



CRAIG NAGASAWA, "GOJIRA STIVOT SCHUSSHI " 2014 HAND-GROUND MINERALS AND INK ON SILK AND JAPANESE PAPER 48"H X 78"W

Natural Pigments in the Industrial World

SPRING 2019

ESPM 198 (3.0 UNITS)

DAYS: FRIDAY

HOURS: 2-4 PM

LEAD FACILITATORS: Reniel Del Rosario, Tina Teng, Kayla Toy

ROOM: KROEBER 375

OH: Emailed weekly

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NUMBER: 707.315.3870

Dept. Sponsor: Kurt Spreyer

CLASS SIZE: MAX. 20

With the modern day popularity of store-bought mediums such as oils, acrylics, pastels, watercolors and much more, we often don't take into consideration the processes it takes to produce the abundant art materials in the market. The machines of mass production make it easily forgettable that we, humans, are capable of doing what they are doing. It was only a few centuries ago that the everyday paint tube was invented. This means that artists before then made or bought hand ground pigments from natural materials that were then put through a completely separate process to become a paint, a stick, a wash, etc. to suit the artist's needs.

Through this DeCal, we will be exploring natural pigments in our world by examining a varied history of art material processes, Berkeley's own palette of natural pigments, and making contrasts between the industrial, mechanized processes versus our own handmade, humane methods. We will begin with the analysis of the environment and the ways in which we gather pigments from it, as well as our inability to find the perfect pigments—leading up to the creation of synthetic pigments and their impact on the environment and artists.

We will then go closer to home by discussing California and its array of colors found through nature and the pigments it offers for mineral pigments and dyes. The unique history and landscape of California offers itself to be a rich history of discussion about indigenous uses and politics, such as the Gold Rush. Politics of pigments; however, are more than just in California. Worldwide there exists pollutant pigments, industrial runoff, and capitalistic ventures that create many issues that endanger the environment, people, and the existence of some pigments. Through this DeCal we will look closely at some cases and see the stronger connection between nature, man, and aesthetics.

WHAT WILL BE LEARNED?

You will learn:

PIGMENTS

- Mineral pigments
- Natural dyes
- Natural pigments
- Locality of pigments
- Synthetic pigments

PROCESSING

- Pigment grinding
- Sieve processing
- Medium incorporation
- Env. health for artists

HISTORY

- Politics of pigments
- Significance of color
- Indigenous uses
- Capitalization of color
- Environmental impact
- Toxins in environments

GOALS FOR THE CLASS

- Understanding the impact of natural pigments environmentally and politically
- Getting a grasp of the long history of pigments since the dawn of mankind
- Learn past and current situation of pigment desirability and the problems along with it
- Learn how to use natural and synthetic pigments while understanding their impact

WHY

It's important to be aware of the materials you use and the kinds of processes it takes to develop them through industrial machinery and labor. Taking into consideration the history behind art pigments and you can start to register the larger impact of mass-produced art commodities can have on the environment and the waste and hazards associated with it.

The production of paint on such a massive scale through machinery can lead to obvious air pollution because of powered machines; however, it does not stop there. There are many pollutants with synthetic paint processing and disposal, leading to problems with polluting the environment all throughout the process.¹ Along with that direct impact, the waste of materials due to their mass-production and ease-of-availability often leads to wasted product that will be left unused.

We hope to open your eyes to more natural pigment sources as a way to lessen your negative impact on the environment (and yourself) as an artist in a mass-produced ready-to-use art supply market. We are also here to open your thoughts to current situations regarding the price put on pigments and how that affects the market and its consumers—ultimately affecting the environment during extractions and productions.

¹ <http://www.architectureanddesign.com.au/suppliers/greenpainters/paint-industry-impacts-environment-greenpainters>

EXPECTATIONS

This class is very hands-on and will need you to be very dedicated to safely crushing rocks, sifting rocks, mixing mediums, and making art using the mediums you wish to explore. There are a total of two projects and one presentation. A 30 minute to 1 hour lecture usually begins most classes, followed by a studio portion for an estimated 1 hour. Depending on your productivity during class, you may have to use outside time during OH in order to crush pigments, sift, or create mediums. OH are also a good time to go and experiment methods using natural and/or synthetic pigments.

ACADEMIC DISHONESTY AND PLAGIARISM

*"As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others" -
Berkeley Honor Code*

- excerpt from Case Studies on Natural Disasters DeCal

Any form of academic dishonesty, plagiarism, or unlawful actions during the duration of the course will result in a non-passing grade. As students, you will take full responsibility for any assignments you submit and full claim if they will be found as thefts. In terms of the artworks you will produce, we understand that appropriation, pop-referencing, and recontextualization are some of many approaches to art that stem from mimicry, critique of a subject or otherwise; however, we hope you understand that such approaches require a purpose other than aesthetics alone or laziness. We hope that we will encounter nothing but the products of deeper thinking towards the topics of the class.

DSP ACCOMMODATIONS

This DeCal will require working with your hands through grinding pigments, sieving them, and applying them. The environment of the studios will be expose the class to solvents, dust, etc. that will be handled through mask distribution, proper ventilation, and safety regulations; however, we will still gladly made accomodations for student cases regarding any potential issues. Let us know if you are in need of any disability-related assistance, allergy notifications, or other situations where you may need an accomodation and we will see how we can accomodate the class for you.

GRADING

60% Participation/Attendance

Are you on time and participating in the activity?

You will be graded each class by a grading of 10 points—3 points based on attendance, 4 points based on participation through discussion, questions, and activities, and 3 points based on the weekly readings.

20% Presentation

Is your topic thorough and put together well?

The group project presentation is a way to think together about issues that may arise from natural pigments or to look generally into one specific one.

Almost anything is okay! Here are some examples:

The spy patrol of Burma for natural resources such as jade

The history, usage, and facts of cinnabar

The impact of car paint manufacturing plants on the environment

The history of makeup pigments

The acidification of the ocean leading to a decline in calcium carbonate

And more!

20% Art Projects

Are you putting in effort for a complete work of art?

Your art should be worked on well and have plenty of thought put into it. It is obvious when you are not putting in work or thinking into it and very easy to see/hear BS during critique. Think about your use of natural and/or synthetic pigments in your work and how that relates to how you want the audience (our very well informed class of pigment creationists) and the general public) to relate to it.

COURSE OUTLINE

SUBJECT TO CHANGE

WEEK 1 (JANUARY 25)

NO CLASS

WEEK 2 (FEBRUARY 1)

What is this DeCal about?

This lecture is to let prospective students understand what they are signing up for and what they can expect throughout the semester. Understanding the expectations and plans for the course are crucial at the start of the course. Students will learn about all the potential equipment and materials used for the course in order to further show expectations.

HW: Get natural pigments

WEEK 3 (FEBRUARY 8)

What is a pigment and how to create a pigment?

Students should have any type of natural resource for their natural pigments. We will be demonstrating how to crush up and sort pigments into different sizes and how those sizes affect the optical illusions of color once the pigment is added into mediums.

In-class demonstration of grinding rocks, sifting

Open class time to work

HW: Get more natural pigments and break them down

WEEK 4 (FEBRUARY 15)

Pigments, binders, solvents

Students will learn more about pigments and then learn the ways that a pigment can be turned into a usable medium through binders and how it can be broken down by solvents.

In-class demonstration of making oil paint, acrylic, and hide glue paints

Open class time to work

HW: Continue breaking down minerals for pigments

WEEK 5 (FEBRUARY 22)

Deeper history of pigments—caveman to modern man

The use of pigments will be examined from the prehistoric cave paintings to the birth of the paint tube in 1840 to the politics of natural pigments for the 20th century. We will begin with cave paintings and go through historical uses of pigments from communities such as indigenous tribes in order to give a scope of how deep color has been bonded with mankind. Some explorations into pigments became dangerous—cadmium, uranium, lead, naphthalene—however, more dangers will be explained within the next lecture.

Open class time to work

HW: Begin Project 1

WEEK 6 (MARCH 1)

Deeper history of pigments—modern man's problems

With advancements in sciences, synthetic pigments came out and often dominated the vibrancy and versatility of natural pigments; however, their manufacturing and disposal processes often harmed the environment and/or workers. The industrial revolution brought with it many factories and these factories led to a pigmented pollutants in natural resources. These cases highlighting the problems with modernizing pigments will be looked at.

Open class time to work

HW: Keep working on Project 1

WEEK 7 (MARCH 8)

Politics of pigments

Students will learn about instrumentalist approaches for obtaining pigments that could deplete resources for future generations. Carelessness for the environment will be reexamined; it is almost a continuation of modern man's problems with specific cases such as the Rust Belt pollution from abandoned mines. We will also be examining how the world is affected by pigments. This includes specific cases such as Myanmar's natural resource of jade transforming landscapes and drawing in people from different locations just to take that natural resource.

Open class time to work

HW: Keep working on Project 1

WEEK 8 (MARCH 15)

An introduction on how to critique in the context of the class will be used to start the class. Students will also be introduced to the individual/group pigment-related presentation project.

Open class time to work

HW: Introduction of group presentation; think of ideas
Keep working on Project 1 (DUE NEXT WEEK)

WEEK 9 (MARCH 22)

CRITIQUE

HW: Groups for pigment-related presentation project should be made now and starting
Begin working on Project 2 (at least 5 sketches over winter break)

WEEK 10 (MARCH 29)

NO CLASS

WEEK 11 (APRIL 5)

Open class time to work

HW: Keep on working on Project 2

WEEK 12 (APRIL 12)

Pigments Out in the World

Students will learn about pigments in the natural world through nature, animals, and more.

Open class time to work

HW: Keep working on Project 2

WEEK 13 (APRIL 19)

Natural pigment-related group presentations

Open class time to work

HW: Keep working on Project 2

WEEK 14 (APRIL 26)

Contemporary use of natural pigments

We will be looking at select contemporary paintings who use natural pigments within their work. Some case studies will be: Craig Nagasawa, John Sabraw, Tanja Geis, Harvey Quaytman, and Peter Doig.

Open class time to work

HW: Keep working on Project 2

WEEK 15 (MAY 3)

CRITIQUE/potentially gallery

Depending on the availability of spaces within Kroeber Hall or other galleries around campus, students may be able to display their work for the general public along with an opening for conversations, publicity, and networking.

READINGS & VIDEOS

The following is a list of readings, films, and shorts that are integral to the history of the course, as well as giving you further insight to what we learn in lecture and studio. Every other week we will assign a short passage or video for you to read or watch, with a link to a PDF or video, it should take approximately 1-2 hours to read/watch. For videos, we expect you to watch the entirety of the video(s) for the week. For readings, we will email you a chapter or two—DO NOT READ THE ENTIRE BOOK FOR THE ASSIGNMENT *unless* you really want to. You are expected to submit a summary of what you've watched (keep it fairly short) and a reflection/reaction (just your thoughts, something you thought was interesting, etc.) in order to get full participation for the week.

READINGS ARE DUE BY EMAIL BEFORE THE NEXT CLASS (ex: *The Artist's Handbook* reading reflection is due on February 15).

WEEK 1 (JAN 25)	NO CLASS
WEEK 2 (FEB 1)	NO READING ASSIGNED
WEEK 3 (FEB 8)	<i>The Artist's Handbook of Materials and Techniques</i> by Ralph Mayer
WEEK 4 (FEB 15)	NO READING ASSIGNED
WEEK 5 (FEB 22)	[VIDEO] <i>Jakuchu: The Divine Colors</i>
WEEK 6 (MAR 1)	NO READING ASSIGNED
WEEK 7 (MAR 8)	[VIDEO] <i>Turning Toxins into Art</i> featuring John Sabraw [MORE TO BE DETERMINED]
WEEK 8 (MAR 15)	NO READING ASSIGNED
WEEK 9 (MAR 22)	<i>Color: A Natural History of the Palette</i> by Victoria Finlay
WEEK 10 (MAR 29)	NO CLASS
WEEK 11 (APR 5)	NO READING ASSIGNED
WEEK 12 (APR 12)	<i>Interaction of Color</i> by Josef Albers
WEEK 13 (APR 19)	NO READING ASSIGNED
WEEK 14 (APR 26)	[TO BE DETERMINED]
WEEK 15 (MAY 3)	NO READING ASSIGNED BECAUSE THE COURSE IS OVER