

## Angela Schwank and the Clouds

Interview with [Peter Tepe](#) | Section: [Interviews](#)

*Abstract: Angela Schwank – author of the artist book CIRREN – explains her preoccupation with clouds. In conversation with Peter Tepe, the artist talks about the history of her cloud project, a change of artistic programme in a creative crisis, the nature of her cloud studies, the formation of the specific connection between art and science, the stages of artistic development, the cooperation with meteorologists and the ambitions related to her cloud photos and drawings in the book.*

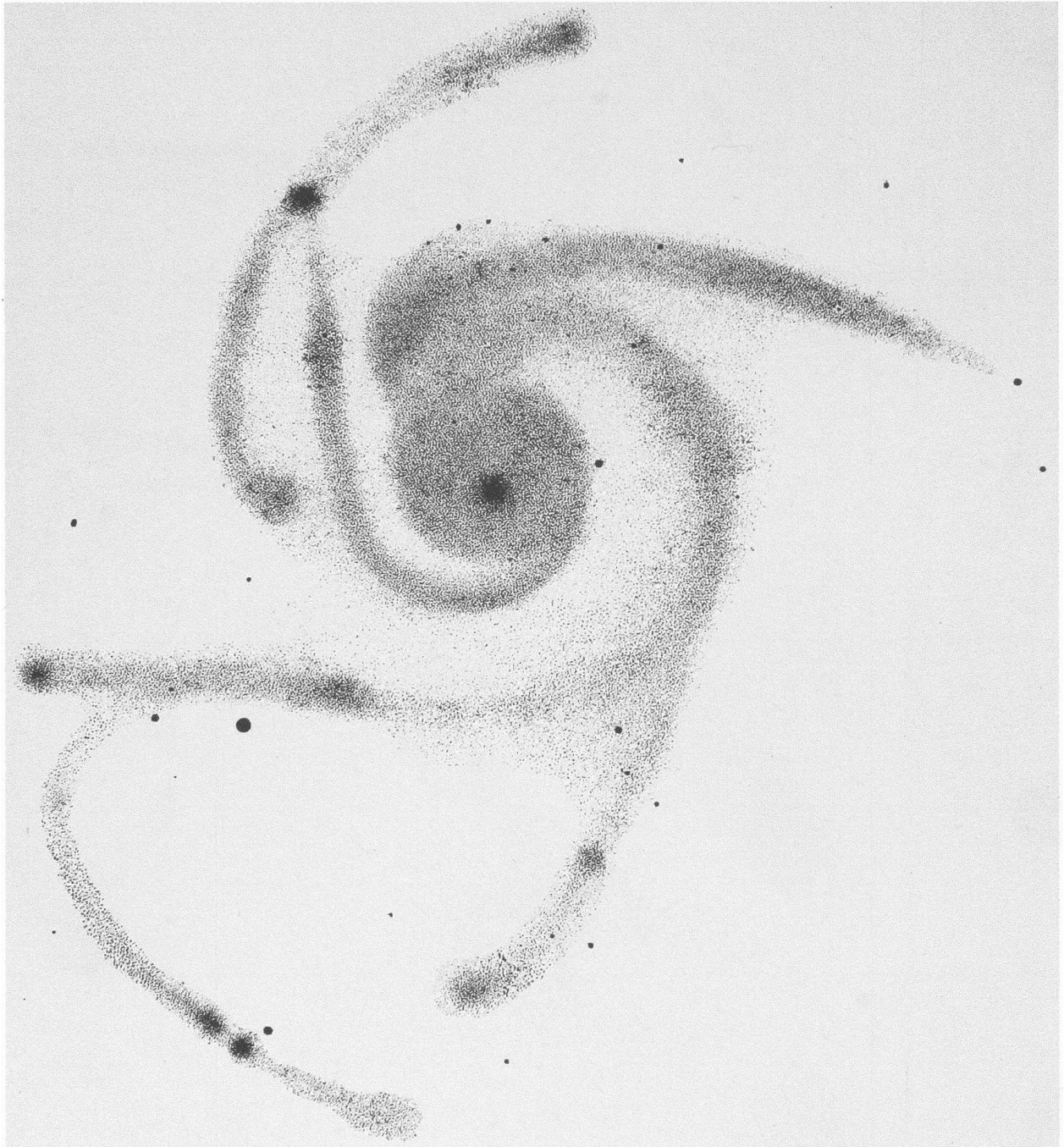
**Angela Schwank, you will shortly be presenting your book, *CIRREN*, as a contribution to w/k. You have called it an artist's book. What is the book about?**

Cirren, i.e. cirrus clouds, are high altitude clouds consisting of ice crystals. The book is dedicated to these clouds in photographs and drawings that are situated between artistic and scientific imagination.

**This is a project that is relevant to our online journal. In this interview, the background of your work will be illuminated in more detail. Is *CIRREN* connected to other projects?**

### Looking back at an exhibition in 2019

The first thing to mention here would be the exhibition *Nightwatch – ein visueller Dialog von Kunst und Astronomie* (*Nightwatch – A visual conjunction of art and astronomy*), which I curated in 2019 at the Natural History Museum in Vienna. It was while I was developing the concept for the exhibition that I became aware of 19th century scientific images of celestial nebulae. The special thing about these astronomical images is that they are based on drawings in which the structures of barely visible objects – spiral shapes, for example – first became manifest. Omar Nasim, who gave a talk at the opening of the exhibition, called the underlying practice of image making *observing by hand*. It was this practice that awakened my interest in drawing. In the summer of 2019, I then picked up pencil and paper to sketch clouds.



William Parsons: *H 174* (1861). Engraving: James Basire.

**Whilst the drawings exhibited in *Nightwatch* were made by others - besides astronomical images, there were abstract works by Akelei Sell and Ulrich Werner -you then also turned to drawing. What were the reasons for this new primacy of drawing?**

In summer 2019, when I was in a crisis with my geometric painting, drawing was a kind of loosening-up exercise. Capturing fleeting objects with chaotic structures in quick sketches was a radically different challenge to my studio work. The idea to sketch clouds came to me because I thought this would allow me an access to the difficulties of the historic nebulae drawings. They were made using largetelescopes, whereby the targeted objects could only be seen for a few minutes while the image fieldrotated and the telescope tracking had to be manually adjusted.

**So, to summarise: a creative crisis changed your artistic position by turning it towards natural structures. Your interest in “capturing fleeting objects with chaotic structures in quick sketches” also implies your fascination with clouds. Were there other reasons for choosing clouds in general and cirrus clouds in particular?**



Angela Schwank: *luminous cirrus clouds in the evening sky* (2022). Photo: Angela Schwank.

### **Why clouds?**

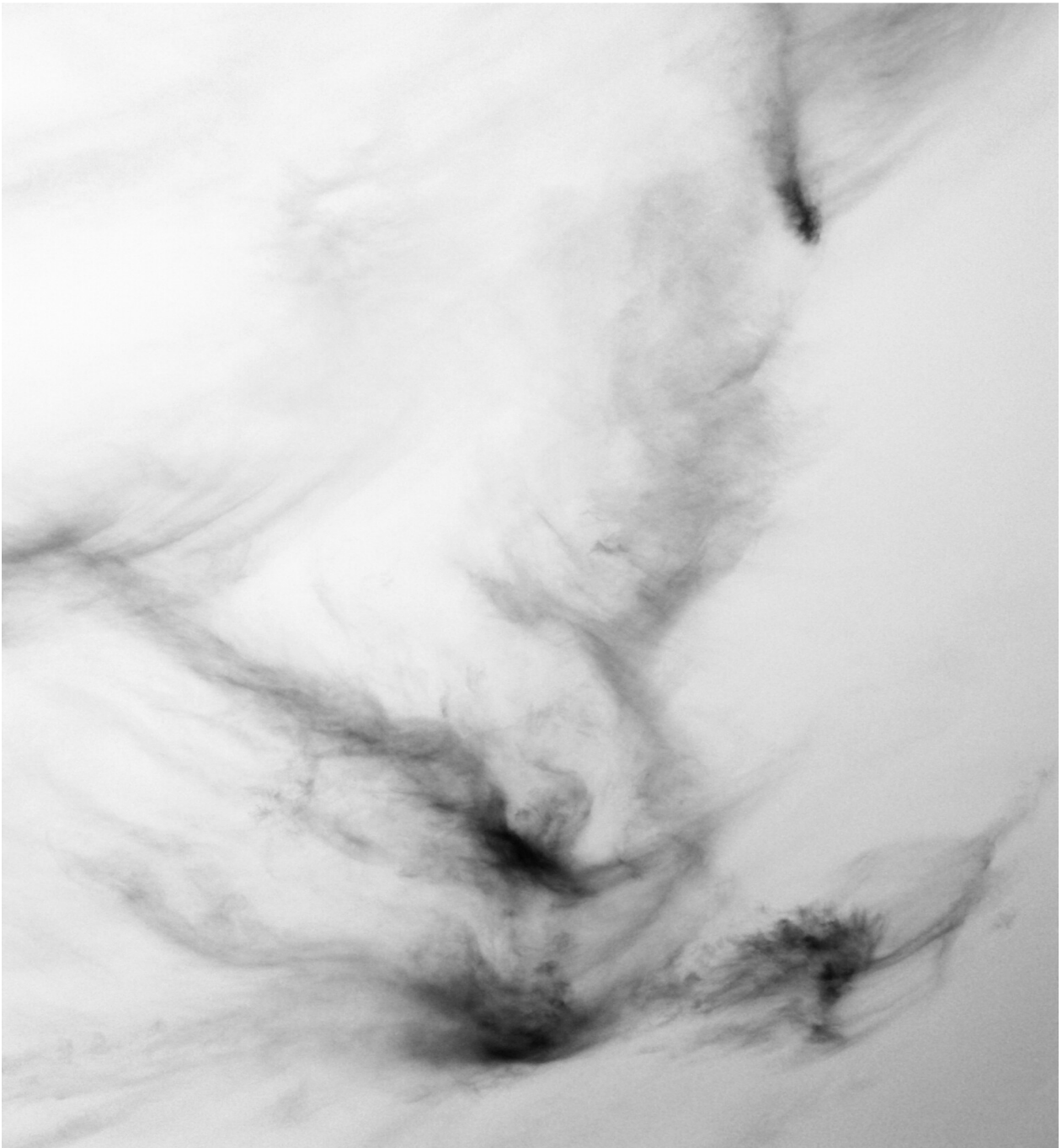
One could say that structure becomes liquefied in clouds. Dealing with this was a new starting point for me that might perhaps prove fruitful for my painting which, until then, had been committed to a

geometric canon of forms. In the Netherlands, where for years I have spent my summer holidays, I often observed delicate, isolated clouds, rich in structure yet relatively stable in form. Hovering near the zenith, they seemed almost motionless, lending themselves to sketch studies. In 2019 I did not know that these clouds were cirrus clouds, but that was not necessary to start a cirrus project: cirrus clouds are unmistakable.

**What further developments allowed the book to take shape?**

Once you start cloud-watching, it soon becomes an obsession. That was how I progressed from the first stage, my observation sketches, to the second stage, where I started taking photographs. I took pictures of cirrus clouds and other high-altitude clouds, partially formed from ice (they often appear together) at every opportunity. In other words: I began collecting. This was in autumn of 2019. It was then that I also made the first conversions of the photographs into black and white negatives. The idea was to emphasise cirrus structures by adopting the example of the nebulae that in 19th century scientific publications were depicted as negative images, as were the underlying drawings.





Angela Schwank: *cirrus intortus* (2020). Photo: Angela Schwank.

**Have you done any further studies on clouds?**

As early as 2019, while making observational sketches, I noticed that contrails appeared in the sky in conjunction with cirrus clouds. I learned that persistent contrails are a variety of artificial cirrus clouds. During the lockdown in spring 2020, when particularly beautiful, richly textured cirrus clouds appeared above Vienna undisturbed by aircrafts, I became interested in the influence of artificially induced cloud formation on natural cloud formation in high-altitude layers of air. At night I drew on paper, producing the drawings in the book. The idea of *CIRREN* developed during the first corona year of 2020/21. I edited my photographs and wrote a text in autumn 2020, which became the last chapter of the book and gives some insight into the psychological part of my story with the clouds.

**I would like to know more about this psychological aspect.**

In late summer/autumn of 2020 I went through an exceptional emotional situation and, in a state of speechlessness, I experienced how the sky would speak in my stead. As in dream-like visions, I saw symbolic figures that reflected my inner experience in the clouds. I included this phenomenon as the final chapter of the book. The rest of the text I wrote in the springtime of 2021. It deals with the natural and cultural history of the visible sky and its appearance in the *Anthropocene* – the term used to refer to the era in which humans became a major factor affecting biological, geological and atmospheric processes.

**Were you interested in clouds before?**

Yes, but I looked at clouds through different eyes then. I took something from their manifold shades of grey for my painting. Since my student days I have been a mountaineer, so I also learned a bit of weather forecasting by watching clouds.



Angela Schwank: *cirrus homogenitus* (2019). Photo: Angela Schwank.

### **Between science and art**

**In your case, this has resulted in developing an idiosyncratic connection between science and art. We should shed some light on how this came about.**

More than anything, I like observing nature. When I was a teenager, I wanted to become an ethologist (i.e. do research on animal behaviour). In middle school I made behavioural observations at the *Affenberg Salem* and wrote a paper on aggressive behaviour in macaques using my own photographs ...

**So, as a teenager, you wanted to become a *scientist*. Did you stick to this plan throughout your school years?**

Yes, but not exactly how I had initially envisioned it. My main subjects in high school were biology and chemistry. I was deterred from studying biology – a prerequisite for ethology – because I was told I would have to do animal experiments. Hence, the books that fascinated me – *The Self and Its Brain* by Karl Popper and John Carew Eccles and *The Part and the Whole* by Werner Heisenberg – influenced my choice to study physics and philosophy at the University of Heidelberg in the 1980s and 1990s.

**What were your most important insights during your studies and what were the decisive impulses for further development?**

I developed an interest in the history of science. My diploma thesis in physics, supervised by Heinz-Dieter Zeh, was about *Mach's principle* and its application to time. The topic touched on the history of

the general relativity theory as developed by Albert Einstein and fundamental questions concerning the physical nature of time. After graduating in physics, I went to Vienna and sat in on lectures on Martin Heidegger and Edmund Husserl. One of my professors was Helmut Vetter, whom I got to know not only as a philosopher but also as a musician at the *Vienna Conference for Phenomenology* (Wiener Tagung für Phänomenologie). He gave me the final push towards art when, in a lecture on Nietzsche, he remarked that philosophers may actually have wanted to become artists. At this moment I decided: forget university, look for a studio!

## **Artistic development**

**Your decision “forget university, look for a studio” was probably preceded by several steps or phases “towards art”. I would like to know more about that.**

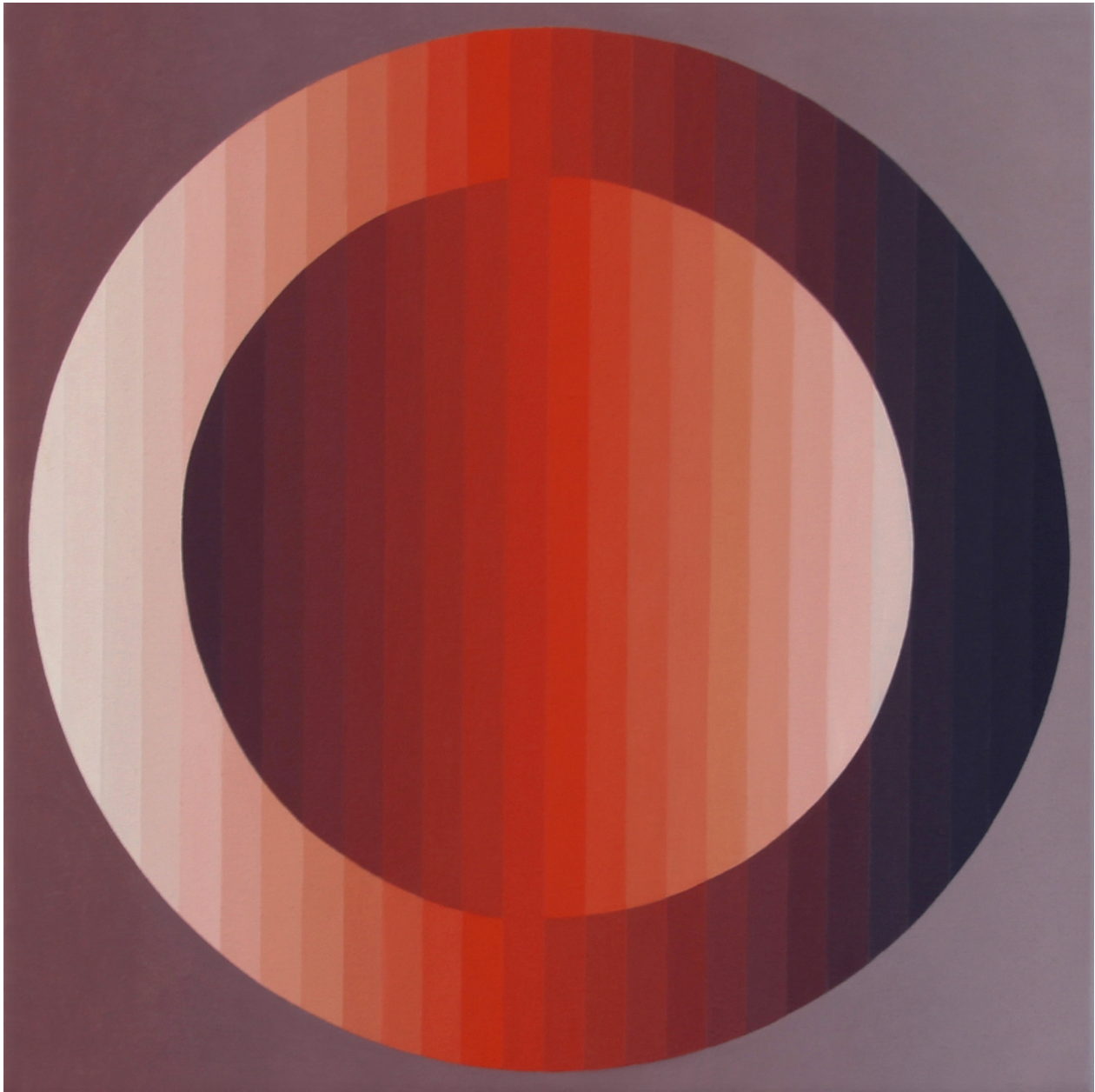
I have tried my hand at drawing and using colours since my childhood. During my time at university, I made drawings of gestural character that were abstractedly figurative. I had just started working on my first non-figurative artworks shortly before Professor Vetter gave me the aforementioned push. In these works (mixed media on paper) I tried to capture a daydream that, as a child, I could trigger at will if I sat quietly and closed my eyes. These were inner visions of an organic sensation situated around my abdomen. They were most comparable to flow patterns. Translating these visions into artistic works continues to interest me. Since flow patterns can be observed in clouds, it is not by chance that they fascinate me.

**So in terms of art you are self-taught: no courses at an art academy. Were there any formative personal influences and paradigms in art history?**

That’s difficult to put in a nutshell ... I grew up particularly impressed by Gothic art. My approach to constructive and concrete painting actually developed through listening to new music. I’ve been attending the *Wien Modern Festival* in Vienna since 1995.

**What happened artistically between leaving the university and the crisis you mentioned?**

I moved into my studio in 1997. I learned how to work in oils and tried my hand at geometric composition. A friend of mine, the painter Ingo Nussbaumer, accompanied me during this period. My artistic work developed towards the subject *light as colour*. Since 2005 I have been exploring the movement of colour in finely nuanced gradations. The oil paintings, some of which are large-format, are characterised by hard-edged colour stripes or colour fields, the sequence of which describes a path through the colour circle. There are hardly any limits to the variation of such paths; the possibilities of geometric composition, on the other hand, are finite. I have found that my idea of colour shifts means a commitment to symmetries. I want to get away from that.



Angela Schwank: untitled (2012). Photo: Angela Schwank.

## **Meteorology**

### **Did you have any prior meteorological knowledge when you started working on *CIRREN*?**

I did not learn much at university about the physics of the atmosphere, which is a complex interplay of thermodynamics and hydrodynamics. As far as cloud classification is concerned, which distinguishes clouds according to their height and characteristic external features, I was only aware of what is regarded as general knowledge. It was when I started working on my book that I got into the subject via my interest in contrails: ice clouds can develop from them that are almost indistinguishable from clouds of natural origin. This is part of cloud science, a branch of meteorology which today is a broadly based, interdisciplinary science.

### **Was there any cooperation with meteorologists during the work on *CIRREN*?**



Alexander Ohms of the *Zentralanstalt für Meteorologie und Geodynamik* (ZAMG) proofread the meteorological cloud names that I assigned to the clouds in my photographs. Regarding my hypothesis in the book that air traffic causes a decrease in the diversity of cirrus clouds, the meteorologist Petra Seibert (University of Vienna) inspired me to find out more about the role of ice nuclei in the atmosphere and to compare my observations with the visual observations recorded at weather stations. The latter, unfortunately, I was not able to take up. As with astronomy, visual observation plays almost no role in current meteorology. The data for weather forecasts and climate models are collected automatically. This includes the height, size, stratification and composition of clouds but no information as to which species and subspecies are observed.

**While reading the book, I asked myself how your drawings and photos are to be classified as a whole. Let me clarify my question: let's imagine an artist painting clouds who is committed to an expressionist school of art. Their paintings do not simply reproduce their visual observations of clouds, but change what is observed in line with their artistic approach. Artistic freedom is applied to clouds. You, in contrast, could be striving for an accurate observational representation using photos and drawings, without adding subjective elements based on a specific artistic school. So they could also be used in meteorology which, as you just mentioned, largely relies on automatic data collection for weather forecasting and climate models. According to this interpretation, your drawings and photos - which can be described as *objective* in a sense to be further defined - are linked to a plea to re-invest visual observations in meteorology with greater weight. In that case, the discipline would once again deal specifically with the question: which species and subspecies of clouds can be seen? Is this an accurate reflection of your artistic trajectory?**

My photographs depict actual cirrus situations, albeit alienated from their context in the sky. For cloud experts these images are interesting because of the multitude of different cirrus types and their unusual negative view. For the table of contents, or rather index of images in my book, I followed the example of a cloud atlas (see online [International Cloud Atlas ICA](#)): the depicted clouds are accompanied by their Latin meteorological names. Meteorologists and cloud experts are those most likely to notice that there are playful variations. For example, there's one cloud that I present in an oval shape reminiscent of a portrait. It bears the zoological name of the butterfly, which might be associated with its form. This playfulness with titles and cloud names is central to the concept of the book. What is scientific, what is objective and what is subjective becomes a little confusing when looking at the index. The same applies to the drawings. I am pleased that at first glance you think they are true-to-life cloud pictures. Actually, the drawn clouds presented in the book were developed on paper. Though they may draw on examples from memory or from sketches or photographs, they do not depict reality. Adapted from typical features (the hairy structures) of cirrus clouds, they are composed of lines resembling curly or smooth hair or stubble. Peculiar shapes grew in the process of drawing and depending on their appearance I gave them meteorological cloud names, variations thereof or a Latin title. For example, there is the *cirrus intonsus* (unshorn, unshaven), a variation of the meteorological name *cirrus intortus* (tangled, twisted, intertwined). Its "unshorn" state resembles a kind of untamed natural growth, although you would never see such a cloud in the sky. On the other hand, the *cirrus aliger* (winged) – also an invented name – could represent a cirrus situation formed from contrails. I have observed and photographed similar formations in the Netherlands.



Angela Schwank: *cirrus intonsus* (2020). Photo: Johannes Novohradsky.

On the question of whether I think visual observation should once again be given more weight in meteorology, I would like to say that I am not referring to scientific work but to the communication of knowledge gained from it. The achievements of computerised data processing are tremendous; people used to spend a lifetime on calculations that can now be done in minutes. What is retreating, however, is the culture of observing nature directly, which is oriented towards qualitative characteristics and thus nearer to the sensual experience. It seems important to me to revive this culture in everyday life. Weather reports could be enriched with some news of what is visible in the sky. This would draw attention to the natural world above our heads. Of course, the injunction to *Look Up* (a variation of the film title *Don't Look Up*), which is the underlying message of my book, means more than simply an occasional glance at the sky. It is addressed to all those who pay little attention to their natural environment and hardly notice how nature is becoming increasingly depleted by human activity.

**Do you intend to continue your cirrus project?**

Yes. Currently I am working on a world cirrus map (charcoal drawing on Japanese paper, 200 x 400 cm) that I would like to show in an upcoming exhibition, whereby I use satellite images as a guide. Air traffic has inscribed a human signature on the ice cloud sphere that is visible from space. My constructed map of this sphere shows corresponding grey zones interspersed with scratches. These mark areas of dense air traffic by a diffuse cirrus cloud cover, which often develops when contrails form. On average, cirrus clouds are considered to have a greenhouse effect, so they are relevant to current climate debates. The additional ice cloud formation caused by air traffic is a factor in the climatic impact of flying. Furthermore, a systematic, massive intervention in the occurrence of ice clouds is currently under

discussion as part of climate engineering processes. The idea is to thin out cirrus clouds via targeted seeding with particles. This method is said to help cool the planet, but it has not yet been fully explored and involves serious uncertainties.

**Angela Schwank, thank you for this insightful conversation, which will soon be followed in w/k by the presentation of the book, *CIRREN*.**

## Literature

Omar W. Nasim: *Observing by Hand: sketching the nebulae in the nineteenth century*. Chicago 2013.

Details of the cover photo: Angela Schwank: *Breaking waves over Berlin* (2022). Photo: Angela Schwank. The picture shows a ring formation around the sun (halo), an optical effect typical for a cirrus coverage. It is based on the refraction of light on ice crystals which in cirrus clouds often have complex shapes with a hexagonal basic structure. At the bottom right of the image, breaking waves in lower cloud layer can be seen (Kelvin-Helmholtz instability). In the foreground the bronze sculpture *Der Ringer* (1908) by Hugo Lederer, Berlin Charlottenburg, Heerstraße. Photo taken on 17 April 2022.

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Angela Schwank will participate in an exhibition planned for 2023 at the *Museum Sinclair-Haus* (Bad Homburg) with the title *Wolken – Von Gerhard Richter bis zur Cloud (Wolken – From Gerhard Richter to the Cloud)*. It is dedicated to clouds with contemporary artist's positions juxtaposed with current understanding of the climate system.

## The book:

CIRREN, 2021. ed. 500 signed

104 p. + English translation in a booklet

Inset: signed print

half-linen hardcover

ISBN: 978-3-200-07816-1

64 €

Online order:

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A review of the book *CIRREN* written by Markus Quante was published in the *Mitteilungen der Deutschen Meteorologischen Gesellschaft*, Heft 1 (2022), p. 29. Online at: [www.dmg-ev.de/wp-content/uploads/2022/03/1\\_2022.pdf](http://www.dmg-ev.de/wp-content/uploads/2022/03/1_2022.pdf)

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## Tags

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