Arts and Sciences Progression toward a Definite Celestial Visualization

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Abstract

The primary objective of this effort is to reflect on observations of connections between the Arts and Sciences in the field of abstract art and cosmology. This article attempts to demonstrate how two different groups of artists and scientists are possibly unconsciously progressing toward similar images of the Universe and its components, following two different paths and approaches, but seemingly making similar discoveries. Consequently, images and ideas are presented, allowing the audience drawing their own conclusions.

Keywords: Arts; Sciences; Abstract Art; Visualization

Configuration of this Collection

In the beginning, a concise list of greatest artists and what are generally considered their masterpieces are presented. Then, selected various large-scale structures of the Universe are depicted. Subsequently, several contemporary abstract artists’ works are briefly and visually presented here with their progression from simpler, object-and-color style painting to more complex styles of abstraction (a natural progression for artists). Each artist statement is briefly presented, followed by a few images of the artist’s work and its progression to the point of astonishing resemblance to the Universe images visualized by scientists using a variety of scientific data and techniques. It is paramount to reiterate that in this non-traditional article, the author merely presents images and ideas, allowing the audience drawing their own conclusions.

Eccentric Hypotheses

Is it “Collective Consciousness or Knowledge?” Is it “Knowledge or Information that already exists in the Universe?” Or is it a “Celestial Intervention to educate humans?” Whatever the source is, in this particular case, it seems that scientists and artists are progressing toward similar outcomes or conclusions; both seeing through their logical and/or emotional processes how the Universe might be visualized. Maybe both scientists and artists are depicting images of the locations in the Universe where humans came from or are going to... Maybe both groups are trying to see the Universe as it really exists (a bigger picture of the whole known Universe).

A Concise Antiquity of Art and the Greatest Artists

While this article primary focuses on modern abstract art and artists, it seems to be appropriate to include a very brief section about at least a few of the greatest artists of all time and a selected list of their masterpieces (The Greatest Painters of all Time, n.d.).
The Greatest Artists [painters] and Selected Masterpieces

- **Leonardo da Vinci** was an Italian polymath of the Renaissance, with the notable works *Mona Lisa, The Last Supper, Bacchus, Adoration of the Magi, Annunciation*, etc.
- **Michelangelo** [Michelangelo di Lodovico Buonarroti Simoni], an Italian High Renaissance artist, famous for *David, The Creation of Adam, Sistine Chapel ceiling, Pietà, Bacchus*, etc.
- **Vincent van Gogh**, a Dutch Post-Impressionist artist, painter of *The Starry Night, The Potato Eaters, Vase with Fifteen Sunflowers*, etc.
- **Rembrandt** [Rembrandt Harmenszoon van Rijn] was a Dutch painter during Golden Age, with works including *The Night Watch, Artemisia, David and Uriah, The Storm on the Sea of Galilee*, etc.
- **Claude Monet** [Oscar-Claude Monet] was a founder of French Impressionist painting, with artworks *Water Lilies, Giverny, Impression, Sunrise*, etc.
- **Henri Matisse** [Henri-Émile-Benoît Matisse] was a French painter, Classical French Traditional painting, with artworks *Blue Nude II, Les toits de Collioure, Woman with a Hat, Madras Rouge*, etc.
- **Gustav Klimt** was an Austrian symbolist painter, with artworks *The Kiss, Danaé, Beethoven Frieze, Portrait of Adele Bloch-Bauer*, etc.
- **Salvador Dalí** [Salvador Domingo Felipe Jacinto Dalí i Domenech], Spanish surrealist painter, with works *The Persistence of Memory, Galatea of the Spheres, The Burning Giraffe, Metamorphosis of Narcissus*, etc.
- **Paul Cézanne**, French and Post-Impressionist painter, with artworks *The Basket of Apples, The Large Bathers, Still Life with Apples, Madame Cézanne in a Yellow Chair*, etc.
- **Mark Rothko**, American painter of Russian Jewish descent, Abstract Expressionist, with artworks *Green and Maroon, Orange and Red on Red, Ochre and Red on Red, Green and Tangerine on Red, No. 10*, etc.

Progression toward a Collective Celestial Visualization

**Science Perspective of Celestial Visualization:** In this segment, selected various large-scale structures of the Universe, including dark matter, are presented for visual purposes. While there are several such entities that have been mapped and whose visualization continues to improve, the focus of this article is not on the scientific endeavors, but instead on the visual presentation. As a sample, images created by scientists are presented here (Power, Chris n.d.; CIBER, n.d.). Additional interesting images could be found at NASA, WISE NASA/JPL Image Galleries, & The Millennium Simulation Project site (WISE, n.d.; NASA, n.d.; NASA-Images Resources, n.d.; Jet Propulsion Laboratory, n.d.; Millennium Simulation Project Site, n.d.).
Simulated Image of Dark Matter large scale structure
The Millennium Simulation Project

Simulating the density of matter when the universe was one billion years old. Galaxies formation follows the gravitational wells produced by dark matter.

https://www.mpa.mpa-garching.mpg.de/galform/virgo/millennium/
The Millennium Simulation Project
Credits: Springel et al. (2005), Max-Planck-Institute for Astrophysics
https://www.imprs-astro.mpg.de/content/prof-dr-volker-springel.html
Simulated Images of Dark Matter large scale structure & substructure in the local Universe; and the Large Scale Structure of the Universe

A dark matter simulation of the large-scale structure in the local Universe
Credit: Dr. Chris Power, Swinburne University

Dark Matter Substructure
Credit: Dr. Chris Power, Swinburne University

Large Scale Structure of the Universe
Courtesy of Dr. Chris Power and the Australian Research Council Centre of Excellence for All-Sky Astrophysics in 3D (ASTRO 3D)

Hierarchical Assembly of a Dark Matter Halo

These simulated images depict the growth of a dark matter halo in a LCDM cosmology from high redshift to the present day (left to right).
Credit: Dr. Chris Power, Swinburne University

All Images © Dr. Chris Power. All rights reserved.
astronomy.swin.edu.au/~cpower/research/images.html
Centre for Astrophysics and Supercomputing, Swinburne University of Technology
Interestingly, but not too surprisingly, the Large Scale Structure of the Universe image uploaded into Google Images actually returns many images of knitting (Google Images-Similar Images by placing Large Scale of the Universe image into the Search Box, n.d.). Even though the image of Large Scale Structure appears to be random and chaotic, Google Image Processing engine/algorithm detects that it has pattern and structure similar to knitted objects. Although Google Image Processing engine/algorithm might be astonishingly sophisticated and intelligent; however, it is not be considered as a scientific analyzing software. Thus, NO scientific conclusions should be extrapolated from this experiment; it was just out of curiosity and nothing else. Author encourages readers to try similar experiments. At a minimum, it is interesting to see similar objects.

Art Perspective of Celestial Visualization: This segment presents several artists’ works categorized by three Progression Stages (I, II, and III), ultimately displaying the latest stage III, artworks that seem to astonishingly resemble visualizations of either the large scale Universe or its components by scientists. The main task for readers at this point is to just observe all the images (with special attention to Progression Stage III by each artist) and to draw their own conclusions.
Jackson Pollock (1912-1956)
Artist

Progression stage III

Convergence
Jackson Pollock, 1952
Oil on Canvas
237 cm × 390 cm (93.5 in × 155 in)
At Albright-Knox Art Gallery

Prior Progression stages I & II

One: Number 31
Jackson Pollock, 1950
Oil and Enamel Paint on Canvas
8' 10" x 17' 5 5/8" (269.5 x 530.8 cm)

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Jackson Pollock Images/Shutterstock.com
Joan Mitchell (1925-1992)  
Artist

Progression stage I

Progression stage II
Mooring, 1971  
Oil on canvas  
95 x 71 in (241.3 x 180.34 cm)  
Collection Rhode Island School of Design Museum of Art

Progression stage III
Tilleul, 1978  
Oil on canvas  
102 3/8 x 70 7/8 in (260 x 80 cm)  
Collection Musée National d’Art Moderne, Centre Pompidou

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www.joanmitchellfoundation.org/work

Shawn McNulty  
Artist

Progression stage I
Inherit  
Acrylic on Canvas  
Shawn McNulty ©2005  
48 x 36"

Progression stage II
Iodine  
Acrylic on Canvas  
Shawn McNulty ©2008  
24 x 24"

Progression stage III
Supersonic  
Acrylic and Pumice on Canvas  
Shawn McNulty ©2017  
66 x 66"

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www.shawnmcnulty.com
### Julie Schumer
**Artist**

<table>
<thead>
<tr>
<th>Progression stage I</th>
<th>Progression stage II</th>
<th>Progression stage III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape Composition</td>
<td>Culebra</td>
<td>Night Dance</td>
</tr>
<tr>
<td>Mixed Media on Panel</td>
<td>Acrylic on Canvas</td>
<td>Acrylic on Canvas</td>
</tr>
<tr>
<td>36&quot; x 48&quot;</td>
<td>40&quot; x 40&quot;</td>
<td>60&quot; x 40&quot;</td>
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</tbody>
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All paintings © Julie Schumer. All rights reserved.
www.julieschumer.com

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### Gena Brodie-Robbins
**Artist**

<table>
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<tr>
<th>Progression stage I</th>
<th>Progression stage II</th>
<th>Progression stage III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation – Kellum &amp; Company</td>
<td>It’s Saturday Night</td>
<td>Syntropic Parameters</td>
</tr>
<tr>
<td>Mixed Media on Canvas</td>
<td>Mixed Media on Canvas</td>
<td>acrylic, polymers, graphite on Canvas</td>
</tr>
<tr>
<td>Gena Brodie-Robbins ©2017</td>
<td>Gena Brodie-Robbins ©2017</td>
<td>Transformation Series</td>
</tr>
<tr>
<td>48 x 48 inches</td>
<td>66 x 72 inches</td>
<td>Gena Brodie-Robbins ©2015</td>
</tr>
<tr>
<td>24 x 24 inches</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All paintings © Gena Brodie-Robbins. All rights reserved.
www.genabrodie.com
### Sylvia McEwan
**Artist**

<table>
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<tr>
<th>Progression stage I</th>
<th>Progression stage II</th>
<th>Progression stage III</th>
</tr>
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<tbody>
<tr>
<td><img src="image1" alt="Abstract #8" /></td>
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</tr>
<tr>
<td>Mixed Media on Paper</td>
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<tr>
<td>60 x 42 cm</td>
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<td></td>
</tr>
<tr>
<td><img src="image2" alt="Untitled #4" /></td>
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<td></td>
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<tr>
<td>Mixed Media on Paper</td>
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<td></td>
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<tr>
<td>60 x 42 cm</td>
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<tr>
<td><img src="image3" alt="Making a Mark #18" /></td>
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<td></td>
</tr>
<tr>
<td>Oil in Linen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>122 x 152 cm</td>
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[www.sylviamcewan.com](http://www.sylviamcewan.com)

### Krista Harris
**Artist**

<table>
<thead>
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<th>Progression stage III</th>
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</thead>
<tbody>
<tr>
<td><img src="image4" alt="SUSHI" /></td>
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</tr>
<tr>
<td>32&quot;h x 24&quot;w</td>
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<td></td>
</tr>
<tr>
<td>Acrylic &amp; mixed media on paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
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<tr>
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<tr>
<td>60&quot;h x 48&quot;w</td>
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<tr>
<td>Acrylic &amp; mixed media on canvas</td>
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<td>2018</td>
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<tr>
<td>Acrylic &amp; mixed media on canvas</td>
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</tr>
<tr>
<td>2018</td>
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</tr>
</tbody>
</table>

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[www.kristaharris.com](http://www.kristaharris.com)
Karen Scharer
Artist

Progression stage I
Among Friends
Oil on Canvas
54 x 54"

Progression stage II
About the Pink
Oil on Canvas
48 x 48"

Progression stage III
Bewitch
Oil on Canvas
30 x 30"

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www.scharerfineart.com

Susan Shirkhodaei
Artist

Progression stage I
Fallen
Oil on Canvas
14 x 12"

Progression stage II
Untitled
Pastel on Paper
10 x 12"

Progression stage III
Big Bang Emotion
Oil on Canvas
24 x 18"

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Private Collection, Art Studio – Maui, Hawaii
<table>
<thead>
<tr>
<th>Progression stage I</th>
<th>Progression stage II</th>
<th>Progression stage III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Untitled</strong></td>
<td><strong>Untitled</strong></td>
<td><strong>Untitled</strong></td>
</tr>
<tr>
<td>Acrylic on Wood</td>
<td>Acrylic on Canvas</td>
<td>Acrylic &amp; Mixed Media on Wood</td>
</tr>
<tr>
<td>30” x 24”</td>
<td>48” x 24”</td>
<td>50” x 20”</td>
</tr>
</tbody>
</table>

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Private Collection, Art Studio – Atlanta, Georgia

<table>
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<tr>
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<th>Progression stage III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Untitled</strong></td>
<td><strong>Untitled</strong></td>
<td><strong>Untitled</strong></td>
</tr>
<tr>
<td>Marble Stone</td>
<td>Granite Stone</td>
<td>Copper, Paper, and Aluminum</td>
</tr>
<tr>
<td>6” x 6” x 4”</td>
<td>7” x 6” x 3”</td>
<td>8” x 6” x 6”</td>
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</table>

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Wooden Bases for sculptures were designed and made by Max Birnkammer

Private Collection, Art Studio – Atlanta, Georgia
Lisa Noonis
Artist

Progression stage I
Yellow Shadow
Mixed Media on Panel
18” x 24”

Progression stage II
Pink Sky
Mixed Media on Panel
18” x 20”

Progression stage III
Orange Sky
Mixed Media on Canvas
60” x 40”

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www.noonisfineart.com

Dr. Max North
Artist/Scientist

Progression stage I
Autumn Breeze
Acrylic on Canvas
30” x 24”

Progression stage II
Awareness Field
Acrylic on Canvas
30” x 24”

Progression stage III
Red Existence
Acrylic on Canvas
30” x 24”

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Private Collection, Art Studio – Atlanta, Georgia
Affiliation: Visualization & Simulation Research Cluster
Acknowledgment and Disclaimer
Author sincerely expresses appreciation to all the contributors of images of their creative works included in this article. Furthermore, this is a non-traditional reflection of author's perceptions strictly for the purpose of an initial exploration into potential connection between art and science using a narrow field, but is interesting to the author, who experiences both. The content of this article does not reflect the opinion, position or policy of the Information Systems Department, Coles College of Business, or Kennesaw State University.

References and Resources

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Google Images, Similar Images of Nebulae. (n.d.). Retrieved August 5, 2018, from https://www.google.com/search?hl=en&tbs=simg:CAESpgJUPgoHGe3GGYamqILEkJU2AQaBAgVCAgMCxOwjKGlGmEKxwDEiVngwCDgsBPCl8hCNdPYWZnwo4SG4j6Y3yiGl900yfogKJmpgjCE9ke25jea4KvwqJRIStLxRcEVKFP0mc7j5GwoqJT2VjKUFQ11Skq5mgAdAo_1jkgkBAwELI6u_1ggaCgoICAESBKNPwbkMCxCD7cEJGoBCBChYK8H0XLYApYj2Aw0KCC9tLzA2bmdrChgKBm5ImVswYdqlIPYDGoIL20VMDVnbnkKGo10dW5pdmVc2XapYj2Aw0KCC9tLzA3djdjCh4K291dGVyIHNwYWNIzqW19gMLGvkbfS8wMTgZ3cKGAoGZ2FsYXh52qW19gMkGggb8wMzl1NQw&q=star&tbm=isch&sa=X&ved=2ahUKEwjShl64w93cAhXCu1MKhfrHAzQQsw56BAgBEAE&biw=947&bih=634


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