

**BRIDGE AS METAPHOR FOR SELF:
AN ART CURRICULUM FOR EIGHTH GRADE STUDENTS**

by

LYNN K. MURRAY WAGGONER

(Under Direction the of Carole Henry)

ABSTRACT

This study addresses adolescent alienation in the academic environment, proposing the construction of an eighth grade art unit based on the bridge as metaphor. By presenting complex concepts through visual images rather than linguistic context, the curriculum seeks to engage all students in higher level thinking activities through art. A bridge presents an object that is both concrete and functionally symbolic. Students learn first to differentiate visual aspects of a bridge, then translate function as a connection in both form and composition, and lastly, apply form and function as metaphor in a symbolic self-portrait. As analogies reveal multiple levels of meaning, the understanding of symbolism within artwork is developed, generating art that is both relevant and individually expressive. While Latina girls represented the original target population, the unit has proven successful in a broader context, both as a collaborative unit, and for special needs students.

INDEX WORDS: Middle Grades; Art Education; Curriculum; Visual metaphor; At-risk students; Resiliency; Latinas; Cognitive theory; Bridge-as-metaphor

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B.S., University of Kentucky, 1986

**An Applied Project Submitted to the Graduate Faculty of The University of Georgia in Partial
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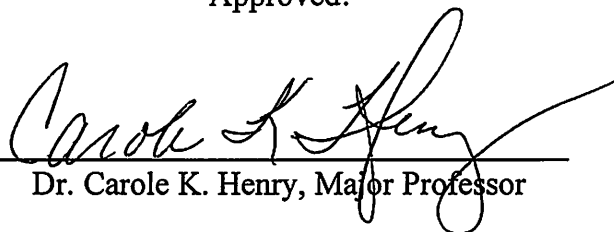
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DEDICATION

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CHAPTER I

INTRODUCTION

Bridge as Metaphor

The purpose of this study is to create an eighth grade unit using metaphor and visual imagery based upon familiar objects, providing challenging content while simultaneously accommodating students with language or other academic deficiencies. Based upon research concerning Latina dropouts, the design originally addressed issues of alienation and disenfranchisement within the schools, conditions which exist across multiple populations. The coursework is sequential, moving from a concrete, known object (the bridge); to generalized principles of how the object functions; to the abstraction of meaning as a personal metaphor for growth.

Children's cognitive stages move gradually from concrete to abstract, or symbolic, processes (Ornstein & Levine, 1993). In addition, the individual student possesses unique cognitive preferences, learning styles, and according to Howard Gardner, actual "content sensitive devices" (Gardner, 1991, p. 42) which respond to language, music, spatial and other multiple intelligences. Well-designed curricula complements both developmental progression and learning strengths; programs addressing the needs of students performing below or beyond the statistical mean are adjusted to appropriate ability levels. However, average students with a history of poor academic performance, struggling to integrate linguistic, cultural, or socio-economic factors into an unfamiliar environment, represent a special segment of at-risk students. Frequently dismissed as inferior, or "culturally deficient" (Whitehouse & Colvin, 2001, p. 2), these students experience incremental frustration, and ultimately, a sense of disenfranchisement and alienation. The school environment, rather than opening doors to a better future, leads to a

maze of unattainable objectives. “Catching up” is not as easy as “dropping out”; as soon as local legislation permits, students with relentlessly accumulating academic failure drop out.

If the nation as a whole achieves grade level mastery for reading and math by 2014, as mandated in the “No Child Left Behind” Act of 2001 (Hardy, 2001, p. 5), the urgency for effective drop-out intervention programs may be happily diminished. However, until then, policy-level writers are beginning to realize “state officials haven’t been talking about how they’re going to tailor instruction to meet the needs of various types of students” (Harding, p.7).

The paradox facing both educators and at-risk students is the need for simplified, primary skills acquisition, while acknowledging that maturing students possess inherently different cognitive abilities. Locking students into simplistic remediation may provide necessary skills; it will not challenge evolving intellects to pursue education as a method of improving personal circumstances. Rather than dismissing this challenging demographic segment, generating interest in abstract reasoning and symbolic thinking, predicated upon visual images, has the potential to sidestep obstacles created by an educational system defined by linguistic mastery. Through visual literacy, art classes may provide a twelfth-hour revival of interest in school; achieving school persistence through alternate channels.

Art classes for middle grades students should therefore be viewed as developmentally essential, rather than as an educational accessory both ancillary in nature and expensive to implement. The ongoing debate about art in the schools raises many issues, including derivative function, alignment with academic goals, social and aesthetic intent, standards, and funding. The simple rationale that art, through visual literacy, may enhance federally mandated goals seems sufficient justification for its continued inclusion, and further implementation, within existing coursework.

Characteristics of Effective Pedagogy

Education is commonly considered a vehicle for social adaptation. Effectiveness for any mechanism can be determined by failure rates: The old saying, “If it ain’t broke, don’t fix it” pertains to machines and systems, as well as to people and educational theories. If an educational system graduates enough workers with demonstrable skills for the work environment, the system is considered functional. If, however, a particular group fails consistently, then the system itself needs to be examined. Recent data reveal that Latinas, as a minority sub-group, have the highest rates of early drop-out (within the first two years of high school), while the Hispanic community in general represents the highest drop-out rate overall (Driscoll, 1999; Ginorio & Huston, 2001). Rather than focus on student failure (logic analogous to the idea that the victim is somehow to blame for his or her predicament), policy level evaluation of programs addressing the needs of at-risk students should be initiated. Educators, and society in general, must gather resources necessary to encourage all children to thrive.

Bridging the gap between theory and application, however, is the real challenge for any practitioner. The paradox of programs designed for minorities resides in the belief that any given sub-group is unable to perform competitively, and therefore needs modifications in order to succeed. Indeed, the simple question, “Am I making any difference whatsoever?”, which most teachers ask themselves at some point in their careers, contains the tacit possibility that they may, in fact, be causing harm. Within any activity directed at changing another human being, whether well-meaning or otherwise, there exists an inherent potential of achieving the wrong goal, for the right reason.

Research emerged in the last decade concerning children of a remote island in post-WWII Hawaii. Presenting data from a 30- year longitudinal study, it noted that child resiliency

could be altered positively by the relatively short-term influence of one motivating individual, including a teacher (Werner, 1987). From this seminal work, I developed an ongoing interest in effective pedagogy as a means to understand, and participate, in children's lives. Education was redefined as a collaborative odyssey, and not mere cultural programming.

If effective teaching methods affect growth and resilience, then conversely, negative classroom environments could, by extension, impede internally generated resilience. Research into deficit-based models spotlights educational shortcomings encountered by at-risk student populations (Trueba & Bartholome, 1997). By classifying groups according to performance inadequacies, rather than strengths, acceptable rates of failure become an anticipated component for certain populations. In military jargon, this would be considered "collateral damage", or "acceptable battlefield casualties". The concept that any child is expendable is itself reflexively inaccurate, as it creates a demoralizing class system. It is not surprising that when these students reach the age of decision-making and empowerment, many leave school rather than remain in a state of academic subsistence.

Personal philosophy of teaching

Teaching has provided a curious opportunity for personal growth. My perception of education as an indifferent bureaucracy initially precluded my choice of teaching as a profession. It was due to an unexpected layoff from a graphic arts job, and the persistence of an Irish nun/principal at my son's school that I found myself, literally and figuratively, in the classroom. Teaching was only to provide "temporary" employment. Twelve years have passed, and the pontoon bridge to job security has been rebuilt as a lasting passageway to personal and professional growth.

I have maintained some adversarial attitudes about conventional pedagogy. While any system, by nature, must serve the needs of the majority, there is an overlooked complement of children who “fall through the cracks”. The term “disenfranchised”, meaning “to deprive of a franchise, of a legal right, or of some privilege or immunity; *especially* : to deprive of the right to vote” (Merriam Webster Online), appropriately describes the condition of marginalized students: those without legal protection, programs, or even acknowledgment. These students are often “socially promoted”, or worse, retained during junior high school/middle grades. They frequently drop out before completing high school (Weir, 1996). In a system of mandatory universal education, matriculation is merely the ideal, not a requirement.

Through a process of self-reflection and exploration, much of my own education occurred heuristically, with an assortment of interesting detours and lacunae. I have crossed many bridges, but none so perilous as the one connecting myself to past experience; created by my own actions, and interpreted through my own understanding. It occurred to me, as I began teaching, that there should have been an easier way to acquire an education.

In November, 1940, a suspension bridge known as “Gallopig Gertie”, in Tacoma, Washington, self-destructed after years of increasing oscillation (Ketchum, 2004). In retrospect, many of my personal and professional “passages” were more like the spectacular failure of this bridge, and less like a stroll across Monet’s peaceful bridge at Giverny. There were similarities, however, in every crossing. Each had a definite point of departure and arrival. Some type of obstacle, either real or imagined, mandated the departure. The structure/transition (elegant, contrived, or catastrophic) connected departure to arrival. It didn’t count if I stood on the embankment, then turned away. The bridge became a motif for growth, whether in reality through life experiences; or metaphorically, as transformation over time.

Beginning writers are told to write about something with which they are familiar, in order to become better writers. Likewise, effective teaching occurs when a teacher shares from processed knowledge and personal experience. During middle grades, adolescents make a significant journey, moving from dependent child to functional adult. For many, it is a treacherous obstacle course. The visual arts provide an alternative and symbolic language capable of compensating for institutionally defined deficiencies through the development of abstract reasoning and higher level thinking skills, using imagery in place of words. Art at the middle grades, when considered a source of cognitive transference rather than academic embellishment, is transformed into a fundamental component of true “universal” education. In my journey towards an elusive destination, navigating some barriers and crashing against many others, the discovery that within myself were all the materials and tools necessary to succeed, came as a revelation and a resolution.

The applied project, then, presents one possible way to acknowledge and respect the diverse learning styles and backgrounds encountered in the current classroom. The review of literature first identifies at-risk student populations; describes pedagogical methods used to address the needs of these students; reviews effective art, general education, and community programs; and lastly presents a concept of “guided imagery” as a means of presenting complex metaphorical ideas through the medium of the visual arts.

Applied Project Structure

This applied project represents several years of evolving interests while actively teaching art at a middle grades school in Bonaire, Georgia. This school’s demographics are characterized by a balanced student body, with minority percentages roughly equivalent to national norms. The community is stable, with an economy dependent on a large Air Force base. While

surrounding counties have larger percentages of transient Latino/a students due to seasonal agricultural demands, the county itself has an established Hispanic population. Over the years, I have observed that many non-minority students, as well as other minority groups, enter my class with well-developed, articulate cognitive skills, accompanied by less-fluent linguistic and verbal skills. They quickly become absorbed in the symbolic processes at work in creating art; and respond actively at decoding meaning. Unfortunately, the target population disappeared the year following the initiation of the project; an ESOL magnet middle school was created, drawing the remaining bilingual students away from my classroom.

Because middle grades electives are determined by on-site administration, programs which address academic goals within the context of connections, or elective classes, have greater viability in a funding-driven environment. The departure point is both the need and the presence of students at the middle grades level to encounter challenging material, while contending with linguistic or other academic inadequacies. The goal is to engage marginal students in the educational process by way of art lessons, which begins with the concept of a *bridge*. The method of sequential presentation from the concrete to the abstract, itself a bridge between perception and understanding, leads inevitably to the interrelatedness of learning process. Art has always functioned as a mediator between the known and unknown: Rather than devaluing art as merely an adjunct to academic classes, broadening the scope of art instruction to address the needs of at-risk students, and developing higher level thinking skills, identifies the visual arts as an essential component of education.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

In an ideal learning environment, the development of an external rationale for implementing art curricula should be unnecessary. Ideals are ideas with an agenda, however, and art programs are often the sacrificial vanguard on the battlefield of academia. Justifying art education solely as a celebration of the richness of human experience hovers precariously above the mandates of academic statistics, while test-score driven accountability, funding crises, and demands for proof of merit quantifiably delimit art programs. Strategies which scaffold the arts solely within collaborative units and enrichment activities diminish art processes as merely derivative, or less important: art education is redefined as peripheral enhancement.

Even so, pragmatic determinants within the current educational environment are considered when debating the intrinsic value of arts education. For this reason, the direction of this project seeks to connect, or *bridge*, aesthetic content with pragmatic context, in order to provide a common objective for two separate and sometimes opposing agendas. At-risk students, resiliency, and current policy-level educational practices and teaching strategies are evaluated. Herbert Spencer's design of sequential learning looks at the process of generating metaphor and symbolic thought from the study of known objects. Combining the identification of at-risk students with a method of teaching higher level thinking skill through art instruction is proposed as a potential method of enhanced learning.

Chapter Four introduces a curricular unit targeting middle grades students who are at risk for dropping out, through the use of visual metaphor and complex symbolic meaning. One

central theory has evolved during my teaching experience: cognitive ability should not be confused with academic proficiency. By underestimating young people, educators consign them to a learning limbo, with a self-fulfilling denouement of failure. Designed for eighth grade students and a nine-week quarter, the three units present *form*, then *composition*, and lastly, *meaning* in two to three week segments. Each unit contains one representative daily lesson plan, in addition to a table of lessons for the materials. The sample plan contains material pertaining to the four strands of art: Studio experience, art history, aesthetics and art criticism.

The review of the literature identifies sociological and educational characteristics of Latinas and other sub-populations, as well as instructional methods effective at reducing high failure and drop-out rates. The review cites literature and research concerning the essential relationship of language and imaging processes, with the proposition that art classes may satisfy dual outcomes, without trivializing or compromising the autonomy of the art curriculum. Building upon this progression of identified need (a specific minority sub-group, in this case, Latinas), the conclusion segues the metaphor of *bridges* sequentially from concrete to abstract, from object to organizational element, arriving at last at a complex symbol system based upon a theme that is both familiar and multi-dimensional.

The curriculum unit is built upon the concept of a *bridge*, first as formal object; followed by the *bridge as compositional tool*; and lastly, expanding form and structure into visual language contained in *bridge as metaphor for self*. As a universally familiar object, the *bridge* possesses multiple layers of meaning and function; it also has been a recurrent element within fine art, as well as a product of the applied arts. In a logical learning process introduced by Herbert Spencer in the nineteenth century, students move from the realm of the familiar to the

unknown; from the concrete to the abstract. Tomlinson (1996) simplifies Spencer's theory, stating that:

Perceptions had to be reduced to their 'essential natures', the basic elements of which the mind can readily assimilate. Only when learning was grounded in such 'clear and distinct' ideas could the child gradually build from simple concrete knowledge of the immediate environment, step by step, to an understanding of abstract concepts. (Tomlinson, p. 4).

While Spencer's deductive approach, also called Progressivism, has been challenged in the 20th century, it remains, (modified by Dewey) a dominant principle piloting teacher education (Aeschlieman, M., 2003). Acknowledging current debate about the scientific method as self-limiting, I propose that complex issues such as metaphorical and analogical thinking can be effectively and divergently presented through the method of sequential cognition, within the context of 'object to abstract' content in art education. Synthetic, inductive open-endedness replaces tendency to analyze without reconstruction. Metaphor counterbalances scientific empiricism. Neither linear or simplistic, it functions analytically within a logical framework, providing an ideal ambiguity, or 'open-endedness', appropriate to the arts. Robert Frost, when describing the relationship of poetry and metaphor, claimed that "[p]oetry begins in trivial metaphors, pretty metaphors, 'grace' metaphors, and goes on to the profoundest thinking that we have" (Frost, 1966, p. 36). Kandinsky acknowledges the essential role of metaphor in his book, Concerning the Spiritual in Art. "The artist must have something to say, for mastery over form is not his goal but rather the adapting of form to its inner meaning." (1977, p. 54). For students who see only the reflection of their shortcomings in the mirror of educational standards, symbolism becomes a powerful tool for personal redefinition.

At-Risk Student Populations

2001: Data were reported for all 50 states and the District of Columbia. Results indicated that Georgia had the lowest overall graduation rate in the nation with 57% of students graduating. Georgia also had the lowest rate for White students (61%), and for Latino students (32%), and it was third worst in graduation of African American students (44%). (Stanard, 2003, p.2)

Defining at-risk populations is in itself a risky business (Ronda & Valencia, 1994). To aggregate any sub-group into a specific minority invites classification, and therefore comparison. Comparison stratifies by virtue of assuming a non-variable standard, or control group, against which different groups are ranked (Fraenkel & Wallen, 2000). This, in turn, has the potential to generate questionable research, such as the “cognitive elite” class proposed most recently in the controversial book The Bell Curve, by Richard Herrnstein and Charles Murray (Fraser, 1995, p. 115). It creates a “deficit model”, attributing poor performance to inherent student deficiencies (Ronda & Valencia, 1994, p. 3). Countering the thinly veiled statistical racism implied by authors Herrnstein and Murray, researchers such as John Ogbu (1998) and John Gardner (Fraser, 1995) explain performance disparity within the context of an expanded view of cognition and intelligence, which function within specific cultural contexts.

Research based on data from the 1990 census identified Chicano students (Mexican American) as having the highest drop-out rate of any Hispanic subgroup: Only 44.1% of this population completed high school. Overall, the high school completion rate for all Hispanic students was only 50.8%, which, according to research was “substantially less than for non-Hispanics, which was 79.6%” (Ronda & Valencia, 1998, p.2). Little progress was made in the following decade, even though the demographic picture for Hispanic minorities changed

dramatically, with population increasing overall from 9% of total population in 1990, to 12.5% in 2000. Georgia's Hispanic population increased 119% in one decade, growing from 130,633 in 1990, to 239,566 in 2000. Compared to non-Hispanic whites, with only 4.2% of the total population with less than a ninth grade education, Hispanics had more than one-quarter (27.3%) of its population with less than a ninth grade education, and 43% overall without a high school diploma (U.S. Census Bureau, 2001).

The impact of this situation is especially evident among young Latinas. According to Ginorio and Huston's report, *¡Si, Se Puede! Yes, We Can* (2001), Latina students tend to leave school at an earlier age, not complete high school, and are "less likely than their male counterparts to return and complete school" (p. 2). As a group, Latina drop-outs face greater challenges as they mature. As Marian Aguilar (1996) points out:

The [Center for Women in Church and Society] staff recognized that women of color are the most adversely affected by under education and lack of marketable skills and that these deficits reduce the chances for economic self-sufficiency not only for themselves but also for their children. This is a critical issue because of the increasing percentage of Latino female-headed households living in poverty (46.3 percent) and requiring public assistance (Firestone & Harris, 1994). Firestone and Harris used the term 'double jeopardy' in referring to individuals who endure two disadvantaged statuses at the same time.....Latinas use the term 'twice a minority' (Melville, 1980, p. 147)

Defining any group as "at-risk" without understanding the multi-dimensional variables which create such a constructed category fails to account for the numerous contributing conditions over which a student has no control. As a "person-centered explanation of school failure" (Ronda & Valencia, 1994, p. 3), institutions absolve themselves from collective

responsibility for the socio-educational origins of a statistical underclass. Demaray and Malecki (2002) determined that Latinos/as lacking either peer or family support often display negative indicators such as “conduct problems, aggression, hyperactivity, anxiety, depression and withdrawal” (p. 306). Compared with standard descriptions of “the unpopular child”, the Latino students in their study exhibited behaviors which tended to reinforce both institutional and self-assessment as deficient; however, the study also concluded that “...teacher support does indeed predict school maladjustment along with parent support” (p. 313).

Resiliency vs. at-risk

Many variables affect educational outcomes, and students who display resilience will succeed in spite of limited environmental resources. Educational resiliency is characterized as the potential for success despite environmental barriers. Chavkin and Gonzalez (2000, p. 2) are more specific:

In sum, the literature on resiliency identifies five key protective factors of families, schools, and communities:

- supportive relationships, particularly encouragement from school personnel and other adults
- student characteristics, such as self-esteem, motivation, and accepting responsibility
- family factors, such as parental support/concern and school environment
- community factors, such as community youth programs (e.g. sports, clubs, hobbies)
- school factors, such as academic success and prosocial skills training (p. 2).

Based upon research from a 40-year longitudinal study, resilience mechanisms were determined by individual disposition, strong family ties, and external support systems that acknowledged individual achievement (Werner, 1987). The Latino culture is characterized by its

strong sense of family commitment; other factors such as inherent and measurable ability have been shown to respond to external, or environmental, conditions (Nisbett, 1995). External support systems may include the educational environment in general and individual teachers specifically. By extension, as both accessible and culturally relevant, art instruction should be redefined within the educational sphere as essential. Rejecting the use of deficit identification which labels Latinas as “at-risk”, the art class fosters acceptance of cultural values and strengths. Combined with multiple levels of complexity, it offers a unique setting for struggling students to connect their daily lives with the academic context.

Teaching and Policy-Level Strategies

Catterall (1998) and Catterall et al.(1999) drew on analyses of the National Educational Longitudinal Survey (NELS), which followed 25,000 students in U.S. secondary schools for 10 years. [These studies found that students between the 8th and 12th grades, who for all four years] were involved in arts both in and out of school, had higher levels of academic achievement in terms of class grades and standardized test scores, stayed in school longer, and had better attitudes about self, school, and community than noninvolved students. (Holloway & Krensky, 2001, p.355).

Having identified specific at-risk populations, teachers and policy-makers (as well as students) should re-invent the classification as ‘unrecognized potential’. According to a study by the National Center on Effective Secondary Schools, one leading cause of educational disengagement is the “apparent absence of any payoff for working hard in school” (Wehlage, 1991, p. 15). The author notes that successful programs were notable by virtue of teacher commitment, as well as strategies matching student needs to specific programs, and focusing on

students' interests and strengths rather than deficiencies. Echoing Werner's (1987) observation that a long-term, close relationship with a caring adult was a shared factor in resilient children (Chavkin & Gonzalez, 2000), Wehlage observed that: "[t]his form of 'professional accountability' was sustained by certain attitudes and practices that fostered a positive school culture and caring approach, thereby making student success more likely" (1991, p.16).

Werner's work, however, has not been without its critics. Lauritsen's (1993) review of Werner and Smith's 1992 publication, Overcoming the Odds: High Risk Children from Birth to Adulthood, pointed out numerous methodological discrepancies, calling into question the validity of the study in certain areas. Even so, research based on Werner and Smith's findings continues to permeate literature about resilience. While it is simplistic to assign a single cause to the many-faceted origins of cultural alienation and lack of academic persistence that plague many minority youth, the notion of a simple resolution through the response of caring adults is a challenge to creative and responsible pedagogy. Nel Nodding's curriculum theories examine how competitive testing creates a situation where "[s]ome individuals and groups will permanently be relegated to the bottom of the heap" (Thornton, 2001, p. 5). Instead, Nodding promotes educational reform through relevance to individual lives and caring instruction, believing that "competence is most likely to develop in a pupil who feels cared for" (p.7).

Many strategies aimed at improving teacher awareness and understanding of the challenges faced by minority youth have been implemented; not all have been effective. One initiative conducted by the Center for Research on Education, Diversity and Excellence (CREDE) outlined five governing 'principles' for effective programs serving students with unrecognized potential (ERIC, 1997). Of special interest to the middle grades art teacher is the

fourth principle: Challenge students toward cognitive complexity. CREDE's position states that:

At-risk students, particularly those of limited Standard English proficiency, are often forgiven any academic challenges on the assumption that they are of limited ability; or they are forgiven any genuine assessment of progress, because the assessment tools do not fit. As a result, both standards and feedback are weakened, with the predictable end that achievement is handicapped.....[a]t risk students require instruction that is cognitively challenging, that is, instruction that requires thinking and analysis, not only rote, repetitive, detail-level drills (ERIC, 1997, p. 3).

Poor classroom performance is closely related to poor language skills (Ginorio & Huston, 2001, p. 38). Transforming content from language-based, direct instruction to "personal, community-based experiences as the foundation for developing school skills" (ERIC: CREDE 1997, p. 3) provides students with referents that acknowledge their own cultural identity, as well as expand experiences for students of other backgrounds. Teachers using flexible instructional strategies which capitalize on student strengths, find improvement in individual self-competence, as well as increased respect from the student's peers (Trueba & Bartolome, 1997). Lesson plans demonstrate cultural sensitivity when they utilize visual schemata and prior knowledge; Cooper and Gandara cited an example from researcher Gonzalez and her colleagues, showing "an example of how community knowledge can be tapped to strengthen the academic experiences of Latino youth" (2001, p. 4). Women of the community commonly applied advanced mathematics in sewing, but were seen as lacking competence to help with their children's daily work. Instructional techniques tapping this resource accomplished several

objectives: Inviting the community into the learning process, while concurrently validating another's culture, and relating knowledge to the known, rather than the unfamiliar. The challenge to teachers and administrators is to show that the arts are "crucial to understand how their pedagogical strategies affect key sectors of the populations who are in most need of imaginative teaching" – and not just generate better test scores (Miron, 2003, p. 30).

Eflund's recently published Art and Cognition: Integrating the Visual Arts into the Curriculum (2002) as reviewed by Smith (2002), suggests that the study of integrated cognition constructs a platform capable of supporting art education, as contrasted with previous systems of mechanistic behaviorism. Further, "Efland concludes that, if progressive pedagogy as he defines it were adopted in arts education, the "symbolic forms of the arts would be more closely linked to everyday life", that is, to the students' lifeworld" (Smith, 2002, p. 34). References by Efland, Meachum, and others to Vygotsky, draw attention to the cognitive theory that "learning does not take place in cognitive isolation, but within the context of activities and social interaction likely informed by the day-to-day contingencies of culture" (Meachum, 2001, p. 191). In Vygotsky's seminal socio-cultural theory, thinking is made evident in cultural objects, which reciprocally then changes the meaning of thought as expressed in language (de Guerrero & Villamil, 2002). This dialogue between object, cognition, and language becomes the basis for metaphor. Functioning as a complex and open-ended symbol system, metaphor provides a valuable tool for bridging language and visual images, or as Patricia James (2000) demonstrates "compress complex information into one image to produce a kind of shorthand of meaning" (2000, p. 6).

Art, Education, and Community Programs

Images I grew up with in my home had no representation in the art world. There was no aesthetic I knew--a certain exuberance for color, for example--that was validated in the art world. I thought to myself, if I get my work into galleries, who will go there? People in my family have never been to a gallery in their entire lives. My neighbors never went to galleries. All the people I knew didn't go to galleries. (Judy Baca, 2003)

Art teachers have historically drawn from diverse resources to create lesson plans, using cultural artifacts to present art concepts as well as provide enrichment for social studies concepts. This “curiosity” approach, without reference to cultural context, reduces “cultural artifacts to empty forms devoid of historical or social significance” (Cahan & Kocur, 1996, xxii). Superficial acknowledgement of other cultures and their objects reinforces a labeling effect which focuses upon differences. Conversely, identifying universal themes and expression in a culturally appropriate manner provides congruence and synergy. Art teachers, who at present are not constrained by testing competencies, occupy a unique niche within the academic setting: They are both familiar with the products of many cultures, as well as accustomed to reading visual imagery rather than linguistic content. Faced with a sub- population, with specific context and content needs (for example, Latinas who perform poorly in part due to language barriers), art instruction may provide the necessary key for generating student involvement.

Fortunately, most trained art teachers have moved beyond the “holiday celebration” approach towards artistic products of other cultures, through coursework in multicultural studies and the broader area of aesthetics. Many art educators are moving beyond a conventional view of art as an important adjunct to the instructional content, towards curriculum using the arts as foundational. Stevens (2002) tackles the issue of art autonomy in her description: “The School

as Studio uses the arts as the vehicle for the curriculum rather than as a sidecar” (p. 20). If the issue of language barrier could be addressed as central to both the structure and outcome for middle grades art curriculum, art educators might see an active commitment at government and board levels to fund new programs and positions.

Notwithstanding, research about in-school or school-sanctioned extracurricular activities is currently being conducted, linking art activities to academic performance and persistence. One Florida study from 1990 stated that: “Teachers and administrators agreed that for the majority of their at-risk students, involvement in the arts had played, and is playing, a big role in delaying (and perhaps eliminating) the student’s decision to leave school” (Florida State University, 1990, p. 27). Another study by McNeal, published in 1998, indicated that evidence supported participation in fine arts, while less effective than sports at generating school engagement, showed a significant and positive effect upon participants (McNeal, 1998). Unfortunately, by the high school level, the study also indicated that the activities were effectively “closed” to entry level members. By extension, this reinforces the notion that effective intervention/prevention initiatives need to be established no later than the middle grades in order to deflect the attrition occurring in the ninth and tenth grades.

Research about diverse student populations has generated many theories concerning effective pedagogical strategies. The Center for Research on Education, Diversity and Excellence (CREDE) outlined five general principles for effective instruction (ERIC, 1997). Compared to current art education practices, these guidelines reflect strategies already in use by the average art practitioner. These include: 1. Facilitating learning through joint productive activities between teacher and student; 2. Developing literacy throughout all instructional activities; 3. Contextualizing teaching and curriculum to align with home and community; 4.

Challenging students through cognitive complexity; and 5. Engaging students through dialogue. Principle One addresses *modeling*, an activity intrinsic in teaching art methods. Principles Two and Five are complements to the ongoing dialogue about meaning in art. Principle Three has long been exemplified by community arts programs and effective multicultural art curricula. Lastly, although perhaps most relevant to the underlying argument for this paper, Principle Four acknowledges *cognitive complexity* as essential for student engagement. If the transfer of skills and knowledge between the arts and other areas occurs more commonly, and dynamically, than originally thought (Burton, et al., 1999), using the extant resource of the art teacher to further academic goals is both logical and appropriate.

Trilingual Metaphor

Complete literacy includes the ability to understand, respond to, and talk about visual images. Therefore, to carry out its total mission, art education stimulates language-spoken and written-about visual images. As art teachers we work continuously on the development of critical skills. This is our way of encouraging linguistic skills. By teaching pupils to describe, analyze and interpret visual images, we enhance their powers of verbal expression. That is no educational frill. (Feldman, 1982, p. 4)

Teachers in required reading classes encounter the edict: “Teachers should not overemphasize picture clues” (Burns, Roe, & Ross, 1992, p. 111). The admonishment is aimed at teachers weaning young readers from dependence upon picture books. Ideally, there would be simultaneous reduction of dependence upon images, and increasingly more complex word analysis skills. The formula works, in an uninterrupted fashion, when encountered in a uniform and sequential educational experience, and dovetails neatly with simplified concepts of

cognition, such as Piaget's developmental cognitive stages. While many developmental cognitive theorists have questioned or modified Piaget's original and compartmentalized theory (Flavell, 1992), it is inescapable that the human mind develops the ability to comprehend complexity and symbolism, regardless of reading ability. While it is true that students presenting pre-literate or inadequate reading skills by the middle grades are in dire academic jeopardy, it is a fallacy to label them as incapable of complex cognitive tasks.

One instructional model, known as *SIOP* (sheltered instruction observation protocol) appears to provide effective teaching strategies for advanced language learners (Echevarria & Short, 2003). The following, taken from the description of the research model, supports the curricular objectives of this applied project by analogous format with art room pedagogy:

Depending on the students' proficiency levels, SI [sheltered instruction] teachers also offer multiple pathways for students to demonstrate their understanding of the content. For example, teachers may plan pictorial, hands-on, or performance-based assessments for individual students, group tasks or projects, informal class discussions, oral reports, written assignments, portfolios, and more common measures such as paper and pencil tests and quizzes to check on student comprehension of the subject matter and language growth (Echevarria et al, p. 9).

Alternate evaluation methods have been standard procedures in art education. One of the difficulties of establishing national standards, or *benchmarks*, as described by Cannatella (2001) in Great Britain, is the need to maintain high standards without recourse to criterion-referenced competencies. The art room's creative and interpretive activities mandate flexible evaluation tools, providing a spontaneous setting where discussion about art expression and meaning, replaces standard, quantifiable assessment.

Using the analogy of second language mastery, Vygotsky's notion of conceptual learning parallels the student's acquisition of an unfamiliar language through idiomatic referents (Meachum, 2001). Metaphor, the comparison of dissimilar objects to generate understanding at a symbolic level, catapults reflexive and referential thinking into a synthetic mode. Meachum compares this activity with the point known as a "break" in jazz, where "supportive accompaniment and the map of written melody is removed, confronting the musician with a comparatively empty sonic landscape" (p. 193). Stout (1995) writes that "[w]hen we think metaphorically we are carried beyond objectivity into an imaginative mode" (p. 41). The empty landscape of the linguistically disadvantaged student is not a place for imaginative verbal expression; rather, it becomes a formidable, impassable obstacle. Replacing or modifying word-dependent cognition with familiar yet metaphorically and analogically complex images acknowledges the progressive capabilities of young minds, while addressing the real limitations placed by inadequate language mastery.

Visual metaphor becomes a third language, a virtual translator for abstract systems. No longer the handmaiden of poetry classes, find metaphor essential, because "[it provides] the schemes or cognitive models that are the basis of thought" (Bowers & Flinders, 1990, p.11; quoted in St. Claire, 2000). Through comparison, different objects and systems relate metaphorically, generating *figurative objects* from *referent objects* in the real world (Veale, 1998).

Hence, metaphor may be seen as "trilingual" analogy which enhances successful acculturation, and, like a hypotenuse connecting two divergent rays, creates a visual link,. The bridge becomes a metaphor, substantively and symbolically. It is able to connect a student's past with an unknown future. It may symbolize the distance between one's family of origin and a

school's population; or, using the metaphor of bridge as a two-way structure, redefine cultural heritage as a priceless resource to which one returns for renewal and grounding, rather than a source of shame. Metaphor encompasses knowledge through figurative value. Robert Frost wrote that without understanding metaphor "you are not safe in science; you are not safe in history" (1966, p. 39). Metaphor is a bridge between analogous structures. The bridge as a trope for self, while the bridge is, of itself, both an object and a metaphor, creates multiple levels of meaning, divergence and open-endedness both in teaching methods and student performance.

Bridge as Metaphor

Reversing the process of metaphor as bridge between analogous structures, one returns to Herbert Spencer's nineteenth century theory of cognitive growth occurring from concrete to abstract (Tomlinson, 1996). Born in England in 1820, Spencer is the lesser known originator of Dewey's and Piaget's "Progressivism" (Aeschliman, 2003, p. 2). His constructivist theory builds from the concrete to the abstract; from the known to the unknown. Perhaps his most attractive belief was in experience, especially for young adults:

" 'Boys and girls rising in the teens', Spencer maintained, 'should always have in their minds problems to be solved concerning.....the surrounding world, and of human life....The mental exercise which solving one such question implies, [being] of more value than that implied by a dozen rote-learnt lessons'. In contrast with traditional schooling where information is written on 'the pages of an internal library', having children construct meaning for themselves in this way actually turned knowledge 'into faculty.....and forthwith [aided] in the general function of thinking.' " (Tomlinson, 1996, p.252)

Spencer also valued drawing as an essential tool in understanding complex concepts, and encouraged teachers to “formulate a series of exercises that lead gradually from the child’s instinctive attempts to represent interesting actualities...toward imitations having some resemblance to the realities.” (Tomlinson, p. 253).

While educational theorists have recently taken issue with many of Spencer’s beliefs, citing the reliance upon experience as too empirical (Egan, 2003), metaphor depends upon the recognition and transfer of function from a known referent object to the figurative object. (Veale, 1998). While based upon empirical knowledge and logic, metaphor nurtures the imaginative mind. To thoroughly understand one object in reference to another, unrelated object, building from the known to the unknown, is the premise behind *bridge as metaphor*. It is the basis for pattern, meta-cognition, and ultimately, divergent thinking and creative activity.

CHAPTER III

BRIDGES OR BARRIERS

Images of a Journey

Two very different images of migration emerge from the postcard *International Bridge, Brownsville, Texas* and Carlos Callejo's *La Cruzada*. The first (Figure 1), a scenic postcard from the early 20th century, shows an ostensibly peaceful scene. The absence of travelers reinforces the bridge's structure from its cast shadow. However, with the indeterminate object on the far side of the bridge, poised like an armored tank, the motionless and brooding calm deceives the viewer. Suspended in time, a uniformed "gringo" stands, arms akimbo, while a suited official checks his list, and a third directs the queue of wagons, animals, and hats. There is a sense of watchfulness in this unusual penny postcard.

La Cruzada (Figure 2), perceives migration differently (Eklund & Medrano, 2000). Viewed from the air (surveillance planes?) the frozen quality has been replaced with swirling movement. Translating the title as "the crossing" misses the ambiguous depths of the word *cruzada*, which can also mean 'crusade'; it resonates with a *cruza* (between); *cruce*, (a road crossing); *cruzar* (to cross over); and its religious context of *cruz* (cross) (Love, et al., 1993). *El cruzado* is a crusader; perhaps the *lanchero*, wading across treacherous waters, represents the 20th century version of courtly ideal, and commercial exploitation.

Callejo's *lancheros* have been replaced by desert smugglers, and truck drivers, often with tragic consequences. The perilous crossing has evolved into a unwelcome landscape, poignantly captured in Camilo José Vergara's photograph *Warning Sign* (Cramer, 1999, Figure 3). The reality of immigration for many Latinos is not the hope-filled passage through Ellis Island, under Liberty's beneficent gaze; rather, their search for economic stability and political asylum has

drawn many into a perilous journey, with uncertain results. Recent news brings daily reminders of the dangers faced by those attempting to enter the United States illegally, as with the May 2003 deaths of 19 immigrant workers locked in an abandoned tractor trailer (Hull, 2003).

Barriers: Educational

What is troubling, and well documented, are persistent school attrition rates, even among second- and third-generation Latinas (Driscoll, 1999, p. 871). They are underrepresented in post-secondary schools (Ginorio & Huston, 2001, p. 10). As mentioned in the review of literature, programs are currently under development about remedial teaching strategies. A constellation of causes, rather than a single factor, challenge the educational community by virtue of its complexity. To reverse the syllogism, a complex problem should not seek a single solution; rather, it should look to available resources to provide multiple resolutions to a labyrinthine dilemma. More, within a given ethnic group, gender expectations would contribute significantly to choices made by individuals. For Latin American women, the cultural bias would place less importance on their education than their male counterparts (Ginorio & Huston, 2001).

The art teacher's response to issues of cultural and gender sensitivity is determined by several factors. The first is the instructor's own philosophy about the role of the artist, and the purpose of art in general. A formalist curriculum could simply avoid the issue; art as social commentary proponents would address the issue directly, if not confrontationally. Adherents of DBAE's multicultural version endorse balanced context, according to Chalmers' 1996 publication, *Celebrating Pluralism: Art, Education, and Cultural Diversity*. However, three of the four strands (aesthetics, criticism, and history) are essentially language-based. For students struggling to understand the rudiments of both language and an unfamiliar, if not antagonistic or indifferent, culture, this places unrealistic demands upon both the teacher and the taught.

Confrontational social theorist/artist-as-facilitator methods encounter a different set of problems, usually at an administrative level. The reality for many arts programs is that they are considered non-essential and therefore expendable. Even the classification of “elective”, “enrichment”, or “exploratory class” implies ancillary inequality. The analogy “if you want to keep your head, stay below the line of fire” aptly describes the incompatible issues many art teachers juggle, when reconciling system or policy preferences with the needs of their students. Drawing negative attention through controversial and oppositional content matter, at least in some areas of the country, would compound funding difficulties, if not jeopardize the program. Therefore, while powerful, the program philosophy put forth in *Chicana and Chicano Space* (Erickson & Cardenas, 2001) might experience institutional resistance in some conservative, Southern tier states, which are experiencing an unprecedented growth in Hispanic populations. The following statement from this site illustrates a valid aesthetic concept which may nevertheless prove troublesome to some administrators:

We all choose which traditions to follow and which to challenge. When people are not satisfied with things the way they are, they sometimes protest or try to persuade others to change their ideas. They work to change things by criticizing or protesting the old ways and replacing them with new ways. Some protests lead to revolutions. There are various kinds of revolutions. In political revolutions the old powers are overthrown and new people take over the government. In social revolutions the relationships between social classes change, or the population experiences the rise of new social classes or the expansion of existing classes. In economic revolutions wealth changes hands. There are also scientific, industrial, agricultural, artistic, and religious revolutions when old ideas are replaced by new

ideas. In many cultures, artists use their artworks to protest or to bring attention to their ideas. The result can be the overthrow of a system or change within the system. Sometimes a painting, sculpture, or building can persuade just as well or better, than words can. Art can protest, propose, and provoke ideas. (Erickson & Cardenas, 2001, p. 1)

Reconciling the need for well-grounded instruction and socially responsible and relevant art curriculum remains a challenge, regardless of the classroom demographic.

Barriers: Cultural

When immigrants attain residency within a new country, new problems emerge. Citizenship is not a panacea. Language barriers, legal status, institutional prejudice, economic pressures, loss of family structure and stability, characterize the unforeseen challenges awaiting the sociologically diverse, immigrant Latino. It is not dissimilar to the experiences of other people during mass migrations to the United States; the primary difference is the status of the immigrant. It is possible to perpetuate an informal caste system, simply because many Latinos are considered illegal aliens. My own encounter during a practicum with a young Latina, who at 12 was already too mature for the fifth grade class she was placed in, exemplified bureaucratic indifference and family acquiescence. I met her at the end of the school year, in a class where she had sat quietly in the back of the room, with only a computer with non-functioning software for translation. We worked independently in the library with cross-language tutoring: She was as much help with my stumbling Spanish as I with her English. She was curious and bright, and I was appalled that she was allowed merely to exist within the classroom. When asked about the situation, it was made clear that the parents did not wish to cause any problems. Later I realized that what was initially thought to be parental irresponsibility was more likely fear. The idea that

a parent would fear retribution through an organization whose goals are ostensibly humanitarian was an epiphany. The lack of knowledge concerning cultural and linguistic barriers, and erroneous assumptions about educational equity, became painfully apparent.

Many individuals have chosen to camouflage their ethnic origins over successive generations by changing names, first imitating, then participating in the majority culture. The Irish are a familiar example; when large numbers arrived in the mid-nineteenth century, they began their American journey in the midst of ghettos, performing menial jobs. The goal for middle class Irish Americans, therefore, was to go to college, become successful, and blend invisibly into predominantly White, albeit Protestant, America.

Group migration demands adaptation. Individual responses to unavoidable disruption, however, may be rigid or flexible, acquiescent or rebellious. Certain cultural expectations and inclinations may elicit generalized responses; statistical analysis of group behavior assumes identifiable patterns will predict specific outcomes: For example, Ogbu's (1998) classification of voluntary and involuntary immigrants theorized that different ethnic groups would acculturate into the larger society based upon whether their presence was by choice (immigration) or force (slavery).

Whereas most people have come to the United States by choice, those who have not encountered an endemic prejudice, which appears to have been transferred to the Latino population due to issues of economics and immigration status. They have become the new underclass. Barriers may be real, such as those shown in Vergara's photographs of the border between Mexico and the United States (Figure 3); or invisible, like the economic segregation of the *barrio*, a barrier imposed by class difference. Latino/Latina students' struggles are witnessed through continuing high rates of academic failure. It is an educational crisis requiring creative

solutions. The art room is the room within the house of education already pre-wired for creative response; and, ideally, good art teachers are comfortable with divergence, the necessary ingredient for successful pedagogy when addressing the needs of diverse students.

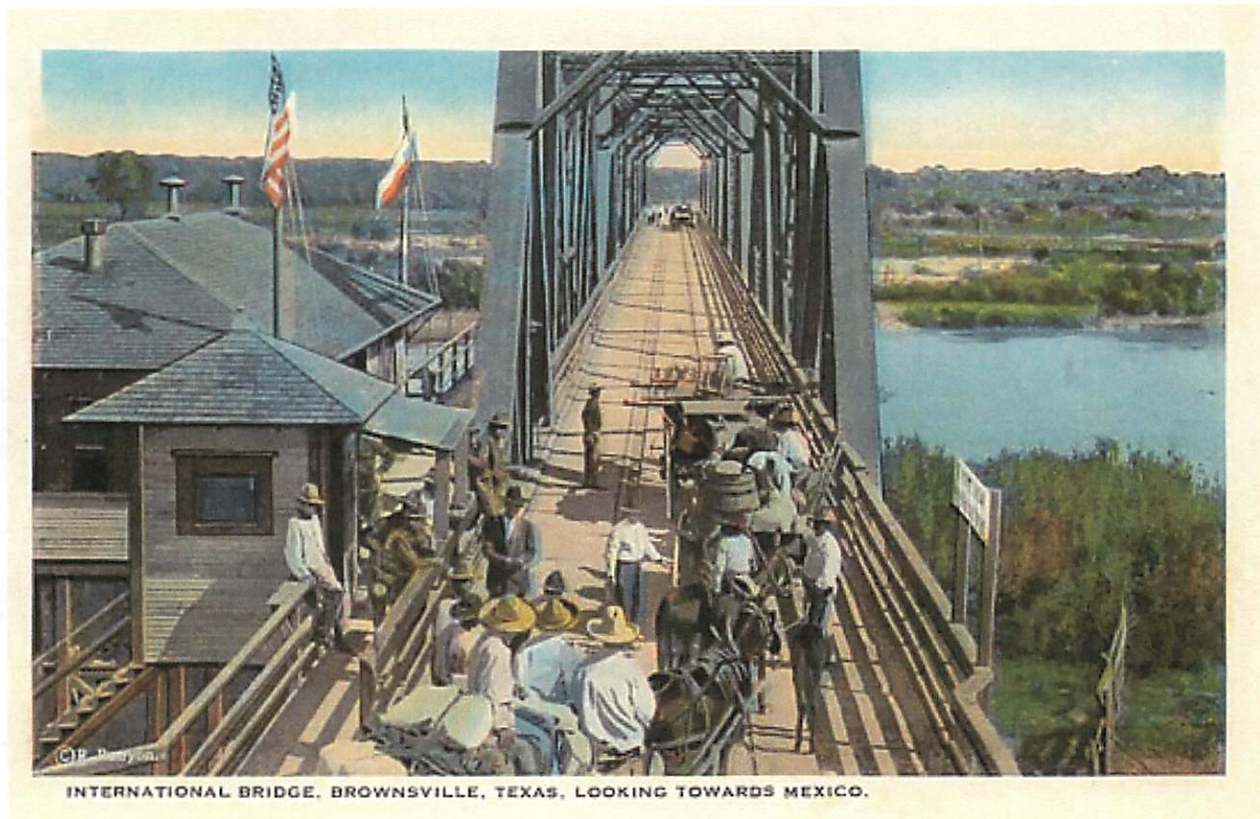


Figure 1: International Bridge, Brownsville Texas. Postcard showing the view from the United States to Mexico; early 20th Century. USGenWeb Archives

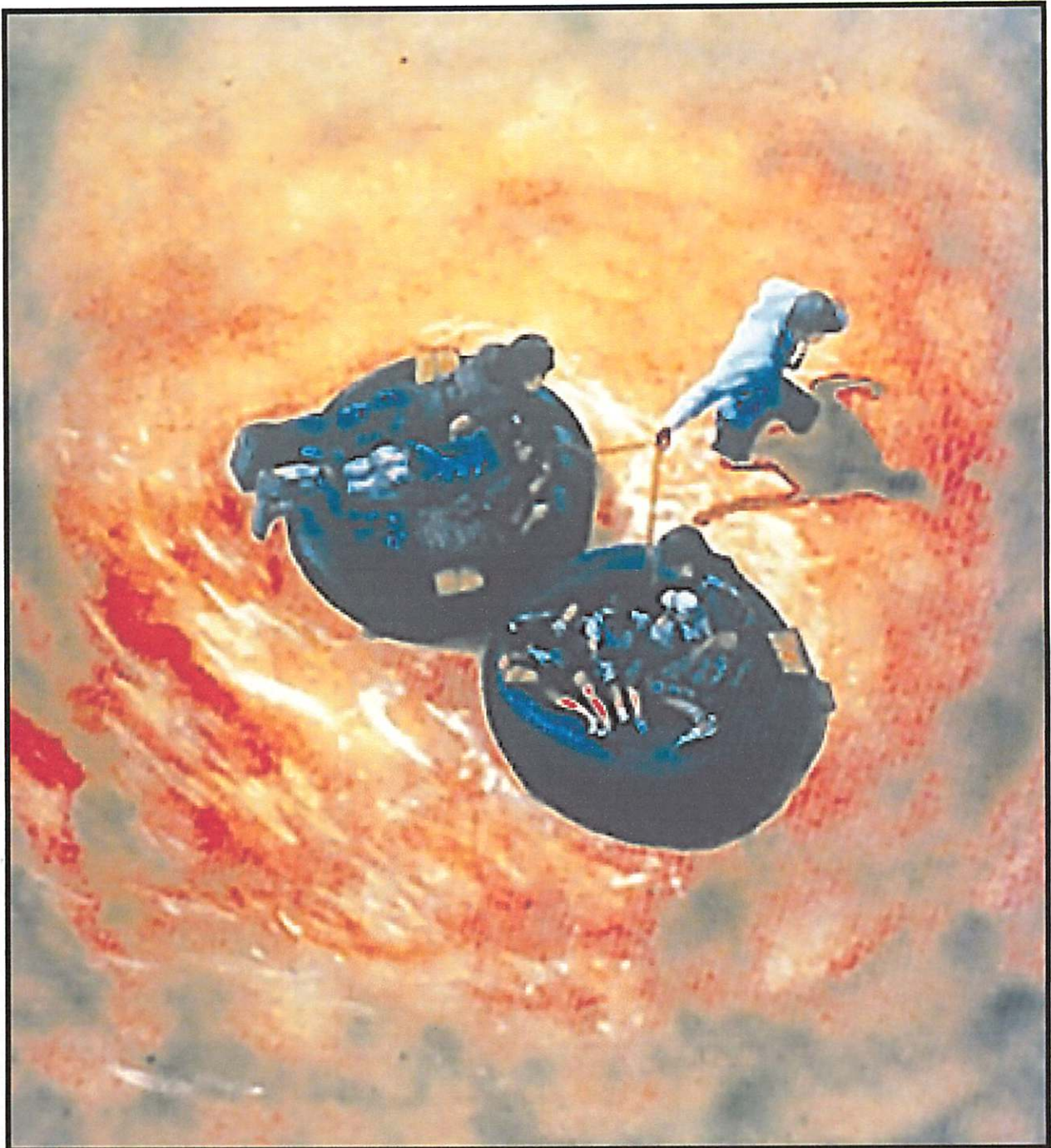


Figure 2: Carlos Callejo, *La Cruzada, (The Crossing)*, 1991 Pastel and prismacolor, 54 ¾" x 51" El Paso Museum of Art Collection



Figure 3: Camilo José Vergara, *Warning Sign*. One mile north of the Garita de Otay border crossing, San Diego County, 1997. *Architecture*, v. 88, no. 1

CHAPTER IV

The Curriculum

A bridge is familiar object, in its most rudimentary form as a log across a stream, to the complex constructions found in modern cities. Children act out bridges in games, intrigued by “crossing over” something. As a child I loved bridges, with reflections of the sky, and the movement of the water. Like Alice in Wonderland, the reflected world was a looking glass into a different, more interesting place. So fascinating were the reflections from below, that I would put my dresser mirror on the floor, and pretend that I was living in an upside-down world.

As I grew older, the fascination changed. I grew afraid of heights, and tried to conquer that fear by walking to the center of a train trestle in Kentucky. High Bridge was precisely that: One of the highest freestanding train bridges, spanning the deceptively slow moving Kentucky River. Under normal circumstances it was a bad idea; my fear of trains compounded the problem. Predictably, just as I reached the middle, a freight train rumbled across the narrow bridge. The terror as I wrapped myself around a rusted guard rail, and clung desperately until the train passed remains vivid today. It was cathartic, and my attitude about bridges changed completely: I owed my idiotically adolescent life to the unknown architect of that train trestle. It was beautiful, useful, well-built, and now, personally symbolic.

One encounters bridges everywhere. They can be found over rivers, between trees, balancing one’s glasses over the eyes, wedged beneath the strings of a violin, holding a false tooth in place. Army ants build bridges over obstacles with their own bodies. Artists use bridges to build cohesive compositions; builders use art to create beautiful bridges.

Engineers create beauty through the search for perfect form from function; they also create disasters like the Tacoma Narrows Bridge, (Figure 4), the suspension bridge which

collapsed November 7, 1940 due to wind-induced vibrations (Smith, 1974). In a Buddhist garden, the bridge is a spiritual object, representing the spiritual journey between earth and paradise (Cozadd, 1998). The word “bridge” is a common metaphor for connecting people, places or concepts; it can also be a metaphor for separation. Throughout history, bridges have functioned as strategic military targets, sites for romantic liaisons, places of desperation and finality. Bridges are real, ubiquitous, and symbolic. Following Spencer’s admonition to teach from the known to the unknown, the *bridge* was chosen as a universal and understandable theme.

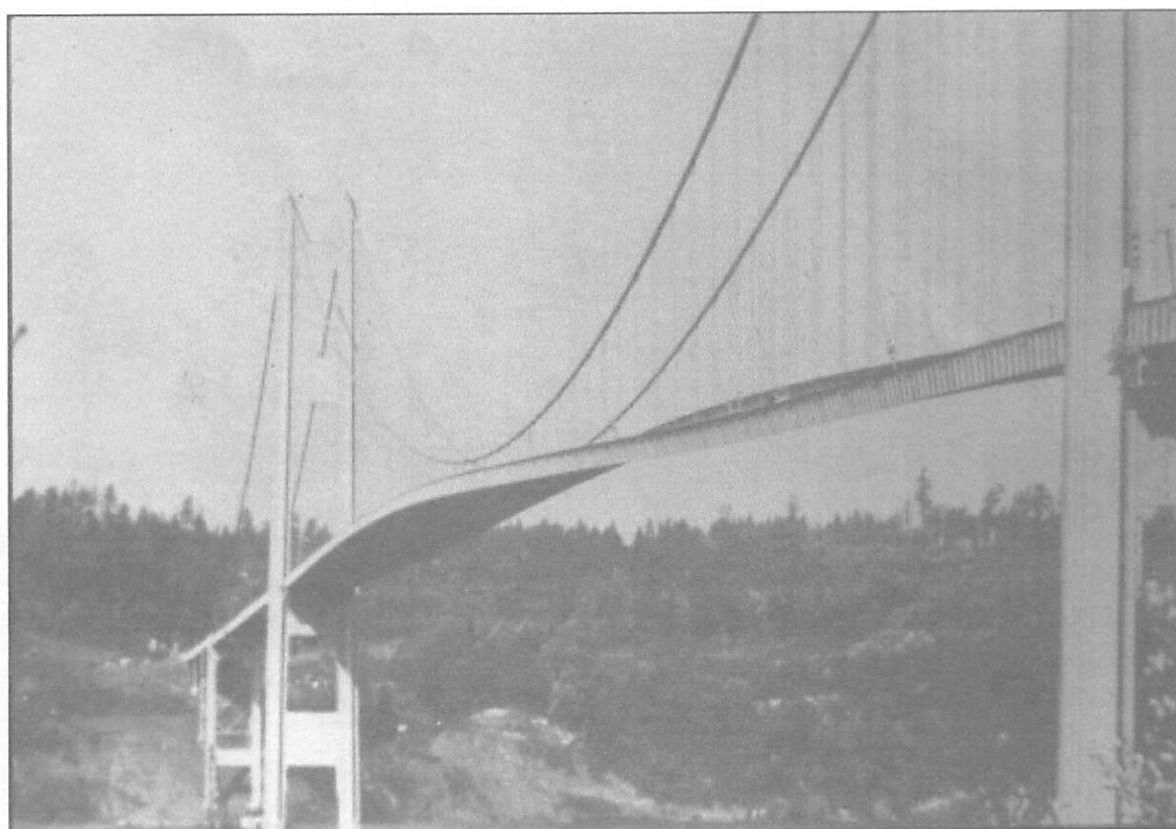


Figure 4: Tacoma Narrows Bridge, 1940. This photo was taken from film footage showing the bridge’s collapse due to extreme oscillation.

Rationale

The Bridge and the Elements of Art

The curriculum is divided into three sub-units, each providing a necessary link in the process of teaching metaphor through exploration of known objects. Each section begins with the footage of the collapse of the Tacoma Narrows Bridge. This brief but fascinating view of design failure intrigues students, and serves to capture their interest. In the first unit, *Bridge as Object*, we look at surviving examples of Roman bridges and viaducts which continue to inspire artwork; for example, works by Klee and Cotman. This series of lessons, identifies formal components of bridges. A basic vocabulary of line, shape, form, texture, hue, value and space, hopefully familiar to the students, is reviewed. The objective of *Bridge as Object* is the search and identification of bridges as both real and art objects. Students are introduced to *L.O.S.T.*, an organizing tool that identifies bridge functions. Location, or perceivable space, is *L*; obstacle, or *O*, stands for the challenge within the location; structure, *S*, is a construct or solution to the obstacle; and *T*, traveler, is the resolution of the function of the bridge, or something or someone who uses the bridge. In the first section, using actual bridges, the identification of *L.O.S.T.* is relatively easy. Each word is a visual concept, reinforced through power point lessons, which allow students with limited verbal or linguistic mastery to comprehend meaning without lengthy definitions. An important exercise for all classes is to contrast the complicated task of writing a *verbal* art definition vs. drawing a *visual* definition. Graded assessments give equal credit for written or drawn definitions.

As an object, bridges can be “deconstructed” into basic building blocks. As an architectural object, a bridge clearly shows line, form and space. The essential concept of connectedness, distilled in abstractions such as Franz Kline’s *New York, NY*, (Figure 29),

establishes continuity. Geometrical as opposed to organic, bridges represent a visual subject that has been the object of numerous abstractions, including Helene Brandt's *Portable Bridge* (Figure 29), and Joseph Stella's paintings of the Brooklyn Bridge (Figure 29).

After *Interior Passages*, (see Appendix C) a power point presentation created as an introduction to the entire unit has been shown, students are introduced to the Brooklyn Bridge. While not as familiar an icon in the South, it is a beloved aspect of the New York landscape. Many photographs of the bridge show the World Trade Center in the background, now only a poignant reminder. The dialogue between fine and applied arts, architecture and engineering, stone masons and sculptors, and workplace safety, engages students otherwise indifferent to a class about drawing and painting. Following class analysis and discussion of the structural and geometric qualities of Piet Mondrian's and Frank Stella's works, the students create one 2D

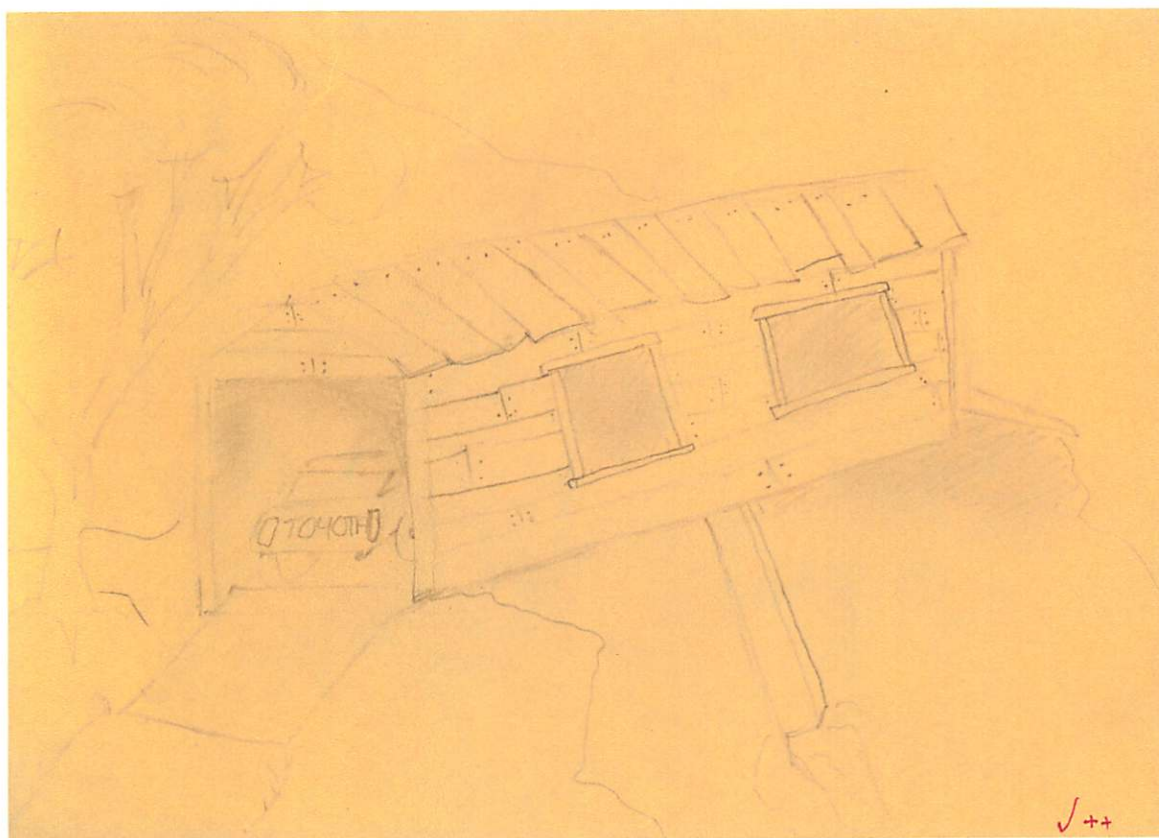


Figure 5: Student artwork showing a bridge drawn from memory.

and one 3D piece of artwork. The lesson plan segues between *Bridge as Object*, and *Bridge as Compositional Device*, the second section of the unit. Students demonstrate their understanding of the elements of bridges to the task of building, or composing a bridge. Working from memory, they draw a bridge from memory. They are encouraged to reflect upon the experience of crossing the bridge. The drawings can range from the imaginative to the highly detailed (Figure 5).

Students then watch L.O.S.T; and identify the four essential parts of a bridge. Without alluding to later material, the emphasis is formal, or structural, laying the foundation for composition, and the final unit about extracting analogous meaning and content as it relates to the individual. Students draw a second bridge, and identify each component (Figures 6 & 7). At this point, the disparity between drawing skills of certain students becomes apparent. Bypassing this inequity, which often has a paralyzing effect upon middle grades students, the first drawing artwork is torn into components, and laid on a the table as a template (see representative lesson plan procedures, *Abstract Reasons*). Students move the template, using it as a reference, producing a torn paper version which is glued to a 12 x18 sheet. The resulting “abstraction” of a bridge contains all of the essential elements of a bridge, but has been transformed into an abstract design. This essential step leads to the next unit segment, concerning composition. Once the process of bridging has been identified, it can be generalized, and applied to other examples.

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Bridges

connect - 2 (or more) separate points A. B.

over something - challenge, obstacle: water, gorge, swamp.

Be supported 2 ways.

A. Either side is tied into point A+B; or something.

B. Hold the bridge up.

1) Pathway to cross over; Road, log.

2) Someone or something that uses the bridge.

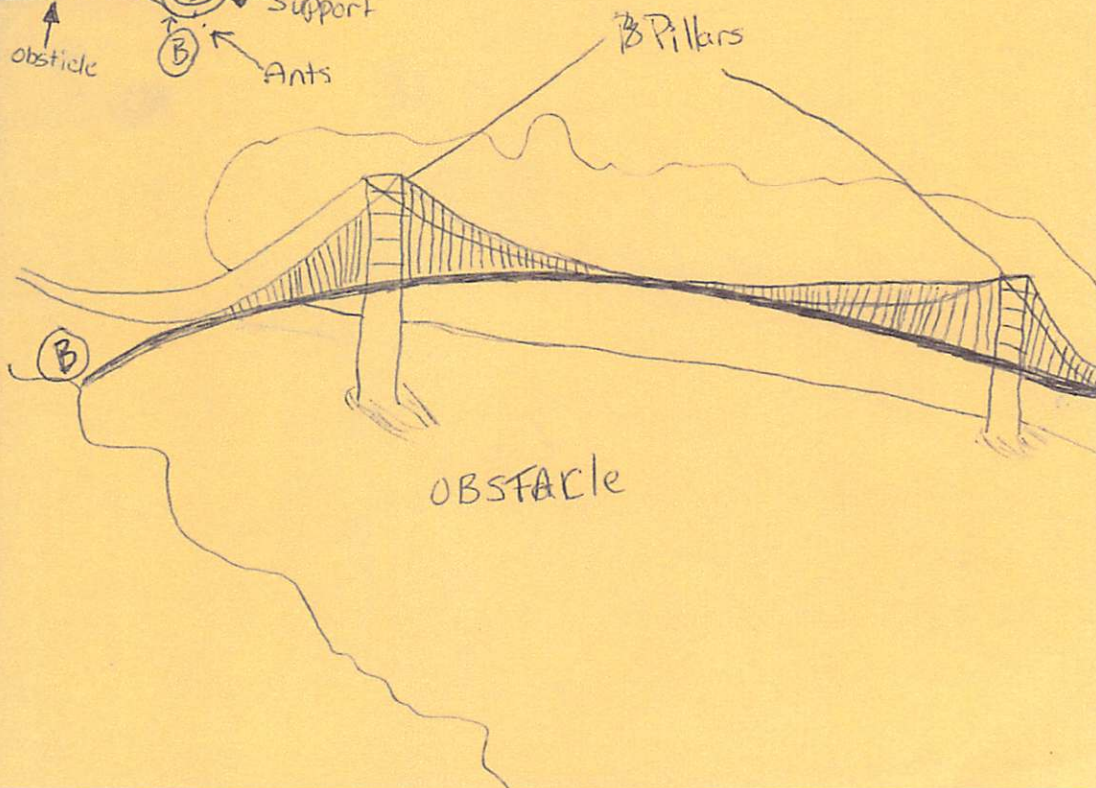
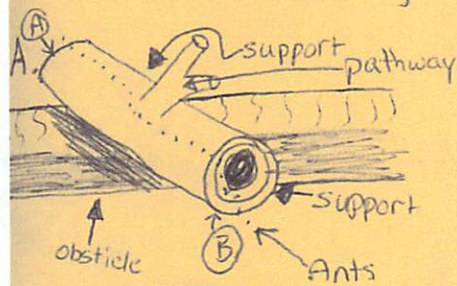


Figure 6: Student artwork showing a location, obstacle, structure, and traveler.

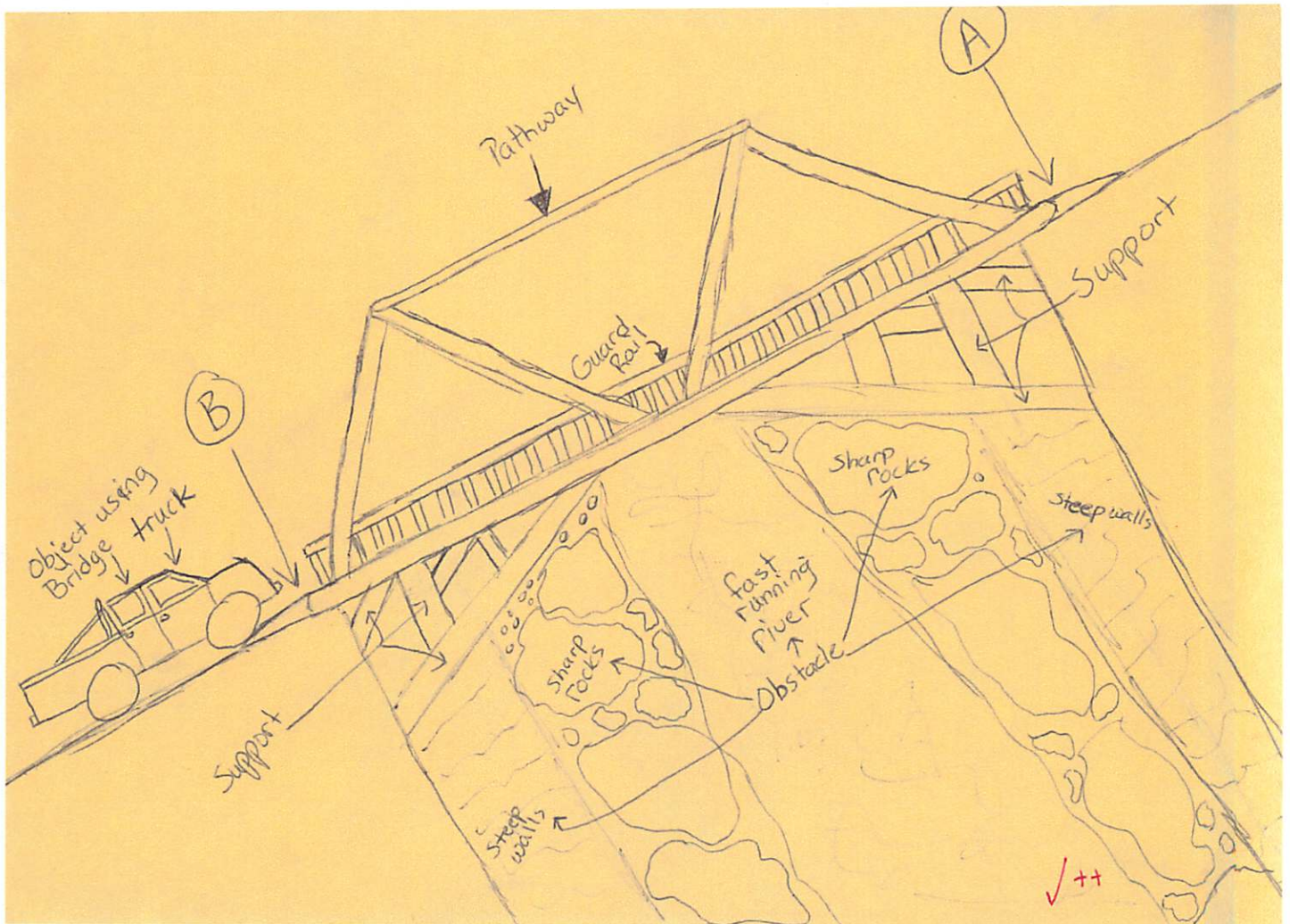


Figure 7: Student artwork showing a location, obstacle, structure, and traveler.

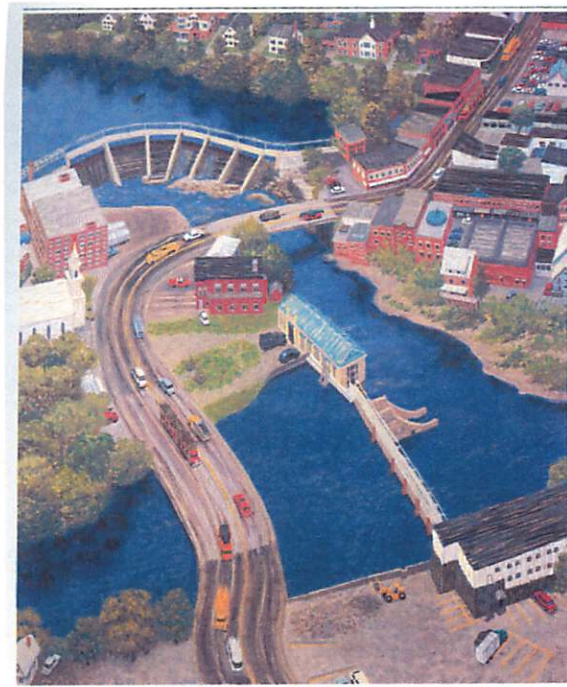
The Bridge as a Compositional Device

In this unit segment, the formal aspects of *bridge* are extracted, and applied to artworks without identifiable bridges. The concept of abstraction as distillation and interpretation is examined through the comparison of real-world objects with artwork. *Bridge as compositional device* utilizes form and function to derive formal composition, using the principles of design. Concepts such as balance, unity, repetition, movement are presented, and reinforced through studio activities.

Teaching the principles of design is not unlike teaching the rules of grammar. They are only relevant and completely understood when applied. Traditionally, textbook art lessons introduce each element of art, followed by the principles of design. Each element/principle is reinforced with an activity. While standard procedure for academic classes, the quality of interconnectedness, and reflexive interdependence necessary to fully understand art, are lost. The ideas become fragmented: This artwork demonstrates line, that one asymmetrical balance, another pattern and shape. Combining visual elements into a product with aesthetic merit is similar to the relationship between grammar and creative writing. Knowing how a sentence is formed or words spelled does not mean one can write well. Music provides another analogy. One first learns to play an instrument; then plays with a group; and, if capable, generates new compositions. One can play without composing; writers can communicate effectively without creativity; and visual artists can mimic, with great skill, artworks without understanding the principles governing composition.

The question is then asked: How are Frank Stella's *Thruxton 3X*, Yvonne Jacquette's *Town of Skowhegan, Maine V*, (Figures 8 & 9) more similar than dissimilar? Despite widely differing content, both share similar compositional devices, such as movement, rhythm,

repetition, and unity. Art work, even highly abstract pieces, present a deliberate juxtaposition of parts: The relationship between those parts can be considered *compositional bridges*. All lessons in this section are predicated upon the identification of visual bridges.



Town of Skowhegan, Maine V, 1988
Oil on canvas, 78 x 64 in.
Courtesy, Brooke Alexander, New York

Figure 8: (left) Frank Stella, *Thruxton 3X*, 1982, mixed media on etched aluminum, 75" x 75" x 15". The Shidler Collection, Honolulu, Hawaii.

Figure 9: (right) Yvonne Jacquette, *Town of Skowhegan, Maine V*, 1988, oil on canvas, 78" x 64", courtesy Brooke Alexander, New York.

The deliberate absence of unifying tools effectively shows separation, solitude, or dominance. Works by Michelangelo, Caspar Friedrich, Winslow Homer, and Jan van Eyck (Figures 11, 12, 13, & 14) are analyzed in much the same fashion as the three preceding examples, differing in that design principles enhance understanding of the pictures' narrative content. Once again, the sample lesson plan is transitional to the final section. The students

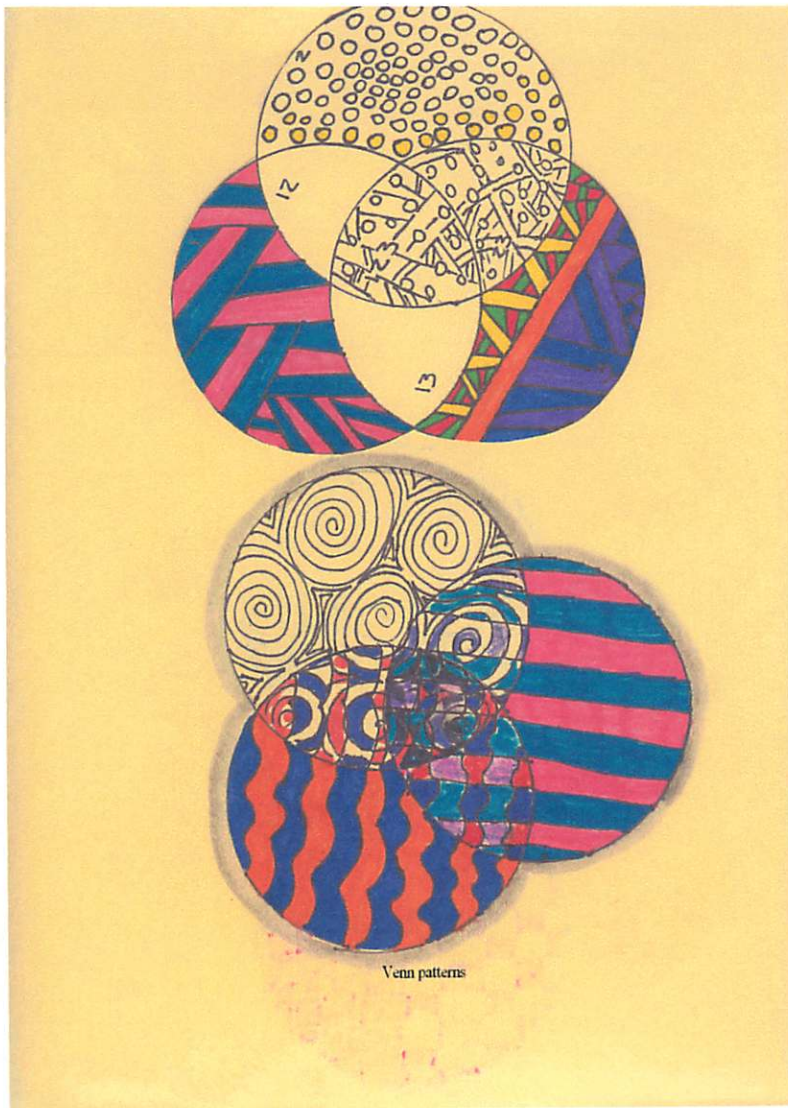


Figure 10: Student artwork. Venn diagram patterns showing intersection, a demonstration of visible overlapping bridges.

begin with a math concept, known as Venn diagramming (Figure 10). Objects can be single, contiguous, or overlapping. Before moving to the section using arm/hand cutouts, simple shapes such as circles are used. Single shapes can be one color, or pattern. When combined, intersections become blends of colors and/or patterns, or blank (null set). Looking at Homer Winslow's *Dressing for the Carnival* (Figure 15), the figures are simplified to ovals, and

overlapped to show the importance of the single child on the left. Eighth grade students are familiar with simplified Venn set theory; by reinforcing a known concept, transference occurs between academic work and visual imagery.

The final lesson moves from theory to meaning, by using the human form rather than geometrical shapes. Students should be able to visualize implied lines and shapes, by changing the area of intersection; in so doing, they begin to create depth within a picture plane by assigning placement in the foreground, middle ground, or background. Using human forms, especially their own, generates ownership both in the process and the final mural. Following the “known to unknown” path described by Spencer’s 19th C. deductive learning, students employ math skills to an aesthetic object. The resulting product is both abstract, in the sense of being based on a real object, but altered to represent a concept other than individual identity.

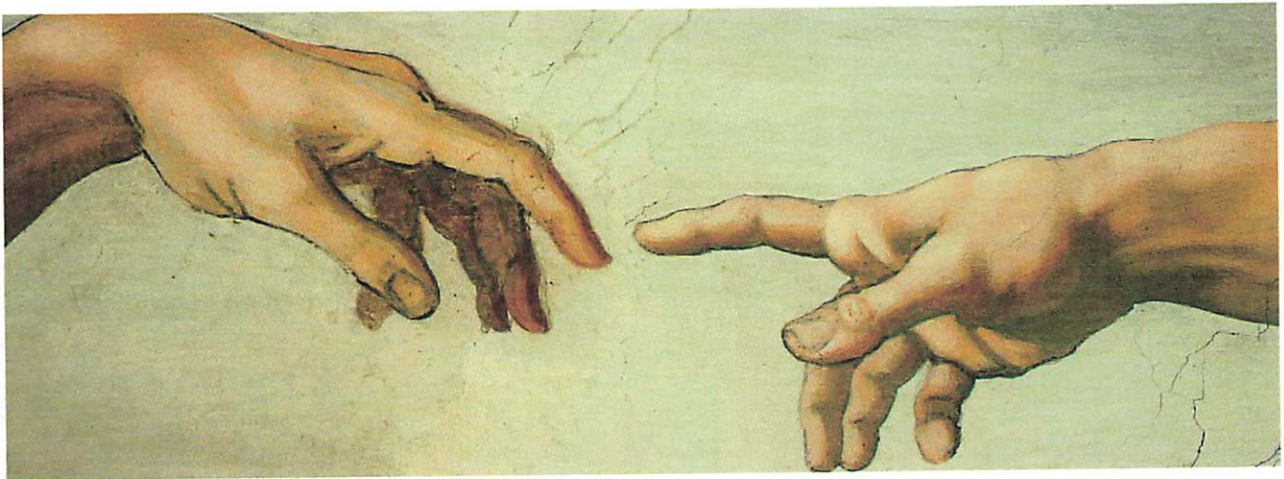


Figure 11: Michelangelo. Detail from the Sistine Chapel. *Hands of God and Adam*. Fresco. From Mark Harden's [Artchive](#).

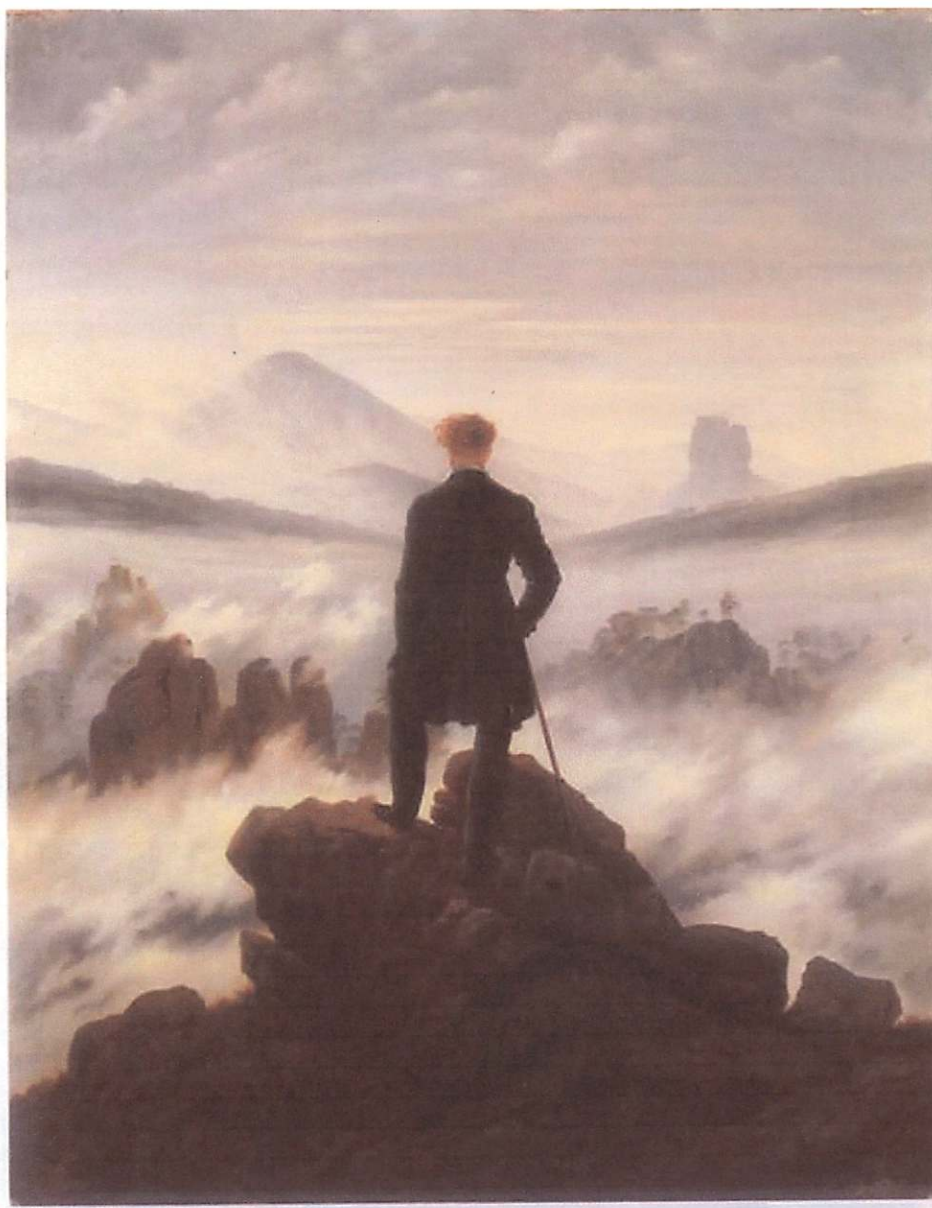


Figure 12: Caspar Friedrich. *Wanderer Above the Fog*. 1818. Oil on canvas. 94.8x74.8 cm.
Kunsthalle, Hamburg.



Figure 13: Winslow Homer. *The Life Line*. 1884. Oil on canvas. 29 x 45". Philadelphia Museum of Art



Figure 14 and detail: Jan van Eyck: *The betrothal of the Arnolfini*. 1434. Oil on wood, 81.8 x 59.7 cm (32 1/4 x 23 1/2 in.), National Gallery, London



Figure 15: Winslow Homer, *Dressing for the Carnival*. 1877. Oil on canvas, 20" x 30". The Metropolitan Museum of Art, New York

Bridge as a Metaphor

In *bridge as metaphor for self*, the lessons derive from the preceding sections.

Metaphorical meaning, which parallels abstraction, refers to one concept expanded through comparison with a different context. The basic premise for teaching metaphor in this manner is to present an object that is familiar, through the real object, then as it is shown in art objects. Traveling from the known to the unknown, from the familiar to the abstract, is a vehicle for the journey; the pathway and the journey's end transform with individual interests.

After reviewing L.O.S.T., or and how bridges function as compositional devices, eighth graders watch *Interior Passages: Bridge as Metaphor for Self* (see Appendix). A short, four minute multimedia Power Point presentation, it skims across diverse bridge representations. Lyrics from Milton Nascimento's 1968 song, *Travessia*, capture the bridge metaphor, linking visual images with music and poetry. At this point, metaphorical content and interpretation become the primary focus for the lessons. Built upon a foundation of elements and principles, using a familiar object, and the "self" as context, the *bridge* is transformed from an extrinsic object to an intrinsic process. Students are asked to imagine themselves as moving towards some goal. Student perception of self becomes the bridge between a known condition and a created persona. For most students, the process was more like a roadway than a bridge; a secondary level of bridge personification to student was elusive (Figure 16). The process was non-linear, free from programmed or formulaic response, and essentially visual. While narrative, each piece of artwork is characterized by ambiguity, leaving it open to interpretation. Because it is open-ended, any response is valid, representing an individual's perception of his or her place within a larger context. It is specifically meant to generate a visual "image": an imaginary road trip to an unknown future.

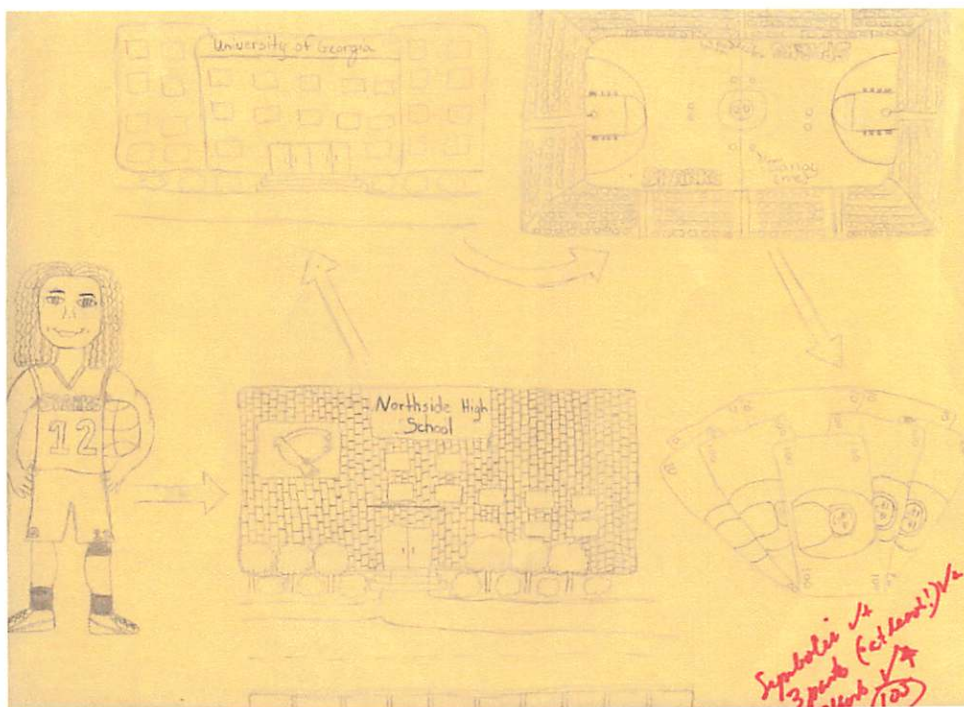


Figure 16: Student artwork. Eighth grade drawing of personal growth.

Referencing Lucy Lippard's Mixed Blessings (1990) works by artists such as Marina Gutierrez' work *Biography* (Figure 17), and Howardena Pindell's *Autobiography: Water/Ancestors, Middle Passage/Family Ghosts* (Figure 18) are analyzed for form, composition and meaning. Each artwork is a complex self-portrait, communicating individual, ethnic, and family histories. In addition, the collage-like effect, and emphasis on content rather than formal drawing and painting techniques, creates an opportunity for discussions of aesthetic merit and art criticism. Usually, the initial response to Pindell's work has been one of bewilderment; as the piece is deconstructed, student indifference changes to interest. Gutierrez' triple self-portrait is more accessible, until the cartoon-like images with symbolic imagery referencing individual struggles are decoded. Students relate their own experiences with alienation and school persistence, personal autonomy and external mandates, self-worth and self-loathing.



Figure 17: Marina Gutiérrez: *Biography*. 1988. Acrylic on Masonite with suspended metal reliefs, 48" x 60" x 6". From L. Lippard's Mixed Blessings.

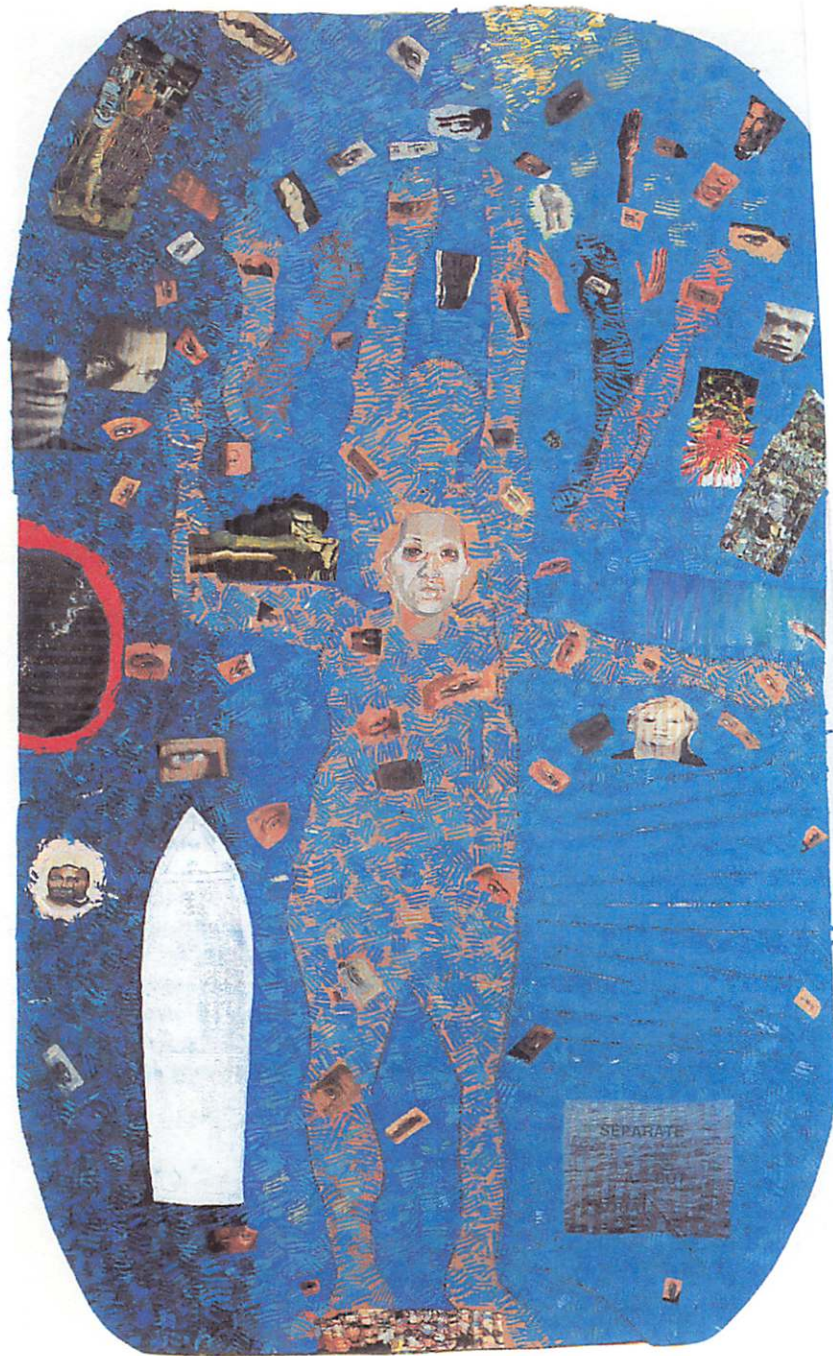


Figure 18: Howardena Pindell, *Autobiography: Water/Ancestors, Middle Passage/Family Ghosts*, 1988, acrylic, temper, cattle markers, oil stick, paper, polymer photo-transfer, and vinyl tape on sewn canvas. 118" x 71". Collection Wadsworth Atheneum, Hartford, CT. From L. Lippard's Mixed Blessings.

The essential nature of a bridge is that it connects two things. Examples of failed bridges, like the Tacoma Narrows Bridge (Figure 4) capture student interest. Examples of failed bridges with symbolic content might include Camilo Vergara's photographs of the U.S./Mexico border. Frida Kahlo's *Self Portrait Between the Borderline of Mexico and the United States* (Figure 19) is a metaphorical bridge. Her right foot touches ancient Mexico, with her left foot in the factory-defaced land of the United States. A bridge, whether real or metaphorical, implies linear connection; however, the path may be indirect, even spiral-like. Leonora Carrington's *Labarinto* (Figure 20), curls mazelike in a journey to some ominous end. It is more a vortex, whirling inwardly.



Figure 19: Frida Kahlo, *Self Portrait Between the Borderline of Mexico and the United States*, oil on tin, 11 ¾" x 13 ½", private collection



Figure 20: Leonora Carrington, *Labarinto*, 1991, oil on canvas, 77cm x 91cm, Galeria de Arte Mexicano.

Understanding metaphor and meaning is challenging at any grade level; for middle grades, the intellectual process of abstraction has been mastered by some, certainly not by all. Art, however, functions in the realm of the symbolic, especially 20th century art. Lessons which sidestep meaning and metaphor deprive students of an essential tool for art appreciation. There are many ways to approach metaphor, most involving lengthy verbal explanations. For students struggling with written and verbal skills, direct instruction and writing are counterproductive. Students seeing the two sculptures, *No Escape* (Figure 21) and *Portable Bridge* (Figure 22), however, are able to contrast the two sculptors differing versions of paralyzing isolation and personal mobility. Comparing these 3D examples with the paintings by Kahlo and Carrington,

multiple levels of meaning emerge. The fact that both sculptures and paintings were made by women opens the door to the discussion of gender bias in the art world; for male students, that women achieve recognition in an area usually dominated by men (Figure 23); and for female students, that gender, while irrelevant to the production, is fundamental to the message.



Figure 21: Louise Bourgeois, *No Escape*, 1989, wood and metal, 96" x 99" x 120". Private collection.

Figure 23: Helene Brandt, sculptor, photograph 1983.



Figure 22: Helene Brandt, *Portable Bridge*, 1983, wood and steel, 3' x 3' x 30'



The bridge as a metaphor is a common example. For students taking their first tentative steps away from tangible reality into the realm of abstraction, using a familiar object is prerequisite. Otherwise, it would be like trying to sight read a song in another language before learning the notes or the meter. The first exercise in this section uses the juxtaposition of the *Eye* by Escher, *Tyne* by Edwards, and photographs of the Tyne Bridge in England to establish changes in scale, bilateral symmetry and reflection, balance, and movement (Figures 24, 25, and 26). Students follow a simple process to create a logo for the make-believe company, *Idea, Inc.* They develop flexibility by combining objects significantly different in scale; and generate a simple image with multiple meaning by the juxtaposition of the letter I, an image of an eye, and the concept of an idea. Evaluated by the class as a jury, each work is judged for content and creativity rather than execution. Ideas are combined; ownership lines blurred, and the final product may be the idea of one student, refined by another, and produced by a third. The eye becomes the metaphor for personal vision, generating creative thought. Once they understand the process, students are encouraged to look for other metaphors in media and advertising.

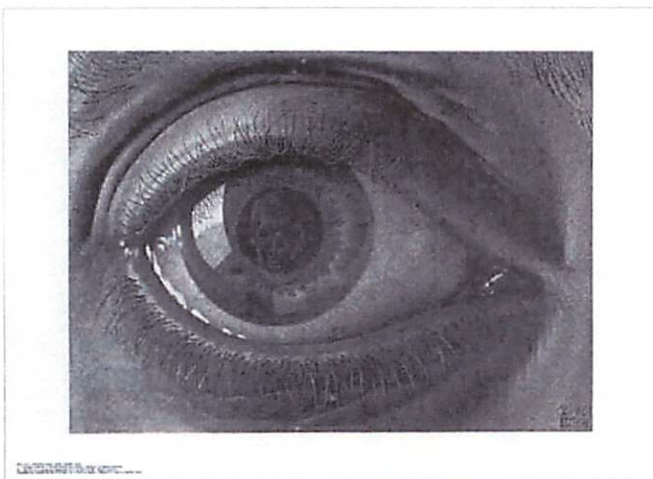


Figure 24 (left): M.C. Escher, *Eye*, 1946, Mezzotint, 12.5"x12.5", One of four "states".

Figure 25 (right): Tyne Bridge, England, photo from IC Newcastle Chronicle.

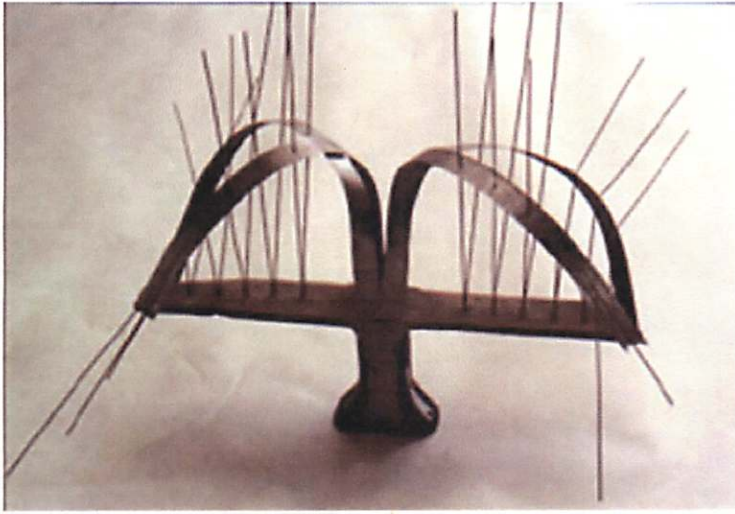


Figure 26: James Edwards, *Tyne*, Wood, wire and metal sheet sculpture inspired by the Tyne Bridge. The Judd School, Tonbridge, Kent, England.



Figure 27: Archive photo, building the Tyne Bridge.

CHAPTER FIVE

LESSON PLANS

Organization

As explained in chapter four, the nine week unit contains three discrete subunits starting first with the shared elements of art and of bridges, proceeding to compositional devices found in bridges and artwork, and ending in the application of bridge function as metaphor for self. Chapter five outlines the unit plans for each subunit, followed by daily lesson plan schematics. Each subunit includes a representative lesson plan, including illustrations of student artwork, and published examples for the art history component of Georgia Quality Core Curriculum, Fine Arts and Visual Arts (QCC: FAVA) (Georgia Department of Education, 2004).

Table 1, *Georgia FAVA: Eighth Grade*, is an overview of the Georgia fine arts and visual arts curriculum standards, using the bridge as a unifying theme. The four strands (creating, critical analysis, aesthetics, and history) interact with other academic areas in “connections classes”, the term used to describe middle grades elective classes. The format first lists the standard, then provides a specific example of how it can relate to a bridge. Basically, it is the “nuts and bolts” of my school’s lesson plan format, which mandate alignment with state curriculum guidelines. It is a general eighth grade outline, and applies to all the three subunits. National Visual Arts Standards (NVAS) for middle grades are also included in the table, inserted where the bridge theme relates to the Georgia FAVA guidelines. These are shown as parenthetical data below the individual FAVA entries.

The three subunits for bridge as form, bridge as compositional device, and bridge as metaphor for self are then presented as units in table format (Tables 2, 8, and 14). Each subunit begins with an outline, in table form, of the unit plan; followed by five daily lesson plans, also in

table format. comprise the next section (Tables 3-7, 9-13, and 15-19). Lastly, each unit has one representative lesson plan, with accompanying narrative, and pictures of student work.

Table 1

Georgia and National Curricular Standards for Eighth Grade Art Applied to *Bridges*

Artistic Skills and Knowledge	Application to Bridge Theme
1. Selects subject matter, including symbols and ideas (VA2, VA 3)*	Bridge as a metaphor for growth and change; reciprocity; and connections.
2. Designs and produces artworks for specific function (VA1, 2)	Design careers; architecture; design process for building a small bridge on school grounds.
3. Uses various materials and techniques (VA1)	Creates both 2D and 3D examples of bridges
4. Renders a subject in realistic detail using linear or atmospheric perspective (VA1)	Develop skills by drawing bridges, showing volume, ground /object, texture, and value.
5. Creates series imitating Nature (VA1, 2, 3)	Interpreting the same bridge as geometrical and organic objects.
6. Plans and creates a series of different illustrations on a different theme (VA2, 3)	Generate a portfolio of bridge artwork.
Applies Concepts and Ideas from Another Discipline	Application to Bridge Theme
8. Uses another discipline for sources of ideas (VA6)	Bridges in literature, music, science, math, and social studies; emphasis especially on the bridge between culture and art

Critical Analysis and Aesthetic Understanding	Application to Bridge Theme
9. Evaluates artist's use of color to create expressive effects (VA5)	The bridge is used as a vehicle for understanding the interaction of the elements and principles of design
10. Interprets linear & atmospheric techniques used to create an illusion of space (VA2, 5)	Compares and contrasts perspective drawing with other techniques used to create bridges
11. Interrelationship between elements and principles of design (VA1, 5)	Same as # 9 above.
12. Differentiates between various media (VA1)	2D, 3D, and the process of design to construction
13. Reads an art review and evaluates the main idea of the art critic (VA5)	Fitting and appropriate design: Looking at how bridges have affected their environment.
14. Develops a personal position on aesthetics (VA5)	Why are bridges art? How does a good bridge and a good example of bridge art differ?
15. Judges a utilitarian object on form and function (VA2)	Bridge failures; form follows function; and pleasing and appropriate design
16. Evaluates two or more artworks that are different, but of the same aesthetic worth (VA2, 5)	Frank Stella's <i>Thruxton</i> , and Yvonne Jacquette's <i>Town of Skowhegan</i>

Historical and Cultural Context	Application to Bridge Theme
17. Examines developments in America, & artworks produced during specific periods (VA2, 4)	Brooklyn Bridge, and Joseph Stella Juxtapose the Japanese “half moon” bridge
18. Compares and contrasts artworks from different countries (VA2, 4, 5)	with Tyne Bridge, England, and rope bridges with cable suspension bridges
19. Writes an historical account of an artist or artwork based on several sources (VA4, 5, 6)	Helene Brandt’s biography, and the sculpture <i>Portable Bridge</i>

*Note. References to VA 1, VA2, etc., refer to the following National Visual Arts Standards (NVAS)

Visual Art: 1 Understanding and applying media, techniques, and processes

Visual Art: 2 Using knowledge of structures and functions

Visual Art: 3 Choosing and evaluating a range of subject matter, symbols and ideas

Visual Art: 4 Understanding the visual arts in relation to history and cultures

Visual Art: 5 Reflecting upon and assessing the characteristics and merits of their work and the work of others

Visual Art: 6 Making connections between visual arts and other disciplines

Table Two: Subunit One *Bridge as Object*

UNIT LESSON PLAN: Bridge as Metaphor for Self: Grade Level: Eighth Grade Art

Date: from _____ to _____ Room # _____ Instructor: _____

SUBUNIT	Bridge as Object: Formalism, Structuralism
GRADE/DURATION	Eighth Grade, two to three weeks, in a nine week grading period
RATIONALE <i>Designed to address art/language: ESOL, hearing impaired, and LD (verbal)</i>	Establish the foundation for understanding art using "bridges" in the sense of a concrete object possessing essential characteristics: Location, obstacle, structure and traveler (L.O.S.T). Using visual imagery to present complex ideas; transference of synthetic thinking; and moving logically from concrete to abstract. Not predicated on language mastery.
CONCEPTS	Students learn to analyze artwork for elements and the principles that determine the interaction of different elements to create an effective composition. Special terminology is defined & applied in all lessons.
SKILLS	Enhance visual thinking through drawing rather than writing; teach organization for complex projects; learn to work cooperatively; master simple construction techniques; apply skills learned from other area, and to another area.
PROCEDURES	Daily drawings in sketch/writing pad; experiments to demonstrate structure; daily introduction to different artists and bridges in art; written definitions in portfolio (words with pictures as alternatives); methods for different media demonstrated, and safety reviewed.
EVALUATION	Begin portfolio assessment by making a "Bridge Portfolio", a graphics assignment showing ground/object relationship, mirror imaging, distortion, and subtractive drawing technique (2D version of removing the space around a 3D object; essentially drawing the negative space, or ground)

Table 3: Daily Lesson Plan, <i>Bridge as Object</i> , Day One	
DAY # ONE	DESCRIPTION: Bridge as object (Formalism) Watch: PPT: Form
Terms	Realism, Formalism, Futurism, abstraction, balance (formal, informal, bilateral, radial)
Elements/Principles	Characteristics of line, and shape; Organic as opposed to geometrical; Value: effective art through contrast
Art History	<i>The Brooklyn Bridge</i> , 1922, Joseph Stella, USA. The role of immigrants in the development of fine arts and architecture in the development of the United States.
Theory	Form follows function for constructed objects; abstraction and the extracted essence of an identifiable object. Contrast with <i>non-objective</i>
Activity	Fold gray paper in half, long ways; cut ½ Gothic arch; fold two times more, cut smaller arches across bottom. Open, and lay across black paper. Glue. Using (precut) strips of brightly colored paper, radiate lines in abstraction of cable suspension of the Brooklyn Bridge
Critique/Assessment	At the end of class, all artwork is placed on board for evaluation. Assessment is for following instructions, neatness, completeness, and effective use of contrast to create desired appearance.
Materials/Resources	Definitions; artwork in PPT format; examples of student work; 9x12" black and gray construction paper; 12" x ¼" strips of scrap papers, multicolored and white; scissors; glue

Table 4: Daily Lesson Plan, <i>Bridge as Object</i> , Day Two	
DAY # TWO	DESCRIPTION: Bridge as object: Structure
Terms	Fine and applied art, architecture and construction, 2D and 3D, space, volume, real and implied, cantilever
Elements/Principles	warm colors, primary colors, neutrals; contrast; space; scale, overlap, rhythm
Art History	John Augustus Roebling, architect and builder: The Brooklyn Bridge. Germany, 1806, NYC 1869 PPT about the bridge. Contribution of immigrants to American Arts. Horace King, African American, emancipated slave who became a 19 th Century master builder in Georgia. Current importance of Latinos in construction field..
Theory	Form follows function. Objects that may or may not be aesthetically pleasing, opening the discussion of art created for a specific purpose, and corollary, usable object created for aesthetic purpose.
Activity	File Card Bridges: Students will compare the relative strength of file card bridges. Using one 5x8 card, students will make a simple span, embedding the edges in two books placed 6" apart; then an arch (will have to crease for activity); and finally, folding it according to a pattern on the bottom of the data sheet, a cantilever reinforced span. they will work in groups of twos, one placing pennies on the structure, until it fails, and the other recording results. Class results are compared, and the best two structures compete for the coveted "Graphite Pencil of Fate" Award (see below)
Critique/Assessment	Results are posted, and top live-load support team each wins a pencil. As students are disqualified, they may donate their pennies to teams who have used all of theirs, with it still standing.
Materials/Resources	PPTS, computer, Gateway monitor, 5x8 cards, baggies with pennies, <i>National Geographic</i> in jackets for weights, rulers, data sheet with pattern.

Table 5: Daily Lesson Plan, <i>Bridge as Object</i> , Day Three	
DAY # THREE	DESCRIPTION: Bridge as object (Minimalism, non-figurative)
Terms	Minimalism, non-figurative, color theory (primary, secondary, intermediate, complementary, families, tint shade
Elements/Principles	Color/Value: line, shape; balance, repetition, movement
Art History	Frank Stella, USA 1936 – <i>Manteneia I</i> , 1968, 60" x 240" acrylic on canvas, at the High Museum, Atlanta
Theory	By removing all reference to content and meaning, Stella's use of color, line and shape generates unambiguous art objects, while manipulating the governing principles of design.
Activity	Protractor paintings (lesson from GAEA conference, 1997, Columbus, GA). Using tagboard "protractors", students will trace two adjacent half circles, then center one between the two, flipped vertically. Using Stella's artwork as an example, they will trace using another smaller protractor, making a set of inside lines that resemble Celtic knot patterns. They will complete their artwork by painting, using tempera paints.
Critique/Assessment	All work put on board for evaluation (probably next class, due to drying time). Two aspects: light pencil guidelines, and accurate painting technique. Precision is evaluated, as well as accuracy to the pattern.
Materials/Resources	GAEA slide presentation, projector; Gateway example of <i>Manteneia I</i> , 7x11" poster board strips, white; pencils, paper protractors, red, blue, yellow, white, black tempera [acrylic, if available]; water, round brushes, flat brushes, paper towels, scissors, butcher paper (temporary mask)

Table 6: Daily Lesson Plan, <i>Bridge as Object</i> , Day Four	
DAY # FOUR	DESCRIPTION: Bridge as object: Funny Forms
Terms	expressive content, 2D, 3D, ground (negative space), figure (positive space), affective color, rectilinear, overlap, picture plane, personification, point of view.
Elements/Principles	warm, primary, neutral colors; contrast; space; scale, overlap; rhythm, movement, emphasis
Art History	Piet Mondrian, <i>Broadway Boogie Woogie</i> , 1942; and Paul Klee, <i>Revolution of the Viaducts</i> , 1937.
Theory	Both paintings are abstractions; students are asked to imagine where they are in relation to the picture (Klee, above, Mondrian, in front). Both paintings represent architectural forms, but Mondrian's seems motionless, even with bright colors. Klee's painting is vaguely ominous, with viaducts stomping towards the viewer. While both can generate narrative interpretations, Klee's playful (or fearsome) figures demonstrate gestalt recognition: footed arches change into legged anthropomorphs.
Activity	Boxes of precut paper arches and strips are on each table. Students decide which artwork appeals to them; using either white or black paper for a ground, students arrange the papers, showing either scale through overlap, or complete use of the picture plane, in a rectilinear, Mondrian-like composition.
Critique/Assessment	Putting finished artwork on the wall, students will explain why they chose to produce a certain example. If it is because they "like it", they must explain why they like it. Two examples of the artwork, re-worked to remove focal points (yellow large arch becomes gray brown, and the largest blue rectangle removed) show how even abstract, and seemingly
Materials/Resources	Definitions; artwork in PPT format; examples of student work; 9x12" black and gray construction paper; 12" x ¼" strips of scrap papers, multicolored and white; scissors; glue

Table 7: Daily Lesson Plan, <i>Bridge as Object</i> , Day Five	
DAY # FIVE	DESCRIPTION: Bridge as object, 2D, 3D compositions, story lines
Terms	space; two dimensions (height, width), three dimensions (height, width, depth), additive and subtractive sculpture, artisan and artist, commemorative art, public art
Elements/Principles	value/contrast; shape and form; movement, real and implied; balance (informal and bilateral)
Art History	Franz Kline, <i>New York, NY</i> , 1953, 59" x 81" Helene Brandt, <i>Portable Bridge</i> , 1983, welded steel and wood, 3'x3'x30'.
Theory	Solid and flat; two states of art product, until the advent of conceptual art and electronic media. Contrast Mondrian's precise New York with Kline's slashing vision of city life. Explore movement in 2D works, and contrast with Brandt's static form, that moves.
Activity	Story Lines: Using the artist's cartoon picture board to show how the <i>Portable Bridge</i> could be used, students fold 12x18 paper into 8 blocks, which they number 1-8. They will follow a formula for creating a story line about a sculpture that comes to life, and is functional, rather than inanimate. Like the genie in a bottle, the sculpture helps them when they encounter problems. Students first identify a problem, either a want or a need, or an encountered deficiency. The formula of character, conflict, resolution using a personified art object is saved for work on metaphor during the last part of the whole unit. NO collaboration; stick figures accepted.
Critique/Assessment	At the end of class, all artwork is placed on board for evaluation. Assessment is for following instructions, neatness, completeness, and effective use of contrast to create desired appearance. Final evaluation: Students are able to identify Location, Obstacle, Structure, and Traveler, when drawing and viewing artwork.
Materials/Resources	Artwork from Helene Brandt; PPT presentation about the artist; Gateway monitor , Franz Kline, 12x18 manila

Representative Lesson Plan: Subunit *Bridge as Object*

Unit: Bridge as Metaphor for Self

Lesson: Funny Forms

Time: One class period per step (block schedule, 90 minutes); 10 for single class periods

Preparation: Power point presentation (see Appendix D), 9 computer printouts of Figures 30 & 31 (laminated), examples, materials, comparison slides with altered artwork (Figure 32).

Introduction:

This lesson is introduce *abstraction* while students consider a familiar object with a specific function. The lesson serves acts as a transition to the next section, *Bridge as Compositional Device*, by exploring the relationship of visual imagery derived from actual objects. Looking at photographs of bridges, students compare and contrast with abstractions by Paul Klee, Piet Mondrian and others. Perceiving lines, shapes and hues within non-figurative artwork should parallel their observations using real bridges. Students are introduced to emphasis, scale, rhythm, contrast, and repetition as organizing principles. The concept of layering figure/ground is reinforced by manipulating paper shapes rather than drawing or painting

Objective: Transitional lesson

Students demonstrate knowledge of the elements of art by analyzing bridges in the real world and in art, and identifying variations.

Students will be able to identify the elements of L.O.S.T. (location, obstacle, structure and traveler) in real bridges and artwork showing bridges.

Students will produce an abstract collage based on either Klee or Mondrian, using paper arches and strips.

Product:

Following an introduction of the four components of “bridging”, students will create:

- EITHER a collage based upon Klee’s *Viaduct*
- OR a collage based upon Mondrian’s *Boogie Woogie* SHOWING:
- Location: Understanding of point of view;
- Obstacle: Picture plane;
- Structure: Paper arches or strips;
- Traveler: Movement of eye across composition;
- white or black ground;
- overlap: Klee, shapes; Mondrian, shapes within shapes;
- sealed with brushed matte fixative;
- names on back; and displayed for evaluation

Art History:

Paul Klee: (Figure 30) *The Revolution of the Viaducts* (1937); for alternate lesson idea, see <http://www.stockportmbc.gov.uk/primary/romiley/yrfour.htm>;

Piet Mondrian: (Figure 31) *Broadway Boogie Woogie*; Clive Bell, formalism/modernism.

Altered versions of preceding artworks (Figure 32).

Materials/Resources: 12x12 sulfite, white

9x12 black construction paper

poster board straight edges

white glue (thinned)

acrylic matte gloss

glue brushes

plastic mats

paper towels

paper arches (precut, warm)

paper strips (precut, primary)

display area

Gateway monitor

computer

power point presentation: LOST

examples of work

Artchive examples

posters

Procedures:

Following discussion of terminology, students will choose to re-create either Klee's or Mondrian's abstract artwork. Each table will have two boxes of paper scraps. One has warm color paper arches, in different sizes, the other strips of paper in primary colors. Ground sheets are selected based upon selection.

Materials are staged on counters, in trays. After the demonstration, the designated daily helper takes supplies to the tables. At the beginning of the 9 weeks, each student is assigned a class number based on class period and alphabetical order; that number is listed daily on the board, providing each student an opportunity to assist. While the student is delivering materials, the other students will be choosing materials from boxes. Mrs. Waggoner's Rules of Order:

Even days, girls first, alphabetically; odd day, boys, alphabetically. The days are changed daily on the board, with reminders about who goes first. For clean up, the same process is followed.

Each table will have a laminated printout of both paintings for reference. Students place base paper (ground) correctly (Mondrian: same; Klee, portrait), then arrange paper cutouts or strips to imitate the composition of the two pieces of artwork. Students determine whether overlap is a dependent or independent variable in production (Mondrian: No. Klee: Yes). When they are satisfied, they remove the layers sequentially, and begin by gluing the bottom object layer to the ground. They continue until all layers are glued down.

When finished, students will apply a light acrylic matt gloss to the entire work, and place in rack to dry. Names and class number must be on back of artwork. When students are finished with their work, they will clean up. If time remains, they will begin or continue working on the independent study, art history assignment using ArtScreens on the four in-room computers.

Cleanup:

Girls clean up first on even days; boys on odd. All students should:

1. clean work area and throw away trash;
2. cover glue and gloss finish; rinse brushes and lay on counter
3. resort paper boxes, and replenish if needed;
4. include full name, date, and class period on the back of the art work;
5. hang up aprons, push in chairs, leave when tables are called.

Safety:

All students will clean up water & glue to avoid slipping: Paper towels & mop easily accessed.

Care in using gloss coat (wear cover-ups)

Sharp objects: N/S

Asthma: N/A

Evaluation:

Participation: 50%

Following instructions: 30%

Completeness 10%

Neatness 5%

Creativity 5%

Assessment:

Based upon objectives stated in the lesson plan, students will demonstrate knowledge of L.O.S.T., through identification of the four components in artwork and their own drawings; and will produce an abstraction of a bridge, following the criteria stated in the procedures. 80 % of all students should be able to create a drawing correctly labeling the four parts of a bridge.

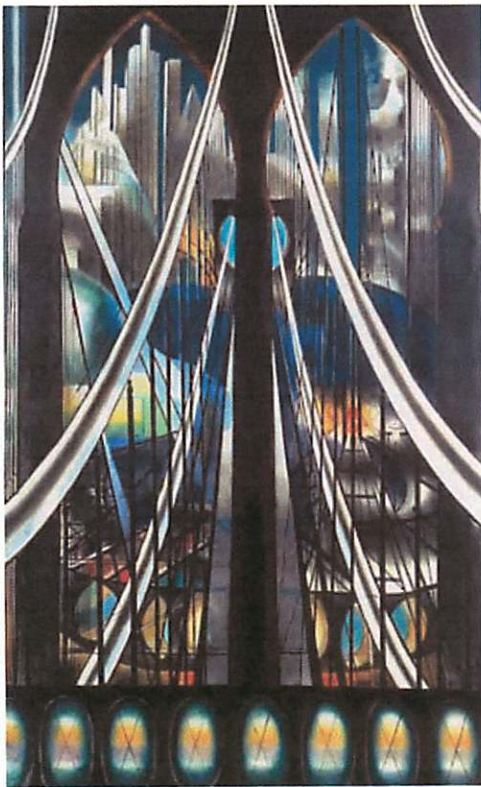


Figure 29: (clockwise, from top)

Frank Stella, *Manteneia I*,

Franz Kline, *New York, NY*

Helene Brandt, *Portable Bridge*

Joseph Stella, *The Voice of the
City of New York Interpreted: The
Bridge (The Brooklyn Bridge)*





Figure 30: Paul Klee, *Revolution of the Viaducts*. 1937. Brantacan: Bridges in Art.

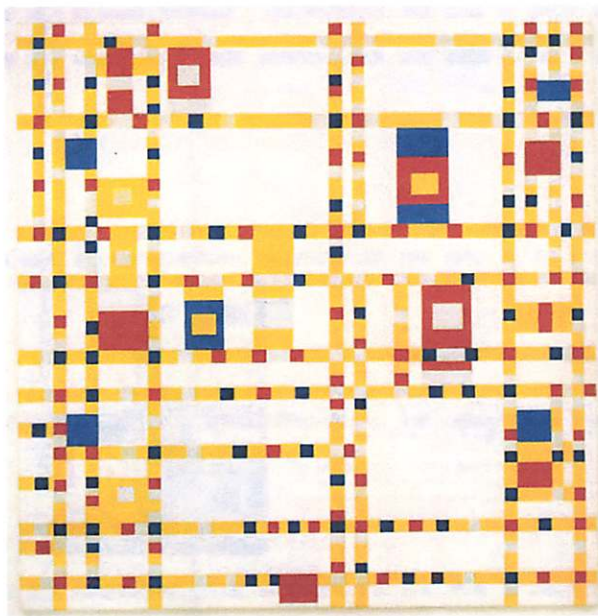


Figure 31: Piet Mondrian, *Broadway Boogie Woogie*, 1942-1943, Oil on canvas, 50 x 50 in. (127 x 127 cm), The Museum of Modern Art, New York

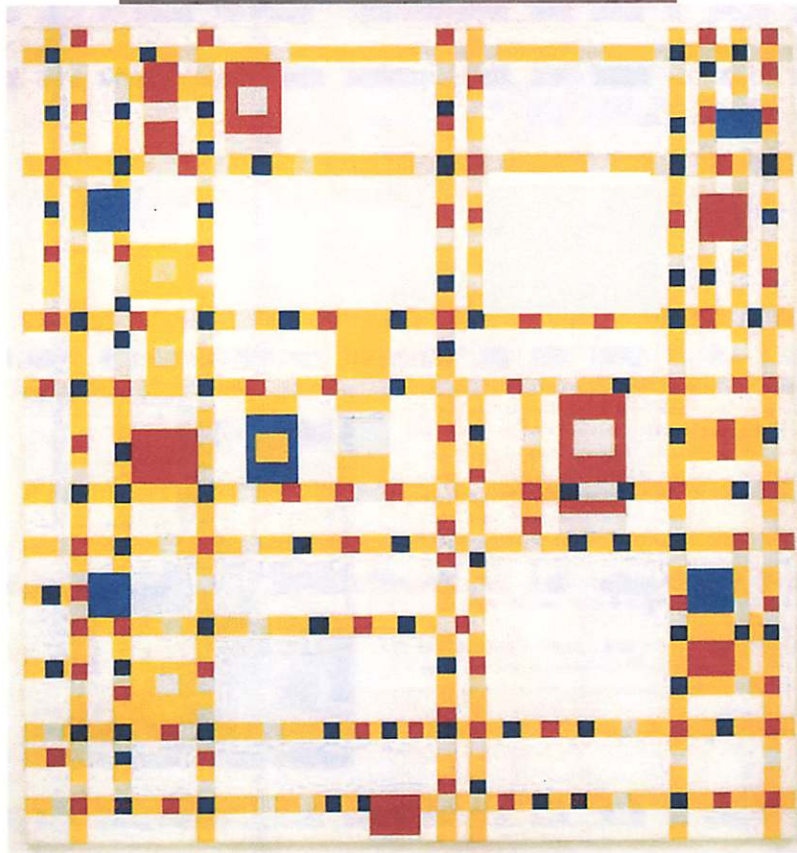
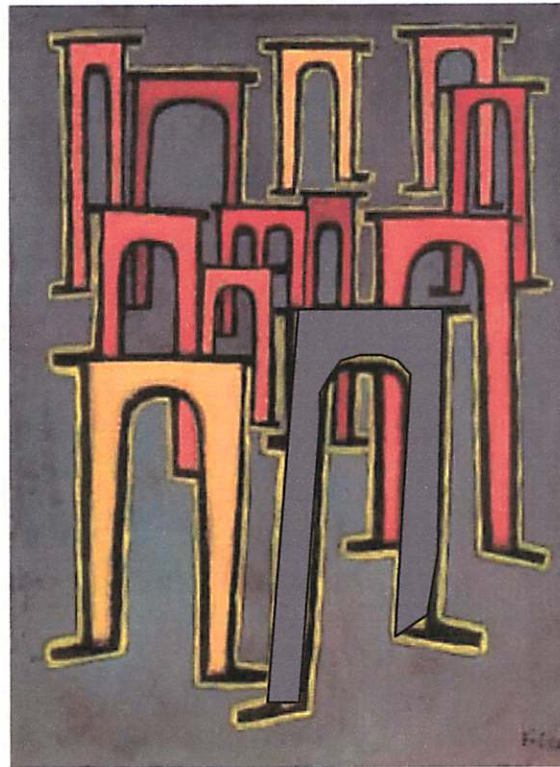


Figure 32: Altered works by Klee and Mondrian, used as examples.

Table 8: Subunit Two *Bridge as Compositional Device*

UNIT LESSON PLAN: Part 2, Bridge as Metaphor for Self: Grade Level: Eighth Grade Art
 Date: from _____ to _____ Room # _____ Instructor: _____

SUBUNIT	Bridge as Compositional Device: Identifying Bridge Function
GRADE/DURATION	Eighth, two to three weeks, in a nine week grading period
RATIONALE <i>Designed to address art/language: ESOL, hearing impaired, and LD (verbal)</i>	Develop understanding of art by identifying bridges for creating unity and movement in artwork. Following the introduction of form in the first subunit, students apply the principles of <i>bridging</i> to works of art, first as a compositional device and theme; then as a structure that unifies compositions, without recognizable bridges. Coherent design assumes some form of continuity, and connectedness, either contiguous or overlapping.
CONCEPTS	Generate understand of movement across space; connectedness; form follows function; reinforcement of elements of design; principles of design & composition. LOST: Location, Obstacle, Structure, Traveler.
SKILLS	Develop visual thinking through drawing concepts; teach organization for complex projects; learn to work cooperatively; master simple construction techniques; apply skills learned from other areas; and learn how to find periodical reference data.
PROCEDURES	Daily drawings in sketch/writing pad; finding, sketching real bridges from <i>Smithsonian</i> magazines; and locate periodical reference information. Find compositional equivalent, with different subject. Small groups work independently painting mural.
EVALUATION	Students will have individual work showing the elements of a bridge (LOST) found real and imaginary bridge sketches; bibliographical reference sheet from <i>Smithsonian</i> ; Venn patterns showing union, intersection and null set; and teacher observation of collaborative mural painting techniques.

Table 9: Daily Lesson Plan, <i>Bridge as Compositional Device</i> , Day One	
DAY # ONE	DESCRIPTION: Perspective
Terms	Italian Renaissance, Classicism, fresco, patronage, Realism, Symbolism, religious icons; narrative content; whole to part; part to whole, contour drawing
Elements/Principles	Balance, unity, emphasis, movement, contrast
Art History	Michelangelo, <i>God and Adam</i> , from the Sistine Chapel ceiling, Rome, Italy.
Theory	Perspective rules of foreshortening and realistic painting techniques; visual rather than written narrative for the majority of people still works (#s who watch TV as opposed to reading); purpose of art when photography and virtual media were introduced.
Activity	Using graphite pencils, students draw whichever hand they don't use; first as a contour drawing, then as an object within a rectangular prism that shows vanishing point perspective. The second will be treated like a solid object, in subtractive process (drawing the negative space). Use cotton candy holder tortillons and gum erasers with graphite pencils to achieve value difference in gray scale.
Critique/Assessment	Place side by side. Look for the <i>gesture</i> (spontaneity) and <i>accuracy</i> (methodical). Students decide which version they like best; insight into linear or visual thinking styles.
Materials/Resources	Artwork, computer, and Gateway monitor; graphite pencils, handheld pencil sharpeners, gum erasers, stumps or tortillons or cotton candy holders; interleaf; two sheet of 9x12 white sulfite.

Table 10: Daily Lesson Plan, <i>Bridge as Compositional Device</i> , Day Two	
DAY # TWO	DESCRIPTION: Symmetrical balance
Terms	point of view, symmetrical balance, Enlightenment,
Elements/Principles	emphasis, movement, scale; value, space, texture
Art History	Caspar Friedrich, <i>Wanderer Above the Fog</i> , 1818. The Age of Enlightenment, and the beginnings of the Industrial Age , and the Romantic period in music create a humanistic environment where, contrary to John Donne: “One man is an island”.
Theory	Composition helps reinforce the opposite of Michelangelo’s intent; all movement is toward the central figure, whose back is turned away from the viewer (a very strange portrait).
Activity	Using a laminated gray scale, students will take the drawing from the previous class (in portfolio), and using the same drawing materials, repeat the best hand, this time looking for areas of highlight, mid tone, and shadow. They then add detail: wrinkles, hand lines, freckles, hair, rings, etc. , and lastly, use the graphite pencil to darken in the negative ground as much as possible, or left light, if the skin is dark.
Critique/Assessment	Final hands will be put on board for class evaluation. Hands should show contrast, volume, surface contour and texture; the drawings should be cleaned up, removing smudges and guidelines.
Materials/Resources	Work from previous class; artwork with computer and Gateway monitor; pencils, interleaf, gum erasers,

Table11: Daily Lesson Plan, <i>Bridge as Compositional Device</i> , Day Three	
DAY # THREE	DESCRIPTION: Narrative; Genre painters
Terms	narrative content, genre painting, Romanticism, illustration; border to border composition. picture plane
Elements/Principles	rhythm, movement; emphasis, symmetrical balance, unity
Art History	Winslow Homer, <i>Life Line</i> , 1884. USA.
Theory	Realistic paintings have narrative content, which is usually determined by the artist. Like a writer, they choose what to include and exclude; it is not simply a snapshot or a recording of an incident. Creating a story for the subject involves imagining what the artist did not include in the painting.
Activity	Using Winslow Homer's <i>Life Line</i> , create a story that explains where this "moment frozen in time" might come from. Stories may be told in any format: Drawn, or as poetry; even as a dramatic interpretation.(very short one act play)
Critique/Assessment	Present stories to class; possible collaborative activity with Language Arts teachers.
Materials/Resources	Art, monitor, computer; paper and pencil; drawing and lined paper

Table 12: Daily Lesson Plan, <i>Bridge as Compositional Device</i> , Day Four	
DAY # FOUR	DESCRIPTION: Just a little touched, and Venn paintings
Terms	Symbolism, Realism, Elitism, overlap, Venn diagram, union, intersection, null set, trefoil
Elements/Principles	Scale, symmetrical balance, rhythm, unity, dominance
Art History	Jan van Eyck, <i>The Arnolfini Portrait</i> , 1434; Late Gothic, early Northern Renaissance.
Theory	The interval between God and Adam is the null set; there is no intersection. In van Eyck's painting, the couple's hands are a union, represented by the marriage; Homer's painting is an intersection. The two figures in the painting have been removed from the surrounding set; all focus is on their shared fates.
Activity	The activities for the next two class periods are determined by which group is currently painting. One group will be making Venn patterns. They will use a circle, and draw patterns in each, using different colors for each. They will then draw three trefoils, and draw the patterns as union , intersection, and null sets. The last one is easy; but the combination of all three patterns and colors is very challenging.
Critique/Assessment	Place all Venn patterns on board. Determine which patterns and colors were most readable. Have students describe how they combined three different patterns; draw on the board as the students explain (for Hearing Impaired students , and ESOL students).
Materials/Resources	Examples; review from math books about Venn diagrams; circle templates, small markers or colored pencils, black fine point marker.

Table13: Daily Lesson Plan, *Bridge as Compositional Device*, Day Five

DAY # FIVE	DESCRIPTION: Just a little touched: Mural painting
Activity	The mural painting is a studio activity allowing small groups of students to first design, then paint, in a controlled environment. After a demonstration of painting techniques, reviewing behavior expectations and consequences, and assigning painting groups, the class will create the overlapping figures, using as many students as possible. One student will trace the shadow of the posing student; the overhead projector will be used to create the silhouette. One figure will be left totally apart. Each area of intersection requires a different color. Using multicultural tempera paints, and gesso and India ink, students in groups of four are allowed to work on the mural. Work must be done over a dropcloth; all spills cleaned immediately; lids tightly shut after use, and brushes cleaned correctly. Students are encouraged to wear cover-ups. Because of the nature of the project, it can be ongoing, or segmented; Like Judy Vaca's <i>Great Wall of LA</i> , the theme and the artists change over time. In Fall, 2003, the eighth grade made a mural <i>El lapiz poeta</i> ; it crossed content areas, and space.
Critique/Assessment	Work by the group will be evaluated daily, for a grade. The small group is responsible for set-up, clean-up, everything in between, including inappropriate content.
Materials/Resources	Paint cart; multicultural paints, gesso, India ink , tarpaulin, or dropcloth. Roll of heavy weight brown kraft paper. Overhead projector. The paint cart has brushes, paper towels, cleaning sponges, as well as all the paints. It is the group's responsibility to make sure the cart is reloaded with fresh supplies before they leave.

Representative Lesson Plan: Subunit *Bridge as Compositional Device*

Unit: Bridge as Metaphor for Self

Lesson Plan: Just a Little Touched:

Time: 1 class period per step (block schedule, 90 minutes); 8 for single class periods (2 weeks) for initial stages; independent work until end of grading period for completeness.

Preparation:

Hand-templates (to show, and for special needs students); examples showing intersection, union and null sets; tables layered with newspapers; restock white crayons; overhead projector for area to make silhouettes; large sheets of Kraft paper; drop cloths, tape.

Narrative:

The final unit, *bridge as metaphor for self*, depends upon a student's ability to perceive herself both as a unique individual, and a bridge to other people and experiences. One goal of this lesson is to show connection without using a recognizable bridge. The hand is a common symbol of connecting, understood both for function and meaning. Identification of contiguous structure, overlap and gap in works by Michelangelo, Friedrich, Homer, and van Eyck will demonstrate how artists use hands to create compositional bridges. Each composition is analyzed, locating how the principles of unity, balance, and emphasis were used in the design. This lesson acts as a transition to final subunit is facilitated through the use of hands and body parts as formal elements of a design.

Objective: Transitional lesson

Students will review the four elements of a bridge (L: location; O: obstacle; S: structure; T: traveler).

Following a review of the formal elements of *bridges* (L.O.S.T., see Appendix A), and the accompanying *Bridge as Form* (Appendix B), students will identify the four components in a bridge painting, then in non-objective or abstract artworks without actual bridge as a figure.

Through class discussion, students' knowledge of positive/negative shapes and space (ground and figure), and multiple levels of meaning are reinforced.

Students will create a mural showing intersection, overlap, and union, as an example of compositional bridging.

Introduction:

As with the other subunits, we begin with the short footage of the Tacoma Narrows Bridge, and pictures after its collapse. Our discussion of broken connections and separation underscores the theme of isolation. Always open-ended, the exchange is directed first towards the non-symbolic. A bridge actually connects two locations, or things that would otherwise remain separate. The action of building a bridge is intentional. Bridge failure is fearsome not only due to its imposed isolation, but to the instinctive fear of falling, which a person imagines as we look at catastrophic bridge failures. Identify: Location (Tacoma, Washington); Obstacle (the Narrows); Structure (bridge) and Traveler (cars). Discuss function before and after collapse.

Studio Projects

Product A: Painting techniques and set theory

Materials/Resources

tag board/ patterns

heavy white paper , 12x12

scissors

brushes, trays, cups, paper towels

watercolor trays, India ink

aprons

white crayons

mounting materials



Figure 33: Judy Vaca, *The Great Wall of LA*, and van Eyck, detail from *Arnolfini*: Bridge of sorrow, bridge of joy: Art as social commentary, and issues of elitism.

Procedures:

Review formal elements that visually connect a composition through repetition and unity, such as shape, line, texture, and color. The aesthetic question “Is it Art?” is considered. Not all compositions are good, just the same as all bridges are not built the same. Some work, some don’t. By understanding the principles of design, and able to analyze elements, students are provided tools for evaluating the merits of artwork they encounter.

Begin by discussing known objects, then extract the function of connection, and apply these ideas to a non-figurative composition (Yvonne Jacquette’s *Skowhegan*, and Frank Stella’s *Thruxton*). Compare Jan Van Eyck’s *The Arnolfini Marriage (1434)* with Judy Baca’s *Great Wall of LA*, for social content, compositional bridges and broken connections. The instructor directs the class to affective content of connection and separation using Kathe Kollwitz’ drawing of *Mother Embracing Her Dead Son*, Henry O Tanner’s *The Banjo Lesson*; Winslow Homer’s *Dressing for the Carnival.*, and W. Eugene Smith’s *The Walk to Paradise Garden*. Guiding students towards identification of the human hand as a common bridge in artworks leads into the studio activities

Students trace their hand and arm, to the elbow, on scrap tag board, poster board or cardboard. They then cut out, and put name, class, and day on each pattern. Each student will have one piece of heavy weight butcher paper, 12”x12”, with edges taped. They lay the pattern several times randomly, overlapping, outlining lightly with a pencil. Using a white wax crayon, they then trace heavily over the guidelines. Because the crayon line acts as a frisket, the areas created by overlap have must make complete enclosures. Using watercolors, students will create secondary and intermediate colors by blending two more colors inside the area of intersection.

Each student will need one clean cup of water, one rinse cup, a round brush, and red, yellow and blue watercolor trays. Using clean water, they paint contiguous areas, and the intersection. Water should move away from the crayon outline, allowing the student to paint wet-on-wet using one color for each discrete area, and two colors or more for intersections. Students practice brush techniques for corner details; wet-on-wet technique; separating rinse and mixing water; color blending; and neatness. When finished, the composition is completed by painting negative space (ground) with India ink .

Product B: Mural painting

Materials/Resources

12+ft./class, roll craft paper	stool
skin-tone tempera paints	overhead projector
paintbrushes	wheeled cart for supplies
black markers	Gateway monitor and computer
white opaque markers	Powerpoint: L.O.S.T.
aprons	Artchive examples
	drop cloth and cleaning supplies

Procedures:

Mural painting

Tape or staple vertical strips of brown kraft paper in an area where it may be left for an extended period. Tape plastic drop cloth from the bottom of the area to be painted, extending out over the floor. Tape with masking tape to secure. Students should practice painting on a vertical surface without dripping.

Using the overhead projector, have one student at a time pose, throwing a shadow on the paper. Have the student turn towards the paper, to avoid glare in the eyes. Other students will carefully trace around the shadow, using pencil. A second student will pose, overlapping, and placed in such a way as to create visual interest. Students will again trace. As the outlines continue, another group of students will follow, using black markers, carefully darkening all lines. Set theory (Venn diagram) is then explained. One area for an isolated figure is kept separate; it is either rolled up, or folded back.

All paints, brushes, clean up materials for spills, are kept on a rolling cart that is rolled to the work site. The cart must be kept in the middle of the work area, on top of the drop cloth. The teacher will paint random cells white, using gesso. All other cells will be painted using the tempera paints. As before, no adjacent areas may be the same color. The drop cloth is rolled up at the end of each class, then unrolled before painting. For some classes, it may be preferable to keep the materials in the classroom, where messes can be controlled, and behaviors observed.

Each student is responsible for drawing and painting a segment of the mural. Students will sign a log for each day's painting; if any inappropriate additions are found, the group removes the area (mortise), splices a paper patch, and repairs the mural.

Cleanup: Even days: Girls use sinks while boys clean up their areas. Then swap: Odd days, the boys use sinks first, and girls clean the work area. All students should:

- roll up the top layer of newspaper; hold until end of class
- empty water cups, clean brushes, rinse trays; water and brushes returned to the table
- wipe up spills
- full name, date, and class period on the back of the art work
- hang up aprons, push in chairs, leave when tables are called.

Cleanup: Mural

- use paper towels to wipe around tops of paint jars, and close tightly;
- roll cart back into supply room;
- carefully clean brushes, and lay on counter;
- wipe up any spills on walls; roll up drop cloth and secure;
- return to assigned seat, and wait for dismissal.

Safety:

1. All students will clean messes to avoid slipping on a wet floor. Scissors handled with care.
2. Asthma: N/A
2. Toxicity: N/A

Evaluation:

Participation: 40%

Following instructions: 30%

(colors, templates, layers, cleanup, etc)

Completeness 10%

Neatness 10%

Written assessment 5%

Creativity 5%

Assessment:

Students will be able to identify areas of union, intersection, and null sets; and will produce an individual, overlapping example of Venn diagrams, using patterns and colors.

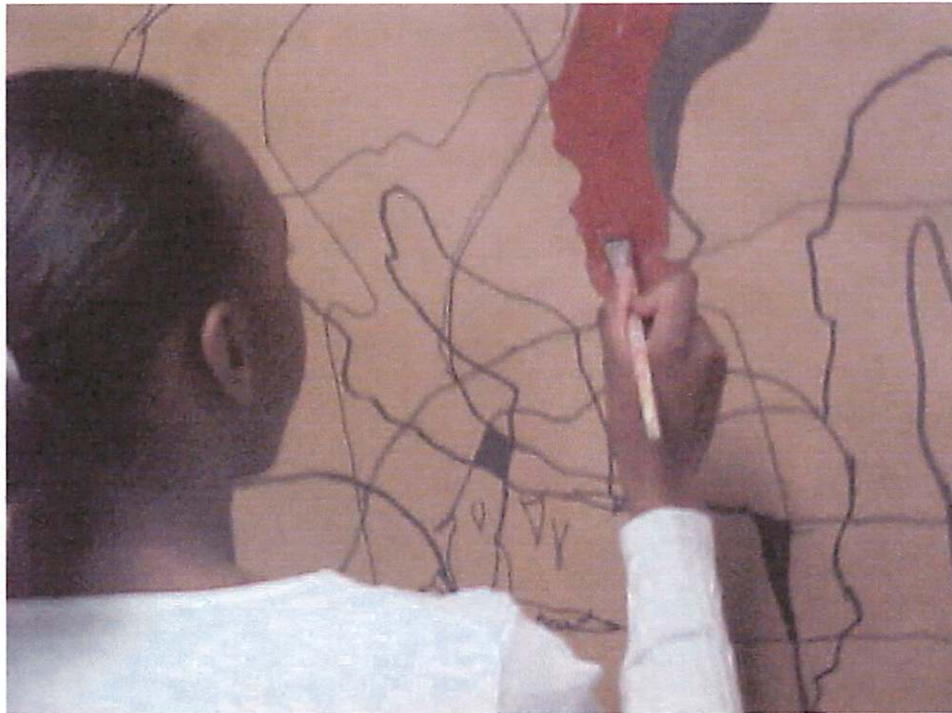


Figure 34: Student painting mural, showing areas of intersection



Figure 35: Students midway through mural painting

Table 14: Unit Lesson Plan, *Bridge as Metaphor for Self*

UNIT LESSON PLAN: Bridge as Metaphor for Self: Grade Level: Eighth Grade Art

Date: from _____ to _____ Room # _____ Instructor: _____

SUBUNIT	Bridge as Metaphor for Self: The Interior Passage (4 min. power point)
GRADE/DURATION	Eighth Grade, two to three weeks, in a nine week grading period
RATIONALE <i>Designed to address art/language: ESOL, hearing impaired, and LD (verbal); inclusion of second language part of the process.</i>	The divergent, culminating activity for the unit. Having established an understanding of form and function, students transfer this knowledge to their own lives. They generate a self-portrait identifying themselves as the Structure, and the passage of time, or migration, or growth as the Obstacle. The bridge becomes entirely metaphorical. Location can be one's family, or ethnic identity; the Traveler is the individual, free to move across the Structure of her own making.
CONCEPTS	Art as social commentary; art as non-verbal communication, with multiple meanings. Transference of learning, and higher level thinking skills associated with visual thinking. Assumption that all students have the capacity for symbolic, metaphorical thought.
SKILLS	Improve perception and flexible thinking by comparing and contrasting artwork and photographs and exercises in combining dissimilar objects. Develop realistic drawing skills, reducing digital photos to B&W, and highlight, mid-tone and shadow areas to create the illusion of volume.
PROCEDURES	Daily drawing; visualization of life experiences; daily discussion of artists and artwork; extracting meaning from artwork that the student may not like; determining visual symbols for characteristics or events in the students' lives; watch <i>Interior Passages</i> for ideas.
EVALUATION	Final product will be a self portrait, showing student as a functional bridge for the identified landmarks within their own lives.

Table 15: Daily Lesson Plan, <i>Bridge as Metaphor for Self</i> , Day One Watch <i>Bridge Portfolio</i> , Power Point , (Appendix D)	
DAY # ONE	DESCRIPTION: I am the Bridge
Terms	Bilateral symmetry and reflections; distortion; perpendicular, parallel, and radius curve;
Elements/Principles	Balance; scale, repetition, movement, line, shape and texture, negative space (ground), positive space (figure)
Art History	Examples of commercial art, showing graphics following form to create the illusion of 3 dimensionality.
Theory	Subtractive sculpture is a process of removing the part that is not the statue: it creates the object by freeing it. Drawing negative space (ground), or removing what is not a part of the object, helps students visualize an object. By focusing on the space, they are less likely to redefine the figure as what they think they are seeing. A familiar object, like a letter, can be created from a shape by removing what is not the letter.
Activity	Worksheet (Appendix F, Brookes, 1990). Students are instructed to do the first example on the duplication sheet without any help. The classes usually split, with half making mirror images. If so, they cross out the label at the top, and go to the other sheet. Mirror image sheet: students turn sheet sideways, and trace the shape, while drawing its reverse with the other. Then: Fold large sheet of tag board; show students how to find midpoints w/out rulers/ and draw straight lines using perpendicular alignment of paper. Above the mid line, draw a large arc; then lines at the end. Divide into spaces equal to name. Subtract negative space from each space to create letters. The top should be smooth enough to lay a roadway across. Show how to make mirror image, then atmospheric color changes and distortion for reflective surfaces. Decorate, and lastly, use available media for color. Tape edges.
Critique Assessment	Letters must distort enough to be readable and act as supports for an imaginary bridge surface; carved out of space, not drawn, with some form of reflection distortion, and accurate mirror image even for details.
Mat'l./Resource	worksheets, examples, tagboard. pencils, markers, colored pencils, water colors, etc.

Table 16: Daily Lesson Plan, Bridge as Metaphor for Self, Day Two	
Watch/review L.O.S.T, Power Point presentation (Appendix A)	
DAY # TWO	DESCRIPTION: Eye:I: Idea
Terms	2D, 3D; Realism, Surrealism; depth, logo, graphic arts, commercial art, ligature, objectification, analogues
Elements/Principles	Scale; value, shape
Art History	M.C.Escher, Eye; James Edwards, Tyne; archive and commercial photography of Tyne Bridge, England.
Theory	Transition from composition subunit: Seek similarities in dissimilar objects, in a different context. Look for analogous structure, function, and form. Surrealism is a process of combining two realistically portrayed objects in order to create an altered sense of reality, or new way of looking at an object.
Activity	I:Eye: Idea: Create a logo for a fictitious company. Look at examples of commercial art that use ligature (two or more attached letters) and form-following distortion. Students participate in an imaginary design competition for a corporate logo which will determine the awarding of a multimillion dollar contract. The components of the name are I:EYE:IDEA. They follow a formula for generating new concepts. Using skills from day one in this subunit, students will meld three graphic elements into a single logo.
Critique/Assessment	The class votes on the next winner of a multimillion dollar contract.
Materials/Resources	Examples of commercial art; printouts of logo worksheet; white sulfite for final artwork.

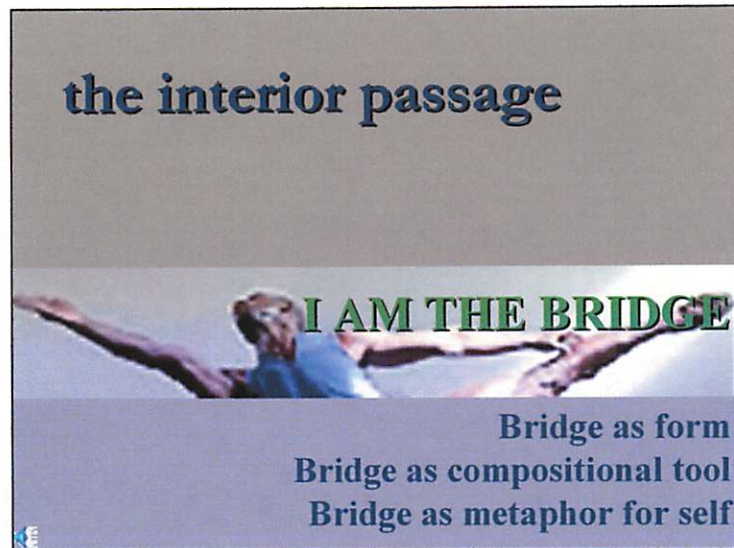
Table 17: Daily Lesson Plan, Bridge as Metaphor for Self: Day Three. Watch <i>Interior Passage</i> (Powerpoint), slides 1-7	
DAY # THREE	DESCRIPTION: Three Bridges: kNOSEs from History
Terms	2D, artifact, self portrait, analogous structure, form follows function & facial structure, profile, static, kinetic
Art History	Domenico Ghirlandaio, <i>Old Man and His Grandson</i> ; Piero Della Francesco, <i>Frederic of Montefeltro</i> ; Joe Hinojos, <i>Jimmy Durante</i>
Theory	Underlying structure determines appearance; form follows function in the human body as well as objects designed for a certain purpose. Facial features appropriate to the individual, not an externally determined standard. Leads to the discussion: Who determines what is beautiful? Are there external models of perfection that all art (and by extension, the individual) is compared with, to determine its merits? Who decides what is good or bad? Beautiful or ugly?
Activity	Take digital pictures of all students in class; on the computer, change color to B&W, then print a sheet with small pictures. Return to students, who then organize the structure of their faces according to the forced simplification (gray scale would not work). Only when they have drawn the basic sites for facial features are they allowed to use mirrors to draw details, for contrast and volume.
Critique/ Assessment	Self portrait must show measurable proportions to the student's face; may be set as two ratios, in an equation (for example eye:crown (photo) = eye:crown (drawing); with +/- factor of 10%
Materials/Resources	kNOSEs from history; computer; Gateway monitor; digital camera; printer. Paper and pencil, mirrors.
Elements/Principles	Line, shape, value, texture; balance, movement, emphasis.

Table 18: Daily Lesson Plan, Bridge as Metaphor for Self, Day Four	
Watch Interior Passages, , Power Point presentation, slides 8-14: (Appendix B)	
DAY # FOUR	DESCRIPTION: Subtractive space: looking for what isn't there
Terms	3D, sculpture, welding, drafting, design plans, additive and subtractive sculptures, maquettes
Elements/Principles	Form, texture, space; balance, scale
Art History	The Leonardo Project; Louise Bourgeois, No Escape, Helene Brandt Portable Bridge,
Theory	Structures such as sculptures and architecture require extensive planning. Accuracy in drawings (drafting) and mathematics are essential for scale models (maquettes) and final products.
Activity	Create a landscape that contains two distinct locations; divided by an obstacle. It may be real, imaginary, symbolic, or surrealistic. This will become the base artwork for the mixed media final product, Bridge as metaphor for self. The base artwork must be at least 9x12 inches, horizontal orientation, and address perspective either through vanishing point linear perspective, or atmospheric effects; gray scale only.
Critique/ Assessment	Rubric: horizontal; minimum 9x12, gray scale (pencil), landscape with separate Locations and an Obstacle; and demonstrates perspective through vanishing point, linear, or atmospheric techniques.
Materials/Resources	Art examples; paper, graphite pencils, cotton candy paper smudgers, gum erasers.

Table 19: Daily Lesson Plan, Bridge as Metaphor for Self, Day Five Interior Passages, , Power Point , slides 15-21: (Appendix C)	
DAY # FIVE	DESCRIPTION Final combination of work up to present
Terms	Collage, mixed media, relief sculpture, conceptual art
Elements/Principles	line, shape, form, texture, color, value, space; balance, unity/harmony, scale/proportion, rhythm/movement, dominance/emphasis, repetition/pattern, contrast/variety
Activity	This is the representative lesson plan for Bridge as metaphor for self, in chapter five. In this activity, students combine their self-portrait, which they have cut out, with the landscape base artwork. Using a 4x8 sheet of foamcore, the base artwork is attached using white glue; then the self-portrait is placed on the landscape. It may extend beyond the picture plane, becoming the obstacle; or it may be centered, functioning as a bridge. By referring to works by Pindell and Gutierrez, they add artifacts to their pictures that have personal meaning, such as cds, pictures, and small toys. Plastic items are attached using a hot melt glue gun; other objects are raised from the surface using paper supports.
Critique	Students evaluate the final product. Each student will present her own bridge metaphor, and explain the strengths and weaknesses of the final product. On the back of each piece, students will fill in a duplicate rubric, evaluating the processes and final product. The final questions, “Do you like it? Yes No” and “Do you think is Art? Yes No” are used by the teacher to evaluate the project, and student responses in the “Comments” area are taken into consideration for future lessons.
Materials	Art work from preceding days; foam core; white glue, glue gun [safety issues], found objects, poster board strips for making paper supports (if making a relief); scissors, and grading rubric/student evaluation; tape

Subunit Three: Powerpoint Presentation

Unit Introduction



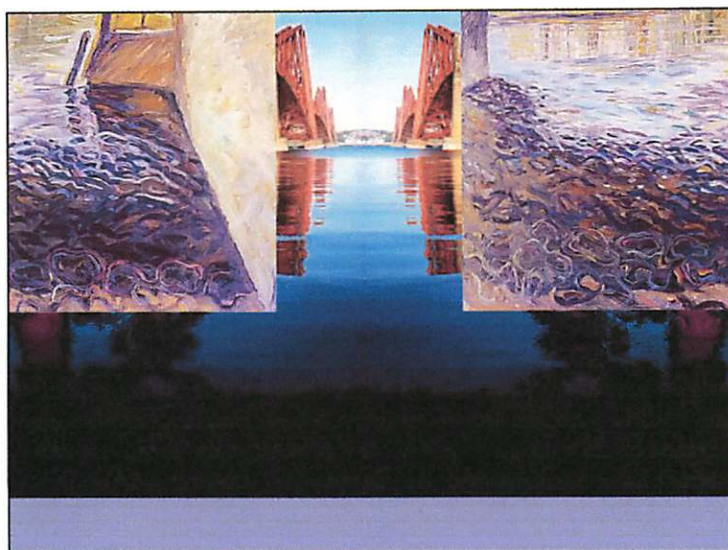
Kurt Douglas, Limon Dance Company

Target audience: Adolescent girls: Young people of this age are involved with sexual identity; and adolescent boys: Competitive; fine arts (dance) as of physical conditioning.

Classroom discussion: Bridge as Form (review)

- What is a bridge? (LOST)
- What are the lines, shapes, and forms in this picture?
- What is balance? Tell why you think it is one form of balance? (probably formal, but open for discussion)
- Why did the photographer choose a light gray background? (contrast) Why does Mr. Douglass wear so few clothes? (his body is the artwork)
- Is there movement in the picture (yes, the eye moves from the hand to the toe)
- The figure in the picture plane extends from the left to the right. What two locations is the figure connecting? (the two sides of the picture plane) What obstacle does the figural bridge cross (accept paper, space, gravity)

IV. Activity: Have students try to 1. get in the position like the dancer, and 2. hold the position.



'Under Walton Bridge (left)' 2001 and 'Under Walton Bridge (right)' 2001

Nick Schlee: 122 x 106.5 cm, oil on board

Target audience: All students

Discussion, Q&A

Reflections and mirror images

One photograph; one painting. Both show obstacles.

Mirror images: bilateral symmetry: reflections. Discuss.

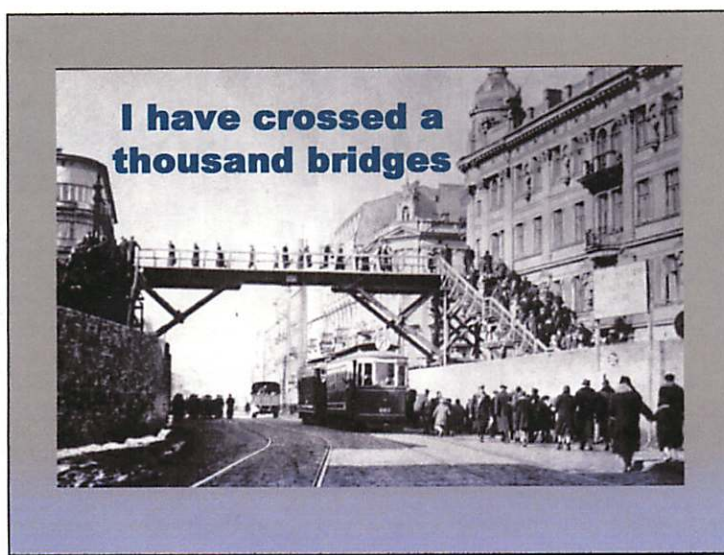
Reflections are created by the object, but are different; why don't people like pictures of themselves.

Unless the reflection is a mirror, there will be distortion of edges, or color changes; may be darker, as in the painting, where reflection acts like a shadow; or lighter due to a sort of atmospheric effect.

Activity:

Look at examples of reflections in both photographs and paintings. Analyze for distortion and color.

Bridge portfolio: students names are forced into an arch "bridge", a distorted reflection is drawn below.



Bridge between the between Little and Great Ghetto in Warszawa, Janusz Korczak

(<http://fcit.coedu.usf.edu/holocaust/KORCZAK/photos/bridges/bridge.html>)

Target audience: 8th grade (collaborative unit, Language Arts); ethnic groups who have experienced segregation and other racial obstacles.

Discussion, Q&A

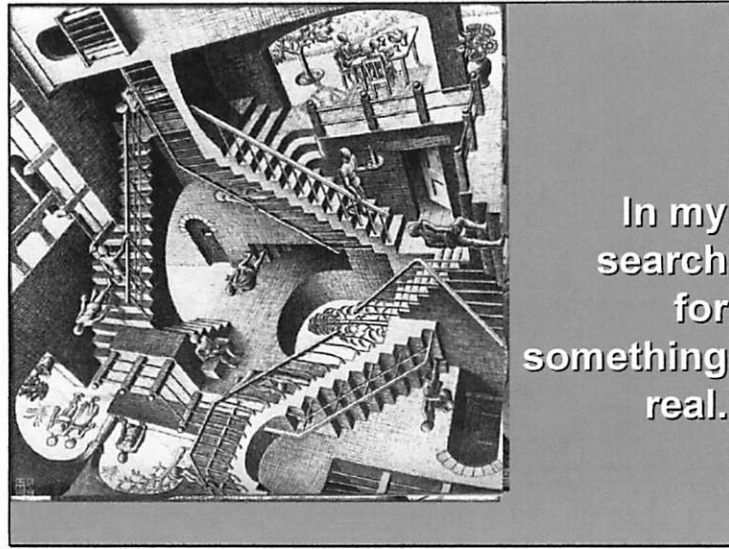
Obstacles created by humans: Separate places for different people.

8th grade collaborative study: The Diary of Ann Frank, and images of the Holocaust.

Discussion: What is a Ghetto? What image does the word bring up? (Ghetto as lang term has different meaning today) Why were the people walking over bridge for some, and under for others? Relate to other examples of separate facilities for people of different ethnic backgrounds.

Issues of war reparations, and the ownership of artworks confiscated from people who died in the concentration camps. What other issues of reparations is currently being debated?

Museums, art and the preservation of artifacts. The Holocaust Museum in Washington, DC, is a historical museum, but the physical plant is the product of the collaboration of architects, designers, curators, and artists, to create an atmosphere that is visually and experientially effective.



M.C. Escher *Relativity*

<http://www.alpos.net/images/escher/RELATIVITY.jpg>, Copyright 1995-2003 World of Escher, Inc. All M.C. Escher works and texts copyright (c) Cordon Art B.V., P.O. Box 101, 3740 AC The Netherlands.

Target audience: All eighth graders; collaborative lesson with Math; alternate and opposing groups (gender, race, economic situation)

Discussion, Q&A

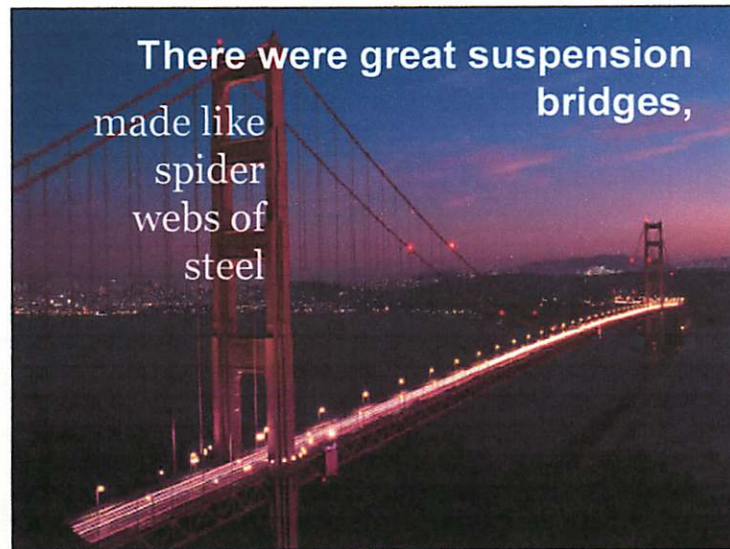
- What is reality?
- How does one's point of reference affect perception, and what does that mean for artwork? (where is the viewer in relation to the picture)
- How are two alternate perceptions of the same thing still valid? (open-ended nature of art, rather than mathematical proof)

Activities:

List some art words that could relate to this picture (perspective, realism, Surrealism, tone drawings, contrast, neutral colors, grayscale)

Identify areas of light and dark value; determine light source.

How many different points of perspective are there?



Microsoft clip art photograph file

Target audience: Students with family members in construction field (many “blue collar”, less affluent SES)

Discussion, Q&A

Relative scale: steel cables and spider webs.

Relative strength: cables and webs. Are they the same?

Where do ideas come from? (look at pictures of rope bridges)

Value, color contrast? (light and dark; orange and blue)

Perspective: are the cable uprights different size? Why do they look that way?

Suspension bridge: Tie in to lesson on Brooklyn Bridge

How is a suspension bridge different from an arch bridge, for example?

What is a parabola?

Form follows function: Tacoma Narrows Bridge.

Activities:

Card file bridge lesson plans

Parabolas: making string bridges

Slide 6



Riverswood WebDesign; http://www.riverswood.com/train/HO_tresle01.jpg

Target audience: Young people who have made, seen, scale models.

What is the difference between this bridge and the preceding bridge?

Does this bridge hold from the top or the bottom? (bottom)

What materials are used to make this bridge?

How do materials (for example, wood as opposed to cable) limit the final size of something?

What are *scale models*?

Why do builders and architects make scale models? (to sell idea)

What are *maquettes*?

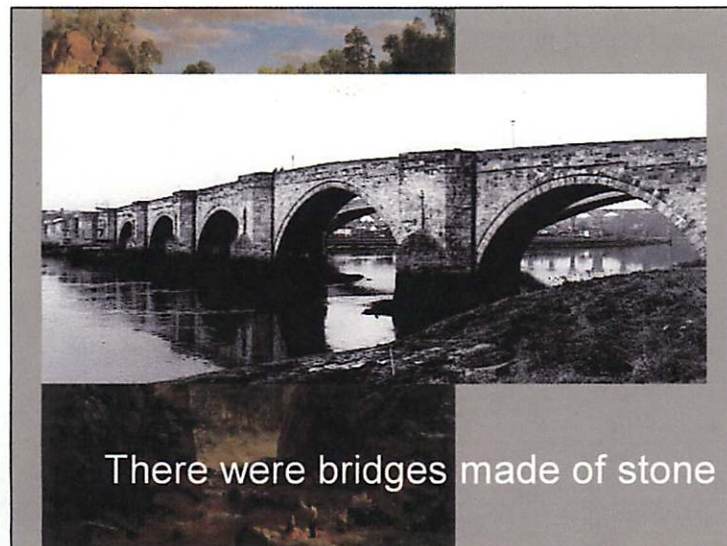
Why do sculptors build maquettes? (to visualize, possibly to sell)

Activity

Using toothpicks and white glue, make a simple trestle bridge

Research photographs, railroad sites: Is this design actually possible? Were there trestles with openings for other tracks? Why might this not work?

Slide 7



Old Bridge Berwick on Tweed (<http://www.images-of-britain.freemove.co.uk/ne/ne00038a.jpg>);
and Frederick Edwin Church: *The Natural Bridge, Virginia*, 1852; Oil on canvas, 28 x 23 in
(71.1 x 58.4 cm)

Bayly Art Museum, Charlottesville, Virginia

Target audience: All

Discussion:

Intentional vs. arbitrary design: Natural forms, and man-made forms. Return to inspiration of spider webs and cable bridges; velcro; fuel cells; Bucky balls

Are natural bridges common? Where do you find them most frequently?

What is an obstacle? What created the natural bridge? What was the obstacle, and what was the traveler? (The wind, or water; and stone)

Was there intent behind the wind/water?


How, then, is a created object different from a found object? (deliberate design)

How is Church's painting of a natural object a created object, with deliberate designs?

Activity:

Use modeling clay to build arch bridges

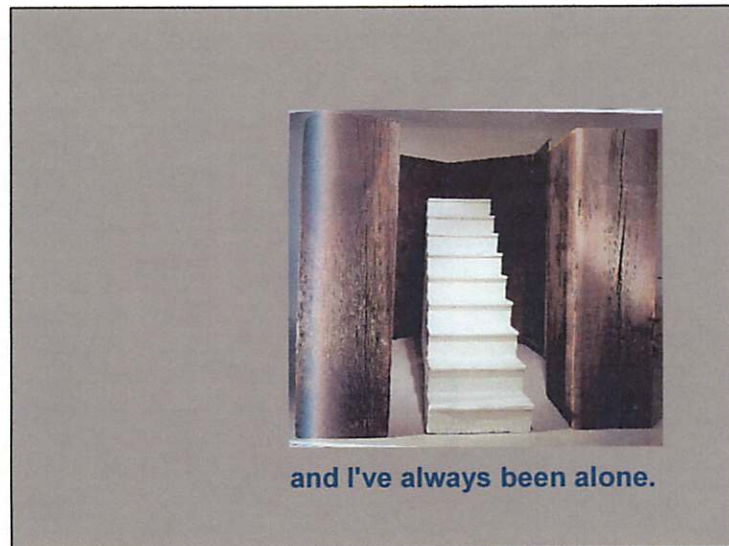
Slide 8



I have always been a stranger

Target audience: Alienated, disenfranchised, students outside the mainstream
[for myself, existential reality: Sartre, *The Stranger*, and *No Escape*]

Slide 9



Louise Bourgeois: *No Escape* 1989 wood and metal 96"x99"x120"; in Contemporary American Women Artists, 1991, Cedco Pub., San Rafael, CA; Photo © Peter Bellamy, Robert Miller Gallery NY©

Target audience: Gender, SES, alienated students

Discussion:

What is this?

How big is it? (a small room, 8'x10'x8'ceilings)

Why wood? (building material for private scale, as opposed to concrete and metal, as one possibility)

What are stairs used for?

Where do these stairs go?

What is a glass ceiling? How could this represent a different type of glass ceiling?

How does the viewer participate with this piece?

The sculptor is a woman; does this mean anything?

Slide 10



Stefan Killen, *Brooklyn Bridge*, New York, NY , 2002, ©

<http://stefankillendesign.com/photography/bridges/1.html>

Target audience: Students familiar with 9/11 images

Discussion:

Compare and contrast this artwork with the preceding sculpture by Bourgeois: 2D and 3D, scale, media, value, balance.

Space: discussion of enclosed vs. open space

Figure, ground: Where is the object in relation to the viewer? Why did the photographer choose this angle? What feeling is conveyed? How is it different than *No Escape*?

What is a copyright, and why is it important to acknowledge ownership?

The WTC is in the distance; this photo was copyrighted in 2002. Is this a real photograph, or a computer generated picture, adding the towers?

If it is real, how does this photo capture an expressive quality of NYC, and WTC? (very dreamlike, almost not there)

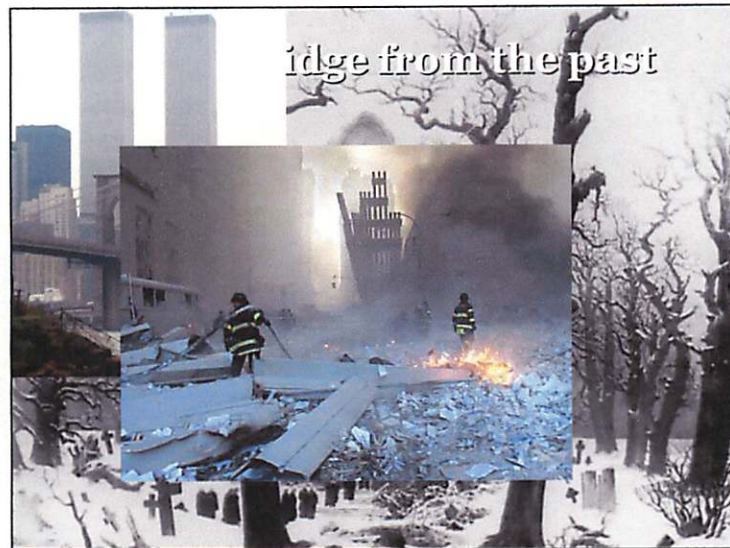
Is photography art? Computer generated objects art? Machine-made sculpture?

What is pin-hole photography?

Activity:

Make a pin-hole camera

Slide 11



Illustrations:

Caspar David Friedrich (1774-1840): *Cloister Graveyard in the Snow*, 1810 Oil on Canvas: approximately 47 x 70 in. Painting destroyed during World War II

http://www.tigtail.org/M_View/TVM/X2/a.NeoClassic/friedrich/friedrich.html;

The view on the Brooklyn Bridge and WTC from the Empire-Fulton Ferry State Park on 12 May 2001;

http://www.wirednewyork.com/brooklyn_bridge_wtc.htm

WTC, www.september11news.com/AftermathReuters10.jpg

Target audience: all students; students who have family members in construction, especially stone and brick masons (skilled Latino, African American workforce); the Gothic student

Discussion: (Play Mozart's *Requiem* during the activity)

What is the ruined building? Do we see things like this in the US?

How can one determine scale from the painting? (figures in the foreground)

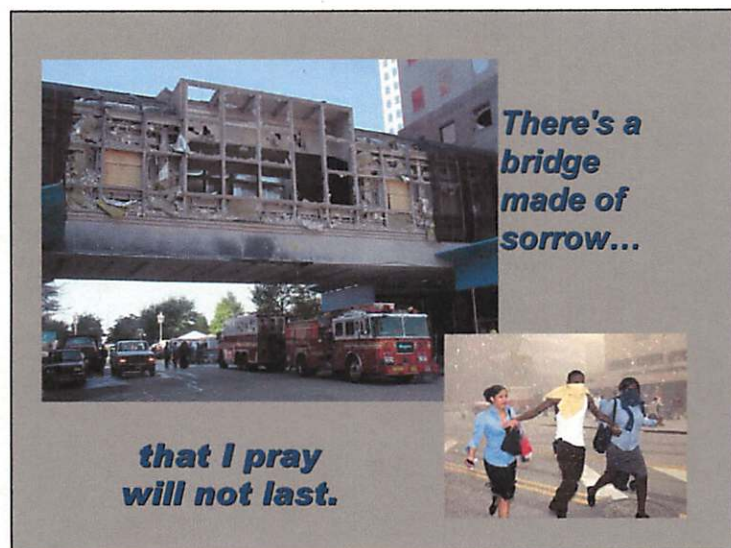
What is the expressive content of this piece?

Identify the shape of the windows. (Gothic arch) Identify origins of *Gothic*.

What is the picture that moves across the slide? (WTC, and Brooklyn Bridge)

What shape is found in both pictures? (arch) Were they built by the same people (in a way; process of apprenticeship for arts and trades; transmits learning over time, and skills are carried, transferred, *bridged*, from old to new)

Compare the photograph from 9/11 with Friedrich's painting. How are they similar? Where in both compositions is the structure of the ruin? What part of the painting relates to the firemen in the picture?



WTC pedestrian bridge, <http://www.parrhesia.com/wtc/tn/wtc029.jpg.html>, and Running trio, <http://post-journal.com/News/images-all/Wob55d.jpg>. © 2001

The Post – Journal, 15 W. Second St., Jamestown, NY

Target audience: Houston County is home to Robins AFB; the issue of 9/11 is current in a military community. Students view the invasion of Iraq as a post-9/11 anti-terrorism necessity; patriotism is a theme, with many students' parents either in Iraq, or involved with the war effort. Personal awareness, acceptance, and avoiding personal ideology as essential for this segment of the population as with students with different ethnic origins.

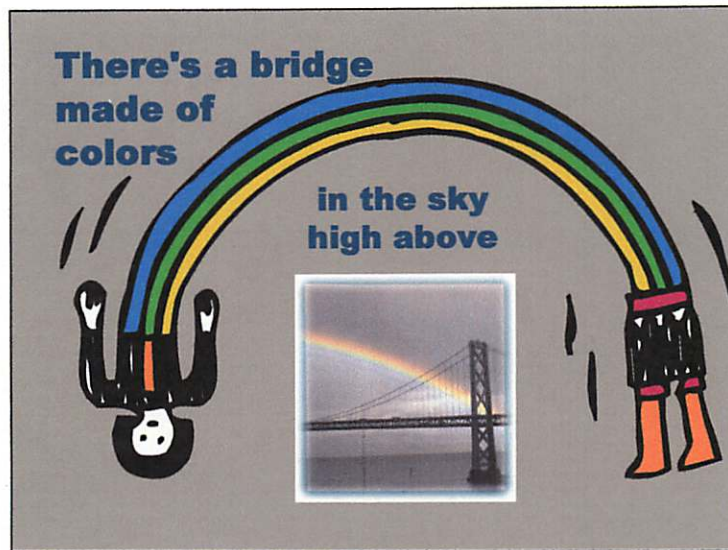
Discussion:

Real bridges and human bridges: How are these two photographs similar (horizontal format, color photographs, same occurrence [9/11])

There is movement in the photograph of the running people. A photograph is a still frame. How does the picture capture movement? Why is it different from the bridge? Does the bridge show movement? Why or why not?

The peoples' feet are almost off the picture plane. What does that show? Why would a photographer take a picture like this? Did the photographer have time to think?

What would happen to the picture if the man's arms were not outstretched?



Rainbow Bridge (clip art); and San Francisco Regulatory Group,

<http://www.spn.usace.army.mil/regulatory/rainbow.gif>

Target audience: Native Americans

Discussion

Bridge as allegory

Connections between known and unknown

Rainbow as transient; symbolizing all ethnic groups

Rainbow as creation story

Connection (bridge) between science and art: What is the difference between RGB, CYMK, primary colors in science, and in color theory? Optical vs. pigment colors

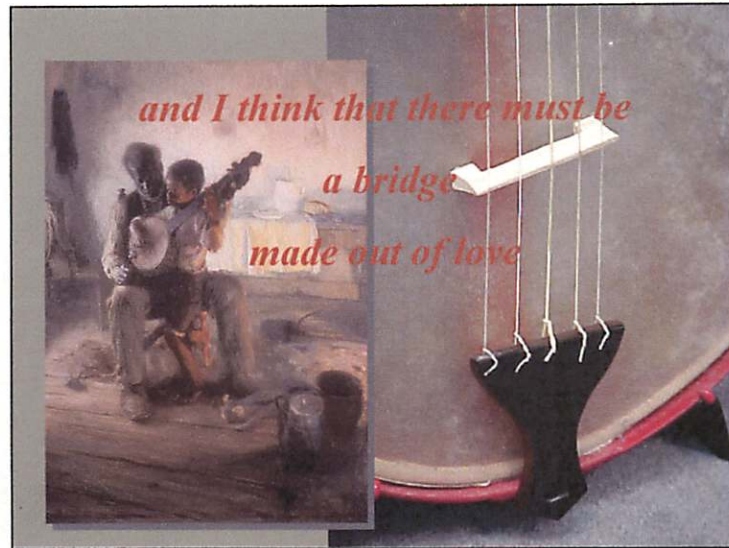
Where do dyes come from? What do colors symbolize? (Navajo rugs; natural vs. synthetic dyes)

How can weaving be considered another metaphor for life?

Activity

Listen to the story from the Navajo about the *Rainbow Bridge*. Make a child's foot print using the heel of the hand, and knuckles.

Slide 14



Tanner, Henry Ossawa *The Banjo Lesson*, 1893, Oil on canvas, 49 x 35 1/2 in. (124.46 x 90.17 cm), Hampton University Museum, Virginia; and Elderly Instruments, *Banjo*,

http://www.elderly.com/new_instruments/items/images/60N/WB195_bridge-tailpiece.jpg

Target audience: African Americans; students interested in music

Discussion:

Where is the bridge in this set of pictures?

Why is it called a bridge? What does it cross? what is the structure? what is the traveler?

There are two figures in the center of Tanner's painting. The painting is narrative; it tells a story.

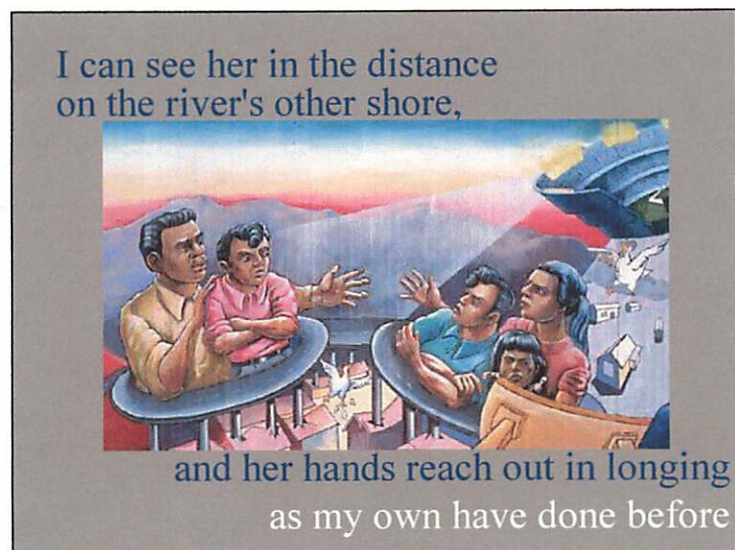
Who could the people be in this story?

If the little boy were removed from the picture, the grandfather would look like he is playing the banjo. How is this a story about heritage, as well as sharing knowledge?

How does music make a bridge between people of different languages and beliefs?

Activity:

Using gourds, make a banjo; or clay to make clay pipes, bells, chimes.



Judith Francisca Baca, *Division of the Barrios and Chavez Ravine* (detail of The Great Wall of Los Angeles), 1983 (whole mural 1976-83), acrylic

13 x 35 ft. (whole mural 13 x 2,235 ft.), Tujunga Wash, San Fernando Valley, Los Angeles,

<http://members.tripod.com/~noemigarcia/barrio.jpg>

Target audience: Latinos/as, Chicanos/as

Discussion:

Muralistes: 20th century tradition; millenia-old art form.

What other cultures have recorded their histories in mural form? (more to the point, which ones have not...) Why painting, and not written stories?

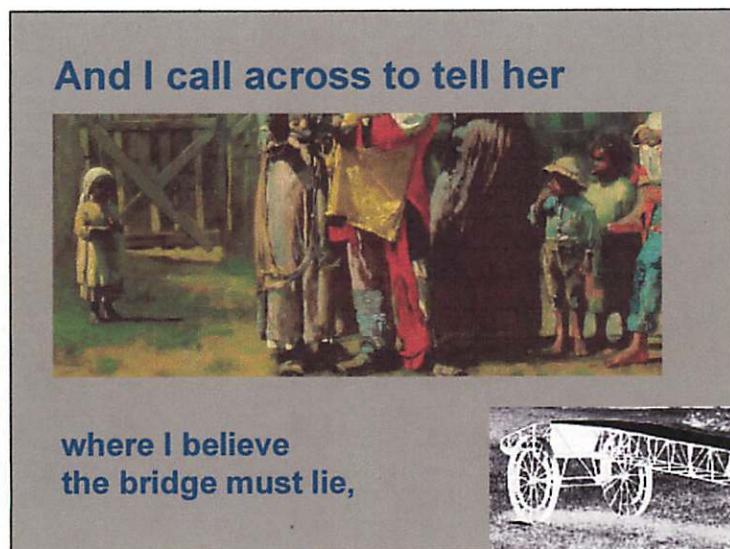
How are paintings on public surfaces different from paintings in homes and museums?

What is art of social protest? Social commentary? Is it pretty art?

What is the Great Wall of China? Why was it built? How come Baca named her mural *The Great Wall of LA*?

The connection between the two families is broken; a freeway punctures their homes, and a stadium beams light down on their lives. Interpret what the story is. Do you think if rich people lived here, the same thing would happen? Why or why not?

Activity: Painting murals: How to enlarge objects without using quadrants.



Winslow Homer, *Dressing for the Carnival*, (detail), *Dressing for the Carnival* 1877, oil on canvas, 20 x 30 in, The Metropolitan Museum of Art, New York; and Helene Brandt, *Portable Bridge*, 1983, wood and steel, 3'x3'x30'.

Target audience: African American; handicapped students.

Discussion:

How do object overlap in this painting by Homer? One figure doesn't; how important is she?

What would happen if she faced the other way?

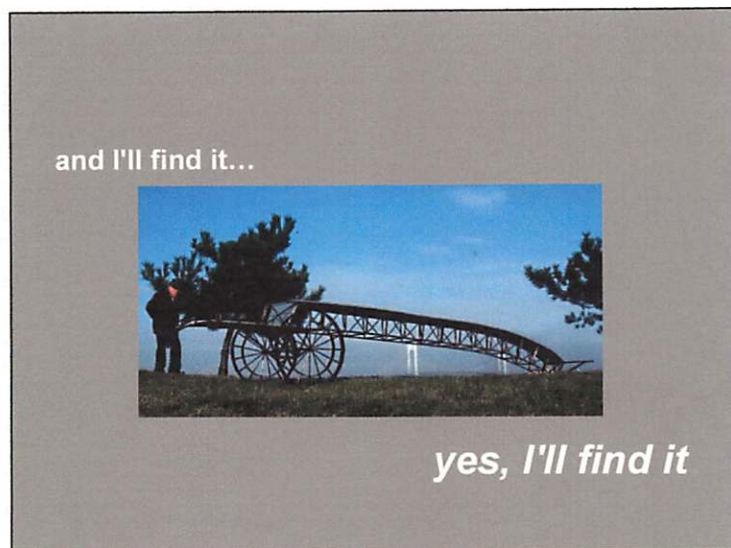
What is a Venn diagram? How is the group on the right an intersection; and the girl on the left the null set?

There is a vast space that separates the little girl from the group, even though it is only a few feet. What keeps the little girl from joining the rest of the group (any answer, but ultimately, she is the reason; she has put herself away from the group)

If she had a way to join the group, like a portable bridge that over her fears, she could move from the familiar to the strange, and return back. The bridge, however is within oneself. She is herself the bridge. Brandt's *Portable Bridge* is only a symbol.

Activity: On three pages, draw one object on each page: A wheelchair. A hearing aid. A seeing eye dog. To each drawing, add a child using the object. Draw an activity they are involved in (wheelchair basketball, listening to music, walking in a city).

Slide 17



Helene Brandt, *Portable Bridge*, 1983, wood and steel, 3'x3'x30'.

Target audience: All students; especially girls

Discussion:

"The bridge, as a suspension between two separate points, and the wheel, as a major mode of transportation, are joined together in this piece, suggesting the possibility of endless, fantastic, and flexible travel". From the artist's home page. Relate this to LOST. What is the location? The obstacle? Structure? Traveler?

How is this a metaphor as well as an object?

The sculpture is kinetic. Alexander Calder's mobiles are also kinetic. What is the difference between the two?

What is welding? Who knows someone who welds? What gender are they? Does a person have to be a certain gender to do something? (well, yes, for some things.....)

This is public art; something children might play on. What does the artist have to do when designing something that could be climbed on? Why?

Activity:

After seeing the artist's story board for the *Bridge*, have students use one of the drawings from the previous slide to create a story about a special needs child.



W. Eugene Smith, *Tomoko Uemura in Her Bath*, Minamata, 1972; and
The Walk to Paradise Garden, 1946: © The Heirs of W. Eugene Smith

Käthe Kollwitz, 1867-1945, *Mother Embracing her Dead Son*, ca. 1903,
Black chalk on gray paper

Judith Baca: "*Balance*" from "*World Wall*" a mural, 1991,
<http://www.pbs.org/americanfamily/mural.html>.

Target audience: All

Discussion


All of these photographs show a special kind of bridge. There are no real bridges. What is the bridge that connects all of these images?

How is family a bridge to the past, and to the future?

Unlike portraits of people by themselves, each person in this set of pictures is made complete by their relationship to another person, conveying an essential message to the viewer. Birth, life, dying, and death are life. One travels through this long journey crossing many bridges, walking with many people.

Activity: Bring pictures from home of family. Find ones with many generations, and relationships. Identify each, in a series of sketches showing the connections.

**I have crossed a
thousand bridges
In my search for
something real.
There were great
suspension
bridges,
made like spider
webs of steel.
There were tiny
wooden trestles,
and there were
bridges made of
stone.**



***I have always been
stranger
and I've always
been alone.***

Milton Nascimento

Milton Nascimento, *Travessia (Bridges)*, from the 1968 album *Courage*, produced by A&M Records.

Target audience: Multi-ethnic: Brazilian, translated into Spanish and English.

Discussion:

Language barriers have acted as walls between people; but music is a language that is shared by all people. How is this the same with visual images? Is there a universal language of art? The lyrics use a *bridge* as a metaphor.

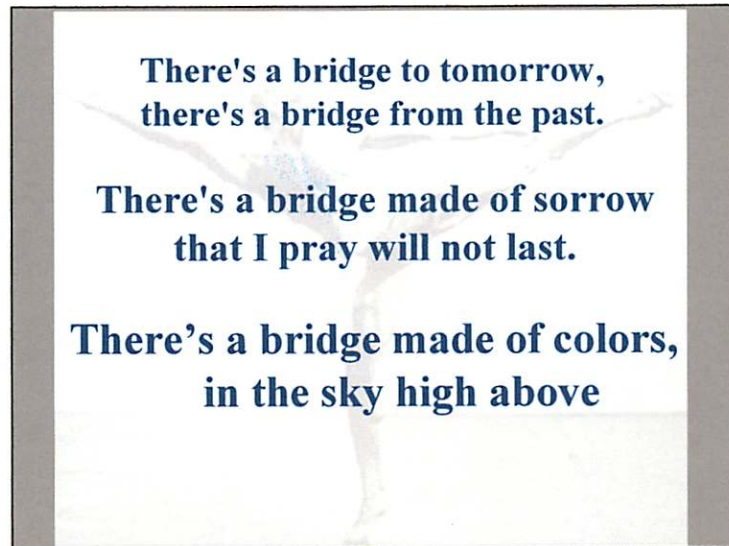
When Nascimento says “I have crossed a thousand bridges in my search for something real”, does it mean he is looking for specific place? What does he mean by real?

If the location is not an actual place, then the obstacle, and the structure are probably not real things, either. What could they be?

Do you like the music? Why or why not?

Activity:

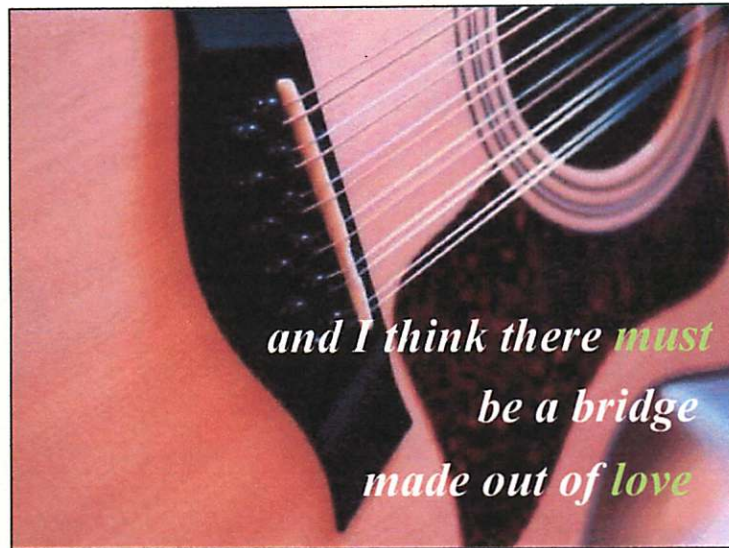
Bring in song lyrics that (a) can be discussed in class, and (b) contain a metaphor (for example, TLC’s *Waterfalls*). Have the students put the words on the board first, without reading the lyrics, and guess what the metaphor is about (dangerous territory)



Kurt Douglas, Limon Dance:

Return to the first section; the person as a bridge

Slide 21



Taylor Guitar, <http://www.taylorguitars.com>; ending with music, metaphor, and a reference to other types of bridges.

Representative Lesson Plan: *Bridge as Metaphor for Self*

Unit: Bridge as Metaphor for Self

Lesson Plan: *I am the Bridge*

Time:

Remaining two to three weeks of the nine week grading period. One class period daily lesson plan, Tables 16 -20, (block schedule, 90 minutes).

Preparation:

All materials need to be set up, as students will work at different paces. The room will be arranged in “stations”; cutting, gluing, hot gluing; any activity requiring cleanup will be kept separate from the drawing areas. Individual carrels will be labeled with the equipment and materials stored there, with laminated instructions for independent work.

Introduction:

This culminating series of activities combines separately produced pieces of artwork, in a mixed media format, showing the juxtaposition of a self portrait as pivotal to movement across a landscape. The primary goal is to achieve flexibility in visual imagery. The I:Eye:Idea logo lesson (Day 2) transforms a familiar object into another familiar object. An eye is superimposed into a bridge; and a bridge is created with the iris of the eye. Based upon surrealism, where the generative process woven by the visual tension between dissimilar objects creates meaning, the relationship between the imagination and the subconscious mind will be addressed.

This is the foundation for further lesson plans, where the *bridge* between two separate *loci* is no longer a perceptible object or visual element, but a conceptual, or metaphorical connection. Concepts such as bilateral symmetry (reflection), radial balance, movement and

repetition will be reinforced, as well as realistic drawing skills, and compositional issues such as overlap, contrast, and line pressure/weight will be taught throughout the lesson

Objective: Final Lesson

Students determine whether their self portrait represents a Structure (the bridge), or an Obstacle (something that prevents movement from one Location to another).

Students transform their names into a bridge on the first day, then apply that skill to transform three different objects into a logo with multiple levels of meaning during the second class period (see Appendix C, Bridge Portfolio).

Students will identify analogous shapes, differentiate between scale, and articulate a concept of metaphor generated by the concurrence of two dissimilar objects.

Students will use *realistic, figurative* drawing skills to represent both the individual and the context; and will create *symbolic* meaning through the interaction of the two objects. .

Products:

A: Bridge portfolio

Each student receives one sheet of tagboard, 24" x 36". This is folded in half, to create a 12" x 18" portfolio. Following procedures shown on the Powerpoint presentation (see Appendix C), students make a portfolio in which to store the remaining work for the *Bridge as metaphor* unit.

B: Self –portrait:

Two sketches: First, graphite pencil self-portraits. Following a review of contrast, the illusion of depth in 2D artwork, and a unit on comparative body measurements, students will create a realistic self-portrait. Using digital photos (see Figure 37) rather than mirrors, students will divide their picture into four quadrants, and sketch a self-portrait. Emphasis will be on *tone*,

rather than *line*. By converting the color photograph to black and white, students avoid obsessing on details; after they have the basic geometry of the face, then they use mirrors to draw in the details.

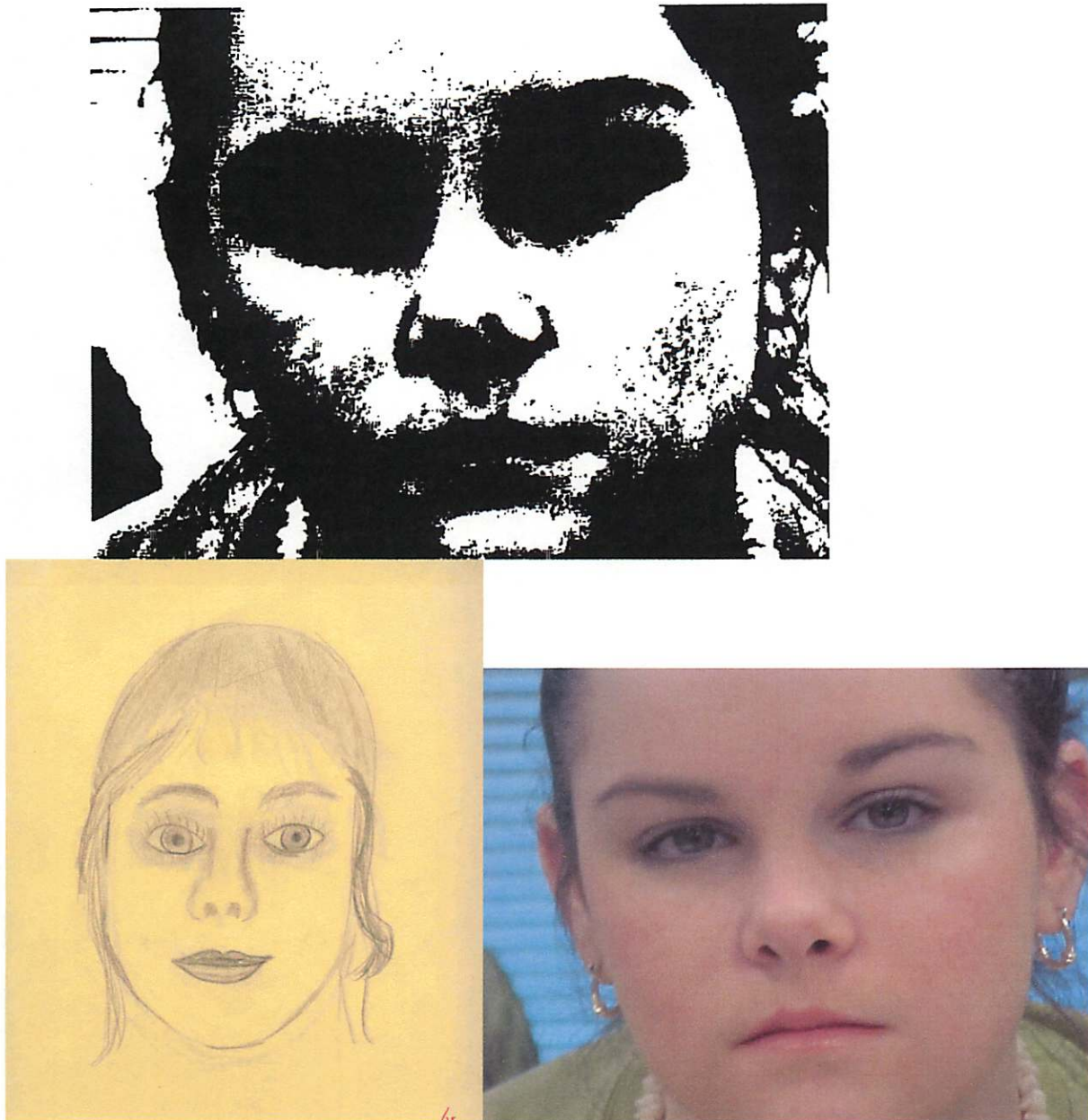


Figure 37: Digital photo; printed as B+W; sketch from mirror after drawing general facial features

Terms:

1. realism: Term used with various meanings in the history and criticism of the arts. In its broadest sense the work is used as vaguely as naturalism, implying a desire to depict things accurately and objectively.

2. surrealism: A 20th-century literary and artistic movement that attempts to express the workings of the subconscious by fantastic imagery and incongruous juxtaposition of subject matter (<http://www.ibiblio.org/wm/paint/glo/surrealism>).

3. tone drawing: drawing technique where illusion of volume is created by continuous blending of tones from light to dark, indicating surface contours and light direction.

4. line drawing: drawing technique relying upon the proximity of lines to create areas of light and dark, following the surface contours of the object; preliminary to printmaking, and graphic arts.

5. bilateral symmetry: mirror image; reflections.

6. radial symmetry: symmetry based upon the concept of a circle, with radii or spirals (Fibonacci sequence).

7. symbolism: the use of one object or thing to represent something else; usually a concrete object which stands for an abstraction or concept, such as the *American flag* for *patriotism*.

Art History:

André Breton, Surrealism; Albrecht Dürer, realism; Gustave Courbet, Realism (genre painting) *The Stone Breakers* (1849, destroyed 1945) compared with Marcel Duchamp's *Nude Descending Staircase* (1912); ; M.C. Escher, (4 Eye); Frida Kahlo (Self Portrait between Mexico etc); Paul Klee (Die Blaue Reiter; Kandinsky, metaphor and the relationship of poetry,

music and painting) *Connections: Mathematics (measurements, ratios); science (anatomy, physical science); language arts (poetry, symbolism); foreign language (Spanish, poetry).*

Materials: Drawing

Graphite pencils	masking tape
tortillons	9x12 manila
gum erasers	12x18 manila
cover sheets	Kleenex
(drawing bridge)	digital printouts of portraits

Introduction:

Students will learn the basic technique for tone drawing, using graphite pencils. The lesson will refer to measurements from a previous lesson, about skull proportions, as well as reviewing drawing techniques for creating depth in 2D artworks (contour, shading, perspective).

Begin with practice at guideline drawings (make reverse drawing from rubbing, using stylus on paper to create dent drawings). Practice drawing while standing; and holding pencils for drawing. Reinforce upper arm vs. wrist movements. Draw correlation between sketching and shooting basketballs.

Using digital printouts of the students faces, have students fold picture in fourths. Using 9x12, manila, have students mark vertical paper in 1/4's. Using guidelines, reproduce the facial features in the appropriate scale.

Cleanup: Part One

Girls use sinks while boys clean up their areas; then switch. All students should:

1. fold drawings within cover sheets, and place in correct drawers
2. roll all trash, and eraser dust, inside newsprint, and throw away

3. return all equipment, noting if anything was broken or missing (pencils, metal sharpeners, erasers and tortillons)
4. include full name, date, and class period on the back of the art work;
5. hang up aprons, push in chairs, leave when tables are called.

Safety:

Clean up all spills to avoid accidents

Asthma possible but unlikely with eraser dust; accommodations made according to school medical alert list (inhalers; dust masks, and last resort, alternate site).

Evaluation:

Following instructions:	50% line vs. tone, all elements, realistic
Effort	30% (includes completeness)
Written assignment	10%
Neatness	10%

Assessment

All students will create a tagboard portfolio, showing their name as a bridge, with a reflection, and distortion.

80% or more of the student body will produce an I:EYE:IDEA logo, following the steps outlined in the procedures above, showing individual creativity through the use of a design process.

All students will generate a realistically proportioned self-portrait which will be used in the final steps of the metaphor unit , and stored in the student's portfolio.

Some students will complete the self-portrait as a metaphorical bridge, showing the four bridge elements as they relate symbolically to the individual student.

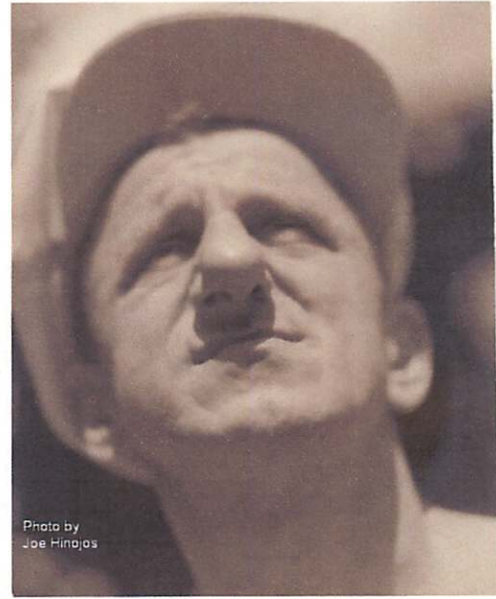


Figure 36: : Clockwise, from top left:

Piero Della Francesco, *Frederic of Montefeltro*, c. 15th century

Joe Hinojos, *Jimmy Durante*

Domenico Ghirlandaio, *Old Man and His Grandson*, c. 1480, tempera and oil on wood, 24 1/8 " x 18".

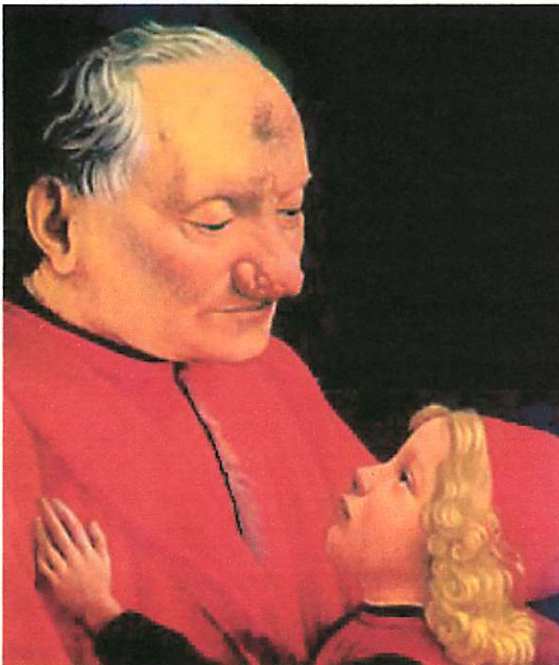




Figure 38: Student artwork, questionable self-portrait, important because of young artist.

CHAPTER VI

Reflections on the Curriculum

Changes in Direction and Classroom Demographics

In retrospect, attempting to cover a vast amount of information over a nine-week period was patently unrealistic. In an ideal situation, with block scheduling for a semester, the entire unit could be taught, in sequence, completing all subunits and daily lessons. However, middle schools are notorious for planning activities during Connections classes. Because of test score accountability, the administration prefers not to disrupt academics classes. The inevitable disruption of an already limited time slot, combined with the unpredictable nature of middle school children and large classes, has made the curricular unit difficult to teach in its entirety. Rather, over a two year period, lessons have been taught piecemeal, with varying degrees of success.

Also, the original intent for the material was to distribute it across three years. Formal elements of art in bridges were for sixth graders, composition and the principles of design for seventh grade, and meaning and metaphor in the eighth grade. Because of policy level changes affecting class sizes and funding for teachers, plus over one thousand students enrolled in the school, it became apparent that A) there would not be continuity of students for this program to work over a three year period, and B) even if there were, middle grades students are by nature unlikely to retain much taught for short period each year. This past year, therefore, the material was presented only to eighth grade students. The originally assumed scope and sequence of nine weeks for each subunit has been compressed into one third of the time originally allotted.

Bridge as Object: L.O.S.T., and Form

Much time was spent generating the concept, then the Powerpoint presentations that accompanied the project. When first presented, L.O.S.T. did exactly what it said: It lost the students. With that in mind, I created a second Powerpoint, FORM, based on material from the other presentations, but briefly identifying the elements of art, as they are found in bridges. This cleared up some of the mystery about the unit. With this as an introduction, L.O.S.T acted as an organizer for many different topics and lesson plans. While complaining about the nature of the material (“What does this have to do with art” was frequently heard), students were able to extract the function of abstract visual bridges in drawing activities.

The torn paper exercise deliberately sidestepped the issue of the self-conscious paralysis middle graders display when asked to draw. My observation is that these kind of activities are not suited particularly well for middle grades students; the result was not something they liked; the glue was too tempting, and the instructions too long. It was apparent that abstract formalism was not interesting, perhaps seeming too elementary. Being at a self-absorbed age, any artwork that dealt with their own interests, including self portraits, were more engaging. They did not want their artwork displayed in the hall. I honored their wishes, halfway agreeing with them.

Bridge as Compositional Device: A Little Touched.

This project was begun during the last nine weeks of year 2002-2003. This art activity, in addition to showing the importance of connectedness in composition, reinforced the concept of Venn diagramming, taught in eighth grade mathematics. Emphasis and harmony (two complementary, governing principles in artworks containing multiple figures) were shown by overlapping silhouettes of the students. One figure was left intact, without overlap. This lone

figure became the focal point, calling to mind Winslow Homer's *Carnival* (Figure 15). There was one incident, where students added material that was silly, but not vulgar to the mural. The response from their classmates was swift and vocal, upset that their work was 'vandalized'. Rather than responding punitively, I demonstrated mortise and splice patching; students responsible for the repair redrew the area, and repainted. One student in particular, who was completely vision impaired, with other significant disabilities, was the "model" for many of the silhouettes; his classmates were kind, and posed him across the mural.

Perhaps the most telling response for the project was the fact that it remained intact, with no marks, tears, or other 'shopworn' effects, until I took it down, at the end of school. Up until the last day, I would find students flattening themselves against the mural, trying to figure out which shape belonged to each gesture. The board area has become an informal mural site, rather than bulletin board for classwork, and has remained reasonably clean despite numerous painting activities.

Bridge as Metaphor: , I:Eye:Idea, Bridge Portfolio, I am the Bridge Collage

This unit began with a teacher-generated worksheet, I:Eye:Idea (see Appendix G). The students were more familiar with this format, and following instructions precisely. The work was stereotypical, and imitative, except for one high-functioning autistic student, whose elaborate interpretation was chosen by the class as the most creative. Highly visual, this particular child is a competent draftsman as well as imaginative artist. This particular class has 34 students, two hearing impaired children, two EBD students, one autistic child, and and two paraprofessionals. It is both physically and emotionally exhausting. The Eye worksheet was relatively easy to produce and grade.

More complicated, but nevertheless easy to assess, the Bridge Portfolio became the most engaging activity of the series. Students were able to create interesting effects, using distortion and reflection. Because the portfolios were used daily, and represented a major grade, they were able to work on them during free time, adding details, refining errors, and ultimately, converting the name into a bridge.

The third part, I am the Bridge, with drawn self-portraits, and identifying a sequence of events or times in each student's life that represented change, was both difficult to teach, and to assess. We looked at well known examples: Bobby Knight, the Indiana coach, whose anger caused him to lose his position; Michael Jackson; Nikki Lauda (a famous Formula One driver, injured in a wreck). Change could be as simple as growing up, or as complex as living in a group home, or jail, if one was caught dealing drugs. The most poignant example came from a student who was isolated and unapproachable. His drawing showed an arena of screaming fans; he was on stage. To the side, the picture of him now was very small, and insignificant. Another young African American male showed himself at school, then in a gang. Around him was the debris of violence and loss. One very clear example of comprehension came from another African American male, who drew a head with an extreme Afro hairstyle. Funneling into one ear were words from a rap song. Coming out the other ear the words "violence, gangsta, hoodz" spilled out graffiti style.

Whether this is a valid observation, or just the limited results from non-random classes, it seemed as though the girls had less insight into a possible duality of their natures than the boys. Their before/after situations showed growth; or were specifically linear. Research would be needed to determine what, if any, effect the project had on abstract self-perception, and second, would then have to be applied on a much large population, adjusting for gender

differences. Even so, the analysis itself would be subject to interpretation. On the whole, the general response was more “angst” ridden for the males, more conventional for the girls.

Included in the photographs of student work is one significant piece, from an eighth grade African American girl, with known gang affiliations. Her attitude in school was noticeably poor, and her grades indicated she was in danger of failing. When we were working on another mural unit, *El lápiz poeta*, a collaborative lesson with the Spanish teacher “bridging” language, poetry and art, this young woman became absorbed in creating a character. The figure wore a tee shirt she had been asked not to wear because of the message. I did not stop her from using it; and she spent many of her breaks, and free time, in the room working on the project. Her grades at present are passing; how much effect participation in the art project contributed to this cannot be known. But, her interest in the project, and her willingness to use her free time to complete the work, has generated an unprecedented personal initiative in the student.

As mentioned previously, the lack of quantifiable assessment was a problem. Eighth grade assessments include a mandatory 20% final, which I count as a performance final. Grading rubrics vary for each activity, and usually contain a large percentage based upon participation. Certain criteria are required (name placement, class, etc.); some are arbitrary (use warm colors for this element, cool for that); some relative to content and some to technique; and some negotiable. Students who are able to articulate a design choice for a reason are given credit, even if it doesn’t follow the assignment. Artistic ability is not considered when grading.

Overall, the classes performed well; not all projects were as successful as others. As mentioned before, glued paper and abstractions based upon formal elements appealed least to eighth grade students. Similar lessons taught to sixth graders were very effective, and the younger students enjoyed both the process and the product. Any lesson dealing with the human

body, whether drawing, analyzing, or comparing (Figure 36: Knoses) was effective at engaging students. Students showed most interest in mastering drawing techniques, and creating tone drawings using graphite pencils. They were less interested in discussion, comparison and evaluating art works, but when students “deconstructed” a painting for compositional unity at the end of the grading period, it became apparent that a basic knowledge of a visual bridging was achieved.

CHAPTER VII

Summary, Conclusions, and Recommendations

Why design art curriculum for at-risk students? What possible good can come from addressing the needs of students whose only academic certainty is the likelihood of becoming a dropout statistic? Teachers and administrators know these students represent a segment which are simultaneously troublesome, and transient: Within a short time, many of them will drop out of the educational process altogether, ceasing to be a test score liability, and classroom management problem. They are the “lost” children; the poignant sorrow is that they see themselves in this way. Their identity has been reinforced by their imperfect reflection in the doors to academic excellence. They are lost; they are imperfectly reflected; they are both the substance and the audience for the curriculum, *Bridge as Metaphor for Self*.

As a teacher of all students, mixed indiscriminately in a single class, I have come to believe every child deserves an innovative, challenging curriculum, and not just those in gifted programs. Indeed, if there is any group within the public schools most desperately in need of academic engagement, it is students in danger of becoming educational statistics. In Houston County, and at my school in particular, this subgroup is less apparent than at other middle schools within the state. The original target population vanished entirely in 2002-2003, after the opening of an ESOL magnet middle school. The county increase in Hispanic-speaking students grew 2.6%, from 227 students in 1997-1998, to 570, in 2002-2003 (Lord, 2003), an increase much smaller than areas of North Georgia, and the national average of 12.5% Hall County has a Hispanic school population averaging 20%, of which a large percentage are classified as ‘limited language proficient’ (Office of Student Achievement, 2004). By comparison, Houston County showed 0% limited language proficiency students for the first two years, and only 1% in

02-03. Bonaire Middle School has always had statistically insignificant numbers of limited language proficient students.

Acknowledging this lack of target audience, the curriculum was expanded to address the needs of at-risk students in general. While the Hispanic population has remained below 2% of the total school population since it opened in 1997, students receiving free and reduced lunch percentages have fluctuated between the 30% and 40% range (SACS, 2004). Recent trends indicate that males continue to drop out at higher rates than females; and of this number, African American males had the highest system drop out rate.

The original demographic subgroup, Latinas, disappeared from our school during rezoning. Never in high numbers, the Latino population in Houston County dwindled, due in part to the rising cost of living in a county characterized by explosive growth, surrounded by rural decline. As a modification, the curriculum was expanded to include the Brooklyn Bridge, and building arts as a trade. The historical significance of Horace King (Minor, 2003), an emancipated slave who rose to prominence in the 1800's as a bridge builder, and other ethnic and immigrant contributions to the American landscape are included. Artists such as Howardena Pindell (Lippard, 1990) confront the subtle gender/ethnic barriers encountered in a supposedly free society; while Joseph Norman's lithography captures the haunting uncertainty of life for gang members in Chicago (Taylor, 2002).

The lessons under the title "Building of the Brooklyn Bridge" introduced information about building arts: Stonemasonry, framing, pouring foundations, and the accompanying perils. Houston County is one of the fastest growing communities in the Southeast, and many students have family members in the construction business. Students responded enthusiastically and knowledgably about building. Many boys had already worked summers on construction sites.

Craftsmen and builders come from an ancient and honorable profession; land graders are capable of perceiving minute differences in slope; framers can tell true vertical without levels. One question students ask frequently is “Do you have artwork in a museum?” My usual response is no, that not all art is found in museums; students see it everyday in work done by people they personally know.

Although the target population for this curriculum may have changed. an educational environment has marginal students, at risk of dropping out. With modifications, the curriculum has the potential to provide challenging and engaging materials for all students, regardless of GPA or reading levels. The capacity for symbolic thought is a trait of human cognition, and functions whether or not the individual has mastered institutionally mandated performance levels.

Bridge as metaphor has proven to be an extremely ambitious project when teaching middle grades art. First, art in the middle schools is a part of the non-academic curriculum, and therefore is treated as a time for students to sample as many vocational-related applied fields as possible. This last year, when all classes were changed to block schedule, parity occurred with class times and sizes. Prior to that, one eighth grade class was always significantly shorted; involved studio projects required more set up and take down time than the project itself might take. This year has seen an improvement in useable time in the classroom.

Why Metaphor?

Middle grades students grumble when first asked to think in the art room. To paraphrase an anonymous note: “Sorry to be the one to tell you, but this is ART, not math or science. In ART we’re supposed to have fun, and make crafts, and paint things.” Since the young person

didn't sign his or her name, I read it to the classes, explaining that it was a valid issue: What, exactly, is Art? Is it something done for fun, to decorate things and occupy free time? Or is it something more?

My personal belief is that art is far more than decorative entertainment. There have been many instances where the art room became a sort of sanctuary for the system's outcasts. It was a place where their attention seeking displays were acknowledged, allowing them to move beyond the need for superficial attention. During the teaching of these sections, and lessons, there have been times when the entire class became totally absorbed in the experience of perception. Like an epiphany, students realized that that they could think and visualize symbolically. This sequence at first bewildered , then snagged their interest, and finally, carried them to a level of insight usually not associated with young adolescents.

Young adolescents delight in tales of, murder, mayhem and disaster. One class was so fascinated by the footage of the Tacoma Narrows Bridge collapse, they kept asking to replay it. A special education student came up to the large Gateway monitor, and followed the oscillation with his hands. That initiated a discussion of flying "hand planes" out of car windows; put in the context of something everyone had done, they were able to understand how a bridge could move under constant high winds. Then we changed scale: students were shown a guitar, and asked to imagine the bridge as a string across a sound hole on a guitar. The wind acted like the hand of an enormous, unseen musician. It was perhaps one of the most interesting silences in my teaching career. The light bulbs all flickered on for a moment; then we went on. The discussion was later reinforced by a perspective drawing exercise in which students drew a simple one-point perspective, showing a few buildings, and a street; then, I drew a huge hand coming down

around one of the buildings, and the point of view changed to one of a miniature town, like a part of an elaborate set for model trains.

Art has the capacity to address more than aesthetic appreciation. Because it is a form of non-verbal communication, it has the potential to be universally understood. For this reason alone, art needs to be included in the academic environment. To confuse thinking ability with language proficiency is a grave disservice to young people, whether ESOL, hearing impaired, or simply disenfranchised outsiders who have turned their backs on conventional education. Sadly, there are too many of these children in our schools, and they are the ones in greatest jeopardy.

Recommendations for Practitioners Working with At-Risk Students

The road taken by this applied project was not straight. With the original target group gone, my own personal philosophy underwent a radical change. Any agenda which identifies a subgroup as at-risk makes an assumption that the group in question is functioning outside parameters of acceptable performance. Whether one chooses to rescue or remediate, there is the tacit understanding of hierarchy: One group helps, the other group changes. This epiphany “hidden curriculum” had the effect of paralyzing the project.

The original problem statement addressed the needs of Latinas, a group with alarmingly high rates of early dropout, usually within or at the end of the first year. Research showed that high school risk prevention programs came too late; that effective diversion from academic failure had to occur before high school. Statistics in the review of the literature supported this view, as well as underscoring the fact that young minds develop the necessary skills for abstract thinking at roughly the same time they start emotionally dropping out of the educational system. It may be a quality of adolescence, or it may be a specific cognitive response to an intolerable

situation. Whatever the cause, the long-term effects of dropping out far out-weigh the short-term relief students get from leaving school.

Ultimately, the curriculum succeeded, although not in the precise manner intended. Valid assessment of mastering abstract thought through metaphor is elusive. There are no pretests against which to compare final results. The process is not quantitative, but profoundly qualitative. It makes not claim of being measurable.

No test score, however, can equal the satisfaction observing student's growing interest in art, and drawing. He checks out graphite pencils and *Smithsonian* magazines; then leaves drawings on my desk. Another student stops every morning to show the cartoon character she is developing. Neither child would ever qualify for a gifted program. A third child, in eighth grade, has blossomed. Never talking, painfully shy, she has discovered painting, and spends as much time as her academic teachers will allow, helping paint murals and signs for the school. Now she talks incessantly; it is a lovely sound. Middle grades art classes offer a unique setting for implementing curricula which indirectly address issues of cognition and inclusion. The idea of developing a curriculum only for Latinas expanded to include all young people; gender, ethnic origin, disability notwithstanding, the ability to move to a higher level of understanding captured the true meaning of education.

What happened with the project is that all students were expected to think at a level beyond mediocrity. It is possible that the project itself was too ambitious, that too much material was covered, in too short a time. I would like to propose that it is a method, and not an end in itself. Art is a symbolic language. Young adolescents discover that their ability to think independently includes the ability to think metaphorically. At no time was any child patronized,

nor were others lionized. The smallest step towards metaphorical thinking represents a shift in cognition, and is a significant milestone in individual growth.

This project worked because of my own personal interest in bridges, architecture, and history. Another art teacher might find that Impressionist art, Oriental gardening, or book making could achieve the same goal. That abstract metaphorical thought can be taught must be an assumption underlying the process. Moving from concrete to abstract metaphor, using a consistent and familiar object, is like a plane preparing for takeoff: First, it has to be flight worthy, with all the necessary equipment; the pilot has to know the rules of flying; and the plane has to reach a minimum speed for lift. The elements, governed by the rules, collaborate to achieve the impossible. It is that precise moment when the wheels leave the ground that represents a leap of faith for a teacher.

I have had many moments where I was sure the plane was coming down hard, that “London Bridge was falling down”, that the educational process was itself intrinsically flawed. Designing curriculum specifically for a “lost” demographic segment, with qualitative rather than quantitative assessments, is inherently risky. Without numerical proof showing pretest to posttest improvement, the teacher must maintain a personal belief in the validity of the process. Symbolic, metaphorical thought prefigures intellectual growth. Artists, and the visual arts, can become the “bridge” between craftsmanship and abstraction; between design and manufacturing; between language and images. Using art to connect all children with their unique potential is a vital challenge, and one with limitless sources for inspiration.

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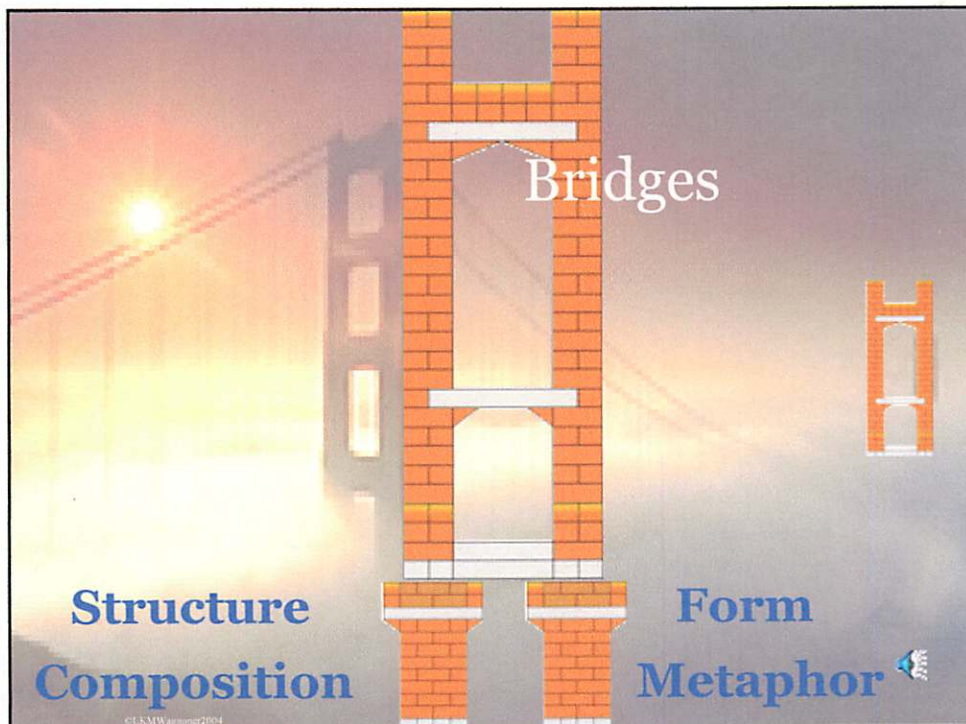
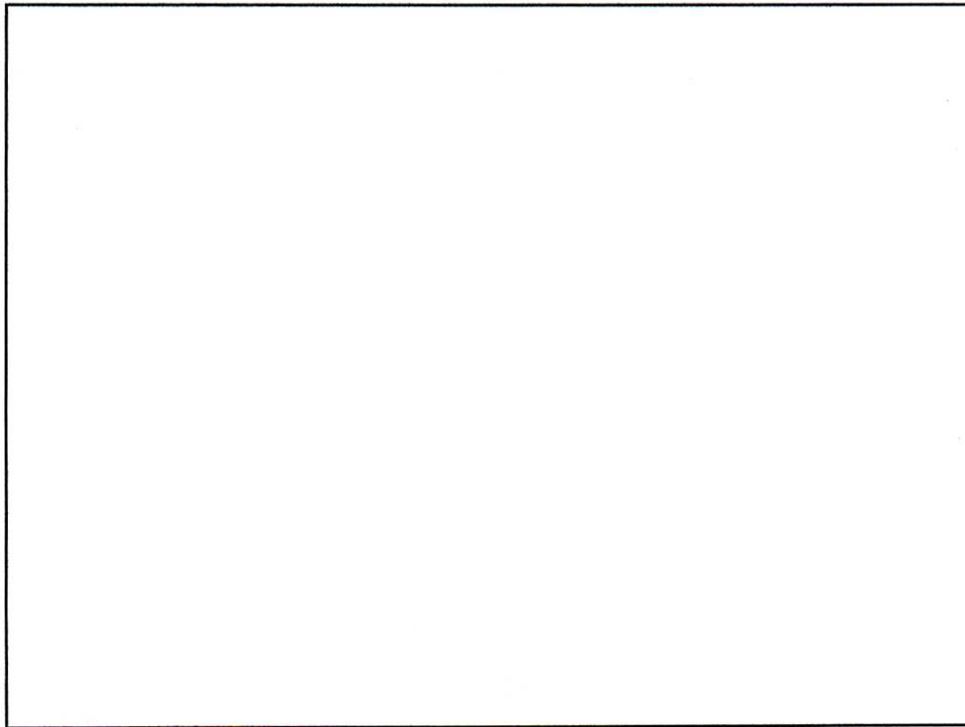
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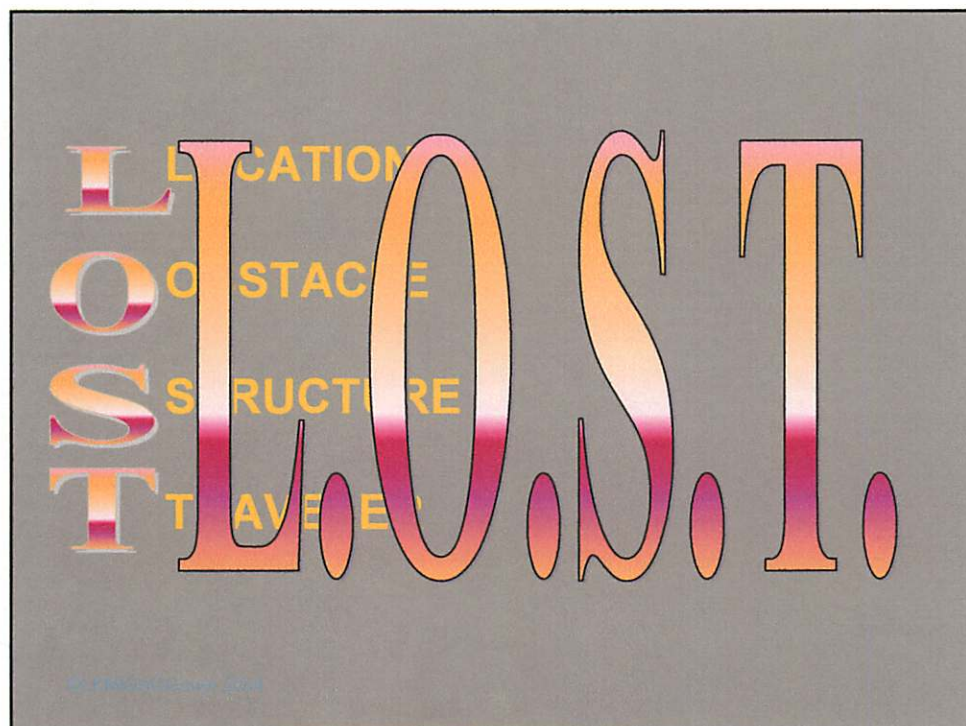
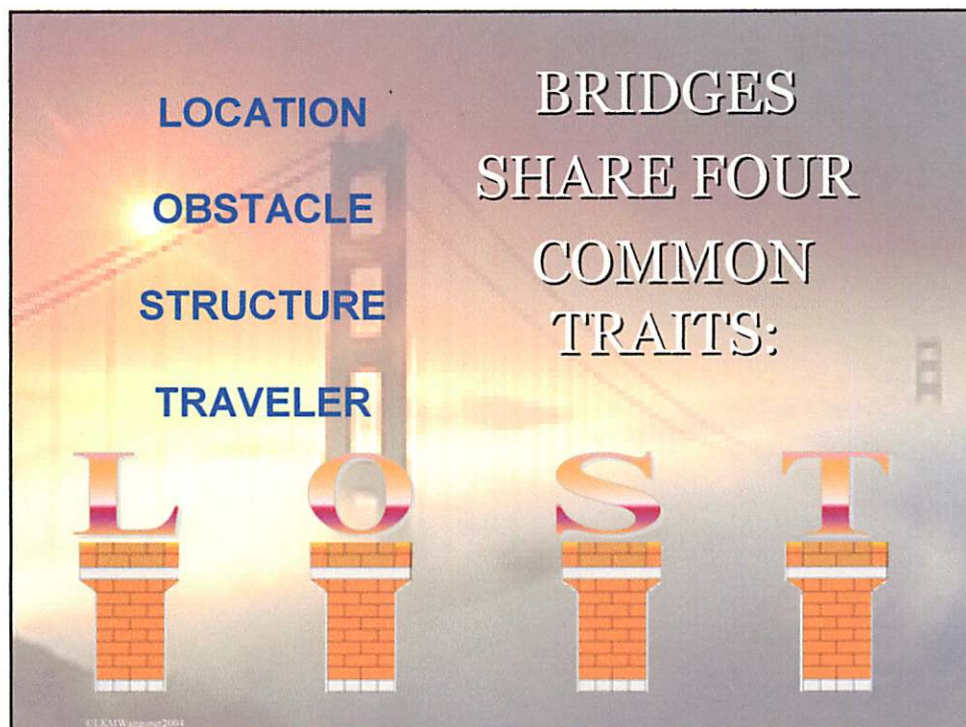
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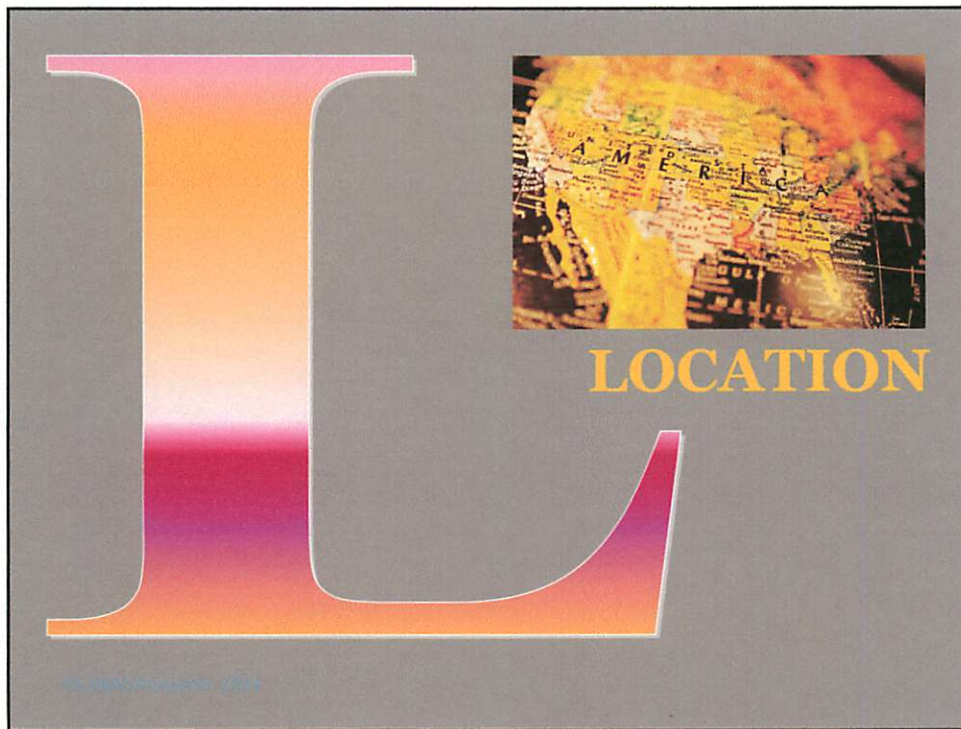
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APPENDICES

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Location is a way to find things.

Location states:
"I am here".

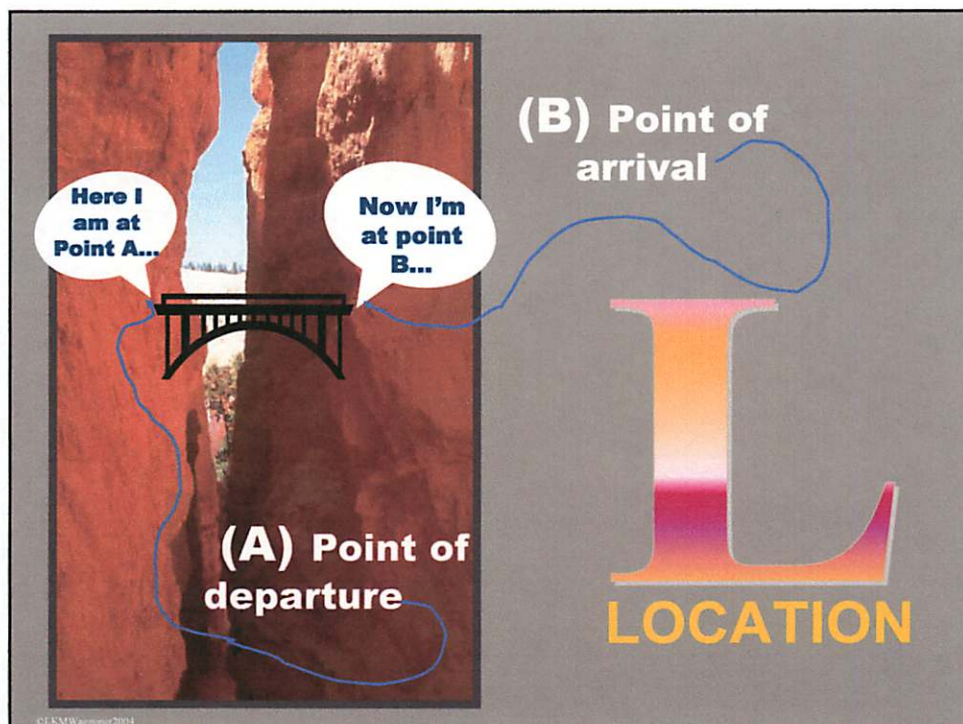
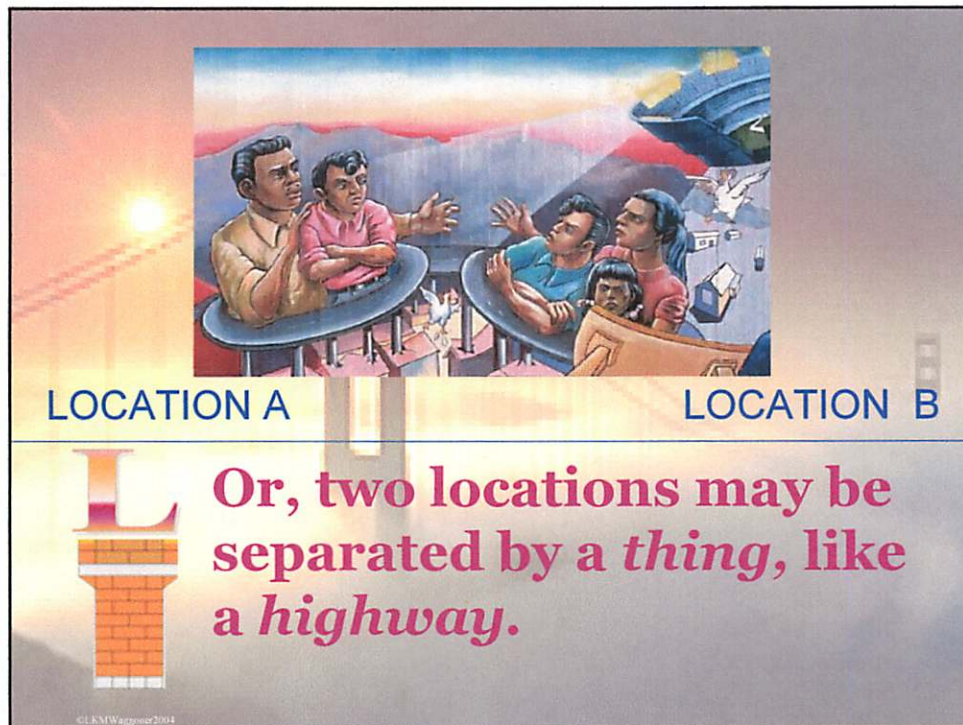
Where am I?

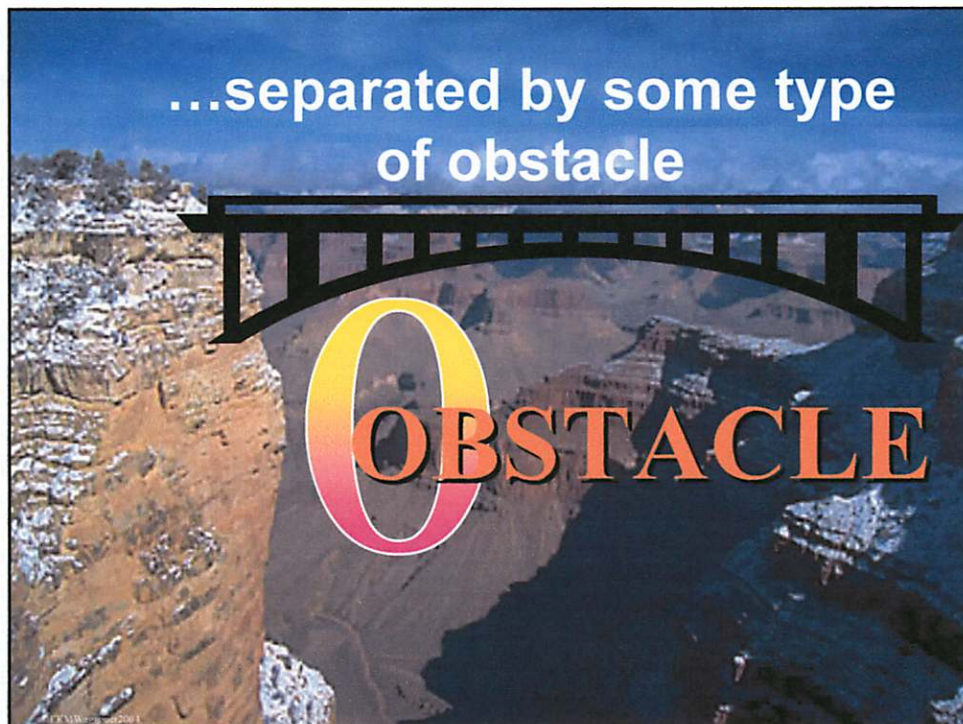
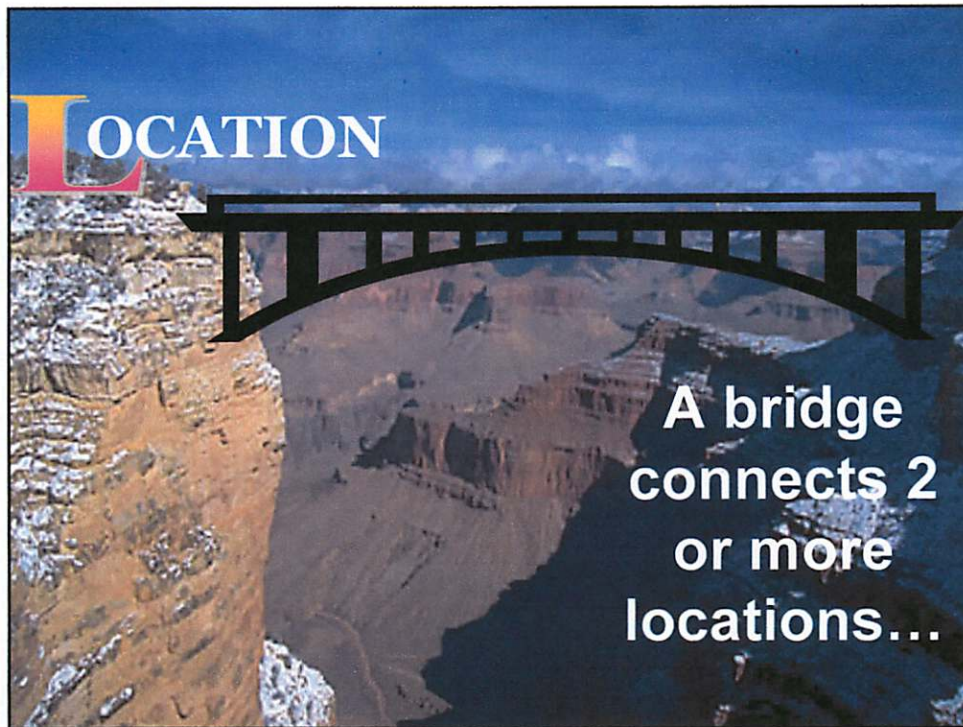
LOCATION It can be:

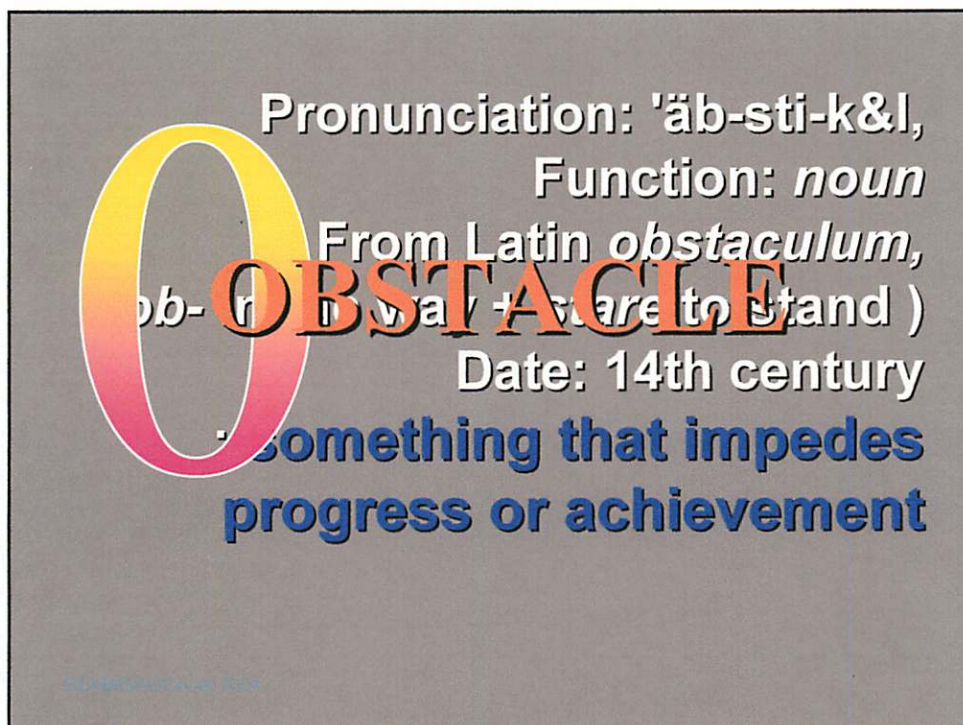
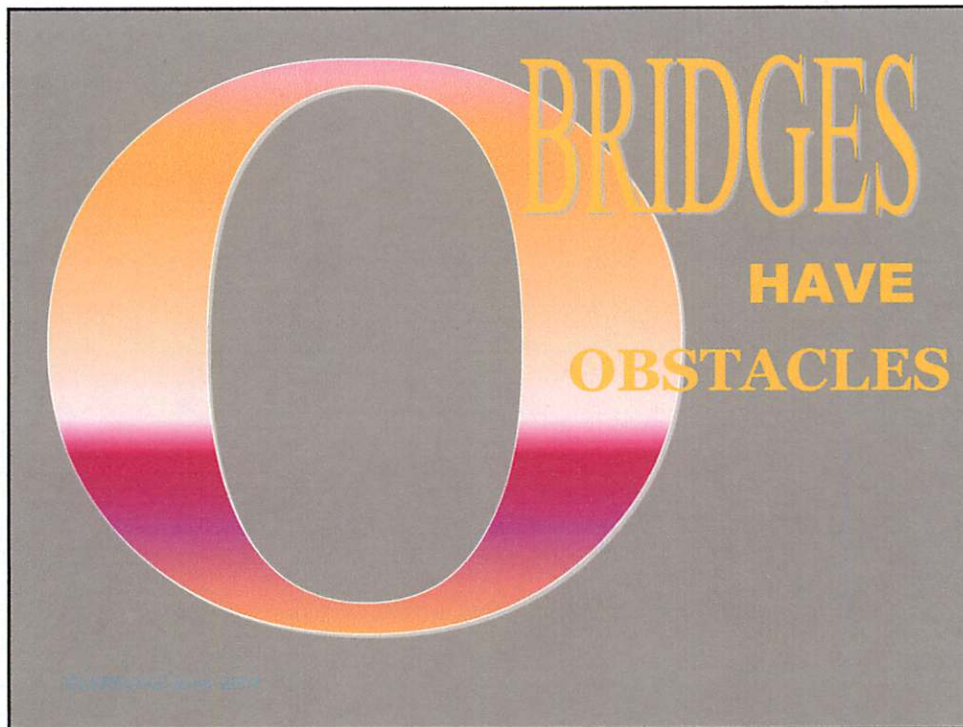
- measured,
- described,
- and perceived.



© 1 KMW Watson 2014





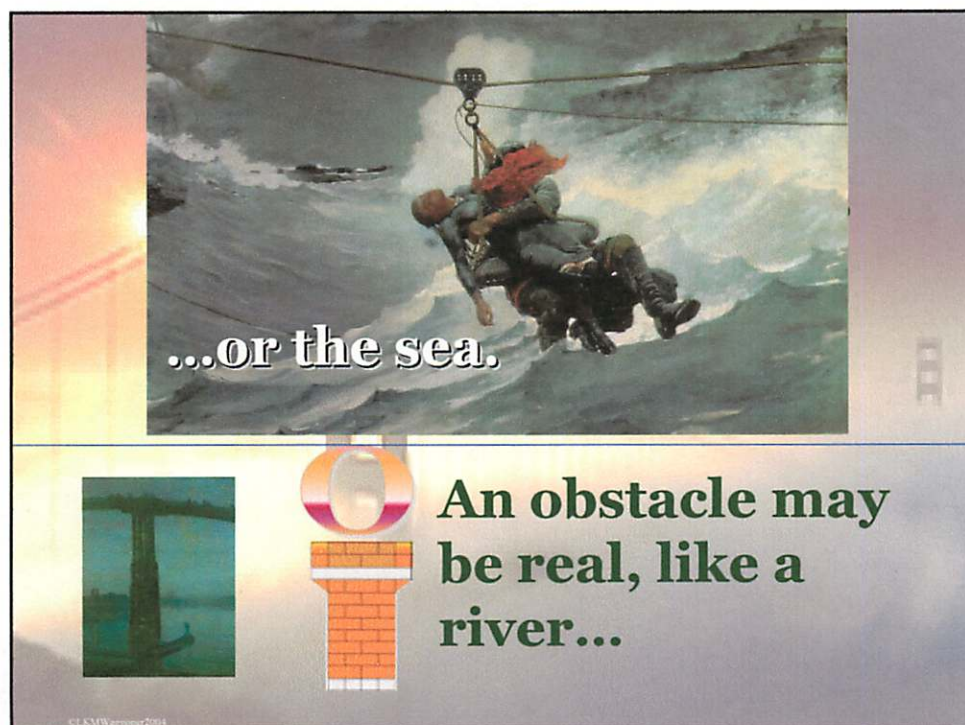
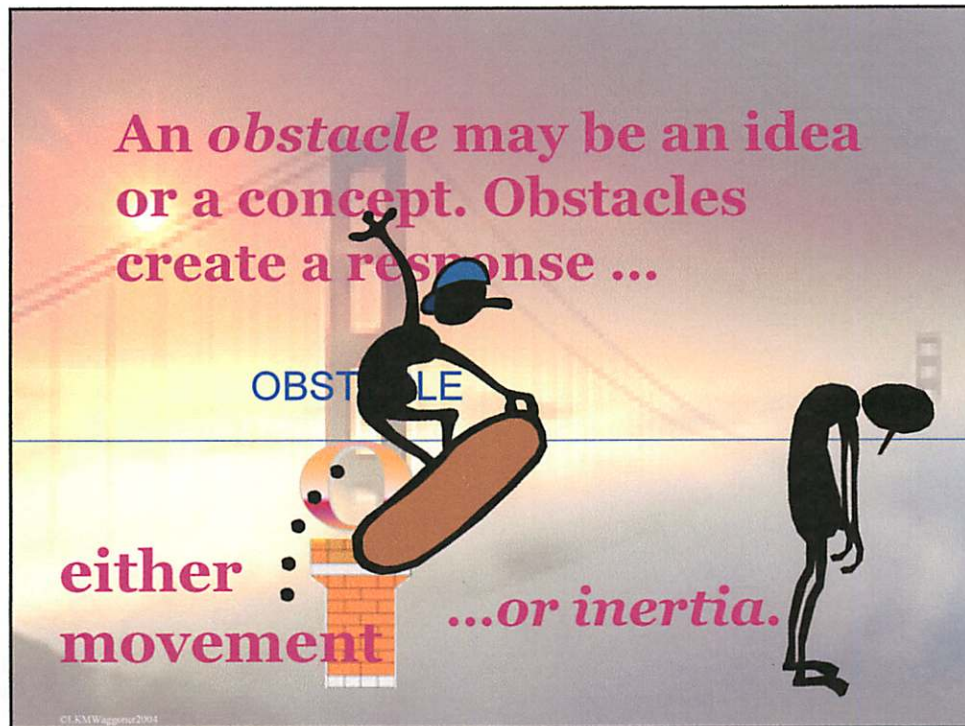


**something that
impedes progress
or achievement**

Bridges cross over

OBSTACLES

not all obstacles are rivers....





OBSTACLE # 1: WATER



CREDIT SAN DIEGO RAILROAD MUSEUM



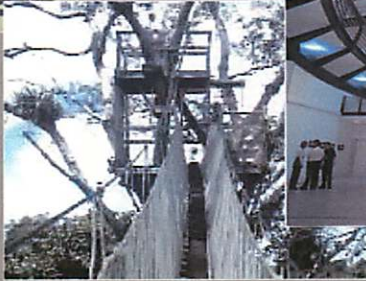
OBSTACLE # 2: Landforms



California: Sunset Over Mount, the Abandoned Carlin Gorge. For Kiosk With the San Diego and Arizona Railway. Timeline 1910. San Diego and early form of the Train Mount. The Long View.



OBSTACLE # 3: Elevation



Copyright © 2010



OBSTACLE #4: TRAFFIC



Copyright © 2010

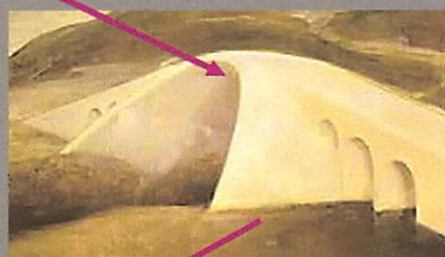
OBSTACLE # 5: Borders



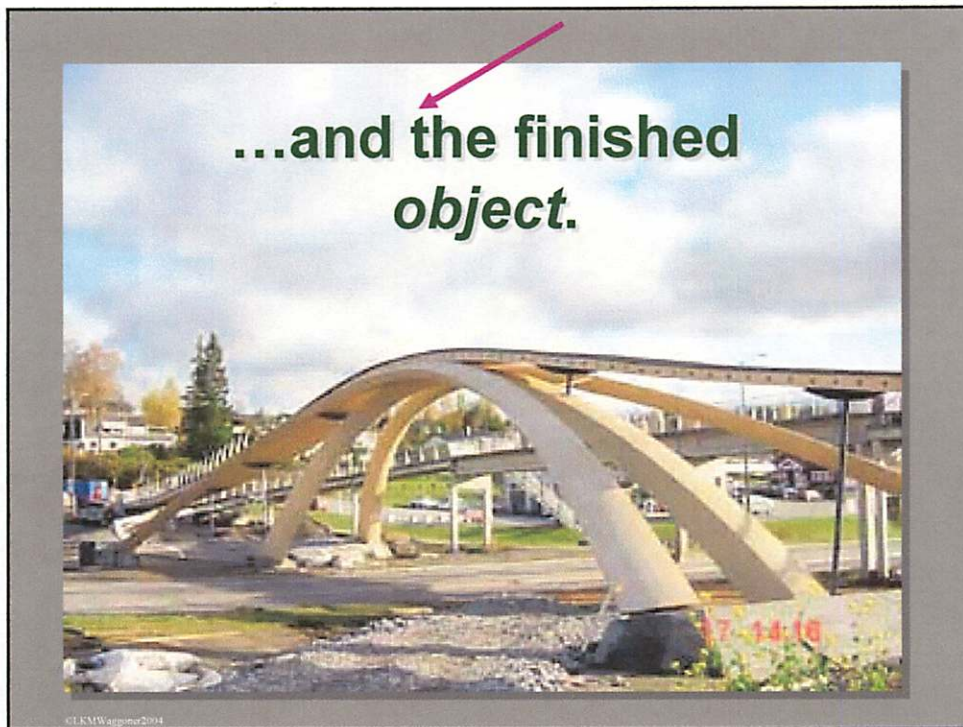
OBSTACLE # 6: Time



It may be the time
between an *idea*....



CLEM Wagner 2004





OBSTACLE # 7: A NOSE?

Here is a
wonderful
NOSE.
It is both an
obstacle and
a *structure*.



BRIDGES
HAVE
STRUCTURE

**Crossing an
obstacle
between two
locations....**

STRUCTURE

**...requires a
connection.**



© LKM Wayne 2004

**Crossing an
obstacle is easy
when there is a
structure. ***



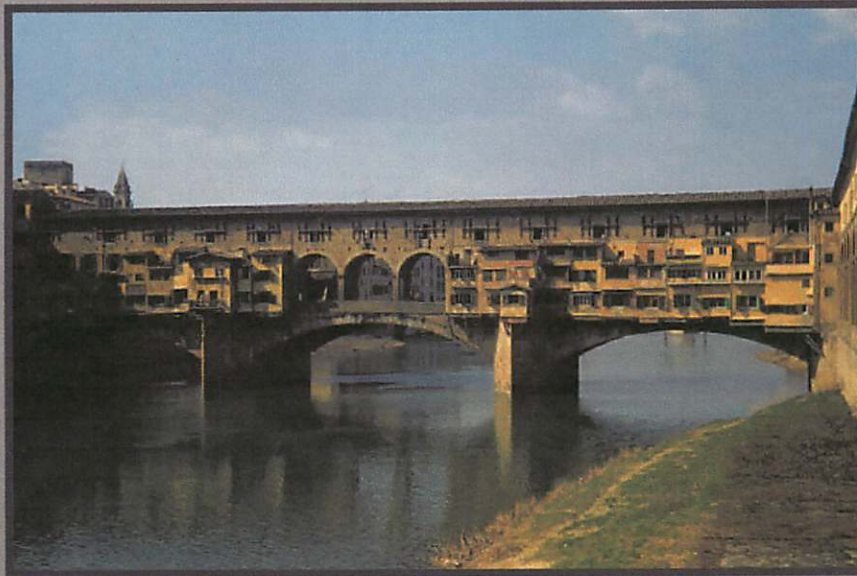
STRUCTURE

****(a good structure,
that is)***

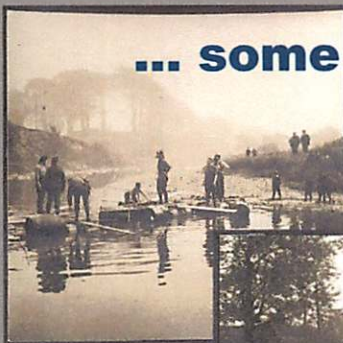


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Most bridges are permanent...



**... some
bridges**



are not.

Training camp -
building pontoon
bridges

World War I



Photographs used by kind
permission of Mrs J Smilie. All rights
reserved.

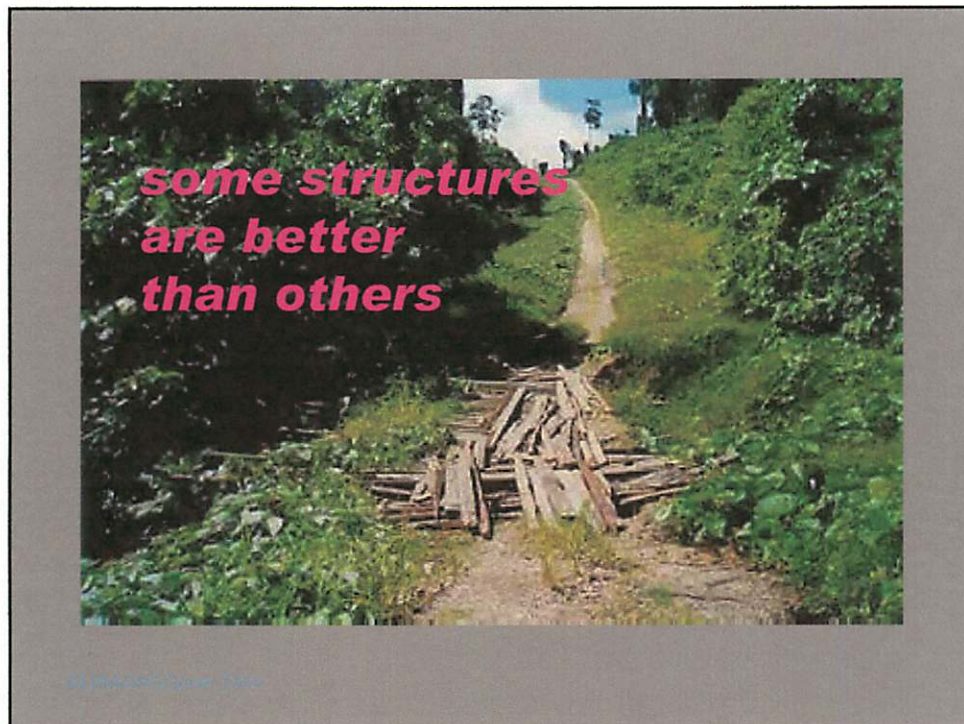


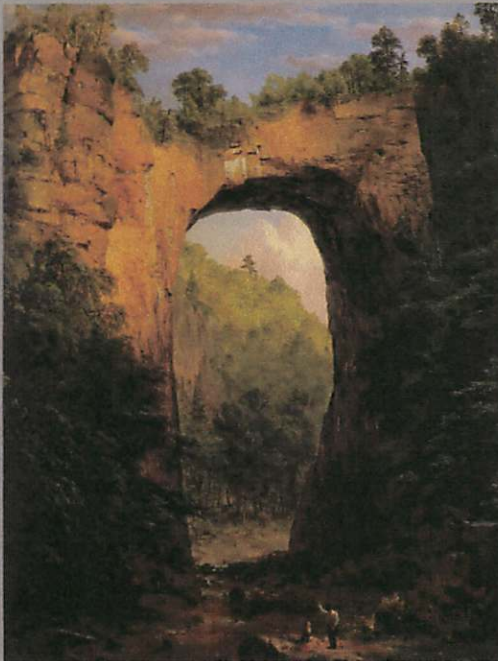
© 2000 by the author

**Bridges may be as simple
as a log across a stream...**



© 2000 by the author



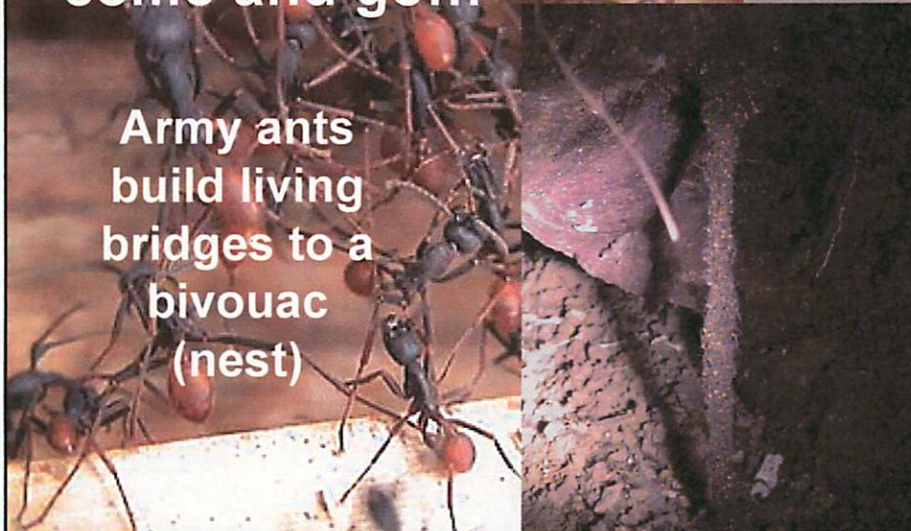


© KMWaggoner2004

Most
bridges
are
manmade;
some are
natural

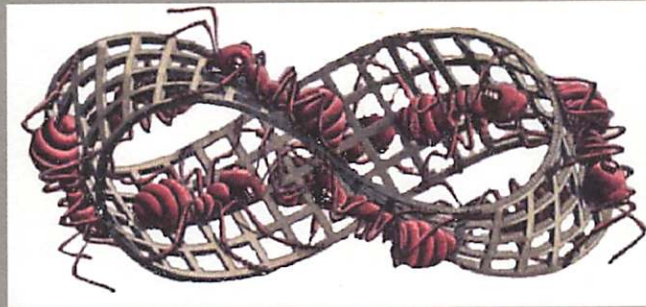
Some natural bridges
come and go...

Army ants
build living
bridges to a
bivouac
(nest)



© KMWaggoner2004

This "Moebius" strip by M.C.
Escher



is a bridge. What is
different about it?

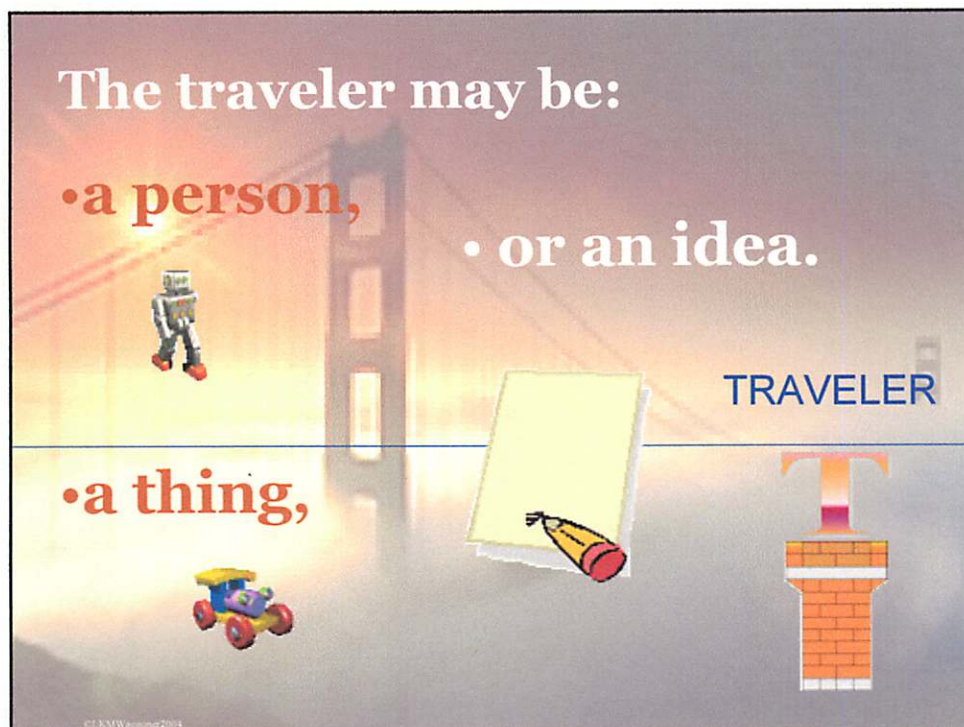
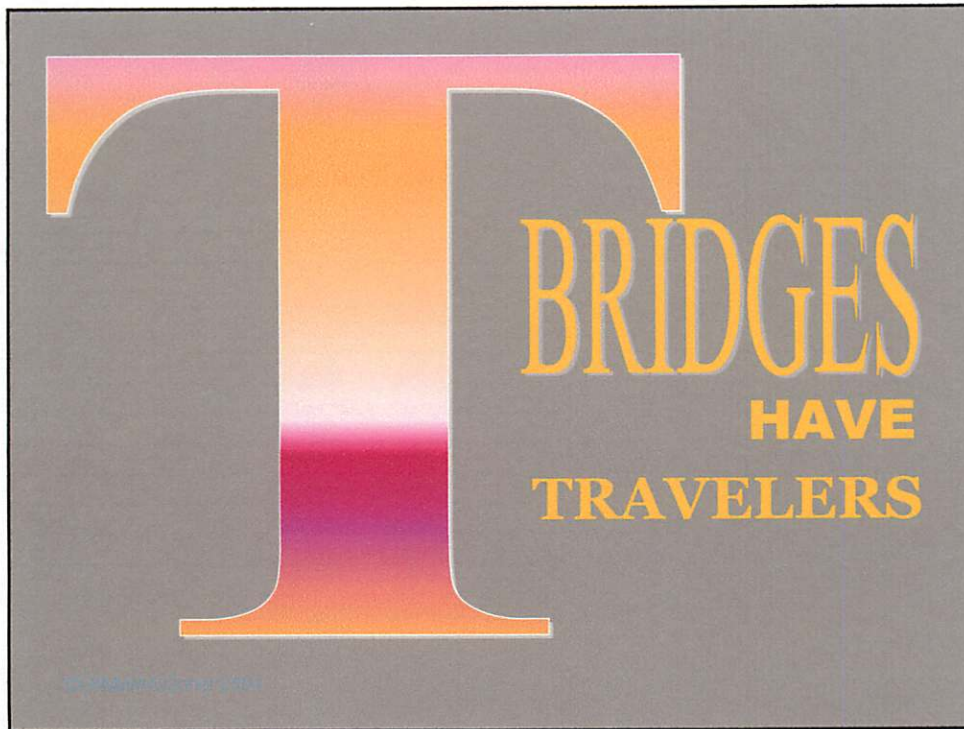
© 1999 M.C. Escher

An ant creeping across the strip



is a *traveler*.

© 1999 M.C. Escher



Bridges connect real places



with *real* people



Bridges are for **people**:



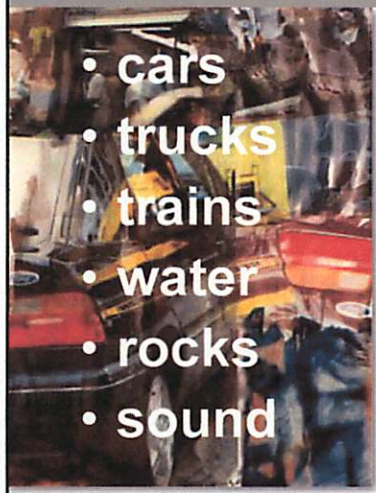
- People travel in **space**: They move from one location to another, over real obstacles.
- People travel across **time**: They move from one age to the next. The obstacle is the challenge of growth.

Some **people** are bridges.

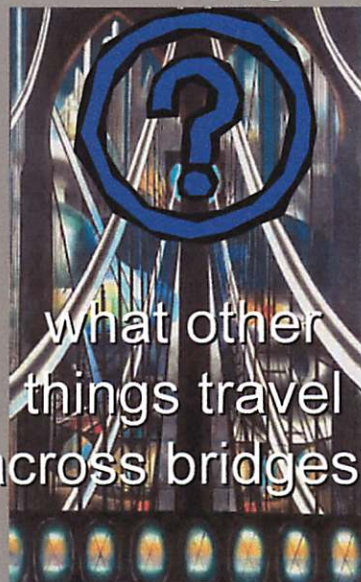


In this self-portrait, Frida Kahlo bridges several different things. What are they?

THINGS travel across bridges:

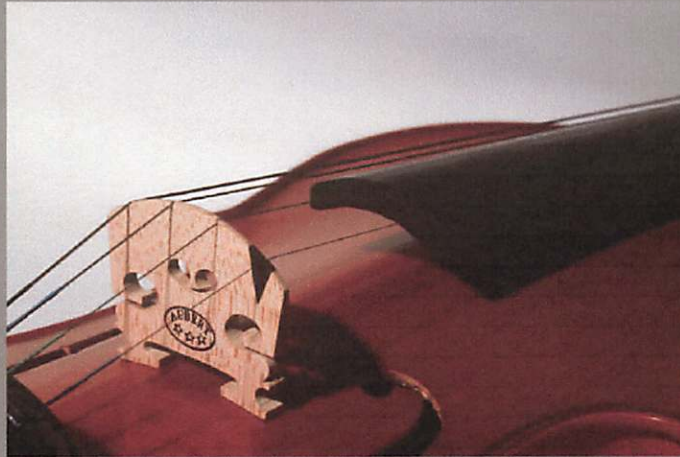


- cars
- trucks
- trains
- water
- rocks
- sound

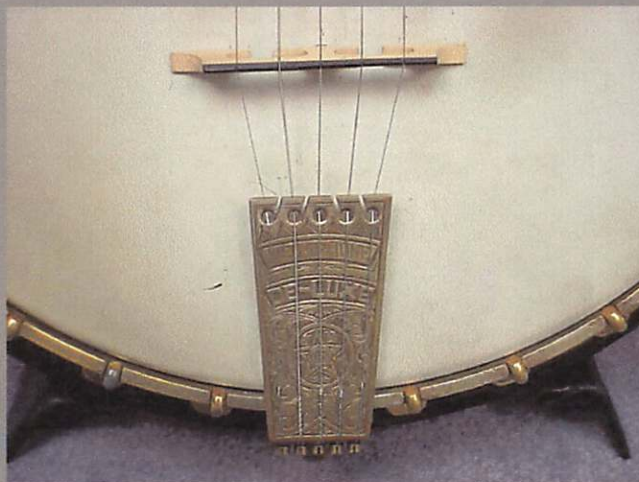


what other
things travel
across bridges?

Sound also travels.



**bridges on stringed
instruments are the same as
bridges over water**



location: from the tuning pegs
to the base

obstacle: distance from the
instrument body for vibration

structure: bridge and strings

traveler: sound

location:

from
the tuning pegs to the
base



obstacle:

distance between strings and
instrument body

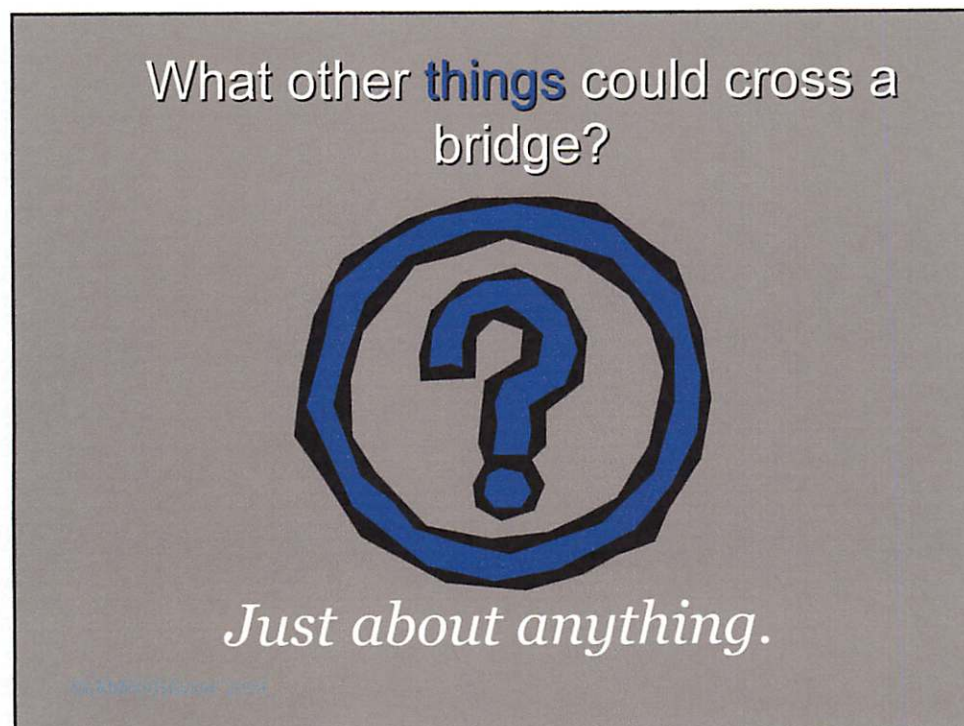
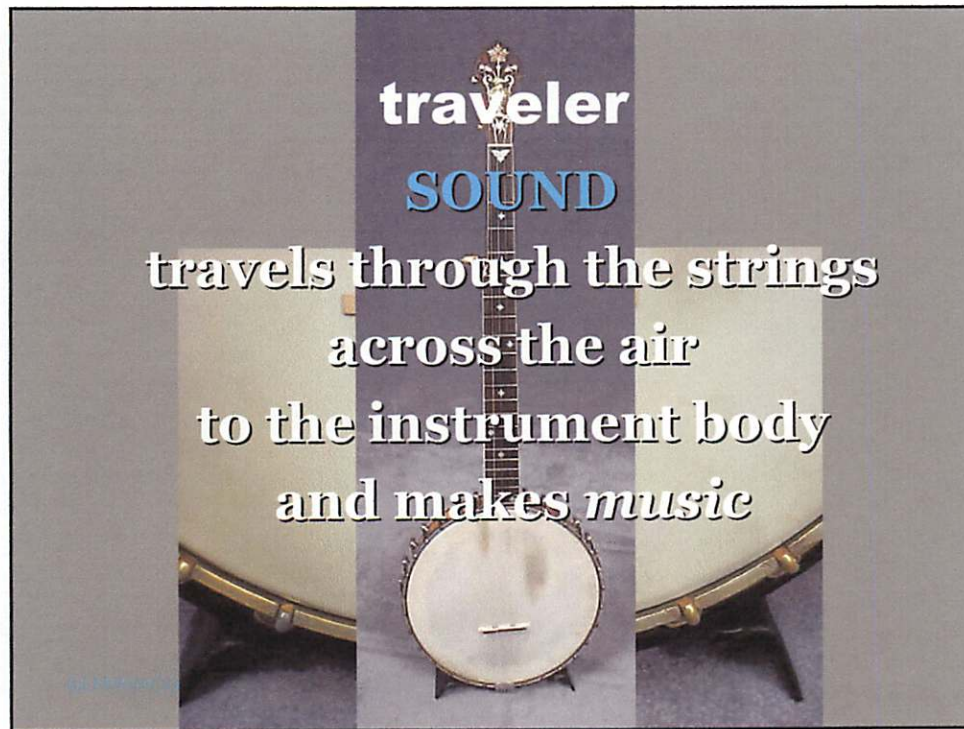
by Andrew Ross, 2004

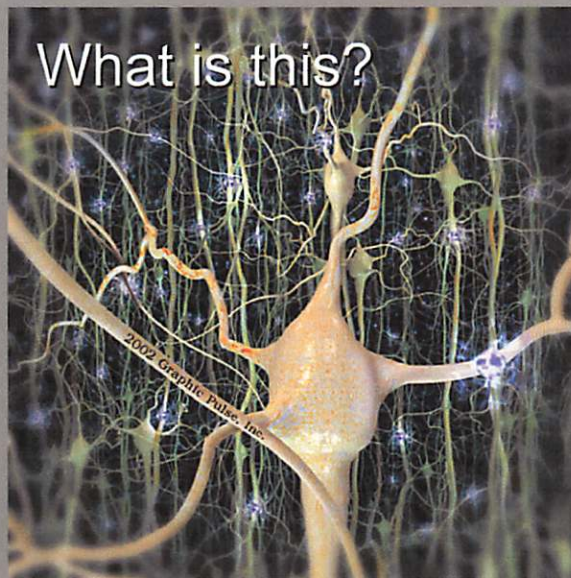
bridge &

strings

Structure

by Andrew Ross, 2004





What is this?

Identify:

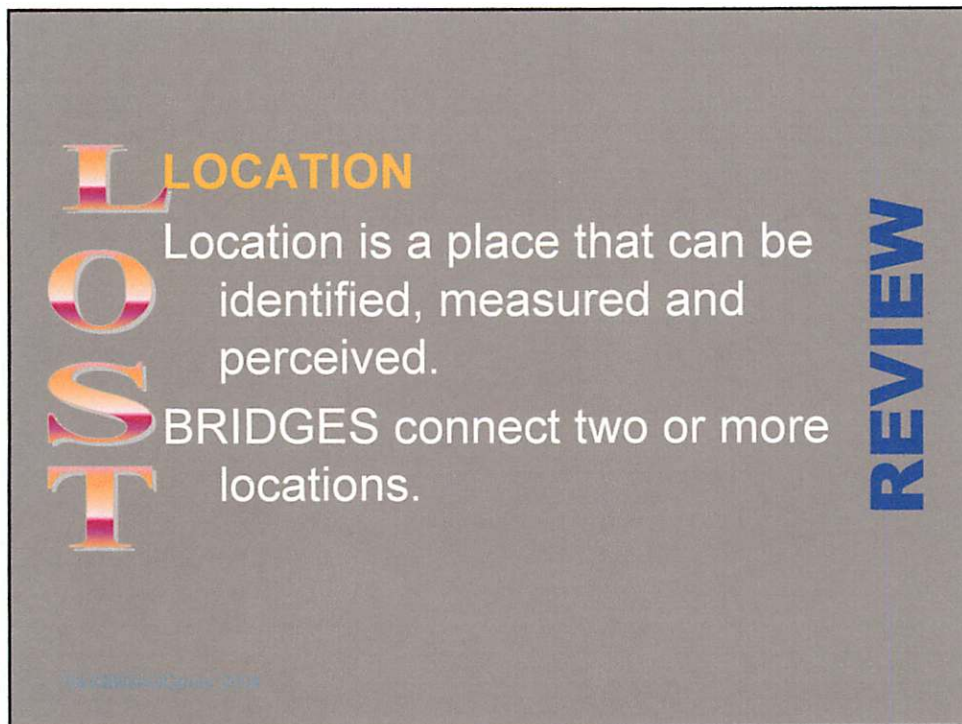
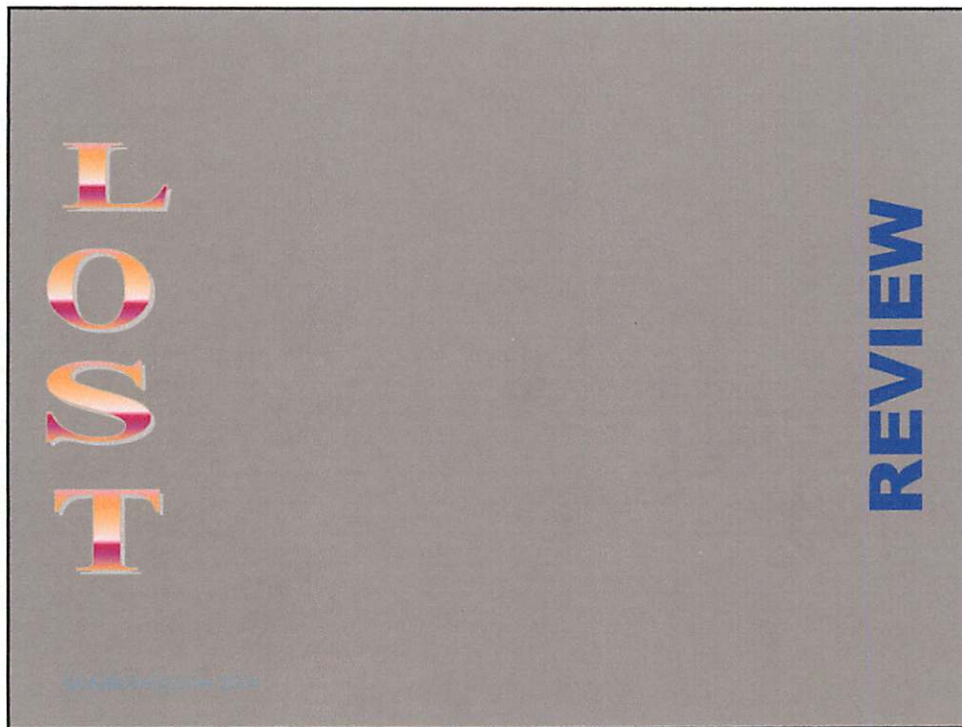
- Location
- Obstacle
- Structure
- Traveler



a *NERVE*

ANSWERS:

- Location
nerve ending
& brain
- Obstacle
human body
- Structure
nerve fiber
- Traveler
nerve impulse



L
O **OBSTACLE**
S Something that separates one location from another location.
T Something that impedes progress.

REVIEW

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L A connection between two or more points.
O Crosses some type of obstacle
S **STRUCTURE**
T Also called the **BRIDGE**

REVIEW

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L Something or someone that uses the structure...

O To cross the obstacle...

S While going from one location to another.

T TRAVELER

REVIEW

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L LOCATION

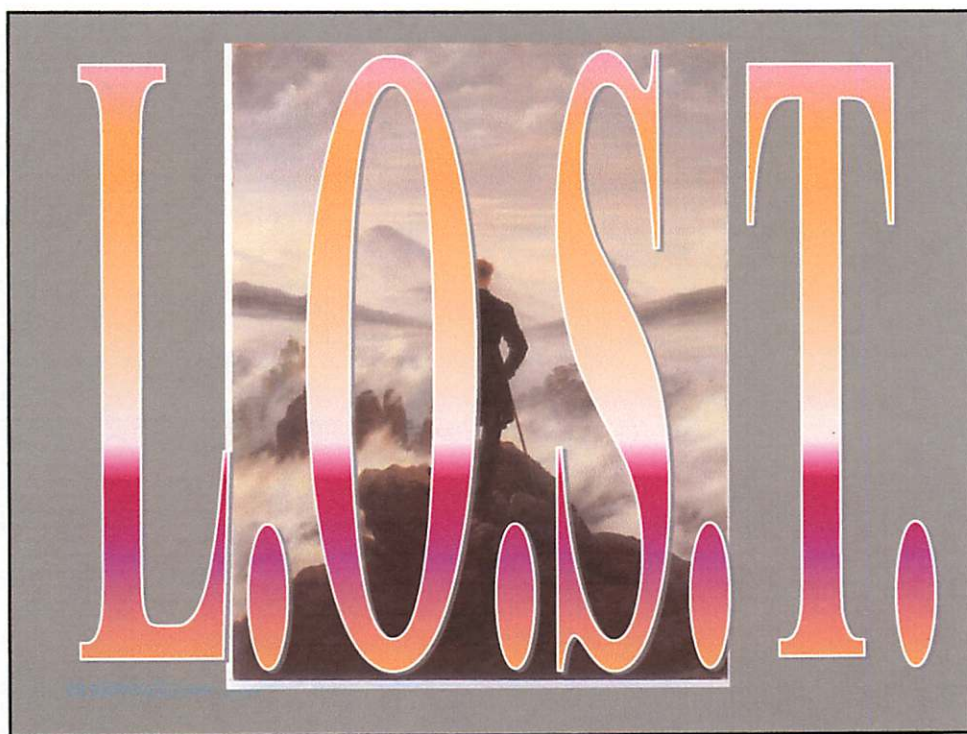
O OBSTACLE

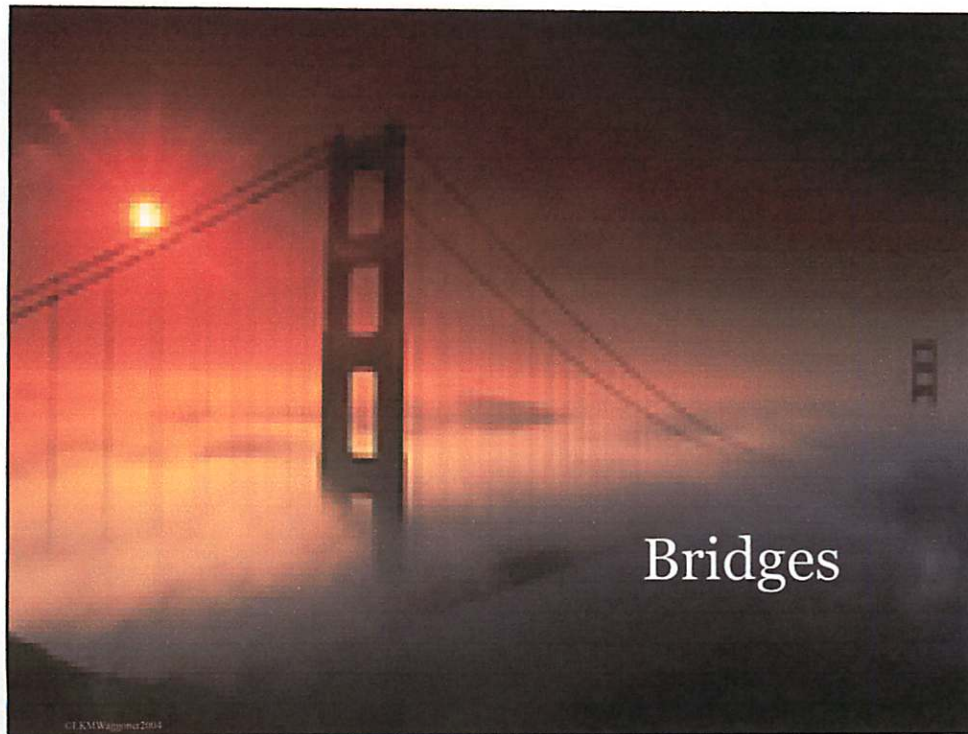
S STRUCTURE

T TRAVELER

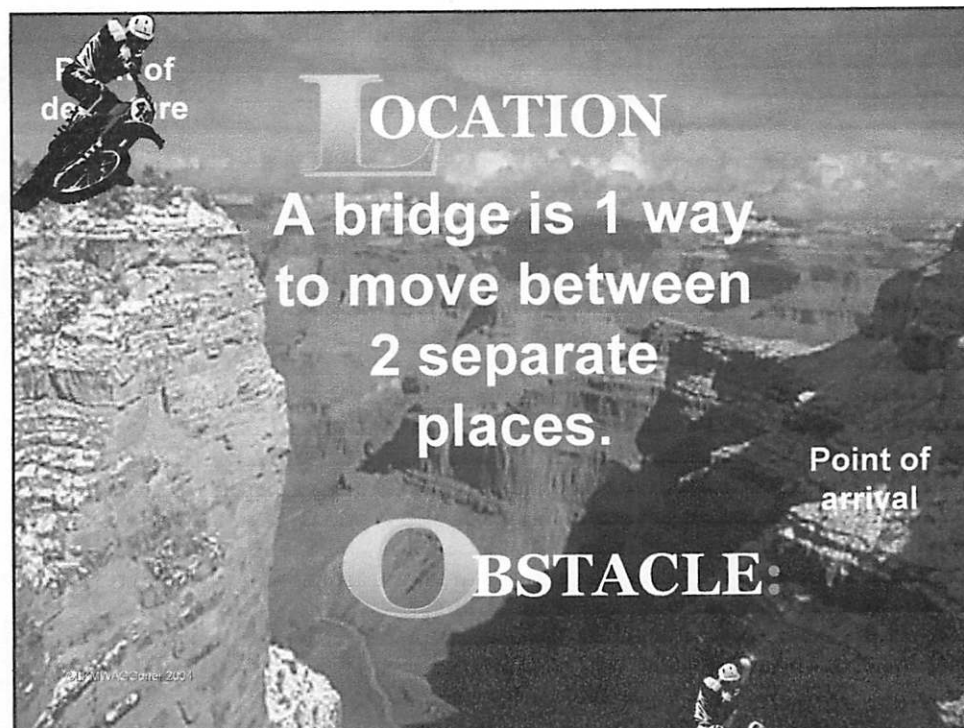
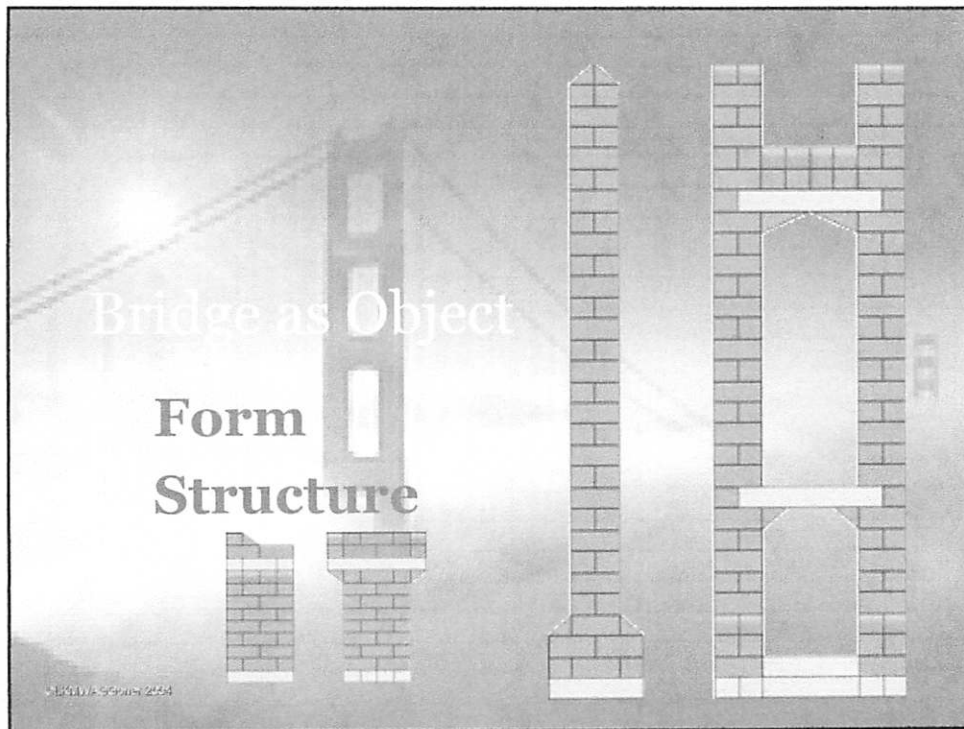
LOST.

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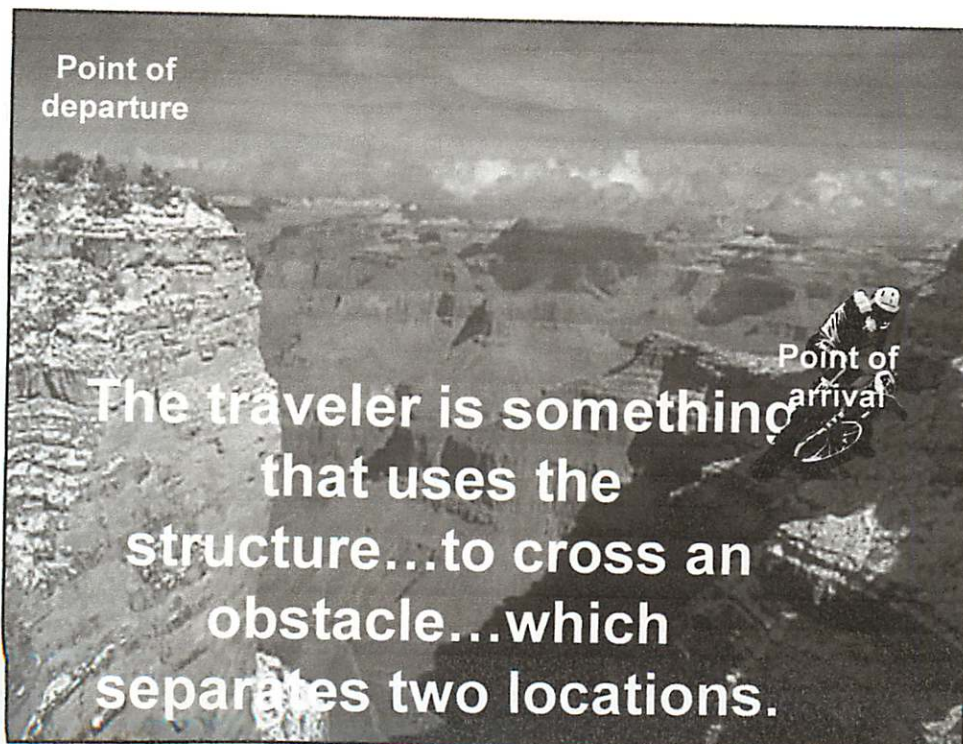
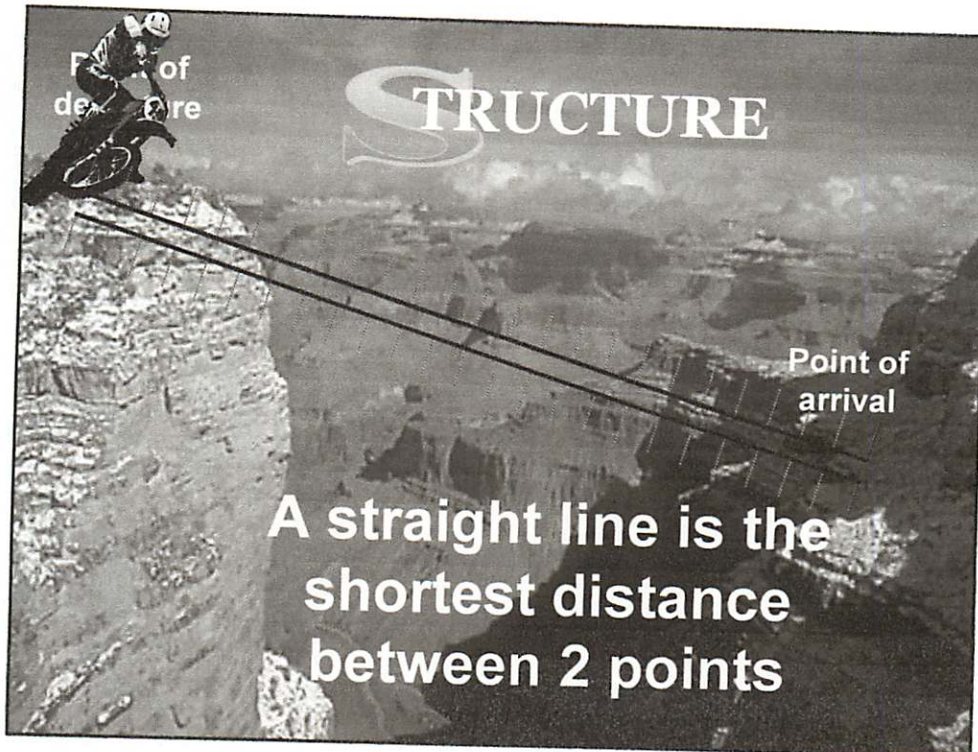




APPENDIX B FORM



APPENDIX B
FORM



APPENDIX B
FORM

BRIDGES HAVE MANY LINES



© LKMWaggoner2004

- Any mark connecting two points is a
LINE:


Point A  Point B

It can move in any direction

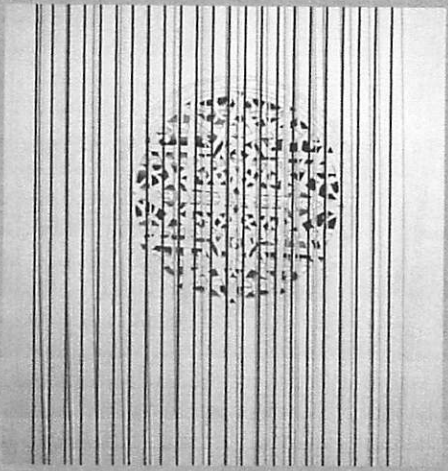
Point A  Point B

© LKMWaggoner2004


APPENDIX B
FORM

Point A  Point B

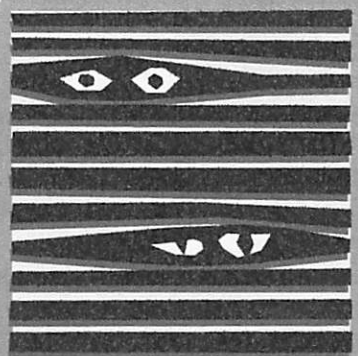
- LINES CAN BE **VERTICAL**



© LKMWaggoner2004


Point A  Point B

- LINES CAN BE **HORIZONTAL**




© LKMWaggoner2004


APPENDIX B
FORM

Point A  Point B


- LINES CAN BE **DIAGONAL**



© LKMWaggoner

Point A  Point B


- LINES CAN MOVE



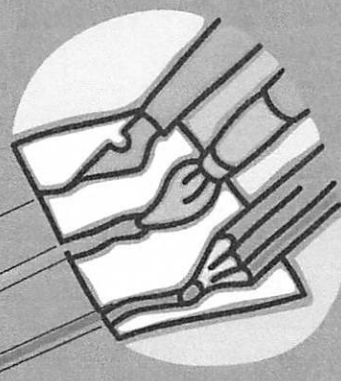
in ANY DIRECTION

© LKMWaggoner2004


APPENDIX B
FORM

Point A  Point B

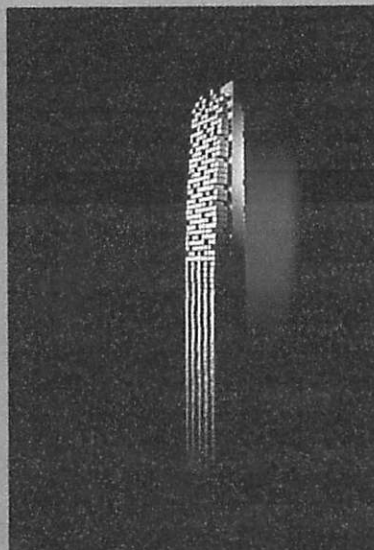
- LINES can be:
 - flat (2D)



© LKMWaggoner2004

Point A  Point B

- LINES can be:
 - solid (3D)



© LKMWaggoner2004

APPENDIX B
FORM

Point A  Point B

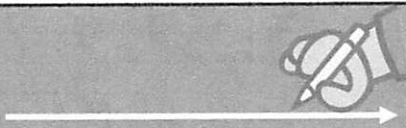
- LINES can be:

THIN



ck

© LKMWaggoner2004

Point A  Point B

- LINES can be:

LONG

or **SHORT** (P.S... THE SHORTEST LINE IS A ●)

© LKMWaggoner2004

APPENDIX B
FORM

Point A  Point B

- LINES can be:
ANY COLOR

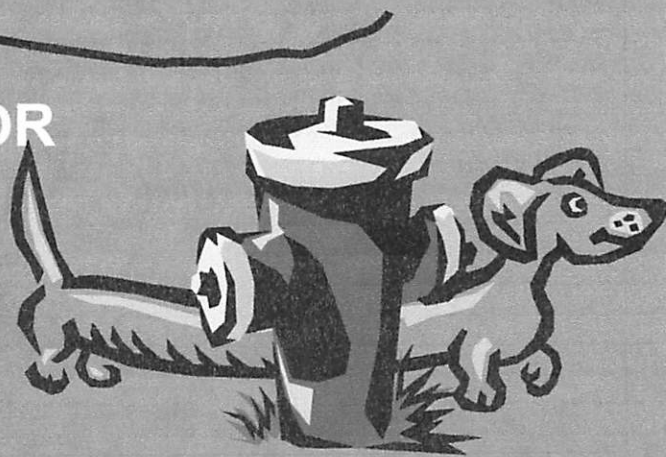


Point A  Point B

- LINES can be:
- REAL

OR

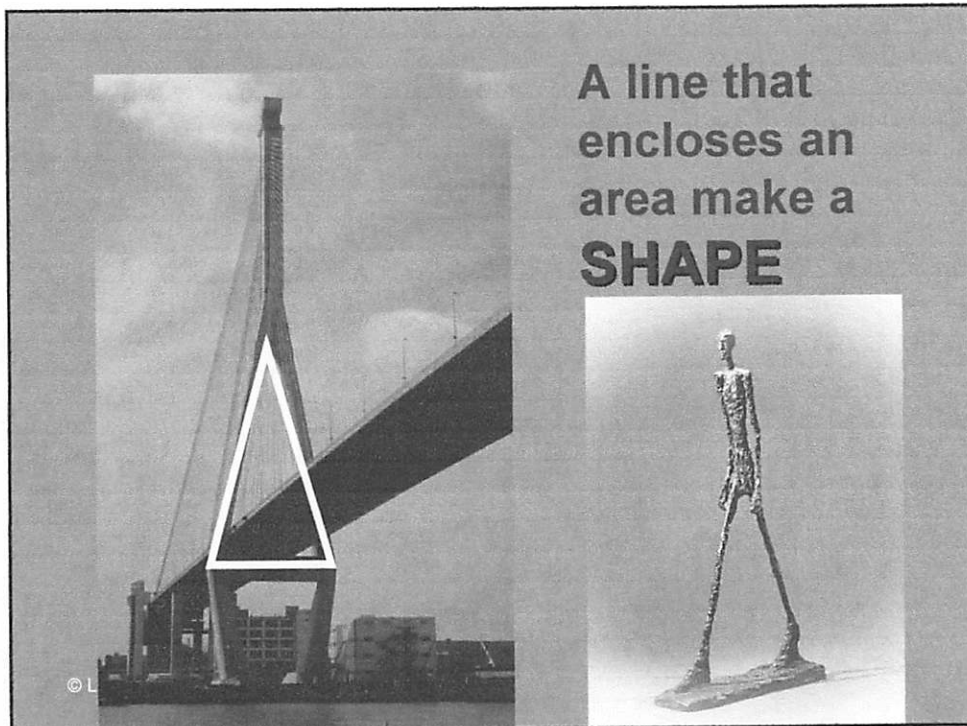
- IMPLIED



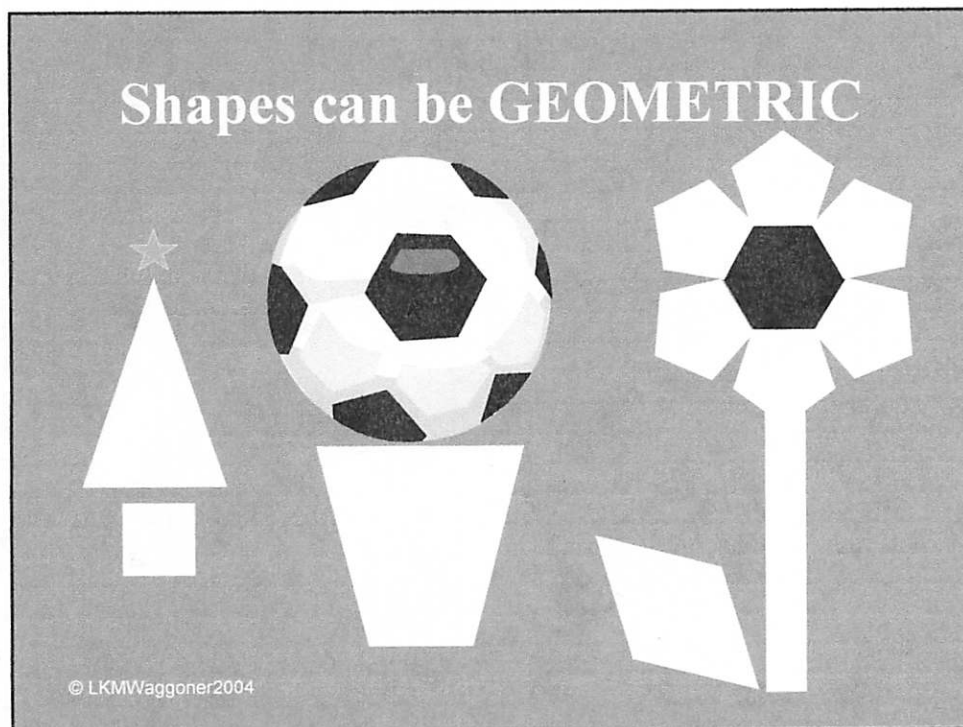
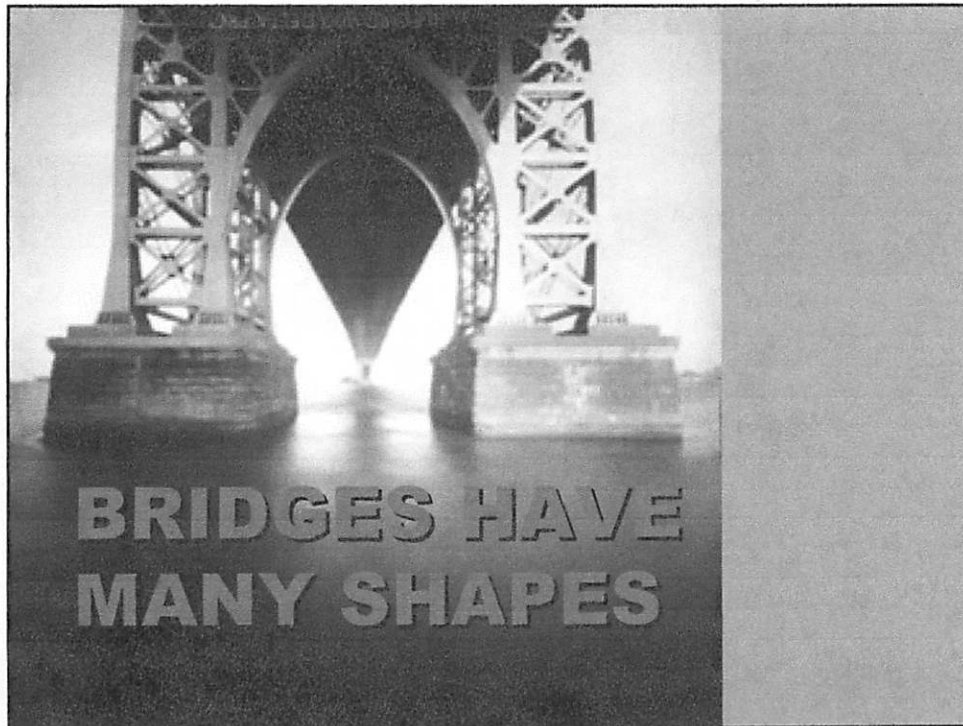
© LKM Waggoner2004

APPENDIX B
FORM

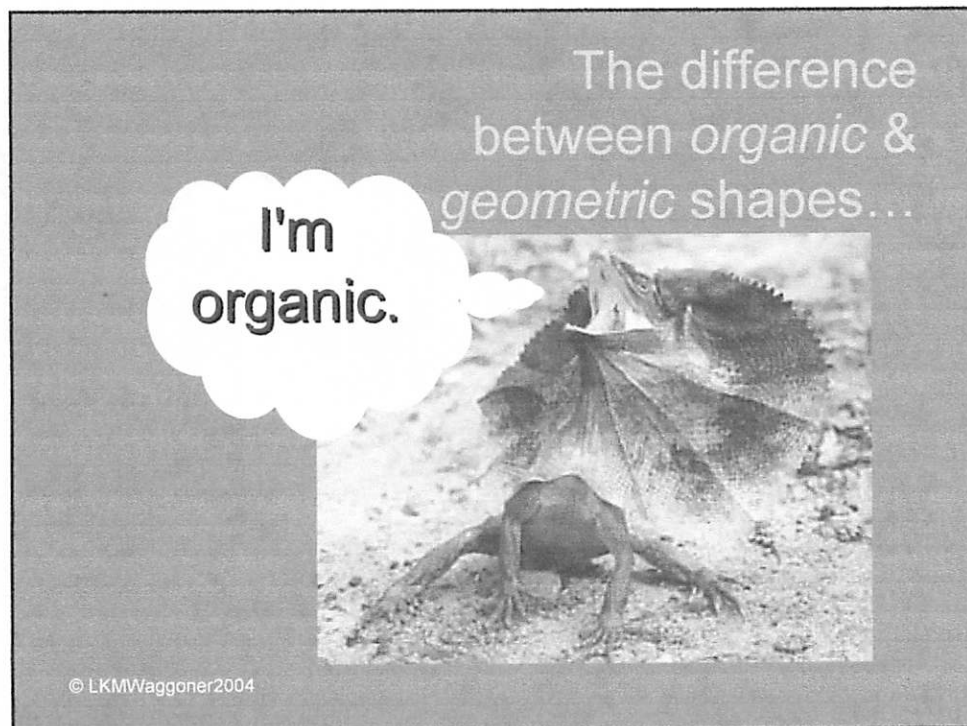
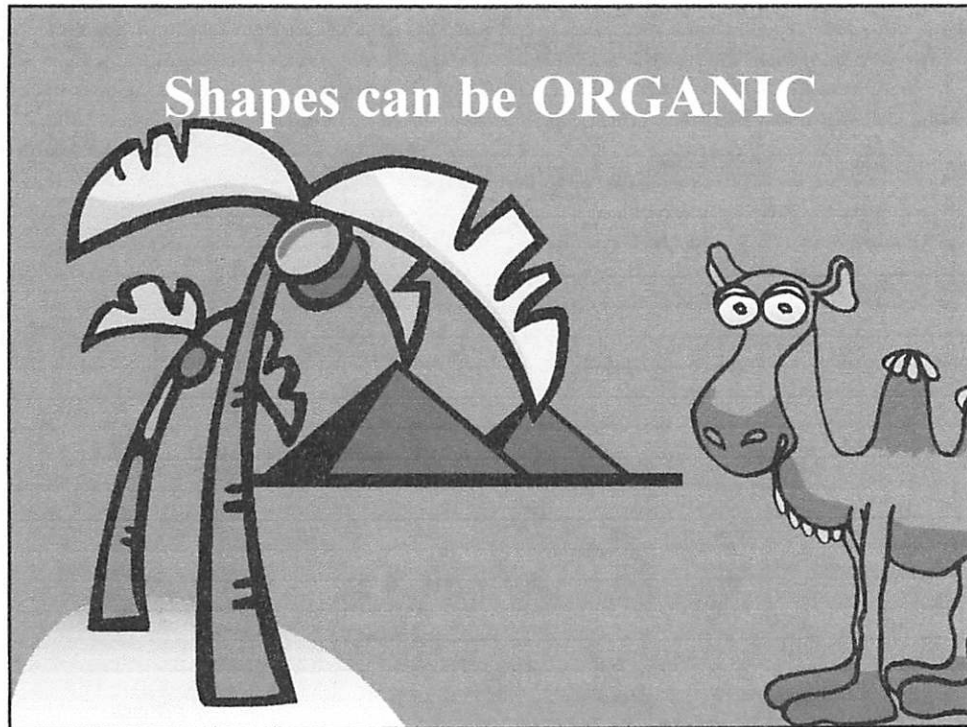
FORMS ARE SOLID
SHAPES ARE FLAT



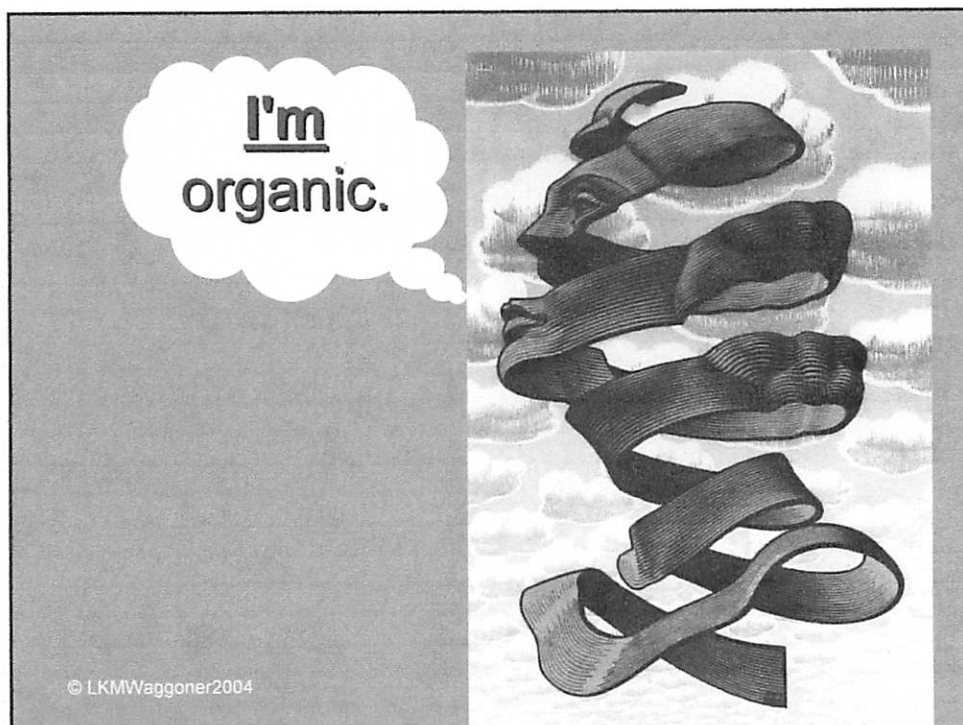
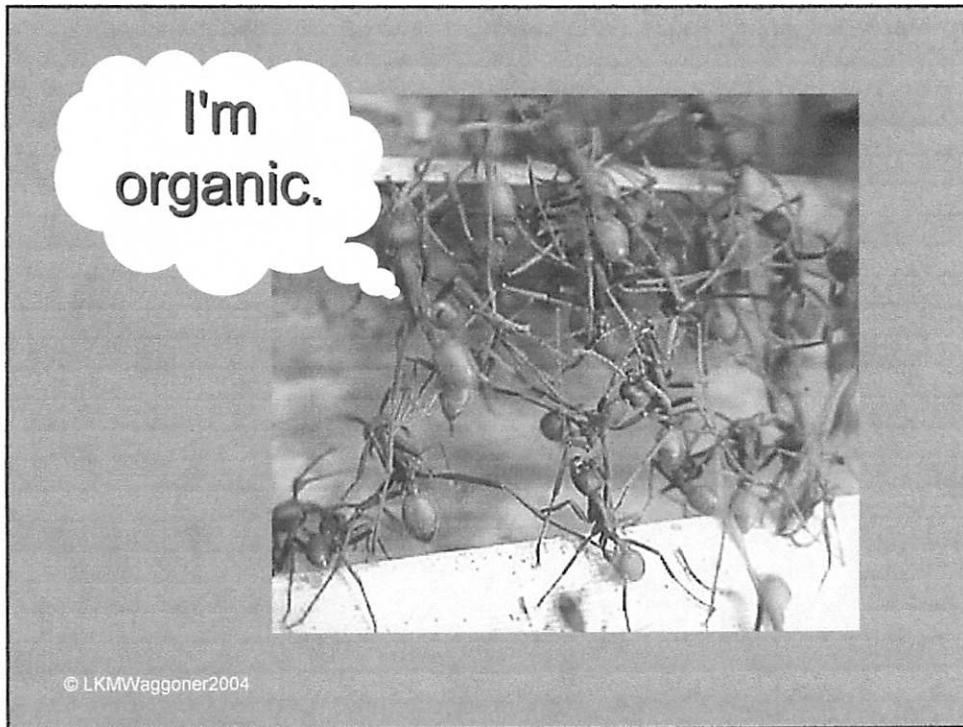
APPENDIX B
FORM



APPENDIX B
FORM

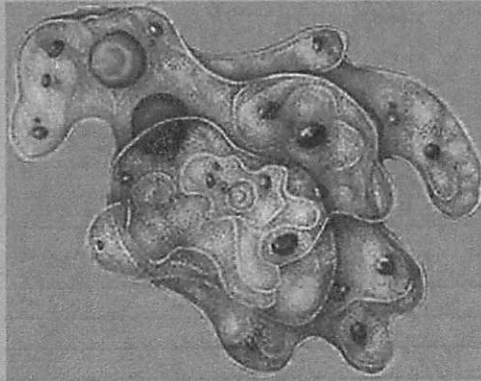


APPENDIX B
FORM



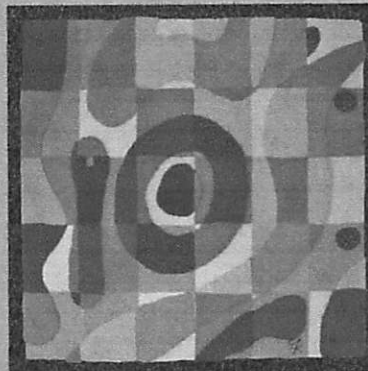
APPENDIX B FORM

Organic shapes are found in
nature.



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Organic shapes *grow*.
Organic shapes are *freeform*.
Organic shapes are not *angular*.



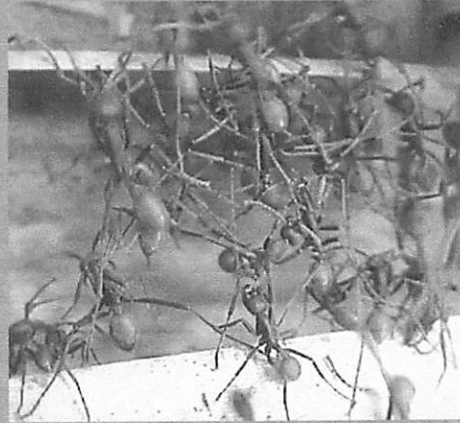
© LKMWaggoner2004

APPENDIX B
FORM

Organic bridges occur naturally



© LKMWaggoner2004



Army ants create a bridge at their bivouac (nest)



Most
bridges
are man-
made;
some are
made by
nature

APPENDIX B
FORM



some
man-
made
bridges
imitate
natural
bridges

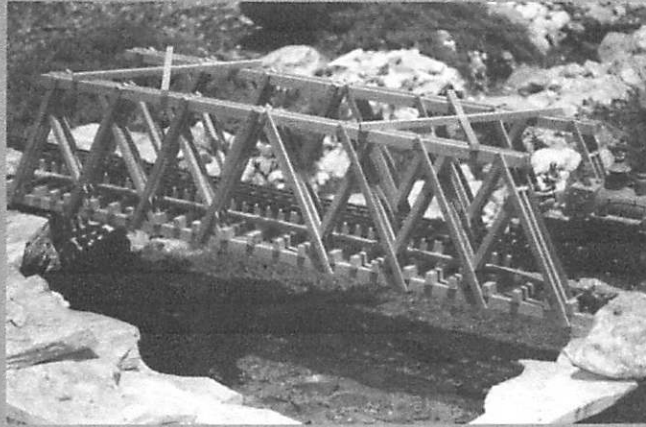
**some man-made bridges are
organic.....**



© LKMWaggoner2004

APPENDIX B FORM

most, however, are *geometrical*



© LKMWaggoner2004

TEXTURE

The surface qualities of an object:
Something that feels a certain way,
or looks like it should feel a certain
way (implied texture)

APPENDIX B
FORM

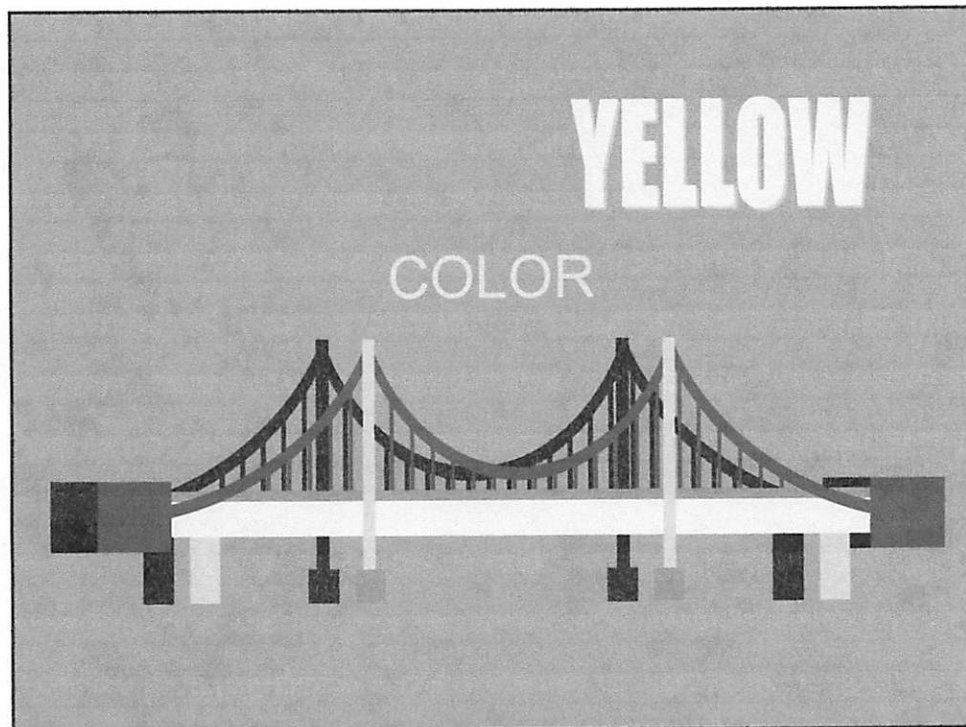
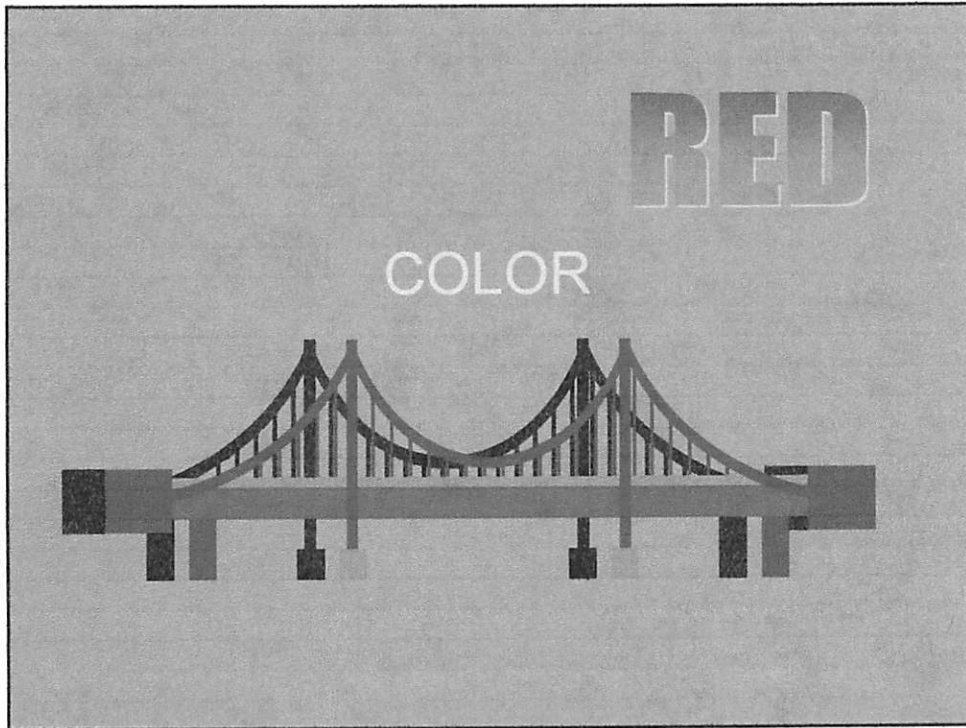


APPENDIX B
FORM

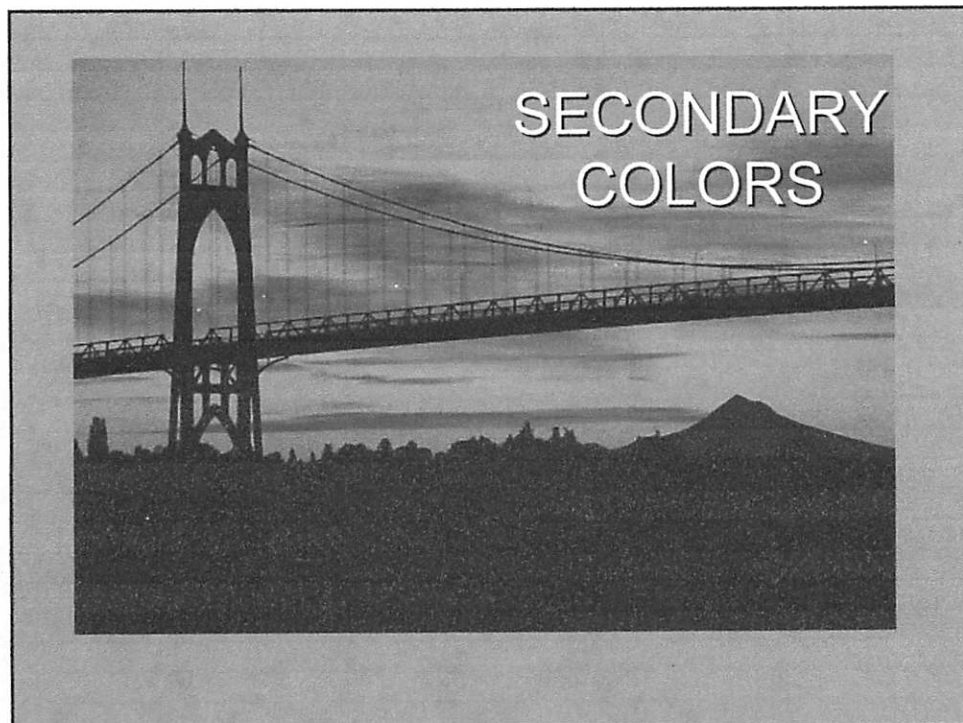
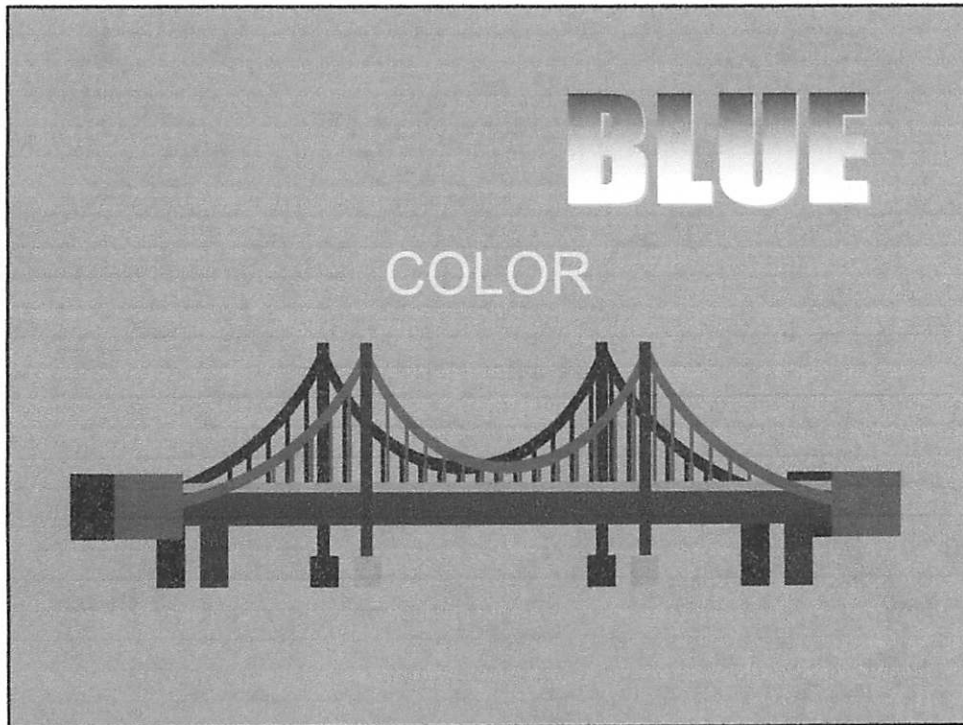
COLORS
&
VALUE

PRIMARY
COLORS

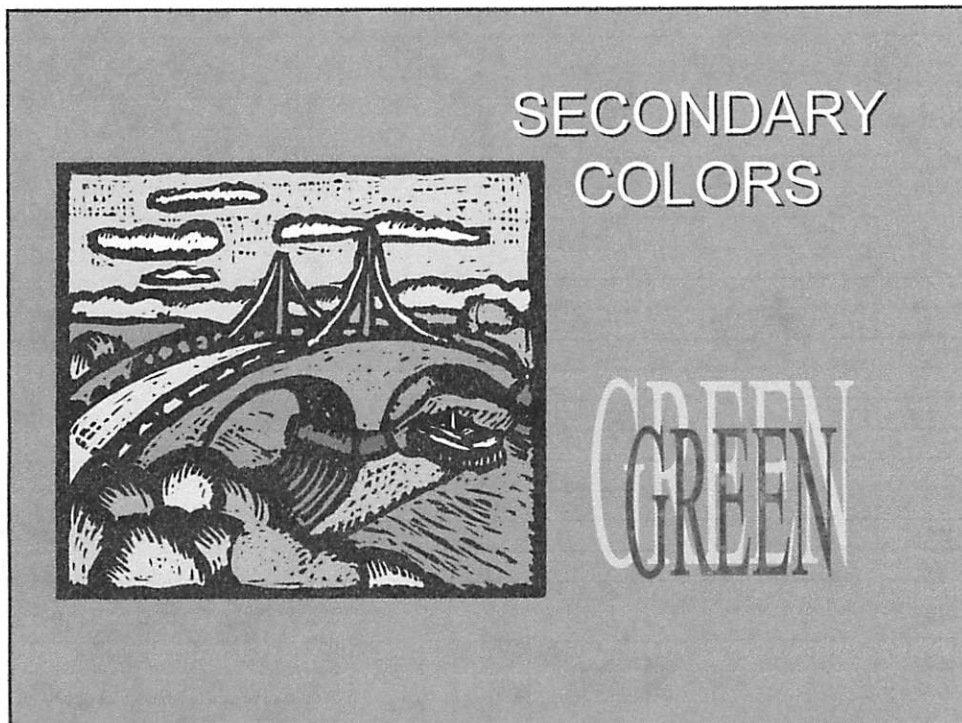
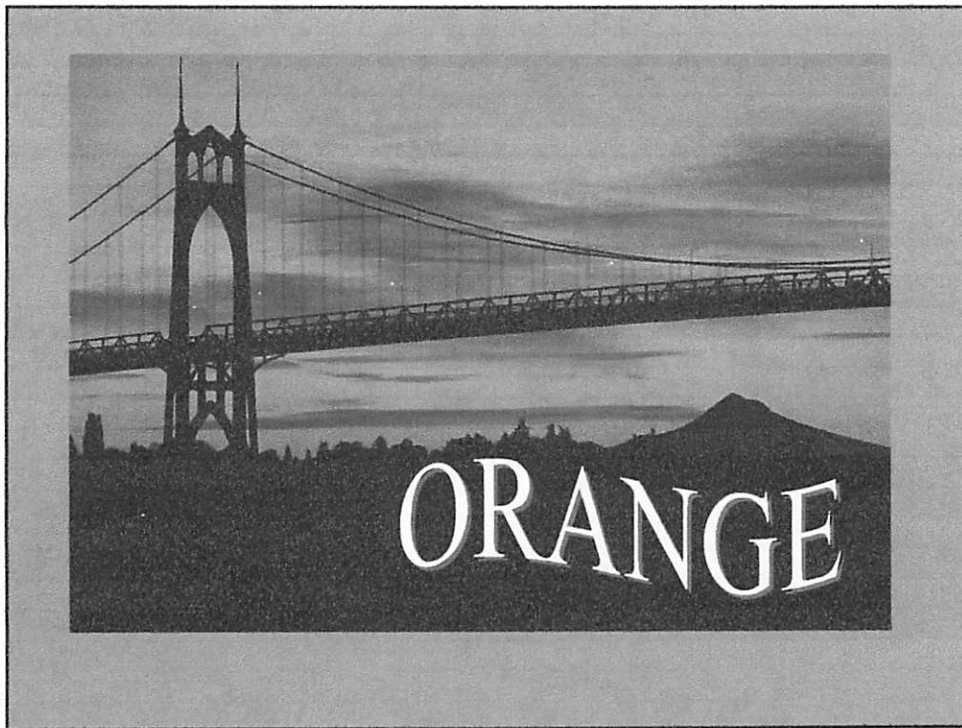
APPENDIX B
FORM



APPENDIX B
FORM



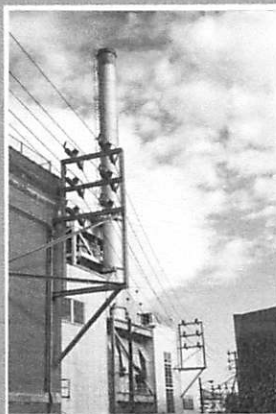
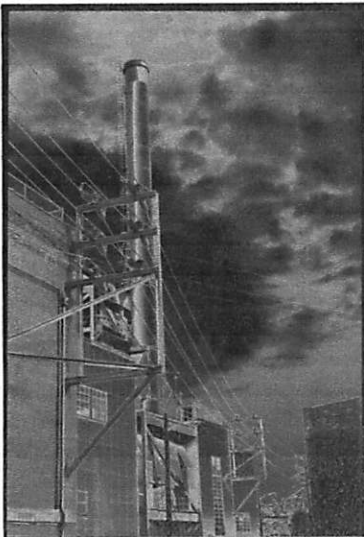
APPENDIX B
FORM



APPENDIX B
FORM

SECONDARY
COLORS

PURPLE



value

value: the amount of lightness or
darkness in an object

© LKMWaggoner2004

APPENDIX B
FORM

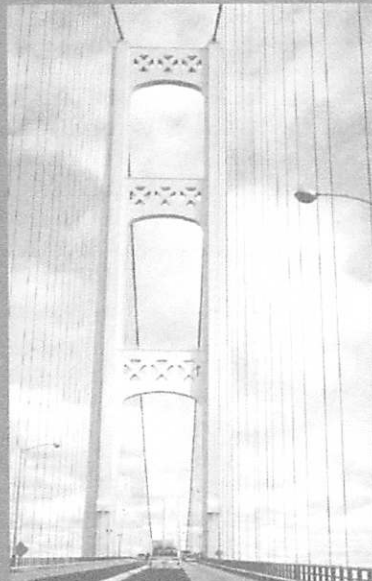


Michael Kenna

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neutral
colors

Michael Kenna



© LKMWaggoner2004

light
value

APPENDIX B
FORM



midtone
value

Henri Cartier Bresson

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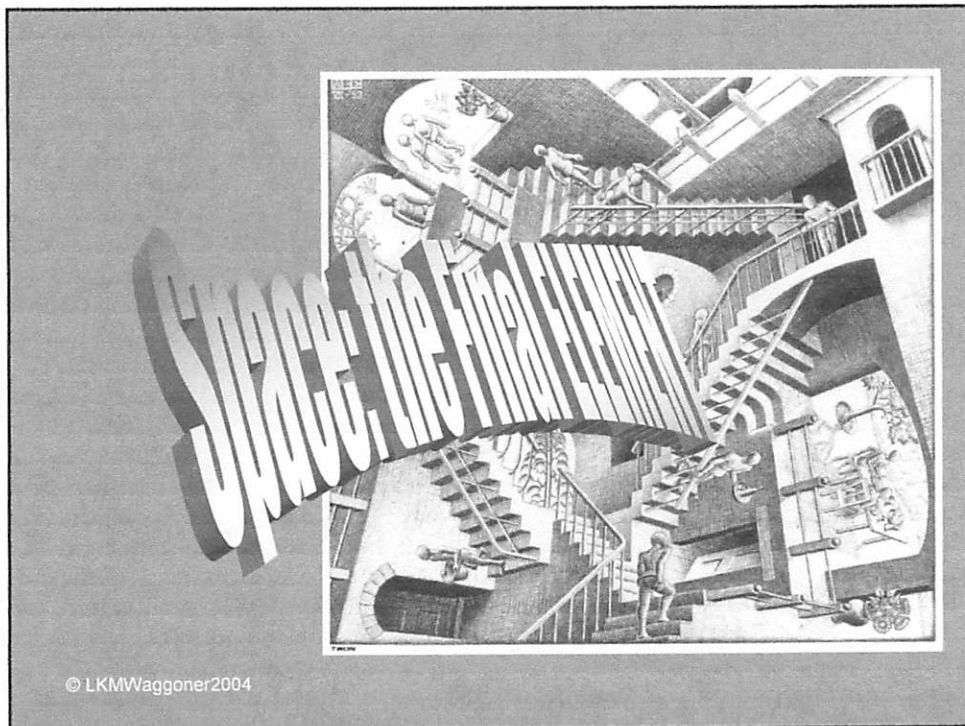


dark
value

Brassai Gyula Halasz

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APPENDIX B
FORM



APPENDIX B
FORM

Space is the area that surrounds
an object or figure



negative
space or
ground



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Space is the area that surrounds
an object or figure

negative space
or ground, with
positive figure



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APPENDIX B FORM

3D objects
occupy real
space



Helene Brandt,
Bridge Variation

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Architectural
space is as
important as
the building
itself.



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APPENDIX B FORM

For artists, creating the illusion of space on a flat surface is known as *perspective*

During the Renaissance, artists like Leonardo da Vinci created the illusion of space using with linear perspective and atmospheric effects.



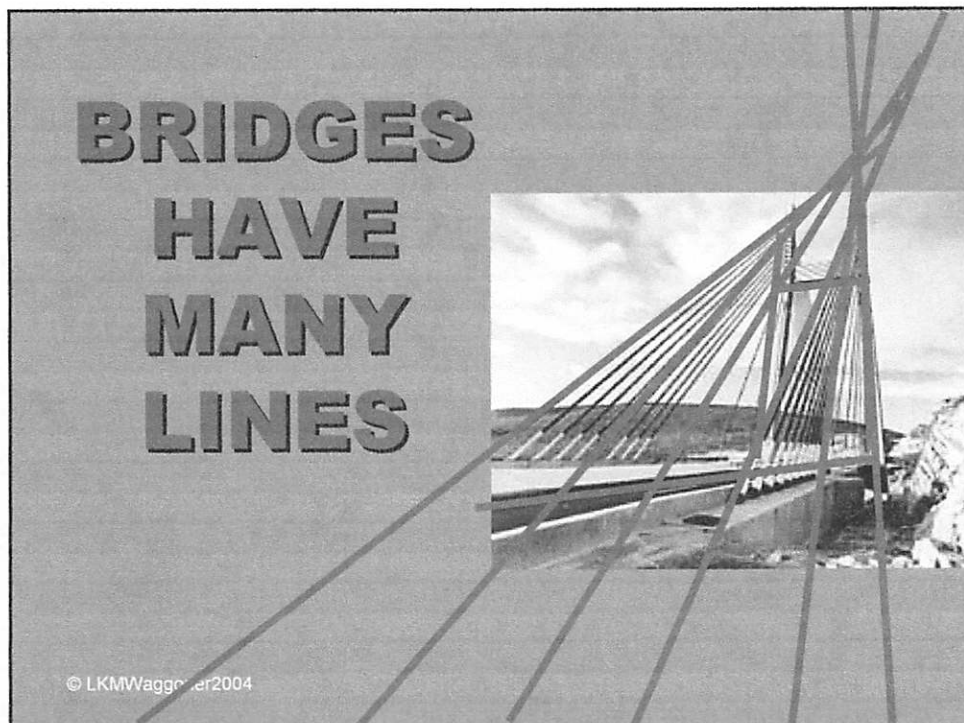
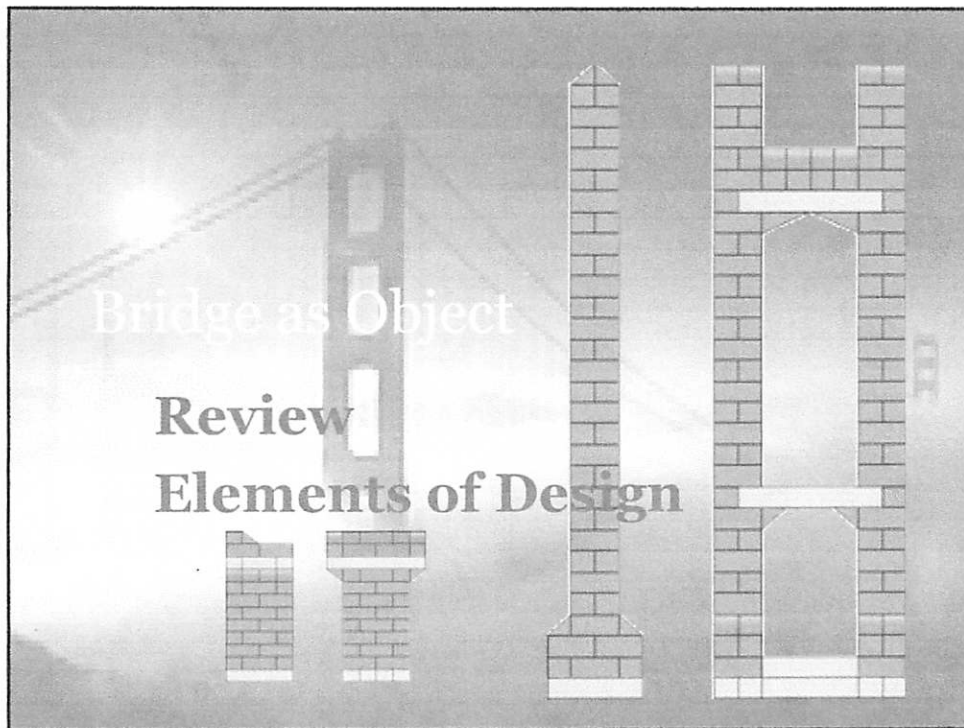
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400 years later, this imaginary bridge was built as a real object

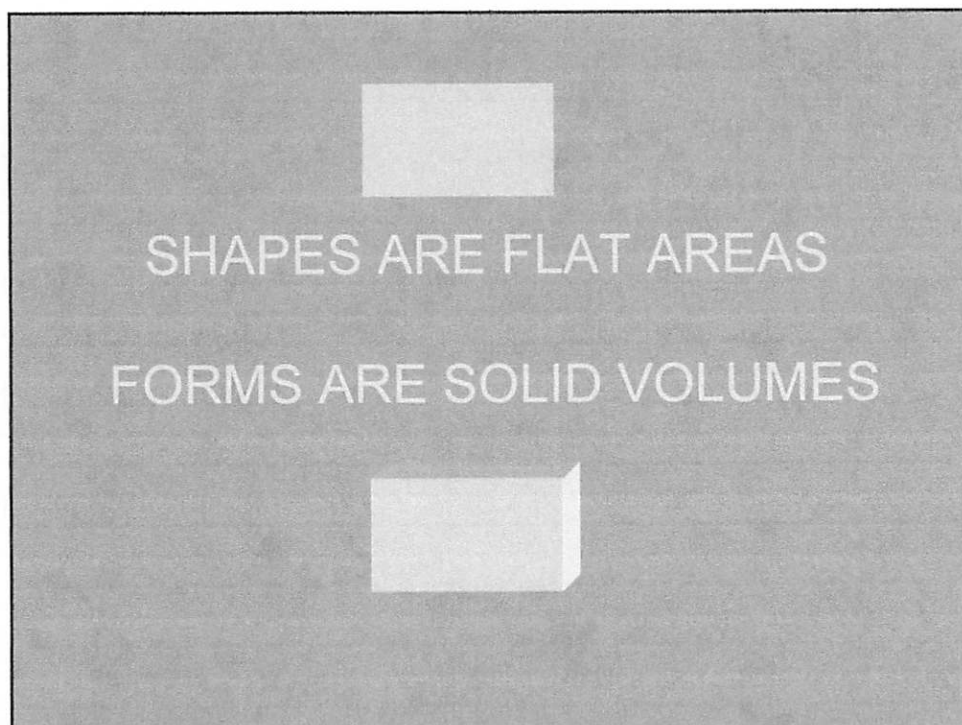
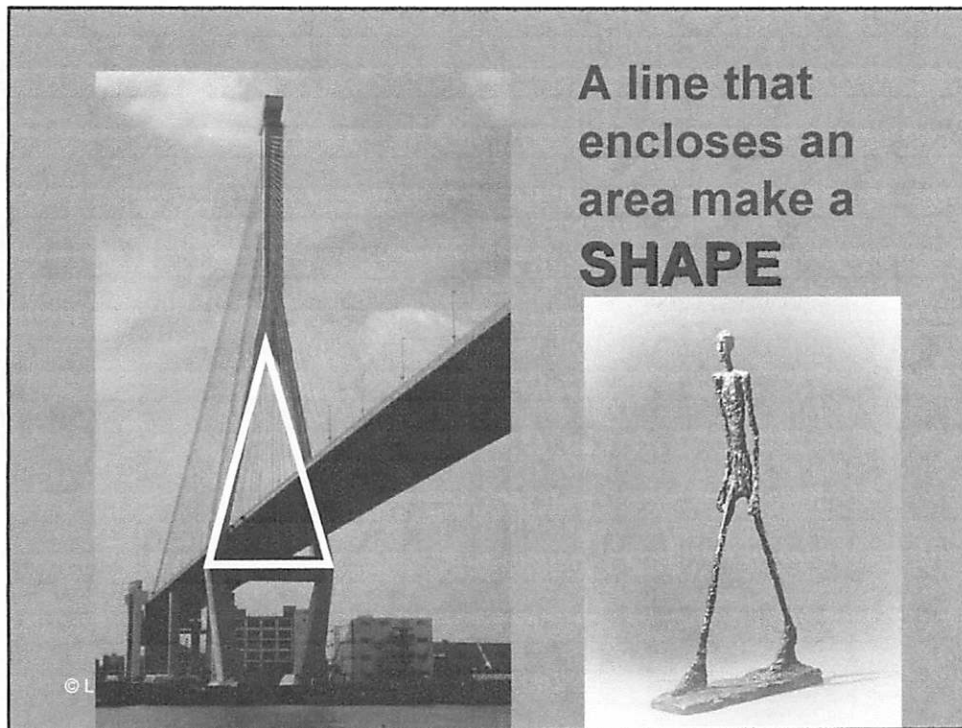


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APPENDIX B
FORM



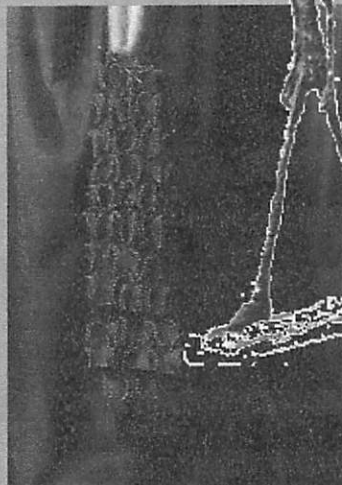
APPENDIX B
FORM



APPENDIX B FORM

TEXTURE

The surface qualities of an object: Something that feels a certain way (real texture, or looks like it should feel a certain way (implied texture).



primary: secondary: neutral:

COLORS
&
VALUE

APPENDIX B
FORM

primary: secondary: neutral:

red

orange

black

blue

purple

white

yellow

green

gray

brown



Michael Kenna

© LKMWaggoner2004

value

the amount
of light and
dark in or
around an
object

Michael Kenna

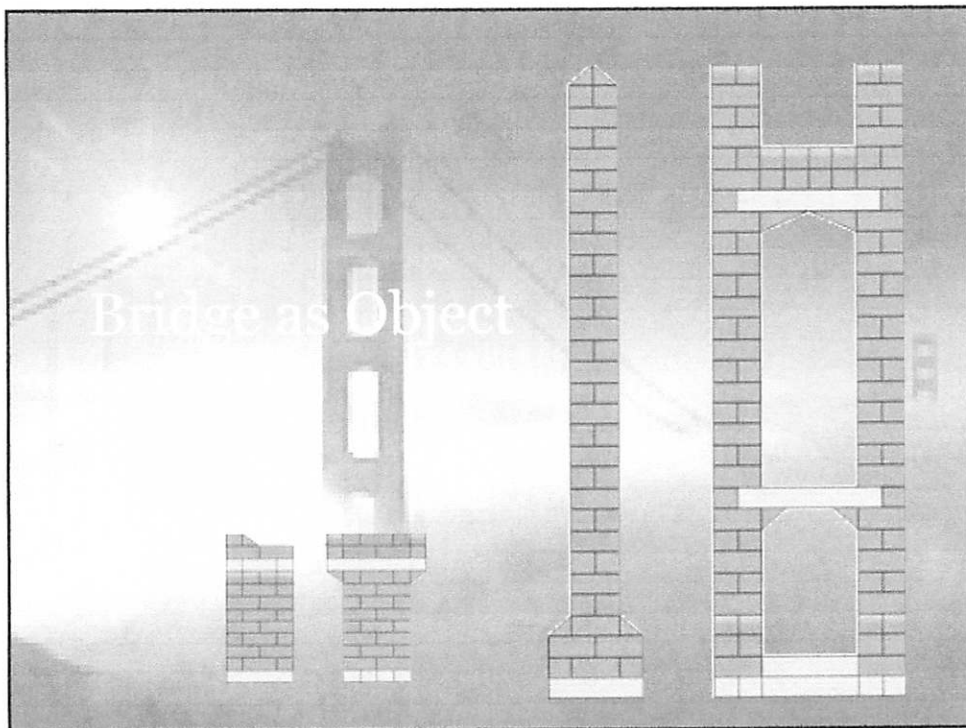
APPENDIX B FORM

Space is the area that surrounds
an object or figure



It is either real, or implied through perspective
drawing and atmospheric effects.

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APENDIX C
BRIDGE PORTFOLIO

Making a "Bridge" Portfolio

All Grades

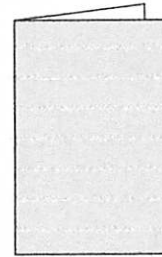
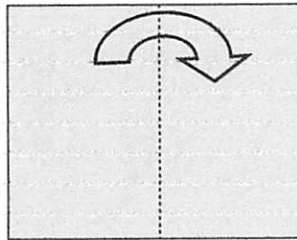
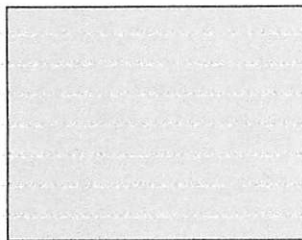


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Step One



- Fold large sheet in half

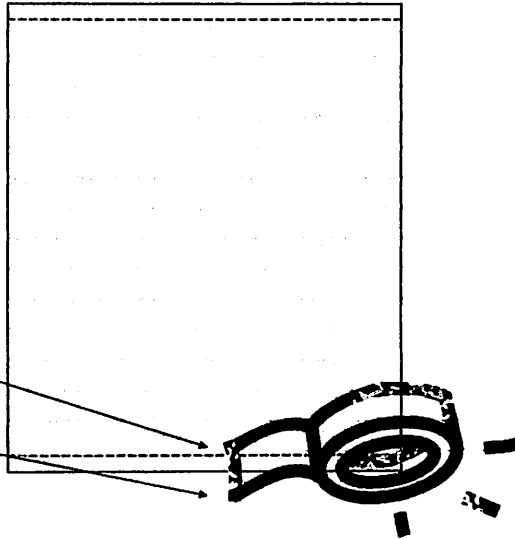


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APENDIX C
BRIDGE PORTFOLIO

Step two

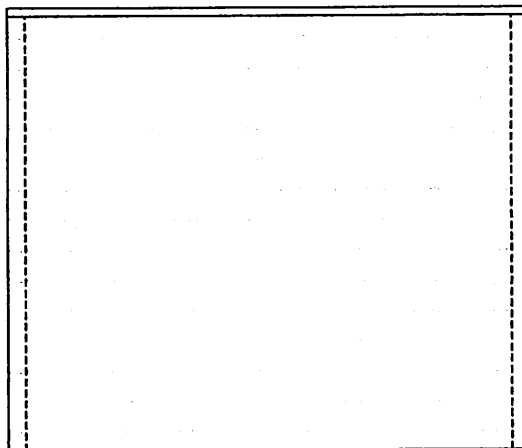
- tape sides
 - lay folder flat
 - pull tape the length of the paper
 - line up so it is half on paper, half off paper



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Step three

- rotate so opening is on top

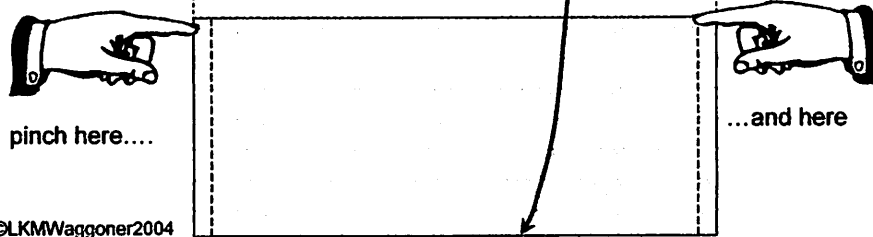


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APENDIX C
BRIDGE PORTFOLIO

Step four

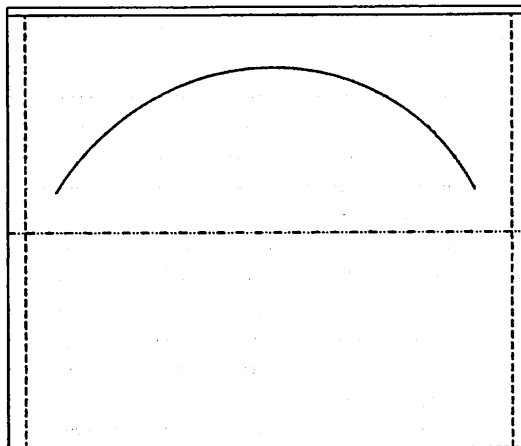
- Find the middle of the paper by folding the top to the bottom; pinch the edges



Step five

- open, then draw a **light*** line between the two pinch marks

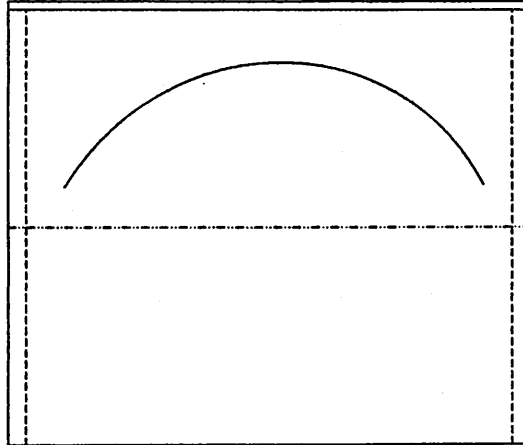
* How light is a light line? If you can see a line clearly from across the table, it is too dark.
Practice holding your pencil vertical, and *tickle* the back of your hand!



APENDIX C
BRIDGE PORTFOLIO

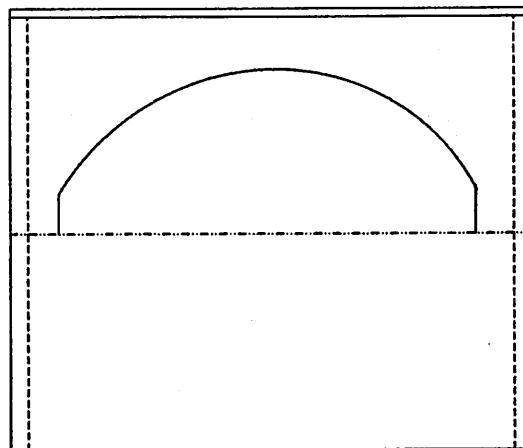
Step six

- draw a large curved line across the upper 1/2



Step seven

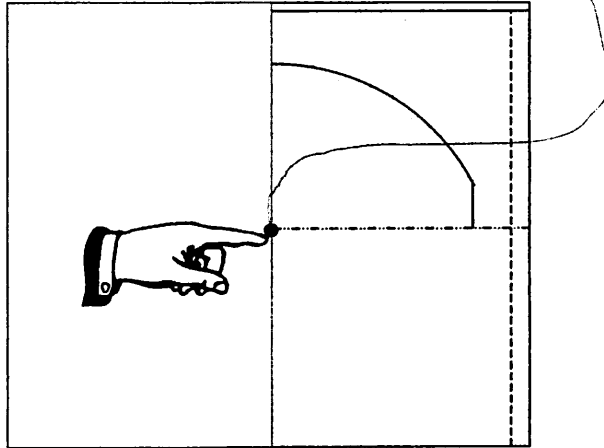
- draw two lines down from each end point,



APENDIX C
BRIDGE PORTFOLIO

Step eight

- fold side to side to find the mid point, and make a small pinch; mark on line.



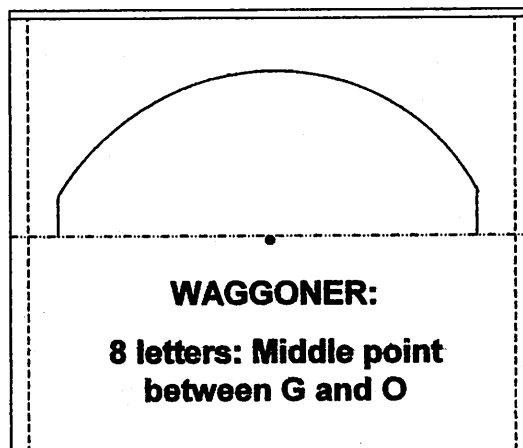
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Step nine

Count the number of letters in your first or last name.

Divide by 2.

If you have an even number, the mid point will be between 2 letters.



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APENDIX C
BRIDGE PORTFOLIO

Step ten

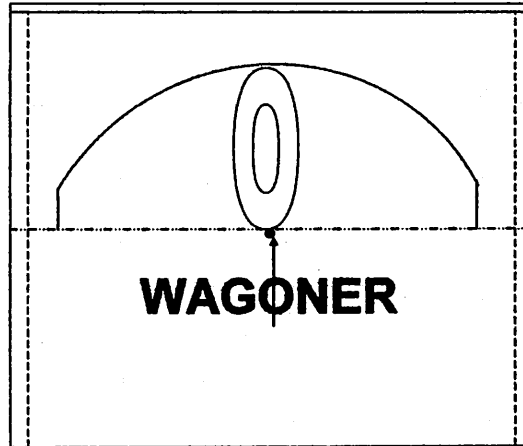
- If you have an odd number, then the mid point will be in the middle of a letter.

EGADS! How do I draw a block or bubble letter?

Follow me, and we will see.....



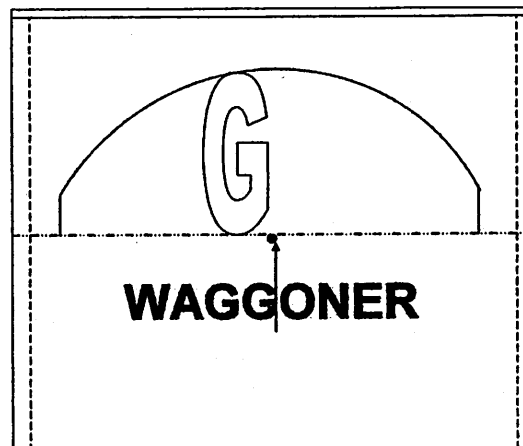
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Step eleven

put the middle letter
in center of the
arch

(To the left
if even;
on the center
if odd!)



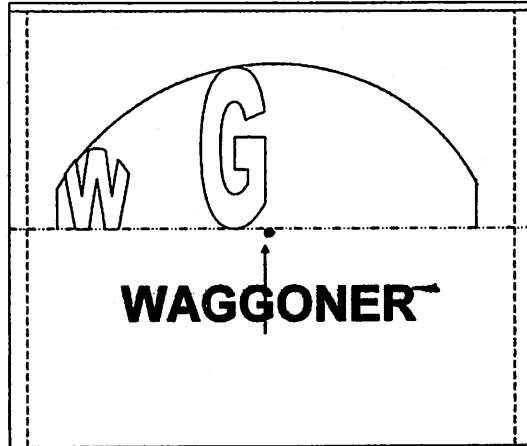
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APENDIX C
BRIDGE PORTFOLIO

Step twelve

put the first letter
at the left side
of the arch;

make sure it
touches
at the top
and the bottom.



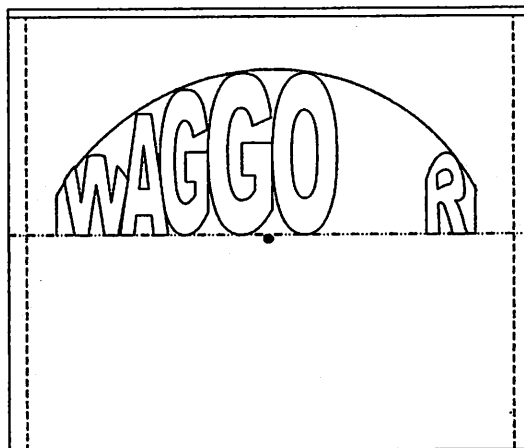
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Step thirteen

put the last letter
at the very end
of the arch;

then

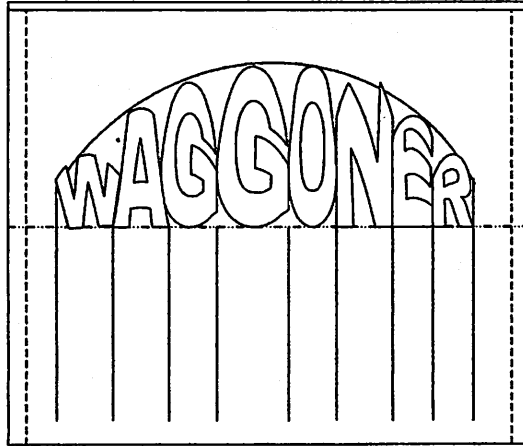
squeeze
the other letters
in, making sure
all touch the top
and bottom



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BRIDGE PORTFOLIO

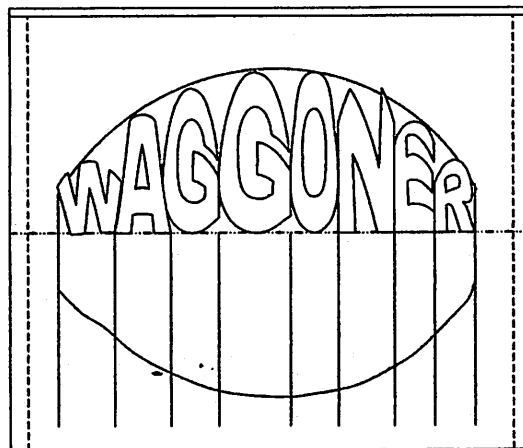
Step fourteen



Draw lines straight down from the middle of
the letters, and at the ends.

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Step fifteen

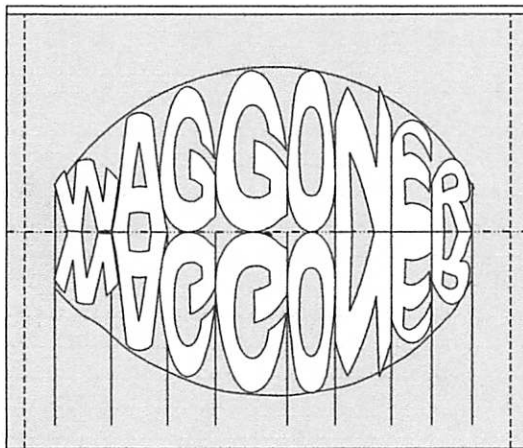


Draw a curved line, like the one at the top

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BRIDGE PORTFOLIO

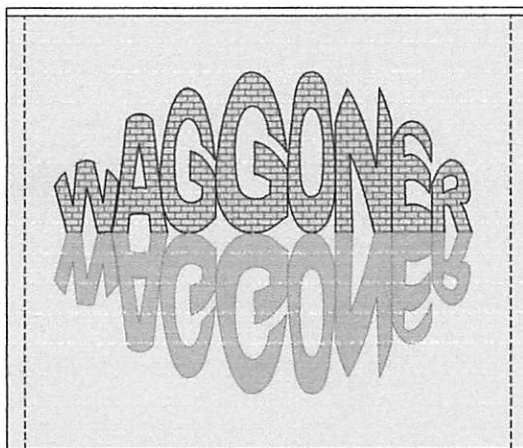
Step sixteen



Draw as a MIRROR IMAGE: think of shapes,
not letters....

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Step seventeen

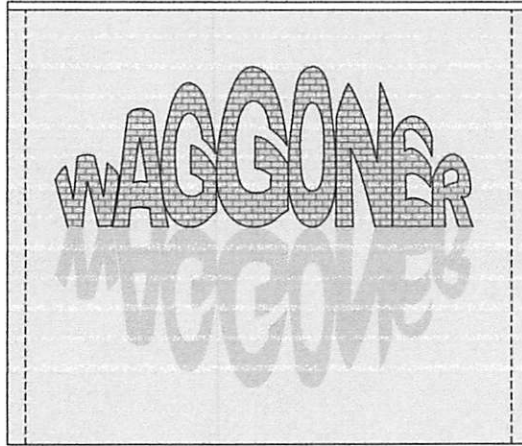


erase all guide lines (should be very faint!)

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BRIDGE PORTFOLIO

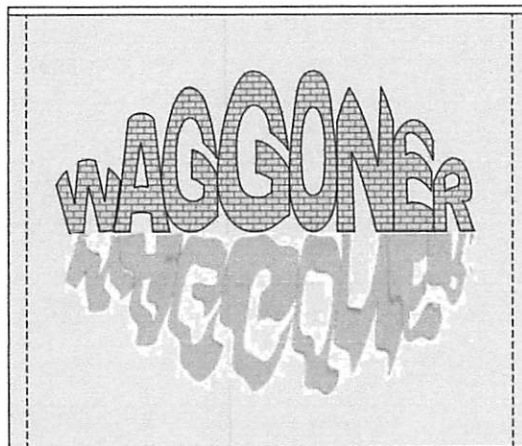
Step eighteen



have fun coloring and decorating

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Step nineteen



for advanced water images

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APENDIX C

BRIDGE PORTFOLIO

Step twenty

Irma Hassenpfeffer 8th 3rd Period

On the back, put your name, grade and class

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PORTFOLIO STORAGE

- AT THE END OF CLASS, MAKE SURE TO PLACE ALL WORK IN PROGRESS INSIDE YOUR PORTFOLIO.
- **EXCEPT** IF SOMETHING IS NOT DRY! PUT THAT IN THE DRYING RACKS.
- STORE PORTFOLIOS NEATLY IN YOUR CLASS STORAGE AREA.



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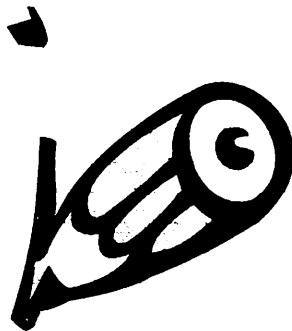
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BRIDGE PORTFOLIO

HOW TO MAKE LETTERS BLOCKS & BUBBLES

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DRAW THE LETTER*

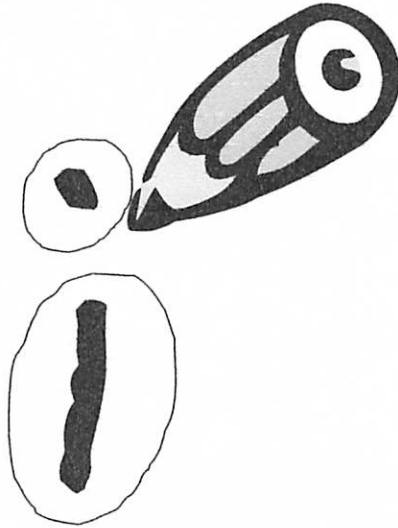


*DRAW
VERY
LIGHT
LINES,
SO YOU
CAN
ERASE
THEM!

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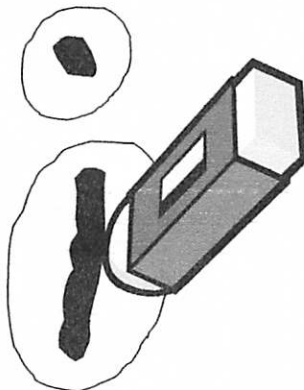
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OUTLINE THE LETTER



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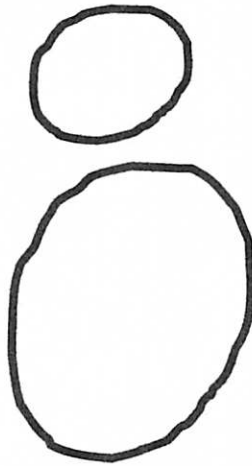
ERASE THE INSIDE LETTER



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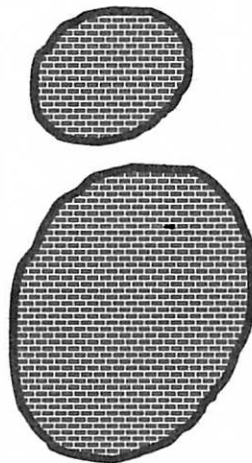
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DEFINE THE OUTLINE



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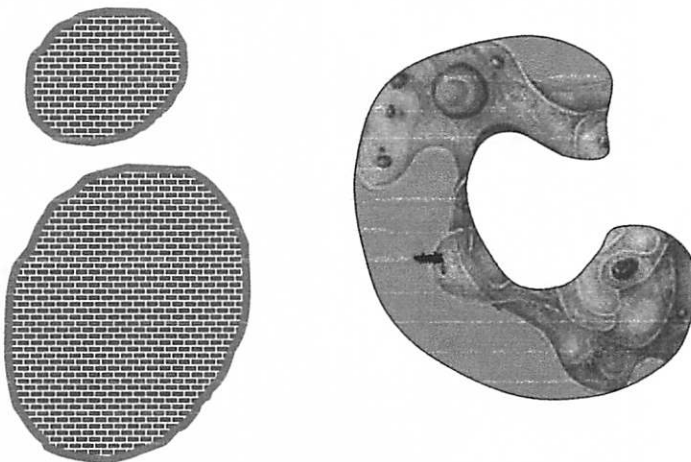
CREATE A FILL PATTERN



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APENDIX C
BRIDGE PORTFOLIO

OVERLAP LETTERS



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BLOCK LETTERS



DRAW LETTERS
VERY LIGHTLY!

MAKE THEM
SMALLER THAN
THE SPACE YOU
PLAN TO FILL!

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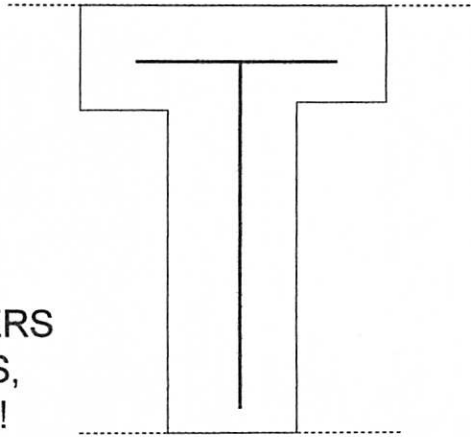
APENDIX C
BRIDGE PORTFOLIO

OUTLINE LETTERS

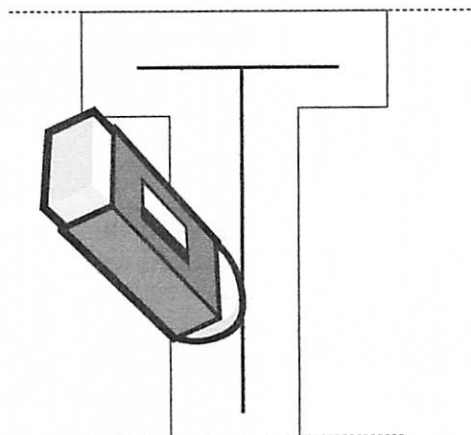


TURN CORNERS
WITH ANGLES,
NOT CURVES!

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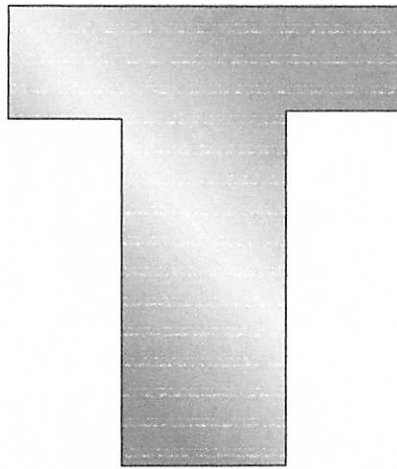
ERASE INSIDE LETTER



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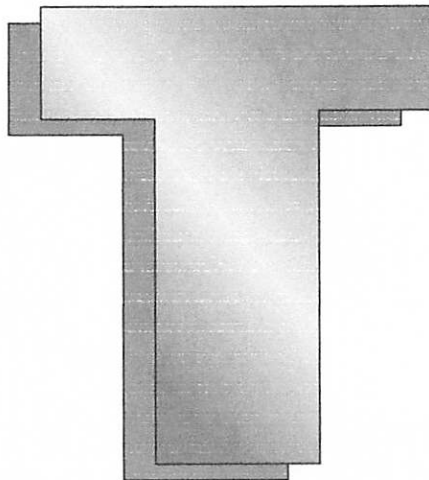
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FILL LETTER



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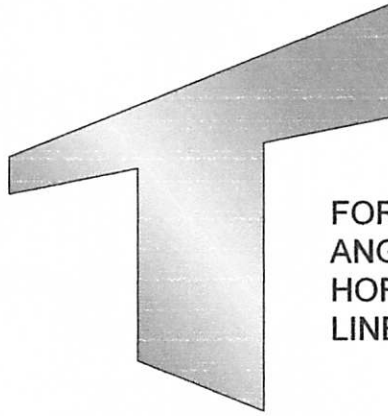
CREATE A SHADOW



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APENDIX C
BRIDGE PORTFOLIO

DISTORT THE EDGES



FOR EXAMPLE,
ANGLE ALL
HORIZONTAL
LINES

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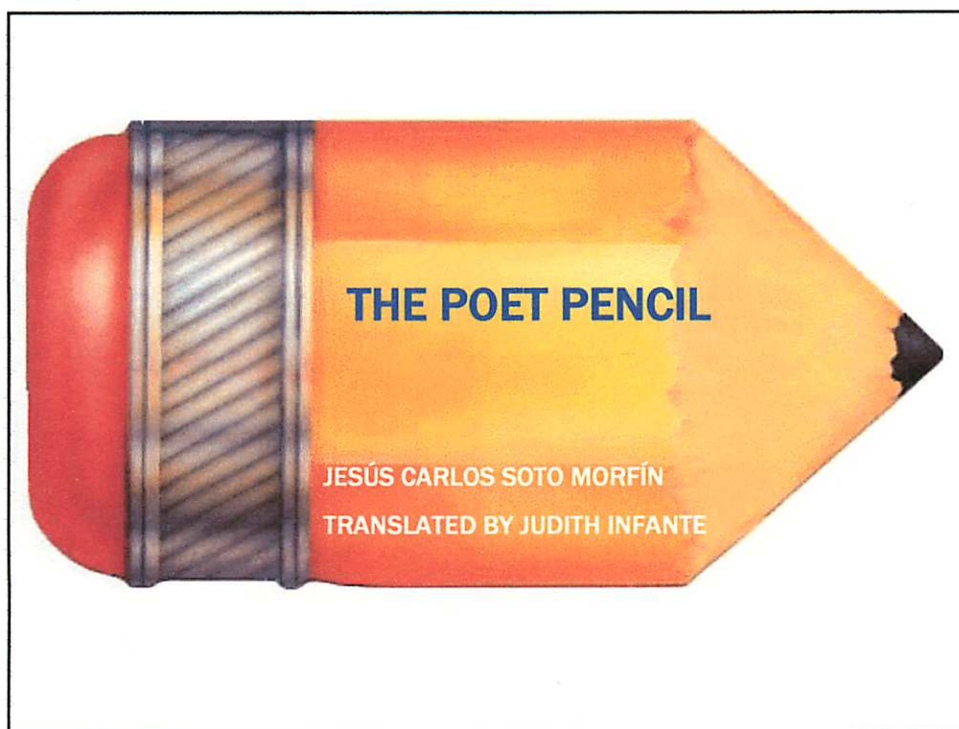
DISTORT THE EDGES



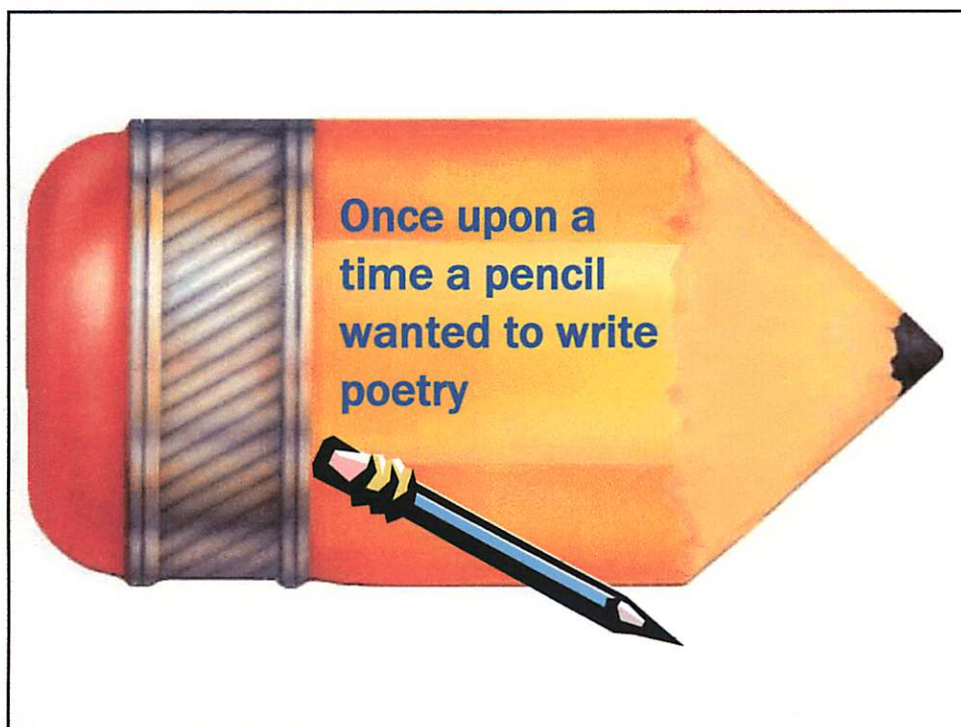
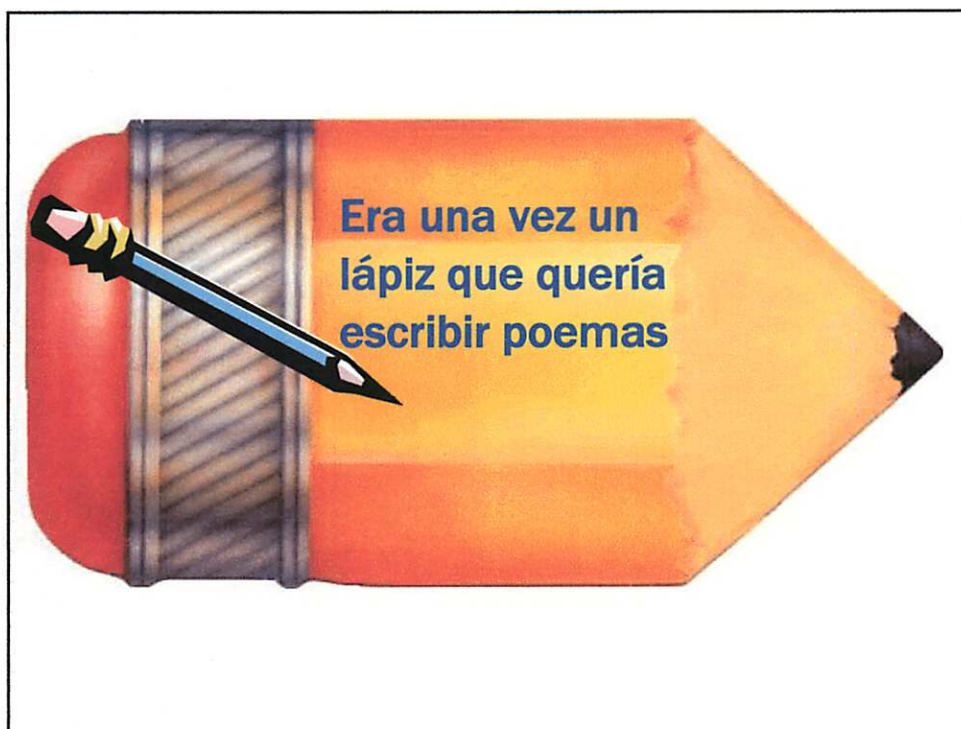
OR ALL
VERTICAL LINES

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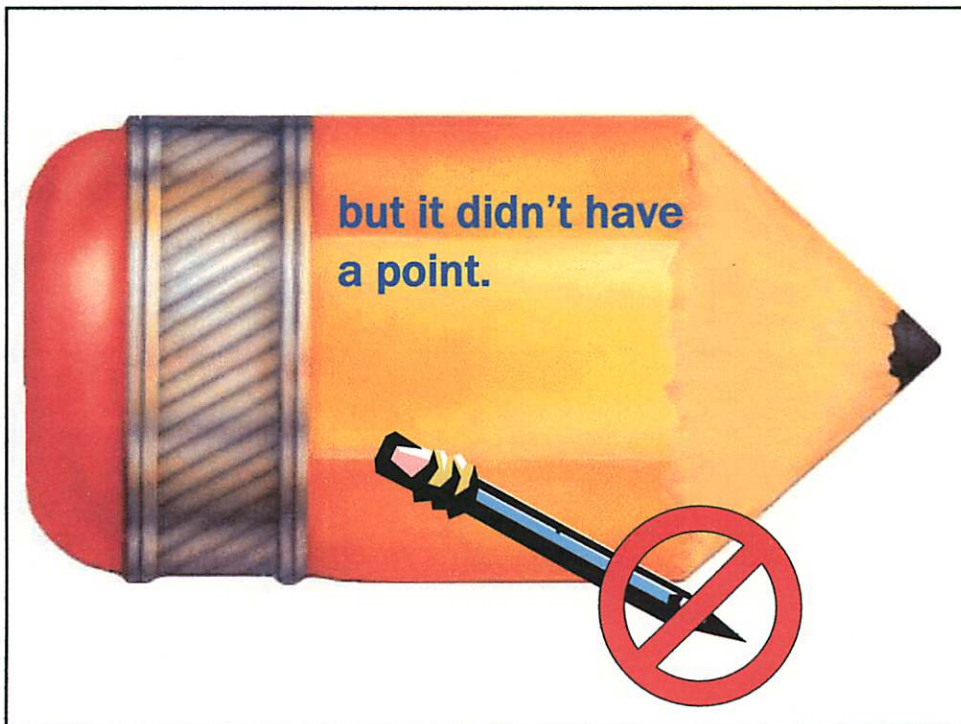
Appendix D
El Lapiz Poeta



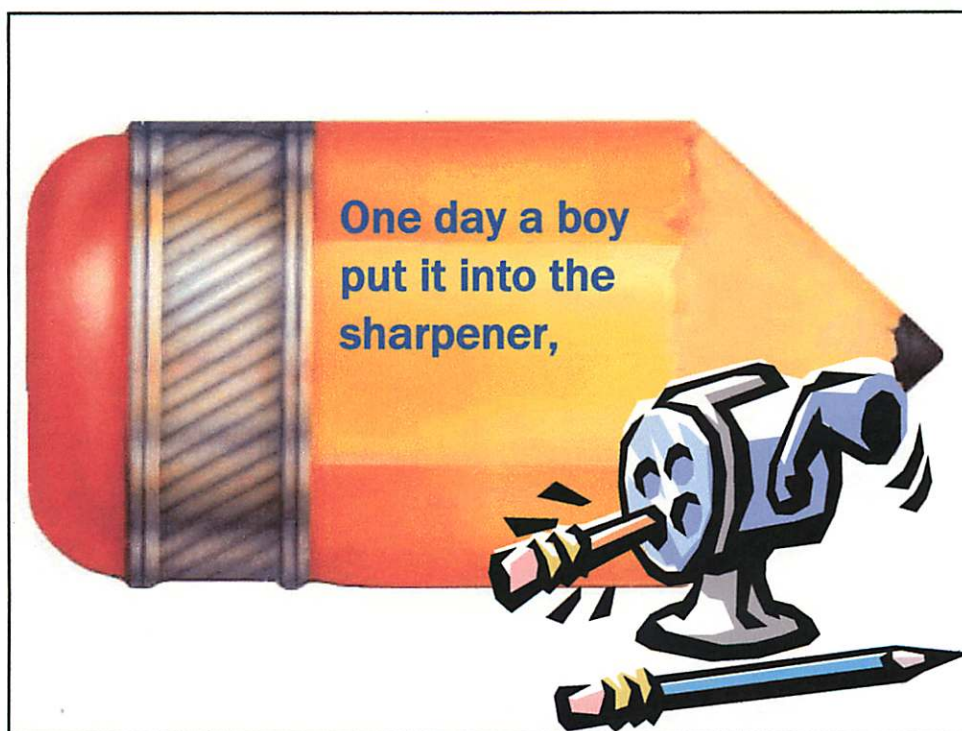
Appendix D
El Lapiz Poeta



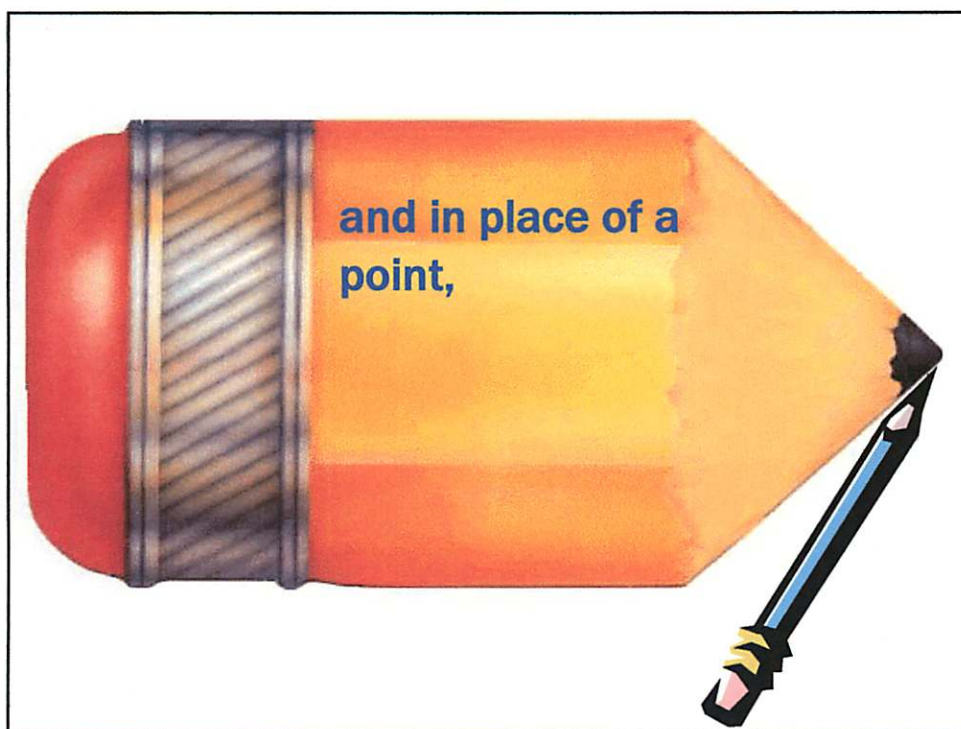
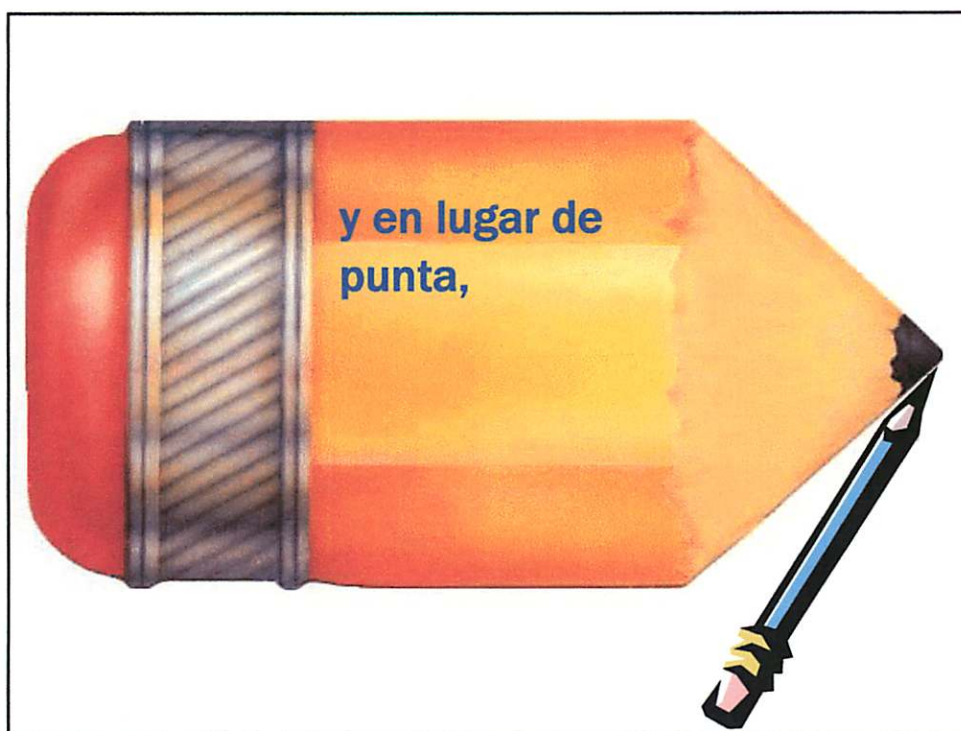
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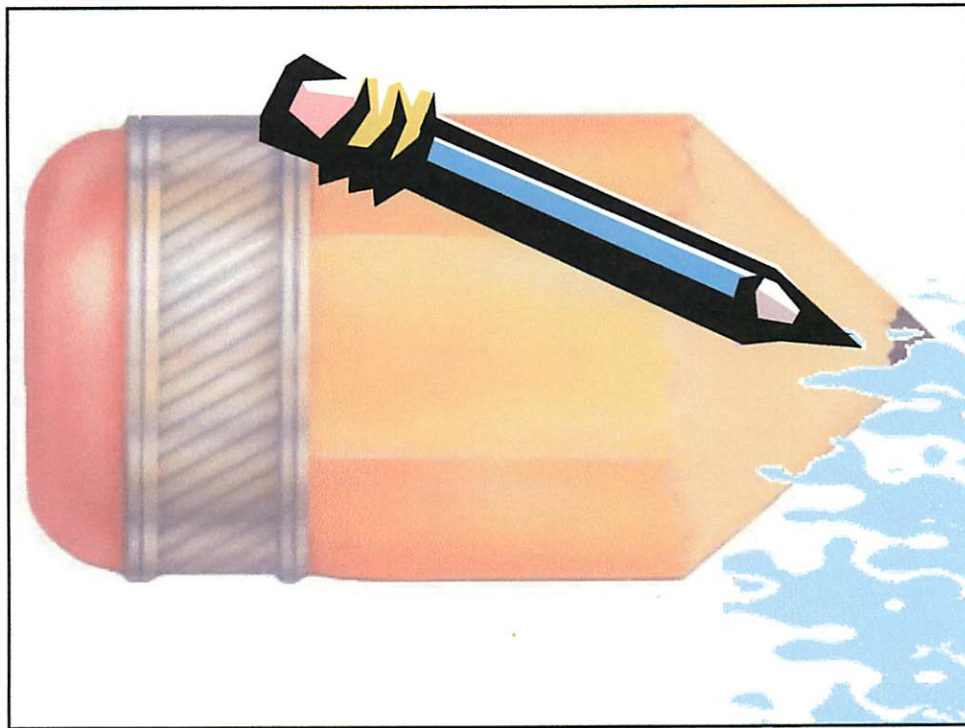
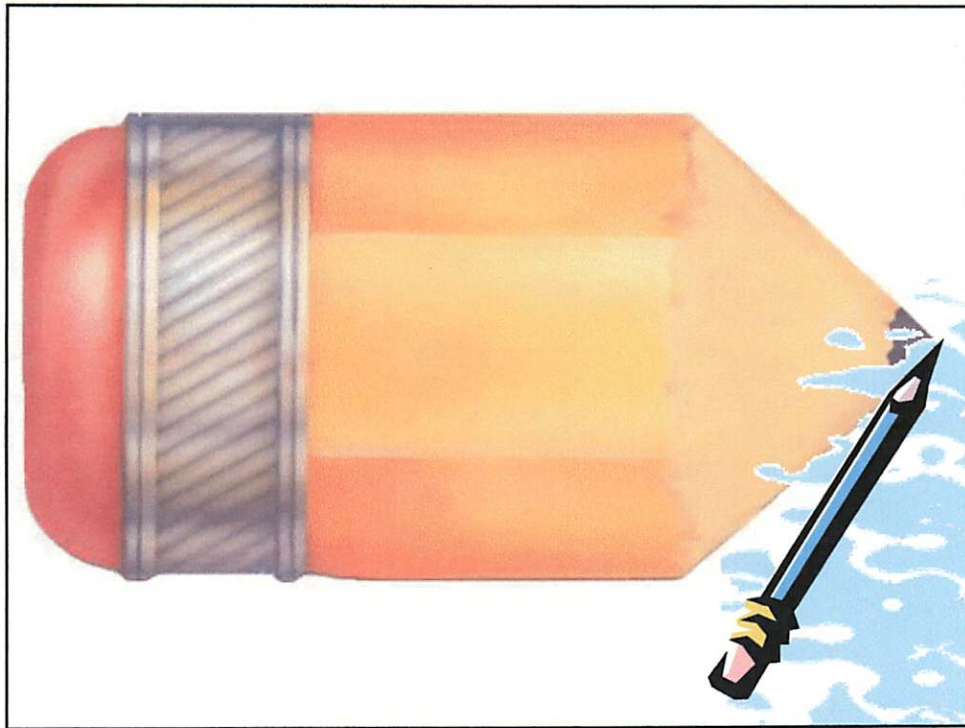
Appendix D
El Lapiz Poeta



Appendix D
El Lapiz Poeta



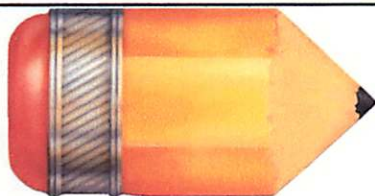
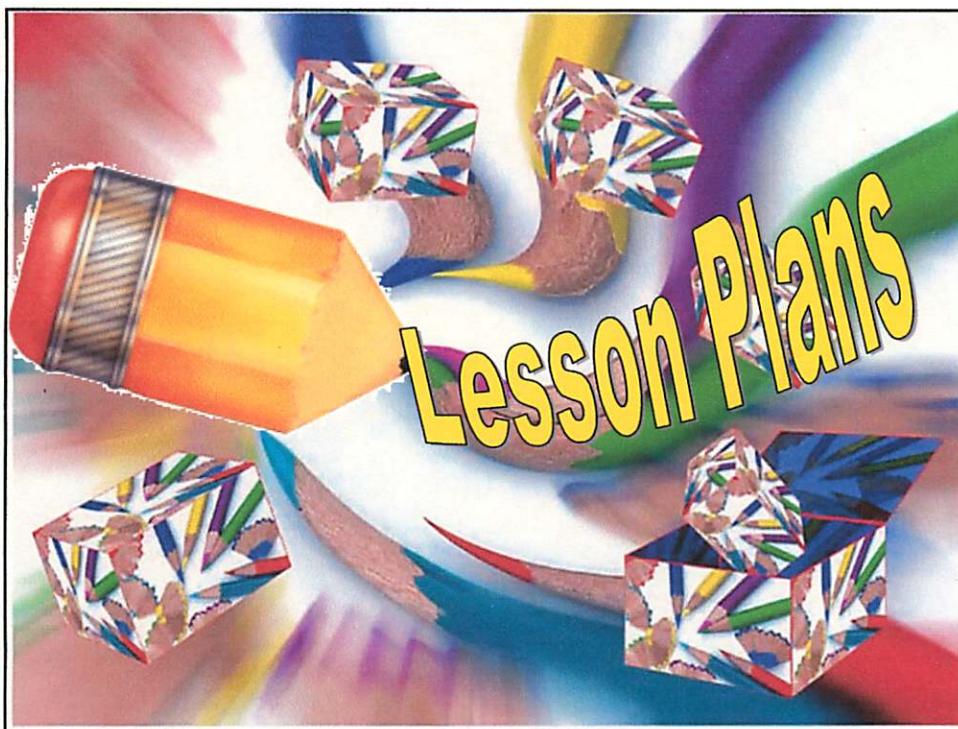
Appendix D
El Lapiz Poeta



Appendix D
El Lapiz Poeta



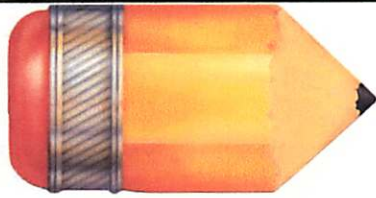
Appendix D
El Lapiz Poeta



**EL LÁPIZ
POETA**

- Students will learn how to create enlargements of their work using coordinate grids.

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EL LÁPIZ POETA

- Students will learn how to work cooperatively to produce a large mural, based upon the poem, *El lápiz poeta*.
 - Tasks are divided according to preferences and skills
 - All students are accountable for completing work

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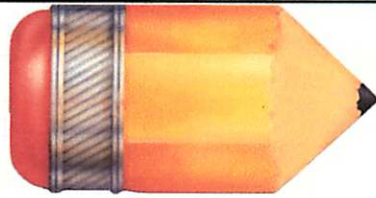


EL LÁPIZ POETA

- Students will be introduced to poetry in two languages, using imagery to provide meaning.
 - Identify the objects in the poem:
 - pencil “without a point”
 - boy
 - pencil sharpener
 - river

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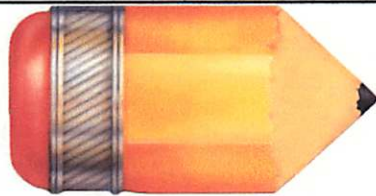
Appendix D El Lapiz Poeta



EL LÁPIZ POETA

- Students will learn about *cognates*, during collaborative lessons with the foreign language instructor.
 - See linked lesson plan
 - Students in art must complete foreign language assignment; foreign language students must complete assignment in art.

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EL LÁPIZ POETA



Objective: Team-teach a unit on Spanish Poetry to include both a literary and artistic interpretation of the poem.

Lesson plans:

Define a cognate and give examples.

Cognate: A word in Spanish which looks like or sounds like a word we have in English.

Ex: taco	=	taco	Looks the same, sounds the same in both languages.
hospital	=	hospital	Looks the same, but "h" is always silent in Spanish
train	=	tren	Sounds the same, but is spelled a little differently

Have students copy the definition and go over it. Pronounce each example and highlight both the similarities and the differences.

Introduce the poem by powerpoint in Spanish. Read it aloud as students follow along silently. Have students copy the poem in Spanish.

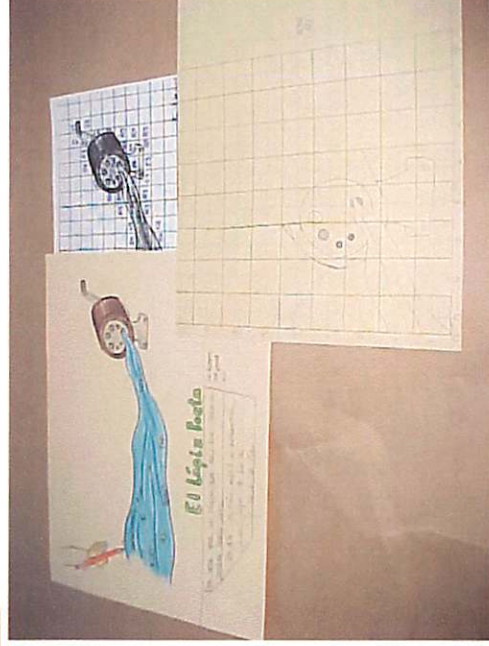
Now, go back and analyze the poem together beginning with the title, then line by line. Have students identify and define each cognate of the poem. Using what they already know in English to help them identify the cognates, and using context clues, translate the poem from Spanish to English.

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Appendix D El Lapiz Poeta



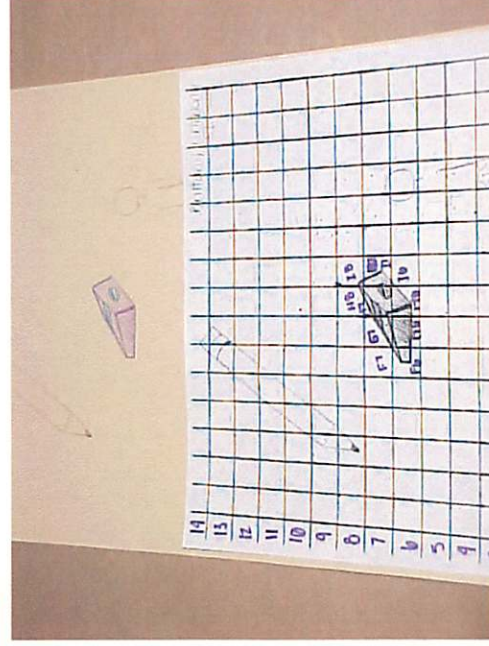
EL LÁPIZ POETA



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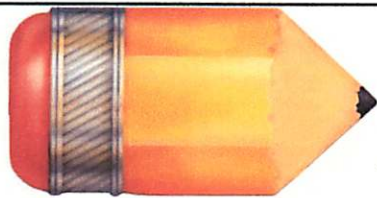


EL LÁPIZ POETA

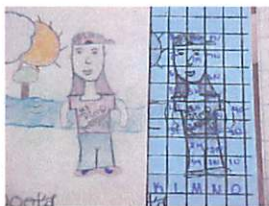


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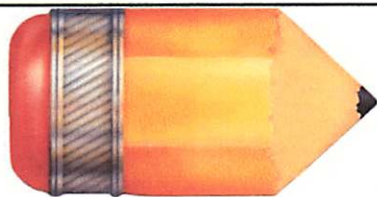
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El Lapiz Poeta



**EL LÁPIZ
POETA**



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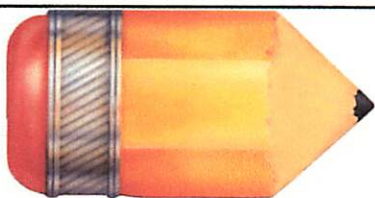


**EL LÁPIZ
POETA**

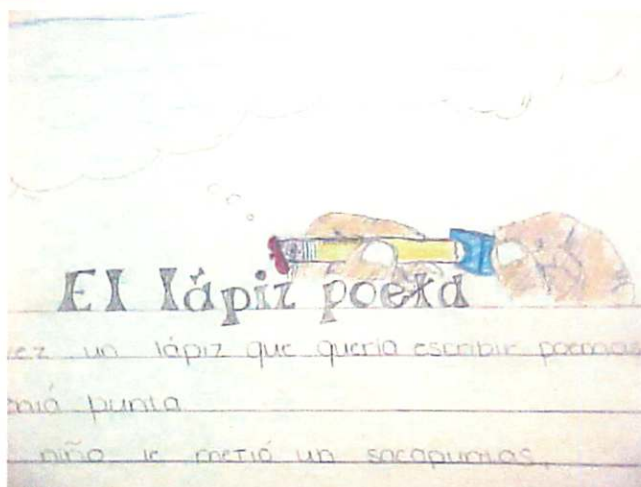


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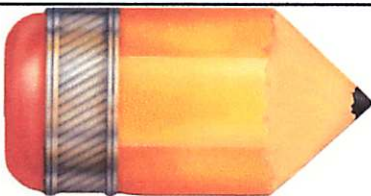
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El Lápiz Poeta



**EL LÁPIZ
POETA**



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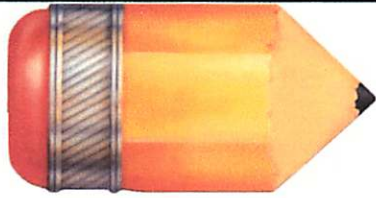


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POETA**

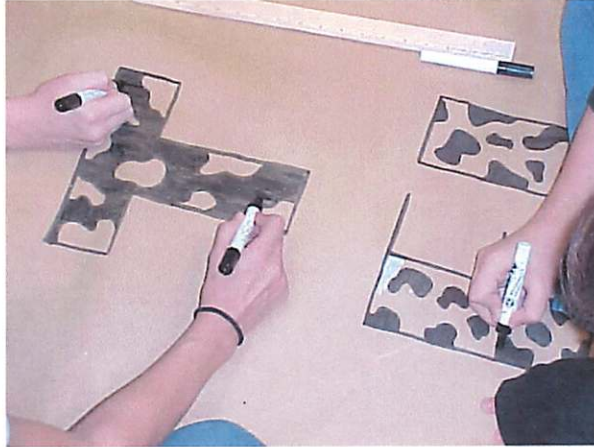


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Appendix D
El Lapiz Poeta



**EL LÁPIZ
POETA**



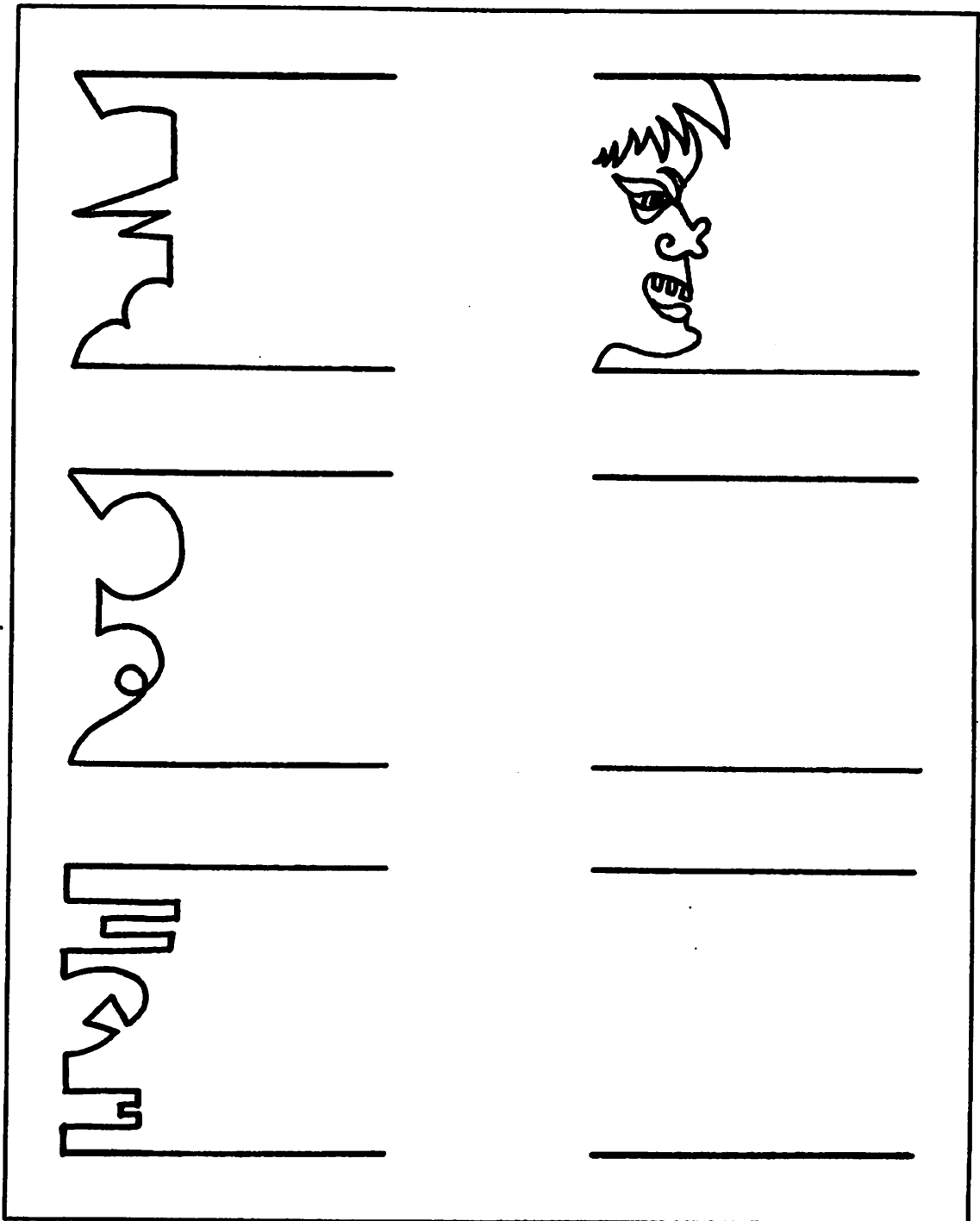
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3	2	Aroostock Bridge ME	Caribou School	www.caribouschools.org	
4	3	banjo base w bridge	elderly instruments	http://www.elderly.com/new_instruments/items/images/60N/WB195_bridge-tailpiece.jpg	
5	4	banjo bridge gold	elderly instruments	http://www.elderly.com/vintage/items/images/60U/60U-1701_tailpiece.jpg	
6	5	bridge gassee abstract	brigitte gassee	http://www.gassee.com/photogallery/photo26003	
7	6	bridges at night	Peter Malarkey	www.elston.net/PMalarkey/html/PM_4.html	
8	7	Brj x Ltl + gr8 ghto Warsaw	Janusz Korczak	fcit.coedu.usf.edu	
9	8	brminghouslrdscomns1834	JMW Turner	www.artchive.com	
10	9	Brooklyn Bridge w WTC	1999-2002 Wired New York	http://www.wirednewyork.com/brooklyn_bridge_wtc.htm	
11	0	building the tyne bridge	amber-online.com	http://www.amber-online.com/html/document162.html	
12	11	cinco mas (poem, jpeg)	Phil Goldvarg 7/23/02	1999-2003 LatinoCities, Inc., www.latinola.com	
13	12	Collapsed brj LA riv 1938	LA Times	www.americassuburb.com/bridge	
14	13	footbridge perilous	Ian Britton	http://www.freefoto.com	
15	14	footbridge tiny	brantacan	http://www.brantacan.co.uk/FoorBeamTiny.jpg	
16	15	Forth railway bridge	Allan Rostron	www.tatton.demon.co.uk/photos	
17	16	Foxburg Bridge	J.T.Fowler ©	http://www.venangoil.com/images/bridges/FOXBRDGwtrain_Car.jpg	
18	17	georgia stele	1999 smithson am art mus	jesus bautista moroles 82 x 12 1/4 x 8 in.	
19	18	Glen Canyon and bridge	kevin korell	www.shoestringbooks.com	
20	19	goldsworth valley ped brj	1996 western mich univ	http://www.wmich.edu/wmu/tour/wmu023.html	
21	20	heirs come to pass 3	smithson am art mus	martina lopez 1991 30x50 silver dye bleach print montage	
22	21	HO wood trestle	Riverswood WebDesign	http://www.riverswood.com/train/hoindex.html	
23	22	international bridge brownsville TX	The USGenWeb Archives Project	http://www.rootsweb.com/~usgenweb/tx/ppcs-tx.html p 17 © 1996-2003	
24	23	kisogawa bashi bridge	JASBC	www.jasbc.or.jp/photo	
25	24	lego bridge abutments	same	same	
26	25	lego bridge elevation			
27	26	log beam bridge	Neil Fraser	http://neil.fraser.name/hardware/bridge/	
28	27	marlow bridge 91		http://www.brantacan.co.uk/ColnLogsA.jpg	
29	28			www.beg.soton.sc.uk/images/Flobphotos/	
30	29	nepal foot bridge	Ian Britton	http://www.freefoto.com	
31	30	nocturne b&g batrc brj	whistler	www.artchive.com	
32	31	Odyssey Center Pavilion	http://www.consarc-design.co.uk/	http://www.paddi.net/images/pavilion.htm architects	
33	32	Pontoon bridge		hirvi.cs.queensu.ca/photographs	

	A	B	C	D	E
34	33	physical Exercise	Li Tuanyuan	http://www.chinaoilpaintings.com/youhuacaimo/litianyuan/litianyuan-e.htm	
35	34	Scottish stone arch	travel adventures	http://www.traveladventures.org/continents/europe/scottishhighlands04.shtml	
36	35	rainbow and bridge	san fran regulatory branch	http://www.spn.usace.army.mil/regulatory/rainbow.gif	
37	36	San diego rr trestle	eric swanson photo	http://www.sdrm.org/history/sda/history.html	
38	37	san diego rr trestle postcard	san diego railway museum	http://www.sdrm.org/history/sda/history.html	
39	38	shade drkness evnig deluge	JMW Turner	www.artchive.com	
40	39	Skowhegan Dam aerial photo	Fly Fishing Only	www.maine-flyfishing.com/images/locations/weston.jpg	
41	40	Suspended bridge among Hida and Etchu	artchive.com	series Unusual views of famous bridges in Japan	
42	41	Wales stone bridge		http://www.walesaccom.co.uk/images/gallery/bridge.jpg	
43	42	tacoma narrows pics	/Ed Elliott	http://www.camerashoptacoma.com/	
44	43	taylor guitar bridge	Doug Smith	www.haverford.edu/photographs	
45	44	the amazing new bridge		www.worldwideshoes.org	
46	45	Thruxton 3X	Frank Stella	http://faculty.dwc.edu/wellman/Thrux.htm	
47	48	trout creek trestle	David Dye	ddye@ev1.net	
48	49	tyne reflection	Ruth's Britain	www.friends-in-english.com/britain.html	
49	50	tyne sculpture abstract	James Edwards	atschool.eduweb.co.uk/iudd/art/graphics/p9823.jpg	atschool.eduweb
50	51	Leonardo 1502 Span bridge	Vebjorn Sand	http://www.vebjorn-sand.com/thebridge.htm	
51	52	wooden toy trestle	GARDEN-TEXTURE © 1999	http://www.gardentexture.com/bk.htm	
52	53	wtc brooklyn bridge	Wired New York	http://www.wirednewyork.com/brooklyn_bridge_wtc.htm	
53	54	WTC pedestrian bridge	ap photos?	http://www.parrhesia.com/wtc/tn/wtc029.jpg.html	
54	55	WTC running trio	ap photos?	http://post-journal.com/News/images-all/Wob55d.jpg	

APPENDIX F

Mirror Image/Simple Duplication Exercise


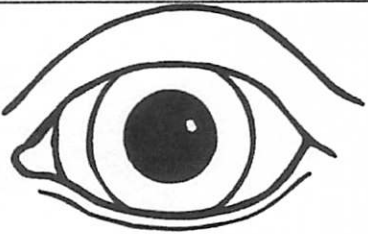
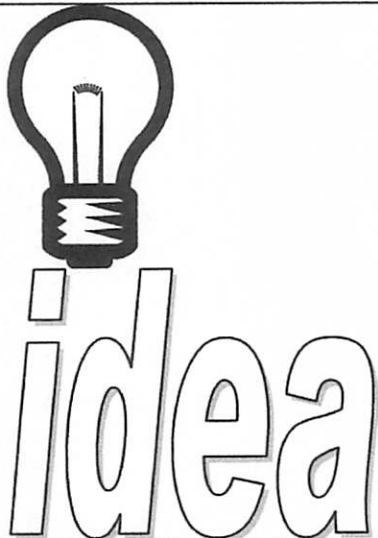


(Reprinted from *Drawing for Older Children and Teens*, Mona Brookes, 1990)

Name _____

Class Period _____

Date _____

	DRAW AN I: ANY WAY, ANY TYPE	DRAW ANOTHER I, ANY WAY, ANY TYPE
		
	COMBINE THE I WITH AN EYE	COMBINE THE TWO IN A DIFFERENT WAY
	AFTER CHOOSING ONE FROM THE ROW ABOVE, COMBINE IT WITH "IDEA"	

CIRCLE THE I YOU LIKE ; USE IT HERE, AND CIRCLE, THEN GO TO THE BOTTOM

Appendix E: I:EYE:IDEA worksheet for subunit *bridge as metaphor*, day two.