Looking at a Platinum/Palladium Print
Pradip Malde

Every photographic print has a particular look. Its clusters of opaque, microscopic image particles, bound to a piece of paper, are the result of the myriad processes that lead to the moment of looking at a print: from the passage of light reflecting off the subject’s surfaces, through lenses, to film and sensors, and ultimately as it passes, completing a Möbius-curve journey, from the printed image and into our eyes. Looking closely at a photographic print to access its mechanics seems to have the effect opposite of what we would expect from scrutiny: instead of becoming increasingly aware of the materials of a print, we tend to acquire a more intimate and palpable sense of “image.” It seems the more we do this, the less separation there is between oneself, the print, and the photographic “window.” There is a feeling of not only being a part of the world but of being apart from the world. The more we look at and consider a photographic print, the more it seems that we are gazing out at the world. That is the wonder and magic of the platinum/palladium print.

This desire for wonder and magic drives the decisions a photographer makes that ultimately leads to a fine print. Should one choose to print digitally, with pigments in absorbent papers, or use a conventional silver process to form the image in a gelatin emulsion supported by paper or film? Or should the print be made using a historic siderotype process, in which the metal particles are embedded within the intertwined and flattened cellulose fibers of paper? Each of these possibilities will result in a distinguishing set of aesthetic qualities that become part of the artist’s expression, or vision, of the print.

What distinguishes platinum and palladium prints from their chemical relatives? Platinum and palladium prints are made of precious metals precipitated so finely that they render tones with highly nuanced values, creating highlights that slide to the very edge of the paper’s base white (fig. 1). At the other end of the scale, persistently whispering shadows are often not as intense as in some other processes, and generally do not have the deep black values of emulsion-based silver prints. As with the way we actually

Figure 1. Roger Vail, Kami-kaze #2, 1996. Platinum-palladium print from original 8 × 10 in. negative, 24 × 19 cm. Courtesy Roger Vail. The image has flowing edges that are more like territorial transitions or, conceptually, the excitement states of energy. Just as with our understanding of quantum behavior, we sense there is an edge, but we are never certain of where exactly it is—even with the naked eye. Scrutinizing these rounded edges is enrapturing, and at times can almost induce vertigo.

1a. Detail.
see, the darkest tones in platinum/palladium prints are rarely an undifferentiated mass.

For the British photographer Peter Henry Emerson (1856–1936), the platinum process was capable of producing images that aligned with his understanding of nature and human vision. The process mirrored, by its nuanced tonal range, his experience of life on the Norfolk Broads, a system of wetlands in eastern England largely made up of flooded peat pits dating back to medieval times. The Broads have a special luminosity, a subtle radiance. Emerson, a medical doctor, was concerned about the health and economic conditions of those who lived on the Broads. But he was also moved by the tension between the soft landscape of this special place and its tenacious inhabitants. He must have intuitively understood that the platinum process could unveil his empirical and intimate experience of the Norfolk Broads. To some extent, Emerson’s photographs of the Broads were conditioned by the in-camera manipulation of selective focus. But more important is the way Emerson looked to the process to map his experience of this place.

Emerson was intrigued by the possibility that platinum prints could articulate his idea of “natural” vision. He was enthralled by its scientific potential, in the sense that images could be rendered in ways that mimicked human vision: brightness and darkness are rarely perceived in absolute values by the human eye, so why should tone be rendered as such in a photograph?

Emerson’s naturalistic photography aligned well with the neutral tones and long contrast range of the platinum print. *Gunner Working up to Fowl* (fig. 2) was taken with the lens pointing into the primary light source, yet the print reconciles the gamut of bright tones and deep shadow. The platinum process itself shaped Emerson’s imagery, with subjects envisioned and even photographed in a certain way because they would become platinum prints. In doing so, he set out the possibilities of the platinum process, and his prints went on to shape a particular kind of photographic vernacular.

Emerson’s use of process to access the experience of place resonates deeply with the work of Frederick H. Evans (1853–1943), who regarded places as worthy of being photographed largely in terms of the platinum print’s tonal range. Consider Evans as he stood within the magnificent cathedral to photograph *York Minster, North Transept: “In Sure and Certain Hope”* (fig. 3). The scene before him could have been translated into any one of many silver-rich emulsion papers available in his day, each capable of rendering deep, thundering blacks that crescendo rapidly to shrieking whites. But Evans chose the platinum process, with its capacity to portray misty and velvety shadows, which then float, along with myriad dust motes, toward a creamy shimmer of reflecting stone and window light. This print of the North Transept is remarkably nuanced, quiet, and harmonious. The spirit of the place, but also of the photographer, is in the print, which is in turn revealed as the nature of the place, re-imagined through the photograph.

**Vernacular: Then and Now**

With each thing that is crafted, there is an accompanying conversation between maker and material, and it is this special pairing, almost regardless of what is actually made, that profoundly informs the experience of produc-
tion. In the case of looking at a print and constructing its meaning, the tools we use to understand the world also form our world. Tools and technology create their own contexts, or syntaxes, all conditioned by shifts in culture and changing materials. This is a complex, recursive process that can have distinguishing features, which may be described as "vernaculars." For instance, the way in which a print is made, from the materials used to prepare the light-sensitive paper to the more specific techniques used in printing, such as dodging, burning, and contrast controls, is the vernacular of an image. Vernaculars are often understood to be regional, cultural, and historical variations of language and architecture. In terms of a photographic vernacular, what was understood and expected of the platinum print in the 1890s to the 1910s may be quite different from the platinum/palladium print of today. Understanding these differences and similarities in terms of the vernacular can better frame a contemporary approach to appreciating these photographs.

The language of the photograph affects the way we experience and understand the world around us. While words point to objects and experiences, the inverse is also true. Experiences shape language and how language is understood. The more specific an experience, and the more frequently a certain kind of experience occurs, the more likely it is that a vernacular language will form around the experience. A vernacular form of language grows from nearness: its ripples are tighter and more local, more attenuated but more precise. And in that precision, vernacular expressions are capable of conveying a more personal and immediate sense of place. While photographing in Norfolk, Emerson sensed the delicate balance of the local peoples' lives and their fragile environs. It is no coincidence that "delicate" is a word used often to describe fine platinum/palladium prints.

Cultural and technological shifts are closely linked with vernacular expressions. How a photographed moment was envisioned and expressed as a print in the 1800s is far different from how a photograph might be taken for an instant post on social media. Because the language of the platinum/palladium print has shifted over time, it may be useful to highlight the most distinguishing characteristics and similarities of the process, and some differences between historic and contemporary practices, before considering the vernacular itself.

For the purposes of comparison, the “initial period” will be defined in this essay as between 1882 to around 1914, the heyday of industrially produced platinum papers. The time since 1990 or so will describe “contemporary” platinum/palladium photography, a period during which there has been an extraordinary growth of interest in the process, expanding significantly in the early years of the twenty-first century.

What has changed?

Figure 3. Frederick H. Evans, York Minster, North Transept: "In Sure and Certain Hope," 1902. Platinum print, 27.46 × 19.69 cm. National Gallery of Art, Carolyn Brody Fund and Pepita Milmore Memorial Fund, 2011.18.1. 3a. Detail.
During the initial period photographs were profoundly shaped by slow negative emulsion speeds and the need to mount cameras on tripods. Carefully composed and usually static subjects characterized the imagery. The contrast range of negatives, or gamut, was long and suited the tonal response of the printing-out papers of the day. Lenses, while capable of rendering high acutance and resolution, were also designed to project a fashionably diffused focus. Prints were most often made on carefully formulated machine-made papers, surfaced to optimal specifications, which were then machine-sensitized to produce a predictable look and feel. Industrialization facilitated and established an understanding and expectation of how a platinum print should look.4

Contemporary platinum/palladium printers, now working as they must with handcrafted techniques, may use traditional large-format methods to make film negatives, or they may generate enlarged negatives from any kind of analog or digitally originated image. The combination of highly sensitive digital sensors, contemporary films, and unprecedented lens acutance leads to images that have a very different, often more spontaneous, feel when compared with anything found in the initial period. Hand-sensitized prints may be made on a myriad of paper supports, few of which are custom-made for the platinum/palladium process, and they vary tremendously in appearance.

It may not be possible to define the look and feel of the quintessential contemporary platinum/palladium print. The initial period was driven by a kind of scientism and the corollary belief that there is an underlying order to everything, waiting to be discovered and expressed, or, in Emerson's case, prescribed for the rest of us. Contemporary platinum/palladium photographers pay little attention to linking process with philosophy or to the conceptual premises of Emerson's naturalistic photography.5

What has not changed?

From the very outset, platinum/palladium prints were, and continue to be, lauded for their permanence. Along with their archival robustness, an image rendered with noble metals has marketing cachet, garnering the interest of collectors and curators. The impression that the look and feel of a platinum/palladium print was and is somehow different from all other photographic prints also persists. For all these reasons, whether made in the initial period or by a contemporary artist, platinum/palladium prints are among the most prized in today's collections.

Figure 4. Emily J. Gómez, Opening Moonflower, 2000. 2nd in series of 4. Platinum-palladium print from 4 × 5 in. original negative, 12 × 9.5 cm. Courtesy Pradip Malde. The finest attributes of intensity and contrast are exemplified in Gómez's print of the moonflower, which jumps between extremes, with its blazing whites and swirling blacks. The image, but also the print, remains animated. There are no homogeneous zones or encampments of blandness. The platinum-palladium print is capable of rendering tonal nuance at the extreme ends of highlight and shadow values. Midtones transition from dark to light suddenly or in whispers, rather than with the megaphonic sparkle so typical of dual- and triple-layer processes such as glazed albumen or gelatin silver.

4a. Detail. The print of this opening moonflower has a tactility even in the highlight values of the tender petals, and when viewed closer the highlight details become inseparable from the variations of tone among the fibers of the paper itself.
Breathless and Forgetting: Qualities That Set Platinum/Palladium Prints Apart

There was a moment in the late 1990s when I found myself in the print room of the Art Institute of Chicago looking at a display of unframed platinum prints by Frederick H. Evans. My breath, quite physically, left me, as did my sense of where I was. My hush became part of a larger silence that filled the room. These were platinum prints of a quality rarely seen.

Good gelatin silver prints are capable of evoking an awed response. But this sense of awe, even for the most admirable gelatin silver prints, may more aptly be described as a gasp rather than a hush. There is a similar qualitative difference between platinum/palladium prints and other photographic processes that challenge printers who have shaped their vision through the more conventional gelatin silver emulsion papers. Contemporary platinum/palladium printers pay attention to the vernacular of the process and most often work in the realm of hushes and sighs, not in the gasping atmosphere of gelatin silver printing. The platinum/palladium process has formal qualities distinct from other photographic processes, the vernacular of which calls for description.

The evocative “hush” of the platinum/palladium may be understood as intensity, contrast, tone, edge, resolution, and volume, terms that are traditionally used by printers and connoisseurs. These aspects are presented in emotive terms, using words to approximate another realm of experience rather than using the more traditional photographic terminology based on optical and sensitometric values. The singular and highly nuanced qualities of a platinum/palladium print, and the ways in which it is distinct from other photographic printing processes, may be further understood by observing form, pattern, overtone, texture, and delicacy. Combined, this terminology more clearly establishes how a platinum/palladium print evokes its distinctive atmosphere of wonder and magic. Each of these facets may provide a path to identifying and appreciating a good platinum/palladium print. Much like a single line of notes in a fugue by Johann Sebastian Bach, these facets overlay each other and together form a grand harmony, or, as Paul Caponigro described it, the distinctive “voice of the print.”

Intensity and Contrast

The intensity of a platinum/palladium print is a potent quality, forceful and full of presence. It has an ability to persist in just the dark values, or just the light ones, or across the entire tonal range, resulting in the capacity to hold a viewer’s attention. Other printing processes rarely sustain this kind of dynamic. Overall print contrast, whether low or high, is expressed by a scale of tones that may vary from soft and subtle gradations to abrupt switches from white to black and back again (fig. 4). With platinum/palladium prints, intensity and contrast generate rippling tones and eddies of narrowly modulated or dramatic jumps between dark and light that are like emotional turbulence (fig. 5).

Tone

Tonal qualities in platinum/palladium prints are influenced by the intricate physical structures to which these metals are bound. Color is influenced by the way paper, along with the other components of the image, absorbs and reflects light. It is directly related to the particle size of platinum and palladium metals and the shape, quality, and tone of the cellulose structure in which they reside. The microscopic structure of the paper consists of translucent matrices of cellulose that absorb, reflect, and scatter light to varying degrees. The color of the paper may range from bright white to warmer shades of off-white and buff. Its surface quality, which may range from very smooth to

Figure 5. Adam Fuss. From the series My Ghost, 1999. Unique platinum print photogram, 104.1 × 76.2 cm. Edition ¼ AF804.1. Courtesy Adam Fuss.
highly textured, further influences the appearance of a print. All of this plays out in a very complex dimensional space, unlike the optically homogeneous layer of emulsion-based prints. It is therefore misleading to think about a platinum/palladium print as being monochromatic, as black and white. It can be replete with color, with a range of highly nuanced color within one print. The viewer should delight in the broad color range that the platinum and palladium process is capable of rendering, and also be aware that color is an expression of how light is absorbed and reflected by metal atoms and cellulose fibers (fig. 6).

**Edge**

Gazing at a fine platinum/palladium print is a patient activity, and one that is needed to access its velvety qualities. A Middle Eastern dessert known as *qata’if* is described as the food for those who are patient.7 *Qata’if* was derived from the Arabic root meaning “velvet,” and “velvety” is a term often used to describe the way edges are rendered in platinum/palladium prints. An edge defines the way one tonal zone, or territory, is distinguished from another. Rather than describing the degree to which an edge is “sharp” (the more traditional understanding of edge), this process yields edges as rounded and flowing, velvety, and ethereal, even when the image is clearly delineated and sharply focused (fig. 7; see also fig. 1). The ability to recognize this kind of edge promises rewards for those who spend time with a platinum/palladium print and leads to an appreciation of the process’s peculiar display of resolution.

**Resolution**

Resolution is a quality that is controlled by chemical and physical aspects of the process. It is not to be mistaken for sharpness of focus or film grain. Rather, it describes how the flow of tones in the negative splice with the dimensionality of the metallic and organic structures in the print. Resolution of detail is also related to the size of the original negative and the need for an exposure to be made with the negative in contact with the printing paper.8 When a print is closely and patiently scrutinized, these highly resolved aspects of the image begin to unveil themselves (fig. 8; see also fig. 7).

Figure 6. Mike Ware, *Shrouded Blockship, Orkney*, 1983. Platinum-palladium print from copy negative of 6 × 9 cm original, 28 × 40 cm. Courtesy Mike Ware. Ware’s print demonstrates that tone in platinum-palladium prints may be uniquely rendered by the process, and may not be monochromatic. Platinum-palladium prints may be very brown and almost golden or, if we look closely at this print, can range from brown to bluish. Tonal information is relative.
Volume
Many, if not all, of these formal components and qualities exist in a three-dimensional space, or volume. The platinum/palladium print is produced by the presence of noble metals, in clusters of varying size, amid the swarming cellulosic mat of the paper. Cellulose is normally quite transparent but appears white because of the scattering effect of light as it passes through the surface layers and reflects back out. The metals that form the image are opaque, and absorb and reflect varying wavelengths of light. Just as the print is not monochromatic, it is not two-dimensional. All plain-paper siderotype prints have a depth or volume to their tonal spaces, but platinum/palladium prints seem to have an uncommon spatial fingerprint. When considering the print in terms of volume, it also helps to think of it in terms that are similarly multidimensional.

Form, Pattern, Overtone, Texture, and Delicacy
Form, in visual terms, is frequently understood as being three-dimensional and a critical framework for considering what is seen as well as how the components of an image relate to each other. As with all expressive mediums, the form of a platinum/palladium print is distinguished by the technical characteristics of the process, which may
be manipulated to direct the viewing experience toward an aesthetic. The signature components of platinum/palladium prints (intensity, contrast, tone, edge, resolution, and volume) activate forms that are visible only because they are expressed in this medium (fig. 9).

The formal relationships within an image are seen within a context or set of patterns that help describe and express experience in poetic terms. Pattern is seen in particular kinds of tonal interplays that are almost independent of what was actually photographed. In other words, patterns provide evidence that something exists, even if it is not seen. The things we do not see in a photograph are just as certain as the things we do see, and these things determine, in distinct and wondrous ways, what is seen in the print.

A vocabulary of terms is required to express the phenomenon of how visible and invisible layers interact with perceptual and physical layers. Overtone is a term borrowed from sound and music. In platinum and palladium printing it is understood as the whole being greater than the sum of its parts, with the parts, or layers, modulating and modifying each other. The interplay between the visible layers interact with the perceptual and physical layers: what is in the negative and what is rendered in the print are the result of these parts. These overlays may or may not be compatible with each other, but, just as in the improvisatory music of Thelonious Monk or Ludwig van Beethoven, the fact of having been brought together in terms of the medium creates a harmonious whole.

As the visual experience shifts not only across the surface, but also enters into the dimensional expression of the print, we encounter texture. Texture includes some of the most singular parts of photography: what the image is of, how the tonal information interplays with the paper, and how it ultimately leads us to consider what is the image about. Paper presents itself not just as surface but also as a kind of interior. Together, the print renders as singular texture, one that is at the same time ordered and chaotic, unchanging formlessness (fig. 10).

The dance between order and chaos is a delicate one. Delicacy, as a visual experience of the platinum/palladium print, is largely shaped by resolution, described above. Delicacy is seen in fine nuances of tone, where there are few absolute values, where the continuum is valued more

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Figure 9. Pradip Malde, Wave. Particle. (Chris Bucklow), 2008. Platinum-palladium print from 8 × 10 in. negative, 24 × 19 cm. Courtesy Pradip Malde. Water becoming body, head, thought waves, and the place from where light emanates—all of these rely heavily on and are only expressed by the form of the platinum/palladium print.

9a. Detail.
than the end points, where the flow from one state to another seems proper and according to an innate sense of sequence.

Making and Seeing the Platinum/Palladium Print
I write as a photographer. As I gaze at the palladium print by Brooke Irvine beside me (fig. 11), and then out through a window to some shimmering leaves in a cluster of cottonwoods, I flip to a memory: It is 1964, and I am skipping over iridescent oil-scummed water puddles in a rubble-filled alley in my hometown of Arusha, Tanzania. This combination of luminous shadow tones in the print and the rippling leaves outside my window connected with a childhood memory about iridescence.

Irvine’s print is mostly dark, with just three or four luminous circles on the right providing some relief, some place to move toward. I look at the print through the filter of my childhood memory. This much is familiar to me when regarding a photograph: I am seeing through the photographer, the lens, and the print; I know my eyes are dancing between one part of the image and another. I see surface and swarming cellulose fibers that form the paper as well as the tree trunk. I see the heavy black tones of the print, and they are unyielding in the sense that they do not easily let my attention wander away, and still my eyes slide across to the lighter, glowing circles, then back to the darkness, glancing not just over the print’s surface, but under and into the surface. I see things that were not...
Figure 11. Brooke Irvine, detail of *Crossed Vines*, Sewanee, Tennessee, September 2014. Palladium print from 6 × 6 cm negative, 5.5 × 5.5 cm. Courtesy Pradip Malde. Irvine’s print is mostly dark, with just three or four luminous circles on the right providing some relief. The surface and swarming cellulose fibers form the paper as well as the tree trunk. The heavy black parts of the image are unyielding in the sense that they do not easily let the viewer’s eyes wander away. Still, the lighter, glowing circles vie for attention from the darkness, creating a dynamic just over the print’s surface, but under and into the surface. One becomes enraptured by looking.

11a. Detail. Irvine’s tiny contact print is composed of mostly darker midtones, with few truly black or white values. Despite its tonal limits and diminutive size, the print provides an impression of a full tonal gamut. The oily black details unveil themselves with a steady continuity of tone and texture all the way through to the brightest areas of the print.
photographed but are certainly and clearly in the print. It is only because of the distinct physical nature of the object, the print, that I form this particular sense of what the image is about. I cannot look away. The process of looking has enraptured me.

Ultimately, the platinum/palladium photograph is about making: about making something so well that self-expression evaporates in the presence of the thing made, that interpretation becomes just another act in the drama of experience, and technique simply becomes the flame in the lamp. The platinum/palladium print is more a poem than a photograph of something. Unlike most other photographic images and processes, the platinum/palladium print invites a constantly unfolding scrutiny, a conversation without words. And recursively, the making of a photograph is conditioned by knowing it may be printed in platinum/palladium. The print’s vernacular deserves careful attention so that we may better partake of the “gaze that binds us to the world.”

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My parents, Moti and Kanchan Malde, gave me not just my first camera but also the joy of looking—seeking wild-life on shimmering horizons in the savannah, delighting in textiles from India, and imagining the shapes of sound as they held music parties deep into the night in our apartment in Arusha. The emotional and physical space to hone my understanding of platinum/palladium printing was patiently gifted to me by many friends in Orkney and Tennessee, and my colleagues at Napier University in Edinburgh, especially Kate and Murray Johnston, Robin Gillanders, and David Williams. Institutions supported this work, too: The Scottish Arts Council, The National Science Foundation, The Imogen Cunningham Trust, Clydesdale Bank, and most of all, the University of the South in Sewanee. I will always be grateful to Helena Srakocic and Zelda Cheattle for their early impetus and encouragement. I owe a lot also to my students at Napier, Sewanee, and elsewhere. Constance McCabe has not only brought all of this to a summation but unveiled new horizons of scholarship and connoisseurship. It is impossible to sum up how much and what I have learned from, and been given by, Mike Ware and Roger Vail: they inspire, guide, and educate me. Equally difficult to encapsulate in a few words is the extent to which Rachel Malde facilitates and influences my work. To all, and many others not named here, I simply offer this form of gratitude: each time I make a good platinum/palladium print, it is thanks to you.

Notes

1. The term “platinum/palladium” is used in this essay to describe any print made from either or both metals. The terms “platinum prints” and “palladium prints” indicate prints made from only one of the two metals. Finally, “platinum-palladium prints” and “palladium-platinum prints” are made from a formula that combines both metals, with the naming order indicating which metal makes up the greater proportion of the sensitizer. Most contemporary printers use only or mostly palladium salts in the sensitizer but misleadingly describe prints as platinum or platinum-palladium prints.

2. Emerson’s seminal publication illustrated in platinum prints is Emerson and Goodall 1886. See also Philippa Wright and John Taylor, “Peter Henry Emerson’s Platinum Prints and Photogravures,” in this volume.


8. Platinum prints may be enlarged by projection, but this skill has been essentially lost to history. See Greta Glaser, “Platinum Enlargements,” and Lee Ann Daffner, “Art and Enlargement: The Platinum Prints of Thomas Eakins,” in this volume.


References


