

CONTENTS

PREFACE	VIII
INTRODUCTION	2
1 PRESSURE	12
2 REVERSAL	40
3 SEPARATION	70
4 STRAIN	102
5 INTERFERENCE	132
6 ALIENATION	166
ACKNOWLEDGMENTS	196
NOTES	200
CREDITS	209
INDEX	210

INTRODUCTION

My goal in this book is to open up new ways of thinking about the significance of print and printmaking. I hope that it will serve as a compelling introduction to the profundity of the medium for anyone who has not (yet) studied it, and that it will serve as a provocative reintroduction to the potentials of the medium for anyone who has. It is not by any means a comprehensive history of printmaking, but it hopes to make printmaking recognizable to a wider audience across and beyond the arts, and thus, perhaps, to contribute to its future.

As it stands now, in the predominant narratives of the development of Western art, printmaking barely registers. It suffers from a weird form of double invisibility. It is somehow both too obscure and too familiar; both beyond and beneath notice. On the one hand, as a set of processes, printmaking can be so technically intricate as to verge on the arcane: from early modern etching to contemporary nanoprinting, the making of prints is complicated and nonintuitive. This has tended to push discussion about it into insular, hyperspecialized corners of art history that have been difficult to integrate with the rest of the discipline. The result is that the extensive (and wonderful) literature on the histories and techniques of printmaking has been walled off from the rest of the art world. With few exceptions, print is written about by print specialists who publish in print exhibition catalogs, print collectors' publications, and specialized print journals. Especially within the modern and contemporary fields, one would be hard pressed (as it were) to find a broad discussion or a theoretical manifesto about printmaking in a major peer-reviewed journal.¹

On the other hand, as a class of art objects, prints tend to be devalued as overly common; they are (in a phrase I hear all the time) “just prints.” Outside of the inner sanctum of the print world, the medium suffers from old prejudices about its marginal, secondary status in relation to painting, sculpture, and photography. It tends to be seen as a tool for unimaginative reproduction, or as a low-stakes territory for rehearsing ideas prior to deploying them in a higher-status medium. And now that print appears to be vanishing in the digital age, we seem to be letting it go quietly, as if its impending death were just a natural extension of its prior irrelevance. I hope to show that print is very much alive in its deep impact on art of all kinds, and to argue that printmaking is a much more strange and powerful affair than we have generally been led to believe.

In order to make this argument, I will need to take an unorthodox approach to the history and theory of printmaking. First, although I will often linger lovingly on historic prints and traditional printmaking techniques, I will



focus my analysis primarily on modern and contemporary artists that work at the very edge of the medium and beyond. The chapter on pressure, for example, will feature printing presses being used to smash ironing boards, fires being set on press beds, and human bodies being used as printing plates. Such operations stretch printmaking almost beyond recognition (and they are often carried out by artists who do not strictly recognize themselves as printmakers), but in doing so they reveal some of the forgotten potentials that print has carried within itself all along. They also allow print to be recognized in a broader field of contemporary ideas and practices. Indeed, I hope to show that the seemingly provincial, esoteric operations of printmaking are, in fact, working at the very heart of some of the most prominent modern and contemporary art across mediums.

Second, I will focus relentlessly upon the “making” part of printmaking. I am interested in the unique ways that printmaking generates meaning at the level of fundamental physical operations. I want to get at the physics of print, and to explore the poetics and politics that might emerge from that physics. As I have learned by making prints and by watching others make them, technical matters are not “merely” technical (I am against all such “merelyisms” in art and art history). The act of making is its own form of intelligence, and when we recognize this, we can begin to explore the deep imbrication of the technical in the conceptual, the philosophical, the theoretical, and the political.²

So rather than organize this book around particular artists, or around chronological developments in print history, or around the standard workshop subdivisions of print media (etching, lithography, etc.), I’ll organize it around a set of basic physical operations or maneuvers that cut across these traditional ways of arranging knowledge about print. The maneuvers I’ll be tracing, one per chapter, are as follows: pressure; reversal; separation; strain; interference; and alienation. Each of these terms is designed to connect core materials and movements—the deep textures of printmaking—with the conceptual possibilities that those forces bring into being. So, for example: pressure is a basic physical force that transfers images in printmaking, but it also opens out onto social cognates like “impression” and “oppression.” Each of these six terms denotes a form of intelligence and sensitivity that allows for specific kinds of intervention in social and political life. And each of these terms names a maneuver that emerges in printmaking but is not restricted to it—it can travel to and through other media.

These terms function for me as something like a primordial grammar of print, a grammar that has the potential to reveal new patterns of connection



between balkanized areas of knowledge in and beyond print, and even in and beyond art history. They are a set of “receptors,” as it were, that might allow print to be recognized across areas of focus and engagement where it is currently invisible. They are designed to be transitive: to open passages between the material and the social, and to create paths for thinking across different spheres of making—between print, painting, sculpture, and so on, but also between the fine arts and the industrial arts and the decorative arts and the domestic arts. This cross-sectional understanding of process means that although I will insist upon the meaningful specificity of printmaking (I will argue, for example, that due to the pressure involved in the printing process, the “picture plane” in a print, often taken to be a lite analog for a painting, is, in fact, entirely different than it is in painting), I am not interested in returning to restrictive twentieth-century models of medium specificity. Whereas these explored specificity in order to “entrench” each medium “more firmly in its area of competence” (to quote Clement Greenberg), I will propose something more like “medium generativity”: a model of embedded material intelligence that assumes that specific ways of thinking arise in specific material operations but can then go on productively to perturb other spheres of activity.³

You may have noticed that my list of essential print operations does not include “replication” or “repetition” or “reproduction.” This is intentional. To the extent that printmaking *has* found a place in the narratives of art history and other fields in the humanities, this has been by virtue of its replicative function. In 1953, the great print curator and scholar William Ivins published *Prints and Visual Communication*, which is still, seventy years later, the primary text on the meaning of printed images. Ivins saw the ultimate significance of print as its capacity to generate what he called “exactly repeatable pictorial statements.”⁴ In his writings and the writings of others who share his approach, print is taken to be fundamentally about replication, dissemination, and the visual public sphere that this does or does not produce.

Like everyone who studies prints, I am forever indebted to Ivins and his brilliant work, and I have happily immersed myself in the literature on print as replication. But I will be bracketing out the themes of reproduction and dissemination in the pages ahead. The theoretical focus on replicability has been remarkably productive as a way to explain the significance of print—so productive, in fact, that I am concerned that it has become monolithic, seemingly synonymous with print itself. The emphasis on “exactly repeatable pictorial statements,” however valuable, has left many of the other qualities of print unexplored. And when we look for significance only to the downstream life of prints-as-copies—to what happens after they leave the press—we don’t explore the ideas that can arise from and through the actual process of making them. In our



focus on swarms of exact copies spreading through the world, we disregard everything that goes on in printmaking before the copy hits the streets.

Moreover, the emphasis on communicability that attends the study of replication can tend to normalize and familiarize print. The more effective and efficient print is seen to be as a tool of dissemination and communication, and the more it accords with the light of reason and discourse, the harder it is to see that a print is a rather bizarre thing—a thing that is born from a moment of dark and mysterious contact under intense pressure, in a drama full of inversion and reversal and blindness and uncertainty.⁵ And without attending to this recalcitrance of print, its material-conceptual peculiarity, we will be unable to recognize some of the ways that print can matter most to contemporary art and life. I don't intend to devalue or disavow the centrality of reproduction to printmaking; I simply want to loosen its grip on interpretation long enough to establish footholds for other interpretive frameworks. And this is not a zero-sum operation: everything we might learn from a deep attention to things like reversal or pressure can be reintegrated into future studies of replication, to what I hope will be the ultimate benefit of the field.

As I trace out these maneuvers of print, I will focus primarily on art made in the United States and Europe after about 1960. My narrative could have been woven through any number of other artists and periods and places, and I hope that the book's approach will be widely applicable (or at least testable) well beyond this small sample. My decision to focus as I do is partially arbitrary: it just happens to be the field in which I am trained. But it is also a particularly productive period for rethinking print, because during this time, rich avenues of interchange were developing between print and the other arts. For example, let's look at three pivotal moments in the careers of three artists who have been central to the way we understand modern and contemporary art. In the later 1950s, Jasper Johns began using stencils to produce gridded paintings of numbers and alphabets (FIG. 0.1). In 1960, Robert Rauschenberg completed a series of drawings based on Dante's *Divine Comedy* that included solvent transfer images (FIG. 0.2). He had selected images from magazines, soaked them in lighter fluid, turned them face down, rubbed them with an empty ballpoint pen, and transferred them onto the paper in a kind of ghostly reverse. In 1962, Andy Warhol began using screenprinting to transfer photographic halftones of movie stars and car crashes onto large canvases (FIG. 0.3). In any canonical narrative of twentieth-century American art, these are transformative moments. Johns's number grids beget conceptual art, minimalism, and an entire range of systematic painting practices. Rauschenberg's transfers beget various strands of assemblage, intermediation, and performance. Warhol, of course, begets pop, and an enormous range of media-based art.

What I think has not been sufficiently recognized, and what these three events have in common, is that in each case the artist diverted a printmaking





FIG. 0.1

Jasper Johns, *Gray Alphabets*, 1956. Beeswax and oil on newspaper and paper on canvas. The Menil Collection, Houston.



FIG. 0.2

Robert Rauschenberg, *Canto XXI: The Central Pit of Malebolge, The Giants*, from *Thirty-Four Illustrations for Dante's Inferno*, 1959–60. Solvent transfer drawing, gouache, cut-and-pasted paper, pencil, and colored pencil on paper. The Museum of Modern Art, New York. Given anonymously. 346.1963.31.

technique into another, higher-status medium (painting or drawing). The stencil is among the oldest of print technologies. Solvent transfer, moving ink from one surface to another, in reverse, under pressure, is blatantly a form of printing. And screenprinting is, of course, screenprinting.

At the same moment that this was happening, there were two major infusions of energy from print converging on painting and sculpture, one from the commercial side and one from the fine art side. First, new and more efficient commercial print techniques were transforming the visual landscape. The profusion of images in postwar culture was accelerated by the perfection of high-speed offset presses and the development of more precise and efficient color printing technology. And this world of commercial printing was becoming increasingly permeable to the fine arts, since so many notable artists (Warhol and Roy Lichtenstein among them) began their careers as commercial artists whose job was expressly to translate all kinds of images into this ebullient new language of print.

Second was the phenomenon known as the “Print Renaissance.” The later twentieth century saw a surge of interest in older, traditional printmaking techniques like etching, engraving, woodcut, and stone lithography. In rapid succession, several legendary print studios were established to provide equipment, expertise, and training in these processes: Universal Limited Art Editions (ULAE) in Long Island in 1957, Tamarind Lithography Workshop in Los Angeles in 1960, Crown Point Press in the San Francisco Bay Area in 1962, and many more. I’ll just briefly mention something about these studios that is worthy of extended further study: all three of these major workshops were founded and run by women.⁶

The standard operating model of these studios was to invite well-known artists to spend days or weeks in the workshop working with printers, learning and experimenting with print processes. They thus became another primary site for the crossover between printmaking and other art media. Artists like Johns and Rauschenberg spent enormous amounts of time in these environments, learning to make prints, and—crucially—learning to think and work like printers and printmakers (FIG. 0.4). And those experiences changed their work in painting and sculpture in fundamental ways.

These print studio residencies remain active today, and most of the contemporary artists featured in this book have spent weeks if not years working intensively with printers at Tamarind or Crown Point or ULAE or any number of other smaller but equally remarkable studios. There are as many different motivations for engaging with printmaking as there are artists who do so, but it is fair to say that mere reproducibility is not always or even often the primary goal of the endeavor. What else are these artists learning from print, and what can we learn in turn from them?



FIG. 0.3

Andy Warhol, *Green Marilyn*, 1962. Acrylic and silkscreen ink on linen. National Gallery of Art, Washington, DC. Gift of William C. Seitz and Irma S. Seitz, in Honor of the 50th Anniversary of the National Gallery of Art.



FIG. 0.4

Iris Schneider (photographer), Tatyana Grosman with Jasper Johns at the offset lithographic press at Universal Limited Art Editions, February 1976.

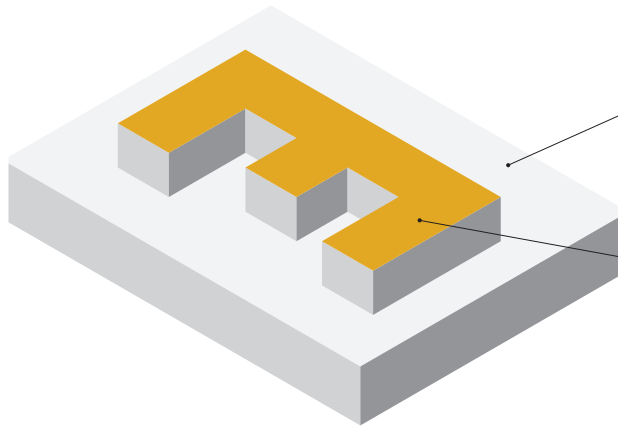
(overleaf)

FIG. 0.5

Common Printing Methods.

COMMON PRINTING METHODS WITH ASSOCIATED PROCESSES

RELIEF WOODCUT | WOOD ENGRAVING | LINO CUT | LETTERPRESS

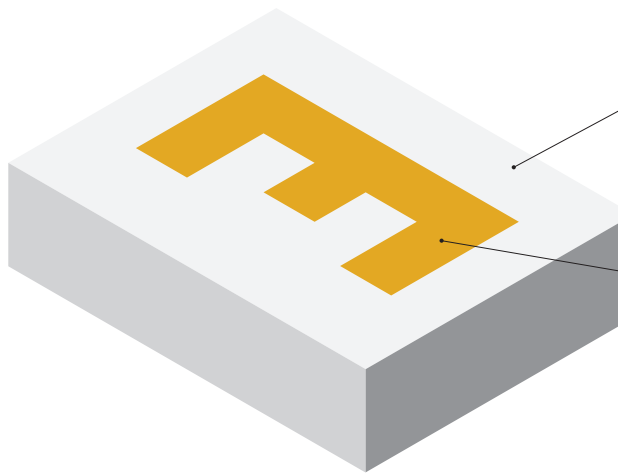


MATRIX — usually wood or linoleum block for images; metal or wood type for text.

PRINTING AREA is higher than the non-printing area.

INK applied to higher surfaces transfers to the paper.

PLANOGRAPHIC LITHOGRAPHY | OFFSET LITHOGRAPHY



MATRIX — usually stone or metal plate. The surface of the matrix is flat.

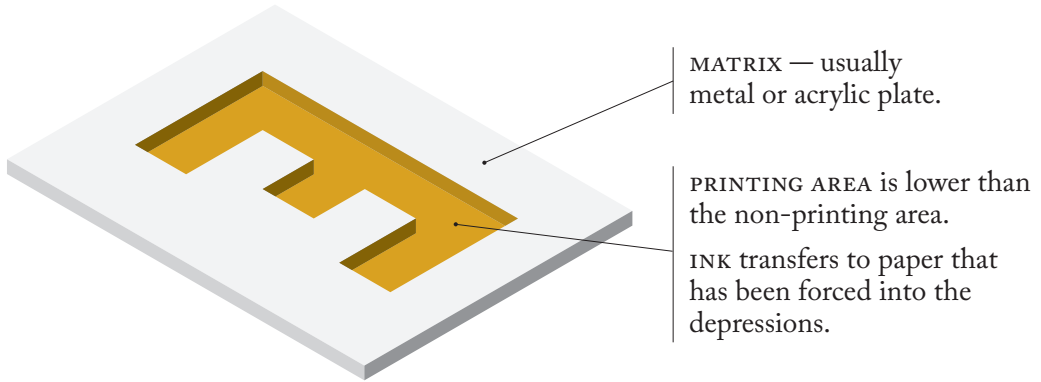
PRINTING AREA is separated chemically from areas that do not print.

INK sticks to the printing areas and then transfers to the paper.

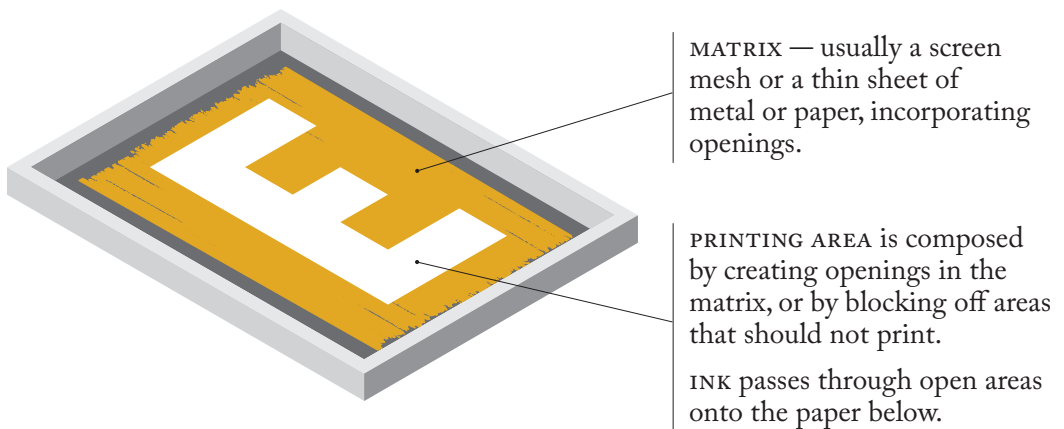
In OFFSET LITHOGRAPHY, ink from the matrix is picked up by a rubber roller, then transferred (offset) onto the paper. The image on the matrix is REVERSED on the roller, and REVERSED AGAIN on the paper.

These designations represent the four most common forms of matrix preparation and ink transfer in printing. These categories are fluid, however; many printmakers freely adapt and combine these methods.

INTAGLIO ENGRAVING | ETCHING | DRYPOINT | AQUATINT



STENCIL SCREENPRINTING | STENCIL





PRESSURE



The working definition of a print in this book will be as follows: *a print is an object that has been made by transferring an image between two surfaces in contact*. Every print is the result of a process of contact and release, which links it immediately to themes of touch, presence, and intimacy—but also to themes of loss, separation, and memory.

Most prints emerge from a combination of three basic elements. The *matrix* is the object—the plate or block or screen—that holds the image to be transferred (see fig. 0.5). The *support* is the surface that receives the image—usually but not always a sheet of paper. The *ink* is the substance transferred between the matrix and the support—with the proviso that you can still make an impression (as in embossing) without ink. What brings all these elements together, and makes the transfer possible, is *pressure*.

The earliest and most general meanings of the English noun “print” share this emphasis on direct contact and pressure. The first two definitions listed in the *Oxford English Dictionary* emphasize the act of impression or indentation, the preservation of a form left by the pressure of an object: “the impression or imprint made by the impact of a stamp, seal, die, or the like on a surface”; and “any indentation made in a surface preserving the form left by the pressure of some object coming into contact with it.”¹

Contact, then, is essential to the definition of print, especially as a means for usefully distinguishing printmaking from other reproductive media like photography. Like print, photography involves the precise transfer of information between surfaces, but, in the case of photography, the carrier of that transfer is light, which bounces from one surface to another at a distance. Photography does not require mechanical contact or pressure; print does. This has many implications; for example, print always happens at actual size while photography does not. Lens-based photography automatically rescales the image as it transfers it to the film, but because print involves touch, or contact, between the matrix and the support, the transfer between surfaces must happen at actual size. As art historian David Summers points out, “we can only touch things at the size they are.”² As we will see in the chapters ahead, there is a close, codependent relationship between photography and print in modern and contemporary visual culture, but the criterion of contact is a useful way to distinguish them and to analyze more precisely the contributions of each.

Many of the earliest forms of printing, such as seals and stamps, drew their value from this guarantee of immediate physical contact. This ancient Mesopotamian cylinder seal (FIG. 1.1) is a cylindrical matrix of quartz into which a scene has been carved. When rolled out onto a pliable support, the cylindrical scene becomes a linear impression. Seals like this bore authority because of the direct contact required to produce them. If a particular king or official had





FIG. 1.1

Cylinder Seal: Deities and Worshipper, c. 883–612 BCE. Mesopotamian. Quartz cylinder seal with impression. Harvard Art Museums/Arthur M. Sackler Museum, Cambridge, MA. Gift of Edward Waters.

such a seal, its imprint would authenticate a certain communication as having come from that office. It carried proof of fidelity through adjacency: it was the record of a contact event.

As records of contact events, prints also intersect with the history of contact relics, particularly imagistic relics like the Sudarium or “Veronica’s Veil” (or simply “Veronica”), an iconic motif in Western Christianity since the Middle Ages. According to Christian tradition, when Saint Veronica stopped and used her veil to wipe the blood and sweat from the face of Christ as he made his way to be crucified, a miraculous image of the face remained on the cloth thereafter. The authority of this image derived from its direct contact with the face of Christ, and the transferred image was thus itself sacred. It is not surprising that early modern printmakers seized on the Sudarium as emblematic of their own work, which, after all, also involved transferring an image from one surface to another through contact. Here are Veronicas by two of the most brilliant and self-reflexive printmaking artists of the sixteenth and seventeenth centuries: Claude Mellan (FIG. 1.2) and Albrecht Dürer (FIG. 1.3).³

FIG. 1.2

Claude Mellan, *The Sudarium of Saint Veronica*, 1649. Engraving on laid paper. National Gallery of Art, Washington, DC. Rosenwald Collection.



FIG. 1.3

Albrecht Dürer, *The Sudarium Held by Two Angels*, 1513. Engraving. National Gallery of Art, Washington, DC. Rosenwald Collection.



The Sudarium also evoked printmaking through its relationship to wounds and wounding. Like the veil absorbing Christ's thorn-gouged blood, prints are made by cutting and scratching into one body (such as a copperplate or woodblock) and transferring viscous matter (ink) from there onto another surface. Most prints are contact relics in this sense, inasmuch as they are essentially stains on one surface that attest to damage done to another surface.⁴

Because of their miraculous origins, relics like the Sudarium were *acheiropoetic*—meaning “made without hands.” This, too, is a quality that is shared by prints in general. In printmaking, the print itself, in the last analysis, is made not by human hands but by the press or by whatever instrument is being used to apply pressure. The sensory implications of this nonhuman mode of image transfer are profound. Although it is not human, the printing press is a sensitive perceptual instrument: after all, it must sense the image on the matrix in order to print it. It does this by applying pressure to the matrix, which responds to that pressure according to the chemical or topographical qualities of its surface—the incisions on a copperplate, for example, or the greasy patterns on a lithographic stone. This is much closer to a tactile mode of perception than a visual one. Indeed, although the printing press is used for the production of visual art, it is not itself an optical instrument. If you want to print a visual image, you must first convert it into something that can be felt: the image must be translated into a pattern of grooves, ridges, or adhesions. The printmaking process is akin to an act of communication with an alien that has no eyes.

And printmaking is nonoptical in another sense: the moment of printing is radically invisible. The actual formation of the print occurs in a tight, unobservable space. The print is made darkly: what happens there happens between the matrix and the ink and the support; no one can watch it; no one can surveil it. This helps explain the mystique of the “pull” in printmaking: that moment when the image is peeled away from the matrix, revealing it to the eye and to the air for the first time (FIG. 1.4). Once the print is pulled, it enters the luminal world of the visual arts. It is released into the light, into space, into the range of the aerial and the optical. Now we can back up and get a look at it. But when we do, we should not forget that we are always looking at a recording of an event that occurred beyond the range of looking. We are looking at the fossilized traces of a hidden, sequestered act of material perception. No matter how airy or spatial the illusionary image on the print might be, it is first of all a remnant of blind, anaerobic contact.

Usually, this is forgotten as the print travels downstream and takes its place among other kinds of more blithely visible images. But contemporary artists have sometimes found ways to more fully acknowledge the conditions under which images come into being under pressure. John Cage's fire prints made at





FIG. 1.4

Birgitte Rubæk (photographer), Niels Borch Jensen pulling a print.

Crown Point Press in the 1980s are a good example (FIG. 1.5). Throughout his work, Cage tried to avoid the imposition of his own artistic will or authority, preferring instead to make decisions based on chance operations, and to operate in an attitude of open receptivity rather than control. At Crown Point, he made a series of prints that were thoroughly open to the closed conditions of the press. He would start a small pile of crumpled newspapers on fire, cover it with a damp sheet of paper, let it smolder for a while, and then run the whole conflagration through a roller press (FIG. 1.6). The prints that result are, quite simply, extinguishments. The suffocating pressure and blindness of the press becomes the work itself—the image is literally composed by putting out the fire, putting out the light. Pressure is not an accessory to the creation of some other independent image. Pressure creates the image in total. Note that these prints, though born of destruction, also have a quality of delicacy and sensitivity to them. This paradoxical copresence of delicacy and pressure will be a continuing refrain in this chapter.⁵

Robert Rauschenberg also explored the generative qualities of pressure in the printing process. In the fall of 1974, he worked with the experimental Los Angeles print workshop Gemini G.E.L. on a series of works known as the



FIG. 1.5

John Cage, *Eninka No. 29*, 1986. Burned, smoked, and branded gampi paper mounted to Don Farnsworth handmade paper. National Gallery of Art, Washington, DC. Gift of Crown Point Press.

FIG. 1.6

Still from the film *Printing John Cage's "Eninka 29,"* 1986. National Gallery of Art, Washington, DC.





FIG. 1.7

Robert Rauschenberg, *Hoarfrost Editions*, 1974. Partial installation view. National Gallery of Art Archives, Washington, DC.

Hoarfrost Editions (FIG. 1.7). This was a group of prints made on multilayered fabric that emphasized veiling effects and fugitive, fragmentary imagery. They were made by spreading out fabric on the bed of a lithography press, then topping the fabric with pages torn from newspapers and magazines: some flat, some folded, some wrinkled, some balled up (FIG. 1.8). Rauschenberg frequently nestled empty paper bags, sometimes flat and sometimes folded, into the layers. Often there would be multiple layers of fabric and paper balancing on the bed in what I can only think to call a print sandwich. At various points in the construction of the sandwich the newspapers and printed matter would be sprayed with chemical solvents that would solubilize the ink so that it could be released onto the fabric.⁶

The layered assembly of paper bags, printed papers, fabrics, adhesives, and solvents then went through the press several times at pressures ranging from six hundred to one thousand pounds per square inch. After pressing, the materials were less than a centimeter thick. When the smashed strata were peeled apart and the newspapers removed, what remained were flattened paper bags nestled



FIG. 1.8

Daniel B. Freeman (photographer), Robert Petersen (left) and Robert Rauschenberg (right) arranging newspapers on the press, September 1974.

between layers of diaphanous fabric imprinted with transferred newspaper ink. The chaotic and fragmentary quality of the transferred news made clear that this was, we might say, a pressure-cooked image. The images on the prints were not replicated by pressure but rather *composed* by it (FIG. 1.9). As the press crumpled and crushed the printed matter, it made a new print that disrupted the original images and rewrote the newspaper text, reversing, recombining, smudging, and offsetting the ink, announcing the creative role of pressure in the work.

The paper bags were left between the layers of fabric, demonstrating that they had also been reshaped by pressure as they were flattened into their interleaving forms. Through these flattened paper volumes, Rauschenberg was addressing serious questions about what it might mean to understand pressure as a means of dimensional translation, and thus as a mode of pictorial representation. One of the main problems to be worked out in pictorial art is: How do you get three dimensional objects onto a two-dimensional surface? The prevailing solution in the West, of course, is illusionism: perspectival projection, modeling, and so on. This is how an artist like Leonardo da Vinci gets a human head onto a flat plane. But another solution, as Rauschenberg implicitly points out, is literal: you do it by essentially running over the object, by smashing it down from a volume to a plane (FIG. 1.10).

There was a lot of talk of “modernist flatness” in postwar American art theory—more than I can possibly review here. Suffice it to say that Rauschenberg’s smashed paper bags (along with the entire *Hoarfrost* project) give us a version of flatness that is not reflected in the prominent art criticism of the period. With the partial exception of the work of art historian Leo Steinberg (see note 7), the discussions and debates about modernist flatness took place almost entirely in the context of, and in reference to, painting. Yet the flatness of a painting is not the same as the flatness of a print. From a physical standpoint, the flatness of a stretched canvas is rather like the surface of a small trampoline: painters feel the tautness and tooth of the canvas as it responds, springily, to their gestures. No wonder that the images that come to rest on that plane can be seen to occupy it lightly; they can be seen as spatially elastic, bouncing in and out of the third dimension. Rauschenberg hints here at a different rubric, giving us a glimpse of other models that might have emerged if printing, with its crushing forces, were instead the medium driving art theory and criticism.⁷

What kind of picture plane is a picture plane under pressure? It is a picture plane upon which forces act bidirectionally, from both above and below. In printmaking, it is not only the application of pressure from above that creates the impression. It is also, and equally, the necessary grounding resistance of the print bed from below, offering an equal and opposite reaction. You need both pressure from above and counterpressure from below to make a print. Every act



FIG. 1.9

Robert Rauschenberg, *Mule* (details), from *Hoarfrost Editions*, 1974. Offset lithograph and newsprint transferred to collage of paper bag, cheesecloth, muslin, silk, and satin. National Gallery of Art, Washington, DC. Gift of Gemini G.E.L. and the artist, 1991.

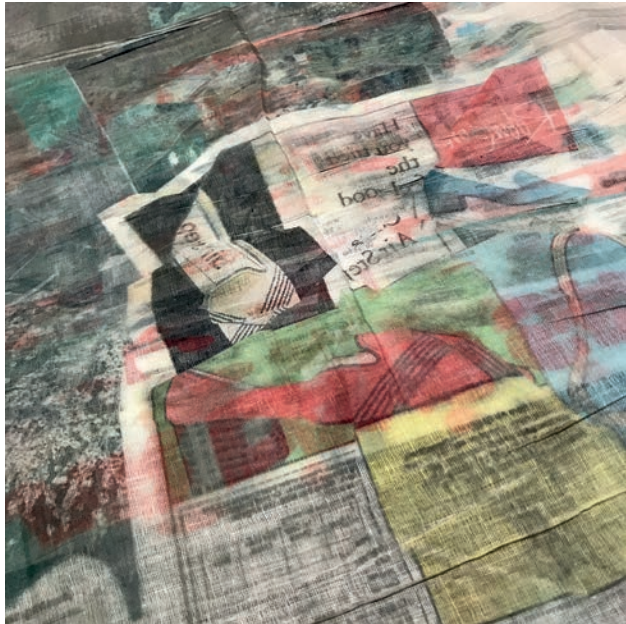


FIG. 1.10

Leonardo da Vinci, *Head of Leda*, c. 1504–6. Black chalk, pen, and ink. Royal Collection Trust, London.

Robert Rauschenberg, *Scent* (detail of smashed bag), from *Hoarfrost Editions*, 1974. Offset lithograph and newsprint transferred to collage of paper bags, silkscreen fabric, and silk chiffon. National Gallery of Art, Washington, DC. Gift of Gemini G.E.L. and the artist, 1991.



of printing is simultaneously a pressing down and a pressing up. Both pressure and resistance live in the print. A pictorial object born out of this kind of space is charged with these counterforces in ways that far exceed the standard painterly flatness. It is an object that has been pushed, and pushes back.

There are other forms of what we might call extreme printing that capture this sense of the image emerging by force from below or behind the picture plane. Consider the rubbing. In 2016, Jennifer Bornstein completed a complex project in which she made rubbings of her deceased father's belongings (FIG. 1.11). For this print, she covered a pair of khakis with a sheet of paper and rubbed the image through in blue encaustic. The image is strange and haunting, particularly in the way the clothing appears to become partly transparent under the pressure of the rubbing tool. It is as if we are seeing through the top pant leg to the bottom pant leg; this is because Bornstein's application of pressure to the top of the paper also, automatically, registers counterpressure from beneath, essentially seeing through the object by rubbing it.

If the resulting image is visually nonsensical and slightly otherworldly, it is because rubbing, like all printing, shows us the world as "seen" by touch, and only later given over to the eye. Bornstein's work picks up on the history of Surrealist rubbings and frottage. And, given its memorial subject matter, it recalls even more directly the history of monument and gravestone rubbing. For example, a famous series of New England gravestone rubbings published in 1963 by Ann Parker and Avon Neal (FIG. 1.12) includes a resurrection scene, with an angel hovering over a tomb, sounding a call for the dead to rise. The act of making a gravestone rubbing is itself eerily like a form of resurrection, because rubbing the blank paper from above causes the image to appear before you as if lifted through it from the stone below. This contact image, made through pressure, somehow combines extreme tactility with a sense of phantomlike emergence.⁸

So both sides of the "picture plane" emerge together, in a play of pressure and counterpressure, in the printing process. The back of a print is made along with its front. The artist Matt Saunders explores these bilateral dynamics of printing in a slightly different way: by printing from both sides of a matrix that has undergone these forces. Saunders recently completed a series of complex etchings at Borch Editions in Copenhagen that register the impact of printmaking on both the front and the back of a copperplate. For his series *Ratlos (Indomitable)*, Saunders used enormous copperplates (over five feet high and three feet wide) for a series of images based on film stills. Each plate was etched and an edition of six was pulled from its "image" side according to the usual procedures. But then Saunders took each copperplate and printed another edition from its back side. While the prints from the front of the plate recorded Saunders's deliberate image-making activities on the matrix, the prints from the back, with



FIG. 1.11

Jennifer Bornstein, *Kbakis*, 2016.
Rubbing. Encaustic and wax on
Kozo paper. Property of the artist.



FIG. 1.12

Ann Parker and Avon Neal,
Tombstone of Richard Holmes, 2nd,
Plymouth, Massachusetts, 1828,
1963. Rubbing on paper. Harvard
Art Museums/Fogg Museum,
Cambridge, MA. Gift of Mr. and
Mrs. Philip Hofer.





FIG. 1.13

Matt Saunders, Left: *Ratlos/Indomitable V*, 2017. Right: *Back (Ratlos/Indomitable V)*, 2017. Copperplate etching; soft ground etching, soap ground aquatint, spit bite aquatint, sugar lift aquatint, open bite on paper. Property of the artist.

their intricate networks of gouges and scratches, recorded what was happening to the back of the plate throughout the process. They recorded each nudge and turn of the plate on the table as Saunders worked, the adventures of the plates as they were dragged across tables, into acid baths, and through the press for each impression taken from the front (FIG. 1.13). In every printmaking operation, the material stresses of incision, transfer, and reproduction are felt by both sides of the matrix, but it is usually only on the front that the record of these stresses is enshrined as a print. Saunders, by printing the back as well, reveals that the printery picture plane cannot be fully captured by any neat frontalities.⁹

We've seen so far that printing, in its deployment of pressure, generates not just multiple images but multiple models of the image. These range from the revelatory or redemptive model that draws from the conversion between touch

and vision, to the forceful model that is shot through with echoes of both violence and resistance. Why does this matter beyond the world of the print studio? What does this range of sensitivity and expression, born out of printerly pressure, make possible? For the remainder of this chapter, I want to explore these questions through the work of two African American contemporary artists: Willie Cole and David Hammons.

Both Cole and Hammons have dexterously harnessed the printerly language of pressure in order to negotiate the challenges of representing the Black body in a visual field that is always already structured by racism and racial violence. As Saidiya Hartman has asked, “how does one give expression” to the outrages of Black bodily pain and suffering without presenting it as a spectacle, without reenacting subjection, without submitting that body to repeated objectification?¹⁰ Cole and Hammons show how the language of pressure in print, with its tactile subtlety and sensitivity, and its tolerance of contradiction and ambiguity, can uniquely intervene in these questions.

Willie Cole’s *Beauties* is a series of twenty-eight prints made from stripped, hammered, flattened, inked, and printed ironing boards. Each print bears a woman’s name from the generation of Cole’s grandmothers (FIG. 1.14). In multiple generations in Cole’s family, the women worked as housekeepers; Cole remembers that as he was growing up they would often ask him to fix their steam irons. The whole series is a testament to the invisible labor of Black women in America. Each print is also a meta-print about pressure. The very process of making them with a *press* reiterates the acts of *pressing* from which they ultimately derive. And they are not only about pressure but all its conceptual and social connotations—oppression, compression, impression.

For more than thirty years, Cole has been using irons and ironing boards as both tools and motifs, evoking the history of slavery and racist oppression in America. He is known for his steam-iron scorch prints, which evoke the practice of branding. He has also explored the resemblance between the ironing board and the ship, particularly the iconic diagram of the slave ship.¹¹ The *Beauties* carry all of these associations forward in Cole’s work, but they are not simply records of brutality. They do recall slave ships, as well as branding, but they also evoke full-length aristocratic portraits, African shields, X-rays, Gothic windows, and more. They have this complexity because Cole has engaged with the full range of associations that pressure can bring forth. The *Beauties* were made at the Highpoint Center for Printmaking in Minneapolis, where Cole had a residency in 2011–12. Cole and the printers at Highpoint took a set of vintage ironing boards, removed the covers, and battered them with hammers and sledges in a parking lot, creating a series of strike marks and scratches on the surface of the steel boards. The boards were then run through the press between sheets of





FIG. 1.14

Willie Cole, partial view of the *Beauties* series, 2012. Intaglio prints from flattened ironing boards. 2019 installation view from the Radcliffe Institute for Advanced Study, Harvard University, Cambridge, MA.

Masonite. Each was reduced to about 4–5 mm thick. With its pattern of depressions and incisions, each board was then a matrix to be inked and printed in essentially the same way that a copper engraving or etching plate would be handled in a traditional print shop.¹²

The resulting prints embody the model of the image as a contact relic, particularly as a wound-image. There is a sacrificial quality that pervades every mark on the prints. The hammering, dragging, gouging, and crumpling of the original ironing boards produce physical evidence of violence that transfers directly to each print. Cole's work seizes the medieval model of the sacrificial

Veronica image and extends it to African American and women's history, fusing the sanctity of the wounded saint with that of the victim of racial and/or gendered violence (FIG. 1.15).

But it goes beyond this. As we have seen, applying pressure to a matrix transmits information about texture and topography that is not available to the eye, thus performing an act of revelation or transparency. Take *Dot*, for example (FIG. 1.16). Standing in front of it, you know that you are looking at an imprint taken from just one side—the top—of the board, which is a solid sheet of steel. Yet you are also given the inescapable illusion of being able to see through it as if it were made of translucent material: the print looks like an X-ray or a stained glass window. You can clearly perceive the pattern of struts and supports that occupy the *other* side of the board: two strong vertical lines and two horizontals, each darkening against the pattern of the facing front surface.

How is this possible? The printing press senses variations in the thickness of the boards; in this case, it “reads” the struts on the back because the board is thicker in those areas. The print *Queen*, too, reveals more to the eye than does the board or matrix itself (FIG. 1.17). The print is so full of exquisite incidental detail that it resembles a Rembrandt etching, with its wide variation in sharpness, tone, and scale of the incisions. And it clearly indicates the three horizontal struts behind the board. The matrix itself (the board) is surprisingly reticent in comparison.

The press, we might say, “sees” the topographical incidents of the ironing board far better than does the human eye. Like a tactile X-ray, it diagnoses hidden internal wounds or injuries. The press thus bears a strong forensic power in its ability to manifest or make visible the insignificant or invisible—its ability to expose what is hidden, whether we think of the skeletal underside of the board or the tiniest scratches and insults to its surface that might otherwise have gone unnoticed. There is a truth-telling quality about printing: no wonder the first prints pulled from a plate are called “proofs.”

Considering that these prints are about revealing the overlooked in so many ways, Cole could not have chosen a more powerful medium of perception, memory, transfer, and testimony. But this is not just an act of forensic exposure; it also cultivates forces of resistance and creative agency born from pressure. Consider the dignity inherent in the vertical posture of the prints on the wall. The prints strongly recall full-length aristocratic portraiture in the West. *Queen*, for example, when standing tall with its flaring, folding contour and elaborately patterned surface, recalls any number of other queens in the history of aristocratic representation. If these had simply been paintings, their upright posture would have been uncomplicated: after all, full-length portrait paintings are made vertically in the first place. But here, the uprightness of the figures is all the more



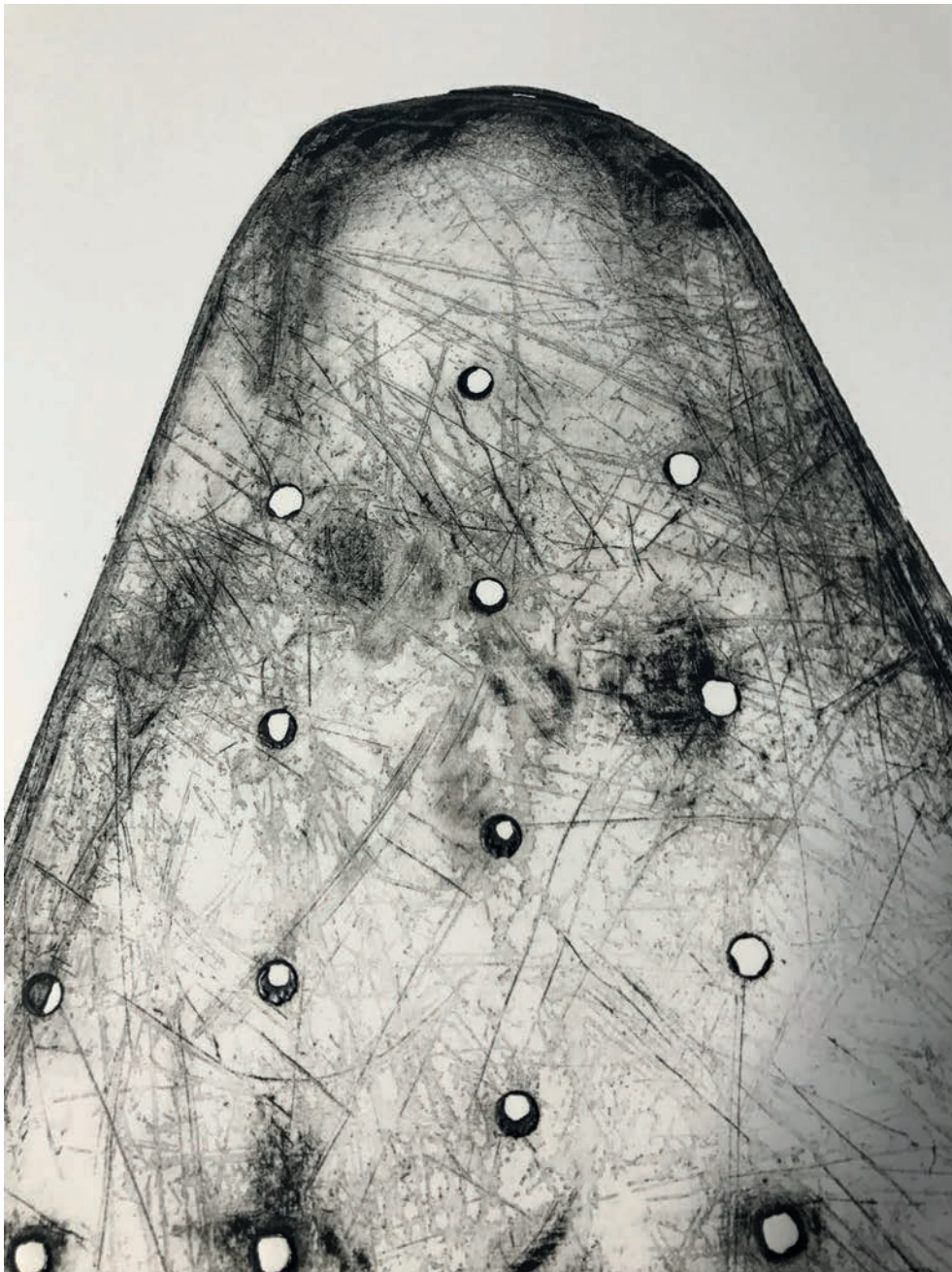


FIG. 1.15

Willie Cole, *Lilly* (detail), 2012. Intaglio and relief on paper.
Highpoint Center for Printmaking, Minneapolis.

INDEX

Index note: Page numbers in **bold** indicate illustrations.

- Abloh, Virgil, 61; work pictured, 61
Accident (Rauschenberg), 33
acoustophoretic printing, 35
Across the Continent (Palmer, Currier and Ives), 75
Ab Ha (Nauman), 62, 63
à la poupée printing, 74–75, 83
Albers, Anni, 114; work pictured, 117
Albers, Josef, 114; works pictured, 115–16
alienation: and artistic self-estrangement, 47–48; of the artist's gesture, 167–68; Baumgartner's cultivation of alienated time, 178–86; collective labor and distributed agency in printmaking, 43, 167–168; and dispossession, 167, 178, 188, 193; and estrangement of the artist, 16, 47–48, 59–61, 167–68, 193; of labor in printmaking, 167–68, 170–78, 183, 188; as maneuver, 3–4, 53, 167–68, 192–93; reversed text and experience of estrangement and, 49–51, 59–61; Ruskin on printmaking and, 175–78, 183, 193; and subjectivity of the artist, 53; of time, 167–68, 175–77; and transference, 167–68
aliens or the alien. *See* the other
a man you can lean on (Kent), 54, 55
Andy Warhol and Gerard Malanga Make a Painting (Mulas), 113
Apollo Mission, Rauschenberg and, 133–37, 157, 160
Aquatint, 10–11
Ariadne Florentina (Ruskin), 175–78
Arion on a Dolphin (Muller), 140, 141, 155
Armstrong, Carol, 118
Art in America, cover (Heap of Birds), 66, 67
"Astraea Redux!," (Tenniel, in *Punch*), 176
au repérage printing, 75–76, 83
Baird, Davis, 73
Bancroft, Michael, 98, 99
Bath, The (Cassatt), 83, 84
Baumgartner, Christiane, 168, 178–88; and alienation of labor, 183, 188; and cultivation of alienation, 178–86; pictured working, 180; works pictured, 169, 181, 182, 184–85, 187
Bayer, Johann: work pictured, 189
Beauties series (Cole), 27–33, 28, 29, 30, 31, 32
Before and during emotion, 1870 (Robleto), 161, 162
Benson, Richard, 170
Bishop, Claire, 60
Blab, Blab, Blab (Bochner), 33–34, 34
Blum, Irving, 111
Bochner, Mel, 33–34; work pictured, 34
body: and bilateral symmetry, 43; as chiral object, 52; contact relics and violence to, 28–29; Hammons and self-possessed body as subject, 37–39; and "handedness" as experiential orientation, 45–47, 51–52, 168; as matrix (body prints), 35–39, 52–53; moiré effects and, 157–60; objectification of, 27; print and orientation of, 41–42; printmaking as embodied art, 167; racism and representation of Black bodies, 27–33, 35–39; reversals and disorientation of, 45–48, 59–62; Robleto's waveform prints and interior of, 161–63; sensory perception of (*see* perception)
Bolting Flour (van Grevenbroeck II), 119
Bornstein, Jennifer, 24; work pictured, 25
Bradford, Mark, 99–101; pictured, 100; work pictured, 101
Brews (Ruscha), 120, 123
Cage, John, 16–17, 161, 163; work pictured, 18
Cai Guo-Qiang, 163–65; work pictured, 164
Cambiaso, Luca: work pictured, 58
Canto XXI: The Central Pit of Malebolge, The Giants (Rauschenberg), 5, 7
Cassatt, Mary, 83; work pictured, 84
Cast of the Space under My Chair, A (Nauman), 62, 65
Celmins, Vija, 47–48
Chapeau de paille (Cole), 171, 172
chiral reversal, 51–52, 52, 54, 57
Circles of Confusion (Rosenquist), 146, 148, 149, 152, 153
Close, Chuck, 92; pictured working, 93; works pictured, 93
CMYK color separation, 80–82, 82, 92, 94, 145



- Cole, Timothy: work pictured, 171, 172
- Cole, Willie, 27–33; and link between pressure and oppression, 27–29; and physical violence as process, 27–29; and pressure and revelation of the unseen, 27–34; works pictured, 28, 30, 31, 32
- color: as arbitrary in relation to form, 71, 86–92; as denaturalized and interchangeable, 87–90; and line, 74; as material substance, 71, 82, 86, 91–92, 100; printmaking with (*see* color printmaking); theories of, 72–74, 82, 114
- color printmaking, 8; *à la poupée* method of, 74–75, 83; *au repérage* method of, 75, 83; Bradford's *Pickett's Charge* and color as matter, 99–101; and breaking or disjoining of color, 71, 78, 80, 92 (*see also* color separation); and color as three-dimensional structure, 76–78; and critique of social injustice, 98–101; hand coloring of prints, 73–74; as influence on other media, 92–98; and inking of single matrix, 73–75; and jigsaw plate printing, 74–75; as material operation, 86; as methodical and deliberate process, 71, 91–92; practical material intelligence and, 72–73; and reassembly of color, 71, 76–78, 86, 94, 98–99; and registration, 82–87, 84, 94–98, 108–9, 138, 150; and scale inconsistency, 83
- color separation: Bancroft and link between racism and, 98, 99; Close and integration of CMYK into paintings, 92, 93; and CMYK printing process, 80–82, 82, 92, 94, 145; as deconstruction and reassembly, 71, 74, 78, 80, 82–87, 92, 94, 99, 100–101; and layers as three-dimensional structure, 76–78; Lichtenstein and, 76, 77; and misregistration as technique, 92–98; and racial segregation, 98–101, 99
- Come Out #9* (Ligon), 155–57, 156
- commercial printing: and fine art, 8, 103–6, 109–11, 125; and 4-color CMYK process, 80–82; Kent and, 54; Lichtenstein and, 76; offset presses and, 8, 35; Ruscha and, 120; screenprinting and, 103–9; Warhol and, 8, 94, 106, 109–11, 125
- communication: communities and, 59–60; Kent and disorientation as opportunity for dialogue, 54–55, 59–60; and printing, 4–5, 14–15, 16, 41, 113–14, 171–72, 188 (*see also* text); text reversal and, 45
- conceptual art, 92
- contact, 13–14, 192–93; and definition of print, 13; press as instrument of, 16, 86; and prints as *acheiropoetic* (made without hands), 16
- Contact* (film), 192–93; still photograph from, 192
- contact relics, 14–16, 28–29
- control, artistic: Cage and chance operations avoiding, 16–17; of spontaneity in conceptual art, 92; de-skilling and interruption of mastery, 48; and Johns on subjective detachment, 53–54; moiré and disruption of, 142–44; printing and displacement of, 167–68; screenprinting glitches, 94, 106–9, 124–26
- copperplate engraving, 16, 24–26, 41, 42, 56, 169, 173
- Corpse and Mirror* (Johns), 43, 44
- crosshatching, 139–40, 171, 175–77, 176, 183
- Crown Point Press, 8, 16–17
- Crucifixion; The Last Judgment, The* (van Eyck): macrophoto by Roberts of, 72
- Currents* (Rauschenberg), 152, 154
- Currier and Ives: print published by, 75
- Curtis, Edward S., 66; photograph by, 69
- Cyanus maior* (*cornflower*) (Mattioli), 170
- Cylinder Seal: Deities and Worshipper*, 13–14, 14
- da Vinci, Leonardo: work pictured, 23
- deformation: and moiré patterns, 150; paper stretch and, 82–87; pressure and, 33–34
- delicacy, 17, 35–39
- Delsarte, Louis, 87; work pictured, 88, 89
- “Derelict” or “The Lost Boat,” “The”* (Dow), 87, 90
- Descent from the Cross, The* (Cambiaso), 58
- de-skilling, 48, 111–12; and skill-shifting, 118–20
- Dot, Five Beauties Rising* (Cole), 29, 31
- dots, halftone, 109, 137, 144, 150
- Dow, Arthur Wesley, 87–90; work pictured, 90
- Drawing for Transient Rainbow* (Cai Guo-Qiang), 163–65, 164
- Drifts* (Rauschenberg), 157, 159
- Dürer, Albrecht, 14, 179; work pictured, 15
- Dutch Wives, The* (Johns), 78, 80
- Editions Alecto, 124
- Elvis 11 Times* (Warhol), 111, 112
- End Color Separation* (Bancroft), 98, 99
- Eninka No. 29* (Cage), 16–17, 18, 161
- Entropy* (review) (Mehretu), 76, 78, 79
- estrangement. *See* alienation



- Evans, Tony: photograph by, 122
Evelyn, John, 171
- False Start I* (Johns), 90–91, 91
Field, Richard S., 113
Field Painting (Johns), 45, 46
fire, printing with, 16–17, 18, 161, 163
Five Beauties Rising (Dot) (Cole), 29, 31
flatness, 19–24, 98, 201n7
Florentina: Six Lectures on Wood and Metal Engraving (Ruskin), 176
food: as ink, 120–24
Freeman, Daniel B.: photograph by, 20
Freundinnen (Polke), 146, 147, 150
- German expressionism, 178, 179
Ghosthymn (After the Raft) (Mehretu), 78, 81
Gibney, Elizabeth: article pictured, 158
Glissant, Édouard, 130
Gray Alphabets (Johns), 5, 6
Greenberg, Clement, 4, 157
Green Marilyn (Warhol), 9
Grevenbroeck, Jan van, II: work pictured, 119
Grosman, Tatyana: pictured, 9
Gulf (Rauschenberg), 157, 159
- Half-Tone Process, The* (Verfasser): illustration from, 110
halftones: and binarization, 109; Bradford's use of, 99–101; CMYK color separation process and, 80, 144–45, 145; and decline of wood engraving, 178; dots and, 109, 137, 144, 150; and interference patterns (moiré), 84, 137–39, 144–53; Ivins on, 114; and photograph conversion, 109, 149; Polke's use of, 146–50; and Pop Art, 146–50; rasters and, 109, 125, 148–50, 180–81 (see also rasters); Rauschenberg's use of, 92–94, 137–39, 152–55, 178; Rosenquist's use of, 93, 149, 152; and transfer of image for lithography, 137; Warhol's use of, 5, 106–9, 125
Hamm, Daniel, 155, 165
Hammons, David, 27, 35–39; work pictured, 38
Hand Printing Operation at the de Angeli-Frua Plant, Milan, Italy (Eisenstaedt), 107
Harris & Ewing, 110
Hartman, Saidiya, 27
Hatoum, Mona, 130; work pictured, 131
Haxthausen, Charles, 168
Head of Leda (da Vinci), 23
Heap of Birds, Hock E Aye Vi Edgar, 66–69; pictured working, 68; works pictured, 67, 68, 69
Hiett, Harry L.: illustration from manual by, 119
Highpoint Center for Printmaking, 27, 76–78
Hiroshige, Utagawa: work pictured, 85
Hoarfrost Editions (Rauschenberg), 17, 19, 19–21, 22, 23, 33, 45
Hooke, Robert, 56–57; drawing of ammonites (snake stones), 57
How-To-Do-It Charts on Materials, Equipment, Techniques for Screen Printing (Hiett): illustration from, 119
hyperobjects, 133
- ink: definition of, 13; material properties of, 83; Ruscha's use of foods as, 120–24; smoke or soot as, 163
inking: and color separation printing (see color separation); hand-coloring the matrix for color printing, 74–75; and screenprinting, 106–9
intaglio, 11, 28, 30–33, 82–83
Interaction of Color (Albers), 114; illustration from, 115
interference, 3–4. See also moiré
Ivins, William, 4, 113–14, 142, 188
- Jackie* (Warhol), 104
Jameson, Fredric, 98
Japanese printing technology and techniques: for color printing, 83; katagami stencil as, 105, 106
Jensen, Niels Borch, 17
jigsaw plate printing, 74
Johns, Jasper, 5, 8, 33; on artistic control during printing process, 53, 91, 168; and color, 78, 90–91; pictured, 9; and printmaking background, 43; and reversal, 43–45, 52–53; and spatial experience, 52; and subjectivity, 53–54; works pictured, 6, 44, 46, 53, 80, 91
Jones, Kellie, 37
- Kass, Deborah, 62
Kemp, Martin, 142
Kent, Corita, 54–55, 59–60, 68; work pictured, 55
Khakis (Bornstein), 24, 25



- “kiss impressions,” 35
Kozloff, Max, 125
- labor: alienation of, 167–68, 175–78, 183, 188; and alienation of the artist, 43, 167–68; Baumgartner and alienation of, 178, 183, 188; Cole’s work and revelation of invisible, 27–28, 33–34; collective or distributed labor and printing process, 43, 133, 167–68; Hatoum’s works and strain of, 130; industrialization and, 74, 171–78; as invisible, 27, 33–34, 118, 126, 130; material studies and networks of, 118–20; and prints as hyperobjects, 133; relief printing and inversion of, 171–75, 188; economy of engraving and Ruskin, 175–78, 183, 193; sifting as women’s, 118, 130
- Ladywood* (Baumgartner), 180
Latour, Bruno, 118–20
Leonardo da Vinci: work pictured, 23
letterpress type, 10, 33, 42
Levy Process Camera, 110
LeWitt, Sol, 92; work pictured, 93
Lichtenstein, Roy, 8, 76; works pictured, 77
Ligon, Glenn, 126–28; interference and repetition in works by, 126–28, 155–57; neon used as medium by, 49, 50, 51, 60–62; reversal of text in, 49, 50, 51, 60–62; and social critique, 49, 60, 126–30, 155–57; and text as image, 49, 50–52, 60–61, 126–28; works pictured, 50, 51, 127, 129, 156
Lilly (detail) (Cole), 30
linocut, 10–11
Linton, W. J., 176–77; illustration from *Wood Engraving*, 177
lithography, 8, 10, 33–34, 83–84, 133–34, 137
Local Means (Rauschenberg), 134, 137
Lubliner, Malcolm: photographs by, 136
- magnification, in moiré patterns, 150
Manhattan Transfer (Baumgartner), 181, 182
marbling, 35, 37
Marilyn Portfolio (Warhol), 94–98, 96–97
Mark (Close), 93
matrices, 10–11, 13–14, 16; Abloh’s exhibition of, 61; the body as matrix, 35–39, 52–53; color printing and, 73–78; ironing boards as, 27–29; marbling and water as matrix, 35; mirror-reversal relationship of print and, 41–47, 52–53; multiple (*au repérage*), 75–76, 83; relief printing and, 33, 83, 169; Saunders’ prints made on back of, 24–26; screenprinting and stencil, 33, 54–56, 59, 103, 105, 114–18, 126, 144–45, 155; weaving as “matrixial” media, 117–18
- Matrix, The* (film), 192–93
Mattioli, Pietro Andrea: work pictured, 170
Mehretu, Julie, 76–80; works pictured, 79, 81
Mellan, Claude, 14; work pictured, 15, 146
Mesopotamian cylinder seal, 14
Midnight series (Sze), 189–191; *Beijing*, 191; *Santiago*, 190
moiré interference: and critical magnification, 138, 150, 151; examples of, pictured, 138, 140, 141, 143, 146, 151, 158; halftones and, 84, 137–39, 144–53; Ligon’s use of layering and repeating to cause, 126–28, 155–57; and logic of print, 149–50; and misregistration, 138–39; and Pop Art, 146, 150–52, 157; as queering or disruptive, 142; Rauschenberg and cultivation of, 137, 152–55, 157–61; and revelation, 150–52; and social critique, 150–52; and sound, 155; and space, 137–39, 155–63; and textiles, 139, 142–43, 145; and transparency, 137, 144; as unpredictable, 83, 137–39, 144–45
“Moiré Patterns” (Oster and Nishijima), 138, 150, 151
Morton, Timothy, 133
Mulas, Ugo: photograph by, 113
Mule (Rauschenberg), 22, 45, 47
Muller, Jan Harmensz, 140, 142, 155; works pictured, 141, 143
Munch, Edvard, 74; work pictured, 76
- National Velvet* (Warhol), 106, 108
Native Hosts: Quapaw (Heap of Birds), 68, 69
Nauman, Bruce, 62; works pictured, 63, 64, 65
Neal, Avon and Ann Parker: work pictured, 25
neon, 49, 50, 51, 60–62
News, Mews, Pews, Brews, Stews, & Dues (Ruscha), 120, 121, 122, 123
Nishijima, Yasunori, 138, 150, 151
Nolde, Emil, 178, 179
Nordlicht—5:59 pm (Baumgartner), 186, 187
Oh, Ho (Ruscha), 62, 63
“On Color” (Sillman), 73



- 1 Sekunde* series (Baumgartner), 183, 184–85
orientation: horizontal to vertical pivot, 32;
printmaking as disorienting or defamiliarizing, 45–48, 62, 66, 168, 193; text legibility and, 45, 61, 62, 66; and transference and reversal, 45, 56–58
Oster, Gerald, 138, 150, 151
other: binary opposition and, 128, 171; Kent’s reversals and interchange with, 59–60, 68; pressure and revelation of the unseen, 29; reversal and access to, 48–54, 56, 59–61, 66–68, 193; and separation, 71
OY/YO (Kass), 62

palindromes, 61–62
Palmer, Frances Flora Bond: work pictured, 75
Parker, Ann and Avon Neal: work pictured, 25
perception: of color, 71, 86; limits of human vision and, 16, 186; moiré interference and, 137–38; and nonoptical nature of printing, 5, 16, 71, 86; physical, tactile contact and printing, 13, 24, 26–27, 35–39, 160, 163, 167; printing as revelatory of the hidden or unseen, 26–32, 126, 130, 150–52, 160–63; Robleto’s waveform prints and, 161–63
Persimmon (Rauschenberg), 94, 95
photography: digital video frames as image source in, 179–83; distinguished from printing, 13; film stills as image source in, 24, 109, 125; halftone conversion of, 109, 110, 149; *The Levy Process Camera*, 110; macrophotographic image of printed color, 72; and media “screens,” 103; mediated by print in the twentieth century, 149–50
Pickett’s Charge (Bradford), 99–101, 100, 101
picture plane, 4, 21–22, 24, 52–54, 157, 201n7
planographic printing, 10, 33
Polke, Sigmar, 146–50; work pictured, 147
Pop Art, 5, 54, 125, 146, 150–51, 157
Postmodernism (Jameson), 98
pressure: Cage’s fire prints and, 16–17; Cai’s explosive events and force, 163; and Coles’ *Beauties* as meta-print about, 27–33; and color as material, 86; critique of racial politics and language of, 27–39; and deformation of image, 33–34; and delicacy, 17, 35–39; and force and form, 130; Hammons’s body prints and critique of racial, 35–39; as maneuver, 3–5, 13, 16–21; and the picture plane, 24–26; printing processes and qualities of, 33–35, 181; processes of low- and high-, 33–35; and racial oppression, 27–39; and Rauschenberg’s assemblage prints, 17–21, 33; as revelatory, 29–33; screenprinting and physical (*see* straining); and touch during printing, 13, 16, 24; and transference, 3, 13; and transparency, 24, 29, 32–34; and unseen topography of matrix, 29
Printing John Cage’s “Eninka 29” (film), 18
printmaking: alienation as maneuver of (*see* alienation); artistic control during, 16–17, 33, 53, 84–86, 92, 140–42, 167–68; as binary process, 33, 73, 128; contact and definition of print, 13; interference as maneuver of (*see* moiré interference); labor of (*see* labor); as marginalized or devalued art, 2–9, 48, 73, 109–12; and press as instrument, 14–16, 86, 168; pressure as maneuver of (*see* pressure); and replication or reproduction, 2, 4–5, 8, 13, 74–75, 113–14, 126, 133, 144, 171–73, 200n4; as revelatory, 26–27, 29, 33, 161–65; reversal as maneuver of (*see* reversal); and self-estrangement, 47–48; separation as maneuver of (*see* separation); strain as maneuver of (*see* straining); as tactile or nonoptical, 14–16, 24, 29, 86; techniques of, as influence on fine art, 43–44, 78, 87, 92–98; as time consuming process (*see under* time: alienation of the artist; time: speed and alienation of labor); as transference, 168; and truth, 29
Print Renaissance, 8, 48
Prints and Visual Communication (Ivins), 4, 188
Prisoner of Love #1 (Second Version) (Ligon), 126–28, 127
proof, 13–14, 29, 49
Prophet (Nolde), 179
“pull,” 16, 17, 29, 167; Hammons’s technique and, 39
Pyrex 2.0 (Abloh), 61

Queen (Cole), 29–32, 32

racism, 27; as binarization, 128; color separation and critical race theory, 98; *End Color Separation*, 99; Hammons’s body prints and, 35–39; Ligon and racial violence, 126–30, 155–57; racial segregation, 98–101, 99; and representation, 130; and representation of



- Black bodies, 27–33, 35–39; and violence and pressure on the Black body, 27–39
- Raising of Lazarus, The* (Rembrandt van Rijn), 41, 42
- rasters, 109, 125; Baumgartner's use of, 180–81; photograph reproduction and, 149; Polke's "Rasterbilder," 146–50; Rosenquist on, 148–49
- Ratlos/Indomitable V* (Saunders), 24–26, 26
- Rauschenberg, Robert, 5, 8, 33, 103; and misregistration in silkscreen paintings, 92–94; moiré cultivated and used by, 137, 152–55, 157–61; and NASA's Apollo moon mission, 133–37; pictured working, 20; and pressure and composition of assemblage prints, 17–21, 33; reversal in works by, 45; works pictured, 7, 19, 22, 23, 47, 95, 134, 135, 154, 159
- Raw-War* (Nauman), 62, 64
- registration, 82–84, 84, 86, 150; misregistration as technique, 94–98, 108–9; moiré interference and misregistration, 138–39; and scale inconsistencies, 82–83; of time, 167–68, 177–78, 188
- Reinhardt, Ad, 113
- relief printing, 10; and alienation of labor, 167–68, 170–78; and color, 83; compatibility with letterpress text, 169; crosshatching and, 139–40, 171, 175–77, 176, 183; and industrial mass media, 170–72, 178; inverse relationships in, 170–75, 188; pressure in process, 33; as sculptural, 170–71; and time as disjointed or asynchronous, 168, 170–71, 175–78, 183; woodcuts (*see* woodcuts)
- Rembrandt van Rijn, 41; work pictured, 42
- replication or replicability, 4–5, 128, 133; Warhol's strained-print model and, 125–26, 128
- reversal: chiral, 51–52; and community or social spaces, 45, 51, 54, 59–62; and critique, 45, 48–52, 54, 59, 60, 66–68, 203n11; cross-plane, 52–54, 57–58; and de-skilling, 48; and destabilization, 46–48, 167, 193; and disorientation, 44–48, 59–62; and disruption, 41; and estrangement, 59–62; front to back, 52–53, 62; Heap of Birds and, as resetting history, 66–68; and inversion and incision, 173–75; Johns and idea of, 43–45, 52–53; Kent's dialogue with the other and, 59–60, 68; as maneuver, 3–4, 41, 49; mirror relationship of matrix and print and, 41–49, 52–53; Nauman's "front back interplay" and, 62; and negation or erasure, 62; and otherness, 48–54, 56, 59–61, 66–68, 193; and prints pulled from back of matrix, 24–26, 26; and "proper" orientation, 56–69; screenprinting and, 54–55; and self-reflexivity, 43–44; and space, 45–47, 49–53, 60–62, 68; and subjectivity, 53–54; text and, 45, 46, 49–52, 52, 54, 60–62, 63, 64, 69; and transference, 41, 57–58; and transparency, 54–60; and truth or authenticity, 41, 49, 56–57
- Roberts, Jennifer L., macrophotographic image by, 72
- Robleto, Dario, 161, 162
- Rogers, Cole, 76–78; pictured, 79
- Rosenquist, James, 146–52; work pictured, 148, 153
- Rubæk, Birgitte: photograph by, 17
- rubbings, 24, 25, 130, 163, 181
- Rückenfigur* (Ligon), 49, 50
- Ruscha, Ed: commercial printing and, 120; pictured working, 122; reversal in works by, 61–62; and straining, 120–126; and text as image, 61–62; on Warhol and paintings as prints, 111; works pictured, 63, 121, 122, 123
- Ruskin, John: and alienation of labor, 175–78, 193
- Saunders, Matt, 24–27; work pictured, 26
- scale: inconsistencies of, during printing, 82–83; lithography and large scale prints, 133; and press size as limitation, 181; prints and tactile, 13; Sze and juxtaposition of timescales, 190–91
- Scent* (Rauschenberg), 23
- Schneider, Iris: photograph by, 9
- screenprinting, 5, 8, 11; and binarization, 124, 126, 128; and commercial printing, 105–6, 118–20; and de-skilling, 111; fatigue and force in, 103; history of technology and origins of, 118–20; as ineffable or invisible medium, 112–14; Ivins on syntax of, 114; as marginalized and neglected art, 103–6; and matrices, 11, 33, 54–56, 56, 59, 103, 105, 114–18, 119, 126, 144–45, 155; and reversal, 54–55; and roughage/refinement binary, 120, 124–26; screening process (*see* straining); and transparency, 54–56, 58–60, 113–14. *See also* sifting



- Sculptura* (Evelyn), 171
seals and stamps, 13–14
separation: and color printing (*see* color separation); as maneuver, 3–4, 103; racial or social segregation, 71, 98–101, 128; and sifting, 103, 118–20
serigraphy, 106
sifting, 103, 118–20, 128, 130; Warhol's tension between roughage and refinement, 125–26; as women's labor, 118, 130
Sillman, Amy, 73
Skin with O'Hara Poem (Johns), 52–53, 53
Sky Garden (Rauschenberg), 133, 135, 137
smoke, 18, 157, 161–63
Sole Nero 5 (Ligon), 128–30, 129
Solomon, Alan, 125
sound: and acoustophoretic printing, 35; moiré and representation of, 140, 141, 155–57, 160–63; as tactile, physical experience, 137, 160–63
space: Cai's explosion events and, 163–65; of contact during printing, 16, 21–24, 137, 160, 161, 163; fire prints and materiality of, 160–63; illusionistic, 21, 160–61; moiré interference and, 137–39, 155–63; NASA moon launch as subject, 133–37, 157–60; negative, 62–63, 65, 170, 186, 188; and the picture plane, 157; and print as tactile, 161–65; and reversal, 45–47, 49–53, 60–62, 68; Robleto's waveform prints and interior, 161–63; and sound, 155, 161–63; stars as analog of printed images, 188–91
spontaneity: printmaking as methodical and deliberate process, 71, 91–92, 168
stars: as analog of printed images, 188–91
Steinberg, Leo, 21, 157, 201n7
stencils, 5–9, 11, 33, 103; and binarization, 126–28; blockages as second-order, 120–24; Katagami textile, 105, 106; and matrices, 11, 33, 54–56, 59, 103, 117–18, 126, 144–45, 155; text images and, 33, 49, 126–28, 128; Warhol's double screening process and “negative,” 109. *See also* screenprinting
Stephens, Bill, 144
Stews (Ruscha), 120, 122
Stijnman, Ad, 58
Stoned Moon (Rauschenberg), 133–37, 134, 152, 160; making of, photographs, 136
straining: and binarization, 120, 124–28; and exclusion, 105, 124–25, 128, 130; fatigue and force in screenprinting, 103; historical contexts and connotations of, 118–20, 128, 130; Ligon's stenciling and, 126–30; as maneuver, 3–4, 103; repetition and, 125–26; and roughage/refinement binary, 120, 124–26; Ruscha's use of, 120–26; and screenprinting (*see* screenprinting); and sifting or filtration processes, 103, 118–20, 128, 130; strained-print model and repetition, 126; Warhol's image formation and, 109–11, 125–26
subjectivity, 37, 53–54, 98
Sudarium, 14–16, 15, 146
Sugatami Bridge, Omokage Bridge and Gravel Pit at Takata, No. 116 (Hiroshige), 85
Summers, David, 13
Sunny (Anni Albers), 117
Sunrise (Lichtenstein), 76–78, 77
Surface Series from *Currents* (Rauschenberg), 152, 154
Surrealism, 24, 43
Suspended Chair (Nauman), 62, 65
symmetry, bilateral, 41–43, 45–46
Sze, Sarah, 189–91; works pictured, 190, 191
Tamarind Lithography Workshop, 8
Tenniel, John: work pictured, 176
text: estrangement and reversed, 49–51, 59–61; Heap of Birds and reversal as two-way dialogue, 66–68; Johns' uses of, as image, 5, 6, 45; Kent and reversal as space for dialogue, 53–54, 59–60; and language as illusion, 34; and Ligon's reversals and space, 49–51, 60–61, 126–28, 127; movable type and letterpress, 169; and Rauschenberg's transfers and reversals, 45; and reversal, 45, 46, 49–52, 52, 54, 59–62, 63, 64, 69; Ruscha and reversal wordplay, 61–62
textiles: moiré, 139, 142–43, 145; screenprinting and, 105–6, 107, 118; and straining or sifting, 118, 128; *Textile Stencil* (Katagami) *with Chrysanthemum Design*, 106; weavings, 114–18
Thomas, Frank J.: photograph by, 112
Tides (Rauschenberg), 157, 159
time: and alienation of the artist, 167–68, 175–78; Baumgartner and asynchronous structures of, 168, 183–88; distributed during printing, 133, 167–68; fast and slow media, 167, 183–86; and



- human perception, 183–86; and labor of printmaking, 167–68, 171, 173–78, 188, 193; as misregistered or disjointed during printing process, 167–68, 177–78, 188; and prints as hyperobjects, 133; Ruskin on alienation and, 175–78; speed and alienation of labor, 175–78; Sze's *Midnight* series and asynchronous experience of, 189–91
- Tombstone of Richard Holmes, 2nd, Plymouth Massachusetts, 1828*: (Parker and Neal), 25
- touch: and *acheiropoetic* (made without hands) images, 16; converted to visual image in printing, 26–27; Hammons's work and intimacy of, 35–39; physical, tactile contact and printing, 13, 24, 26–27, 35–39, 160, 163, 167; and transfer during printing, 13
- Transall* (Baumgartner), 180, 181
- transference: and alienation, 167–68; and contact, 13–16, 35; distributed agency in printmaking, 167–68; as essential to printing, 10–11, 13, 163, 167–68; of ownership, 167–68; Pop Art and, 5; pouncing and, 57–58; press as instrument of, 16; and pressure, 3, 13, 34–35, 163; and reversal, 41, 45, 56–57; solvent transfers, 5–9, 7, 19; tracing and, 57–59; and truth, 29–32; and violence, 14–16, 28–29
- transparency: Bchner and play between materiality and, 32; and Kent's dialogic screen, 59–60; of matrix in screenprinting, 54–56; and moiré interference, 137, 144; and pressure, 24, 29, 32–34; pressure and apparent, 24, 29, 32–34; and reversal, 54–60; and transference, 57–59
- truth: and critical magnification and verification, 150; printing and truth-telling or revelation, 29; and prints as record of physical contact, 13–14; proof and, 49; and relationship of matrix and print, 41; and reversal, 41, 49, 56–57
- twistronics, 157
- Two Palms, 33–34
- Unity* (Delsarte), 87, 88, 89
- Universal Limited Art Editions (ULAE), 8, 43
- Untitled (America)* (Ligon), 49, 51
- Untitled (Body Print)* (Hammons), 37–39, 38
- Untitled (India Strainer)* (Hatoum), 131
- Uranometria: Libra, the Scales* (detail) (Bayer), 189
- van Grevenbroeck, Jan, II: work pictured, 119
- Vanishing Race, Navajo, The* (Curtis), 69
- Varnedoe, Kirk, 52–53
- Venus and Mercury* (Muller), 142, 143
- Verfasser, Julius: illustration pictured, 110
- Veronicas, 14–16, 15. *See also* Sudarium
- violence: and Baumgartner's subject matter choices, 186; Cole's printing process and evidence of, 27–29; contact relics as record of, 14–16, 28–29; Hammons's body prints and racial, 33–37; Ligon's *Come Out #9* and racial, 155, 156; Native American genocide and cultural erasure, 66–69
- visibility: conversion of touch to vision, 26–27; labor as invisible, 27–28, 33–34, 118, 126, 130; Pop Art and “invisible” image structures, 150–52; and printing as revelatory, 26–33; printing process as nonoptical or hidden, 16, 168; printmaking as erased from history of Western art, 12, 16, 111–12; printmaking as invisible, 2, 5, 16, 163; reversal and, 41–43, 48; “vanishing race” ideology and erasure of Native Americans, 66–69
- Wall Drawing #541* (LeWitt), 93
- Warhol, Andy, 5; and commercial printing, 8, 94, 106, 109–11, 125; and deskilling as critique of traditional art, 111–12; and misregistration as technique, 94–98, 108–9; pictured, 113; Ruscha on, 111; silkscreen paintings of, 5, 92–98, 103, 106–11; and straining, 103, 106, 109, 125–26; and subjectivity, 98; works pictured, 9, 12, 96–97, 104, 108, 112
- weavings, 114–118
- Wide Light, from Homage to the Square* (Albers), 116
- Windräder II* (Baumgartner), 169
- Woman's Head against the Shore*: (Munch), 74, 76
- woodcuts: Baumgartner's large scale, 178–89; and color printing, 74, 76, 83, 87–90, 90; and disjointed time, 183; German expressionism and, 178–79; and inverse relationship between labor and result, 172–74; and letterpress, 8, 10, 33, 169–71; and photographic images, 171–73, 174, 178; and pressure, 83; Ruskin on labor economy of industrialized engraving, 175–78; as sculptures, 170–71
- wood engraving, 171–75
- Wood Engraving: A Manual of Instruction* (Linton), 176–77; illustration from, 177



Wyss Institute, Harvard, 35

Yau, John, 62

Zammiello, Craig, 34

Zigrosser, Carl, 106

