
ART AND ORGANISM

*A Biological Perspective on Art and
Aesthetics*

SPRING 2014 SYLLABUS: CALENDAR
and TOPICS

University Studies 413
Ecology and Evolutionary Biology
413

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[office / hours](#)



PREMISE: Art is central to one of the most wholly human of our cultural endeavors, and yet one undeniably linked to, if not wholly emergent from, our basic biology. But biology embraces many different kinds of questions, methods of investigation, and centering concepts. The essential elements of four main biological approaches to behavior will be summarized, integrated, and brought to bear on art and aesthetic experience.

Art and aesthetic experience may be understood as part of the ensemble of behavioral traits that characterizes our species. And like other traits, their causes and consequences may be illuminated by considering the fundamental biology from which they emerge and how they contribute to the survival of individuals or groups. To do this, we will employ ethology: the discipline that brings the essential elements of developmental biology, ecology, evolutionary biology, and physiology into focus and integrates them in the service of illuminating behavior. As we explore the power of biology to provide insight into behavior, we may learn more about ourselves than any external abstractions. Classes consist of lectures followed by discussion

RESOURCES; Navigating the website. The website is a work in progress. It is *dynamic* in that both pages and their interconnections are always changing. Each page is richly interlinked with other pages and with readings or links to readings. Each page resembles a blog in that I try to keep it up to date and in synch with emerging literature and thinking. An important theme is that of *connections*, and the biology of art and aesthetic experience is, wherever possible, connected to cultural expressions of any particular theme on which we are focusing.

TOPICS: approximate timetable

JANUARY 14 [INTRODUCTION: The Art and Science of Art and Science](#)

- I played [Brandi Carlile's Hallelujah](#) for music
- **READ main text of [INTRODUCTION: The Art and Science of Art and Science](#)** ... Links are to explore
- What is art and science versus *when* is: [ART and SCIENCE -- definition and its problems](#).
- What is Linear thinking? for a clue, read [the way of the riddle and think about](#) multidimensional mind-mapping
- what is Homeostasis: extended homeostasis would include dynamic balance in mind and body -- read [Qi](#).
- **[ASSIGNMENT](#)**

JANUARY 21 The Biological Background: [ECOLOGY](#) and [EVOLUTION](#)

- Raven Suggested [Kent: Sundance Kid](#) ... Emma suggested [James Taylor: Carolina in my Mind](#) for music; Haden likes [Jim James](#)
- [DEEP ethology](#): the integrative approach to the biology of art
- Environment and biological fitness, Natural Selection; what are the *needs* of beasts, men, and gods?
- [What is art for?](#) -- possible adaptive advantages
- **[KNOWING and REALIZING](#)**
- **[ASSIGNMENT](#)**

JANUARY 28 The Biological Background to Art: [DEVELOPMENT](#): assimilating or accommodating new experiences.

- [CHANGE](#) "The Teachable Moment" WEB: [Causes and Consequences](#)
- [Mystery](#): the mainspring of science and religion; what is real? ideal?
- The war between [truth and reality](#), the essential tension driving [the dynamic reciprocity](#) of [apparent dualities](#). [creativity](#)
- (instinct and intuition ... reality, sureality, and the "higher truth" of myth
- **[ASSIGNMENT](#)**

FEBRUARY 4 The Biological Background to Art: [PHYSIOLOGY](#), [input, integration, and output](#)

- [Input and Perception](#): From sensation to perception; sorting through it all

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- The "aesthetic experience" [[more](#)] .



A&O - BOUNDARIES OF KNOWLEDGE.ppt

- THEME and VARIATION (= UNITY in VARIETY) and LEVELS of ORGANIZATION (and NOTES from DEEP ETHOLOGY)
- [Kuhn, Stent, Vygotsky, and the hopeful monsters of reason (different is good, too different is bad) will we assimilate or accommodate?

FEBRUARY 11 The Biological Background to Art: Integration and Meaning

- Lain suggested [Greg Pattillo Beatbox Flute Fur Elise Jumpin' Jumpin'](#)
- MORE CONNECTIONS: BELIEFS and FAITH about what is more-or-less VALID or "TRUE"
- Connections ... The psychoanalyst and the artist
- truth and certainty, [cognitive dissonance](#); [cognitive science](#)
- Consciousness
- Truth and Beauty
 - ASSIGNMENT

FEBRUARY 18 The Biological Background to Art: output and expression

- Denise found a [hands-related you-tube of sand art in Ukraine](#)
 - connection: what media are available as vehicles of expression? - [typical media](#); [air-earth-fire-water](#) every medium CONSTRAINS and ENABLES aesthetic expression: parts of body are obvious participants in "non-verbal communications" but also participate in many less obvious ways -- you are after those also!
- CONNECTIONS and more on REDINTEGRATION
- BACK TO DEVELOPMENT (social referencing)
- Communicating: "fossil poetry" and logos
- Corporealization of the psyche --- [words are "fossil poetry" and "proxies" for thoughts](#) ... but thoughts use words! is it "proxies all the way down" to the tips of the bell curve?
- automatization versus autonomization
- where do [communicative signals](#) come from (evolution and development)

FEBRUARY 25 The Biological Background to Sociality/ The Social Background to Art

- BODY PARTS and their DEEP HISTORY STUDENT EXAMPLES
- Open and closed genetic programs
- biological and environmental determinism
- Meaning: its origins and archeology; deep and surface structures;

mindmaps

- **ASSIGNED: familiarize yourself with a cluster of ideas connected through the concept of "the teachable moment" What stands out about it? what can you add [you can *always* add, even if it is a belief or an idea that is deeply subjective]**
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MARCH 4 Art and Other Organisms

- WE ARE (it seems) in a "FLIPPED CLASSROOM"
- Self and Selflessness: [the way of the artist](#), [the way of the self](#)
- How does ART contribute to consciousness?
- Why do we need consciousness? Is it [socially constructed](#)?
- Prefigurements of art in other species (including children)
- **ASSIGNED: PROPOSE FOCUS of MAJOR PROJECT and**
- **ELEMENTS OF ART:** read ahead: [review the traditional "elements of art"](#) and read Ramachandran's (2004) [essay](#) and [an overview of "primate art"](#)

- complete BODY PARTS



- [A&O - information flow.pptx](#)
 - Look again at [DEVELOPMENT](#) and this time include [LEARNING](#)
 - [TRUTH is FRAGMENTARY-- understanding is incomplete at best](#)
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MARCH 11 Art as Inquiry

- **REVIEW of elements from DEEP:**
 - [Sources of confidence in TRUTH and REALITY](#), particularly the tests of correspondence and coherence --
 - "estimating" truth: interpolation and extrapolation
 - cause-and-effect in the developmental unfolding of genetic potential: pleiotropic genes and polygenic traits
 - **PAPER TIP: LOOKING BEYOND the normal boundaries of behavior give important clues about its causes and consequences: the variety of cognitive dysfunctions that can be attributed to accidents or disease -- particularly in the nervous system -- is astonishing. Many a rare or even unique, but well documented (case studies) -- use these clues & check [A&O NOTES on](#)**

DYSFUNCTION to get some orientation

- WE have begun to consider elements of BIOLOGY with respect to ART -- but what about elements of ART with respect to BIOLOGY: [review the traditional "elements of art" and read Ramachandran's \(2004\) essay](#)
- Art and experiment; Constable, Zola, Claude Bernard)
- [Creativity, its nature and nurture](#)



- COMMUNICATION - stress & ritualization.ppt

MARCH 18 [SPRING BREAK]

MARCH 25 Art and Cultural Evolution

- Henry James once said that **our experience is neither complete nor limited. It is "an immense sensibility, a kind of huge spider web of the finest silken threads suspended in the chamber of consciousness, and catching every air-borne particle in its tissue."** (1888):
- **AT THIS POINT we HAVE A FRAMEWORK of criteria that anchor conversations about effective ART or SCIENCE. WE should be able to take ANY phenomenon and place it at the center of this "cloud of criteria" -- identifying connecting chains of causation when we know them with more-or-less confidence or connecting them with intuitive associations where we cannot identify explicit causal connections.**
- Coping with change
- "stress" affects change: we will discuss the varieties of stressful experience

- **EVOLUTION. EXAMPLE of integration of ANTHROPOLOGY and ARCHEOLOGY with BEHAVIORAL NEUROSCIENCE:** "Combining findings about stone-tool construction with neuroscience, psychology and archaeology, we can now estimate the origins of distinctly human mental abilities, such as when we first began to order our thoughts and actions, when our visual imagination blossomed, when we started to think about the past and future, and when we first played make-believe. There are even hints about the emergence of our capacity for patience, shame and suspicion – and the nature of our ancestors' dreams." Read **Sharp thinking: How shaping tools built our brains** by David Robson in New Scientist March 3 2014
- **PHYSIOLOGY. EXAMPLE of dynamic balance of integrative functions:** the various forms of "**LOVE**" can be interpreted as varying combinations of **motivation, affect, and cognition**. (recall that **motivation** is "energized" by **affect** and **cognition** is "expensive.")

- comfort, affection and the denial of death
 - read [A&O notes on "Getting It"](#)
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APRIL 1 Artist as Seer

- [nature and nurture of the creative self](#): Visionaries and prophets in the Kingdom of the Blind
 - memory and imagination: creating the past, recalling the future
 - Francis Ford Coppola comments on craft in "Hearts of Darkness" (in [A&O notes on spontaneity](#))
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 - **EXPLORE a MEDIUM that will be important in your term-work DEEP analysis (e.g., DEEP QUALITIES and the QUALITIES as a work of ART) -- REVIEW [A&O MEDIA SITE](#)**
 - **REVIEW [DEEP ETHOLOGY](#) page on "LEVELS of ORGANIZATION" and a brief essay that shows how an "art form" reveals levels that might not otherwise be difficult to detect by cognitive processes alone ("[More Materials, Maestro](#)") -this should remind you of "models" and what the best one might be for a given application ... for a given pursuit of the pattern or order in the phenomenon. (*"The hidden structures of music are universal patterns of nature – and they can help us create new materials like artificial spider silk"*)(more about [MEDIA - and sounds in particular](#)) (In this regard, think about "[Cognitive Ergonomics](#)" (when is music better? sculpture? graphics?))**
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APRIL 8 Project Reports

- DISCUSS ORGANIZATION of Full panoply, formal presentations: four to five hour symposium; some refreshments & snacks available, rest are pot-luck -- possibly April 15
- PHYSIOLOGY: HOMEOSTASIS and STRESS: set point, error detection,
- compare & contrast work of art and work of science
 - DEEP of a great work of art connected to your topic;
 - ART analysis of a great work of science connected to your topic



- [A&O - hide and seek.pptx](#) [A&O - STRESS.ppt](#) -- to be reviewed for material to enhance PHYSIOLOGY component of term work (stress is activated by a deviation from the set-point associated with a biological NEED (= "motivation"))
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APRIL 15 [A&O SYMPOSIUM](#) ... all gather for annual presentations of progress in project development

- thinking about presentations and projects ...



organization and bases to touch: [A&O- Presentation model \(2\).ppt](#)

APRIL 22 REVIEW strengths of presentations in order to "meet shared expectations" and improve term reports; loose ends ... perfect your understanding of what term report might be like....

Classes EndFriday
April 25
 Study DayMonday
April 28
 ExamsTuesday – TuesdayApril 29, 30,
 May 1, 2, 5, 6

PAPER ! advanced draft due on April 29 ... FINAL copy on May 5 ...

[CHECKLIST for grading](#)

RESPONSIBILITIES and GRADING

Grades are based on

(a) participation in class discussions and "open diary" quizzes (written responses to questions based upon **whatever notes you have in your class diary or journal** [[more on journals](#)]) (b) the best ten brief "reports" developed from the [exercise and assignments list](#). (c) an individual term project including oral presentation and paper to be submitted [[more on term project](#)]

RESOURCES

Selected Readings (15-30 pp/week) / **Human Ethology** by I Eibl-Eibesfeldt (1989) Chapter 9.; **What is Art For?** (an interpretation of the evolutionary significance of art by Ellen Dissanayake, University of Washington Press, Seattle, 1988). / **"The Biological Foundation of Aesthetics"** and other essays in **Beauty and the Brain: Biological Aspects of Aesthetics**, (Edited by I Rentschler, B. Herzberger, and D. Epstein, published by Birkhauser) (On Hodges Library reserve, on-line, or handed out in class). **Videos** (5 episodes throughout the semester from the series by ethologist Desmond Morris: **The Human Animal** (Hodges Media Center or in-class).

In 2014 I will try to keep a collection of on-line resources at a Google sister-site with a password challenge: [Art and Organism](#) ; <http://sites.google.com/site/artandorganism/home>

Photo Album	grading overview; Term-paper guide & checklist	keeping a journal mind-maps	recent TERM PROJECTS	RESOURCES for PROJECTS
how to study	exercise and assignments list	QUESTIONS & ANSWERS	Interdisciplinary resources	GLOSSARY of A&O terms



Brain-Breaks: click the butterfly when your brain hurts (not guaranteed to make it better, just different)



The Interdisciplinary Eye: click the eye when you feel discursive (you never know where these things will lead . . .)

Glossary of terms in A&O



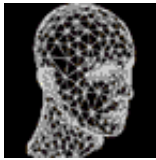
[A&O home](#)



[GREENBERG home](#)



[Philosophy of Teaching](#) | [A&O for graduate credit?](#)



The Art and Organism web pages, like artists and organisms themselves, are a motley, eclectic agglomeration of more-or-less mutually accommodating traits that exist in the service of the overall idea. Each is, like the entire A&O enterprise, a work in progress, with its own history and function. At any given moment web pages are born, manifest more-or-less exuberant growth, then senesce and die. Some leave a legacy manifest in their replacement or reinvention elsewhere. Each seeks to prosper on its own as well as keep the balance or harmony and vigor of the whole project. They respond well to constructive criticism.

