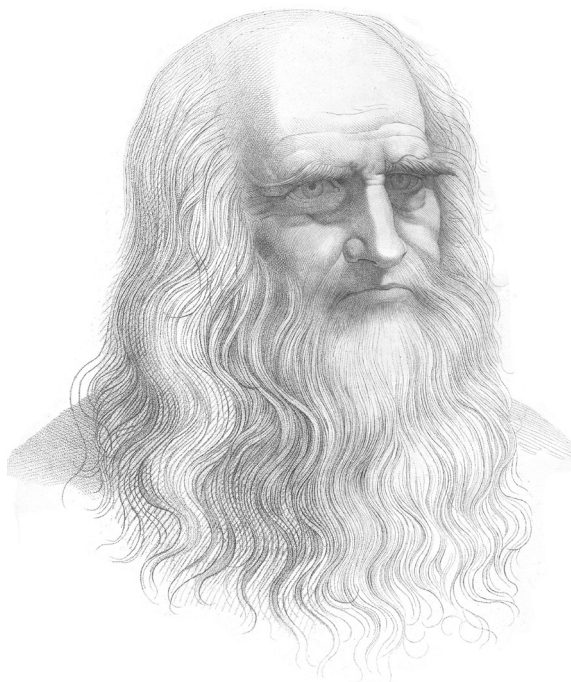

ANGELO RECALCATI

‘And This May Be Seen’

Leonardo da Vinci and the Alps



Giuseppe Bossi's portrait of Leonardo da Vinci:
an engraving published in 1810.

‘And this may be seen, as I saw it, by anyone going up Mon Boso, a peak of the Alps ...’

Thus begins Leonardo da Vinci's account of his climb on Monte Rosa, among the very first such descriptions of the Alps. Mountains, like more or less everything else in the world, fascinated Leonardo, whose death five hundred years ago has sparked so much celebration of his life and work. Interest in the Alps from one of history's greatest artists and polymaths has long drawn the attention of cultural historians hunting for the roots of western Europe's fascination with mountain landscapes. The notes he left behind on what he thought about the Alps and what he experienced there also intrigued mountain historians: where exactly is 'Mon Boso'?

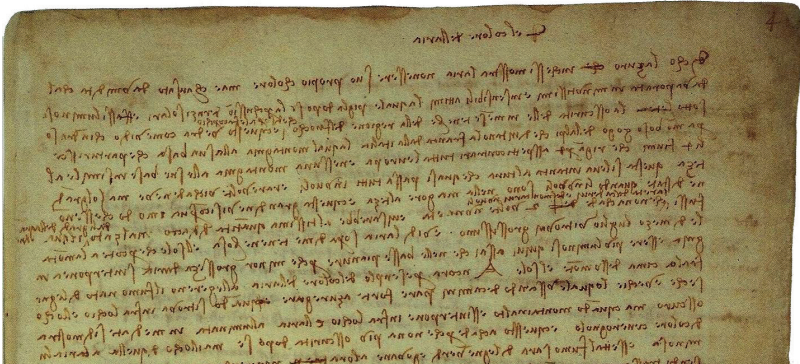


Leonardo da Vinci's 'mon bosco': Monte Rosa as seen from the Lombard plain.

In 1885, Douglas Freshfield, the recent editor of the *Alpine Journal*, published 'The Alpine Notes of Leonardo da Vinci'¹, the first attempt to tackle this subject. There was at that time no modern philological study of Leonardo's manuscripts and no proper chronology either, so Freshfield can be forgiven if his conclusions were wrong. He relied on a recently published translation of Leonardo's manuscripts edited by the German art historian Jean Paul Richter, who knew little about mountain geography. He theorised that the peak 'Mon Bosco' was not Monte Rosa as Richter guessed but Monte Viso, a theory later scholarship has discounted.

Italian scholar and veteran of the Risorgimento Gustavo Uzielli published another long study about Leonardo and the Alps in 1889², correctly identifying the peak as Monte Rosa but writing, erroneously, that Leonardo made his visit there around 1511. W A B Coolidge followed Uzielli in his 1904 annotated edition of Josias Simler's 1574 work *De Alpibus Commentarius*. The author Francis Gribble gave Leonardo and the story of Mon Bosco a whole chapter in his 1904 book *The Early Mountaineers*, and more by luck than judgement suggested the end of the fifteenth century for Leonardo's Alpine climb. The first proper chronology of the *Codex Leicester*, Leonardo's startling collection of notes on the natural world that includes the Mon Bosco passage, was published in 1909, confirming Gribble's hunch. That didn't end the wayward theorising: the art historian Kenneth Clark, who catalogued and then edited a book of the royal collection of Leonardo's drawings at Windsor Castle, claimed Leonardo had made drawings of Monte Rosa,

1. Proceedings of the Royal Geographical Society.
2. Bollettino del Club Alpino Italiano.



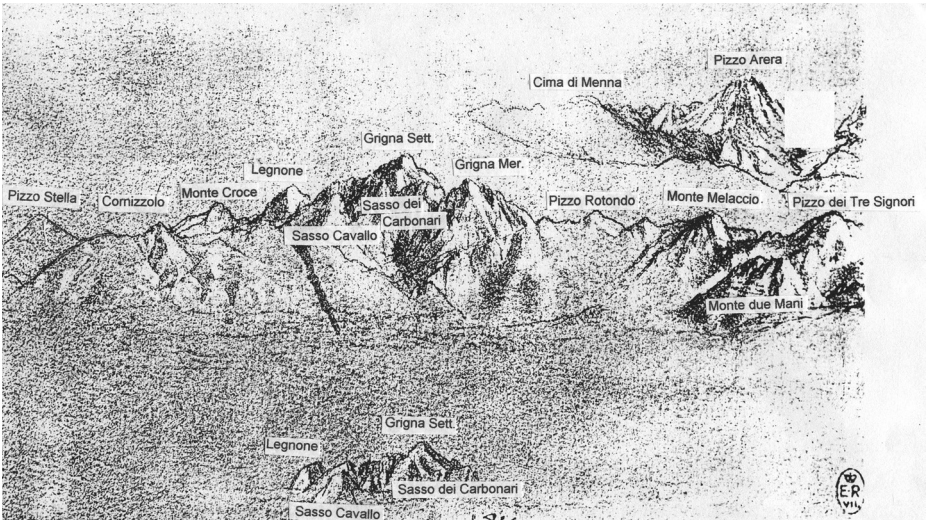
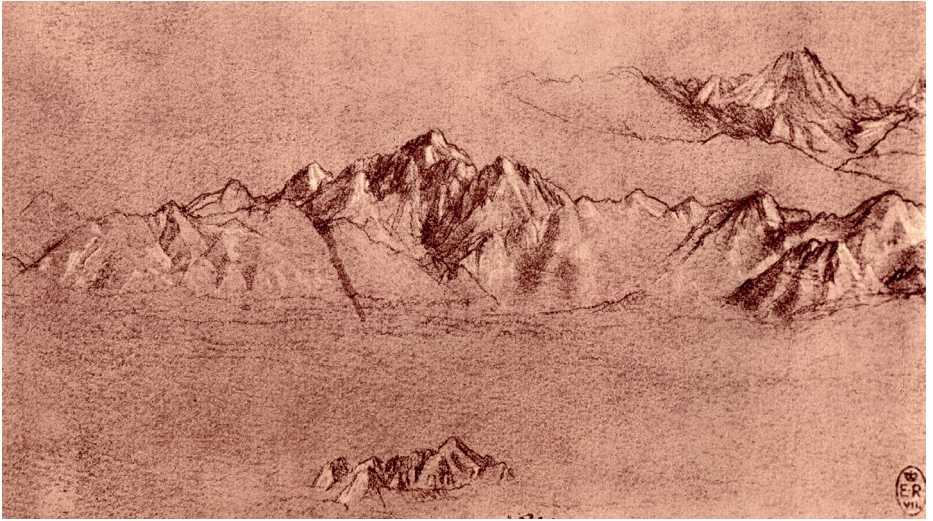
The page of the Codex Leicester that includes Leonardo's description of his journey to 'mon boso'.

when in fact his Alpine drawings depicted the mountains above Lecco; Clark also repeated the error of 1511 as the date of Leonardo's climb.

Reading the phrase quoted above from the *Codex Leicester*, the reader is left in no doubt: in concise but clear and detailed terms, Leonardo emphasises the truth of his experience on the slopes of Mon Boso, the name by which Monte Rosa, especially its southern side, had been known since the 14th century. Considering attitudes at that time towards Alpine landscapes, Leonardo's journey to Mon Boso was extraordinary. It was only in the 18th century, with a combination of Enlightenment scientific enquiry and the new aesthetic of the sublime, that the Alps was recognised as somewhere appealing and worthy of enquiry. Leonardo, the precursor *par excellence*, showed from his writings and art that he understood the value of experiencing and participating in the natural world: the Alps was no exception.

This, then, is the first known testimony of a climb in the high Alpine regions, one that was motivated both by the aesthetic and the scientific, written in the pages of the *Codex Leicester* under the title "The Colour of Air":

I say the blueness we see in the atmosphere is not intrinsic colour, but is caused by warm vapour, evaporated in minute and insensible atoms, on which the solar rays fall making them luminous against the infinite darkness of the fiery sphere which lies beyond and includes it. And this may be seen, as I saw it, by anyone going up Mon Boso a peak of the Alps ... And no mountain has its base at so great a height as this; it rises above almost all the clouds and snow seldom falls there, only hail when the clouds are at their greatest height, and this hail is preserved in such a way, that if it were not the rarity of the fall and of mounting clouds which happens only twice a season, there would be a very high quantity of ice raised there by layers of hail, which I found very considerable in the middle of July; and I saw the air above me dark and the sun shining on the mountain was far brighter there than in the low plains, because lesser thickness of air lays between the top of the mountain and the sun.



The mountains in this drawing, RL 12410, are sometimes identified as Monte Viso and more frequently as Monte Rosa but actually depict the Lombard Prealps. Easily recognisable in the central panorama, with sunlight coming from the left, after the slightly drawn Pizzo Stella, are the Cornizzolo, Monte Croce, the top pyramid of Legnone, the two Grigne, Pizzo Rotondo, and Monte Melaccio; towards the foreground is Monte due Mani and to the extreme right the Pizzo dei Tre Signori. At the centre bottom of the sheet Leonardo drew the peaks between Legnone and the northern Grigna, illuminated by the setting sun that picks out the walls of Sasso Cavallo and Sasso dei Carbonari, well known to him. At the top right of the sheet is the pyramid of Pizzo Arera.



The Lombard Prealps in winter from the roof of Milan Cathedral with the central detail of RL 12410 for comparison.

With extraordinary intuition Leonardo attributes the cause of the blue of the sky to the phenomenon of the selective scattering of light by the atmosphere, a phenomenon only explained by physicists in the 19th century. Later in the codex, Leonardo illustrates his experiment using wood smoke against a black screen with the aim of 'confirming the experience of Mon Boso.' His observations led him to conclude correctly that beyond the atmosphere space is also black and by implication that the density of the atmosphere decreases with altitude. The fact he found 'ice raised by layers of hail' suggests he encountered a glacier revealing the typical stratification made from layers of snow that have turned into ice over a period of years, taking on a grainy appearance similar to hail.

Where and when did Leonardo make this Alpine excursion? The topographical features he describes suggest some way up a high mountain. Alongside Freshfield's theory about Monte Viso, we can also exclude the hypothesis of W A B Coolidge, more recently argued by Philippe Joutard, that Mon Boso is Monte Bo (2556m) in the Alpi Biellesi; Monte Bo's modest height doesn't allow Leonardo's description of the phenomena he encountered. Monte Rosa remains the most plausible location and we can assume Leonardo climbed to altitudes of about 3,000m, most probably from the upper Valsesia or possibly the upper Anzasca valley, with access to Monte Rosa's impressive east face, both at that time part of the Duchy of Milan.

The only indication of date Leonardo offers is 'mid July'; the year can only be estimated, mainly from dating of the codex, which was compiled in fine copy in the very first years of the 16th century, a transcription of notes from various notebooks now no longer available and done while Leonardo was in Florence, having left Milan in 1499 with the fall of Lodovico il Moro. It is

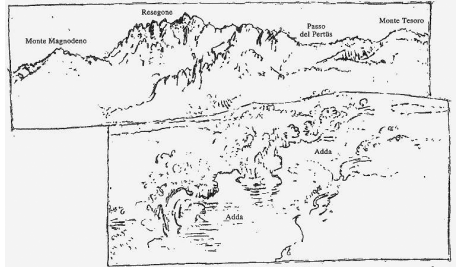


The Lombard Prealps from the west bank of the river Adda, 2km upstream of Trezzo, are the main subject of sheet RL 12414. From the right it's possible to identify Albenza, Monte Tesoro, Resegone, Grignone with its smooth south-east aspect and the rough Grignetta with the profile of the serrated Segantini ridge.

therefore most plausible that Leonardo's visit to Mon Boso took place when he lived in the Duchy of Milan between 1482 and 1499. The year 1511, which Uzielli offered and was taken up by Coolidge and others, is without justification. By then the *Codex Leicester* had been in existence for several years.

The 'experience of Mon Boso' was perhaps the most significant Leonardo had in the Alpine world, but his interest later turned to the Prealps and Alpine valleys of Lombardy. We know about this from the numerous annotations in his codices and from several of his drawings, themselves hugely important because they are absolutely the first true portraits of Alpine mountains.

In the *Codex Atlantic*, so called because of its large size, are numerous annotations referring to the Prealps and Lombard Alps. He writes of 'trips to do in May', and among the fruit he gathers are descriptions of the main characteristics of the territory of Valtellina and Valchiavenna. These journeys were certainly not just for pleasure: he inspected mines, quarries and forests and checked aquifers, paying close attention to the economic



Reconstructed from two fragments RL 12413 and RL 12414 this drawing depicts the Resegone: in the lower part we can see the course of the river Adda.

production of the duchy. The Grigne in particular, often clearly visible from Milan, attracted his attention on several occasions. From his descriptions we learn that he climbed the Val Meria from above Mandello del Lario into the heart of the Grigne, visiting the cave of Ferrera, noting its correct size, and describing the great walls of Sasso Cavallo and Sasso dei Carbonari. Even Leonardo could not imagine these cliffs, 'the greatest exposed rocky walls found in this country,' would become the arduous playground of Riccardo Cassin, Nino Oppio and so many young climbers from the current generation.

The Grigne and the Prealpi of Lecco are the subjects of four drawings, three preserved at Windsor and one at the Biblioteca Ambrosiana in

Milan. Among his many landscape drawings, these are real views of real mountains and not just preparatory studies for the mountainous backgrounds of his greatest paintings. They are four small rectangular sheets slightly larger than a postcard, made of paper with a red tempera primer on which Leonardo has outlined with a firm and precise mark ridges, walls, valleys and spires with an eye to mountain structure never before encountered.

In these drawings, we can see the hand of Leonardo the artist and Leonardo the investigator of nature, an illustration of his unprecedented sensibility towards the reality of the natural world. Shapes, lights and shadows are so faithful that they allow accurate identification not only of the mountains, but also of the place from which they were drawn and even the time of day. The reason Leonardo's mountains appear so real is that he is the



Another view of Resegone and the river Adda valley from the Sanctuary of Rocchetta above Airuno, for comparison with the previous illustrations.



View of the Sasso Cavallo and the Sasso dei Carbonari leaning against Grignone from the entrance of Val Meria. Leonardo called them 'the greatest exposed rocky walls in this country', so impressed that he recognised them, observing and drawing them from Milan.

first painter who studied their geology and morphology in depth, in the same way that it would not be possible to portray realistically a human body without knowing anatomy.

He did these drawings in the last years of his second stay in Milan, which he left in 1513. Two were drawn from the centre of Milan or a few miles from it and from the Adda valley, not far from the residence of Vaprio d'Adda, where he was often a guest of his student and heir Francesco Melzi. It is the Prealps of Lombardy that are the Alpine subject painted by Leonardo and not Monte Rosa as has been affirmed, and reaffirmed quite recently, without justification. The relative closeness of these mountains to his residences in Milan and Vaprio, his walks among them, the valleys, the woods, the mines and the natural curiosities surely left in his soul a sweet feeling of familiarity, a feeling renewed in all those who love the mountains when they see them from afar. So we can imagine it was for Leonardo, now in old age, seeing these peaks from Milan on a clear sunny day or during a trip along the Adda. And in portraying them he drew on memories of distant experiences, perhaps even adventures.

Leonardo defined himself as 'a man without letters' because he hadn't followed the Classical scholastic path, entering instead the workshop of Verrocchio as his pupil; his training and knowledge developed addressing the theoretical and practical problems of a typical Renaissance studio.

'Wisdom is the child of experience' is one of the mottos that occurs often in his writings and is one of the most distinctive features of Leonardo's mental habit, which is free of the cultural conditioning of his time, habits that might have limited him. Instead, his original intellect was left unencumbered to reach a form of total creative understanding using essential elements from both science and art.

This synthesis is a feature of Leonardo's *Book of Painting*, better known as the *Treatise on Painting*, the only one of his theoretical works that was widely known, and even then mostly from the middle of the seventeenth century. In this work we find the fruit of his experience in the Alpine world, not only with regard to his vision of landscape and the relevant pictorial techniques to better represent it, but also descriptions, affirmations and intuitions that demonstrate Leonardo's acute perception and analysis of its natural history: flora, geology, fossils, the shaping of the mountain landscape through rain and snow, glaciers and rivers. In short, we see his attempt to penetrate the same evolutionary mysteries of nature that he offers in the background of the 'Gioconda': his figurative manifesto. Perhaps it is superficial and a little vain for scholars to look for a precise location. Leonardo's intentions were much deeper. Behind the Gioconda's enigmatic expression lies Leonardo's dynamic conception of nature: a truly cosmic vision.