

ART AND MENTAL ILLNESS

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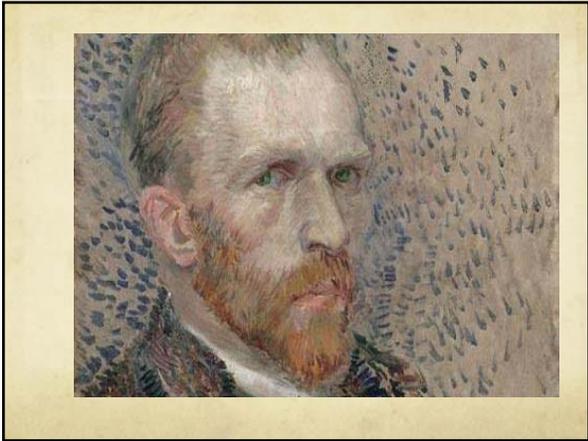
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Vincent van Gogh's "Self-portrait with bandaged ear," painted in 1889, shortly after he cut his own ear off.
Credit: Public domain



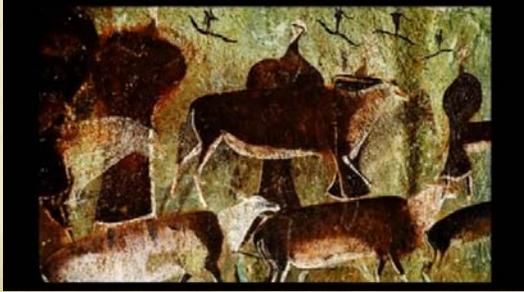
Topics

- Art and Mental Illness: Co-Evolution & Connections
- Definitions, Roles and Dimensions of Art; Impact of Lombroso
- Effect of CNS Impairment (Stroke, Autism, Dementia) on Art
- Orientation and Hemispheric Laterality in Art Perception
- The Prinzhorn Collection: Respecting & Honoring Patients
- Artists response to patients: Picasso, Dubuffet, Dali, CG Jung
- Basquiat: Power and Distortion of the Art Market
- Conclusion and References

Cave Art Spain 36,000 years old

A close-up of a cave painting depicting a bull's head, known as 'The Sorcerer' from Tucuman cave in Spain. The painting is rendered in earthy tones and shows the animal's head with horns.

Lascaux France 17,000 yrs ago

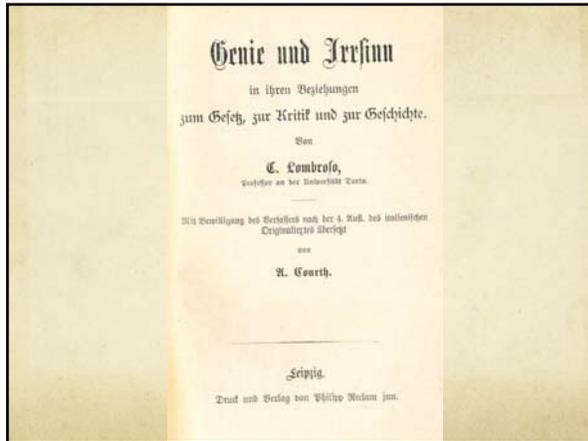


An Evolutionary Revolution caused by the mutation of CNS Serotonergic and Dopaminergic Systems about 40,000 years ago Marco Del Giudice 2018

- About 40,000 years ago: SER/DA and/or Lipid Metabolism mutations caused an explosion of Creativity in visual Art, Technology, Music (Drums/flutes/Shamans), Mentalization Skills, Social Coordination, Religion, Sectarian Leadership with Paranoia re. outsiders
- See Horrobin's "Lipid-Theory" of Schizophrenia
- Incidentally the same Mutations seem to favor Mental Illness:
- Increased "aberrant salience": high personal meaning of trivial events) which lead to
- Changed CNS DA/SER response with rewiring of the "Salience network (ACC, Insula, OFC) Kapoor 2003, Wang 2016

Shamanic Art Production

- Homo Sapiens appeared 200,000 yrs ago; cave art "only" 40,000 yrs
- Cave Art was created by Shamans, who were often mentally unstable and thought to be possessed by/communicating with spirits and gods through dance, poetry, song and paintings
- Painting animals gave the shaman/community control over the spirits of these animals and enhanced hunting success
- Possible cause: Mutations in 3 genes for Serotonin and Dopamine receptors related to mental illness occurred 40 - 50,000 yrs ago, leading to shamans and art creation (David Whitley/TED-talk)
- Maybe this is why evolution did not eliminate Mental Illness?



Fine line between genius and madness, scientists find

There is a fine line between genius and madness because they share the same genes, scientists have found.

Richard Alleyne, Science Correspondent Telegraph Sept 30, 2009

Psychologists have discovered that creative people have a gene in common which is also linked to psychosis and depression. They believe that the findings could explain why "geniuses" like Vincent van Gogh and Sylvia Plath displayed such destructive behaviour.

The gene, which is called neuregulin 1, plays a role in brain development but a variant of it is also associated with mental illnesses like schizophrenia and bipolar disorder.

PSYCHOLOGICAL SCIENCE

Research Report

Genes for Psychosis and Creativity

A Promoter Polymorphism of the *Neuregulin 1* Gene Is Related to Creativity in People With High Intellectual Achievement

Szabolcs Kéri
Semmelweis University

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Semmelweis University

ABSTRACT—*Why are genetic polymorphisms related to severe mental disorders retained in the gene pool of a population? A possible answer is that these genetic variations may have a positive impact on psychological functions. Here, I show that a biologically relevant polymorphism of the promoter region of the neuregulin 1 gene (SNP8NRG243177/rs6994992) is associated with creativity in people with high intellectual and academic performance. Intriguingly, the highest creative achievements and creative-thinking scores were found in people who carried the T/T genotype, which was previously shown to be related to psychosis risk and altered prefrontal activation.*

Distinctions: Don't Generalize
(from Kay R. Jamison, Hopkins University/YouTube discussion)

- Artists are more often mentally ill, and mentally ill people more often create art work (poetry, paintings etc.): dimensional relationship
- Not all mentally ill people are artists - only a small group!
- Not all artists are mentally ill or unstable - only a small group!
- Creativity seen in Bipolar Disorder more than other Mental Illness
- Mania leads to increased production but poor quality
- Depression can also stimulate art work
- Psychotic patients lack formative skills

Questions

- What is "Art"? What arts do you like, or practice?
- How do you address your patient's artistic expressions?
- Why are Art & Playfulness so undervalued in the USA?
- Becoming "Human Beings" vs. "In-Human Doings"
- What place has art in your treatments? In your own life?
- If suffering spurs a search for meaning in life, using art as a tool - will treatment mean loosing one's art?

What Can Art Do?

- True Art affects us immediately by resonating with unconscious Archetypes and neglected needs, and does not require comparison, analysis or explanation
- Art holds a Mirror to Society, and to You, connecting us ("The Emperor's New Clothes"): artists/fools/children
- Art can speak truth to power (sycophantic Kitsch like Fascist or Soviet "Art" is the opposite - not art in the true sense)
- Art can be the 'Archimedes Point' outside your little Personal Universe from which you can unhinge your obstacles to realize your true Self (through trance & enlightenment)
- Andy Warhol: "Art is what you can get away with"

Functions of Art

- Recreation of Nature and Perceptions of "what's out there"
- Symbolic, Magic, Religious and Spiritual functions which help control what's out there ("Sacred Art")
- Self-Expression as Recreation of "what's in there", based on the innate Drive to Create and Form
- Communication (with others, self, God, spirits, forces) as done by Shamans and Navajo artists, among others
- Beauty (revealing truth) vs. Kitsch (hiding truth/lying)
- Enhancement of feeling alive/"vertical dimension"
- Art is Part of Life, so it can contribute to Understanding of Diagnosis, Treatment and Course of (Mental) Illness
- Wagner: "Gesamtkunstwerk" - context and perceiver as part of Art

Is Beauty part of ART?

- Beauty is a dialogue between perceiver and perceived
- Beauty is the answer to the audacity of a flower
- Beauty lies in the eye of the beholder
- Beauty is "useless", non-utilitarian, playful, arbitrary
- Beauty is harmony, healing, goodness, divine perfection, cause of love and longing
- Is there Art without beauty? Ugly Art? "Degenerative Art"?

Aesthetic Value of Art

$$M = O/C$$

- M = aesthetic measure; O = order; C = complexity
- Brain Disease, both Neurological and Mental Illness, may affect O, i.e. the ability to use rules and structure, and C, i.e. the skill to emphasize the essential by simplifying and reducing complexity, like in $E=mc^2$
- Lets have a look on Art affected by Brain Disease

Book "Aesthetic Measure" by George David Birkhoff, mathematician, Harvard Univ. Press 1933

A Patient's Main Question

○ "CAN YOU SEE WHAT I SEE?"

- "Do you hear my story? Do you see my world?"
- What does a stroke patient see, and paint?
- What do psychiatric patients see, and paint?

Example from Neurology





Self-portraits by Artist: Anton Raderscheidt

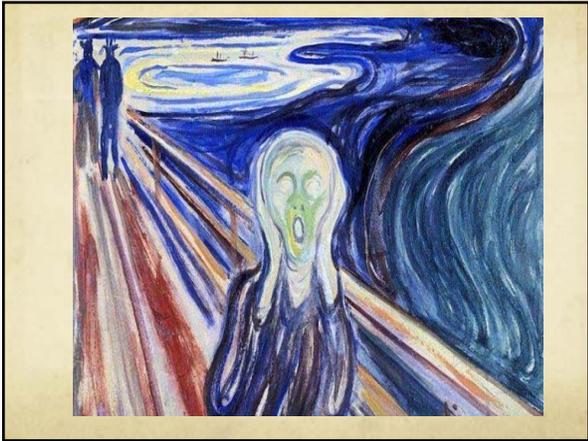
He was an artist who suffered from a stroke which affected the right hemisphere of his brain leading to left-sided visuospatial neglect. During the period after his stroke, he began to do a series of self portraits, as seen above. The first is noticeably missing the left side of the painting, evidence of his left-sided visuospatial neglect, alerting us. The rest reflects gradual changes in his paintings (course/recovery) as he continued, and suggest that improvement does occur with rehabilitation in stroke patients.

Acquired Savant Syndrome

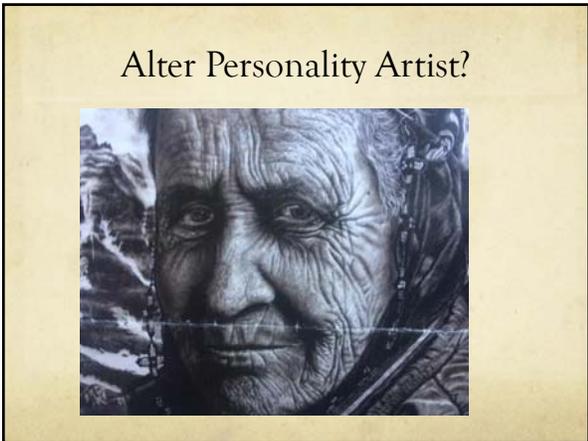
- Brain dysfunction can “liberate”/disinhibit previously suppressed and thus inaccessible artistic skills
- The Cases of Genie and Nadia: Decreasing visual artistic skills with increasing verbal proficiency (RH-LH antagonistic interaction? Treatment-induced harm?)
- The Case of de Kooning: Improvement of visual art in FT Dementia (production increased and style changed/worsened with onset of FT Dementia)

Nadia: Autism

- Nadia was an autistic child, who between the ages of 3 years 6 months and 6 years 6 months, showed amazing artistic ability although having a severe learning disability and little use of language.
- She showed this out- standing skill in her drawing of horses, other animals, and latterly humans. Nadia started treatment at a school for autistic children at the age of 7 years 6 months where her language function began to improve.
- At 9 years old she could utter simple sentences, but now seldom drew spontaneously. Her drawings of people were recognizable, which is still unusual but no longer an extraordinary talent at this age.
- Could Treatment Diminish Artistic Creativity?









FT Dementia

- The development of exceptional and unexpected artistic skills at any age must be a matter of curiosity. This can occur among young children with severe learning difficulties, especially if they are autistic.
- It is also true that elderly people who suffer from frontotemporal dementia can find that they are able to express themselves in remarkable art forms. This can occur in other types of dementia, but then more often it is the changes that result in the paintings of established artists, for example in the paintings of de Kooning.

Explanation

N. Gordon Postgrad Med J 2005;81:753-755. doi: 10.1136/pgmj.2005.034348

- The result of a lesion in the brain is not just the loss of a function mediated by this region, but the efforts of the rest of the brain to re-establish maximal potential. In normal subjects inhibitory and excitatory mechanisms seem to act in a complex harmony, but the role of inhibitory processes, for instance, may be critical in mediating the restoration of certain functions.
- In frontotemporal dementia, degeneration in these areas may be accompanied by an increase in the functions of the more posterior regions subserving visuospatial functions, resulting in an enhancement of artistic abilities. Kapur uses the term "paradoxical functional facilitation" (see also Pierre Marie and Norman Geschwind).
- In the context of severe learning disorders most intellectual high level controls and functions are excluded, thus increasing the capabilities for some simple and faster processing.

Art in Psychiatric Illness

- Creativity varies with mood – many examples of changes in artistic quality and productivity in Bipolar Disorder
- For time and clarity reasons, let's focus on the art produced by patients with Schizophrenia
- Of the several collections, we will focus on the Prinzhorn Collection as the most famous and elaborate example
- Visual Perception is complex; in psychosis, it is easily disturbed: orientation specific face recognition (Hollow Mask effect, Thatcher effect); R/L hemispheric differences

The Thatcher Effect

Orientation-specific perception of facial emotional expressions



Hollow Mask Illusion: Convex vs Concave Face Perception

<https://www.youtube.com/watch?v=2gOX5fcakEQ>



Hemispheric Differences in the Interpretation of Ambiguous Stimuli

Stimuli without a clear structure may permit different interpretations, a concept already discussed by Leonardo da Vinci in his *Trattato della Pittura*. In order to assess hemispheric differences in the perceptual structuring of ambiguous stimuli, we used the Rorschach inkblot plates (Fig. 7). The Rorschach plates are commonly used as a projective personality test. It is assumed that subjects

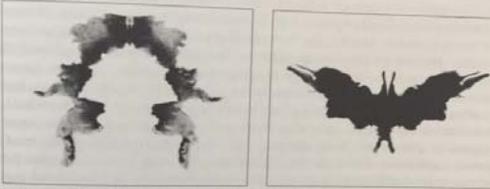
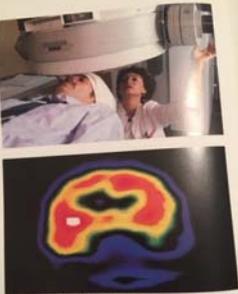


Fig. 7. Two achromatic examples of the Rorschach inkblot plates (reprinted by permission of H. Huber Verlag, Bern)

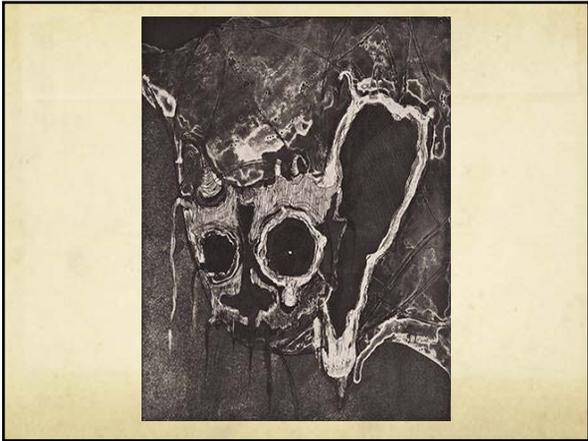
Role of the Right Hemisphere

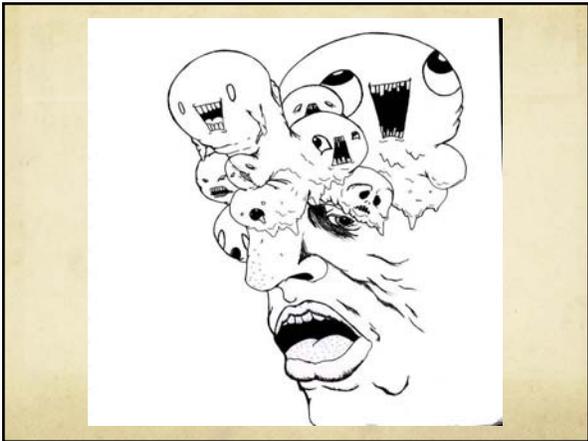


- In acute Schizophrenia as well as in drug induced psychosis, an abnormal over-activation of the right hemisphere c/o controls was observed in divided visual field studies and brain imaging.
- This correlated with measures of paranoia and delusions in the BPRS
- It may be a factor in explaining aspects of schizophrenic art

“Electricity makes you float”

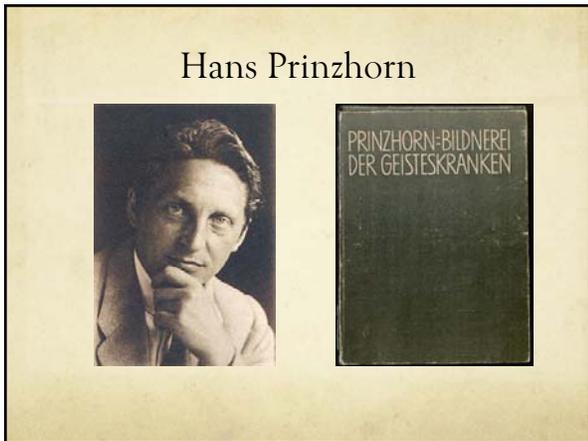












Hans Prinzhorn

- Studied History and Philosophy, trained singer, served as an army surgeon in WWI, worked under Karl Wilmanns in the psychiatric clinic of the university of Heidelberg, expanding Kraepelin's small collection of art of the mentally insane. When he left, it contained >5000 works created by about 450 "cases"
- In 1922 he published his book "Bildnerie der Geisteskranken" which became legendary in the art scene (see Jean Dubuffet's "Art Brut" concept)
- He died 1933 of Typhus

Prinzhorn: Drives underlying Art

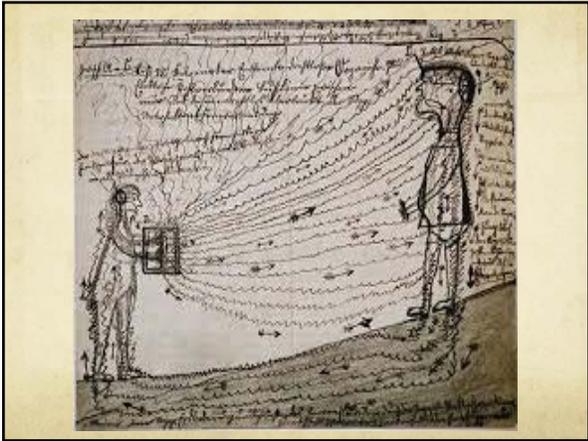
- A drive for expression and shaping "Gestalten"
- drives for Activity, playfulness, ornamentation and beautification, to order things, to imitate and copy, to create symbols, idols, fetishes and meaning to better control chaos and mysterious forces
- Patient's paintings similar to children's work, but with bizarre phantasies, dreamlike quality, lack of central principle or theme, disintegration of the normal experience of existence

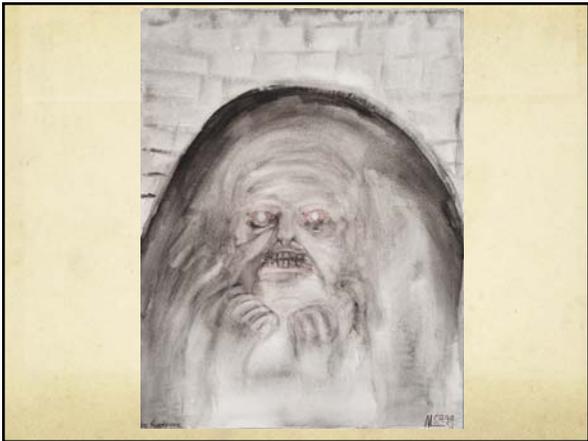
Features of "Schizophrenic Pictures"

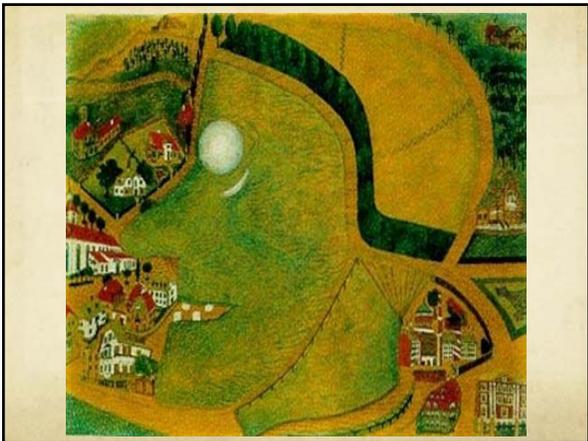
- Physiognomization (likely related to RH overactivity)
- Eerie or scary features and faces
- Fragmentation
- Using writing across paintings
- Disrespect of perspective like children & primitive art
- Symbolism and magic/religious themes
- Ornamental and symmetric elements to control chaos

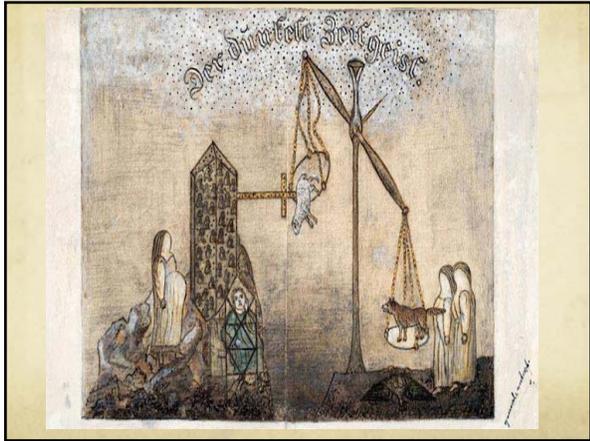
Examples



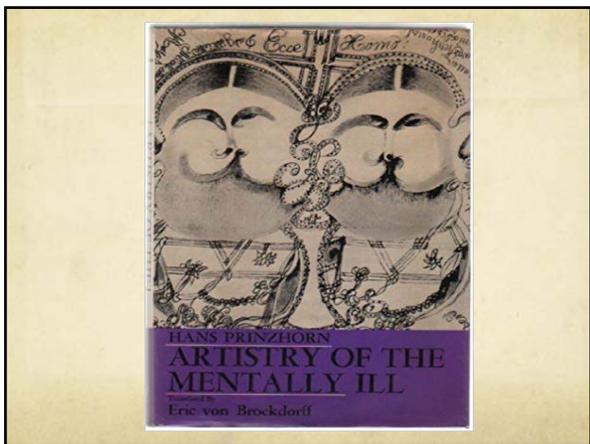




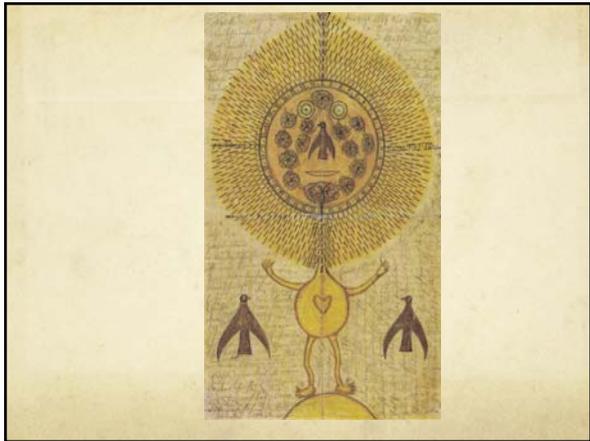










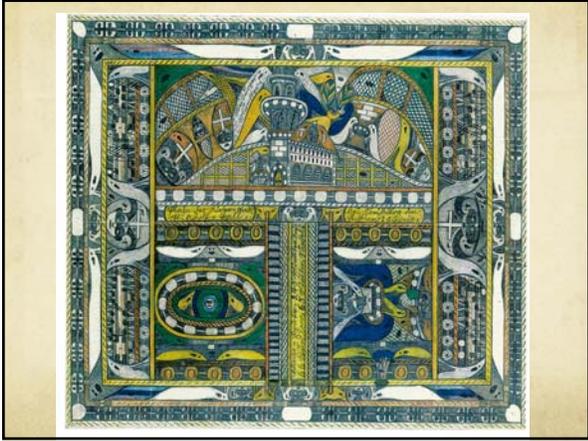


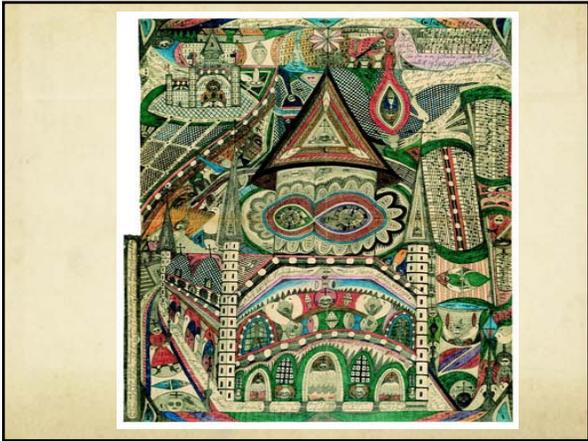


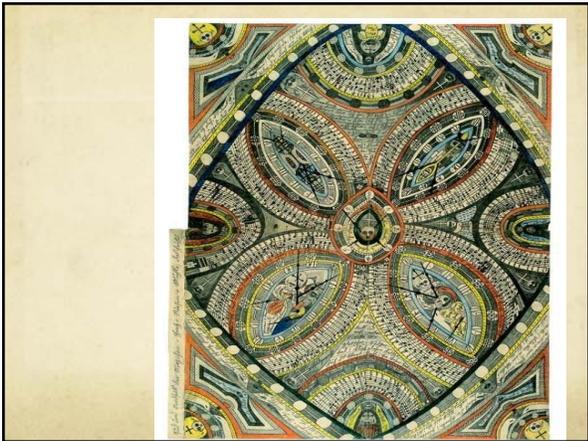


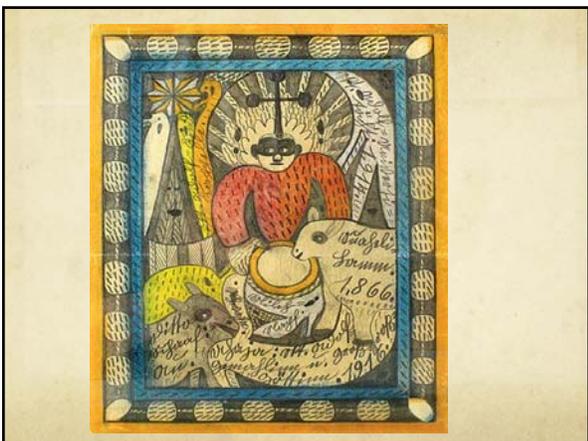
Adolf Woelfli
A Patient who became an Artist
Mandala-type
Symmetry and
Balance helps
Stability













Louis Wain 1860-1939:
An Artist who became a Patient

Paintings in the Progression of Psychosis:

The progressive escape of reality towards delusion is expressed in the pictures in the next slides. They were painted by Louis Wain, an European artist in the beginning of this century. Since Wain was young, he used to draw and paint cats for calendars, albums, postcards, etc. When he became 57 years old, he was affected by an unknow mental disorder , which overtook his life as well his art. The last 15 years of his life were spent in psychiatric institutions.

His cat's paintings started to change and to show startling images. Quite revealing of his psychotic condition were the cat's eyes. See how they become fixed with hostility, even in the earliest paintings, because the psychotic probably tends to think that the world is looking upon him in a menacing way.

Another sign is the fragmentation of the cat's body. They become altered in a strange way under the psychotic's gaze, and almost always are represented as distorted and phantastic shapes

L. Wayne: Normal Period



L. Wayne: Psychotic Period



The Thatcher Effect

Orientation-specific perception of facial emotional expressions



The image shows four faces arranged in a 2x2 grid. The top row features two monkey faces. The bottom row features two faces of Margaret Thatcher. In the top-left image, the monkey face is upright and appears happy. In the top-right image, the monkey face is upside down and appears angry. In the bottom-left image, the Thatcher face is upright and appears happy. In the bottom-right image, the Thatcher face is upside down and appears angry. This illustrates how the Thatcher Effect causes inverted faces to be perceived as having different emotions.

Magritte: "Philosophy in the Boudoir" and "Memory"

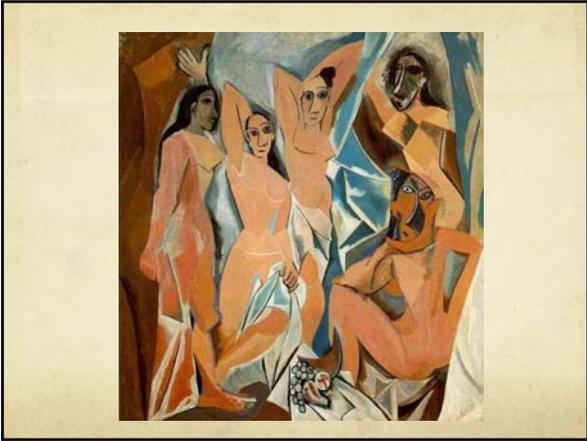


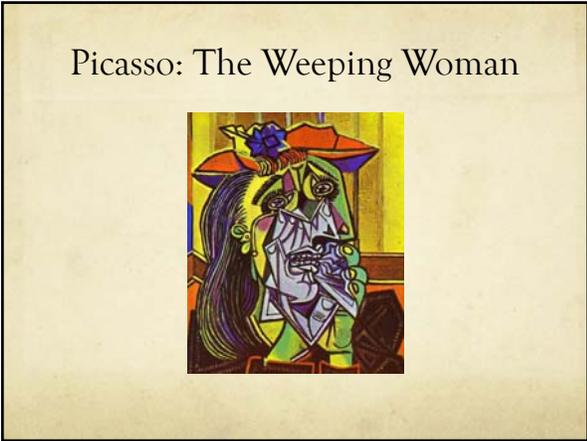
The image shows two paintings by René Magritte. On the left is 'Philosophy in the Boudoir', which depicts a white dress hanging in a wardrobe. On the right is 'Memory', which depicts a white bust of a woman's head with a red wound on its forehead, sitting on a table next to a small white sphere and a green leaf. The background of 'Memory' is a blue sky with a crescent moon and a red curtain.

Pablo Picasso

- "Art is a lie that makes us realize the truth"
- "Every act of creation is first of all an act of destruction"
- "Others have seen what is and have asked 'why' - I have seen what could be and asked 'why not' ..."
- "I do not seek - I find"



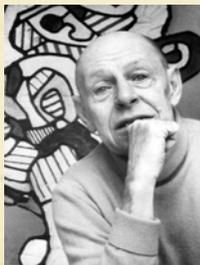




Picasso: Woman in Armchair



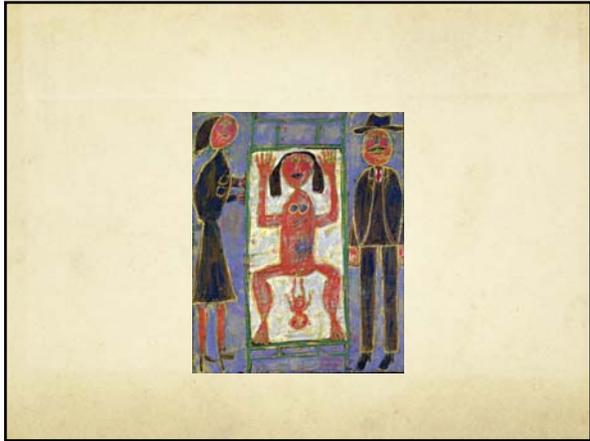
Jean Dubuffet: Art Brut



Dubuffet's "Art Brut"



- Dubuffet found his concepts of 'art brut' confirmed in the art of mentally ill patients. He collected many pieces of them, and claimed that the works, while often rudimentary, 'are charged, perhaps more strongly than the works of celebrated artists, with everything that could be asked of a work of art: burning mental tension, uncurbed invention, an ecstasy of intoxication, and complete liberty'.
- He overlooked and idealized Impairment and Suffering of mentally ill patients.



Jean Dubuffet



Jean Dubuffet: Art Brut



Salvador Dali



- "The fact that I myself, at the moment of painting, do not understand my own pictures, does not mean that these pictures have no meaning; on the contrary, their meaning is so profound, complex, coherent and involuntary that it escapes the most simple analysis of logical intuition."



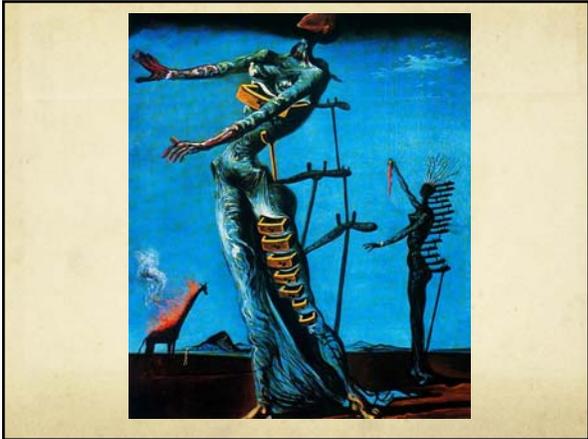
Dali: Dream Caused by the Flight of a Bee Around a Pomegranate

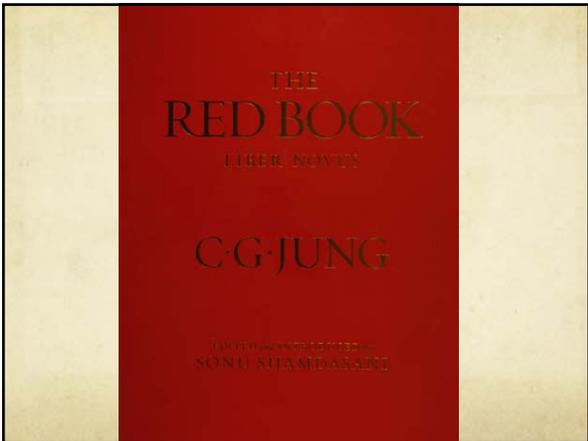


- Dali invented the surrealist technique "Paranoiac-Critical Method" to inspire the brain to perceive things which rationally are not linked. "A spontaneous method of irrational knowledge based on the critical and systematic objectivity of the associations and interpretations of delirious phenomena". It uses actively visualized images with ambiguous interpretations.
- Other artists sometimes used drugs to induce such a "paranoiac-critical" state of mind
- Overlap of dream, delirium and Mental Illness in surrealist art

Recurrent Themes (Dali)

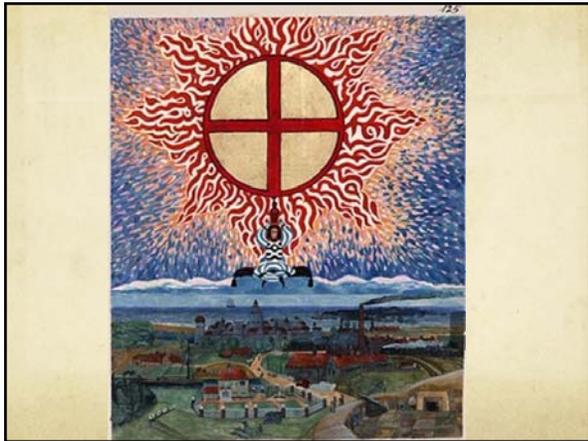






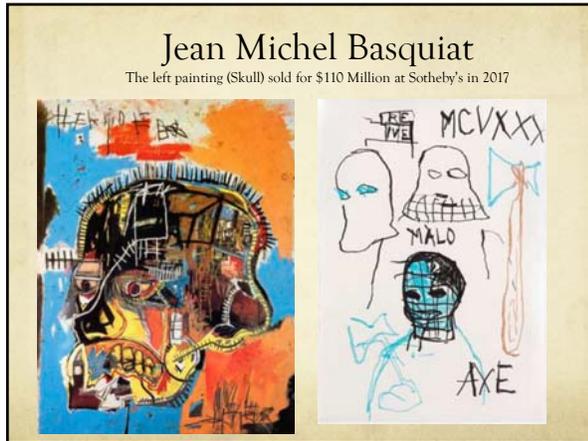


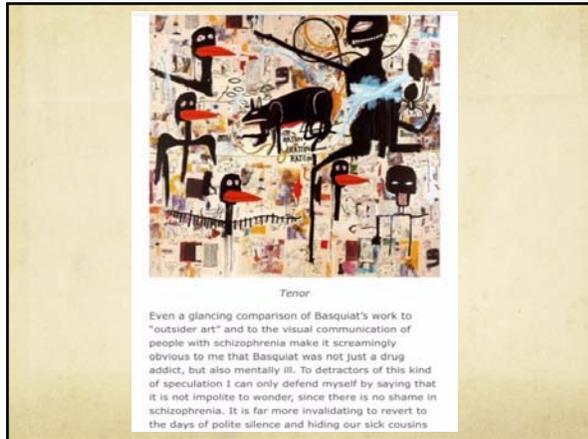
DOWNLOAD THE RED BOOK (PDF)
You can download a free full color copy of Carl Jung's The Red Book, including the complete English translation by Shamdasani, by filling in your email

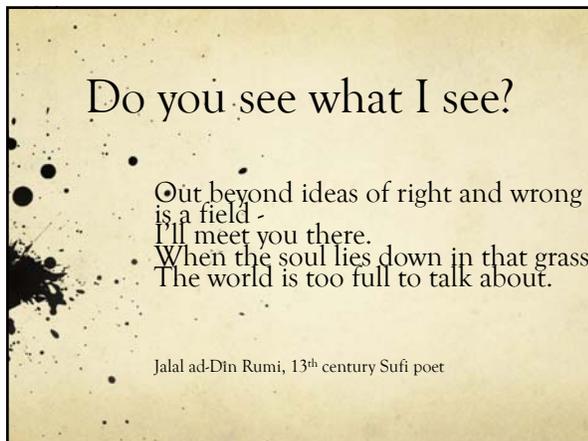


Jean Michel Basquiat 1960-88
Haitian social activist or schizophrenic Heroin addict?









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