Jacob van Ruisdael’s Landscape with Waterfall

Jacob Isaacksz van Ruisdael (Haarlem c. 1628/29–1682 Amsterdam) had a particular penchant for painting waterfalls. One of the leading Dutch landscape artists of the seventeenth century, he produced almost seven hundred paintings, among them many different types of landscapes – woodlands, riverscapes, dune landscapes, mountain views and winter scenes. In no fewer than 165 works, almost a quarter of Ruisdael’s entire output of paintings, a waterfall occupies a prominent position. Waterfalls are thus the largest sub-genre in his oeuvre, and Arnold Houbraken accordingly highlighted this aspect when he described Ruisdael in his book of artists’ lives. ‘He painted domestic and foreign landscapes, but particularly those where one sees water cascading from one rock to another, until at last it murmurs (to which sound his name seems to allude) through valleys and lowlands: and he was able to depict the spray or the foaming water as it crashed on to the rocks so realistically clear and translucent that it seemed to be nothing other than actual water.’

The Rijksmuseum has thirteen paintings by Ruisdael, three of them – Rocky Landscape, Mountain Landscape with Waterfall and his large Landscape with Waterfall (fig. 1) – featuring waterfalls. This last work was conserved in 2007, providing an opportunity to study in greater depth the technique Ruisdael used.

Landscape with Waterfall in Ruisdael’s Oeuvre

Jacob van Ruisdael painted his first works in his teens. He made his earliest dated painting in 1646, when he was just eighteen. Some ten years later, around 1656-57, the Haarlem-born artist painted his first waterfalls. In the same period he moved from Haarlem to Amsterdam. Since only one of Ruisdael’s waterfalls is dated, and the last figure of the date on that work is not clearly legible, it is difficult to establish a chronology for his paintings of this subject. Although it looks as though Ruisdael based his waterfalls on his own observations, he most probably never actually saw anything like the wild, tumbling torrents in rocky landscapes that he so often painted. He did, though, observe the countryside in his surroundings at an early age. In the 1650s he made trips to the east of the Netherlands and to Bentheim, just across the German border. As far as we know, he never went further than this. Ruisdael doubtless saw streams and little cascades in the border district and incorporated many elements from this region into his paintings. He painted Bentheim Castle several times, for instance, turning nature to his hand such that the modest little hill
on which the castle actually stands was transformed into a majestic mountain, and creating a dramatic view. Unlike his views of Bentheim Castle, Ruisdael’s thundering waterfalls sprang not so much from his own dramatized observations of nature as from other art.⁴ Ruisdael drew his principal inspiration for this genre from the Scandinavian landscapes of the Alkmaar artist Allaert van Everdingen (1621-1675).
Van Everdingen went to Norway and Sweden in 1644-45, settling in Haarlem a year later with a large stock of motifs, including the raging torrents he had seen in the north (fig. 2). Ruisdael may already have had some contact with Van Everdingen when he was making his very first paintings in Haarlem, but he did not pick up the subject until after he had moved to Amsterdam, a few years after Van Everdingen had settled there in 1652 (fig. 3).  

Ruisdael put a great deal of variety into his waterfalls in the height of the drop, in the direction of flow, in the nature of the eddying water and the foam, and in the formation of the rocks. His early paintings of cascades, which date from the 1650s, are predominantly horizontal. Most of his waterfalls, however, were painted between 1660 and 1680, and are far more often in portrait orientation (fig. 4). A small group of waterfalls painted between the second half of the 1660s and the early 1670s for which Ruisdael chose a relatively large horizontal format stands out in this period. The width of the cascades in this group is greater than their height. The landscape becomes flatter and more open and there is a greater suggestion of depth. The Rijksmuseum's Landscape with Waterfall is a good example of these works; it contains all these specific aspects - the wide, low waterfall, the flat, open landscape and the vista - which means that it can be dated to the late 1660s.
In this painting the foreground is dominated by a wide, fast-flowing cascade. Although the drop is not great, the water falls with force. Spray stands out sharply against the substantial rocks between which the water races. In the left foreground a fallen tree lies across the waterfall. A silver birch on the bank, half uprooted, disappears obliquely out of the picture plane on the right. Beyond it is an ancient wood, with sunlight filtering through the branches and picking out the trunks of the trees. Behind the large rock in the centre of the waterfall a gap between the trees opens on to a vista of a sunlit landscape in the distance, creating the illusion of depth. Sheaves of corn stand in rows in a field. A church betrays the presence of a town or village. Two windmills can just be seen, silhouetted against the horizon. Small figures point up the grandeur of the landscape. On the left a shepherd and his flock wade through the shallow water, while a small group of people relax in the wood. Clouds fill the sky, covering more than a third of the painting, and lend the scene – save for the waterfall – a typically Dutch feel.

One striking aspect of the painting is its size (142.5 x 196 cm), which emphasizes the monumentality of the composition. This is the largest landscape with a waterfall we know of by Ruisdael. Only two other paintings of waterfalls by the artist come anywhere close in terms of size. In the same period Ruisdael made this *Landscape with Waterfall*, he also painted a large canvas with a waterfall in a mountainous, more northern-looking landscape which is now in a private collection in Scotland (fig. 5). Much earlier – and of a very different kind – is Ruisdael’s large *Jewish Cemetery*, in which there is a relatively small waterfall in the foreground.⁹

**The Restoration of *Landscape with Waterfall***

Although the sheer size of Ruisdael’s *Landscape with Waterfall* makes a powerful impression on the viewer, the work had lost a good deal of its impact because of the condition it was in until mid-2007. The old layers of varnish were seriously yellowed and the saturation was no longer optimal (fig. 1).¹⁰ This was particularly bad in

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*Fig. 5*

**JACOB ISAACKSZ VAN RUISDAEL, Waterfall in a Mountainous Landscape with a Ruined Castle, 1665-70. Oil on canvas, 119.5 x 180.5 cm. Scotland, Private Collection.**
the dark areas, making these passages appear lacklustre, and the work had lost much of the sense of depth. Parts of the painting had, moreover, become difficult to read because the paint in these areas was abraded as a result of overzealous cleaning.

A too light, discoloured retouch drew the eye in the foreground. The unsightly overpainting was in the foaming water right beside the rock in the centre of the waterfall. Once the retouching paint had been removed it was possible to see and record the extent of the damage beneath it. This was a significant tear, about 20 cm long, in the original canvas. A considerable void had occurred in the area around the tear, where layers of ground and paint had been lost (fig. 6). The loss had already been filled and retouched several times in the past. When the old retouches were removed, it was found that they had been concealing a significant amount of the original paint around the area of loss. Under the ministrations of earlier restorers, the rock had lost considerable ground to the flowing water. It is not clear how the damage occurred. There is a scratch on the canvas running from the upper right to the damaged area, which would seem to indicate that a long object fell against the painting. When the damage was done is likewise unknown. The earliest known illustration of the painting is a photograph dating from around 1920, in which it appears that a small part of the original rock had already been overpainted (fig. 7). A small and probably quite late copy of the painting seems to show the same situation as that in the photograph, which could mean that the damage happened at an early stage (fig. 8).

Since the photograph – and probably
the late copy too – shows the situation after the damage, a reconstruction of the lost part was made. The reconstruction was based on information drawn from similar passages in other paintings by Ruisdael, and other passages in the work itself and in the immediate vicinity of the damage; lines, shapes and colours in the surrounding original areas were used as pointers for the ‘direction’ the reconstruction should take. Every effort was made to recreate the illusion of a landscape that really exists.19
Another disruptive element in Ruisdael’s Landscape with Waterfall which required attention during the conservation process was an area with a strikingly coarse pattern of craquelure in the clouds in the middle of the painting, above the large, centrally-placed oak (fig. 9). Nothing like it was found anywhere else in the work. An investigation into the cause of this extraordinary phenomenon produced a remarkable discovery. The x-radiographs of the area in question showed that the layer of paint containing lead white was appreciably thicker here than in any other place in the painting. Closer study of the same x-rays revealed a tear in the canvas that appeared to have been sewn up with a needle and thread (fig. 10). The tear (in the shape of an inverted U) must have been made before Ruisdael finished the work since the repair is under the original paint. What could have happened? Was the mended tear already there before the canvas came into Ruisdael’s studio, and might there have been an economic reason for him to use this canvas for his large waterfall? Or could there have been an unfortunate accident at an early stage of the work?

Whatever the reason, Ruisdael obviously tried to disguise the repair by applying a relatively thicker layer of paint containing lead white under the top layer. The location of the repaired spot was particularly awkward, however – in the sky, where the paint was...
applied comparatively smoothly. If he had turned the canvas upside down, the waterfall would have covered the repair. The area might well have been less problematic in that case, because the foaming water is more thickly painted. This might suggest that Ruisdael had already embarked on the painting before the tear happened. On the other hand, the painter could hardly have foreseen that unsightly craquelure like this would occur at the site of the repair. The area probably caused him few problems while he was actually painting. Although it might seem strange at first sight to use a canvas with a repair in it or to finish a painting on such a canvas, there is a similar case in the Rijksmuseum collection. A repaired contemporary tear can also be found in the upper left corner of the civic guard portrait Officers and Guardsmen of District xi in Amsterdam under the Command of Captain Reijnier Reael and Lieutenant Cornelis Michiels Blaeuw (known as The Meagre Company) by Frans Hals and Pieter Codde.  

Ruisdael’s Technique in Landscape with Waterfall

The restoration made it possible to study in greater depth the painting technique that Ruisdael used in Landscape with Waterfall. The canvas has a light brown ground. This may have been put on in Ruisdael’s studio or he might have bought the canvas already primed – it is impossible to say with any certainty. What we do know, however, is that while the ground served to fill the coarse texture of the canvas and provide a suitable surface to paint on, its colour was also a very important factor. Ruisdael used the ground as a mid-tone (a point of departure from which he could make various passages darker or lighter) and this played a major role in the final appearance of the work. The composition was laid in on top of the ground. It was not possible to establish whether Ruisdael used a preliminary sketch or an underdrawing to set up the composition. In any event, examination failed to reveal an underdrawing.  

We know of no preparatory sketches for Ruisdael’s Landscape with Waterfall and none of the main motifs can be found in drawings. Whether this is because the sketches have simply been lost or because he did not always need a preliminary study for this subject with which he was so familiar is hard to say. Although few drawings by Ruisdael have survived, we do know of some preparatory sketches for other paintings from which we can conclude that he did use them on occasion. There are no drawings with a grid, nor any that have been pricked so that the composition can be transferred directly to a canvas or panel, nor in which exactly the same composition appears in a painting. There is only one drawing of a waterfall. In terms of composition this sketch can be related to two paintings with waterfalls in a Scandinavian landscape, one of which is in portrait orientation while the other is large and horizontal. This tells us that Ruisdael would use one drawing for a number of very different paintings. The sketch leads us to suspect that Ruisdael did not always copy the design of a preliminary study literally on to the canvas, but allowed himself the licence to make significant changes to the composition at this stage.

At a few places in the painting it is possible to see that Ruisdael used dark brown transparent paint to rough out the various elements of the composition and the distribution of light and dark areas. Ruisdael deliberately left this brown underpainting showing, as he had the ground, in the final result. This is very evident, for instance, in the silver birch on the far right of the landscape (fig. 11). The light brown ground acts as the mid-tone here, while the dark brown transparent paint creates the dark markings on the bark. Finally Ruisdael added touches of lead white,
completing the illusion of birch bark. Once the dark brown underpainting was done, Ruisdael put in the largest areas in the landscape with blocks of colour: light blue for the sky and dark brown and green for the trees and the woodland floor. A grey-blue passage formed the basis for the calm water and the waterfall. The first layer of blue in the sky was composed predominantly of smalt, a relatively cheap pigment by seventeenth-century standards. For the top layer Ruisdael also used ultramarine (fig. 12). This pigment is a much more intense blue, but at the same time it is a good deal more expensive. Many seventeenth-century painters consequently chose to use ultramarine only in the top layer; it was economical and gave the best optical result. The place where the trees would be was roughly reserved in the sky. Ruisdael painted the foliage on to the priming with a transparent dark green paint, taking the leaf canopy partly over the blue of the sky to achieve a good transition. For the green leaves he used the pigment verdigris. One property of verdigris is that it tends to darken over time. This probably happened to Ruisdael’s Landscape with Waterfall, so that the green passages are now darker than the artist intended. The light brown ground gleaming through the layers of paint on top creates a great variety of colours and a tremendous impression of depth. This effect is heightened because Ruisdael also added a few strokes of light blue paint to the foliage, creating the illusion that the light is shining through the leaves.

In the last phase, Ruisdael put the details into the landscape. He painted leaves, blades of grass and the figures in the water and among the trees. The highlights on the rocks and the white foam and spray in the water were also added at this stage. Careful study reveals how many shades of colour Ruisdael put into the foam, ranging from a very cool white to warm yellow tones. This created the sparkle and movement in the water that Houbraken admired when he observed that the crash of the foaming water on the rocks made it seem nothing short of natural. It was not only lights that Ruisdael added at this point in the work; the darkest lines and deepest shadows were also put in now. The illusion of movement in the water was further strengthened by the different ways in which Ruisdael applied the paint. He alternated flowing, undulating brushstrokes with short, hard jabs holding the brush square to the canvas. This technique resulted in small, moon-shaped brushstrokes that convincingly mimic the
effect of splashing water. The calm water above the cascade convinces above all because of what is not there. Ruisdael painted not so much the water itself as the reflection of the bank and the vegetation growing on it. On close examination it can be seen that the calm water itself has no more than a few ripples, applied with light paint on a dark, transparent layer. The light brown ground again acts as the warm mid-tone.

The size, the composition, the use of colour and paint all contribute to making the Landscape with Waterfall one of Ruisdael’s most impressive works. The power of the work also lies in the simplicity of its structure. Ruisdael achieved a wholly convincing result in just three or four steps. The recent treatment has restored the work to the way it was conceived, so that it makes an even greater impression than before (fig. 13). The quality of this work had already struck connoisseurs in the past, however. The Swiss landscape painter Alexander Calame (1810-1864) was gripped by this painting when he saw it in the outstanding collection owned by the Amsterdam banker Van der Hoop, shortly after the collector bought it in 1837: ‘I shall never again say that Ruysdael is not natural and that he is too dark. No, a hundred times no! He is a master, and a magnificent one! How mellow above all in the touch of the leaves against the sky, and what transparency! How he has distinguished between the different planes of one and the same tree!’

Now that the waterfall can be seen again in all its former glory, visitors to the Rijksmuseum will be able to say the same about this exceptional work.
1 ‘Hy schilderde inlandse en buitenlandse
landgezichten, maar inzonderheid zulke,
daar men ’t water van d’een op de andere
Rots, ziet neder storten, eindelyk met geruis
(waar op zyn naam schynt te zinspeelen) in
en door de dalen, of langtens zig verspreid:
en wist de sprekelingen, of het schuimende
water door het geweldig geklets op de
rotsen, zoo natuurlyk dan en klaar dooren-
schynende te verbeelden, dat het niet anders
dan natuurlyk water scheen te wezen.’
A. Houbraken, De Groote Schouburgh,
2 The restoration was carried out by Zeph
Benders, conservator of paintings, and
Manja Zeldenrust, head of the paintings
conservation workshop at the Rijksmuseum.
3 The dated painting is Jacob Isaacksz van
Ruisdael, Woodland Landscape with a
Mountain Stream and Figures, 97 x 84 cm.
Rijksdienst Beeldende Kunst, NK 2497. The
date has been read as 1664, 1667 and 1669.
4 W. Stechow, Dutch Landscape Painting of the
5 S. Slive, Jacob van Ruisdael: A Complete
Catalogue of his Paintings, Drawings and
7 This information is based on the dates given
in Slive, op. cit. (note 5). The ratio of vertical
to horizontal format is 60% to 40%.
9 Jacob Isaacksz van Ruisdael, The Jewish
Cemetery, c. 1655. Oil on canvas,
141 x 181.9 cm. Detroit, The Detroit
Institute of Arts.
10 Little is known about the painting’s restora-
tion history. It was last cleaned in 1948.
11 Both lead white and chalk were found to
have been used as fillers. The difference in
solubility between the various layers of
retouching paint pointed to the presence of
different ‘generations’ of repair. The most
recent retouches could be dissolved with
solvents; the oldest retouches could only be
removed by mechanical means.
12 The photograph was taken by Bernard Eilers,
probably for the Rijksmuseum catalogue of
1920. The photograph is now in the Nether-
lands Institute for Art History (RKD), whom
we thank for making it available.
13 This copy was sold at Sotheby’s London,
22 February 1984, lot. no. 53, and again
by Sotheby’s London, 24 October 1984,
lot no. 72. Oil on canvas, 47 x 65 cm.
A possible seventeenth-century copy is
mentioned in the documentation. This
might shed more light on the moment when
the damage occurred, but the copy cannot
be traced. Contact with Seymour Slive
likewise provided no new information
about this copy, although we thank him
for his kindness in searching his records.
14 It was most important to find the right
balance in the reconstruction. On the one
hand the addition should not be too obvious,
since it played only a subsidiary role in the
painting. The function of the addition was
simply to reconnect Ruisdael’s original
passages with one another. On the other
hand, the location of the loss called for the
missing fragment to be filled in in a manner
that was not too subordinate. In terms of
impact and effect, the reconstruction had
to be in keeping with the powerful, jagged
outlines of the rocks and the turbulent
water that Ruisdael himself painted in the
surrounding areas.
15 A cross-section showed that the structure
and composition of the paint layer corresponded
precisely with the paint layers elsewhere in
the work.
16 With thanks to Manja Zeldenrust, head of
the Rijksmuseum’s paintings conservation
workshop, for her help in interpreting the
x-radiographs.
17 Frans Hals and Pieter Codde, Officers and
Guardsmen of District XI in Amsterdam under
the Command of Captain Reijnier Reael
and Lieutenant Cornelijs Michielisz Blaeuw,
known as ‘The Meagre Company’, 1657.
Oil on canvas, 209 x 429 cm. Amsterdam,
Rijksmuseum, on loan from the City of
Amsterdam, SK-c-374. The seam in this large
work, however, is significantly more crudely
sewn. With thanks to Michel van de Laar,
senior conservator of paintings at the
Rijksmuseum, for this information.
18 A cross-section revealed that the ground is
composed of a mixture of brown earth pig-
ments (ochre), grains of lead white and black
particles (probably charcoal).
19 The fact that infrared reflectography failed
to show up an underdrawing does not mean
that an underdrawing is not or has not
been present. It is possible that the material
used for the underdrawing did not contain
charcoal, in which case it would not be
visible to the camera. The underdrawing
might also have been put on (deliberately)
so thinly and with so little medium that it
disappeared during the painting process.
A few thin dark lines that are reminiscent of an underdrawing can be made out with the naked eye, but they could also have been caused by protruding brush hairs when the underpainting was put on.

Martina Sitt says that underdrawings are not usually found in Ruisdael’s paintings and suggests that he laid in the composition in one go with lead white. This seems improbable, however, since seventeenth-century Dutch painters generally worked from dark to light. Examination using a microscope and with the naked eye showed that this is exactly what Ruisdael did here. He painted under-modelling in dark brown directly on the ground, indicating where the dark and light passages should be. It was only after this initial stage that he added large, lighter areas of colour, using mixtures containing lead white for the first time in the process. Finally he added the details, using the lightest mixtures with the highest proportion of lead white, for instance in the clouds and the spray in the water. For Sitt’s study of Ruisdael’s technique see Martina Sitt, ‘De belichting van de natuur’, in Martina Sitt, Pieter Bierboer, Karsten Müller et al., *Jacob van Ruisdael: de revolutie van het Hollandse landschap*, Zwolle 2002, pp. 37-48.

20 Slive, op. cit. (note 5), p. 491. Slive posits that Ruisdael drew a great deal and that only a few drawings have survived on the grounds that there are four surviving drawings of a single watermill by Ruisdael, but we know of no drawings by him of Bentheim Castle, winter scenes or mountain views, which he also painted repeatedly. Of the total of 136 drawings now attributed to Ruisdael, there are about thirty that depict compositions related to paintings or that can be regarded as preparatory sketches.

21 Ibid., p. 491.


23 Fig. 5 and Jacob Isaacksz van Ruisdael, *Waterfall with a Castle on a Mountain*. Oil on canvas, 99 x 85 cm. Dresden, Staatliche Kunstsammlungen, no. 1495.


25 That this was a standard method for seventeenth-century painters is illustrated by a passage in Turquet de Mayerne: ‘L’ultramarin seul de tous les blues glace sur le Smalte’, (‘Ultramarine alone of all the blues glazed over smalt’) Ernst Berger, *Quellen für Maltechnik*, Munich 1901, p. 111.
