

3.4 Water ART on paper

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Short description and goal

Water gives endless possibilities to be worked on.

The objective of this chapter is to connect diverse approaches to the medium of water and to explore some aspects of the creative power of water and art. The goal is to get some knowledge about paper as a base for art work, to get an awareness in paper production in a theoretical and practical way and to create one's own work of art on a hand-made paper sheet.

The extraordinary variety in the appearance of water causes impressions which can be expressed in diverse ways using the creative power of art. Therefore this module is dedicated to the representation of water and its forms of appearance in nature and art, through five working steps in five modules.

The five modules are as follows:

1. Getting in contact with a personal approach to water by looking at a selection of photos showing different appearances of water.
2. Introductory talk about water and art.
3. Forming hand-made paper sheets as the base for art work.
4. Designing one's own work of art on the self-produced paper sheet.
5. Illustrating the appearance and current of water by creating a flow pattern on paper.

Basic conditions

Target group Children and youth aged 10-14 with or without parents and other adults

Location both inside and outside, wherever water is available

Material see worksheet

Time frame Approximately 3-4 hours

Background knowledge

Aspects about history of art, the relation between water, art and paper production

»The history of art refers to the history of the visual arts of painting, sculpture and architecture. It is one of the fine arts, others of which are performing arts and literature.« (source http://en.wikipedia.org/wiki/History_of_art).

The beginning of the art of painting is visible as cave painting on cave walls and ceilings. This term is used especially by those dating works of art in the prehistoric period. The view held is that these paintings aren't so much decoration but rather a way of communication for religious and ceremonial purposes.

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A ceiling fresco from last centuries showing the flooding of the Markus Square in Venice can be seen in the Hamburg town hall. Sometimes Hamburg and Venice are compared as amphibic towns because of the intensive influence of water in both. And this ceiling fresco may be refer to Hamburg as a harbour town, almost 50 % of which is built on the flood plains of the river Elbe.

Classic art (BC 3000 – AD 500) of the ancient Mediterranean World is primarily made up of literature, sculpture and architecture. Some themes of the representations are listed below. This aspect is integrated into the second module, which focuses on the Macedonian location Heraclea Lyncestis as an example (http://en.wikipedia.org/wiki/Heraclea_Lyncestis and concept 3.6 »Water and history«).

At this ancient site in Bitola, water is represented, for example, in:

- mosaiks and reliefs showing water animals
- artistic elements representing waves, curls and currents
- the ancient thermal spring and the thermae.

A famous oil painting with the focus on water is »Chalk Cliffs on Rügen« circa 1818 by the German Romantic artist Caspar David Friedrich. The painting shows the view from the chalk cliffs (which are built out of fossil marine coccolithen), towards the sea. The scenery happens on the on the biggest German island Rügen. The cliffs are formed through water erosion and connect the land with the sea. Other aspects are described in the link: http://en.wikipedia.org/wiki/Chalk_Cliffs_on_R%C3%BCgen.

History of paper production

Drawings are designed and executed on several different bases. Paper is one important material. And paper is a thin material used for writing upon, printing upon or also for packaging. Nowerdays it is produced by pressing together cellulose fibers taken from wood and drying them into flexible sheets.

»The word paper derives from the Greek term for the ancient Egyptian writing material called papyrus, which was formed from beaten strips of papyrus plants. The immediate predecessor to modern paper is believed to have originated in China in approximately the 2nd century CE... The use of paper spread from China through the Islamic world, and entered production in Europe in the early 12th century. Mechanized production of paper in the early 19th century caused significant cultural changes worldwide, allowing for relatively cheap exchange of information in the form of letters, newspapers and books for the first time. In 1844, both Canadian inventor Charles Fenerty and German inventor F.G. Keller had invented the machine and process for pulping wood for the use in paper making. This would end the nearly 2000-year use of pulped rags and start a new era for the production of newsprint and paper out of pulped wood.« (source <http://en.wikipedia.org/wiki/Paper>).

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Recent paper production

Newspaper, books, paper for writing on – every day we have it in our hand. Actually, on average, everyone in industrial countries uses 800 g of wood for paper daily. This means that, for example, in Brasil rainforest is destroyed for building up eucalyptus plantations which are used for cellulose production (www.umweltbildung-mv.de/projekte_papierkoffer.htm).

Mainly we use paper, that is made from 55% wood, 38% from recycled paper and 7% from alternative material like waste textiles. 42 % of the wood that is cut down in an industrial way is for making paper. To make one tonne of white paper, 2.000 kg of wood, 250 000 l of water and 11000 kWh of energy are needed, plus several chemicals. The wood is often cut down in rainforests in Canada, in the tropics and in old forests with an especially high value in Scandinavia (Source: Abfallfibel 2009 – Abfallwirtschaft Südholstein).

With 500 sheets of recycled paper this is what you save in comparison with virgin paper		
Virgin paper	You can save	Recycled paper
130,6l	79, 4l	51,2l
26,8hWh	16,3kWh	10,5kWh
7,5kg	7,5kg	0kg
Source: IFEU Heidelber 2006		

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Activities			
Time table	Content	Method	Material
Module 1 Personal approach to water 30 minutes	Introduction of the members in the learning group through a personal approach to the subject of water.	Sitting in a circle, everyone chooses a water-picture-card from an assortment offered in the middle, introduction to the personal approach/feeling towards water by showing the selected card	Assortment of water-picture-cards Worksheet 1
Module 2 Introductory talk about water and art 30 minutes	The moderator presents background knowledge in relation to the concept, discussion.	Presentation and working together in the plenum by looking at and discussing the pictures; each one tries to contribute to the presentation	Picture-cards or short presentation via beamer Worksheet 2
Module 3 Hand papermaking 1 hour	Creating the material for the application of colours in order to design a picture of the spirit of water.	Hand papermaking	Full equipment is described in Worksheet 3
Module 4 Creating pictures expressing the spirit of water 2 hours	All participants create pictures expressing their idea of the spirit of water.	Creating pictures expressing the spirit of water by using hand-made papersheets and self-selected tools for colours and applications.	Paper made by hand and further material like an assortment of colours and tools for the application. Worksheet 4
Module 5 Alternative: Creating a flow pattern on paper 2 hours	Design an appearance of the current movement of water on paper.	Creating a flow pattern on paper	Paper, water, paste, oil-based paint

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Worksheet 1: Introduction of the participants via a personal approach to water

Information

The goal of this session is the introduction of the members in the learning group by finding a personal approach to the subject of water. During this phase the participants are working by themselves. They are choosing a picture-card which stands in relation to his/her approach to water, thinking about this and presenting their thoughts to each other, in order to get to know each other through relations to water.

Material

Assortment of 20-30 water-picture-cards (for example photos of water in ponds, rivers and oceans with different ways of movement, with water connected things)

Method

- Welcome to the participants, short presentation of the time table and the module in general.
- Arranging the group in a circle, spreading 20-30 picture-cards with water motives in the middle on a draped piece of fabric, may be with a water source in the middle.
- Everybody is requested to look at the picture-cards in order to choose the one which might be connected with their own idea of a spirit of water
- Participants get given some free time to get in contact with the picture
- Everybody should express some ideas and/or thoughts about the chosen card to promote further communication during this phase
- The contributions should not be commented on



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Worksheet 2: Introductory talk about water and art

Information

In order to prepare the practical modules of this concept – the paper making by hand and creating a picture on the self-prepared paper in worksheet 3, 4 and 5 – it helps to give and discuss some basic information. This means an introductory talk about:

- Aspects about history of art
- History of paper production
- Recent paper production

With this module the background knowledge of this chapter will be illustrated.

The objective is that every participant gains an insight into the relation of water, art and paper.

Material

- Large format photos (see below) an background knowledge
- Link history of paper: http://en.wikipedia.org/wiki/History_of_paper
- Link recent paper production: www.youtube.com/watch?v=QqYgspwotcg

Method

- Sit together so that everyone can look at each other
- The moderator starts the presentation of the material – bearing the background knowledge in mind
- Everybody is invited to participate, to add further background thoughts
- Discussion of the material and the relationships between water, art and paper
- When the goal of this method is reached, the practical work can be done.



Ancient fountain in Heraclea Lyncestis

➤ Further fotos of Heraclea Lyncestis – concept 3.6, Water and history

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Ceiling fresco from Hamburg's town hall.

Another photo from Hamburg's town hall with aspects of the importance of water – here water and health – www.hamburgwiki.de/wiki/Hygieia-Brunnen

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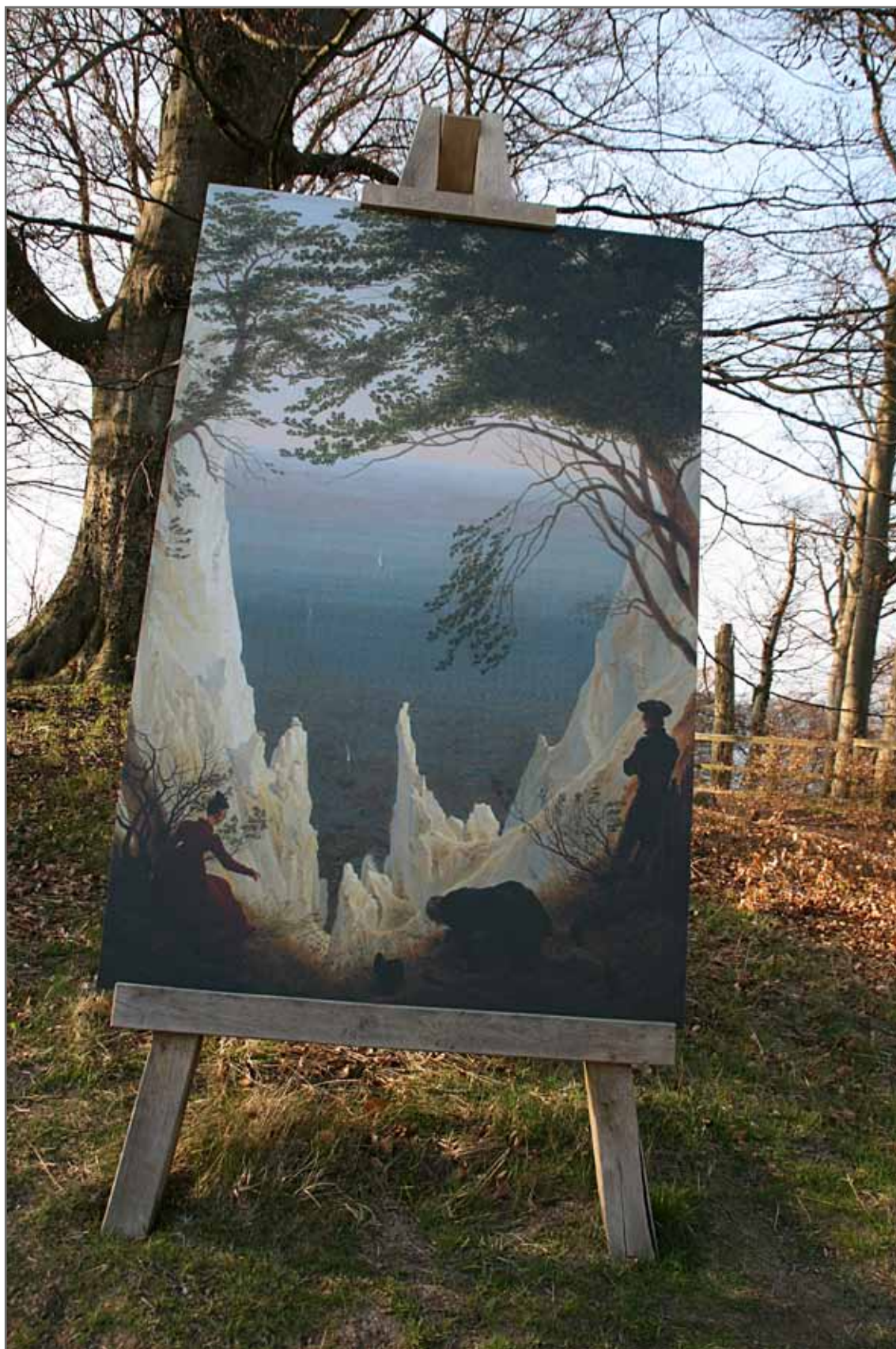
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The chalk cliffs on Rügen.

Link: http://en.wikipedia.org/wiki/Chalk_Cliffs_on_R%C3%BCgen. Painting »The chalk cliffs on Rügen«. Description, aspects how water is connected with the art work.

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Worksheet 3: Hand paper making

Information

With this method every participant learns to make paper by doing themselves. Unique paper sheets will be created by this traditional method. The procedure contains several steps so it is intended to give the participants the experience of the value of this material.

Material

- Newspaper as basic material and as absorbent material
- Measuring container with water
- Mixer
- Right-angled container
- Wooden spoon to stir
- Wipes and sponge
- Frame for hand paper making (two parts: sieve and frame)
- Rolling pin

Method

- Rip 4 double pages of newspaper into small pieces, put them inside a bowl with water and let them soak for 30 minutes (this quantity of material is sufficient for a group with 4 people)
- Pureé the paper pulp with the mixer, fill it into the four-square bowl and add 10 l. of water
- Lower the hand-paper making sieve with the frame on the top slowly into the liquid
- Lift the sieve with the frame held horizontal out of the water slowly
- To extract water, hold a wipe without pressure under the sieve until no water can be extracted any more
- Remove the frame from the sieve, turn the sieve around and dry the paper mass by stroking along the sieve. If you like, you can add flat nature material to integrate into the paper sheet, before you remove the frame
- Remove the sieve carefully so that the paper mass is stuck onto the wipes
- Stretch a flat wipe over the paper layer and add several newspaper sheets
- Use the rolling pin to extract the moisture
- The result is a paper sheet which has to be dried before further use

Links

Educational material about paper in a suitcase:

- www.umweltbildung-mv.de/projekte_papierkoffer.htm

Paperproduction at school:

- www.youtube.com/watch?v=VfF-3jWwC2M&feature=related
- www.youtube.com/watch?v=aQoz1pkKmdA&feature=related

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Moorbase with a peacock's feather on a selfmade papersheet

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Worksheet 4: Creating pictures expressing the spirit of water

Information

The goal of this method is, that each participant tries to express an appearance of water or a personal perception in relation to the spirit of water.

In order to do this as the climax of this lesson sequence, the background knowledge and the self-made paper should be used. In addition, some options for using nature-colours will be offered and a variety of tools for application will be presented and named.

This module gives the possibility to connect different aspects of the concepts in this educational material. It does this by bearing in mind, that water is not just a chemical bond with physical properties and qualities, but also a current medium and element with its own spirit.

Material

Self-made paper, other paper, assortment of colours (moor based colours, ink from sepia, colours from fruits, colour made from chalk, sand and other soil components, tools for application like pinfeather, different caterpillars, leaves and other natural materials)

Method

Create pictures expressing the spirit of water by using selfmade papersheets and self-created colours, tools and applications – some examples of what is possible see next page.

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Rainbow at the waterfall



Spray in front of the forest

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Worksheet 5: Designing a flow pattern on paper

Information

The goal of this method is to fix some possibilities of the form of water-appearances in nature and landscape on paper.

The principle of water is to appear in a spherical shape. In simple words this may be described by the fact that the surface of water tends to give the waterdrop the form in which the existing volume has the smallest surface. The reason is, that the surface of water is under tension. – That's why some insects can run upon water and that's why water builds a „hill« in a full glass before it runs off. The tension makes the surface take on the smallest form possible – a spherical form (see concept 1).

As soon as there is an impact of energy, water begins to move – the form changes.

These changes can be regarded as a current in nature. To create one's own flow pattern it is recommended to research first about these currents in expanded landscapes by using Google Earth. From that you can get a feeling about how the streaming of water may look like a stream in course, and you can get a picture of the development of clouds for example.

Bearing this in mind, each participant can design a flow pattern on paper on his own in order to comprehend how things function and to test the described process.

Material

Self-made paper, other paper, cups with water, paste to make the water more paste-like, thinned oil-based paint, brushes and tools for the application of colours
Internet with access to google earth

Method

- Mix the water with paste to make it more viscous and fill it in the cup
- Select thinned oil-based paint, apply it on the paste surface in the cup and observe what happens
- Make the colour move by using a wooden little rod and observe what happens
- Add further colours
- As soon as an actual state occurs which shall be fixed, the paper must be put down on the surface of the liquid carefully, to make air bubbles disappear
- As soon as the paper is soaked with liquid, take the paper off and dry it
- The flow pattern can be regarded in the group and be compared with flow patterns in nature by using Google Earth

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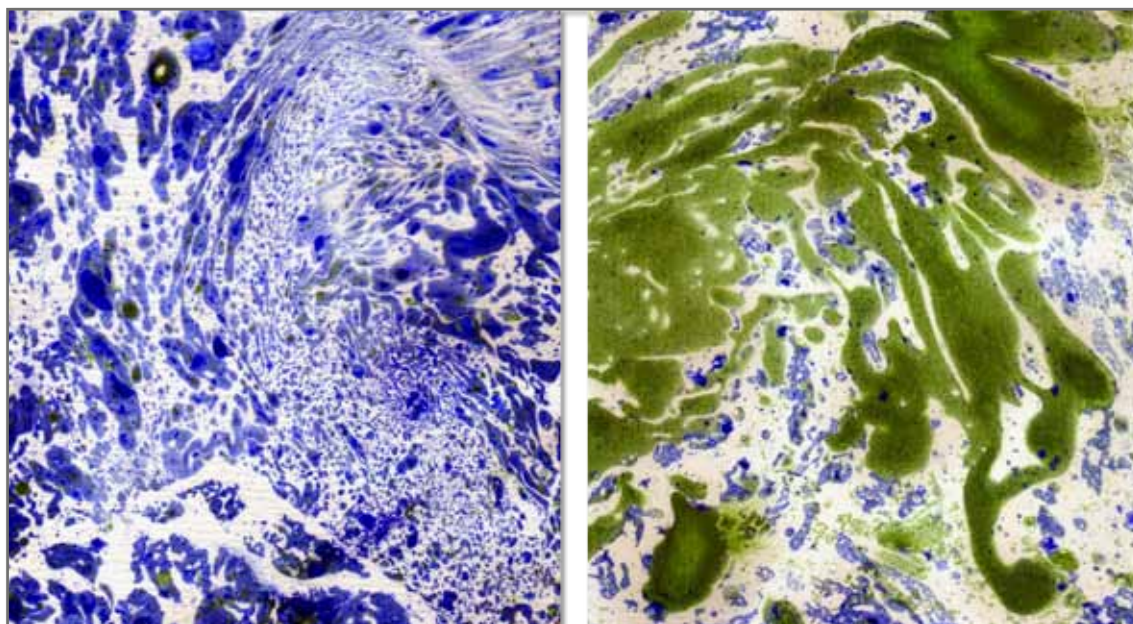
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Links about flow patterns

- www.blauesnetz.de/aktuelles/natur/
- www.dlr.de/schoollab/Portaldata/24/Resources/dokumente/go/prandtl.pdf

Examples of flow pattern in nature, Google Earth

- National Parc Hamburg Wadden Sea, Germany (53° 57' 11,44" N – 8° 26' 17,36" E, 3574 ft)
- National Parc Galicica, Republic of Macedonia (41° 00' 55,20" N – 20° 53' 0,727" E, 5181 ft)
- Kanada, (67° 28' 32,57" N – 96° 47' 50,14" W, 65 ft)
- Brasilien, (16° 39' 29,80" S, 56° 27' 14,8" W, 397 ft)

Film about Landart and Waterart

Rivers and Tides, Actor: Andy Goldworthy, Director: Thomas Riedelsheimer, 2000

Literature

- Schwenk, Theodor: Das sensible Chaos, Verlag Freies Geistesleben 2003

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