

# A Look at Crudeoils

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## ABSTRACT

This paper will examine the collaborative group Crudeoils with respect to their creation and production process, purposeful reference and appropriation of historical masterpieces, and combination of art and technology in current visual culture.

Crudeoils' work combines the familiar act of viewing with a language of interactivity. This fusion extends the meaning of original masterpieces by incorporating current day issues and triggers a viewer's imagination and opens new interpretations. Time becomes compressed, as the viewer becomes part of a living historical artwork in present day.

Crudeoils is a five-year ongoing collaborative duo between an Iraqi videographer/photographer and an American digital media artist/programmer. Crudeoils' works to date are the *Mona Lisa*, *A Bar at the Folies Bergère*, and *One Chair*. A new work, *The Death of Sardanapolis*, is forthcoming.

## 1. The Crudeoils Collaboration

### 1.1 Acquaintance

The Crudeoils duo of Bilal and Lawson have very different backgrounds, and yet they have much in common. Wafaa studied geography and geology at the University of Baghdad before escaping to a refugee camp in Saudi Arabia and arriving in the United States in 1992. He then earned a fine arts degree from the University of New Mexico. Shawn grew up on a farm in Ohio before completing his fine arts degree at Carnegie Mellon University. Bilal and Lawson both have the inquiry of a scientist and the eye of an artist.

Bilal and Lawson met in graduate school at The School of the Art Institute of Chicago in 2001. Their previous personal artworks had a great impact on each other. Discovering that they had many of the same intentions and desires for creative motivation, and they decided to create the *Mona Lisa* as a collaborative effort.

The success of the *Mona Lisa* led Bilal and Lawson to form the group Crudeoils. The name parodies the strongest bond between cultures and nationalities. From that point, they have been in active collaboration having created *A Bar at the Folies Bergère*, and *One Chair*. Their new work, *The Death of Sardanapolis*, is forthcoming.

### 1.2 Communication

Crudeoils realized early on that communication was the key for holding the group together. While there have never been any written rules, the following points that were taken to be generally understood:

Face-to-face is always the preferred form of communication followed by video chat, phone, and lastly email. Open and direct communication limits misinterpretations, which cause problems and consume time.

All topics are up for discussion and critique.

Discussions tend to float between random thoughts and concrete tasks. Typically, serious business floats to the top and personal topics are interspersed.

Communication is, and must, be two-sided. If it is not, then the work is not collaborative. Ideas that interest only one side become personal artworks. However, critique, advice, and technical assistance are freely available and encouraged.

### 1.3 Process

Often it has been said that the artist adopts a humanitarian or scientific approach in their art-making practice. The collaboration of Crudeoils breaks this archetype. With their work they employ science and technology to serve the human concern without being didactic in their approach.

The initial ideas belong to the collaborative, since the process of actualizing them involves both members. The idea is the most important. Without the actualization of it, then it becomes just a lost thought. And, it may become outdated with the passage of time.

One cornerstone of this collaboration is to know each other and recognize each other's strengths. Tasks are primarily divided by preference and ability. The final completion and exhibition of the work is always more important than who has done what and who spent how much money or time.

Stress and time pressure have always been part of the art-making process. Crudeoils flourishes under very stressful situations. To date the process has worked and delivered successfully 100 percent of the time.

Over the years, Crudeoils' process has become slower. More deliberate thoughts and actions are put into the artworks than before. They have learned from previous

exhibitions and are able to anticipate some level success or failure.

The long-term health and success of the collaborative comes from humility, honesty, respect, and trust. These qualities permit the collaborative members to lose themselves in the process of art making.

## 2. Appropriation

### 2.1 Walter Benjamin's Dilemma

The phenomenon of the World Wide Web has led to a shift in the acceptance of appropriation. The facility for someone to search for information and receive instant results is astounding. The World Wide Web acts almost like a technocratic global consciousness. Part of its design was the free exchange of ideas and content. This early intention has evolved into a dataspace where often the original source is difficult to find. Does it matter or should it be a concern? Walter Benjamin's article, "A Work of Art in the Age of Mechanical Reproduction," is often one of the first texts that a new media art student will be required to read. Does his argument really parallel the industrial revolution to the information age? If an original artwork is created entirely within the computer for display on a screen, then how important is the original against its exact bit-for-bit copy? Has Benjamin's aura been lost? Did the digital medium ever have an aura? Aura can also be thought of as value. The supply and demand of the market places a value on artworks and artists. The uniqueness and rarity of an artwork also clearly relate to value.

So, how does an artist whose art can be flawlessly copied millions of times, deal with this problem? Fortunately, artists have developed varying ideas for investigating the problem of the aura. From a mechanical reproduction position, artists working in the print medias lithography, intaglio, serigraphy, and so forth have long dealt with this issue. One method in printing is to destroy source. After a series of prints are made from a lithography stone, the stone is broken. With the source no longer available, the prints have more value. Another method is to limit a series. Less availability or rarity equals greater value.

Digital artists have reused these same approaches and added their own. Three successful models are low/high quality, freeware, and open source software. The first, low/high quality, is exactly as it sounds. Low quality versions of an artwork are freely distributed, while higher quality versions are not. Freeware, software that is free, is a method of distribution where the author and original source is retained. Users are sometimes asked to donate money but not required. With open source software any user can change the original source so that the author becomes ambiguous. Some open source projects do ask for donations, but the majority do not. What is interesting about the latter two is that often the original author or group that starts a freeware or open source project becomes valued and has an aura. The 'artist' becomes more

important than the 'artwork' freeware or open source software. This shift in commodity has not really been embraced by the market, while education and research has sought after the value of these individuals and group members.

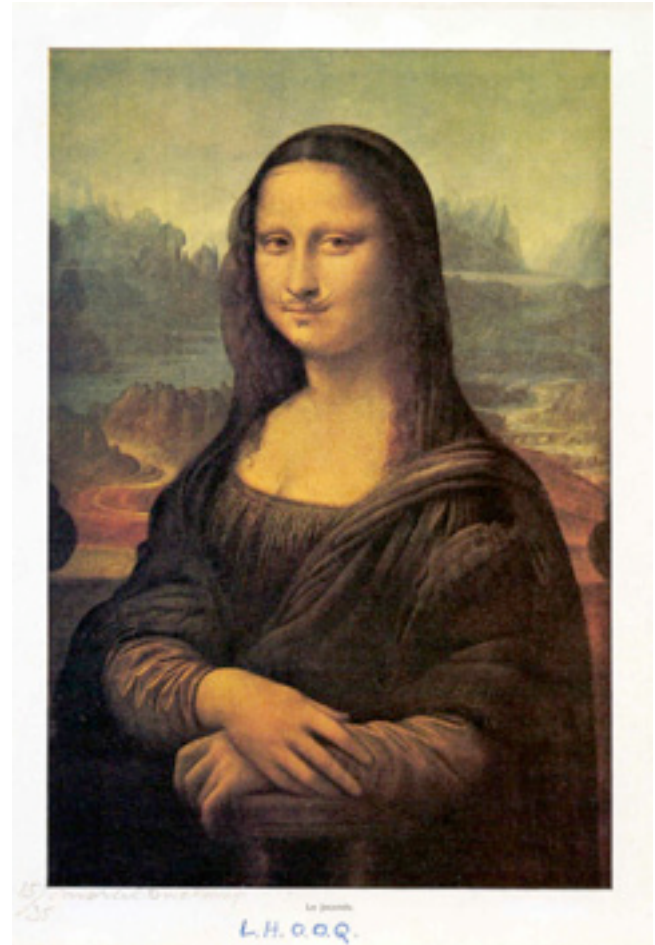


Figure 1. Marcel Duchamp, "L.H.O.O.Q." (1919) [21]

### 2.2 Plagiarism

Is appropriation plagiarism? Plagiarism means to take and use. Appropriation means to take, change, and use. So what constitutes *enough* change? Duchamp's *L.H.O.O.Q.*, (figure 1,) visually demonstrates enough change to constitute appropriation. What happens if this is put into different context? What if a narrative is rewritten with the genders swapped? Is that plagiarism or appropriation?

And what about the ready-made or found object? Duchamp's *Fountain*, (figure 2,) is still very controversial for what it is and not how the appropriated content was changed. The known changes are: signing the object with a false name, giving the object a title, and orienting the object. Furthermore, the original was lost; and Duchamp authorized copies of the *Fountain*.

Take the *Fountain* model, and apply those changes to a piece of known text. Give the text a title by a false author, and change its orientation. Can this be considered plagiarism or appropriation? Perhaps this disconnect arises between professions. Does a writer have the same freedom of appropriation that an artist does?

We can see from the examples that visually Duchamp's artworks can quickly be labeled as parody. The text examples are more ambiguous. With further reflection, *L.H.O.O.Q* and *Fountain* both reveal enough of the original that the changes are evident. When changing text, as in the gender change example, the original may not be as evident. This may give the impression that something is represented under a false pretense, and possibly plagiarized.



Figure 2. Marcel Duchamp, "Fountain" (1917) [22]

### 2.3 Emulation and Derivative

Emulation is a highly controversial technique writers use to study another writer's style. The process of emulation is easy to understand.

#### Directions for Emulation

1. Replace every word of the original with a word of your own that serves the same purpose. If you are familiar with the names of the parts of speech, that means replace every noun with a noun, verb with a verb, adjective with an adjective, and so on.

2. There are places where you can simply use the words of the original if you want to: words such as and, but, or; may be repeated; prepositions (words such as in, out, above, through, with) may be used or replaced; and any form of the verb to be (am, is, was, were, etc.) may be used as in the original. [23]

Typical usage implies changing the subject of a passage of text. While intended to be a method of learning style, some writers use emulation to create original work.

Derivative is a form of writing where an original piece of text is modified by deletion only. The concept of derivative writing is added for completeness and not explored further in this paper. Below is an example by Jen Berven from *Nets*:

4

8 In singleness the parts

Strike each in each

12

speechless song, being many, seeming one [24]

Original text from Shakespeare's Sonnet #8 with Jen Berven's text bolded:

Music to hear, why hear'st thou music sadly?  
 Sweets with sweets war not, joy delights in joy:  
 Why lov'st thou that which thou receiv'st not gladly,  
 Or else receiv'st with pleasure thine annoy?  
 If the true concord of well-tuned sounds,  
 By unions married, do offend thine ear,  
 They do but sweetly chide thee, who confounds  
**In singleness the parts** that thou shouldst bear.  
 Mark how one string, sweet husband to another,  
**Strikes each in each** by mutual ordering;  
 Resembling sire and child and happy mother,  
 Who, all in one, one pleasing note do sing:  
 Whose **speechless song, being many, seeming one,**  
 Sings this to thee: "Thou single wilt prove none." [24]

### 2.4 Copy vs Steal

Bad artists copy. Great artists steal. - Pablo Picasso

Bad artists copy. Great artists appropriate. - Crudeoils

Copying implies that an artist is trying to learn from another artist. The purpose of copying a masterpiece is often to experience how the original artist resolved the imagery and developed their technique, similar to a writer using the process of emulation. Certainly these copies have and will be sold, but there is no doubt as to who the original artist of the masterpiece was. A copy has little regard to content or purpose. A copy could be thought of as a soulless simulation of original.

Stealing has very little to do with copying. One who steals is not so concerned with developing technique. It is entirely about ideas and repurposing content. There is some process

of modification and/or reinterpretation by the artist when stealing. In this context to steal or to appropriate are interchangeable.

## **2.5 Purpose**

Often appropriation is used to help one find their voice. It permits the artist to experiment and experience what it feels like to speak in someone else's voice. On occasion there is appropriation for the purpose of creating controversy or drawing attention to a normally overlooked subject matter.

Crudeoils attempts to be very selective when appropriating, and not every artwork by Crudeoils uses appropriated material. Appropriated content is researched for histories, meanings, controversies, etc. Especially in the case where new technologies are being used, interpretations and arguments surrounding the appropriated content need to be understood. Crudeoils tries to have a rationalized and intelligent platform from which to communicate.

Crudeoils believes that there is a continuous dialog that adheres to an artwork through time. Crudeoils adds their thoughts and ideas to the dialog of their appropriated content.

## **3. New Media**

Under the title of New Media exist many areas of artistic endeavor. One such area is interactive art. We will discuss interactive art and make a proposal for a new area, Dynamic Art.

### **3.1 Fast**

Interactive art brings to mind an exciting action and reaction experience. A typical interactive art experience may require quickly learning a new interface, then testing or exploring the interface to find its boundaries or limitations. These actions of testing and exploring are responded to by the interactive art. Participants then map a one to one relationship of their action to interactive art reaction. This immediate gratification of response is only natural. Our daily interaction with everyday electronics is one of immediate action and reaction. There is an expectation on the part of the participant that interactive art, being primarily electronic, uphold this presumption. When interactive art does not react to a participant's whim, it is assumed to be broken.

This exchange of action and response, known as communication, becomes the primary aesthetic function of the interactive art. The participant becomes a consumer of response. He/She experiences a flood of interactive stimuli similar to electronic gaming. Furthermore, the experience of interactive art in this context of gaming becomes one of contest and not content.

### **3.2 Slow**

Slow interactive art continues to use the same action and response model as faster interactive art; although in this case the reaction part is resolved at a more leisurely pace.

The delay in response opens a gap for contemplation. He/She becomes more thoughtful, and purposeful in the action to reaction experience. The slower interaction permits more conceptually complex content to be experienced within the slow temporal spaces. The role of the participant has changed to the producer of response instead of the consumer of response. The deliberate action has more purpose and therefore can generate a more meaningful experience.

Lets use food to further the comparison. Suppose we are hungry, and we have two options. The first is to eat fast food. The second is to prepare and eat food. On the surface, both will satisfy the supposition. The fast food model allows an immediate solution to the problem at hand, while preparing food takes more time. Fast food is a commodified experienced of selecting from predetermined options. Even when we try to have it "my way," the limitations are quickly discovered. Preparing food is a personal experience of selecting from pantry, refrigerator, and freezer options. These options are also a personal selection from a wider range of cooperative or supermarket options. We can have it our way, and there are few limitations. Beneath the level of hunger, the fast food makes us feel empty and unsatisfied with our experience, while the prepared food gives us the feeling of satisfaction with our experience. Moreover, there is pride for the accomplishment of preparing/creating food.

Advertisers have long understood this comparison. Dining establishments need to provide an experience you cannot create on your own. Whether it be by food type, ability in preparation, environment, status, or appeal. The adage "sell the sizzle, not the steak" fits appropriately here. Marketing agencies know that they need to sell us the experience of eating instead of the food itself to get our money.

Using the food analogy we can replace fast food with interactive art and prepared food with slow interactive art. The extra time taken in the action and response cycle amplifies the participant's presence and experience.

### **3.3 Communication and Experience**

Interactive art both fast and slow is concerned about communication and experience.

Yet, the term has existed for over a century, describing the place at which independent 'systems' (such as human/machine) meet and the navigational tool that allows one system to communicate with the other. The interface serves as a navigational device and as translator between two parties making each of them perceptible to the other. [15]

There are four systems of communication occurring within interactive art. One, the artist designs the interface of the interactive art for his/her intentions to be communicated to the participant. Two, the art and participant communicate with each other through the interface using the action and response model. Three, the participants experience a

communication with themselves so that they become self-aware of their actions and thoughts. Lastly there is the communication that occurs when more than one participant is experiencing interactive art. They communicate their experiences to each other and gain further experience. Burnham predicted this range of communication and experience in 1966 long before even the first electronic art exhibits in 1969.

As our involvement with electronic technology increases, however, the art experience may undergo a process of internalization where the constant two-way exchange of information becomes a normative goal. We should rightfully consider such communication shift as an evolutionary step in aesthetic response. [5]

### 3.3.1 Interface

The communications and experiences surrounding interactive art are dependent on the interface. For example, push button interfaces, steering wheel interfaces, touch screen interfaces, mouse and keyboard interfaces, camera tracking interfaces, etc. all have different meanings associated with them. Interactive art can be purely about the learning and utilizing interface for aesthetic experience, or the interface can become transparent so that the artist's other intentions come forward. Simon Penny states:

There are two new esthetic tasks in interactive art. The first is to discover the nuances and modalities of the interactive dynamic, and to find out how to apply these to esthetic goals. The second is the integration of the esthetically manipulated interactive dynamic with the other components of the work, be they physical objects, images or sounds, into an integrated esthetic whole. [17]

A transparent interface supports the participant's suspension of disbelief or living the experience. For example, in the movie *Star Wars* there is no doubt that Luke can use the force. There is a level of storytelling and plausibility that encourages the moviegoer to believe that this normally impossible act is possible. This suspension is greatly assisted by the environment of movie viewing experience: eye-filling screen, surround sound, and comfortable seating. Luke can destroy the death star and save the universe without questioning its believability.

With the introduction of external factors, the suspension of disbelief starts to fall apart. A kicked seat, a spilled drink, or an usher's flashlight can all break the flow of the experience and take the moviegoer out of the suspension. *Star Wars* becomes more of a fantasy than a lived experience when the moviegoer is brought back to reality.

This translates directly to the interactive art interface. The interface needs to support the suspension of disbelief for the participant and aid in their living of the experience. The navigability and learning curve of an interface should be appropriate for the participant to maintain their suspension. If the navigability or functionality of the interface is too difficult the participant will become frustrated, too easy and

they will become bored. By the same logic, if learning or trying to understand the mechanics of an interface are too difficult the participant will become frustrated, too easy and the participant will become bored.

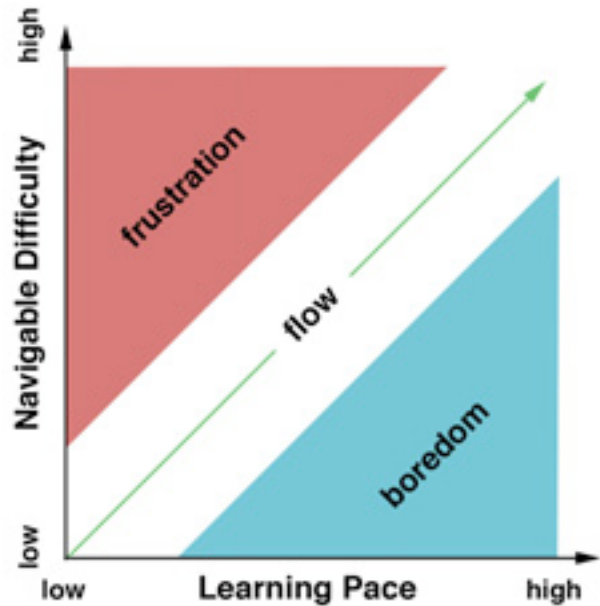


Figure 3. Csikszentmihalyi's Flow diagram reused to describe the experience of interactive art interfaces

Finding the middle ground of difficulty is a concept that Mihaly Csikszentmihalyi calls flow. He thinks of flow as state of being where challenge and ability are directly proportional. Looking at Figure 3 we can see how an interactive art interface can operate within this domain. A participant starts experiencing an interactive artwork at the origin of easy navigability and easy learning. Should the navigable difficulty increase faster than learning; then the participant will feel anxious or frustrated. Should the learning increase faster than navigable difficulty; then the participant will feel bored. If both navigability and learning curve increase appropriately; then the participant will have a flow experience and stay within the bounds of successful suspension of disbelief. From this we understand that the difficulty or easiness of an interface is an external factor that can break the suspension of disbelief.

### 3.3.2 An Encounter

We will examine the initial seconds a participant communicates with, and experiences, an interactive artwork: the encounter. A participant moving through a gallery in Manhattan comes across an interactive artwork. At first glance, he/she sees a LCD displaying abstract motion graphics and text with a mouse and keyboard attached. That was the encounter. From this the participant may have surmised some the following: The mouse and keyboard indicate a computer, therefore we'll need to click on or type something. We see the imagery and text; we

wonder if this is a screen saver or the artwork. There is nowhere to sit, so this must be like an information kiosk kind of thing. We wonder if this interactive art is somewhere on-line such that we can view it from home and move on to other art that isn't on-line.

Before even engaging, the participant has constructed a framework for experiencing the art. In this instance, the visible computer based input for interface leads the participant to wonder if the art could be experienced at some other time. In addition to the encounter, participants bring their own expectations to interactive art, as stated by David Rokeby:

Interaction is about encounter rather than control. The interactive artist must counter the video-game-induced expectations that the interactor often brings to interaction. [18]

The video game expectation is common among participants. The encounter stage even has a common name in the arcade game industry - attract mode. Does the participant see the interactive art gallery as simply a highbrow arcade?

### 3.3.3 Environment

As alluded to earlier via the moviegoer example and the arcade example, the environment and setting of interactive art have critical roles in its experience and expectation. Interactive art exhibited in a conference center has a very different expectation than interactive art exhibited in a museum. This can be called the prestige of place. There is a generalization that the more prestigious the place, the more important the art is on exhibit in that place. By visiting more prestigious places, we expect to have more fulfilling experiences. Using the participant in the Manhattan gallery, how might the participant react if the interactive art was exhibited at a conference, an expo, a university run gallery, commercial gallery, museum, or biennial? Each of these carry with them a certain prestige and environment that weighs in on the experience of the participant.

## 3.4 Now What?

### 3.4.1 Dynamic Art

Dynamic art is another form of new media separate from interactive art and slow art, but contains properties of both. Dynamic as defined by the American Heritage Dictionary:

adj.

1. a. Of or relating to energy or to objects in motion.  
b. Of or relating to the study of dynamics.
2. Characterized by continuous change, activity, or progress.
3. Marked by intensity and vigor; forceful. See Synonyms at active.
4. Of or relating to variation of intensity, as in musical sound.

n.

1. An interactive system or process, especially one involving competing or conflicting forces.
2. A force, especially political, social, or psychological. [10]

Two of the meanings worth pointing out are: continuous change and interactive system. Continuous change can have different interpretations. If continuous change is defined to be autonomy, then we have an autonomous and interactive system – Dynamic Art.

We are autonomous and continuously change from the information gathered by our senses. We are also capable of interacting with other autonomous beings. From this we can infer that dynamic art can be autonomous and continuously change from information gathered by its sensors. The artwork is also capable of interacting with other autonomous things.

This autonomy opens possibilities for dynamic art. When an artwork exists as its own system, the actions and presence of outside participants may cause response, and it may not be immediately noticeable. If this action to response of two autonomous systems is based on accumulation, then the following example relates. Driving a car instead of walking causes a response that is not immediately noticeable although the accumulation of behavior exhibits in a larger waistline and environmental instability.

The autonomy of dynamic art also indicates that external interaction is not necessary. The artwork continues to evolve and change whether there is intentional exterior input or not. Also, depending on the programmed variability, the artwork may become unpredictable.

### 3.4.2 Bio Art

Bio Art is artwork that uses biology or genetics as its medium. This may include but not limited to: DNA, protein splicing, single or multi cell organisms, selective breeding or mutation, etc.

Dynamic Art and Bio Art share some similarities, but do not completely overlap. Most Bio Art creations are autonomous by nature, but only some Bio Art interacts with other external systems as part of its purpose. Bio Art continually highlights the issue of ethics that does not usually appear in Dynamic Art.

The computer and programming languages have been developed as tools for working with and managing large complex sets of information. At what point does the ease of machine programming for the electronic become the same as protein programming for the biological? Joe Davis's *Microvenus* and Eduardo Kac's *Genesis* are foreshadowing the possibilities and questions that will arise. Both of these artworks encode image or textual information into a protein that existed in living bacteria.

Humankind will decode the protein programming of our own biology. This biological programming language will

start the next technological age. It will impact all areas of life. New forms of art, computation, energy generation, health, philosophy, and self-selective-evolution will emerge.

### 3.4.3 Interactive Minimalism

Interactive minimalism means that either the interface for the interactive art is very minimal, or the interaction by a participant with interactive art is minimal. The minimalism generally does not concern the visual or aural components. Below are two examples.

#### 3.4.3.1 Wu Wei



Figure 4. Installation view of "Wu Wei" (2004)

無為, *wu wei*, roughly translated from Chinese means 'without action'. It is the fundamental principle for Taoist philosophy and is the title of the interactive minimalist artwork, *Wu Wei*, seen in Figure 4 by Shawn Lawson. While there are many ways to interpret the concept of 'without action,' *Wu Wei's* (inter)activity relies on the participant to (inter)act without (inter)acting. The interaction is more concerned with being and the presence of the body, rather than movement or hand/eye skill.

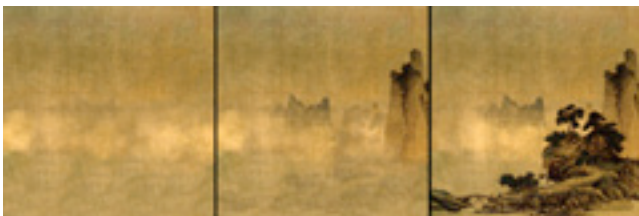


Figure 5. Time lapse from left to right (30sec, 2min, 4min) of "Wu Wei"

A participant encountering *Wu Wei* will see an empty bench and scroll. When he/she sits on the bench, layers of the 16<sup>th</sup> Century painting slowly illuminate. After the layers are visible, atmospheric properties animate and sound accompanies the scene. The animation and sound will randomly regenerate while the participant interacts with the artwork. Should the participant attempt to over-interact, *Wu Wei* will fade to black. A typical over-interaction is the

waving of arms to try and make the artwork speed up, which consequently is self-defeating. When the participant leaves, then *Wu Wei* quickly returns to the empty bench and scroll state.

#### 3.4.3.2 Baiti



Figure 6. Installation view of "Baiti" (2003)

*Baiti* is another example of interactive minimalism by Wafaa Bilal. See Figures 6 and 7. Similar to *Wu Wei*, *Baiti* requires participant presence for the interactivity; although *Baiti* ignores participant movement. Only physical presence is required for a participant to interact with *Baiti*.



Figure 7. Still from "Baiti" video projection

To experience *Baiti*, participants enter a room with a life-size projection of the well-recognized Iwo Jima image on one wall. The participant's presence causes the soldiers in the image to walk out of the scene and a child to walk in. The child watches the new projection that begins on the opposite wall. The new projection is a video of America's violent foreign policy that culminates in the falling of the World Trade Center. Participants can stay and watch the projections for a total duration of 40 minutes, at which

point the content repeats. When all participants leave the room, the Iwo Jima image resets and the second projection becomes silent and black.

### 3.4.3.3 Minimalist Conclusions

The interfaces of both *Wu Wei* and *Baiti* require the participant to stand or sit. This minimized interactivity creates an even greater transparency of interface. For both of these artworks the participant's body is very important. They set the participant in a mindset that their bodily presence is important and that a higher level of commitment or engagement with the artwork is required.

Interactive minimalism engages both the body and mind. As seen here with both *Wu Wei* and *Baiti*, when the body is required in presence and not performance, it frees the mind to meditate on the experience and content for the interactivity to occur.

## 4. Art Works

The following are the completed and planned interactive artworks from Crudeoils. Each artwork is described in purpose, interactivity, and production.

### 4.1 Mona Lisa

The *Mona Lisa* was Crudeoils' first artwork. It was a test to see how the collaboration functioned on intellectual and technical tasks. This appropriation was chosen for its recognizability and enigmatic history. The size of the original was considered with respect to the available display devices. At the time of its inception Crudeoils had just acquired the tools and technical knowledge to achieve this artwork.



Figure 8. Installation view of the "Mona Lisa" (2002)

The intention of this artwork was to extend beyond the surface and communicate with the participant. Crudeoils felt that "painting" had a singular level of visual, aesthetic and intellectual engagement, and that this interactive work would be an extension. Crudeoils additionally looked at this first work as a gag, and poking a little fun at the other media by claiming that they were improving it. The responses by other colleagues were varied. As Crudeoils

imagined, opinion was easily predictable by the colleague's preferred working medium.

### 4.1.1 Interactivity

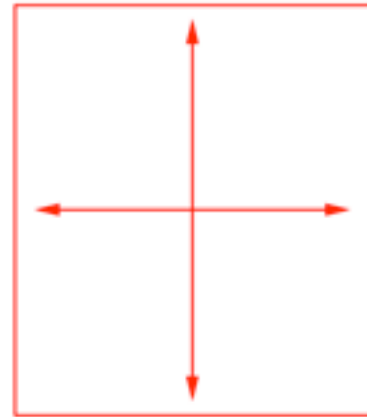


Figure 9. Top down view of interactive space for "Mona Lisa"

The interactivity of the *Mona Lisa* was rudimentary, and may be better thought of as reactivity. A participant walks towards the art, the *Mona Lisa* morphs and gives an obscene gesture. If the participant walks from side to side, the *Mona Lisa* turns her head to watch. When the participant leaves, *Mona Lisa* returns to her original serenity. This interaction space seen in Figure 8 is simplistic. We can almost imagine the participant as a human joystick who plays the *Mona Lisa* by moving through space. When the participant moves, *Mona Lisa* moves. In this way the *Mona Lisa* only reacts to participants, and does not necessarily have a voice of her own. The original intent was to breath some life into the *Mona Lisa* and to discover how she would react to us. We believe that *Mona Lisa* needs more autonomy.

### 4.1.2 Production

The creation of the *Mona Lisa* had several stages. First, a reproduction was scanned into the computer. From the original scan, a copy was made that had the figure removed. In tandem, a clothing designer was hired to recreate the dress of the original figure, a model was hired, and a makeup artist was hired. After the dress was completed, we shot the model in costume and makeup against a blue screen performing different actions. The raw footage was captured and composited over the now empty background of the *Mona Lisa* scan. Removing the blue screen in the computer caused our model to look like she was our *Mona Lisa*. A program called Morph was used to morph or transition from the original *Mona Lisa* image to our *Mona Lisa* image. A movie clip for each action was created when all of the editing special effects were completed. Custom software was written to load, unload, and display the movie clips at the appropriate time. The program uses a firewire web camera with a simple tracking



algorithm to find the participant. Information about their location and movement determine which clip and where in the clip to play.

## 4.2 A Bar at the Folies Bergère

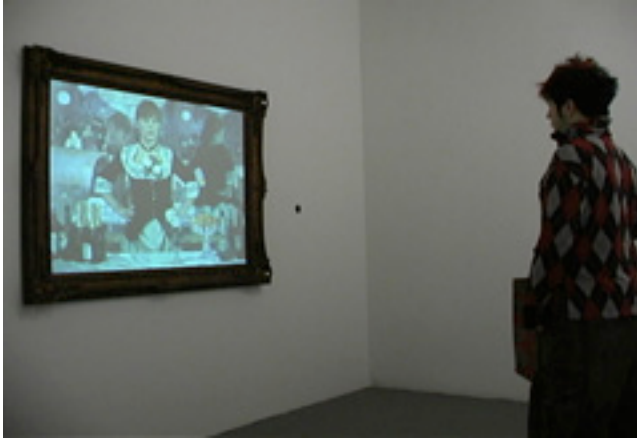


Figure 10. Installation view of "A Bar at the Folies Bergère" (2003)

Crudeoils appropriated this image for its disputed history and hotly debated artist, Eduard Manet. This richness of dialog and material provided easy entry for posing our own opinion of the artwork. Even our interpretation of this artwork has been interpreted and written about.

Studying the successes and failures of the *Mona Lisa*, Crudeoils created *A Bar at the Folies Bergère*. This artwork has similar installation and approach. A large frame is attached to a wall with the image rear-projected into it. As the participant enters the space in front of the artwork, they see themselves reflected in a mirror within the image. The patron in the corner of the artwork comes to life in the likeness of the artists and leaves. Then the barmaid comes to life and refuses to serve the participant. At some points the barmaid walks out leaving the participant alone in the painting. When the participant leaves the bar, then the barmaid will return. Occasionally, at a distance a participant may see the barmaid primping her hair or dress.

This artwork centers on our concerns with the participant, the gaze, and the body. This work has been very successful, because it places the participant in the painting. Additionally, it shifts the role of the participant by adding the responsibility of being viewed as art. Their gaze becomes transfixed between the barmaid and themselves. Which is more seductive? The viewer becomes more attached to their body, because they have a direct relationship of seeing themselves. Furthermore, the physical interaction interface of the work becomes more familiar and easier to navigate. This placement of the participant's image in the artwork creates a compression of time. The history of the painting is brought forward and the present moment is pushed back. Multiple points of existence are fused.

### 4.2.1 Interactivity

The interactivity was much different in *A Bar at the Folies Bergère* than the *Mona Lisa*. In the former piece, the barmaid figure has autonomy. When there is no one nearby she comes to life and acts on her own. If someone approaches, then she interacts with him/her. Also different from the *Mona Lisa*, the barmaid commonly ignores the participants and isn't as interested in participant actions. If she feels offended or crowded then she leaves, and she does not return until everyone leaves her bar. The interactivity of this work is highly successful. The predictability of interaction was reduced, thereby giving more surprises to the participant.



Figure 11. Top down view of interactive space for "A Bar at the Folies Bergère"

### 4.2.2 Production

The production process of *A Bar at the Folies Bergère*, was nearly identical to the *Mona Lisa*. First, a reproduction was scanned into the computer. From the original scan a copy was made that had the figure, her reflection, and the patron removed. A model was found and hired. A clothing designer who specializes in historic costumes was hired to replicate the barmaid's outfit as closely as possible. The designer worked with the model, so that the costume was tailored to the model. A special piece of software was written to allow the live video feed from the video shoot to be placed on top of the original image. From this overlaid comparison Crudeoils could instruct the model how to move so that her pose matched exactly with the original. Crudeoils shot the model performing many different actions against a green screen and a mirror; additionally Crudeoils shot themselves performing different actions as the patron in the corner of the painting. The raw footage was captured and composited over the image with the removed figure, reflection and patron. Similar to the *Mona Lisa*, Crudeoils morphed the original barmaid image to our barmaid image, and Crudeoils morphed our patron image to the original patron image. From the final editing and post-

processing Crudeoils exported our movie clips and images. Audio was captured and edited. Crudeoils ended the debate about the mirror versus second barmaid and decided that *A Bar at the Folies Bergère* had a mirror behind the barmaid. Therefore, a miniDV camera was used for two purposes: to put participants' reflections into the artwork, and for the vision algorithm to track the participants. A complex computer program was written to composite in real-time the following assets: foreground image, movie clips of the barmaid, movie clips of the patron, reflection of the bar image, video stream of the participants, and the background image.



Figure 12. Demonstration of real-time composited layers

Additionally, the video stream of the participants is “difference keyed.” This removes the background from the participants, so that they really appear in artwork by removing the artifice of their environment. The vision-tracking algorithm searches for the number of people from one side to the other. The resulting information is used to determine which movie clips to play and where to play them.

### 4.3 One Chair

With *One Chair*, Crudeoils decided to try their own ideas. They appropriated the composition from Leonardo's *The Last Supper*, but they used their own content. *One Chair* is shown in a large rectangular room. One short wall has a life-size projection of seven men of various ethnicities eating at a long table. Each individual is eating rice, except for the man in the center who is eating steak, potato, and beans. This artwork contains a subtle political charge. Rather than use a shock approach to deliver a message, as seen with many radical and activist artworks or demonstrations, *One Chair* presents a political message more contemplatively and poetically. Instead of directly

stating opinions, *One Chair* asks the participants' to come to their own conclusions on their own terms.



Figure 13. Installation view of “One Chair” (2005)

This work intentionally puts the participant in a position of making a choice between action and inaction. In the center of the installation space is a solitary chair. Participants entering the space have the option of sitting on the chair or standing somewhere in the room. If the participant chooses to sit on the chair, his or her presence slows the eating of the men, except for the man in the center. After approximately twenty minutes, this man will also slowly stop eating. By virtue of his/her engagement, the participant has brought all the men to the same level of influence. A short while after, they slowly begin eating again, speeding up until they consume together at a regular pace. At this point the cycle seamlessly resumes.

#### 4.3.1 Interactivity

The interactivity in *One Chair* was simplistic in concept although it became complex in implementation and confusing in practice. Participants were not as willing to sit in the chair as Crudeoils had previously hoped. Whereas being a somewhat passive part of the artwork in *A Bar at the Folies Bergère* was acceptable, taking the active role in being part of the artwork in *One Chair* was more than many participants were willing to do. The chair was positioned in the front and center of the space indicating an active role in engaging with the artwork and content. Crudeoils think that this may create self-consciousness in participants who may not be willing to put themselves in particularly active positions or offering themselves for critique. Part of the intention of the artwork is to create active participation; and it may have had the reverse effect. The secondary method of interaction is the passive participation of being in the space. It had greater success, but still didn't quite get our message across. The greater interactive space created a change that was very subtle and was almost lost to the participants. While the intent was to have passive interest be passively responded to, the concept may not have come across as clearly as desired. This

radical shift of interactivity's role or purpose in artwork was an experiment that Crudeoils learned from.



Figure 14. Top down view of interactive space for "One Chair"

#### 4.3.2 Production

The production phases of this work were quite different in comparison to the *Mona Lisa* and *A Bar at the Folies Bergère*. A production manager was hired to help with finding actors, a lighting crew, a video crew, a set, and the props. The production manager dealt with everything that needed to make the three-hour window for installing, configuring, testing, shooting, and striking to happen smoothly. Two, 30-minute takes were shot in 1080i HD format. The footage was captured from tape to hard drive with the help of a production company, Final Frame, in New York. The raw footage was edited and post-processed into a 28-minute movie clip at a pixel resolution of 1024x768 of the entire scene and another 28-minute movie clip at a pixel resolution of 280x600 of the central figure alone. A custom piece of software was written to control playback speed and real-time compositing of these movie clips from separate internal hard drives. The results were projected life-size onto the wall. The vision-tracking algorithm was more sophisticated in this artwork than the previous two. It needed to deal with participants in the chair, and with the number of participants in the overall space. The algorithm interpreted this information into the speed of playback for the two movie clips. The video tracking source was from a black and white camera via an analog to digital converter to a firewire port on the computer.

#### 4.4 Death of Sardanapalus

Crudeoils' new artwork, *The Death of Sardanapalus*, is just beginning production and will be a significant break in style

and content. It will be a living and evolving electronic artwork with a 400-year lifespan that critiques the contemporary human condition beginning at the unveiling of the original artwork which occurred in 1827.



Figure 15. "The Death of Sardanapalus" by Delacroix

*The Death of Sardanapalus* is a recreation of Delacroix's work under the same title. Sardanapalus is a critique of the contemporary condition. The artwork encodes themes of consumerism, environment, militarism, technology, and narcissism. Sardanapalus represents us: self-destruction by self-preservation.

Driven by our egregious self-preservation, we are reciprocally self-destructing. Our unnecessary wants created by advertisement and consumerism overshadow our needs. When want becomes confused with need, our expectation of entitlement causes global distress. Sardanapalus embodies the excess of consumer culture. The king is representative of an accustomed lifestyle. His decision is self-genocide instead of reduced consumption. The overwhelming, expeditious transmission and availability of mass media devolves our ability to focus. We become soaked with information, without time to absorb it - drowning. Sardanapalus calls attention to this data drowning syndrome.

Technologically, Sardanapalus is paradoxical. Its destined 400-year life is bound within an evolving, transient medium. Such that, distant generations may never experience the conclusion of Sardanapalus. Annually, a gathering will take place at the artwork, where human presence can make changes to the visual representation of Sardanapalus.

The artwork visibly changes as it ages. The depicted scene floods with water proportionally to its age. Underwater items erode visually. Primordial species begin to grow and inhabit the waters. Symbolic items of consumerism float atop the water. Sardanapalus communicates the physical

through the virtual. Sardanapalus samples the exterior ambient environment with sensors, and recontextualizes it visually.

*The Death of Sardanapalus* is an electronic artwork being designed to run for 400 years. This breaks from the instant gratification theme of many interactive and electronic artworks. In addition, it raises questions about the temporality of interactive and digital media. We are aiming to expand the field of inquiry for digital media, by continuing to find new avenues for ideas and presentation.

While previous Crudeoils' artworks have been closed to possibility, this artwork is open to variability. *Mona Lisa*, *A Bar at the Folies Bergère*, and *One Chair*, can be viewed primitively as state machines. Based on a certain state, they do something. The available narratives of these previous artworks have finite limitations. *The Death of Sardanapalus* includes many ranges of variability: weather, light, sound, visitors, and the annual pilgrimage. The narratives based from many sources of input are nearly infinite. Furthermore, when including the 400-year life span, the end resulting imagery is unknown and unpredictable.

## 5. Conclusion

An artist of New Media often discovers that the complexity of tools requires collaborators of varying skills to create an artwork. When the commoditization of a new technology hasn't trickled down yet, artists whose practice is the critique of new technology by using new technology find themselves as managers.

Appropriation, in addition to collaboration, has become more common. The availability of sound, image, and video editing software allows anyone with a computer to remix anything that can be digitized. Mash-ups have exploded in popularity on the World Wide Web. Reconfiguring, recontextualizing, and reinterpreting our personal aural and visual landscape has become the norm.

Crudeoils is creating a style of minimalist interactive art that could be termed as slow or dynamic. Interactive art is still in its infancy and has much development ahead. The dynamic of interactivity and the intersection of systems will be an area of artistic research that has increasing potential as technology evolves.

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