

Aerial photography pioneer Félix Tournachon, known as Nadar, and wife in balloon basket, circa 1865.

Landscape photography is a well established genre of artistic representation. Photographers from Gustave Le Gray to Carleton Watkins to Ansel Adams have approached landscape in their own immutable way, reflecting the cultural sympathies of their own particular age, yet acknowledging, by repeating or rejecting, the pictorial conventions of the image makers who came before.

To break landscape photography into its component parts, however, to speak of “landscape” and “photography” as independent elements only occasionally drawn together to form one stable compound, is to confront suddenly two vast quarries of very different ores. Landscape and photography are nearly incomparable as fields of interest — and yet they share certain affinities. Like magnets, they are mutually resisting in one position, mutually attracting in another. Landscape, a living body, spatially unlimited, exploitable, ownable, yet ultimately indestructible, is frequently the object of our most heated controversies. Photography, its transparency as a medium belying a tendency toward opacity and distortion, its evident penchant for documentation unable to repress a powerful aesthetic character, is our society’s visual common coin for the exchange of ideas. If there is a word that links the two it is this: naturalism. Landscape and photography share an apparent objectified clarity; they both seem to reaffirm that which we already know. The breadth of knowledge required to “read” a photograph of a landscape would seem to be as dauntingly broad as it is reassuringly natural.

The making of a photograph of landscape requires an even broader knowledge, and a deep level of commitment.

Alex S. MacLean’s devotion over the last 30 years to landscape, photography, and — one hastens to add — aviation, has produced a vast body of work, an archive of land use in America that is both formally beautiful and politically committed. MacLean draws from expertise in both landscape and photography, forming a ring in which pictorial means are pressed into the service of environmental causes. More to the point, photography, a notoriously political medium, one often called into the service of social causes, is conscripted to represent landscape, a notoriously political subject. Or is it the other way around? Could it be that landscape is the physical medium through which MacLean tests the boundaries of a deft photographic sensibility? Or does he do it all for the flying?

Aerial photography, a sub-genre within the domain of landscape photography, has its own heroes, issues, and pictorial conventions. It has a history characterized by visual revolution, a history of “discoveries” driven as often by the perspicacity of artists as by advances in technology. As a sub-genre, aerial photography would seem to offer the perfect bridge between landscape and photography. The aerial photographer is, after all, distanced significantly from both his objects of interest: landscape, when seen from the air, falls away, appearing increasingly as an object of contemplation commensurate with each moment of ascent; photography, when practiced in the cockpit, is perforce a secondary technical activity, as keeping the aircraft in the air must naturally take precedence. Perhaps this unique perspective on landscape photography suggests for landscape and photography greater

consideration as independent entities — as two discourses cramped into one borrowed discourse, like a cowbird shoved into a robin’s nest. Looking at MacLean’s photographs from an aerial photography perspective offers, like the view from above, both a sharp vision of the landscape below, and a fresh understanding of this style of photography.

Aerial photography was envisioned as early as 1839, when the announcement of the daguerreotype, photography’s first commercial process, was made at the Académie des Sciences in Paris. That year, a lithograph by Théodore Maurisier entitled *Daguerreotypomanie* parodied the hype over the new invention, projecting photography’s intrusion into all corners of modern life. One detail shows a man pointing a camera downward from a balloon, which was still a novel sight in the skies of Paris more than 50 years after the balloon’s invention by the Montgolfier brothers. An art of surveillance would seem to have been born. However, the heavy equipment and long exposure times required by the daguerreotype process made it impractical on the unstable platform of a hot air balloon. Like so many other things predicted for photography at its inception — color, instantaneity, night pictures — aerial photography would have to wait for significant advancements in technology to occur.

Aerial photography proper began some 20 years later, when French photographer Félix Tournachon, known professionally as Nadar, combined his twin passions for balloons and photography into one ultra-modern pursuit. According to Nadar’s own bombastic

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Alex S. MacLean expands on a long tradition of aerial imagery

BY KEVIN MOORE

account (written retroactively in 1900), the first successful aerial photograph was made at Bièvre, a village just south of Paris, in the autumn of 1858. Struggling against a multitude of difficulties — namely, a cumbersome wet-collodion process that while faster than the daguerreotype was still difficult to manipulate within the tottering confines of a balloon basket, and an assault of noxious gases escaping from the mouth of balloon, gases that mysteriously desensitized the glass-plates' treated surfaces — Nadar gallantly stripped off the weight of his clothing in order to coax his withering balloon, flaccid from cool temperatures and high humidity, up into the air. He made it just high enough — 262 feet — to nab a view, then quickly descended to develop his image. This first aerial photograph no longer exists, but Nadar's description of what he saw from the air offers a compelling image. "The fields, like irregular chessboards," Nadar recalled, "look like quilts made of multicolored but harmonizing patches stitched by the patient needle of a seamstress.... It's as if an inexhaustible box of toys was just scattered across the earth, as if all the factories of Carlsruhe had emptied there their stock.... How like a toy, this slight little train, compelling our attention with its faint little whistle, as it moves prettily along its invisible rail, trailed by its little puff of smoke."

Nadar concludes the passage enraptured: "Everything appears to us with the exquisite impression of a marvelous, ravishing cleanliness! No squalor or blots on the landscape. There is nothing like distance to remove us from all ugliness."¹

Ever since the start of the industrial age, there has been an impulse to aes-

theticize all things modern, to transform ugly machinery and blighted landscapes — plundered for their natural resources, banded by transportation systems, littered with the equipment of industrial progress — into a bright vision of modern possibility. Nadar's perception of landscape as a thing cleansed by abstraction when viewed from above (which implied, of course, that the world could be ugly when viewed from the ground) acknowledges a new aesthetic ideal. Here the defamiliarization of the natural world, the earth's surface radically altered through the transforming operations of aerial perspective and camera vision, offers geometric clarity as a model for rethinking modernity. Here one witnesses the transformation of the picturesque landscape into topographic plan. Here an aesthetic of utility was born.

The first extant aerial photograph was made in the United States two years after Nadar's much-publicized triumph. James Wallace Black, a Boston photographer previously involved in attempts to photograph the moon, found an associate in Samuel King, whose balloon, *Queen of the Air*, offered a platform for Black's pictorial ambitions. Like Nadar, Black chose the wet-collodion process.

Unlike Nadar, Black used a stereoscopic camera (refined by around 1860), whose small-scale plates allowed for even shorter exposure times. Black's series of views taken over Boston were enthusiastically received. Oliver Wendell Holmes wrote in the *Atlantic Monthly*: "Boston, as the eagle and wild goose see it, is a very different object from the same place as the solid citizen looks up at its eaves and chimneys."² Holmes went on to note the striking formal beauty of the city when seen from above, with its plenitude of windows, chimneys, and skylights forming bold patterns unseen from street level. While the aerial view abstracted familiar sights to the point of near unrecognizability, it paradoxically overlaid the city with a broad, rational order imperceptible to the grounded eye. Aerial photography's promise as a tool for urban planning is suggested here, but at the time its effect was mostly to elicit amazement at the queer transformations it made on the world. Novelty was still the order of the day.

Aerial photographs satisfied the cravings of a society ardently in search of new visual sensation. The 19th century's fascination with the panorama, the zootrope, and the stereoscope — to cite the most popular examples — extended

itself to aerial photographs, which were felt to provide a thrilling and convenient virtual experience. A writer of the time, Arthur Batut, enthused in a book on aerial photography and kites that with aerial photographs, "everyone would be able to have the illusion of a perilous ascent, without running any risk."³ Danger was a central — and doubtlessly attractive — ingredient in efforts to produce aerial photographs. Nadar and his wife were seriously injured when their balloon crashed in 1863, an event that sent the photographer into a state of financial ruin. C. V. Shadbolt, England's leading aerial photographer, died in a balloon accident in 1892.⁴ For an increasingly media sensitive public, such accounts of heroic effort and disastrous consequences were the very mettle of the age, and the aerial photograph a precious fruit of that adventure.

As it goes in a capitalist society, where invention seeks application as its essential justification, the pursuit of photographic firsts soon gave way to a search for uses that went beyond mere novelty or entertainment. One of the earliest applications was aerial reconnaissance, attempted first during the Civil War by the Union Army, which spied on Confederate troops during the peninsula campaign in Virginia.⁵ Mapping was another application, promoted especially by Englishman Walter Bentley Woodbury, who argued that with aerial photography one could not expect to get "artistic pictures so much as plans," and thus insisted on "an absolutely vertical picture, such as would be necessary to get a correct map of the earth."⁶

This process of finding practical uses for aerial views was accelerated by tech-

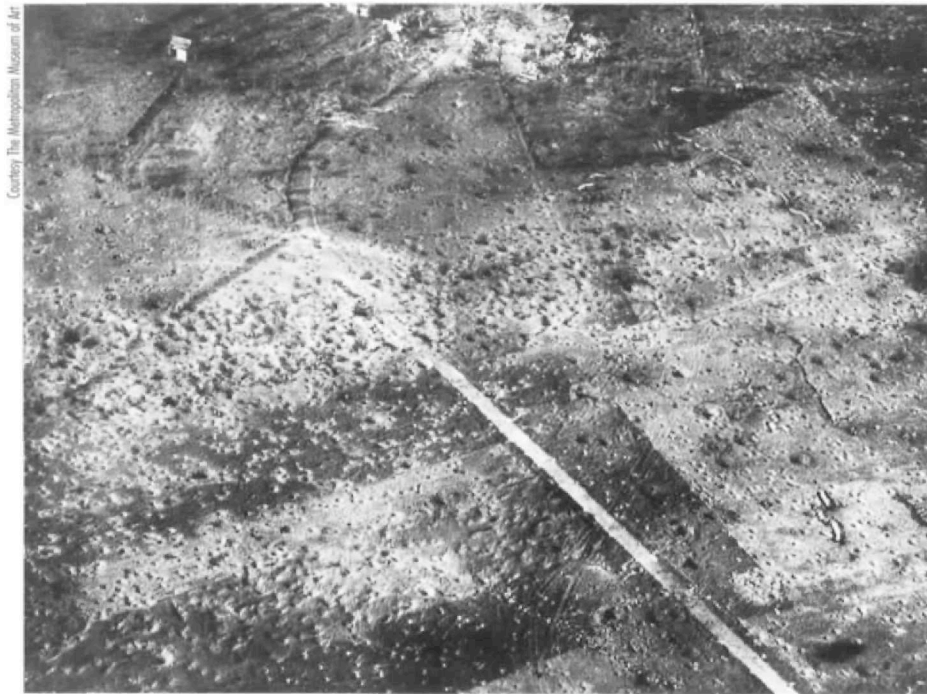


Courtesy: Glenn Pease Company Collection

This balloon view of Boston, shot in 1860 by James Wallace Black, is the world's oldest surviving aerial photograph.

nological advancements. The introduction in 1871 of the dry-plate process, which was faster and cleaner than wet collodion, and the 1869 invention of the electrically-released shutter, a technology central to the operation of the automatic balloon camera, made aerial photography a less dangerous and costly operation. News photography became another compelling application as, starting in the 1890s, improvements in photomechanical printing technologies enabled the fast and easy publication of photographs. American George Lawrence, for example, made a reputation for himself with his panoramic views of San Francisco after the earthquake and fire of 1906. Harnessing the strength of 17 kites to lift his mammoth plate camera above the city, Lawrence supplied an eager audience with overviews of the disaster. These photographs conveyed the mass devastation in a way no earthbound shot could have achieved.⁷

It was the invention of the airplane in 1903 that shot aerial photography into the sphere of truly useful application. Other means for capturing images from the air had been tested during the late 19th century: besides the kite and the balloon, rockets and — preposterously enough — pigeons were sent up loaded with cameras and film. (*L'Illustration*, a popular French magazine, noted in 1908 that “it is quite natural to see birds becoming photographers at the moment when men are beginning to become birds.”⁸) But airplanes, it quickly became clear, had an advantage over their temperamental cousins in that the platform they provided was far more stable and easier to navigate into position. Easier, of course, provided an extra man was aboard to photograph while



Edward Steichen aerial reconnaissance photo from World War I.

the pilot managed the flying. L. P. Bonvillain, a Pathé cameraman, took the first photograph from an airplane (it was a still from a cinématographe film reel, actually) in 1908 as a passenger of Wilbur Wright's in a flight over Le Mans, France. The results were published in *La Vie au grand air* in December 1908, accompanied by all the attendant hoopla of the popular press.⁹

Others somehow managed the double task of flying and photographing all on their own. Charles Shaw, Britain's first hero of airplane photography, wrote that “combining flight and photography

is attempting almost too much to be pleasant as a regular pursuit. One must experience to realise the difficulty of holding a camera and changing plates whilst tearing through the air at an altitude of 400 feet.”¹⁰

The most prolific use of aerial photography occurred during the First World War, when photography, like other tools enlisted to serve the war effort, was systematically rationalized according to new industrial methods and techniques. Edward Steichen, formerly associated with Alfred Stieglitz and the Photo-Secessionists, joined the

American Expeditionary Force in France, where he commanded an aerial reconnaissance unit for the duration of the war. In a brief five month period, Steichen's unit produced some 1,300,000 prints.¹¹ Many of these images display a seductive cartographic abstraction suggestive of avant-garde photography of the 1920s. This is not an altogether surprising observation, for aerial reconnaissance imagery — with its plunging views and mechanical iconography — offered an exciting new visual vocabulary for artists of the post-war era. Military photographs, however, were valued not for their aesthetic appeal, but for their documentary — or denotative — significance. Specialists trained in the act of deciphering trenches, ammunition stockpiles, and other traces of enemy activity scoured prints exclusively for their informational content. As Allan Sekula has written, this particular branch of aerial photography “can be seen as the triumph of applied realism.”¹²

By contrast, the radical aesthetic of the aerial view became one of the trademarks of avant-garde art during the 1920s. Increased portability of the camera — lifted now off the tripod and placed in the hands of the photographer — encouraged the exploration of new angles and vantage points. As early as 1911, American photographer Karl Struss had begun photographing New York from atop recently constructed skyscrapers, as had Alvin Langdon Coburn, whose 1913 book *New York from its Pinnacles* proposed an aesthetic both objective and abstract through its dramatic use of vertiginous views and optical distortions. In Russia, where the search for a language of modernism was



Equivalent No. 314, by Alfred Steiglitz, 1926.

in full gear during the late teens and twenties, artists such as Kasimir Malevich and Alexander Rodchenko took up the aerial view as a symbol of the political and cultural transformations they so fervently encouraged through their art making. Likewise, artists in Germany at the Bauhaus saw the potential in the vertical view (though they pointed the camera up almost as often as they pointed it down) for revolutionizing vision through the deconstruction of space — an aesthetic process linked to progressive political and social values of the epoch. In the end, the appalling devastation of the Second World War would prove these aesthetic ideals hopelessly naïve. Even so, the legacy of the aerial view persevered after the war— however discreetly — in the experimental language of Abstract Expressionist painting. This movement, America's first important, pervasive, and (significantly) popular art movement, established a widespread idea about art — in particular abstract art — as an expression of personal emotion. The meaning of abstraction was shifted from larger social and political causes in Europe to the expression of individual identity in America. This shift has influenced how we regard abstracted aerial images today. Abstract Expressionism, a style and an approach to art making still boldly, if simplistically, emblazoned in the mind of the American public, remains the point of reference for nearly any abstract image in our culture. This includes aerial photography, which, like a multitude of other scientific images produced throughout the modern period, is increasingly valued for its aesthetic properties. Art and science, once mutu-

ally suspicious, now exchange recipes like suburban neighbors.

Pictorially speaking, there are really two traditions of landscape representation, both of which predate by centuries the invention of photography. Cartography, a system of landscape delineation, is one, a model in which the landscape is schematized, abstracted, made linear and utilitarian. In maps, land is measured and quantified; representation conforms to rational science. The second tradition is the pictorial landscape, defined most emphatically in 17th-century paintings by Lorrain and Poussin. In this model the landscape is described, characterized, aestheticized, idealized. In painted pictures, landscape is evoked, narrative is suggested; here representation aspires to art. In terms of aerial views, these two aesthetic traditions, cartographic and pictorial, may be characterized by two distinct angles of attack: the direct vertical (for maps) and the oblique horizontal (for pictures). Alex MacLean's photographs, with their dual purpose of documenting and pictorializing, operate within the spectrum of these two aesthetic poles. In one example, seen on page 18, Houston is captured in a near direct vertical, laid out as a map, the city's streets and buildings appearing in rational, legible order. In a contrasting example, seen on page 15, Houston is pictured from a horizontal vantage point, the horizon line in the distance securing the image within the category of the traditional pictorial view. Here the buildings of the metropolis take on an anthropomorphic character, appearing as titans of industry awakening to a new day. The planar, cartographic utility of the first

example is replaced in the second by the suggestion of romantic narrative.

But these are extreme examples. Most of MacLean's photographs offer a combination of these two points of view. It should be noted that the separation of function and aesthetic, a divide causing rancorous debate in photography since the medium's inception, is a uniquely modern — or modernist — formulation. The terms of this debate were not always conceived in this polarizing way. Take, for example, the ostensibly scientific realm of map-making. In 17th-century Holland maps were considered to be a kind of picture, their surfaces ready to accommodate a wide variety of information — historical, scientific, and decorative as well as geographic. While this was often due to the fact that much of the world was uncharted and illustrations were needed to make up for what was unknown (Jonathan Swift satirized this tendency with the couplet, "So Geographers in Afric-Maps/With Savage-Pictures fill their Gaps"), there was also an intention to combine in a single image both topographic information and picturesque character. Maps were hung on walls, after all, and were valued equally for their aura of knowledge and their decorative beauty.¹³ This dual purpose is also noted in the bird's-eye view, a pictorial format flourishing primarily in France during the 17th century, but picked up again in the United States during the late 19th century.¹⁴ Probably based on views from towers or neighboring hills, bird's-eye view pictures provided a sense of heightened perspective that was augmented through perspectival manipulations of the artist. Bird's-eye views were appreciated precisely for their dual accommodation of topographic data

and picturesque detail. MacLean's work, much of which adopts the middle perspective of the bird's-eye view, somewhere between direct vertical and oblique horizontal, functions in precisely the same vein. Whether hired by urban planners, environmental groups, or developers, MacLean attempts to both document the landscape in question, mapping its dimensions and spatial relations, and convey a sense of place through the selection and framing of detail — neighborhoods bisected by highways, clear-cut forests, open land signaling development potential. This axis of data and beauty, so central to MacLean's work, is indivisible as an aesthetic doctrine of aerial photography.

Around this axis of functional and aesthetic intent lies a third element, abstraction, which blends conceptual tensions into a smooth formal network. Photographers' interest in abstraction has always been a bit problematic. The very term "photographic abstraction," as oxymoronic as its counterpart "photographic realism" seems redundant, signals a paradox: photography's intrinsic capacity to record the physical world can just as easily abstract that world through framing, point of view, and lens distortion. Alfred Stieglitz, the grandfather of American art photography, took up this question in the 1920s, producing his *Equivalents* series, in which abstract arrangements of clouds hinted at deeper, mystical meaning. Minor White recycled the "Equivalents" term several decades later, producing a series of nature abstractions that transformed rock, sand, and water into provocative psychological tableaux. In both these series, recognizable detail is never lost within the larger framework of abstract design. Indeed, central to the



Bird's-eye view of Houston, circa 1891.

concept of equivalence is the insistence on both the literal and the abstract. This rule is shrewdly observed in the bulk of MacLean's work. As landscape architect James Corner has correctly observed, MacLean's photographs "are less abstract than they are matter-of-fact."¹⁵ In other words, the photographs' undeniable abstraction is built out of an arrangement of recognizable detail. Streets, buildings, baseball diamonds, parking lots, and trees, each recorded in miniature precision, sit discreetly within a larger pattern of abstracted, overall design. Like Stieglitz's clouds, Houston and its environs, formalized in the frame of MacLean's photographs, launch a process of higher contemplation. The photographs' designs propose meaning, just as their details offer information.

Where does this lead us, this meditation sparked by aestheticized urban sprawl? MacLean's photographs provoke a kind of retroactive environmental engagement. They are, in my estimation, environmental equivalents. Through their seductive power as images, the viewer is pulled into the composition, attracted first by the larger design, recognizing next a profusion of curious detail, considering finally the significance of what is observed. What is observed, most generally, is a natural landscape marked with the imprint of human industry and neglect — and yet, the image constructed from this is attractive.

It is a standard of aerial photography that even the most ravaged landscapes often take on a startling beauty when translated into image form. Recall Nadar's remark: "Everything appears to us with the exquisite impression of a marvelous, ravishing cleanliness!" It is a statement no less true today, even consid-

ering the environmental travesties that so characterized the 20th century. Indeed, there seems to be almost a rule that the more shockingly stained, scarred, or littered a landscape, the more graphically pleasing its photographic equivalent.

A good example is artist Emmet Gowin's aerial photographs of land damaged by large-scale agriculture, industrial waste, and weapons testing, the inky beauty of the prints only surpassed in feeling by the devastation of what they depict. In contrast to Gowin, who produces his rich, emotionally charged poems in monochrome, MacLean opts for color and clear-eyed precision. Like Gowin, however, MacLean engages a dynamic process, one that makes correspondences between sight and hard concerns. It is the very process of revealing to us what is often called "cultural land-

scape," the space where man and nature conspire, leaving behind traces of their indiscriminate encounter. Stare at MacLean's pictures, and they will reveal to you what they're about. A lyrical composition formed by the lines of intersecting highways, colored in contrasting patches of grass and pavement like the coat of a mangy dog, suggests the excision and neglect caused by urban sprawl. A newly-placed cul-de-sac, like some parasitic organism with its lush green eye, probes a flattened, arid expanse, bending dumbly towards a skeletal house under construction; patterns of mud tracks observing neither road nor topographic feature emphasize the lack of rapport between site and plan. A grid of rectangular apartment complexes resemble computer chips mounted on a mainframe, evoking a culture of infor-

mation exchange where living spaces look less like homes than data processing centers. Condominium towers, seen below, stand like gold bricks, upended, in a gratuitous display of corporate potency, absurd symbols of urban intensity in an expansive landscape of endless horizon. These are not documents condemning land use in and around Houston, nor are they pictorial abstractions celebrating the mosaic of the American metropolis at the dawn of the 21st century. They are instead photographs of landscape as poignant, ambiguous, beautiful, or disturbing as we could ever desire them to be. ■

1. Nadar, *Quand j'étais photographe* (Paris: Le Seuil, 1994), pp. 97-98.

2. *Atlantic Monthly* (July 1863); quoted in Maria Morris Hamburg et al., *The Waking Dream: Photography's First Century* (New York: The Metropolitan Museum of Art, 1993), p. 315.

3. Arthur Batut, *La Photographie aérienne par cerf-volant* (Paris: Gauthier-Villars, 1890); cited in Beaumont Newhall, *Airborne Camera: The World from the Air and Outer Space* (New York: Hastings House and George Eastman House, 1969), p. 42.

4. Both of these anecdotes recounted in Newhall, pp. 31-32 and 36.

5. Hamburg et al., *The Waking Dream*, p. 315.

6. Quoted in Newhall, p. 36.

7. *Ibid.*, p. 43.

8. *Ibid.*, p. 48.

9. *L'illustration* weighed in a year later with what they claimed to be "the first photographs taken from an airplane." Made over Louvercy by news photographer M. Meurisse, these were presumably true camera photographs rather than cinema stills. *L'illustration* 3487 (December 25, 1909) pp. 488-489.

10. Quoted in Newhall, p. 50.

11. Allan Sekula, "The Instrumental Image: Steichen at War," *Artforum* 14 (Dec. 1975), p. 26.

12. *Ibid.*, p. 28.

13. For more on this topic, see "The Mapping Impulse in Dutch Art," in Svetlana Alpers' *The Art of Describing: Dutch Art of the Seventeenth Century* (Chicago: University of Chicago Press, 1983).

14. For the American flourishing of this phenomenon, see John W. Reps' *Bird's Eye Views: Historic Lithographs of North American Cities* (New York: Princeton Architectural Press, 1998).

15. James Corner and Alex S. MacLean, *Taking Measures Across the American Landscape* (New Haven and London: Yale University Press, 1996), p. xvi.



High-rise apartments and office buildings in the Galleria area, by Alex S. MacLean, 2000.