Postcards from a Cosmic Traveller: 
Thomas Ruff's Images of Space

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Abstract. Thomas Ruff’s lifelong fascination with astronomy has resulted in a series of works that examine the process of image making in both his chosen medium of photography and astronomy. Drawing on a variety of sources ranging from the European Southern Observatory’s Southern Sky Atlas to the Cassini and Mars orbiters, Ruff has generated a body of altered and/or refashioned images that ruminate on issues of authorship, image manipulation, time, and objectivity, that have been amplified in our digital age. Astronomical imagery provides a unique focus on these issues and is revealed by Ruff as being an integral part of the questions he raises about our use and interpretation of images.

Introduction

The German photographer Thomas Ruff’s fascination with astronomy dates from his childhood. Born in 1958, he had his first telescope around the age of fourteen, a full two years before acquiring his first camera.¹ After graduating high school in 1977, he considered two options, either to study astronomy at the University of Heidelberg or photography at the Düsseldorf Art Academy.² He chose the latter, feeling that the former might be too challenging. He practised photography only in a traditional way until 1989 when he essentially stopped taking his own pictures professionally and focused more on manipulating found images. These were becoming more readily available as a result of the emergence of digital photography and the Internet. What inspired Ruff to start working


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with images captured by others was his Sterne/Star series – in other words, astronomy.

There are three series of images by Ruff that are exclusively focused on astronomical themes which will be discussed at length below; however, space shows up in other works of his even if not the dominant subject matter of a particular series. One finds images, for example, of the space shuttle and a space walking astronaut in the *Newspaper Photographs* (1990–91); the moon rover and a launching shuttle in Ruff’s series *jpegs* (2004– ); and the astronaut Scott Carpenter and a spiral galaxy in the most recent work *press++* (2015– ). These series do not revolve around a specific subject matter, rather they speak of the medium of photography itself and how it functions, is used, and at times manipulated. Ruff does this throughout his work by revealing the hidden seams or contexts, whether examining the role of photographs in newspapers, enlarging the pixelation of famous found images, reprinting the information on the back of archival photographs on the front, or shifting the pixels in order to blur a digital image rather than correct it. This has led Dan Adler to aptly label Ruff an 'explorer of photographic technology' and Stephen Dillemuth to characterize his practice as 'counter manipulation'.

In his approach and his working method generally, Ruff notes a loose connection to science. His preference for working in series is itself characterized as something of a scientific approach to photography. In a 2012 interview Ruff was asked: ‘You work with series and often continue with subjects over several years. Do you try to explain general phenomena with that method?’ To which he answered:

I often compare this to the tests made by a scientific researcher. In order to prove his thesis, he must show the evidence of his argument. This is similar to my approach. Every photograph is an assertion I put forward. To prove its correctness and quality, I have to take several photos, and only after a series of these can I say whether I am right or wrong.

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In a 2017 interview Ruff characterized himself as ‘… a science engineer type of photographer’. This might explain why reading interviews with Ruff can sometimes be quite frustrating. Like his photography, Ruff is very matter of fact, and the things he does are simply done, nothing profoundly philosophical, just in a very straightforward, dare one say, scientific way. It is the same impression one gets from interviews with Andy Warhol.

Schooling and Early Work
Ruff arrived as a student at the Düsseldorf Art Academy under the common impression that photography was an objective medium, that it captured the world in an unadulterated fashion. That assumption dissipated quickly as he learned the medium, yet, ironically, he initially strove to make work that was as objective as possible, at least on the surface. This was in part influenced by his teachers at Düsseldorf, Bernd and Hilla Becher, famous for their photographs of German industrial structures, as well as being a generational reaction against Neo-Expressionism in painting of the 1970s and 80s. Ruff's first series, Interiors, strove to record places as literally as possible with little to suggest any meaning whatsoever from either the author or place. The focus was on the 'look', the aesthetic.

Ruff rose to fame with his next series, the Portraits, which dispassionately record friends and fellow classmates with little orchestration on his part, and with as neutral facial expressions as possible. The poses are all the same, no background, no facial expression, essentially what is usually expected from a passport photo or driver's license. However, this series, though started in 1981, did not garner much attention until 1986 when Ruff made a change in format. The works prior to 1986 were of a conventional size for art photography, namely, 20 by 25 cm (8 x 10 in). When exhibited, Ruff noticed people walking up to them and commenting ‘there's Lena’, ‘there's Stefan’, engaging with the images in conventional terms, with a degree of intimacy and familiarity that Ruff did not want.

Following the example of contemporary painting and benefitting from the emergence of four-colour large format printing in the 1980s, Ruff decided to print his Portraits in a bigger size – a much bigger

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7 'Ruff in Conversation with Okwui Enwezor', p.32.

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size, 210 x 165 cm (7 x 5,5 feet), and at an unprecedented level of detail. People noticed.

Fig 1 Thomas Ruff, *Portrait (P Stadtbäumer)*, 1988. C-Print, 210 x 165cm, © Thomas Ruff

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Ruff's resizing of his *Portraits* changed how people approached them. Viewers no longer treated the pictures as intimate objects where the game was to recognize who one was looking at, but rather had to focus on what they were actually seeing. The size forced one to look at every aspect of the figures, every detail of the photograph without being distracted by what the person shown might be thinking or even what the photographer was trying to say, as well as step back to look at the overall image, not the person.\(^8\) Meaning was vacated in favour of looking. As Ruff put it: 'I wanted to go back to point zero with my portraits, to take away all the useless things in the genre of portraiture. I really wanted to do "naked" portraits'.\(^9\) By enlarging the *Portraits* Ruff found a way to move photography back into the realm of fine art, pulling it out of the sea of

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\(^8\) ‘Ruff in Conversation with Okwui Enwezor’, p.32.
images that modern society was producing in the 1980s, and that have now, in the digital age, overwhelmed us.\(^\text{10}\)

**Sterne (Stars) 1989–92**

What Ruff did with his *Portraits*, creating as neutral an image as possible with as little interference from the author or the subject, he would take a step further with his *Sterne or Stars* series that he produced between 1989 and 1992, generating a total of 144 images.\(^\text{11}\) The origin of this series, according to Ruff, was that he was interested in working with images of the night sky. He toyed with making his own photographs but lacked the equipment and knew that the light and atmospheric pollution over Europe would not yield particularly good results. So instead, he thought he could use one of the large observatories but soon discovered that he would have to jump a years’ long queue of professional astronomers to do so. He then figured he would try to get his hands on existing photographs. Success. He found some at the Astronomical Institute at the University of Bochum, 29 x 29 cm negatives, which were perfect.\(^\text{12}\)

The Bochum images Ruff discovered were archived negatives from the European Southern Observatory at La Silla, Chile, that were part of the ESO Southern Sky Atlas which sought to document the entire universe or at least what was visible from the Southern Hemisphere. The attempt was begun in 1972 and the images were taken between 1974 and 1987. There were over 1000 negatives and apparently Ruff had to purchase the whole series in order to acquire the rights, which he did.\(^\text{13}\) A couple of the

\(^\text{10}\) The use of large format prints and the detail that could be achieved soon became popular amongst Ruff's classmates at Düsseldorf and became the distinguishing feature of what is commonly referred to as the Düsseldorf School. Giorgio Verzotti, 'Images and Photographs: Thomas Ruff', in Christov-Bakargiev, *Thomas Ruff*, p.28.


\(^\text{13}\) It is unclear how many negatives were involved/purchased. Some sources cite as few as 600, others as many as 1200. See Melanie Bono, *Thomas Ruff. Stellar Landscapes* (Heidelberg & Berlin: KehrerVerlag, 2011), p.50; and, Verzotti, 'Images and Photographs', p.34.
negatives he enlarged slightly and printed them in an edition of 50 for an issue of the art journal *Parkett.* As for the rest, Ruff selected views that he found interesting and printed them in a significantly larger format, namely 260 by 188 cm (102.4 x 74 in or 10 x 6 ft).

![Image](image_url)

**Fig. 3.** Thomas Ruff, *Sterne 17H 16M/-45°*, 1990. C-Print, 258 x 186 cm, © Thomas Ruff.

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The *Portraits* and *Stars* share several features. To begin, there is the sheer size that introduces a level of physicality to the photographs that simply does not exist on a smaller scale. Ruff himself acknowledged this when he stated: ‘For the first time with the big portraits, a completely different physical presence emerged. With the stars it was the same’.\(^{15}\) The larger size allows one to see more detail and get closer to the subject, especially in terms of the *Stars*, which gain something of a tangible quality they normally would not possess.

Both the *Portraits* and *Stars* are, strangely enough, democratic: no one photograph is privileged, no one is deemed superior to another, the seriality of both reinforces this in that you do not have one iconic starry night, just as you do not have a single representative portrait. In other words, you can’t say that one picture is necessarily better than another, they are simply different. This echoes photography as a medium which suddenly gave all of us the power to participate in image making. In other words, it is the most democratic of the visual arts; we cannot all paint, sculpt, or draw, but we can all take pictures (whether they qualify as good or not is another matter altogether).

There is an additional delightful connection between photography and the night sky in that, like the medium of photography, our view of the stars is a product of light and time. We can also note that pictures of the stars upend photography’s freezing of a single moment within the frame since in capturing an image of the night sky you capture multiple moments in time, something I am certain Ruff is keenly aware of as a student of both the medium and astronomy.

The concept of infinity is another theme at work in both the *Portraits* and *Stars*, the fact that we are witnessing one infinitesimal slice of time in each photograph (‘times’ in the case of the stars) reinforces the endless multitude of images that could be taken, something accentuated by the seriality of both the *Portraits* and *Stars*.\(^{16}\)


\(^{16}\) This brings to mind the American artist Robert Rauschenberg’s idea of photographing every square foot of the United States, a feat that is both physically and conceptually an impossibility, highlighting our misconceptions of the photographic image. Philip Gefter, ‘Transmuting Forms, Click by Click’, *The New York Times* (20 October 2013): p.23.
The format of the Stars series is interesting. On the one hand, presenting them in a 'portrait' mode may be to anthropomorphize the works so that the viewer can better relate, but then the scale seems to offset this effect. However, the fact that the night sky is presented on a wall does make the work more relatable in its vertical presentation and Ruff does want us to interact with the night sky, as he makes clear when he states:

The first images I displayed in my studio horizontally, but it wasn't satisfying. The horizontal format is a window, but the images I had in mind weren't a window. I wanted the door, suggesting, 'Put on a helmet, go out into space, become a Captain Kirk'. That's why I made them vertical and as big as possible.17

So 'as big as possible' relates to the scale of what is being shown and, as a nice added feature, we are still forced to look up to an extent even though the work is on the wall.

It is strange that Ruff would refer to his Stars as a doorway since one of the consistent features of his images is their impenetrability, i.e., there is no looking into the picture, no imagining of a physical space beyond the surface. Ruff wants you to look at the image as an image and thus, despite his statements on the physicality of the large format works, he makes it difficult to enter them. When he speaks of physicality, I think his reference is to a sense of presence rather than objecthood since, the figures in the Portraits are adamantly in the foreground and the background is bare, while with the Stars the black sky does not invite us into the work, it serves as a flat background against which the stars are set. Even with the 3D-mars images (to be further discussed below), the effect is one of projecting outwards from the surface. Ultimately, Ruff does want to keep our attention on the surface of the image, reminding us that it is an image.

A final point about the Stars which also relates to the Portraits is the issue of authorship. As noted earlier, Ruff sought to make the subject of the Portraits as neutral as possible and thus remove the directing hand of the photographer, in other words, the photograph had to be as objective as possible. Again, this was likely in part a reaction to Neo-Expressionism.18

When Ruff decided to do pictures of stars his motivation was twofold: one, he was bored with art pictures, and two, he wanted to uncover the most

17 'In Conversation: Thomas Ruff with Vicki Goldberg'.
18 Costa, 'Photography is not the Truth', p.10.
objective subject he could find and hence he thought of stars as it would be
difficult to direct or stage the night sky.\textsuperscript{19}

When Ruff realized he wasn't going to be able to make his own
photographs of the night sky and had to resort to using existing images, his
hand as the artist was even further removed. As Ruff notes: 'For the first
time, I had to give up authorship to create these images. At that time
appropriation was already a common artistic practice. After this experience
it became easier for me to give up authorship and to solicit the help of other
people'.\textsuperscript{20} This was a difficult decision on his part, to relinquish control of
the actual capturing of the image, but he soon made peace with it and by
1994/95 he ceased making photographs except for those taken in his
capacity of family photographer.\textsuperscript{21} It is one reason why Ruff has hesitated
to be called a photographer.\textsuperscript{22}

\textbf{Cassini 2008–11}

In Ruff's \textit{Cassini} series produced between 2008 and 2011, the hand of the
artist is just as removed from the making of the image as it is in \textit{Stars}. The
images used are, as the title suggests, taken by the Cassini orbiter, part of
the Cassini-Huygens mission that launched in 1997. The orbiter went
around Saturn 294 times between 2004 and 2017, taking 453,048 images
of the planet, its rings and moons, until its Emmy award-winning plunge
into the planet. Ruff came across the images while surfing the NASA
website, his favorite, as noted earlier.

In speaking of the orbiter images, Ruff relates: 'They are black and white
photographs with an abstract quality that I really like. To highlight the
abstraction, I colored these photographs so that they resemble a kind of
"post-Suprematist" image'.\textsuperscript{23} Ruff's reference to Suprematism is to the
work of one of the first abstract artists, the Ukrainian Kazimir Malevich,
who traced the entropic collapse of the material universe in favour of a

\begin{itemize}
  \item \textsuperscript{19}Fogle, 'Ruff and his Amazing Camera-less Camera'.
  \item \textsuperscript{20}Goldstein, 'Thomas Ruff on Taking Photography into the Space Age'.
  \item \textsuperscript{21}Jobey, 'An Interview with the Artist Thomas Ruff'.
  \item \textsuperscript{22}In a recent interview Ruff has described himself as an artist practicing
photography. 'In Conversation with Hans Ulrich Obrist: Renowned Photographer
Thomas Ruff Looks Back on His Career', \textit{Hero Magazine} (11 October 2018),
https://hero-magazine.com/article/134091/in-conversation-with-hans-ulrich-
obrist-renowned-photographer-thomas-ruff-looks-back-on-his-career [accessed
28 January 2023].
  \item \textsuperscript{23} 'Thomas Ruff: Photograms for the New Age: Conversation with Michael
Famighetti', \textit{Aperture} 211 (3 Apr. 2013): p.87.
\end{itemize}
spiritual one in his abstract works from 1915 to 1919.\textsuperscript{24} Ruff pays tribute to Malevich in his *Newspaper* series.

Ruff's colouring of the black and white originals highlights a feature of pretty much all space images, namely that they are coloured after the fact. So, what we are shown is likely not what we would see with the naked eye if we were or could be in the presence of the celestial object in question. Ruff, though, makes that colourization process highly artificial to heighten this fact. This is part and parcel of Ruff's love of revealing the hidden seams of photography that are especially difficult to recognize in the digital age. He does so, as mentioned earlier, by expanding the size of pixels to

highlight their presence, shifting the pixels in images to distort them rather than clarify, or modifying the tone and temperature of digital images.

Ruff's application of colour and the frequent and sometimes extreme cropping of the Cassini images flattens them, closing off the background and keeping the eye on the surface of the image with an attention to aesthetics rather than what the image means or is. As with the previous series, interpretation is not discouraged, but it is not led or directed. However, Ruff's involvement through the application of colour no longer appears as neutral or objective as it had been with the Stars series. In the latter, Ruff essentially just cropped portions of the images and enlarged them, whereas the Cassini series, while also involving cropping, includes the selection and application of colour. Yet, there is still a level of objectivity at work as the colours don't reference anything beyond intuitive aesthetic choices.

Fig. 5. Thomas Ruff, Cassini 16, 2008. C-Print, 108.5 × 108.5 cm, © Thomas Ruff.
ma.r.s. 2010-14
Ruff's photographic journey through the cosmos has taken him from the farthest reaches of the universe to landing most recently in orbit around Mars. He produced his ma.r.s. series between 2010 and 2014 using the black and white images of the surface of Mars taken by the Mars Reconnaissance Orbiter which has been operating since March 2006. The curious title of the works, 'ma.r.s.', is simply an abbreviation for the Mars Reconnaissance Survey. The images Ruff produced were his first landscapes, as he likes to point out.\textsuperscript{25}

Fig. 6. Thomas Ruff, ma.r.s. 10, 2010. C-Print, 255 x 185 x 4 cm, © Thomas Ruff.

\textsuperscript{25} Fogle, 'Ruff and his Amazing Camera-less Camera'.

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As was the case with the *Stars* and *Cassini* series, the question of authorship arises as a point of discussion, but at least there are no copyright issues as there were for the *Stars* series. As Ruff notes in an interview about the *ma.r.s.* series, with a little dig at the European Space Agency:

> NASA's pictures are all very high resolution, and there are countless images on their website. No wonder it's the most popular site for images of space. The European Space Agency, for instance, is not as accessible. But NASA puts everything into public domain, and the issue of copyright doesn't exist for them — perhaps because machines took all of the images and machines cannot have a copyright.26

Ruff has spoken frequently about the *ma.r.s.* series. He provides a detailed description of it in a 2013 interview with Jörg Colberg, observing:

> Originally, *ma.r.s.* was made for my own private purposes. At first, I did not have the idea that it would become a new series. I was looking around NASA's homepage, found the images made with the HiRISE camera (High Resolution Image Science Experiment), and I was blown away when I saw the image resolution. I then started to play with them.

> The images come in long strips, and they're black and white. I wanted to have them in colour. I sent an email to the people at the University of Arizona and asked: 'Why aren't you producing the images in colour?' Their response: 'Too much data.' Colour would be four times the amount of data. Since they were producing so many images, this would have resulted in bottlenecks when transmitting the data.

> So I added colour to the images myself. I don't remember why, but I also compressed them, and something strange happened: Suddenly, there appeared a pseudo perspective. It didn't look as if you were viewing from the orbit. Instead it looked like a view from a plane. As a science fiction fan I liked that, because that's the view the first human is going to have in 20, 30 or 40 years. At some point I started thinking I had something interesting. I had between

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five or ten images, and I really liked them. That then became ma.r.s.

Everybody looking at the pictures tells me ‘Thomas, you're interested in painting here’. But no, it's not about painting. I'm interested in realism. The images are very realistic simply because of the precision of the camera. But at the same time, they're absolutely fictional. I never worked on landscapes, and suddenly I had landscape images from very far away.

I also thought in these images I was dealing with a topic that currently is being discussed heavily in contemporary photography: What is fiction, what is real? The images have a bit of both. What is fiction and what is real - that's not the main idea, but it's also part of ma.r.s., and I like that.27

The conversation about what is fiction and what is real is one that is raised every so often in astronomy. Elizabeth Kessler has laid out in detail the discussion on these issues especially in relation to the dramatic images from the Hubble telescope.28 Even the planets in our local solar system have been shown in photographs in ways that are markedly different from what the eye might see.

Ruff was keenly aware of some of the discussions around the colouring of celestial images and he put them in context when noting:

In thinking of NASA pictures, everybody has in mind the fantastic photographs of intergalactic mist or stellar clusters made by the Hubble Space Telescope. In fact, colour is very common in astronomical photography. That has driven us to a very multicoloured conception of the universe… (laughs). But colours in space are relative. The various kinds of light as we see them are only a very small portion of the diversity of electromagnetic waves that exist in space. In colouring the Mars photographs, I sometimes used scientific references, and sometimes my imagination.29

Electromagnetic radiation in the universe ranges from 10,000 to 10^{-17} meters in wavelength, but for the naked eye the visible spectrum is between 380 and 640 nanometers. A telescope might be able to capture a wider spectrum, but it would need technical additions to make that light visible. Radio telescopes are picking up electromagnetic waves you can't detect with the eye, and with certain tools you can also visualize them. So actually, if we want to look at space more accurately, we should use different prostheses and not only the camera. Photography is only a small part of our access to understanding things in space.  

In essence, when it comes to colour there is no 'true' image or, rather, all of the images are 'true'. It largely depends on one's perspective or through what lens one is looking at the phenomenon in question. Ruff, though, is also not oblivious to the fact that how the images of space are being processed and offered to the general population is now dictating the look of space for many, many years.  

Finally, Ruff translated some of the *m.a.r.s* pictures into 3D, making anaglyph images that can be viewed with stereoscopic red and green glasses. This follows NASA’s approach, as the organization is using anaglyph techniques to try to map the terrain. The element of time is highlighted here as it was in *Stars* since the pair of photographs needed to create an anaglyph image had to be produced months apart, so what you see is not the same terrain in one moment in time but rather two. It is doubtful the viewer would ever realize this, but it is something Ruff would have known and likely relished.  

There is another fact that Ruff recorded with some amusement and irony. Given the technology that went into obtaining the images of the surface of Mars by NASA, their conversion into anaglyph pictures adds ‘an aspect of the absurd, in the fact that you can actually recognize deep relief on the surface of another planet with cheap 3D glasses’. Yet, the 3D effect does bring the surface of Mars closer to us, making it feel more tangible, a goal similar to what Ruff tried to achieve in his other series. In an odd turn,
Ruff's focus on the medium of photography, on astronomy as a subject, and his constant efforts to remove himself from the making of the images have all served to re-humanize photography and astronomy by highlighting their human construction.

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