



NORDIC LIGHT AND COLOURS 2015

International PhD/Master course (2-7.03.2015) NTNU Faculty of Architecture & Fine Art

Department of Architectural Design, Form and Colour Studies



PRELIMINARY PROGRAM

Monday 2.03.2015

08 15 – 10 00	Introduction	KFA/BM
10 15 – 12 00	Visual perception of light and colour (physiological)	AV
	lunch	
13 15 – 15 00	Daylight and its qualities in Nordic countries	BM
15 15 –	↑Group 1: Demonstration of visual perception	KA/CM
..... – 17 00	↓Group 2: Intro assignments Daylight lab. and Romlab	KFA/BM

Tuesday 3.03.2015

08 15 – 10 00	Visual perception: whiteness, lightness, brightness.	UK
10 15 – 12 00	Colour in Nordic architecture and nature	KFA
	lunch	
13 15 – 17 00	Group 1: NCS + PERCIFAL + Concepts	KFA/UK
	Group 2: Co-shading and countershading	KA/BM

Wednesday 4.03.2015

08 15 – 10 00	Electrical lighting in Nordic countries	EHH
10 15 – 12 00	Spatial interaction of light and color	KFA
	lunch	
13 15 – 17 00	Group 1: Co-shading and countershading	KA/BM
	Group 2: NCS + PERCIFAL + Concepts	KFA/UK

Thursday 5.03.2015

08 15 – 10 00	The importance of light and colour for health and well-being	TL
10 15 – 12 00	Daylight and color in architecture	VZ/CM
	lunch	
13 15 – 17 00	Assign. work in Daylight lab. and Romlab	KFA/BM
	Essay discussion with KFA and/or BM	

Friday 6.03.2015

08 15 – 12 00	Assign. work in Daylight lab. and Romlab	KFA/BM
10 15 – 12 00	Essay discussion with KFA and/or BM	
	lunch	
13 15 – 16 00	Assignment presentations/EXAM	KFA/BM
	Concluding discussion	

Saturday 7.03.2015

	Excursion in Trondheim: PERCIFAL / Colour on facades	KFA/BM
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Teachers:

Karin Fridell Anter
SYN-TES Nordic
Interdisciplinary Network on
Colour and Light

Ulf Klarén
SYN-TES Nordic
Interdisciplinary Network on
Colour and Light

Thorbjörn Laike
Lund University

Barbara Matusiak
NTNU

Arne Valberg
NTNU

Kine Angelo
NTNU

Eilif Hugo Hansen
NTNU

Claudia Moscoso
NTNU

Veronika Zaikina
NTNU



Participants

18-24 PhD/Master students

Credits

12/4 ECTS

PhD/MS (see exam form)

Fee

NOK 15.000/12.000

PhD/MS (see exam form)

Application

For application information please, send an e-mail to:

barbara.matusiak@ntnu.no

Deadline

10.12.2014

Language

English

Exam form

Written essay for PhD-students, oral presentation of the assignments for the Master students

Participation priority

The course was originally developed for PhD-students, the PhD students for whom the topic of light and colour is most relevant in their research activity will be prioritized.

In the case of low number of PhD-applicants the opportunity for participation will be given to MS/MA-students or young researchers, i.e. MS/MA, especially those who are working with light or colour research projects.

Project leaders:

Barbara Matusiak:
barbara.matusiak@ntnu.no

Karin Fridell Anter:
karinfa@explicator.se

Course background and description

The experiences of colour and light are interdependent and cannot be analyzed separately. The colours of the surrounding room influence our experiences of light and the need for lighting. The intensity, quality and distribution of light are essential for the perception and experience of colour. The aesthetics of colour and light play an important role in the fields of art, design and communication. Colour and light in architectural spaces influence our experiences and feelings, our comfort and our physiological well-being.

A deep understanding of the interaction between colour and light demands an interdisciplinary approach, including such fields as psychology, neurology and lighting technology, as well as an in-depth understanding of colour and light applications in architectural spaces.

Research on colour and light in spatial context is being done at several Nordic universities with participation in several working groups and committees within the international colour association AIC and the international commission of illumination CIE. This research has achieved high international standing.

On the level of established research, a Nordic collaboration was started in 2009 in order to enhance a creative interchange between researchers and industrial developers with different approaches. Researchers from Sweden, Norway and Finland have participated in the interdisciplinary research project SYN-TES: Colour and Light Synthesis: Towards a Coherent Field of Knowledge, based at Konstfack (2010-2011). (www.konstfack.se/SYN-TES).

In order to keep up with and develop competence it is essential that research students working with different aspects of colour and light are introduced to and educated in the multidisciplinary complexity of their field. It is also important that research students working with neighboring issues, e.g. within the fields of architecture, psychology or health care, get the opportunity to understand how colour and light affect their field of work. Additionally, the course gives an opportunity to train young researchers in different methodological techniques.

The course will gather students from different countries and disciplines so that they can work together across national, professional and disciplinary boundaries. This will help them form their own networks which, according to our experience, will facilitate their doctoral education and give a good start for their further collaboration in research and education.

Lectures will be given by top scientists from Sweden and Norway. The unique Daylight- and Room-laboratories of NTNU will be used for experiments and exercises.

Academic and professional fields to be discussed in the course include: Physics/Biophysics (Arne Valberg), Perception Psychology (Ulf Klarén), Environmental Psychology (Thorbjörn Laike), Colour Studies in Architecture (Karin Fridell Anter), Daylighting Research and Design (Barbara Matusiak), Electrical Light (Eilif Hugo Hansen).

To ensure a common knowledge base to start from, there will be an introductory syllabus by the course leaders. Candidates must pass an introductory test before the course start. The syllabus will include basic knowledge of light and lighting principles/terminology and understanding of the Natural Colour System (NCS).

The Nordic Light & Colour Course was carried out for the first time in April 2012 and resulted with a book entitled "Nordic Light and Colour 2012" that is a collection of essays written by PhD-students and course teachers.

The ambition for the present course is to publish a new book "Nordic Light and Colour 2015", where we will present the newest research results written in the form of essays by teachers and PhD-students participating in 2015.

Project leaders are looking for sponsors of the course in order to reduce the course fee, an update information about the fee will be given directly to applicants

