

## 顏色：從光學到古代社會

Color: From Optics to Ancient Societies

授課教師：謝艾倫

上課時間：每週二上午 10:10 ~ 下午 1:00

課程分類：大學部

上課地點：

學分數：3

教師辦公室: 人社 C623

人數上限：35

教師電子信箱: ehsieh@mx.nthu.edu.tw

助教：TBD（人類所）

助教電子信箱:

### 課程簡介：

顏色為人類社會重要的文化符碼，而其所蘊含的意義與影響與科技史的發展密不可分。本課程將由自然科學、人類學、歷史學、藝術創作、語言學、文化資產保存等多樣角度探索世界各地不同歷史與文化脈絡下顏色與人的關係。內容包括顏色的物理與化學性質，顏料的生產、貿易與消費、科技考古對顏料辨認與修復的貢獻等等。閱讀文獻將含括經典的人類學著作、商周甲骨文、以及對近現代流行文化的探討。課堂中亦包含一堂顏料實作課程。

### 課程目標：

1. 了解人類史上對顏色的不同感官經驗與文化意義。
2. 了解顏料的材質與製作技術如何影響其使用及價值。
3. 培養現實生活中對顏色的敏銳度。

### 評量：

1. 課程參與 20%
2. 分組課堂主題報告 40%
3. 分組研究報告 40% -- 請學生以一個特定顏色作主題（例如白、黑、紅、黃、粉紅、藍、紫、綠、螢光黃等等）撰寫一份研究報告，內容須涵蓋該色的物質性與列舉在特定或不同文化下的意義與其轉變。學生須於期中簡短於課堂上發表進度，與同學交換意見。最後於期末進行正式發表。繳交成果形式不拘，可以是書面報告/投影片、口述歷史、海報等等。期末報告繳交期限為 1/11/2020 下午五點，遲交一天扣 2 分，1/18/2020 後不再受理。無論採用何種形式繳交作業皆應附上引用資訊，引用格式請參照本文件末頁範例。
4. 額外加分：閱讀補充書目者可繳交心得報告，交一篇加總成績一分，最高可加五分。每篇心得以 1~2 頁為限，最後繳交期限為 1/11/2020 下午五點。

10810HSS 356100

課本：

Ball, P.

2003 *Bright Earth: Art and the Invention of Color*. University of Chicago Press, Chicago.

課程主題與參考文獻：\* 必讀

第一週 (9/10) 課程說明

\*Ball 2003 Ch1

\*Sahlins, M.

1976 Colors and Cultures. *Semiotica* 16(1): 1–22.

第二週 (9/17) 顏色的物理與生理性質

\*Ball 2003 Ch2, Ch12

戴孟宗

2013 現代色彩學：色彩理論、感知與應用。台北：全華。頁4–55。

Kuehni, R. G. and A. Schwartz

2008 Ch5 Psychological Color Order Systems; Ch8 Physical Order. In *Color Ordered: A survey of color order systems from antiquity to the present*, pp. 91–122; 173–176. Oxford University Press, Oxford and New York.

第三週 (9/24) 顏色的語言

\*曾啟雄

2002 色彩的科學與文化。台北：耶魯國際文化。頁171–188。

\*Bornstein, Marc H.

2007 Hue categorization and color naming: Cognition to language to culture. In *Anthropology of Color: Interdisciplinary Multilevel Modeling*, edited by R. E. MacLaury, G. V. Paramei and D. Dedrick, pp. 3–27. John Benjamins Publishing, Philadelphia.

\*Heider, E. R.

1972 Universals in color naming and memory. *Journal of Experimental Psychology* 93(1): 10–20.

第四週 (10/1) 顏色與文學

\*Harvey, John

2016 黑色的故事。台北：時報。Ch7。

Blaszczyk, R. L.

2012 Introduction; Ch11 Think Pink! . In *The Color Revolution*, pp. 1–20; 265–288. MIT Press, Cambridge.

\*Gage, John

1999 Ch3 Colour in Art and its Literature. In *Color and Meaning: Art, Science, and Symbolism*, pp. 34–66. University of California Press, Berkeley and Los Angeles.

#### 第五週 (10/8) 顏色與文化-1 (西方世界)

\*Grisard, Dominique

2017 “Real Men Wear Pink”? A Gender History of Color. In R. L. Blaszczyk and U. Spiekermann edit, *Bright Modernity: Color, Commerce, and Consumer Culture*. Pp. 77–96.

Bradley, Mark

2009 Ch 5 The Natural Body; Ch 6 The unnatural body. In *Colour and Meaning in Ancient Rome*, pp. 128–160; 161–188. Cambridge University Press, Cambridge.

\*Gage, John

1999 Ch2 Colour and Culture. In *Color and Meaning: Art, Science, and Symbolism*, pp. 21–33. University of California Press, Berkeley and Los Angeles.

#### 第六週 (10/15) 顏色與文化-2 (非西方世界)

\*汪濤

2013 顏色與祭祀：中國古代文化中顏色含義探幽。上海：上海古籍。Ch1, Ch4。

Lai, Guolong

2015 Ch1 Colors and Color Symbolism in Early Chinese Ritual Art : Red and Black and the Formation of the Five Colors System. In *Color in Ancient and Medieval East Asia* edited by M. M. Dusenbury. Yale University Press, New Haven.

\*Roberson, D., I. Davies and J. Davidoff

2000 Color categories are not universal: replications and new evidence from a stone-age culture. *Journal of Experimental Psychology: General* 129(3): 369–398.

第七週 (10/22) 顏色與藝術/期末進度報告與回饋

\*Ball 2003 Ch5, Ch8

Albers, J.

2013 Ch4 A color has many faces—the relativity of color~ Ch12 Optical mixture—after—  
image revised. In *Interaction of Color: 50th Anniversary Edition*, pp. 8–33. Yale  
University Press, New Haven.

Gage, J.

1999 Ch6 Ghiberti and Light; Ch9 Newton and Painting. In *Color and Meaning: Art,  
Science, and Symbolism*, pp. 98–104; 134–143. University of California Press,  
Berkeley and Los Angeles.

第八週 (10/29) 顏色與自然環境

\*Finlay, V.

2014 Ch1 Earth and Fire; Ch2 Rocks, Minerals, Twigs, and Bugs. In *The Brilliant History  
of Color in Art*, pp. 8–26; 28–82. The J. Paul Getty Museum, Los Angeles.

Oltrogge, D.

2016 Writing on Pigments in Natural History and Art Technology in Sixteenth–Century  
Germany and Switzerland. In *Early Modern Color Worlds*, edited by T. Baker, S.  
Dupré, S. Kusukawa and K. Leonhard, pp. 47–69. Brill, Netherland.

第九週 (11/5) 顏色的製作工藝 — 天然有機與無機顏料

\*Ball 2003 Ch3, Ch4

Matin, M. and A. M. Pollard

2016 From Ore to Pigment: A Description of the Minerals and an Experimental Study of  
Cobalt Ore Processing from the Kashan Mine, Iran. *Archaeometry* 2016:1–16.

于非闇

2013 中國畫顏色的研究（修訂版）。北京：北京聯合出版公司。頁 3–28。

第十週 (11/12) 課堂演講–台灣大地原色製作

第十一週 (11/19) 顏色的製作工藝 — 人造顏料

10810HSS 356100

\*Ball 2003 Ch7, Ch9

Garfield, Simon

2002 淡紫色：改變世界的顏色。台北：商周。

第十二週 (11/26) 顏色的貿易交換

\*Balfour–Paul, Jenny

1997 Ch2 Indigo in the Great Age of Islam; Ch3 Post–Mamluk Trade in Indigo and Ottoman Influences. In *Indigo in the Arab World*, pp. 14–29; 30–41. Curzon, Surrey.

Tite, Michael and Gareth Hatton

2008 The production technology of, and trade in, Egyptian Blue pigment in the Roman world. In *Communities and Connections: Essays in Honour of Barry Cunliffe*, edited by C. Gosden, H. Hamerow, h. d. Jersey and G. Lock, pp. 75–94. Oxford University Press, Oxford.

第十三週 (12/3) 顏色與全球史

\*Brown, Michael A.

2015 Ch16 The Color of Power: Red in the Portraiture of the Spanish and British Empires. In *A Red Like No Other: How Cochineal Colored the World*, edited by C. Padilla and B. Anderson. Skira Rizzoli, New York.

Galán, R. B.

2011 Local and Imported Colors: The Spanish Maritime Trade and the Pigment Supply in New Spain. In *Colors Between Two Worlds: The Florentine Codex of Bernardino de Sahagún*, edited by G. Wolf and J. Connors, pp. 283–300. Officina Libraria, Florence.

第十四週 (12/10) 顏色與科技考古

\*Ricciardi, P., A. Pallipurath and K. Rose

2013 ‘It's not easy being green’: a spectroscopic study of green pigments used in illuminated manuscripts. *Analytical Methods* 5: 3819–3824.

Green, Lorna R. and F. A. Hart

1987 Colour and Chemical Composition in Ancient Glass: an examination of some Roman and Wealden glass by means of Ultraviolet–Visible– Infrared spectrometry and electron microprobe analysis. *Journal of Archaeological Science* 14:271–282.

\*Uchida, E., Y Takubo, K. Toyouchi and J. Miyata

2012 Study on the pigments in the Cruciform Gallery of Angkor Wat, Cambodia.

*Archaeometry* 54(3): 549–564.

Wen, R., C. S. Wang, Z. W. Mao, Y. Y. Huang and A. M. Pollard

2007 The chemical composition of blue pigment on Chinese blue-and-white porcelain of the Yuan and Ming dynasties (AD 1271–1644). *Archaeometry* 49(1): 101–115.

第十五週 (12/17) 顏色的文化資產保存

\*Ball 2003 Ch11

\*國立台灣博物館

2007 鄭成功畫像、台灣民主國旗修復科學檢測報告。台北：國立台灣博物館。

Bliakher, Adelia and Vera Fominykh

2007 Conservation and restoration of monumental painting from archaeological excavations. In *Mural Paintings of the Silk Road: Cultural Exchanges Between East and West (Proceedings of the 29th Annual International Symposium on the Conservation and Restoration of Cultural Property, National Research Institute for Cultural Properties, Tokyo, January 2006)*, edited by K. Yamauchi, Y. Taniguchi and T. Uno. Archetype, London.

Delaney, J. K., P. Ricciardi, L. D. Glinsman, M. Facini, M. Thoury, M. Palmer and E. R. de la Rie

2014 Use of imaging spectroscopy, fiber optic reflectance spectroscopy, and X-ray fluorescence to map and identify pigments in illuminated manuscripts. *Studies in Conservation* 59(2): 91–101.

第十六週 (12/24) 電影欣賞

第十七週 (12/31) 學生正式發表 (一)

第十八週 (1/7) 學生正式發表 (二)

補充資料

Aceto, M., A. Agostino, G. Fenoglio, P. Baraldi, P. Zannini, C. Hofmann and E. Gamillscheg

2012 First analytical evidences of precious colourants on Mediterranean illuminated manuscripts. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 95:235–245.

Berlin, B. and P. Kay

1969 *Basic Color Terms: Their universality and evolution*. University of California Press, Berkeley.

Biyela, N. G.

2013 Color Metaphor in Zulu Culture: Courtship Communication in Beads. *American International Journal of Contemporary Research* 3(10): 1–5.

Carpenter, H. B.

1923 *Suggestions for the Study of Colour*. H.B. Carpenter School of Art, Rochdale.

Chenciner, R.

2000 *Madder Red: A History of Luxury and Trade*. Curzon Press, Surrey.

Dusenbury, M. M. (editor)

2015 *Color in Ancient and Medieval East Asia*. Spencer Museum of Art, Kansas.

Feller, R. L. (editor)

1986 *Artists' Pigments: A Handbook for Their History and Characteristics*. Vol. 1–3. Cambridge University Press, Cambridge.

Finlay, V.

2002 *Color: A Natural History of the Palette*. Ballantine Books, New York.

Gage, J.

1993 *Colour and culture: Practice and meaning from antiquity to abstraction*. Thames and Hudson, London.

2006 *Color in Art*. Thames & Hudson, New York.

Garfield, S.

2001 *Mauve: How one man invented a color that changed the world*. W. W. Norton, New York.

Greenfield, A. B.

2005 *A Perfect Red: Empire, Espionage, and the Quest for the Color of Desire*. Harper Collins Publishers, New York.

Kemp, M.

1990 *The Science of Art: Optical themes in Western art from Brunelleschi to Seurat*. Yale University Press, New Haven.

Kerpel, D. M.

2014 *The Colors of the New World: Artists, Materials, and the Creation of the Florentine Codex*. Getty Research Institute, Los Angeles.

Kueppers, H.

1982 *The Basic Law of Color Theory*. Translated by R. Marcinik. Barron's, Woodbury.

MacLaury, R. E., G. V. Paramei and D. Dedrick (editors)

2007 *Anthropology of Color: Interdisciplinary multilevel modeling*. John Benjamins Publishing, Philadelphia.

Miliani, C., D. Domenici, C. Clementi, F. Presciutti, F. Rosi, D. Buti, A. Romani, L. Minelli and A. Sgamellotti

2012 Colouring materials of pre-Columbian codices: non-invasive in situ spectroscopic analysis of the Codex Cospi. *Journal of Archaeological Science* (39): 672–679.

Pastoureau, M.

2001 *Blue: The history of a color*. Princeton University Press, Princeton.

Siracusano, G.

2011 *Pigments and power in the Andes: From the material to the symbolic in Andean cultural practices, 1500–1800*. Archetype Publications Ltd, London.

Tite, M. S., Y. Maniatis, D. Kavoussanaki, M. Panagiotaki, A. J. Shortland and S. F. Kirk

2008 Colour in Minoan faience. *Journal of Archaeological Science* 36:370–378.

Pérez-Arantegui, J., B. Montull, M. Resano and J. M. Ortega

2009 Materials and technological evolution of ancient cobalt-blue-decorated ceramics: Pigments and work patterns in tin-glazed objects from Aragon (Spain) from the 15th to the 18th century AD. *Journal of the European Ceramic Society* 29:2499–2509.



其他注意事項：

1. 本大綱為課程重要指南，然實際內容仍可能在課程進行間依實際需求進行調整，請同學密切注意與課程相關公告與電子郵件。
2. 本課程主要學習資源可下載於國立清華大學數位學習系統 iLMS。
3. 欲與授課教師討論課程或作業事宜，請以 email 的方式預約。
4. Email 給授課老師時，請務必於信件主旨加註 [顏色]，並於信件末署名。署名請用官方註冊姓名，不要用你的 IG, FB, PTT 帳號或其他暱稱。
5. 寫信給授課老師請預留 1~3 日的回信時間（不含假日）。
6. 本課程課程參與占總成績比率非常高，請留意自身出缺席情形。事病假請於課前來信告知，病假應於學期結束前附上醫師診斷證明。

常用引用格式範例

\*期刊

魏捷茲

1994 澎湖的田野實習課程與臺灣的人類學研究。中國民族學通訊 32:1—13。

Chun, Allen

2005 Writing Theory: Steps toward an Ecology of Practice. *Anthropological Theory* 5(4):515—541.

\*書籍

戴炎輝

1979 清代臺灣之鄉治。臺北:聯經出版事業公司。

Mauss, Marcel, and Henri Beuch

1979 *Seasonal Variations of the Eskimo: A Study in Social Morphology*. London; Boston: Routledge and Kegan Paul.

\*書籍/論文集集中的單篇文章

莊英章、武雅士

1994 臺灣北部閩、客婦女地位與生育率:一個理論假設的建構。刊於臺灣與福建社會文化研究論文集(一), 莊英章、潘英海編, 頁 97—112。臺北:中央研究院民族學研究所。

Schneider, Jane, and Annette B. Weiner

1989 Introduction. *In Cloth and Human Experience*. Jane Schneider and Annette B. Weiner, eds. Pp. 1—29. Washington: Smithsonian Institution Press.

\*論文

簡美玲

2002 貴州東部高地苗人的情感與婚姻。清華大學人類學研究所博士論文。

Yang, Shu-yuan

2001 *Coping with Marginality: The Bunun in Contemporary Taiwan*. Ph.D. dissertation. Department of Anthropology, London School of Economics and Political Science, University of London.

\*網路資源

10810HSS 356100

林豪

1961[1893] 澎湖廳志。臺北:臺灣銀行經濟研究室。網路資源，  
[http://www.sinica.edu.tw/ftms-bin/ftmsw3?ukey=189906974& path=/20](http://www.sinica.edu.tw/ftms-bin/ftmsw3?ukey=189906974&path=/20)，2004年5  
月31日。

Roy, Oliver

2001 Neo-Fundamentalism. Social Science Research: After September 11. Electronic  
document, <http://www.ssr.org/roy.html>. Accessed December 2, 2012.