

# **AN INFORMAL ANALYSIS OF THE CREATIVE PROCESS IN THE VISUAL ARTS**

Dan Sankowsky, 2009

Every artist/painter has a story of how he or she became one. Yet my Dad's always seemed the quintessential one to me: he grew up fascinated by art and he revered the masters, both of his time and before. Especially Picasso. Dad told me that whenever he went to a museum, some of the art work "hit him in the stomach," his visceral reaction so strong. He explained to me that he didn't have a choice – he had to paint. He studied in Florence in 1926, for an all too brief year, one that he always proclaimed was the best of his life. He did return to the European art scene in 1956 for a 6 month stint in Paris, bringing along wife and son. When the concierge saw one of his paintings, she exclaimed, "Vous faites du Picasso!"; he beamed, just as he did in a gondola in Venice a month later when the gondolier took him for an Italian whose wife and son unfortunately were not paysans.

I imagined that was the only way to become a true artist. I had long since gotten off the track after showing promise as a child. Then, I was drawn to drawing. My father did not push me in that direction, but did encourage me, saying I demonstrated creativity. Of course, that meant little to me at the time; I felt his approval and yet I just wanted to draw, blissfully unfocused on what anyone else thought about it.

I really had little technical skill, rather having somewhat of a flair for composition. As I grew older, say 3<sup>rd</sup> grade age, I started to care about realism, along with the techniques to achieve it, and I also began to be socially aware. In particular, I now had a need for external approval and wanted to be the best at what I did. Enter Barbara Hoffman: she could outdraw me, certainly as far as skills went, any day of the week. I was too intimidated to continue and so I stopped – for about 20 years!

### *My Beginnings*

The instinct to draw/paint lay dormant until after I had my PhD and my first academic position. I stumbled onto it by the back door; there was no conscious decision-making. It all started when I felt compelled to copy some letters on a record album. Soon after that, I went with an a friend to an art supply store since she needed materials and I wanted to spend time with her. To alleviate my boredom while she pondered her selection of paints and brushes, I picked up some fancy looking markers and began doodling, in particular attempting to capture those letters from the album. The doodle pad happened to consist of cheap porous paper, hardly the typical artist's choice. But something stirred within me. After fooling around with the markers in the store, I felt the potential to blend colors with them. So to my friend's surprise, I bought a dozen of them in pastel shades, indulging myself in an uncharacteristic way.

This choice of media was a fortunate one for me. Once I got started, I scarcely realized that I was painting. For the combination of marker and cheap paper proved bountiful and forgiving. I could relax and not worry about mistakes: if I erred in a designated direction, another seemed to open up instantly.

I had the good fortune to let the media guide me. I was on the one hand a scientist exploring their properties and on the other, a viewer, letting my aesthetic sensibilities guide me further toward a finished product; I had a tacit feel for the balance needed between them.

I got lots of positive feedback, especially from my Dad. Although my motivation was largely intrinsic as it had been when I was a child, it wasn't entirely so. So when my father disclosed that he wished he had the freedom to paint like that, I was moved. But then my artist friend made a similar remark, with an entirely different meaning (for me): "It's a shame you're not as free in the rest of your life as you are with these paintings." Ouch!

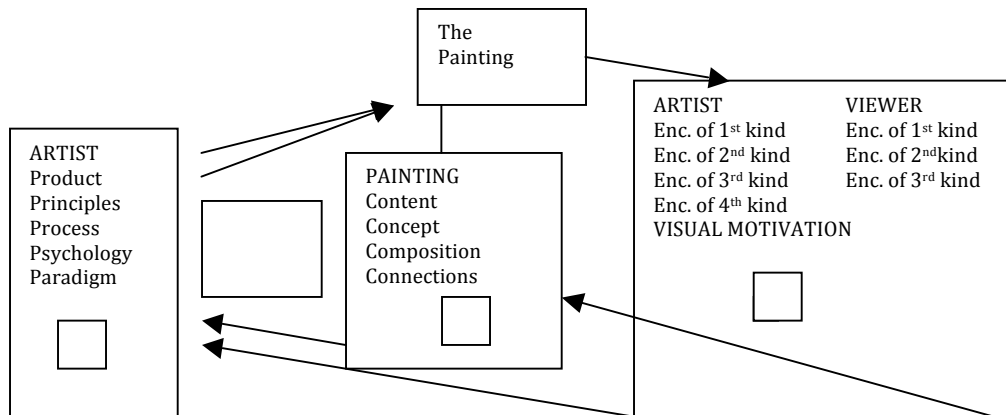
And back in my professional life, I was teaching mathematics and discovering math anxiety to be a bona fide concern for a significant percentage of students. I devoted myself to finding ways to understand and then cope with the underlying fears and the associated restrictive self-imposed assumptions they made. These barriers to learning did not necessarily reflect lack of talent; they were typically concealed and undermined performance as well as students' sense of self.

This provided me with a link between producing (or even appreciating) art and learning mathematics. Both disciplines can be provocative and intimidating: people fear they won't "get it," as both have a certain mystique attached to them. The real obstructions to learning/creating are largely self-generated and outside of awareness. The guiding principles and processes (that work) typically remain concealed as well.

This unexpected connection helped me formulate the stages to the kind of creative process I needed. Mathematical problem-solving involves a series of routine steps designed to put one in a position to work toward a solution to a complex problem even though one may not have a clue at the start. So too in my art work, I had the orientation of setting up a repertoire of routine actions even without a clear idea of where I was headed, designed to open me to new images I could then capture and embellish.

## THE MAIN MODEL

Back to the art world and a model not only for process, but a broader one that links artist, painting, and viewer. I conceptualize the artist in terms of his/her products, processes, psychology, principles, and paradigm, the 5 P's. I consider a painting as an entity in the artist – viewer interaction, in terms of content, concepts, composition, and connections, the 4 C's, explanations forthcoming. Further, I look at the artist and the viewer separately, to see what each brings to visual encounters on a motivational level. Here, I differentiate between four orientations toward visual encounters, the 4 E's. A graphic illustrates this framework.



The “control” in the box between artist and painting refers to technical capacity and mastery, with regard to choice of media, techniques, and skill level at deploying them. It is an evaluative term, as is “creativity,” referring to the innovativeness of the work. My interest is primarily in the descriptive realm, with the categories in the other (main) boxes.

### Motivation and visual encounters

I offer some distinctions for how people react to visual stimuli that place artists, student artists, and viewers (people who enjoy art and often go to museums) in a specific category. In this context, I suggest that these individuals crave visual encounters of the third and fourth kind.

What does this mean? Obviously, one can infer that I'm assuming the existence of (at least) four distinct orientations to approaching the visual arts, or more generally, any visual stimuli (and even more generally any situation/problem or project).

#### 1<sup>st</sup> and 2<sup>nd</sup> level encounters

A visual encounter of the first kind occurs when an individual looks for understanding of the scenario and asks such questions as “What is that?” The ultimate aim of the encounter is classification; the individual wants to find a category in the public domain, the objective world, in which to place the object(s), shapes, or colors. The motivation behind the orientation is basically

survival (we need to recognize what we're dealing with) as well as mastery (the upside of recognition). Resources include knowledge and experience.

For example, if an individual hiking in the woods sees something stirring in the bushes, it is imperative for him or her to recognize if a bear is about to come out! That's when identification takes center stage and the visual encounter should be of the first kind.

But survival needs are rarely this literal. They refer to "social survival" or "mental survival" far more often, when they are about functioning in the public arena. One has to learn a language, for example, and must recognize the meaning of written instructions if one intends to drive a car or take a bus. One also has the need to recognize body language and facial expressions to know what's going on socially.

On the mastery side, a person who has great knowledge in a given field is in a position to influence others and shape his or her discipline. In that capacity, he or she is counted on to have visual encounters of the first kind when it comes to scenarios within that field, e.g. a super diagnostician in medicine. In general, the transcendent aim of such encounters is the development of expertise.

A visual encounter of the second kind occurs when an individual looks for beauty in the scenario confronted. The ultimate aim of the encounter is appreciation and subsequent enjoyment. The motivation behind this orientation is self-fulfillment. Resources include knowledge, experience, and openness.

Returning to the bear, at a safe distance it would certainly be appropriate to have a visual encounter of the second kind in observing it. In fact, nature's beauty provides many such encounters. One has to be open to them and to "smell the roses." The transcendent aim of an encounter of the second kind is "the good life," in which as a former colleague put it succinctly, "If it isn't necessary, then it better be beautiful."

### 3<sup>rd</sup> and 4<sup>th</sup> level encounters

A visual encounter of the third kind occurs when an individual looks for total immersion in the scenario, e.g. a painting. Questions such as "Can I accept this on its own terms?" are relevant. For it is not assumed that any of the objects or shapes exist in the world, or if they do, their interrelationships are not necessarily preserved. The ultimate aim is to find new connections between existing ideas/objects – to look at the familiar in a new way. The motivation behind this orientation is growth. Resources include the three prior (for the 2<sup>nd</sup> kind) as well as a process, particularly for the creator. But even the viewer typically has to go through certain stages to get "totally into it."

(I use the term "connection" to mean the manifestation of a concept/object in a specific context and vice versa. With many modern paintings, the usual connections are strained, as color – shape – object relationships deviate from the way they are typically perceived in the world.)

The transcendent aim of an encounter of the 3<sup>rd</sup> kind is predominantly internal, as the individual seeks *flow*, a concept introduced by Mihaly Csikszentmihalyi (1990), who describes it as a state of

being between boredom and anxiety. That's a necessary condition, but I find that one also needs total immersion in a project to achieve it.

This degree of engagement seems to open people to new ways of seeing, therefore letting them make new connections on a structural rather than surface level: i.e. the focus is more on relationships and process rather than on individuals and content.

Viewers of art will have a deeper experience if they have encounters of the third kind rather than those of the second kind. They will be accepting the painting on its own terms and will have moved into its world. Thus, they will appreciate the work in a new way, connecting to it more fully.

A visual encounter of the 4<sup>th</sup> kind occurs when an individual seeks deep involvement in the creation of a new “construct.” This person not only wants to see new connections, but looks for these connections to generate new ideas/constructs. Resources include all previous ones and in addition are most effective when the individual has a sense of process in general, a set of logical and aesthetic decision-making skills, and is in touch with some fundamental principles of creativity (more later). The motivation behind this orientation is self-expression.

Individuals who seek visual encounters of the fourth kind want to make and see new constructions, whether these involve colors, shapes, or figures; and whether they are abstract or representative. They also strive to become more creative over time, their transcendent personal goal. While this goal may seem more elusive than its counterparts for the other orientations, having the proper resources promises to put a person in a reasonable position to obtain it.

<i>Encounter</i>	<b>TYPE 1</b>	<b>Type 2</b>	<b>Type 3</b>	<b>Type 4</b>
<i>LOOK FOR</i>	Understanding	Beauty	Immersion	Creation
<i>VALUE</i>	Accuracy	Nature and decorative objects	Relationships	Synthesis
<i>ULTIMATE AIM</i>	Classification	Appreciation	New connections with existing ideas	New connections to generate new ideas
<i>RESOURCE</i>	Knowledge + experience	Add openness	Add a process	Add aware of principles, strategies, & process in general + Decision-Making skills
<i>MOTIVATION</i>	Survival or mastery	Self-fulfillment	Growth	Self-expression
<i>PERSONAL GOALS</i>	Expertise	The good life	Find flow	Creativity

Communication and opportunity mismatches: perceived threat

The fact is that survival and mastery needs take precedence over aesthetic needs; many times one has no choice but to seek visual encounters of the first kind. Consider the bear about to rush the individual – there is no time and this is not the place for a visual encounter of the second kind. One doesn't sit back and revel in the bear's beauty! The threat inherent in the situation is real. In general, individuals can only have visual encounters of the second kind or higher when the opportunity for enrichment, immersion, or creation exists without threat.

However, quite often, individuals act as if threat were present when it is not, approaching nearly everything as an encounter of the first kind. They tend to be on alert needlessly, as psychologists

from many different orientations note (Bedrosian & Beck, 1980; Hornsby, 1990). And that spills over to their role as viewers of art. Accordingly, abstract paintings tend to be simply dismissed when someone approaches it seeking an encounter of the first kind. They are perceived as threatening to that orientation. The individual who over perceives threat may miss out on beautiful visual experiences as a result. Often, the threat is an over generalization of a scenario with roots in childhood (Janov, 1972). Typically, the individual simply pulls away from the encounter, with reactions ranging from hostility to boredom (Argyris, 1990).

In general, modern art attempts to engage the viewer at the third kind of visual encounter level. That becomes problematic for a viewer who seeks an encounter of the second kind: although this individual can accept abstraction with no recognizable objects provided it has a beautiful look, it proves much more difficult to deal with known objects in unfamiliar contexts and relationships. And the new connections embedded in these modern works totally turn off viewers who seek 1<sup>st</sup> kind identification as the paintings seem to defy classification.

Mismatches account for some adversarial relationships between artists and their public. It takes experience and openness to look for visual encounters of the third kind. It takes time and patience as well, to allow oneself to be transported into a different world. In general, that can either be exciting or threatening, depending on whether one “gets it.”

Interestingly, abstract paintings are not typically the most threatening. For a viewer who seeks an encounter of the second kind can appreciate such a painting’s “design”; and a viewer who seeks an encounter of the first kind can either dismiss the painting out of hand or simply label it “abstract,” lumping all such paintings together as a way of categorizing.

## THE PAINTING ITSELF: A brief look at modern art

In this section, I will focus on the four aspects of a painting mentioned – the 4 C's. The painting can smooth the path to a visual encounter of the third kind for the viewer if it excels in *content*, *concept*, *composition*, and *connection*. Examples from traditional and modern art are referenced.

### Content

I use this term to refer to four aspects of describing what the painting “means,” both intended and perceived:

1. Cognitive: the subject matter; an object or objects or a relationship between them, e.g. a landscape; or in an abstract painting, some interaction between various shapes and colors not readily articulated
2. Affective: the mood or emotions the painting conveys through manipulation of the various levels – colors, shapes, and figures
3. Aesthetic: the appearance of the painting, its “presentation”
4. Visceral: the physical and kinesthetic impact of the painting

Concentrating on the subject matter, in traditional paintings one can say unequivocally whether it is a portrait, a landscape, a scene (Washington crossing the Delaware, for example), or in general, a relationship between known objects. Colors, shapes, and objects are all present with relatively fixed and “realistic” relationships between them.

Even with pointillism, impressionism, and cubism, the painting is still about known objects. The style had changed and the relationships between shape, color, and object altered as a result. But Monet's farm scenes are still recognizable as such, even as close up views begin to degrade the obvious classifications. There is a distance from the picture for a given viewer, wherein the texture of the brush strokes is as strong visually as the scene itself. A revolution had begun and modern art began to emerge. Its impact proved overwhelming, ultimately reaching its zenith in the mid 20<sup>th</sup> century. The most dramatic departure from traditional content shows up in Jackson Pollock's spatter paintings in there is apparently no subject matter at all. Yet there is a pattern to the abstraction and the work certainly has meaning in the other senses: its mood, its aesthetic quality, and its impact. But since objects are not readily discernable, the relationship between shapes and color is the key to his paintings, leading to the next of the C's. His success and the compelling nature of his paintings flows not only from content, but also and more significantly, from composition, a key ingredient in coming to a visual encounter of the third kind.

### Composition

Composition refers to (1) the balance between and within the levels (colors, shapes, figures) and (2) the efficacy of the movement, lighting, and texture within the painting. It is the painting's internal logic, a self-referential synopsis of how the pieces fit together – it is therefore a world unto itself, to be evaluated on its own terms, by its own defined mission. Its main concerns are whether the painting has balance and whether it seems to “hang together” as a whole.

Pollock's abstract works are all about composition, moving it into the foreground with only shape and color. Taking a different path, Andy Warhol's Campbell Soup painting appeals simply because the repetition of all those cans elevates it from a study of the mundane; it works, as a composition.

In Rembrandt's time, composition was no less important, but remained a background and largely tacit concern, particularly for the viewer. On the other hand, most of modern art, whether abstract or subject-based, such as practically all of Picasso's work, take liberties with the "realistic" relationships between color, shape, and object, letting compositional balance take precedence. Doing so enables the viewer, should he or she be open to it, create new connections between general ideas/themes and particular versions of them. So Picasso's Guernica uses distortion for two reasons: (1) to emphasize horror of the Spanish Civil War through this one battle scene and (2) to enhance the composition.

### Connections

The first of the two reasons speaks to our last and possibly most pivotal C: connection. Guernica's distortions push the viewer to see atrocities of war in a powerful new way. That is, they help forge new visual and emotional connections between this scene and war in general. New connections are generally visually powerful because they engage the viewer, making him/her think and feel more deeply.

Connections can also be made within and between any of the levels. In the latter case, the connection between shapes and objects, for example, occurs when shapes morph into figures – the faces and bodies seem to emerge from the shapes that constitute them. Realistic proportions are not relevant. In fact, new connections are more easily formed when realism is not present – such as when all the usual details of a face or body are omitted. The basic structures then are more likely to come to the foreground.

Connections are as already noted present in all aspects of content and composition – for example, in the specific way a general idea/theme applies to a particular painting. This link between them always contains a certain amount of variability. In some instances, it has enough to enable the viewer to "refresh" his/her senses and thus a reasonable chance to experience a new connection. For the most part, artists seeking to enhance perceptions via new connections flirt with the "edge of ambiguity," in presenting material that inhibits any viewer tendency to prematurely catalogue the objects portrayed.

To this end, the following devices have been used:

- Distortion (e.g. Picasso's lady with 3 eyes; Guernica)
- Through a lens darkly (e.g. Turner's mists shrouding seascapes)
- Change or removal of context (e.g. Salvador Dali and surrealism)
- Visually pleasing shapes and color (e.g. Klee and Miro)
- Excellent selection of setting in realistic work (e.g. traditionalists)
- Open-ended content (e.g. abstract expressionists, such as Pollock)
- Emergence of form from shape (e.g. cubists, such as early Picasso)
- Repetition (e.g. Warhol and ancient Indian sculptures)

Repetition has been discussed in referencing Warhol's Campbell Soup painting. An even better example comes from the Norwegian sculptor Gustav Vigeland, whose memorable Obelisk in a park just outside Oslo has more than 100 human bodies wrapped around one another in varying ways. It gains power not only by the surface attribute of sheer size and beautiful white stone, but rather by removing any context and by repetition. Although no two figures are the same, their multiplicity has a quality akin to repetition. The viewer feels the interactions, albeit without being able to

verbalize them. But even more powerful is the back and forth “seeing as”: look at a figure up close and you see it with faithful realism as a man, woman, or child; then shift your gaze and he or she becomes part of a whole, swallowed up as such. This internal connection provides a heightened visual experience for those open to it.

Vigeland had technical mastery over his sculpture: his figures are painstakingly realistic. But the repetition phenomenon catapults this work beyond virtuosity and replication into the embracing of new connections.

All of these approaches make such connections by aiming for the “edge of ambiguity.” For example, Picasso’s portrayal of a bull’s head with just a bicycle seat forces the viewer to look beyond the obvious content differences and to see structural visual commonalities. Ambiguity does not necessarily mean lack of detail: the impressionists were meticulous in their renderings, especially with light and perspective – even as they stray from photographic realism. Dali, on the other hand, painted with excruciatingly “realistic” detail, relying on unexpected juxtapositions to jar the viewer from either a first or second kind of visual encounter.

## THE ARTIST

Now I focus on the 5 P's, the internal workings of the artist. This table shows them together:

LEVEL	EXTERNAL FOCUS	COMMUNICATION MODALITY	QUESTIONS ASKED
1	Product	Description	What is it?
2	Process	Prescription	How do I set up the idea?
3	Paradigm	Analytical	What are my goals, assumptions, and operating procedures?
4	Principles	Meta	What are some universal issues that impact my work?
5	Psychological	Sharing	What are the fears/resources that prevent me from and allow me to succeed in my work?

The visible manifestation of the artist's work is of course the painting. Underlying it is a set of psychological conditions, a paradigm, a process, and a set of principles that determine growth over time. I will examine principles and paradigms first as they are generally tacit, but direct much of the artist's process.

### Principles

Three universal principles affecting artists' work, especially over time are the following:

1. Multidimensional decision making
2. Punctuated equilibrium
3. The dialectic

#### Multidimensional decision making

Whether consciously aware or not, the artist makes decisions in many dimensions; some are handled on the spot during the painting, some before. While focusing on one of them as it shapes the painting, other dimensions will unmask new possibilities as a result. The artist in touch with this dynamic will be able to forge new directions from old ones. A key factor in recognizing the concomitant shifts in other dimensions is having a feel for focal transitions; a shift in attention at a propitious moment will reveal a new perspective in that aspect. This principle applies to both product and process levels, although my concern here is only with the product, i.e. content.

On the content/product level, all paintings have at the very least the following dimensions (without even taking account idiosyncratic ones):

Color aspects:

- Hue & saturation – can range from *muted* to *vibrant*
- Brightness – can range from *light* to *dark*

- Quantity – can range from *one* to *many*
- Uniformity – can range from totally *uniform* to randomly *blotched* (for a given color area)
- Combinations – can range from *expected* to *unexpected*

Textural aspects:

- Terrain – can range from *smooth* to *rugged*
- Heaviness – can range from *thin* to *thick*
- Sharpness – can range from *fuzzy* to *crisp*
- Boundaries – can range from seamlessly *blended* to *clear demarcations*

Shape aspects:

- Intention – can range from *planned* to *random*
- Pattern – can range from *geometric* to *free-form*
- Spatial relations – can range from *busy/crowded* to *open*
- Form – can range from *recognizable* objects to *abstract/unrecognizable*, specific to the painting
- Figure – ground relationships – can range from *unequivocal* to highly *ambiguous* as well as from *expected* to *reversals*

Figurative aspects: (may not be present)

- Intention – can range from *planned* to *emergent*
- Level of detail – can range from nearly *photographic* to just a *hint* of a face or body
- Size – can range from *very small* to *large*; indicated by percentage of space
- Interactions – can range from *minimally* interactive to *highly* interactive

Typically, the artist also develops idiosyncratic thematic goals that in turn generate additional aspects to consider. In my case, I generally seek to depict people interacting in the context of a dynamic environment. This entails my focusing on individuals moving toward and away from one another. It also means seeing communities as an aspect of certain paintings, most often interacting with their environs. This topic is pursued in much greater depth in Appendix One.

As mentioned, the growth engine inherent in multidimensionality consists of inadvertent changes in one aspect of content or process while the artist focuses elsewhere. However, such shifts often go unnoticed; the artist needs to be open to them and even seek them out if s/he wishes to grow.

Punctuated equilibrium

Another take on evolution of style posits that change/growth is almost always incremental, with major shifts rare, but yet ultimately inevitable. *Punctuated equilibrium* (Gersick, 1991) is a theory usually applied to an entire discipline to explain paradigm shifts, but it can also be of value here: it implies that eventually these incremental changes will reach a critical mass, leading to a (radically) new idea. The artist is thus in equilibrium when s/he seeks to do more of the same, essentially variations on a theme, and not fighting the reality by trying for gold every time. The apparent paradox is that if s/he simultaneously remains open to new possibilities, eventually the tectonic shift will indeed occur.

This is similar to having a simple plan about how to proceed, but being ready to abandon it in favor of an emerging idea. The plan's main purpose in this case is to get the artist in motion and to put him/her in a position to come away with a really new idea.

Of course, such a radical departure cannot be forced. But it can be primed. One way to do so is to apply minor variations to old contexts. This application process may yield unexpected additional new ideas.

#### The dialectic: Uncovering dialectical relationships

By this, I mean finding a complementary relationship between apparent opposing states of being and achieving a synthesis that includes and elevates both (Basseches, 1997). For example, a dialectical relationship between play and serious work has taken place when an individual is open to/can do both within a single encounter in such a way that his/her experience/consciousness is elevated to a new level. This notion takes up where the paradox cited above with punctuated equilibrium leaves off.

In general, for any such pair of opposing states, the route to resolving their apparent incompatibility involves making a timely transition in focus. For example, in the popular movie "The Karate Kid," a novice martial artist is instructed to simply wax a car, over and over, performing a routine maneuver with no apparent connection to fighting. That is, until one day the master suddenly and without warning challenges him; the novice then spontaneously "discovers" how to block the attack, based on the motions from waxing. He had not only made the transition, but has become aware (in a true "Aha" sense) of the relationship between routine building blocks and that moment of discovery in general and within himself in particular.

Other dialectically complementary pairs are the following:

- Planning v. spontaneity
- Policy v. judgment
- Experimentation v. appreciation
- Systematic v. random
- Accuracy and safety v. risk-taking mistake making
- By design v. by accident

It flourishes in artistic pursuits as well. For instance, I am motivated to learn more about the media I have at my disposal. This entails experimentation, reflection, systematic and logical exploration, and analysis — all left brain functions; on the other hand, along the way, I find certain images and patterns compelling and aesthetically pleasing; I want to see more of them. These senses and preferences reside on the right side of the brain. I somehow need to find a balance, which amounts to finding a dialectical relationship between them. I will discuss this in greater detail in the next section, on paradigms. For a detailed example of the dialectic, please see the appendix.

#### **Paradigms**

Before proceeding further, a discussion about artists' view of the media is necessary.

##### *Relationship with media*

Assuming for the moment that most artists do crave visual encounters of the 4<sup>th</sup> kind, they then seek visual media as a vehicle for their self-expression.

At the same time, they may be drawn to certain media, say oils and water color on a sensory level – that is, they find the smell, the feel, and the look of these products compelling. They may also find enjoyable and essential the rituals often associated with their preparatory processes, such as making up a palette from the basic colors. Finally, they may cherish the physical correlates of their profession – the canvas, the easel, and the studio, with its smells, appearance, and cachet.

Problems often arise when the artist chooses the media and the graphic statement s/he wishes to make separately, something that sounds natural enough. But it then often becomes a matter of *imposing* this expression on the media. To do so requires mastery of the media through technique. The process of gaining such technical skill is typically practiced separately from the expression of self and considered as a prerequisite for such externalizations of ideas and feelings. In other artistic endeavors, this is also the norm: for example, the saxophonist Sonny Rollins once took a year off from writing music to practice and improve his technique.

There is a long history behind artists' relationships with media. Before photography, a relatively recent invention, paintings served to capture and preserve the essence of a person, place, or event. These scenarios were chosen either by the artist or by a patron intractably: that is, the content had to be as prescribed. Faithful renderings were necessary, yet not sufficient. Artists were also expected to capture the emotions of their subjects. On the other hand, few acceptable media existed, and in a given instance, one of them would be considered the most appropriate – again intractably.

With this backdrop, it became the norm to teach technical skills in the media first and then to allow the artist to approach his/her subject. The separation in the choices of media and subject, the intractability of both, and the separation of training from execution became embedded in the European artist mindset.

Now the time has long passed when art exists primarily as a preservation agent. Yet, the choice of media, although wide open, is still seen by many as limited – to oils, acrylics, and water colors, for example. The separation still exists because these media are difficult to use. Thus, in schools of art, one often sees courses listed by media name, e.g. Water Color 201, the tacit message being that an individual must master the “basics” of a medium before revealing his or her inner most thoughts on canvas.

The intractability is often present for artists ready to paint something of significance to them. A struggle arises as the artist tries to “master the medium,” i.e. to impose his/her will on it. Even with technical skills, some kinds of subject matter prove very difficult to render in the medium of choice.

Backing up just a bit, I note 4 possible (general) relationships between the choice of media and the choice of content:

- BOTH INTRACTABLE
- MEDIA FLEXIBLE, SUBJECT INTRACTABLE
- MEDIA INTRACTABLE. SUBJECT FLEXIBLE
- BOTH FLEXIBLE

One might imagine that the subject should remain intractable since it reflects what the artist wants to say. And on certain occasions, the intractability of the medium seems to make sense as well. Virtuoso performances should result provided the artist has the skills to pull off this feat.

The second position is also common: it suggests that the artist has a statement to make, an idea to share, and then looks around for a vehicle for that expression of self. The third position sounds a lot like those art courses as it would have the individual choose the medium *first* and then presumably become proficient within it before deciding what to paint.

The choice of position relative to media and subject plays a major role in determining the artist's underlying **paradigm**, which is characterized by its over-arching goals, motivations, assumptions, and operating principles. I distinguish between the *directed* and the *open-ended* as two major ones.

DIMENSION	Goals	Motivation	Assumptions	Operation
<b>Directed</b>	A project: Getting it done (the product is predetermined and specified)	Short-term Extrinsic	Media source of problems; Technical skill to overcome; Data gathering and learning separated from action; fixed rules apply in deploying media; talent, effort, and experience key resources for developing necessary skills	Study the problem first; Narrow focus to similar projects; Connect to other projects substantively similar; Devise a technical plan; Break down the problem into sub units (PROBLEM SOLVING approach)
<b>Open-ended</b>	Working on projects; Developing a general systematic process for getting projects done	Long-term Intrinsic	Media as inputs, seen as source of opportunities; cooperate to learn from them; learning intermixed with action; dialectical relationships apply; openness, transitioning, and experience are key resources to discovering what the media can provide	Study the media; design an experiment; Compare to other projects structurally similar; put plan in place and wait until something compelling emerges; elaborate; that will turn out to be the subject (PATTERN RECOGNITION approach)

The directed approach fits well when there is a narrow range of acceptability for the product as well as the media. This may occur in the visual arts when, for example, a painting is commissioned – as with a portrait. Motivation tends to be largely extrinsic for such dedicated works: the artist seeks the approval of the patron.

Under such conditions, the relationship with the media tends to be an adversarial one, the artist viewing it as an obstacle to overcome. Technical problems are anticipated and must be dealt with and solved by technical skill. This skill flourishes only when talent and tenacity (meaning resiliency in the face of disappointment here) are sufficiently present. Learning/studying the terrain is seen as preceding action; the focus narrows to pinpoint the problem areas, using like scenarios from one's experience as a resource.

In situations not involving external agency, an artist is theoretically free to paint what and how s/he chooses. I submit that under those circumstances, the open-ended approach will serve him or her well – although an artist who has developed great facility in rendering certain content in a given medium may see no reason to change.

An important distinction in choice of paradigm is the locus of pressure: if the artist has the directed approach on a given project, is that because the project demands it (narrow range of acceptability)

or because the artist perceives that to be the case. That is, does the mandate have external or internal reality – is it “out there” or in his/her psyche? Another distinction: if the choice is “directed” paradigm when there is no external agency, is that a free choice (“I like doing landscapes with water color”) or an unconsciously driven one? (For instance, one might not take certain media as “serious” because of some symbolized internal edict). Sometimes an artist will self-impose a directed paradigm, as if s/he can do nothing else. That is, s/he is most comfortable because this is familiar (the default paradigm), constraints and all.

On the one hand, the open-ended paradigm has the freedom that the directed one lacks. On the other hand, it can also be threatening as it may appear to be arbitrary and formless because of a lack of direction and structure. Proponents would argue that this formlessness is matched by a lack of pressure with no specific image to capture and no user-unfriendly media to put up with. One can be motivated just to paint – without necessarily having a predetermined visual goal. Putting that into action is facilitated by refreshing one’s view of media as a source of inspiration. Usually, a loose investigative plan (often about the media) will suffice to get the artist moving; once that occurs, s/he can be more open to recognizing a newly emerging theme or a fresh example of an existing one.

In any case, to bridge the gap from the narrow confines of the directed to the broad undefined wilderness of the open-ended, I suggest using media experimentation as a way to get started.

#### Example

My first breakthrough in painting came from simply noticing that the markers I worked with had a certain drying time. I used the broad nib to make a thick line, let it dry, and put another one with the same color next to it, but not overlapping. A thin ridge emerged between the lines. I liked the way it looked and I could control it. I set out to experiment further, using that effect. In so doing, I found myself letting the lines droop and bend, almost by accident. After a while, those bends became more pronounced as several lines next to one another deepened the effect. Eventually, it seemed natural to have them begin to close in on themselves. I had in effect closed curves next to other open lines. I closed them all, now by design, and stepped back to see what it looked like.

That was the significant transition – from experimentation to pattern recognition. I saw enclosures of groups of objects, even though the shapes involved were mostly just closed lines at this point. That turned out to be the point: I started the next painting “exercise” with the idea of enclosure as the starting focus, only now taking the liberty of letting go of the lines and using freer, almost arbitrary closed forms. Soon, like a Rohrschalk, I began to see figures (human faces and bodies, although not with any detail) emerging as I did painting after painting, each one informing the next. I would repeat the same process with the same base set of shapes or figures, until I saw something unexpected. The most important new “idea,” my first theme, came when I realized that I had inadvertently depicted a definite interaction between “the humans,” one that I could not articulate, but was there nonetheless. I started many subsequent paintings with that in mind.

#### *The Directed paradigm: part 2*

The directed paradigm focuses almost exclusively on content. It assumes that technique and talent are necessary, but not sufficient to produce works of art; hard work is also required. And there is an ineffable quality assumed about the enterprise – a little bit of magic. Further, learning

technique is considered prior to expressing ideas. That is, technical skill is thought to naturally precede idea generation in the learning process.

On the other hand, the directed paradigm suggests that on a local level (for one individual painting), one has content in mind and then executes it with a set of techniques. First comes the idea, presumably the unconsciously derived result of much study and preliminary work; then one looks around for the “how to do it.” That is, the doing of a painting, in which the idea precedes the choice of media and the attendant techniques, reverses the learning of how to paint, in which the mastery of techniques precedes the search for ideas. Thus, the directed model utilizes the three top choice positions for media – content priority, depending on context.

With the directed paradigm, as mentioned, there is often an adversarial relationship between artist and the media. This is because the artist may come to view the media as something to master, to control, especially when the project is perceived as narrowly defined and intractable. The idea is to bend the media to fit the artist’s statement. The ultimate concern is the product of this process, the painting itself.

In spite of these technical hurdles, the directed paradigm can serve the artist well and, as indicated by the commissioned piece example, may be necessitated by the scope of the work. In some large sculptures, for example, there are often technical problems to be solved, which themselves require a creative process. One scenario that comes to mind is an artist who has a staff of 100 or so technicians, each focusing on one local aspect of the work. For example, the sculptor goes through a process to come up with a preliminary sketch. Then, s/he builds a small model, getting a feel for the medium. In general, the techniques and problem solving skills developed in the learning process keep the directed paradigm the default choice for many artists.

In brief, the benefits of using the directed paradigm include the following: established protocols, no surprises, and familiar media.

#### *The open-ended paradigm: part 2*

On the other hand, the open-ended model appeals to synergy and inclusivity. For instance, the separation between technique and idea simply does not exist. One informs the other. A media discovery leads to new ideas and each new idea requires openness to the media. There is thus a fundamentally cooperative relationship between artist and media with the open-ended paradigm. It is built around that value. Accordingly, one doesn’t impose ideas on the media; rather, one learns from the media, finding one’s artistic voice in the process. Choice position 4 is dominant with this paradigm.

The open-ended model focuses on the experience of painting rather than on the product of painting, believing that a positive experience paves the way for good paintings. It does not consider talent and technique as paramount for a successful experience, but rather takes openness and self-awareness as keys. It is a resource-based paradigm, suggesting that individuals seek out what they need to do well rather than regard resources as fixed entities.

In brief, its benefits include freedom of choice, the existence of surprises, and the opportunity to select user-friendly media.

### Using the open-ended paradigm

I would never have become an artist had I been limited to the time honored traditional oils and water colors in a directed context. In order to become immersed and to create, I had to get results quickly and not spend endless time picking up techniques. That may sound rather unrealistic, entitled, and naive, but luckily, I stumbled upon oil based markers with porous paper -- the paintings came one after the other so I could learn technique on the fly. The same applies to my computer art. In both cases, I deal with bountiful and forgiving media.

I've used that phrase before. What does it mean? First, that start up time is relatively short for getting something on board. Second, that there are relatively few ways to "mess up" irretrievably. (For instance, on most software, there is an "undo" icon to press when one no longer likes what one has done). Third, as far as bounty goes, both markers and computer programs make it easy to see all sorts of things one hadn't planned on; these fledgling images are like suggestions for what to do and where to go.

The artist can render the medium more bountiful by getting to know it rather than fight it; one can then choose content that fits what it can support. In any case, with the open-ended paradigm, the artist is free to choose any media and any content in any order.

### *Comparative example*

My father wanted to paint a Biblical scene – the trials of Job. He knew exactly what he wanted to express and he felt he had the perfect medium, something he invented called "cold wax." I watched him work systematically, with discipline and patience. He would bring the painting downstairs each day after spending several hours with it in his studio. Then Dad would sit on the couch across the room from his work in progress and make comments ostensibly to me but really to himself about the composition, focusing on color, movement, and balance, as well as the subject itself. Had he captured the essence of Job's anguish?

Then after deciding that he could not get it exactly right, it hit him that he simply needed more than one painting. Then he could say it all. That was a moment of discovery. This example exemplifies the directed paradigm at its best: internal drive pushing for a particular image; selected medium; technical problems, but not cause for despair; systematic disciplined approach; and still open to a new idea within the original context, that of a trio of paintings (as it turned out) in this case.

I offer my own latest series of paintings as an example of the open-ended paradigm. I found a gray marker and felt like scribbling with it. I did some quick sketches that started out as scribbles, but seemed always to turn into people gesturing at one another. I wondered how this organization of form inevitably occurred even though I did not intend it as such: that is, I was just scribbling with no conscious attempt to create these scenes.

Then it hit me: I was making a timely tacit transition from a kinesthetic focus (enjoying the feel of the pen and the way the ink moved along the paper) to a visual one, in which I invariably shaped the remainder of the sketch, thinking composition and people interacting. It was like starting all over, but my experience level was so much greater now that I could rely on seeing something of that nature and letting it guide me. I moved quickly during the kinesthetic "period" (probably 2-3 seconds) and slowed down during the visual stage.

Later I added color, finding that the gray served as a base for blending pastels. Eventually, I went to new bases, finally settling on brown as an alternative. Of course, they all ended up as inputs to the computer.

In both cases, I believe the appropriate paradigms were used. My father's need to express his feelings about society motivated him to paint Job in despair. This strictly defined objective along with his choosing a difficult but fitting medium called for technical prowess and experience with like media and subjects. My need just to do something with the gray marker motivated me to begin with no sense of any ultimate image. This loose objective opened the door for a series of sketches that turned into "families of paintings" on the computer. It called mostly for openness and pattern recognition, with some technique needed to stay on course once that course revealed itself. I further benefited from experience with structurally similar contexts.

### **The Process**

Now we come to the actual how-to's. The process I will present applies to both paradigms, although it may be easier to "picture" it in the open-ended case. The stages are so general that they cover the ground necessary to speak to both.

There are two important keys to utilizing such a process effectively: one is to build a repertoire of routine maneuvers and the second is to harness one's experience by making timely transitions in focus. I'm thinking "dialectically" in the open-ended with more "micro" shifts than in the directed, in which transitions may take place in larger pieces (for example, my father would reflect after each day of work and then let it go).

In my case, these two resources enable me to get in position to make new connections. I also generally need some fledgling plan to get started rather than beginning with a specific image in mind. Or I might simply experience a generalized feeling of wanting to paint.

I can articulate the stages constituting my/the process: I go from

- **INITIATION** (how to get started; I usually begin with a loose plan, e.g. an experiment on the medium if I want a new direction; otherwise, the plan consists of making more of some kind of painting or elaborating on some aspect of a previous painting; the plan may be tacit, as in the case of just wanting to paint) to
- **ENACTMENT/RECOGNITION** (how I put myself in position to see something by following the plan for a while; the work is routine relying on a standard repertoire, but I am on the alert) to
- **CONNECTION** (how I latch onto emerging forms or new themes) to
- **DIRECTION** (how I solidify and expand on them, now in a controlling mode) to
- **ITERATION** (how I revisit the earlier stages, repeating the cycle as needed) to
- **INVESTMENT** (how I carry over to the next painting).

Perhaps surprisingly, iteration is often the most important activity. Often, for example, I work the painting, applying the same succession of primary maneuvers over and over until I see something I like. That may simply be a balance of colors and/or shapes or a nice lighting effect. I then investigate that aspect further, heading for the direction stage.

These stages do not in themselves constitute a major breakthrough in analyzing the creative process nor is the conception of the dialectic a new one. From Wallas' four step description (1926)

of preparation, incubation, illumination, and verification for coming up with a new idea to more modern models of innovation such as Petty's ICEDIP (inspiration, clarification, evaluation, distillation, incubation, and perspiration (1997)), the process stages are the rule rather than the exception of scholarly analyses of novel concepts. In general, the models seek to analyze creative thinking, in contexts ranging from business to mathematics to art (where the idea refers to the 4C's). Some view idea generation from the perspective of problem-solving (Parnes, 1992; Isaksen & Trefflinger, 1985). All of them include both deliberation as well as intuition, resources as well as magic. In other words, they all respect the dialectic, at least as far as recognizing the complementarity of various common dyads such as imagination and analysis.

In addition, scholars who focus exclusively on the creative process in the arts have similar stage models, although adding an explicit proviso that they are all non-linear and non-sequential. For example, Sapp's model (1995) has a problem-solving orientation with five primary stages and four transitional ones. Then there is the notion of the artist seeking to expand his or her perception and link concepts embedded in a model proposed by Mace and Ward (2002), one that has an intricate lattice of sub stages. The motivation they suggest resonates with the visual encounters of the third kind discussed earlier in this essay.

I hope to extend the conversation in two (related) ways: first, I come to it from a scholar-artist perspective. Having lived the process, I now seek to articulate it, generalize it, and make it more implementable. Second, I seek to break it down into (more) workable pieces. This goal is perhaps attainable because I am performing the analysis from the inside out, as an artist, i.e. a participant-observer. To this end, I have four refinements.

#### The first refinement

First, I note the simple fact that no matter how complex the model, there are several phases that must occur: getting started, moving forward, getting the idea, and polishing the idea. These correspond to the first four stages of my model. Many of the more elaborate models are theoretically sophisticated, but offer little for practice. On the other hand, I am very concerned with application. To this end, I will offer more specific suggestions for some of these phases.

In getting started, for example, the artist either faces a problem (of a technical or expressive nature), wants to investigate the media, has a loose plan whose particulars will emerge later, has an idea in mind that s/he wants to express, experiences a general need for self-expression, or just wants to play. In moving forward, the artist is best served by relying on a repertoire of routine maneuvers – much as one would engage a visitor in a conversation by asking some polite questions. Other ways to continue with the process include following a plan and shifting focus from color to shapes to figures along the way. Getting the idea includes letting go of a preconception one might have started with – or seeing how the original idea can manifest itself. This is more difficult to prescribe because it involves “getting it”: fundamentally, the keys are preparation and openness, one left brain and one right brain function. And once the germ of the idea is realized, then polishing should follow naturally as the artist, having climbed to the heights, now begins his or her journey down the mountain of creativity.

#### The second refinement

Next, I consider how I experience stages by articulating my *FOCUS*, *MODALITY*, *RESOURCES*, *MOTIVATION*, and *PURPOSE*.

*Modality* refers to how I'm focusing. In general, the choices are action, recognition, and reflection: doing, looking, and deliberating. The *focus* itself refers to the object of my doing, looking, and deliberating. Here, it might be the medium, the painting (at various stages of completion), myself, or potential viewers. Resources, motivation, and purpose follow normal denotative usage.

My initial motivation, for example, is to express myself in a visual context (often with no specific image in mind) and is rooted in the desire to use markers or the computer because I enjoy "playing" with them. With markers, I like the way they feel in my hand and the way the ink flows onto the paper from them; when I worked with napkins, for example, there was a sensual quality to moving the markers slowly and lightly along the surface. With the computer, it's fun to have the ability to make decisions on the fly and have the effects instantly enacted.

The following table summarizes the various inter relationships in my work:

STAGE	FOCUS	MODALITY	RESOURCE	MOTIVATION	PURPOSE
Initiation and enactment	Medium	Doing	Loose plan	Express/ Enjoy	Grounding; positioning
Connection	Painting itself	Looking	Experience; ability to wait	Emergence of new images	Create
Direction	Self, painting	Looking, doing	Aesthetic sense; openness	Carrying forward	Commitment
Iteration	All 3	All 3	Goal; technical ability	Control; mastery, more is better	Enrichment
Investment	Others + all 3	Deliberating, looking	Feedback; reflection, analysis	Connecting and future inspiration	Closure; letting go yet preparing

The purpose of the initiation and enactment stages is to root my subsequent efforts in the knowledge of the media and to position myself for the connection stage, shifting from just doing, i.e. following a broad plan, to seeing a shape or a form *emerge*. It may seem to come out of nowhere, yet it reflects that the fact that the seeds have been sown earlier through the plan/experiment and timely transitions. I need to prepare and yet let go at almost the same time. I can tap into the feeling I get when I'm at this point in the process. Through experience, I usually sense when I'm about to become too entrenched in following the plan.

When I shift gears to the aesthetic side, once I see something I like, I try to extend it and make it more discernable – instead of a fledging sense of a human form, I want to be a bit more explicit while still leaving room for ambiguity. This is (one of) the connection (s) I seek. Then for the first time, I become reflective and I deliberate – in addition to doing and looking. I am motivated to control the outcome now since I've committed to an idea, the artistic purpose of this direction stage.

I subsequently fill in the gaps, going through the stages (but not necessarily in order) to suit my sense of sufficiently extending and balancing the various parts of the painting – this is the iteration stage. The two main *resources* I rely on at this point, are my technical ability, such as it is, and a broad goal – in general, I want to create a little world in which creatures, suggesting human form through heads and bodies, interact within an environment. Finally, in order to complete the project, I rely on feedback – from myself and others.

In general, I have experienced that while specific content may appear magical in that it seems to come out of nowhere and cannot be readily described, the process of generating it can be analyzed and then prescribed. Furthermore, the steps involved in a particular process can be articulated quite simply even though the resulting output may look very complex.

People looking only at the final product may wonder where I got the idea for it, often assuming it was in my head and thus something I aimed for all along. However, as I've indicated, I'm just a man with a plan. I don't usually decide on specific content ahead of time. I am a recognizer: I start some things in motion and then pick out what appeals to me, amplifying it to make it more pleasing to me and hopefully also to viewers.

#### The third refinement: Macro process

I differentiate between micro process, i.e. that which occurs within a painting, and macro process, that which occurs between paintings. This is useful for analyzing how one's work has evolved. It involves examining the relationships between the problems one encounters, what one discovers, what one finds compelling, and the resources one needs.

In general, the link between macro and micro process parallels the dialectical relationship between routine action and discoveries: at any point in time, one operates on a micro level with routines, many of which might have been earlier discoveries; they set the stage for a new discovery, i.e. a new artistic idea that can in turn be routinized at some later time, adding to one's repertoire of automatically implementable actions.

The unexpected recognition of a compelling figure or shapes or color combinations in a painting is a matter of micro process. On the one hand, the figures/colors/shapes may be specific only to the present painting; on the other hand, they may also go beyond it, pushing for further recognition of this emergence as a type of something, that is, of a certain definable look such as a certain lighting, a concept such as a community and its environment, or a technical maneuver, such as deploying a certain computer effect. This kind of recognition falls in the province of macro process. It calls for systematic *categorization* (naming something and being able to go back to it with intention), *connection* (seeing it in other paintings), *replication* (reconstructing the path to produce it), and *routinization* (making it a part of one's repertoire) – of the “what” and the “how” to get that. These issues all deal with one's paintings as a totality rather than with just a single work.

So first I have to be smitten by a certain look, for example, during a painting (micro process). Then, upon reflection, generally after the painting, I have to see it “as” – to place it into a category. I also need to remember or figure out what steps I took to produce it. Ultimately I seek to articulate them so I can replicate the same look in another setting, if I so choose, for instance, to begin with that look.

Macro process also deals longitudinally with the artist's choices, in terms of paradigms as well as in selection of continuing “investments.” An ongoing working decision is whether to keep on doing what has already succeeded or to aim for a new approach and/or a new type of painting.

It may seem to be an internal contradiction for apparently creative individuals to stick with already successful venues; yet that is precisely the issue that success brings. Individuals who dare to try new ventures when they have nothing to lose, with only a dream to guide them, may find their initial

triumphs quite unsettling. As a result, some may abandon the approach that got them where they are in favor of some sort of preservation mode.

Ideally, macro process flows naturally from micro. If I'm fortunate enough to find emergence and connection in every painting because the process and attendant plans are that good, evolution just comes as the incremental changes from painting to painting give rise to an occasional quantum leap forward, as anticipated by the principle of punctuated equilibrium. That's when everything is going my way.

Now, my choice of media may make that far more likely to occur than would typically be the case because I happen to have chosen bountiful and forgiving ones. But I am not always feeling productive and I cannot expect creative outcomes to be forthcoming in each work – at least without intervention at the macro level.

What are my options when I am bored, tired, self disparaging, or just seem to be locked into the same routines? (A routine is always necessary, but it should vary over time). I use six basic methods/strategies to jump start myself and my work:

1. **Apply familiar concepts and maneuvers to new contexts:** I now have a wealth of experience with and knowledge about the software I use to create my paintings. I generally keep on with a set of routine maneuvers while trying to remain open to new images and new techniques. One route to fresh images is to use some of those maneuvers and/or concepts in unfamiliar contexts.
2. **Trial new techniques in familiar contexts:** Conversely, I can take a new technique and apply it to a familiar context. This has also worked for me.
3. **Shift focus regularly:** I do lots of trial and error with effects and tools, e.g. varying sequences from a base platform. I shuttle back and forth, from learning mode (this combo produces this effect) to viewing mode (I find this aesthetically pleasing). I also regularly shift my focus from shape to color to figure, checking on each individually as well as on their compositional balance.
4. **Force the issue by creating a new variable:** I locate an aspect of the work that has been constant and consider arbitrarily varying it. Please see the detailed example below.
5. **Alter the media incrementally:** I might buy a new set of pens, for example.
6. **Use accidents to generate new paths:** Recently, I inadvertently scanned the same picture twice: it had been left in the scanner bed and I did not check on it ahead of time. But I chose not to focus on the apparent inconvenience as an error ("I didn't mean to do that."). Instead, I saw it as a "free lunch" ; I took the liberty of jettisoning the plan du jour as I was growing tired of it. It had been a very successful one, but it needed something to keep fresh. So I worked on the scan with a different plan, made up on the spot.

For a detailed example of both strategies 3 and 5, I go back again to my early marker experiments. I had been using just one pastel color, a light blue, because the ridge effect mentioned earlier was pronounced and dramatic with it. So I decided to try other (darker) colors and after several attempts to alternate or blend the brown and blue with no success, according to my aesthetic sense, ended up putting the darker color in the background. It became the environment as I now

conceived of interaction with environment. But it was too simplistic, a one dimensional background. I went back to pastels, expanding to other colors.

Enter the big accident. To preserve my desk, I was using a blotter under the paper on which I did the painting. That paper consisted of little 5 x 8 memo pads from school; I liked its surface because it was absorbent and allowed colors to blend together in various ways. With the blotter I noticed that the dark brown deposited on it from the previous work came through to the pastels of the next one, making a weird mottling varicose vein effect. I started to throw away the paper, but then thought I could use this new effect in the environment. Further experimentation led to painting the interaction in one color on the lower part of the paper, avoiding the darkened blotter there, and then using a variety of pastels for the environment while placing that portion of the paper directly over the brown-infused portion of the blotter. I liked the results; the “bleeding through” effect gave a random quality and a deeper tone to the background.

I extended the experiment further by going right to the blotter and adding all sorts of dark colors to it for different effects on the paper placed over it. I still stayed with pastels, especially in the environment because they allowed much of the dark color deposited on the blotter to come through. Then, I looked for other ways to blend colors on the painting itself. This meant that “blending color in the background” had become a variable, with blotting now considered as a certain kind of blending.

#### The fourth refinement: relating creativity in the arts to processes of everyday life

Like the character in Moliere’s play who didn’t realize he was speaking prose, almost everyone has applied the process spelled out here to commonplace occurrences (Sankowsky, 1987). Take a social visit, for example. There is a getting started, e.g. dressing up and driving to the event. The same holds true for the host, who must prepare his or her house for the guests. Then, at the beginning of the event, routine behaviors for the host may involve bringing drinks to his or her guests, initiating small talk, and introducing guests to one another. There comes a point, hopefully, when conversations seem to flow in an effortless way, as the participants “get into it,” making connections, i.e. associations. In certain instances, one or more of the guests may direct the conversation toward a goal. We’ve all had such experiences, going through the process to some social end, e.g. to a feeling of closeness and/or fun with others. This applies also to certain business meetings, those that have a natural give and take; they are goal directed, including such stages as brainstorming and verification.

In this context, individuals have typically internalized that feeling, recognizing it when it occurs and often expecting it to occur. This is structurally similar to the artist who proceeds with confidence, expecting to see something new and to be able to recognize it in context, having done his or her preparation, e.g. armed with a plan and a repertoire of routine moves.

Nowhere are the stages more apparent than in the intimate exchanges between close friends in one on one encounters or in some psychotherapy sessions. In the latter case, the therapist has ways to get started, often referring to where the client had left off in the previous session. Then he or she relies on a repertoire of stock phrases to generate movement. The work begins to take shape when the client and/or therapist makes a connection to past events, with affect. The therapist then directs the client into his or her feelings, deepening the connection.

So why are so many people intimidated by the process in one context (math, art, for example) and not in another (socializing) when they are all structurally similar? The problem resides in the harnessing of this process. Much, if not most of the time, it is tacit and as a result often seems magical. If one is able to gain some control of the process, in the sense of having a greater awareness of the relationship between setting up conditions and gaining insight, one develops confidence in his or her ability to negotiate the process and “get it,” whether the “it” is an artistic idea, a therapeutic insight, a solution to a math problem, an intuition about a suspect’s innocence or guilt (in a police context), or a runner’s high. This does not mean control over the outcome, as in “controlling”: rather, it refers to realizing with greater consciousness that getting it flows from certain resources and conditions, that these can be routinely implemented, and that they put an individual in a position of maximal openness to “capture” these emerging entities.

### **Decision-Making principles and psychology: how does the computer fit in?**

Before, during, and after the painting, I must make a bevy of decisions; even if I plan ahead and intend to leave little room for surprises, unintended problems of application can arise. And if I'm open to new directions, I will have to decide on the fly where to go and what to do. Typically, as indicated, I have only a loose plan when I begin. Sometimes, like a football coach, I script the first few moves/plays, but then the action really begins and the painting starts to have a life of its own.

There are some commonalities in my decision-making with marker paintings and with computer art in spite of the more obvious differences between them. In the latter case, I refer to the digital maneuvers in using any software program as opposed to the analogical maneuvers inherent in hands-on painting, in my case with markers. And yet, analogical movement is still alive and well with computer art, complementing its digital backbone.

Why is that? In general, most of the effects and tools for any painting or photo editing program have an analogical component. For instance, consider the smudge tool in Photo Editor and paint brush in Corel: the digital issue is whether or not to use the effect or tool while the analogical issues are how much of it to use, and where and when to use it. So actually, the computer can be more inclusive of decision-making issues since it has both digital and analogical ones to consider while hands-on art, e.g. my marker paintings, has only analogical ones.

#### *Objections*

Some might argue that although the decision making in computer generated art is virtually (no pun intended!) the same as that in hands-on art, the mechanics are far easier. In some instance, it might seem that the programs used take away the need to develop technique and interfere with the true meaning of artistic expression. That could be considered a form of cheating. But their speed and versatility simply divert artists to now develop different technical skills, namely how to use the software, while also allowing them to get a feeling for some deeper structural concerns. In saving one from "paying his/her dues," it gives the artist a window into issues of process and growth s/he might not discover for years, if at all.

This vision comes because the computer allows us to work very quickly as it removes many technical barriers. Further, the computer supplies beautiful colors and is reliable in its effects and tools. It is indeed a bountiful and forgiving medium.

So is it doing the painting for me? If it does in some simple cases, allowing me to revel in my good fortune and subsequent wide approval for such pieces, that would not last long as it would take away the entire reason for my painting in the first place – to have visual encounters of both the third and fourth kind. I need to be engaged in this creation of new work.

If one's goal is having a visual encounter of the fourth kind, one needs not only the skills for making micro decisions, but also the opportunities to make them. In general, the quantity of micro decisions is higher in hands-on than computer art work, but the fundamental nature of the analogical decision-making is the same as its digital cousin's. In addition, it is typically easier to articulate a digital decision than it is to describe a purely analogical one.

In spite of these observations, many people tend to be suspicious of the ease that computer art seems to provide, believing it to be a false shortcut to the true nature of creativity. It is a much misunderstood and maligned phenomenon.

I have heard the comments, "It can't be serious work, i.e. fine arts," "It's just painting by the numbers," "I could close my eyes and hit some buttons and out will come some design." There doesn't seem to be enough dues paying for it seems too simple and not enough like hands-on, a sort of plastic substitute for the real thing. "It's gimmicky," sneer the purists, "You don't even have to make your own palette out of real paint!"

Behind these proclamations rests a bedrock cache of assumptions, including the talent and technique attributions for success. That is, this view holds that one has to be born with talent and then develop technical skills through hard work. Without these two attributes, creative work is considered impossible. Thus, the lack of talent and technique is considered the enemy of creativity. I offer an alternate explanation.

#### *Inhibiting the Creative Process*

I propose that fear is the most significant enemy of creativity. It makes one tense and hold on tight to what s/he has rather than proceed with a yen to explore. But to be creative, an artist needs a mind set that celebrates exploration and freedom from the past.

#### *Fears associated with creative work*

Often childhood based issues both push the would-be artist to paint while also providing an arena of personal conflict. Fear can be a prime mover.

Some common present day apprehensions that may or may not reflect life long issues are the following:

- Fear of engagement (not knowing how to get started)
- Fear of emptiness (not having anything to say/contribute)
- Fear of errata (making mistakes/producing inferior product)
- Fear of eradication (not being able to get back to a "good place"; losing the "good stuff")

For an artist, they are all too familiar: the empty canvas has been much heralded as often paralyzing; self doubt plagues many artists as they worry if their painting is indeed meaningful; as they paint, some fear that they will come up short; and finally, if they or others value their work, they may worry that they will not be able to equal or top it in the future.

In addition, these fears are sometimes accompanied by a "no pain, no gain" assumption about learning and working, one that reflects a survival oriented perspective that applies to life in general. Such a perspective views encounters with most ventures, artistic or otherwise, as a struggle. Hard work and innate ability are assumed to be the tools needed to emerge a winner or just a survivor. Additional or customized resources are tacitly ruled out under the assumption that what is typically available should be enough.

I suggest that artistic production stem from a resource based orientation according to which the individual seeks to uncover what s/he needs to experience success, both internally and externally.

Instead of girding for a struggle, the individual aims to become engrossed in the activity of painting. In order to adopt such a perspective, I suggest that certain accessible resources be on board. What are they? They vary, but the computer offers at least three basic ones that speak directly to both the fears and the presumed hardships often associated with painting.

#### *The three liberating features of computer art*

It should not be surprising to hear that the computer can serve individuals well in the arts, in part by relieving them of mundane burdens just as it does with tedious mathematical computations. Some of the fear disappears as those burdens are lifted away. To wit, three features on which I focus are the following:

- The “save as” option
- The pure colors offered in most art programs, i.e. the standardizing of media
- The scanning option that allows for great diversity of input

One of the facts of life for most artists with traditional media is the specter of losing one’s work. I don’t mean physically. Rather, I’m referring to an individual’s fear of daring to change something in his or her painting. There seems to be no going back, if, for example, one tries a new color combination in the midst of an ongoing painting. On the other hand, computer art allows an individual the luxury of producing an image that can be saved and also altered at the same time: s/he just instructs the machine to save the new version of the painting as well, under a different name. That way, the fear of loss is minimized. This is “save as.”

In addition, by saving the file after each basic maneuver, one can look back and analyze how the painting evolved. A notational system is required to do that, but this does not have to be onerous work. Doing so gives one a sense of replicability so that s/he can try it variations in subsequent paintings.

Another complaint levied against such painting programs like Adobe and Corel is the standard digital palettes they offer – even though one can easily customize from them. But on a deeper level, the issue here is ease of access, i.e. the “entry fee” for being an artist. It is as if the hands on established artist wants the novice to pay his/her dues before making an attempt at self-expression. This would entail, for example, the novice mixing pigments and doing all the little things before one starts to paint.

The suggestion made here is that not having one task frees the individual to focus on others. Moreover, it puts him/her on a faster track toward “getting it,” i.e. a feel for the creative process in general. Put another way, it allows for transcendence of understanding what is involved in a specific painting to understanding what is involved in painting in general.

How does that occur? As indicated, the computer process speeds things up so fast that it reveals the deeper structures underlying them. One can fly from one decision to the next, analogically as well as digitally. One doesn’t have to struggle: rather, one can learn strategies for enhancing his or her creativity along with various counter-intuitive principles underlying them while learning to paint – and while painting.

With the computer able to scan any photo or sketch or finished painting, the artist has a vast array of input from which to choose. This capability takes away some of the sting of the empty canvas and alleviates the fear of not being able to start. Even if one has to choose arbitrarily from existing work as the beginning of a new piece, there is always some image that can fill the bill. And if the artist wants to start “fresh,” the various art programs allow him/her to open a new file.

So there are some of the resources the computer offers. They promote the use of counter intuitive measures, all of which help to lead one to the land of the unfamiliar. And if an individual approaches that land with confidence rather than viewing it as a threat, s/he is just a step away from seeing something new and yet connected to the past. The individual then can access visual encounters of both the 3<sup>rd</sup> and 4<sup>th</sup> kind.

#### *Another process model*

I also found that the computer paintings help me tighten and clarify the process. I offer yet another model, the 5 I's: ideation, invitation, initiation, interaction, and iteration. Some of this overlaps with the model presented earlier, but this one is more geared to the computer.'

Ideation, invitation, initiation, interaction, and iteration can be generally defined and recognized as follows:

- Ideation: how do I conceive of what I'm doing/about to do?
- Invitation: what do I need in order to do it?
- Initiation: how do I get started?
- Interaction: how does this relate to previous/other work?
- Iteration: how can I keep on doing it?

The key issues pertaining to these I's are:

- Is the idea extensive enough, i.e. rich enough or “creatable” so as to offer many recognizable applications? Is the plan “readable”?
- Is the resource base broad enough so that I can set up the application? Are there enough inputs for the plan?
- Are the introductory maneuvers routinely implementable?
- Is the idea relatable to others? Do the maneuvers relate fluidly to others?
- Is the plan sustainable and are the maneuvers replicable and sustainable?

Elaborating on these, I wonder first if my thought exercise has a practical basis, i.e. is it actionable? An idea is by nature abstract and not necessarily viable? I have to be concerned with its presentation and its specific manifestations/versions. I also must be concerned with its breadth and relevance.

That said, I need to have an idea of how to connect the specific version to the conditions required to make it come alive. I need to know how difficult it may be to put these conditions in place. Can I readily find opportunities for engagement?

Focusing now on the action of producing the painting, I need to have a way to get started without having to think through these concerns each time. Revisiting them every so often is vital, but so is having a set of routinely implementable starting maneuvers – as well as having routines further

down the road. The heady oxygen of discovery must be balanced with a far greater amount of the mundane nitrogen of repetitive work.

So the movement and balance with other maneuvers or the establishment of routine sequences of maneuvers proves to be of critical importance. This is an essential feature of composition, incorporating both these routine patterns as well as new ones.

Finally, the question of replicability must be dealt with along with its cousin, sustainability. Although these issues typically present as an inter-painting concern, they can also present as an intra-painting problem, i.e. within a given painting.

Summing up these issues, I refer to 5 R's as descriptors:

- Range (of idea)
- Resources (of inputs)
- Routines (automatically implmentable starting maneuvers)
- Repertoire (of sequences)
- Replicability (of sequences)

I could also use repertoire in 3 contexts: starters. combinations, and repeating clusters). On a lighter note, I have the usual suspects, their accomplices, and the repeat offenders.

## IN CONCLUSION

Marshall McLuhan (1951) said over 50 years ago that the medium is the message. This has had many interpretations. Among them: the type of medium influences the content to the extent that there is an inevitable interdependence between the two. Each changes the other. One doesn't exist without the other. It is not always clear which comes first either, i.e. choice of medium can limit or inspire "content," so punctuation is an issue as well.

One might accept this interpretation in general, but not see how it applies to the computer and art. After all, there is no automatic interdependence here: the medium is more likely to be a canvas and the jpeg just a way of storing the work. However, should one create on the computer, the issue becomes again one of interdependence and punctuation. Hence the jpeg is the painting in the McLuhan sense.

In my case, I first used the computer to preserve my marker paintings electronically. The punctuation: storage in the form of a jpeg follows painting.

But once I got fairly adept at the PC, this all changed. After scanning in dozens of old paintings, I began tinkering with them. Soon, I was creating images with computer programs alone. They became the artwork from which I made prints, their physical manifestation. If one saw only the final product, enlarged, matted, and framed, he or she would call that the artwork. It is as if the physical product now preserves the electronic one. The usual punctuation is thus reversed.

So jpeg as a storage device gave way to jpeg as a generator of new work. It is not only the painting, but the lithograph as well! And so I am left to conclude that the computer can indeed be the source of fine arts and a pathway to creativity.

Finally, summarizing briefly, although an observer could probably have thought it very natural (and not very original!) that I would follow in my father's footsteps, I never saw it coming. And I'd like to think that our artwork is as distinct from one another's as any other pair of artists. Yet I'm sure I owe a great debt to his dogged quiet persistence and discipline that gave him the strength to do his painting and provoked his need to understand the process. Those I believe I inherited from him. I have a better set of resources to work with than he did, so I can take it to different places. Following a spirited debate against it, I believe that he would ultimately have liked the idea of producing art on the computer; I would have enjoyed showing him how.

## **APPENDIX: Detailed example of the dialectic: policy and judgment**

Consider the dichotomous positions people often take with respect to policy and judgment: some will argue that clear policies are needed to establish guidelines for equity and decision-making; others will press the point that these matters must be determined on a judgment basis. Of course, neither side excludes the other's position entirely: the policy proponents understand the need for at least a modicum of judgment in applying the basic regulations and the judgment advocates acknowledge an underlying set of norms that, along with experience and wisdom, guide them. And yet, depending on how one balances the two poles, an individual is typically seen as in one camp or the other – “oh, she relies on the regs; he flies by the seat of his pants.” People type each other quickly and tend to react automatically to one another in a given context, expecting resistance before it is even proffered.

What is often missed by staunch advocates of either side? It is the generative process connecting them. To understand this, we first note that the edicts and language of policy are on a different conceptual level than the particulars of a given case. It may seem trivial to point this out, but it is critical to grasp that one applies policy to a specific situation to come up with recommendations for action. And it is in that application process that a dynamic is created, ultimately leading to the further refinement of existing policy in most cases and in some cases, a discontinuous break in policy.

How does this take place? Most of the time, individuals applying policy to a given case seek to stick to the blueprint the general structure provides – for policy is written in “if, then” language (under certain circumstances, engage in certain actions). This presumes clear recognition of particulars: this case is identifiable as X or various aspects within it can be so readily identified. Sometimes, lines are blurred and then questions are raised as to how to apply the rules. Sometimes, a situation is strong enough in its uniqueness to challenge those rules or to trivialize them or to suggest amendments to them. (There may have been elements of the policy that do not stand up to close scrutiny; they may wilt under the pressure of a particular situation). Sometimes, a situation simply brings up issues that policy setters did not consider, i.e., they go beyond the existing structure.

This interaction between policy and situation through the application process triggers the need for judgment and ultimately, further development of process. That is, to deal with the blurred lines, one needs judgment; to evaluate the status of a given situation, one needs judgment. If an individual is rigidly committed to an existing policy, he or she is likely to only be tacitly aware of the judgment required, and thus will not be open to implications in policy development. The case we make here is for policy over time, rather than policy at a given time.

This then is the connection we seek. This encapsulates the generative process between policy and judgment – or does it? Not entirely. We have come to the plate holding the policy bat and then seeing what happens interactively. What if we start with a judgment orientation to life, dealing with situations primarily on a case by case basis, throwing out the rules (or appearing to do so)? Over time, patterns will emerge. Individuals will inevitably fall into certain default positions with respect to certain types of situations. Situation types are on a different conceptual level than the specific cases themselves: policy creates itself as the codified set of tacit reactions to a given type.

In general, each creates a need for the other in a dynamic manner: policy, when applied, requires some judgment, even if trivial; and judgment, over time, either tacitly suggests a policy or calls out for organization (in the form of policy) to avoid total chaos. And each comes back to itself, creating the generative loop: policy requires judgment which requires policy. Policy at time 2 is not the same as policy at time 1. Rather than visualizing a circular flow, where one comes back to where one starts, it is more helpful to see a spiral and to conceptualize a sense of development. At any one time, there may be (a) policy. But there is not necessarily one policy, the policy, for all time. There is just policy in motion and judgment in action.

## REFERENCES

- Argyris, C. (1990) *Overcoming organizational defenses: facilitating organizational change*. Boston: Allyn & Bacon
- Basseches, M. (1997) A dialectical-constructivist view of human development, psychotherapy, and the dynamics of meaning-making conflict within therapeutic relationships. *Journal of Adult Development*, 4, 1, 17-73.
- Bedrosian, R. & Beck, A. (1980) Principles of cognitive therapy. In M. Mahoney (ed.) *Psychotherapy Process*, pp. 127-152. New York: Plenum.
- Csikszentmihalyi, M. (1990) *Flow: The Psychology of Optimal Experience*. NY: Harper & Row
- Gersick, C. (1991) Revolutionary change theories: A multilevel exploration of the Punctuated equilibrium paradigm. *Academy of Management Review*, 6(1), 10-36.
- Hornby, G. (1990). A humanistic developmental model of counseling: a psycho-educational approach. *Counselling Psychological Quarterly*. 3, 191-203.
- Isaksen, S.G. and Trefflinger, D.J. (1985) *Creative problem solving: The Basic Course*. Buffalo, N Y: Bearly Publishing
- Janov, A. (1972) *The Primal Revolution*. New York: Grove Publishing.
- Mace, M.A, & Ward, T. (2002) Modeling the creative process: a grounded theory analysis of creativity in the domain of art making. *Creativity Research Journal*, 14 (2), 179-192.
- McLuhan, M. (1951) *The Mechanical Bride: Folklore of industrial man*. New York: Vanguard Press
- Parnes, S.J. (1992) *Sourcebook for creative problem solving*. Buffalo, NY. Creative Education Foundation Press.
- Petty, G. (1997) *How to be better at creativity*. London: Kogan Page
- Sankowsky, D. (1987) *Unlocking: A guide to creative living*. University Press of America.
- Sapp, D.D. (1995) Creative problem solving in art: A model for idea inception and image development. *Journal of Creative Behavior*, 29 (3), 173-185.
- Wallas, G (1926) *The art of thought*. New York: Harcourt Brace