learning process, deepen their students' understanding of design concepts, and help them to marshal all of their talents, energies and previous experience into the service of creating compelling artworks and visual designs.

McLuhan's Impact Theory Of Technology

In *Understanding Media* (1964) McLuhan theorized that contrary to popular conceptions, technology is not as a series of inventions to which humans are forced to adapt, but instead, technologies should be understood as amplifications of our human faculties. They are not imposed on us from the outside but rather are extensions of ourselves. In his view, technologies arise as "counter irritants" in response to specific societal pressures or irritants. But in spite of the fact that a technology might successfully neutralize and "soothe" the original irritation, it will itself always become a driving force behind new, unforeseen pressures and irritations. This is due to the fact that the effects of a new technology are rarely felt at the "site of impact". Like a drug that anaesthetizes the injured site, new technologies mask the original symptoms (takes care of the original irritation), but gives rise to unforeseen side effects in other parts of the system. Communication technologies in particular don't merely scratch a societal irritation or simply make things easier-- they completely alter cognition and the balance of perception.

One of the more interesting implications of this Impact Theory of technology occurs when a sense is targeted by a new communication technology. Following McLuhan's conception that the initial site of impact is numbed, it is the *other senses* that are most keenly affected. For example, radio was "aimed at" the ear but its initial effect was primarily visual. (Recall *War of the Worlds* or such serials such as *The Lone Ranger* or *The Shadow*.) Photography was "aimed at" the eye but its effect was primarily auditory. (In the sense that we don't so much look *at* a photo as see *through* it to a *description* of objects or a *narration* of events.) TV is audio/visual but McLuhan argues that its effect is largely tactile. (With TV distant things events, places are brought into intimate proximity; they are *felt* as if experienced first hand.)

Although I am not entirely convinced of the ultimate phenomenological truth of this model, I do find it intriguing—and it seems that many of my students do also. I have found that it is a very useful way to open an animated classroom discussion about

the important roles that our other four senses play in visual design, and of examining the fact that visual works have largely non-visual effects. After a brief ten-minute introduction to the Impact Theory concept, I ask my students a couple of questions: "Let's assume that McLuhan is right. Is there evidence to support his contention that visual works actually do impact our senses other then sight? When we create or interpret 2-D artworks do we rely upon visceral responses that we usually associate with hearing, smell, taste and touch, or even other bodily sensations such as balance, weight and tension?"

Over the course of the class period we discuss the ways in which we speak of designs as if we could hear them: Compositions are loud or quiet or noisy, and can have metered or syncopated rhythms. To describe color we often appeal to taste and touch. Colors are perceived as warm or cool, and in combination, colors might be described as acidic, tangy or sweet. Shapes are understood tactilely as sharp or soft or sculpted. Complex patterns of value are visually transmitted to us as texture, as though we had run our fingers over actual rough, spiny, or metallic surfaces. In short, the class discovers the often-overlooked fact that it is very difficult to describe visual works without appealing to words and sensations that were originally associated with senses other then sight. As instructors I believe that it is vitally important for us to focus on this synaesthetic aspect of the visual arts because most of what our students will choose or will be called upon to represent in their artworks have no visual referent in the world whatsoever: honor, duty, justice, beauty, kindness, coolness, pain, jealousy, the good, bad and the ugly, just to name a few.

Normally students' first response to deal with the problem of making the invisible visible is to use mediating symbols as a way of invoking or picturing these intangibles. As most of us know all too well, culturally accepted symbols can be tricky, and in the hands of beginners, the results of appealing to symbols are usually unreflective, un-nuanced, and painfully cliché. A complex and elusive concept such as death gets reduced to the symbol of a skeleton with all the intellectual depth of a Grateful Dead sticker and the emotional resonance of a Halloween costume. As an alternative to this symbolic approach I encourage my students to engage their other senses, to become imaginative synesthates, translating smell, hearing, touch and taste into vision. Does death have the acrid, sweet smell of moldering flesh or the smooth, serene smell of lilies? What does that smell *look* like? Does death have the tension of *rigor mortis* or the repose of release? Does it have the blackness of mourning or the whiteness of transition and purification? Is death as solid and weighty as packed earth, as open and airy as a picked carcass, or as ephemeral as a cold breath on your cheek? Does it sound like a hushed and empty silence or have the stretched, rounded sonority of a funeral dirge? Is death as spacious as the unknown or as claustrophobic as a casket?

Given opportunity, encouragement and a handful of design principles, I am amazed at how adept first-year students can be at translating non-visual sensations into visual counterparts leading to more creative, diverse, rich and formally successful projects.