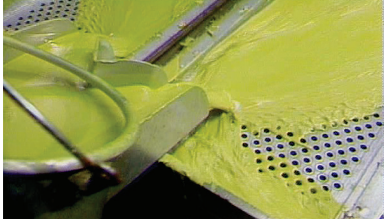

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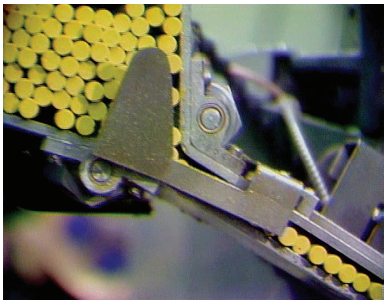

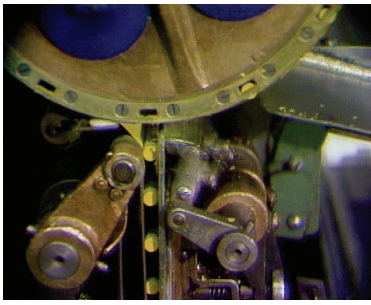

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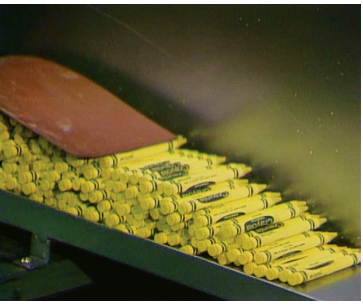

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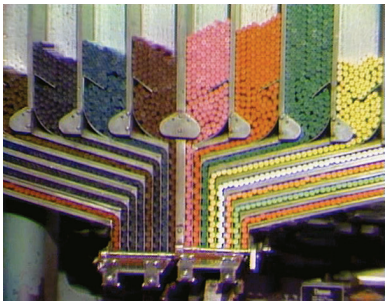

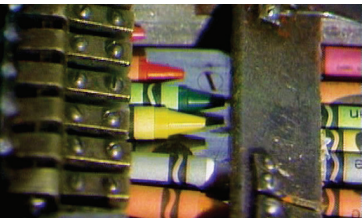

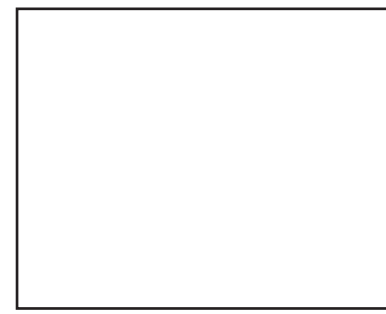

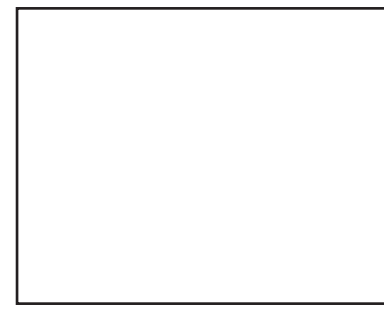

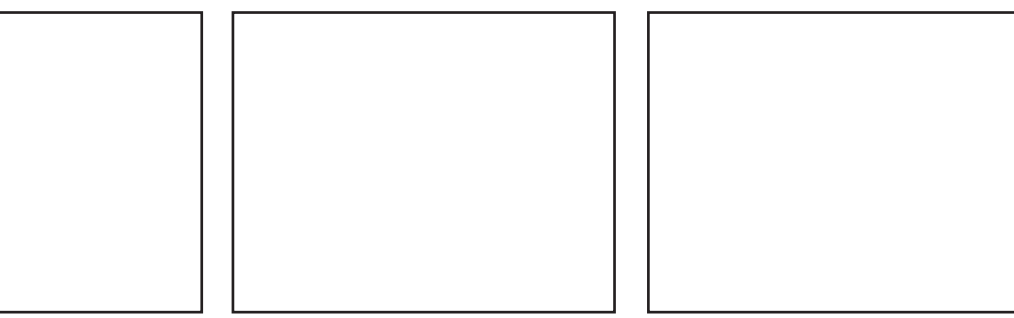

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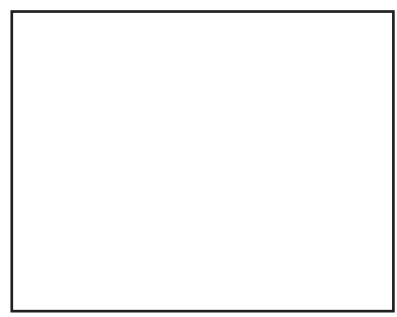
THE PROCESS GENRE

CINEMA AND THE AESTHETIC OF LABOR

SALOMÉ AGUILERA SKVIRSKY



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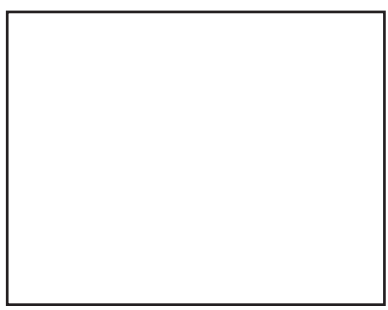
This book is dedicated
to Anton, Felix, and Rosa;
to my parents, Alan Skvirsky
and Anexora Aguilera Skvirsky;
and to my sister, Karina

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CONTENTS

A NOTE ON THE ART

THROUGHOUT THIS BOOK there are a series of grids composed of frame enlargements from single films—some are 1×3, some 2×3, some 3×3, some 4×3. The grids are not meant as adornment. I employ them to help the reader visualize what I am discussing. They should be read as Eadweard Muybridge's grids are read: from left to right, top to bottom, row by row. The grids are designed to approximate the processes under discussion. Two-dimensional representation is not ideal for conveying processes that unfold in time. Each image in the grids is intended to allude to a step in the process. Most of the grids are not complete (i.e., each and every step is not represented), though some are more complete than others. In some grids, each frame enlargement corresponds, simultaneously, to a step in the process *and* to a discrete shot of the film. In others, several steps (and thus several frame enlargements) come from a single shot.

ACKNOWLEDGMENTS

I WENT TO BRAZIL to do research for a dissertation on the representation of race in Brazilian cinema. With some luck, I managed to find the filmmaker of a twenty-minute documentary titled *Quilombo* (1975). Apart from what its title suggested—*quilombo* is the Portuguese word for maroon society—I knew nothing about the film. I could not find a description of it, and I did not know whether any copies survived. The filmmaker, Vladimir Carvalho, informed me that there was, in fact, a copy—but only one, he thought: a 16 mm print housed at the office of the state-run Centro Técnico Audiovisual in Rio de Janeiro. He generously agreed to arrange a private screening for me. But he did so with the warning that his film was probably not what I was looking for. I would not find much evidence of Afro-Brazilian culture in it, he said. The film was about a contemporary quilombo, not a historical one. And the people it was about—well, he said, they were devout Catholics, not practitioners of an Afro-Brazilian religion such as candomblé. Carvalho was right to suppose that, based on its title, I expected the film to be about African cultural survivals and that I would be totally unprepared for its actual subject matter. *Quilombo* is about the subsistence activities of a then contemporary community of peasants who were descendants of escaped slaves and lived in a small, rural village—Mesquita—an hour outside the nation's capital city, Brasília. The people of Mesquita had survived for generations by subsistence farming and the production of quince marmalade. The film

is structured around the community's production of saleable quince marmalade for the local market. With rigorous attention to the details of the process, the film displays two necessary activities in that production: the production of the marmalade itself and the fabrication of small, rectangular, wooden boxes to contain it. Intercutting back and forth between the two activities, the film presents the necessary steps in chronological order. The quince trees are planted; their flowers bloom; the rain comes; the fruit ripens. Then the quince is picked and tossed into metal buckets. The fruit is peeled, washed, boiled, pureed, reheated, and finally cooled. While the quince is being grown and harvested and conserved, four-by-six-inch, open-topped wooden boxes are made to hold the marmalade. A tree is cut down; its trunk is divided with a water-powered saw in a roofed outdoor workshop; the saw is cooled with water; planks are cut from the trunk; thin wood strips are nailed together to form the sides and bottoms of boxes; the boxes are sanded; and the carpenter checks his work.

As I watched Carvalho's film, I felt something familiar: a tingling in my toes and ears, a calm, a stillness, a lull. I was transfixed. I had experienced this before while watching film. Most recently, I had felt it watching Robert Flaherty's *Man of Aran* (1934) a few months earlier. Seeing the Aran islanders preparing an impossibly rocky plateau for the growing of potatoes by retrieving seaweed from the rocks' crevices and watching a young Aran man patch up a hole in a fishing boat with a rag, tar, and a flame had elicited the same sensation.

When I spoke with Carvalho after the screening, I hesitated to mention Flaherty. I imagined that he might be offended by the comparison to an Anglo-American filmmaker, that he might feel I was somehow suggesting his film was derivative. But when, eventually, I did bring up Flaherty, Carvalho grew animated. He said that it was seeing *Man of Aran* as a young man, at a Cine Club in the city of João Pessoa in Paraíba, Brazil, that had set him on his career path.

Well, it was seeing the similarities between his film and Flaherty's that set me on the path that led to the writing of this book. I began by wondering what accounted for the mesmerism of the two films. How was the effect achieved? Eventually I came to think that I had stumbled on a discrete genre, the process genre.

Because I came to the process genre through an encounter with Carvalho's work, I was attentive to certain of its features that otherwise would not have been salient. Although his work is understudied, Carvalho is an

important and interesting figure in Brazilian cinema. He was central in the Paraíban school of documentary, which overlapped with the Cinema Novo movement of the 1960s and '70s. For more than fifty years—impervious to all faddishness—he has pursued a single project: making democratic films about work and workers. In the first part of his career, he made several that, like *Quilombo*, were very beautiful and deceptively straightforward films depicting the ordered steps in a process of craft labor: the making of *rapadura* (raw brown sugar) in *A Bolandeira* (1968); the production of cotton in *O País de São Saruê* (1971); the mining of sheelite in *A Pedra da Riqueza* (1975); the art of weaving in *Mutirão* (1976). Later, Carvalho would turn to telling the story of the construction of the capital city, Brasília, which began in 1956—of how laborers, bused in from the distant northeast of the country, built an entire city, from scratch, in the middle of the country's central plateau, in four years; of how the workers had had few protections; of how several had died; of how they had suffered terrible indignities; of how this utopian city, designed to banish class differentiation, had no place for these *candangos*, as they were called, when it was completed; of how they were exiled from the city they had built and forced to live in improvised, poorly serviced satellite cities; of how their attempts to organize and demand a different future had been met with state violence and repression.

In his seventh decade of life, Carvalho described his artistic trajectory in an interview with the great Brazilian film critic Carlos Alberto Mattos. On three separate occasions, Carvalho's father, "a compulsive builder," built what would be for a time their family's home, using bricks and tiles that were produced on-site. "I do not doubt," Carvalho said,

> that my vocation documenting the land and labor was born as I watched the work of the men who extracted and piled the red clay, immediately adding river water that had been painfully brought on the backs of beasts of burden. Kneaded sensuously with their feet, the clay became easy to form and filled wood molds, ultimately to be transformed into bricks and tiles arranged into pyramids and later baked in a fire pit, on the festive night of the burning of the kiln. The dirty men of that generous soil were practically an extension of the land, much like those others, who, nearby, plowed the land. I learned that everyone was transforming the world into culture.[1]

Indeed, Carvalho's entire oeuvre exhibits an unwavering curiosity about and awe for people's capacity to make and remake the world. His stance

toward the considerable practical intelligence of those "dirty men of clay," as he calls them elsewhere, and the rigorous, uncompromising way he makes one feel the force of those capacities—without falling into a mawkish sentimentality—means that his early films about production processes exhibit not so much an "aesthetic of hunger," the term coined by Cinema Novo's foremost cineaste and theorist, Glauber Rocha, to mark an imperfect aesthetic matching a rough, immiserated human and geographic landscape, as an "aesthetic of labor." That is, they exhibit an aesthetic that makes palpable the awesome transformative potential of human labor.

Carvalho is the first person I thank in these acknowledgments—for his beautiful films; for his openness and generosity; for his internationalism; and for his example of a steady, unwavering political commitment to following this topic, wherever it might lead, even as it meanders in and out of intellectual fashion.

I HAVE UNDERTAKEN WORK on this project at three different institutions, in three disciplinarily distinct departments. In each institution I have encountered wonderful colleagues whose interest, feedback, and leads have helped shape this book's final form.

At the University of Chicago, I have been fortunate to find generous and committed colleagues who have devoted much time and energy to this project. Daniel Morgan read multiple drafts at multiple stages in the writing process, often volunteering to read yet another iteration at critical junctures. He is an ideal reader: giving the most charitable interpretation of my words while making useful suggestions for clearer exposition.

I convey my indebtedness to the participants in the manuscript workshop that the Department of Cinema and Media Studies organized for me. So much gratitude and warm feelings go to Allyson Nadia Field, Laura Gandolfi, Tom Gunning, Heather Keenleyside, Daniel Morgan, David Rodowick, and Jennifer Wild. The external participants in the workshop, Jonathan Kahana and Ana López, provided detailed, incisive commentary that helped me to transform the manuscript. I also thank Brodwyn Fischer and the Center for Latin American Studies for supporting the workshop financially and Traci Verleyen for making the event run so smoothly.

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which put pressure on the category and helped me refine my thinking; to Will Small, who raised critical but productive objections to early formulations of some of the book's claims; to Zack Samalin, Patrick Jagoda, Maria Anna Mariani, and Megan Sullivan for stimulating conversations and useful feedback during the revision phase. I was able to undertake the final revision thanks to a Faculty Fellowship at the Franke Institute for the Humanities. I am so grateful to the Franke and to the wonderful scholars in my 2017–18 cohort.

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I began writing this book during a fellowship at the Institute for the Humanities at the University of Illinois, Chicago (UIC). Many thanks to Susan Levine and Linda Vavra, director and associate director, respectively, of the institute, and to the other 2014–15 fellows for their feedback on an early draft of the manuscript's introduction. At UIC, I spoke at length about the topic with Tatjana Gajic, Steve Marsh, and Javier Villa Flores, all of whom also read early drafts and provided characteristically insightful comments. At the University of Massachusetts, Boston, Emilio Sauri and Judy Smith were marvelous colleagues. They were enthusiastic and encouraging of the nascent idea at a critical moment when I was deciding to embark on a project distinct from my dissertation.

Although this book is a separate project from my dissertation, it would not have been possible without the nurturance, support, encouragement—and training—that I received from my graduate school teachers at the University of Pittsburgh. I will always be especially grateful to Adam Lowenstein, Joshua Lund, Shalini Puri, Neepa Majumdar, John Beverley, George Reid Andrews, and my director, Marcia Landy.

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It is not easy to find the right words to express love and gratitude to the most important people in one's life. This book would not have been completed if it had not been for the love, care, and support of Michelle Ford, Steve Ford, and Anna Marie Ford. They have spent the past six years feeding, napping, soothing, and delighting Felix, and now Rosa. They never once refused the craziest request or the most last-minute entreaty. Without them, this book would have been unthinkable.

I owe (almost) everything to my parents, Alan Skvirsky and Anexora Aguilera Skvirsky, an unlikely couple, from different worlds, religions, languages. They set very few rules and had two passions (to this day): movies and politics, probably in that order. To the horror of my teachers and of my friends' parents, my parents regularly took me to the movies—R movies, NC-17 movies, subtitled movies, any movie, every movie—even on school nights, beginning when I was a young child. They never left me at home, and they never cared about decorum. My sister and best friend, Karina Aguilera Skvirsky, was my first teacher on art matters, and I still run most things by her first. I am thankful for my keenly observant bundle of energy, Felix, and the charming and willful Rosa; they make every day and every dinner an exciting rumpus, and their sugar keeps me going. Finally, I thank Anton Ford, the love of my life, for everything—from reading drafts to taking care of babies; he has nurtured ambitions for me that I never

dared to entertain. Thank you all. I dedicate this book to you six, with love and gratitude.

EARLIER VERSIONS of parts of chapter 4 appeared as "Realism, Documentary, and the Process Genre in Early New Latin American Cinema," in *The Routledge Companion to Latin American Cinema*, edited by Marvin D'Lugo, Ana M. López, and Laura Podalsky (London: Routledge, 2018), and as "Quilombo and Utopia: The Aesthetic of Labor in Linduarte Noronha's *Aruanda* (1960)," *Journal of Latin American Cultural Studies* 20, no. 3 (2011): 233–60. Some of the concepts developed in chapter 5 appear in a different form in "Must the Subaltern Speak? On *Roma* and the Cinema of Domestic Service," *FORMA: Aesthetic Form and Politics in Latin American Culture and Theory* 1, no. 2 (2019).

INTRODUCTION

THE PROCESS GENRE

Here in the alcove of the wood and metal working rooms is a big vat of clay, a couple of potter's wheels, and a case of admirably modeled, glazed, and decorated pottery. Standing at the table is a clean old German kneading clay, his squat, bowed legs far apart, his body leaning forward, his long and powerful arms beating upon the clay like piston rods. He rolls it into a long cylinder and breaks it off with exactitude into a half dozen lumps. As he carries it across the room, walking with a side-wise straddle, one sees that he is bent and twisted by his trade, conformed to his wheel. Upon this he slaps his clay, and thrusting out a short leg, sets it whirling. Above the rough lump he folds his hands, and, in a minute, from the prayerful seclusion, the clay emerges rounded, smoothed, and slightly hollowed. His hands open, his thumbs work in; one almost sees him think through his skilful thumbs and forefingers: the other fingers lie close together and he moves the four as one. Like some mystery of organic nature, the clay rises, bends, becomes a vase. "Look at that thing grow!" an excited boy exclaims, forgetting the crowd of onlookers. "See it, see it!" The old potter rises, lifts the vase in his mitten-like hands and, bending, straddling sideways, his face unmoved, carries it tenderly to its place.

Looking at him, I wonder. My heart aches. My flower-pots at home made by such as he, gain a new significance. They are no longer mere receptacles for holding earth and guarding the roots of my plants. The rough, red surface of them is written all over with the records of human patience, human cooperation with nature, human hopes and fears.

—Marion Foster Washburne, "A Labor Museum"

THIS BOOK is about a phenomenon with which we are all familiar but that does not have a name and that, consequently, has never been theorized: the sequentially ordered representation of someone making or doing something. Whether the action is performed before a live audience, is recorded and later projected on a screen, is drawn from imagination, or is narrated discursively; whether or not the action employs tools and machines; and whether the representation is received by children or adults, the sequential representation of people successfully making and doing things produces in the spectator a singular wonder and deep satisfaction.

The effect is powerfully captured by Marion Washburne in the epigraph. Writing for *The Craftsman* magazine, she describes a craft demonstration she observed in 1904 at the Labor Museum at Hull House in Chicago. The museum, founded by Jane Addams in 1902, was situated in the heart of a vibrant working-class immigrant community and was devoted to experiential learning. Addams hoped to mobilize the considerable know-how of the recently arrived migrants from Italy, Russia, and Germany to achieve educational and social ends. Craft demonstrations were an integral part of the museum's programming, because, as Addams put it, they tapped into the "fascination of the show." In her first report on the museum, Addams writes: "It may be easily observed that the spot which attracts most people at any exhibition, or fair, is the one where something is being done. So trivial a thing as a girl cleaning gloves, or a man polishing metal, will almost inevitably attract a crowd, who look on with absorbed interest."[1] Washburne's account of the vase-making scene confirms Addams's insight. Washburne is able to conjure both the complete linear arc of the process that transforms discrete coils of clay into a fully formed vase and its uncanny effect on a small crowd of spectators of different ages, spellbound by the element of the otherworldly in the demonstration.

Both the demonstration that Washburne describes and her discursive account of it belong to a distinct category of representation that I here call the "process genre." The process genre is characterized by the special way it organizes the representation of processes. The represented processes are typically, though not always, processes of production, and crucially, they are represented as having a sequentially ordered series of steps with a clearly identifiable beginning, middle, and end.

The process genre is not limited to early twentieth-century craft demonstrations in museums or at fairs. Our contemporary mediascape is awash with examples. Actually, the process genre is everywhere, present across history, media, and media platforms. On the internet, there are

YouTube instructional videos detailing how to make everything from crab cakes to video clips and "hands and pans" high-speed video recipe tutorials widely shared on social media.[2] On television, there are lifestyle, do-it-yourself, and educational programs such as the Food Network's 1990s cooking shows, Bravo's *Top Chef*, HGTV's *Fixer Upper* (about a couple in Waco, Texas, who renovate houses in the area), and Discovery Channel's *How It's Made* and *Some Assembly Required*.

In the sphere of cinema, the category includes educational, industrial, and ethnographic cinema since the early 1900s; observational documentaries from Frederick Wiseman's *Meat* (United States, 1976) to recent films such as *Leviathan* (Lucian Castaing-Taylor and Verena Paravel, United States, 2012) and *Raw Herring* (Hetty Naaijkens-Retel Helmrich and Leonard Retel Helmrich, Netherlands, 2013); art cinema such as Robert Bresson's *A Man Escaped* (France, 1956); slow cinema such as *La Libertad* (Lisandro Alonso, Argentina, 2001); and popular heist films such as *Ocean's Eleven* (United States, 2001). Also belonging to the process genre are the chronophotographic motion studies of Étienne-Jules Marey, Eadweard Muybridge, and Félix-Louis Regnault; craft demonstrations such as the one described by Washburne, as well as those that have taken place at international expositions, crafts fairs, and living, as well as traditional, museums; what E. H. Gombrich termed "pictorial instructions" including everything from airplane safety brochures and Ikea furniture assembly guides to the plates of Denis Diderot and Jean le Rond d'Alembert's *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers*. In the domain of discursive media, recipes and instruction manuals also belong to the category. The enumeration could continue.

Despite its ubiquity, this phenomenon has gone unremarked on by scholars and critics. The present book undertakes the first study of this category of representation. In addition to naming it, my aim here is to define, historicize, and theorize this category of representation, accounting for its various fascinations. I come to focus on the process genre in film because, although the genre has a life in other media, as we have seen, I contend that it achieves its fullest expression in moving image media, not least because of the medium's constitutive capacity to visually and analytically decompose movement and to curate its recomposition. The process genre is, I argue, a ciné-genre.

The Process Genre pursues five questions in relation to the process genre. The first question is just how old the genre is. Film scholars may be tempted to subsume the process genre within the category of the industrial film, or

perhaps within educational cinema, and thus begin an account of its history starting in the last years of the nineteenth century. But in what follows I argue that pictorial instructions, exemplified by the how-to manuals of fifteenth-century Europe, ought to be included in the category. In that case, the process genre is considerably older than the moving image, and part of what a theory of the genre must account for is its transmedial character.

This leads directly to the second question, or set of questions: What is the relation of the process genre to medium—and, in particular, to cinema? Is it only an image-based genre? Is it only a durational genre? Is it a genre at all?

The third question concerns the effect of the genre on spectators. The lyricism of Washburne's description of the pottery demonstration is no accident, as the genre often elicits references to wonder and absorption; instances are frequently described as magical, spellbinding, mesmerizing, and so on. Why should this be so? What can be said about the *peculiar* attractions of the process genre?

After we have clarified what kind of category this is—that is, its age, its formal attributes, its effects—the process genre might still seem to be a neat curiosity, but little more. The fourth question of this study concerns its sociocultural and political significance. One striking feature of the catalogue of examples of the process genre listed earlier is that they are representations that straddle two distinct modes of organizing labor that are rarely treated together: artisanal and industrial production. Artisanal craft production and industrial mass production seem to belong to different worlds—the one "primitive" and hand-bound; the other capitalist and machinic. But the process genre brings them together in a single representational project. The process genre as a category of representation—and this we can also perceive in the ending of Washburne's description—is significant to the representation of labor and, by extension, to the representation of a society's mode of production.

Finally, given the fact, noted earlier, that our current media landscape is awash with examples of the process genre, a fifth question arises: Why now? The explosion has coincided with the resurgence of interest in craft and do-it-yourself culture that is evident in various subcultural trends, from the maker movement and "hacktivism" to the new ad-hocism and assorted slow-living movements. These trends have been accompanied by recent academic and crossover books (many of them self-help) about work and craftsmanship, including most prominently Robert Pirsig's *Zen and the Art of Motorcycle Maintenance: An Inquiry into Values* (reissued in 2006), Richard Sennett's *The Craftsman* (2008), Matthew Crawford's *Shop Class as*

Soulcraft: An Inquiry into the Value of Work (2010), Charles Jencks and Nathan Silver's *Adhocism: The Case for Improvisation* (expanded and updated in 2013), and James Livingston's *No More Work: Why Full Employment Is a Bad Idea* (2016).[3] These are all attempts to grapple with a new reality of work as the status and meaning of labor in the twenty-first century and across the globe is changing. The new landscape is defined by technological developments, advancing automation, and the dramatic growth of the immaterial labor sector. The recent examples of the process genre at once register these shifts, but they are also probably the reason that it is possible to now apprehend a category of representation that so far has gone nameless, that has yet to be recognized as a discrete phenomenon.

Exemplary Sequences

Cinematic expressions of the process genre appear very early in the history of the projected moving image. The films had titles such as *The Fan Industry in Japan* (Pathé-Frères, 1907), *How They Make Cheese in Holland* (Pathé-Frères, 1909), and *The Manufacture of Walking Sticks* (Heron, 1912).[4] Some of the films depicted processes of industrial production (e.g., *A Visit to Peek Frean and Co.'s Biscuit Works* [Cricks and Sharp, 1906]); others depicted artisanal production (e.g., *Making Bamboo Hats in Java* [Eclipse, 1911]). The films were made by operators from around the world, and examples abound in early French, Dutch, and American film catalogues and archives. Most film manufacturers even had a special category in their listings for these films. Pathé called them *scènes d'art et d'industrie*, while the American Mutoscope and Biograph Company called them "industrials."[5]

In the late 1990s, Tom Gunning coined the term "process film" to refer to this prominent group of multishot films, appearing between 1906 and 1917, that depicted a variety of production processes sequentially.[6] Gunning's coinage, which never gained much traction in cinema studies, is typically used specifically in reference to the predocumentary period. On the rare occasions it *is* mentioned, the "process film" has been generally treated as a self-evident category, as one of the genres of early cinema (alongside the travelogue, the scenic, and the nature film) that eventually would be absorbed by the more encompassing categories of "industrial film" and "educational film."[7]

Indeed, it is common to treat the "process film" (as Gunning understood it) as synonymous with the early industrial film. For example, in her entry "Industrial Films" in the *Encyclopedia of Early Cinema*, Jennifer Peterson

writes: "Industrial films tell the story of the birth of a consumer product. We see each product go through a series of processes, each one following from the previous in an inviolable order."[8] This description makes the industrial film sound a lot like Gunning's process film. In other words, Peterson found little use for a distinct appellation.

But the basic syntax and conventions of the process film were not invented by the industrial film; nor are they limited to it. Also, the process film as discussed by Gunning did not disappear in 1917 with the emergence of documentary filmmaking during World War I. In this book I use the term "process film" to refer to any *filmic* instance of the transmedial process genre. So understood, process films can be found throughout the history of cinema. The category certainly includes the production that Gunning and Peterson reference, but it encompasses much more. Process films are still being made today. And while the category intersects with the industrial film in interesting ways, it also interacts with other categories of filmmaking.

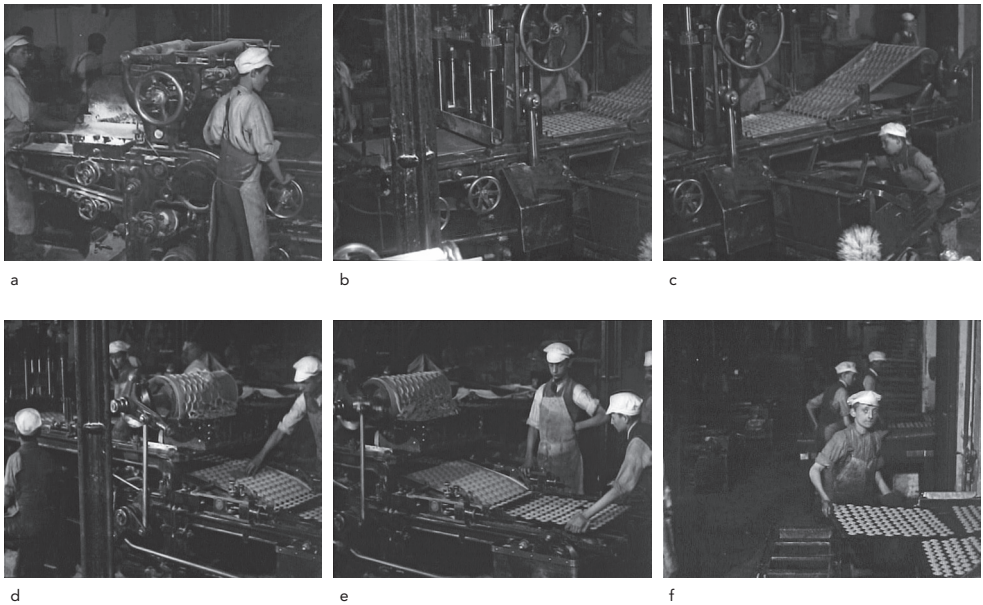
Since there are accomplished examples of process films made throughout film history, and all over the world, with much recent production made for the internet, it is not possible to produce an exhaustive filmography. Here is a partial inventory of especially significant process films whose processual character has gone largely unremarked:[9] Soviet montage works such as Dziga Vertov's *The Sixth Part of the World* (1926) and *The Eleventh Year* (1928); British documentaries such as *Drifters* (John Grierson, 1929), *Night Mail* (Harry Watt and Basil Wright, 1936), and *Steel* (Ronald Riley, 1945); most of Robert Flaherty's oeuvre, including *Nanook of the North* (1922), *The Pottery Maker* (1925), *Moana* (1926), *Industrial Britain* (1931), and *Man of Aran* (1934); New Deal films such as Joris Ivens's *Power and the Land* (1940); French works such as Georges Rouquier's *The Wheelwright* (1942) and *The Cooper* (1942), Georges Franju's *Blood of the Beasts* (1949), Jacques Demy's *The Clog Maker of the Loire Valley* (1955), Jean-Luc Godard's *Operation "Concrete"* (1958), and Jean Rouch's *The Lion Hunters* (1965); the New German Cinema of Peter Nestler, such as *How to Make Glass (Manually)* (1970) and *About the History of Paper* (1972–73); New Latin American Cinema landmarks such as *El Megano* (Julio García Espinosa, Cuba, 1955), *Araya* (Margot Benacerraf, Venezuela, 1959), *Trilla* (Threshing [Sergio Bravo, Chile, 1958]), *Aruanda* (Linduarte Noronha, Brazil, 1960), *Faena* (Work [Humberto Ríos, Argentina, 1960]), *Chircales* (Brickworks [Marta Rodriguez and Jorge Silva, Colombia, 1967–72]); Shinsuke Ogawa's Magino Village regional films, including *The Magino Village Story—Raising Silkworms* (Japan, 1977), *"Nippon": Furuyashiki Village* (Japan, 1982), *Magino*

Village—A Tale/The Sundial Carved with a Thousand Years of Notches (1986), and *Manzan benigaki* (Red Persimmons [with Peng Xiaolian, Japan, 2001]); Hollis Frampton's *Works and Days* (United States, 1969); Harun Farocki's installation film *Zum Vergleich* (In Comparison [Germany, 2009]); and Kevin Jerome Everson's eight-hour *Park Lanes* (United States, 2015).

But this is only a catalogue. To more precisely establish the defining marks of the process genre, it helps to recall a few iconic examples of the kind of representation that is characteristic of it. The following six exemplary sequences belong to well-loved films from across more than one hundred years of cinema history and from a wide field of geographic and of cultural space. They belong to different kinds of film—fiction as well as nonfiction, commercial as well as nontheatrical—that are not often discussed together. These sketches are meant to give a preliminary sense of what the process genre looks and feels like.

A VISIT TO PEEK FREAN AND CO.'S BISCUIT WORKS (CRICKS AND SHARP, UNITED KINGDOM, 1906)

A Visit to Peek Frean and Co.'s Biscuit Works is an early corporate-sponsored film about biscuit, or cookie, production in Bermondsey, South London. With the help of intertitles, it depicts the steps in the process of mass producing Peek Frean biscuits—from steam powering the machines to the delivery of ingredients such as milk and flour; the rolling of dough; the cutting of the biscuits; their baking in ovens; and the washing, filling, weighing, labeling, soldering, and shipping of the filled tins. In one particularly striking two-minute sequence, introduced by the intertitle, "Biscuit machine with entrance to oven," two medium tracking shots present the trajectory of large sheets of thick dough as they are fed onto a giant conveyer belt—its dizzying wheels, gears, pulleys, and automated stampers plainly on display (figures I.1a–f). The dough is sprinkled with flour as it begins its advance through the machine; then it is flattened, smoothed, and evened by the machine's heavy rollers, which move it along. The dough is hand-cut into large, even rectangles, out of which automated stamping cylinders cut circular cookie shapes. At this point, suddenly, the conveyor belt splits into three parallel tracks: the uppermost track runs into a dead end, where the remainder of the dough is squished up into a heap (presumably to be reused in the making of more biscuits); the bottom track is attended by a child who puts empty metal baking sheets on the belt; and the middle track carries the prized biscuits, ultimately delivering them onto the empty metal baking



FIGS. I.1a–f "Biscuit machine with entrance to oven." Frame enlargements, *Peek Frean and Co.'s Biscuit Works* (Cricks and Sharp, United Kingdom, 1906). Each frame enlargement is intended to represent one step in the process. The grid should be read from left to right, row by row (as one reads text in English). The grid approximates the chronological unfolding of this part of the process of biscuit production.

sheets. Boys and men collect the baking sheets, each now with twelve rows of ten biscuits, and walk them, one at a time, to another moving belt, which conveys them into a giant oven.

NANOOK OF THE NORTH
(ROBERT FLAHERTY, UNITED STATES, 1922)

Nanook of the North features a series of production processes. One especially memorable three-and-a-half-minute sequence depicts the installation of a window for an igloo. The Inuit character, Nanook, has just completed the basic structure of an igloo for his family when, abruptly, he wades into the white expanse. Eventually he stops, cuts a square block of ice from the ground, and carries it back to his newly constructed dwelling. Nanook sets the ice block on the igloo and, with his long-bladed knife, traces the outline of the ice block on the igloo's roof. He then cuts a hole in the roof similar in shape to that of the ice block and puts the block into the hole to form a window. At this point the viewer's curiosity is satisfied; she has grasped the function of the ice block. But the shot does not cut away then. The sequence continues for another minute or so, in which Nanook is shown filling in the cracks around the perimeter of the ice window with soft snow, presumably to seal the window and secure it.

He fills in two edges of the window. Then a third, then the fourth, until all of them are carefully sealed and patted. When all four edges have been filled in, one can plainly see some flakes of snow on the surface of the window. Nanook wipes the snowflakes away and pats the structure fastidiously, presenting the viewer with a finished construction: a pristine ice window, well secured and glistening (figures I.2a–i).

RIFIFI (JULES DASSIN, FRANCE, 1955)

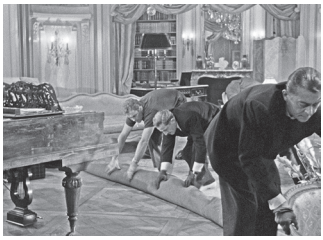
The classic heist film *Rififi* is perhaps best known for a thirty-three-minute sequence in which four thieves carry out the burglary of a jewelry store

FIGS. I.2a–i The Nanook character installs an ice window. Frame enlargements, *Nanook of the North* (Robert Flaherty, United States, 1922). Each frame enlargement is intended to represent one step in the process. The grid should be read from left to right, row by row (as one reads text in English). Although the grid approximates the chronological unfolding of the process from the first image on the top left to the last image on the bottom right, this series of nine images is not a complete visualization of the process as it is represented in the film; some steps are missing in this representation here.

safe in the dead of night. The safe is held in a well-secured office, equipped with an elaborate alarm system triggered by noise. The thieves have determined that the only way to access the office space without activating the alarm is by "drilling" soundlessly through the floor of the apartment above it. The burglars make their way wordlessly through a series of steps that they have spent weeks planning and rehearsing. The steps are shown in order, with each step and each instrument clearly displayed. First, they neutralize the concierge and his wife; then they gain access to the apartment above the jewelry store office; they cover the window with a heavy blanket so the lights can be turned on without detection. Then they roll up the rug; loosen the wooden floor tiles in the living room with a long-handled chisel; remove the tiles with a pry bar; and wipe the underside of the tiles they have removed. Then they create a small hole in the floor with a bull point chisel and a socked mallet. Once the hole is large enough, they replace the bull point chisel with a larger one. They chisel away the floor until they break through the ceiling of the jeweler's office below, where the safe is kept; thread an umbrella through the small hole in the floor and ceiling; slip a rope around its handle so the umbrella does not fall through the hole into the room below; and contrive to open the umbrella using a metal rod. As they continue chiseling, the debris falls into the upside-down umbrella and thus does not trigger the alarm. They periodically remove the debris from the open umbrella so that the umbrella does not turn inside out from the weight of the gathering rubble. The hole in the floor-ceiling grows in diameter until it is large enough for a person to fit through, and so on (figures I.3a–l).

PICKPOCKET (ROBERT BRESSON, FRANCE, 1959)

In a one-minute sequence from *Pickpocket*, the protagonist, Michel, learns the craft of pickpocketing from a master pickpocket, Kassagi, played by an actual pickpocket who served as a technical adviser on the film.[10] In the lesson, Kassagi plays the pickpocket, and Michel plays his victim. The camera follows Kassagi's right hand in close-up as his four fingers delicately reach into the breast pocket of Michel's suit jacket, his thumb lightly resting on the outside fold of the jacket, steadying it to prevent the victim from feeling his clothing quiver. Kassagi grips the thin leather billfold with his fingertips just long enough to clear the pocket, then he releases the billfold down the interior of the suit jacket. The camera tilts down in time to capture Kassagi's left hand receiving the billfold before it falls to the ground, his thumb again steadying the jacket (figures I.4a–d). Kassagi's left hand passes the billfold



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FIGS. 1.3a–l A ten-minute part of the heist sequence in which the thieves enter the room with the safe by making a human-size hole in the floor of the apartment above. Frame enlargements, *Rififi* (Jules Dassin, France, 1955). Each frame enlargement is intended to represent one step in the process. The grid should be read from left to right, row by row (as one reads text in English). Although the grid approximates the chronological unfolding of the process from the first image on the top left to the last image on the bottom right, this series of twelve images is not a complete visualization of the process as it is represented in the film; some steps are missing in this representation here.

a b c d

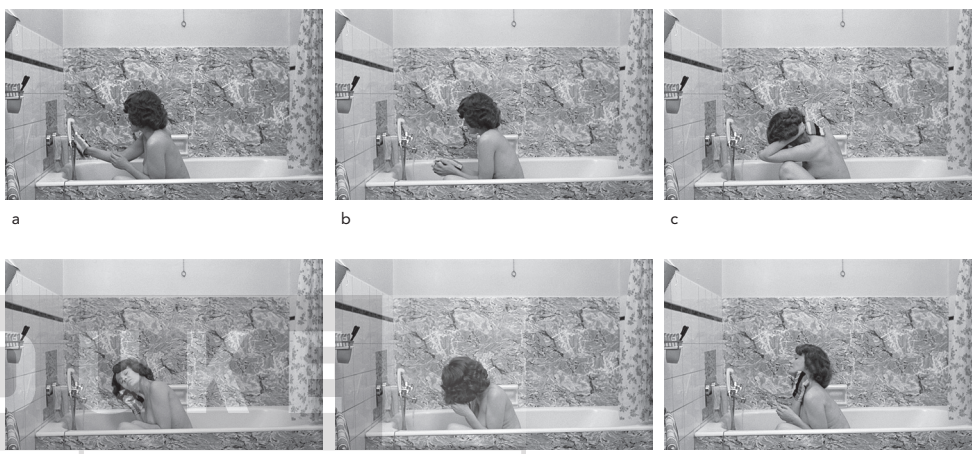
FIGS. 1.4a–d A lesson in picking a suit breast pocket. Frame enlargements, *Pickpocket* (Robert Bresson, France, 1959). The rows should be read from left to right.

back to his right hand and then to Michel's right hand, which returns the billfold to the breast pocket—the camera all the while attentively following the single cycle of the billfold's peregrination. The film dissolves to subsequent demonstrations of discrete actions: how to grasp the billfold in the breast pocket and clear the pocket; how to unbutton a jacket pocket with a quick snap of the thumb and index finger; how to dislodge a pen from the victim's pocket and slip it into one's jacket sleeve; how to drop the billfold down the inside of the jacket and catch it before it falls to the ground; and how to exercise one's fingers so that they are in good shape for the exertions of pickpocketing. Each demonstration is treated the same as the first as the camera trains its attention on the *pas de deux* of hand and object.

JEANNE DIELMAN, 23 QUAI DU COMMERCE, 1080 BRUXELLES (CHANTAL AKERMAN, FRANCE/BELGIUM, 1975)

In the first bathing sequence of *Jeanne Dielman, 23 Quai du Commerce, 1080 Bruxelles*—a film about the quotidian routine of a housewife-prostitute who works out of her apartment—the spectator is presented with three shots, which together last about four-and-a-half minutes. Each shot corresponds to a different activity: to bathing, dressing, and cleaning the tub, respectively. The bathing part of the sequence begins with Jeanne turning on one faucet, the left one. She slides her right hand into a striped abrasive bath mitt and lathers the mitt with a bar of soap she has taken from the tub's built-in soap dish. Replacing the soap, Jeanne then begins her methodi-

cal bathing ritual, starting at the neck. She lifts her hair from the back of her neck with her left hand and soaps the area with her mitted hand (figures I.5a–f). Then the mitted hand moves to the left side of her neck; then to the right side; then to the right ear and to the left; then to the front of the neck; then down to her upper chest, to the left breast, to the left arm. She begins with the upper left arm, the brachium, its front; then she moves to the forearm, making her way to the wrist. She moves back up the arm from wrist to forearm to brachium to left breast to armpit, lathering the arm's underside. Having completed the soaping of the left side, Jeanne transfers the mitt from right hand to left. As her now mitted left hand is closest to her right wrist, she begins there, lathering the front side of her wrist, forearm, and brachium. Then she repeats the actions, but on the arm's underside, moving from wrist to forearm to brachium to right breast to armpit. She soaps her belly and the underside of her breasts, then her upper back. Jeanne transfers the mitt again, slipping it back into her right hand. Still focused on the right side, she lathers up her right thigh, her sex, her right breast. More soap. The left inner thigh and shin. The left outer thigh and calf. The left foot. The right foot. The genitals, one more time. Jeanne rinses the mitt thoroughly. Her cupped, mitted hand collects water and begins the rinsing process. First, the front of the neck. Then, the nape of the neck. The right ear. The left ear.

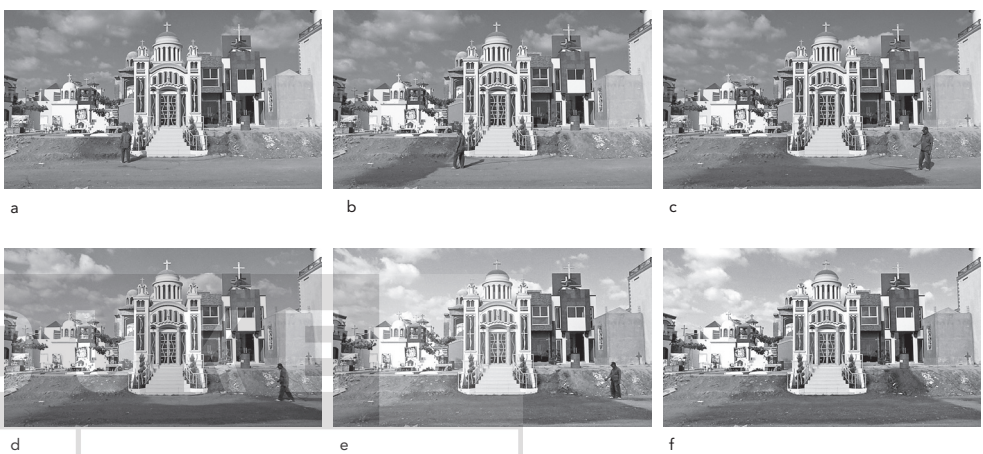


FIGS. I.5a–f Part of Jeanne Dielman's bathing ritual: turning on the water; preparing the mitt; soaping the nape of the neck; soaping the right ear; soaping the left ear; soaping the throat. Frame enlargements, *Jeanne Dielman, 23 Quai du Commerce, 1080 Bruxelles* (Chantal Akerman, France/Belgium, 1975). Each frame enlargement is intended to represent one step in the process. The grid should be read from left to right, row by row (as one reads text in English). The grid approximates the chronological unfolding of this subset of the process.

The left arm. She brings her left shoulder close to the running faucet. The left breast. The belly. She switches the mitt to the left hand. She moves her right shoulder in close to the running water, rinsing her entire arm. She takes her hand out of the mitt, grasping it with her right hand. Then the lower back. The right leg. The left leg. The feet. The genitals. Finally finished, she rinses the mitt, wrings it out, and sets it on the side of the tub.

EL VELADOR (NATALIA ALMADA, MEXICO, 2011)

The observational documentary *El Velador*, by the Mexican filmmaker and MacArthur Fellow Natalia Almada, is a "necropolitan" symphony film about five days in the life of a night watchman who guards the busy Jardin de Humaya cemetery in Culiacán, Sinaloa. The cemetery is favored by drug lords, who have built ornate mausoleums for themselves—mausoleums that, from a distance, make the cemetery look almost like a Moorish city on the sea. The final sequence of the film lasts five minutes and has become iconic.[11] It is one extreme long shot with a baroque mausoleum in the center of the frame. The shot depicts Martin, the night watchman, watering a dusty patch of road in front of the mausoleum (figures I.6a–f). The area he waters is a perfect square. With his fingers evenly distributing the flow of water from



a b c d e f

FIGS. I.6a–f Watering the ground in the shape of a square. Frame enlargements, *El Velador* (Natalia Almada, Mexico, 2011). Each frame enlargement is intended to represent one step in the process. The grid should be read from left to right, row by row (as one reads text in English). Although the grid approximates the chronological unfolding of the process from the first image on the top left to the last image on the bottom right, this series of six images is not a complete visualization of the process as it is represented in the film; some steps are missing in this representation here.

the hose, he uses the water to outline the leftmost edge of the square, about five feet from where the mausoleum ends, and perpendicular to its stairs. Taking few steps, Martin aims the water at each spot long enough to darken the ground to the same hue before turning to the next patch. Once the leftmost column of ground is darkened, Martin waters two thinner columns before turning to outline the perimeter of the square that is parallel to the stairs of the mausoleum. He approaches this side of the square in much the same way he approached the left edge: he produces a thick row, perhaps four feet wide, of darkened ground. Now he shifts the hose's positioning, and, standing outside the intended square, he turns his attention to outlining the rightmost edge of the square, which extends about five feet beyond the mausoleum's rightmost edge. Before arriving at the slight incline on which the mausoleum's stairs rest, Martin (back inside the square) turns his hose on the still dry center of the square. All that is left now is the spotlight of dry ground where Martin is standing and the incline to the right of the mausoleum. Stepping outside the square again, Martin darkens the spotlight and then tackles the incline. The water edges up the incline, row after thin row, until the perfectly symmetrical mausoleum of arches, columns, turrets, and dome appears to rest perfectly—symmetrically—on a square, dark brown carpet of dampened dirt. His work done, Martin exits frame right.

Marks of the Genre

In spite of their differences, these six sequences clearly have much in common. The most important commonality is formal: all of the sequences are structured by a distinctive representational syntax that allows them to display the successive steps or phases of a process. In addition to this, and flowing from it, the sequences tend to produce a surprising degree of absorption in the spectator, as critics have often remarked. Furthermore, they all depict labor, capaciously understood, and they do so in such a way as to evoke something of the sensuous encounter of the human body, instruments, and materials. Finally, the sequences provide—or convey the impression of having provided—knowledge about the world.

These common characteristics should not be taken as hard-and-fast criteria of the process genre. Nor does this inventory pretend to be an exhaustive list of notable features. Throughout this study, I employ a scalar model in my treatment of the process genre, allowing that representations of a process can be more or less processual.[12] I marshal a variety of examples—

some more and some less paradigmatic, and some that put pressure on the category itself.

PROCESSUAL REPRESENTATION

The definitive feature of the process genre is processual representation, in which the important steps in a process are shown in chronological order. Processual representation renders pro-filmic processes visible *as* processes. There are two aspects to processual representation: process and its representation.

A process, to put it crudely, is a continuous series of steps or actions that have a particular result and contain a definite order of steps. The exemplary sequences described earlier depict processes. Each involves making or altering something: making biscuits or ice windows; altering jewels or wallets (changing their location); altering the human body (changing it from dirty to clean); altering the dusty ground (changing it from dry to wet). Whereas some of the films, such as *Peek Frean*, present a single process (preparing biscuits for distribution), others, such as *Nanook of the North* and *Jeanne Dielman*, feature a series of discrete, unrelated processes (walrus hunting and igloo making in *Nanook* and cooking and bathing in *Jeanne*). Others still, including *Rififi*, *Pickpocket*, and *El Velador*, contain relatively few processes and a lot of screen time not devoted to processes. Even so, process—whether in terms of actual screen time or symbolically—is at the thematic center of all of these films.

But the sequences are processual in their form as well as in their content. They represent acts of making and altering *as* processes—that is, the steps that make up the process have been presented chronologically, and the process has a visibly identifiable beginning, middle, and end point. Thus, processual representation is a *formal achievement*. Not just any representation of process is a processual representation. In fact, most representations of processes are not processual: they convey (or often allude to) *what* is done, not *how* it is done. Imagine that one has been tasked with representing toothbrushing on film. Toothbrushing is a process: it unfolds in time; it has a beginning, a middle, and a moment when it is completed. But there are different ways to represent it. I could show a five-second shot of a child unscrewing the cap on a tube of toothpaste and, in the next three-second shot, show her leaving the bathroom. This would be a representation of a process but not a processual representation of toothbrushing. While the imagined scene suggests that the child brushed her teeth,

it gives no sense of toothbrushing as being composed of a series of steps with a beginning, middle, and end—it gives no sense of *how* to brush one's teeth.

So, *only* processes can be represented processually and *not all* representations of processes are processual. But it is also the case that *not all* processes are well suited to processual representation. Processual representation is especially appropriate for the treatment of certain subject matter, such as craft fabrication, and incompatible with other subject matter, such as art making. This owes to the difference in the social significance of craft as opposed to art; in craft, the how-to, protocol nature of skill is in play, while in art, singularity is paramount.

Processual representation often resembles a how-to.[13] Conversely, the standard form of the how-to—whether it is a recipe or a diagram illustrating how to activate the flotation device of a crashing airplane—is processual; it has a beginning and an end and a series of successive, linearly ordered actions in between. While not every processual representation is intended as a how-to, and while not many processual representations actually function as *effective* guides to action, one can often recognize processual representation by its prescriptive valence. If you search for the window installation sequence of *Nanook* on YouTube, you will find it under the title "How to build an igloo in the Arctic." Here, notably, a descriptive sequence (i.e., one that presents a singular event that took place in the past), in effect, doubles as a general and prescriptive one (i.e., one that could be repeated in the future). So what makes a how-to a how-to? What gives processual representation its prescriptive valence?

The Formal Conventions of Processual Representation

One might think that in order to make a process visible as a process, the process must be shown in its full duration. After all, is it not the case that every process is made up of an infinite number of subordinate processes? And is not each subordinate process made up of an infinite number of subordinate steps, each of which is infinitely divisible? Who is to say which steps are most important? Indeed, because a process is a series of steps that leads to a result, any process potentially involves an infinite number of steps. The infinitude of steps in a process follows from the infinitude of time: the steps in a process are infinitely divisible because time is infinitely divisible. As a consequence, it could seem that the long take is a privileged formal resource of the process genre. Indeed, most of my example

sequences do not make use of cuts as a means of temporal ellipses. Rather, they emphasize the duration of, for example, bathing or watering the dusty ground in the shape of a square. But from the earlier examples we can also appreciate that a representation can be processual, whether the process is presented in a long take or in short shots that condense the real-time process. For whereas *Nanook of the North*, *Jeanne Dielman*, and *El Velador* opt for long takes, presenting almost all of the actions in real time, *Rififi's* shots are relatively short, functioning mostly as what Ivone Margulies has called a "synecdochal tag"—where a part of the action stands in for the whole action.[14]

Making a process visible as a process requires curation. Representational decisions are made with a view to making a pro-filmic process *look* like a process on film. These decisions follow from the character of the process represented and from the medium of the representation; different kinds of processes (e.g., pickpocketing, bathing, house building) invite different formal strategies for achieving the relevant effect, and different media (e.g., film, photography, the written word) have available different toolkits of formal techniques. The selected formal strategies often reflect consideration of the temporal, spatial, and performative character of the pro-filmic process being represented.

In the medium of film, the most important resources for the representation of pro-filmic processes are *editing and fast motion* for long processes, and *slow motion and animation* for short processes. To shape the spatial representation of a pro-filmic process, *framing*—in particular, shot scale, camera angle and height, as well as point of view—becomes especially relevant. The selection and direction of the *performances* and operations of (social) actors and of machines, respectively, are also sites for curation. Let us consider these in turn.

Editing and Fast Motion: Long Processes. If it were true that processual representation is degraded when editing is used to elide time, then the fullest expression of the process genre would be the standard craft demonstration such as the one described by Washburne, in which the spectator observes a process live, from beginning to end, in real time. After all, even "filming in real time" is not free of temporal ellipses because of the apparatus's inability to reproduce the infinitude of time that belongs to the experience of lived time. The camera apparatus can give us sixteen or twenty-four or thirty or forty-eight, and so on, actions per second, but it can give us no more actions than the highest frame rate in existence.

Film is a privileged medium for processual representation not merely because of its durational character, but also because—unlike other durational forms (e.g., craft demonstrations)—it can easily elide time. With editing and fast motion, film can present long processes (such as the multihour safe-breaking episode in *Rififi*) that would not be easily presentable in the form of a live demonstration.[15] Think of television cooking shows, which often employ processual representation. Elliptical editing is a way to elide the dead time of tasks such as slow-cooking pulled pork or marinating tandoori chicken or finely chopping two cups of cilantro. The use of ellipsis in processual representation points to something important about the *representation* of process: not every step, not every action, is equally important from the point of view of representation, though it may be of utmost importance from the point of view of the process's result. There are steps, *and then there are steps*. Marinating chicken in yogurt for several hours is a crucial step in the process of making tandoori chicken. And that marination is itself a process whose end result is a thoroughly seasoned, tenderized chicken. But representing the stages in the process of a twenty-four-hour marination (from slightly marinated to thoroughly marinated) is not required and thus easily omitted from representation. Only select moments need to be shown.

In my written descriptions (which are themselves processual representations) of the processes depicted in the exemplary sequences described earlier, I enumerated a series of completed actions usually connected to an action verb. Step 1: Nanook "*cuts* a square block of ice from the ground." Step 2: he "*carries* it back to his newly constructed dwelling." Step 3: he "*sets* the ice block on the igloo." Step 4: "with his long-bladed knife, [he] *traces* the outline of the ice block on the igloo's roof." Such an enumeration of steps reflects my judgment about which are the consequential actions. In this case, the process is the installation of a window. I do not describe each footstep Nanook takes as his left leg follows his right on the way back to the igloo from the white expanse, nor do I mention the positions that Nanook's arm passes through as he raises it to trace the outline of the ice window. However, I could have omitted step 2 or step 3 from my description of *Nanook*, as those steps might seem less consequential than step 1. Every *representation* of process—whether discursive or image-based—has been "curated," and often the curation has involved editing.

Slow Motion and Animation: Short Processes. One might think that there are processes that are too short in duration for processual representation.

But in theory, even a very short pro-filmic process could be represented processually through the use of slow motion or by animating hand-drawn renderings of the steps in the process. The limit case for photographically capturing processes might be a process that, in duration, is equal to or shorter than the fraction of a second that may be recorded by the fastest camera in existence. Such a process could generate only a single frame, which would represent some fraction of a second. A single frame is basically a still photograph, and a still photograph (of a single action) cannot be a processual representation, for processual representation requires at least an approximation of duration. Without duration, there is no sense of a beginning, middle, and end. So Lewis Hine's photographic work portraits may be representations of labor—snapshots of a labor process—but they are not processual representations, because each image represents a single instance and gives no sense of duration. However, the intaglio engravings of commodity production in Diderot's *Encyclopédie*, despite their two-dimensionality, give the impression of a process that unfolds in time by including, in each single image, multiple figures at work, the clear separation between work stations (marking distinct steps in the process), the use of numbering, and a circular arrangement to suggest a process that unfolds in time with a definite beginning, middle, and end (figure I.7).[16]

In practice, because of standard projection speeds (twenty-four frames per second [fps] and up), a process of one second—say, a slow-moving human's single step—would, if it were projected at the same rate as its capture, be difficult to *apprehend* as a process on film because it goes by too quickly. But with the help of slow-motion effects, even such a short process could conceivably be elongated and thus apprehended as a process.

Consider the example of chronophotography in which a horse's gallop or a soldier's step or a single rowing cycle is a process decomposed into twelve or more sequentially ordered component parts and thus rendered visible to the beholder as a process with a definite beginning, middle, and end (figure I.8).[17] The resource at issue in this example is not slow motion, as chronophotography has used other techniques—that is, the placement of images on a page—to render processes visible as processes.[18]

Framing. To render a process visible as a process, shots must be framed in such a way that the viewer can assess the progress of the unfolding action. Depending on what the activity is, this may call for a medium shot, as in *Nanook*. If we had been given a close-up of Nanook's face or of his hands or an extreme long shot, we would not have been able to see the effect of his

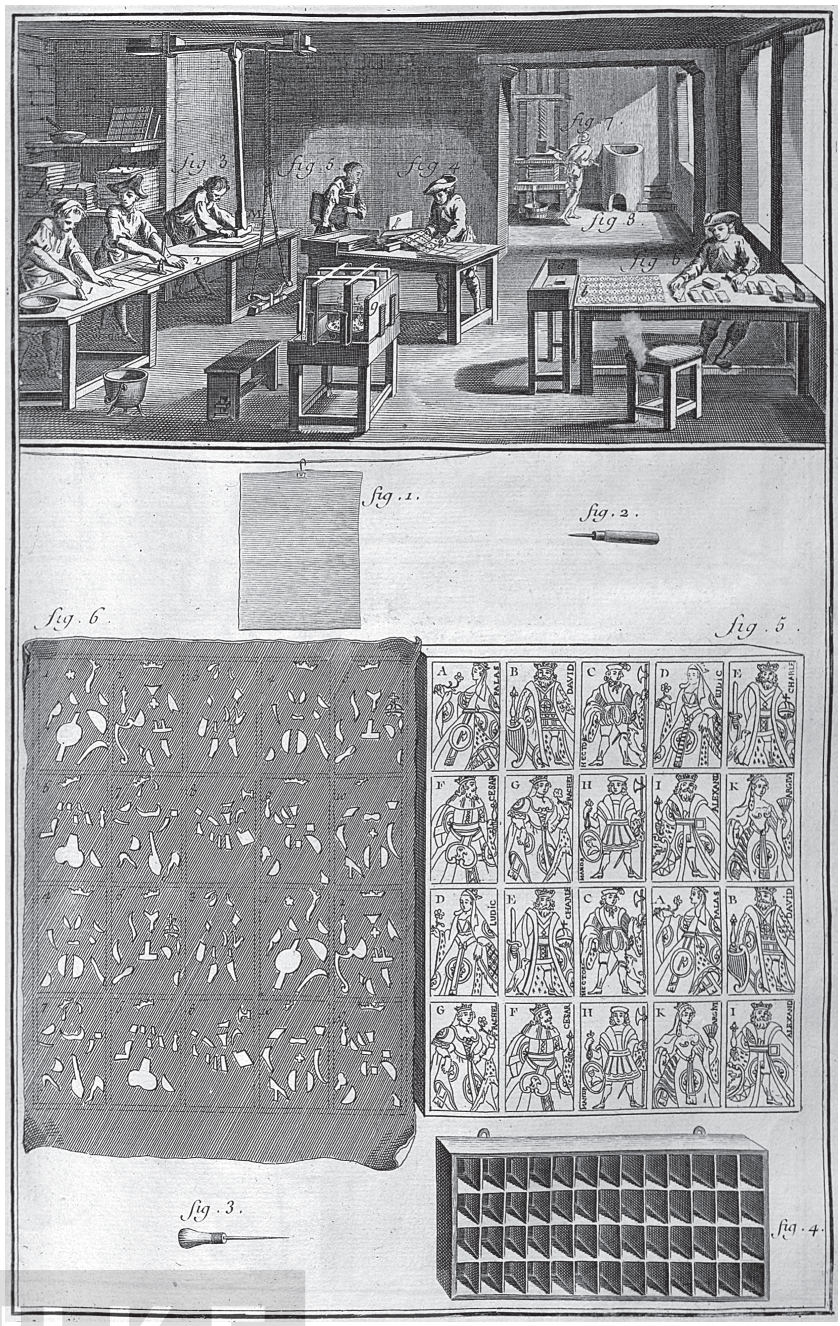


FIG. I.7 Cartier (card maker), *Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers*, vol. 2 (plates) (Paris, 1763). Courtesy of the ARTFL Encyclopédie Project, the University of Chicago.

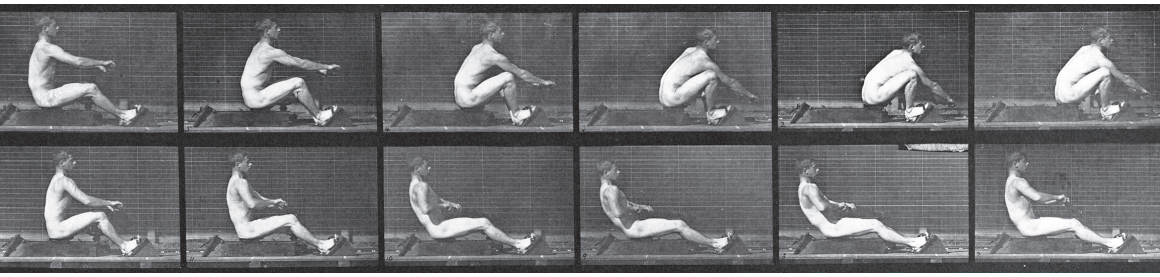


FIG. 1.8 One rowing cycle. From Eadweard Muybridge, *Animal Locomotion: An Electro-Photographic Investigation of Consecutive Phases of Animal Movements, 1872–1885* (Philadelphia: University of Pennsylvania, 1887), plate 328.

activity on the ice window. In the case of *El Velador*, an extreme long shot is necessary for the viewer to see the night watchman watering the ground in the shape of a square. If his activity had been given to us in a medium shot, we would not have been able to tell what he was doing. The decision about shot scale is governed by the imperative to make the action visible as a process.

The same imperative governs decisions about camera angles, camera height, and point of view. Point of view is particularly interesting. While the processual representation need not take the precise point of view of the acting agent (e.g., *El Velador* does not), the representation cannot be from the perspective of the material being acted on. This is so because there is no way to assess the progress of the action unless one has the object of action in view. The point of view must be a point of view *on,* not the point of view *of*, that which is having something done to it (i.e., that which is being worked on).

To see why, we might consider the case of many intentional Autonomous Sensory Meridian Response (ASMR) videos. Autonomous Sensory Meridian Response is a recently identified sensory phenomenon associated with the physical sensation of tingling, particularly in the head and spine, that produces an associated feeling of relaxation and well-being.[19] The sensation is often experienced in response to audiovisual "triggers"; as a result, there are now several online communities devoted to sharing triggering videos, many of which have been produced for this very purpose. While several ASMR videos employ processual representation, the most paradigmatic do not; instead, they emphasize sound, in particular the whispering of a figure who appears on camera narrating and miming a sequence of quotidian actions (i.e., a process). I have in mind three example videos—of someone giving a haircut, of someone dressing another person's upper-body wound, and of someone applying makeup to someone

else.[20] In the videos, the image focuses on the face of the agent, while the sound amplifies the agent's manipulation of the tools and materials of the relevant trade. Although these pro-filmic actions are processes with identifiable beginnings, middles, and ends, in the ASMR renditions they are filmed from the perspective of the patient, not the agent; the image track tries to mimic the perceptual subjectivity of the figure *receiving* attention rather than the one doing the attending. The effect is that the processual character of the process is mysterious and largely unintelligible. Because the spectator has visual access not to the actions and their immediate effects but, rather, to the face of the agent at work, there is no way to assess progress visually from one step in the process to the next. Only the voice-over narration that accompanies the videos, narrating what is being done, provides any sense of a sequence with a beginning, middle, and end; it is much like a discursive recipe read aloud. But even this vaguely processual narration is of secondary significance as the words are mere vehicles for formal sound qualities such as the timbre and breathiness of the whisper and the clinking, clanking, and crinkling of instruments and matter.[21]

Performance. The curation of processual representation can also involve the performance of actors, social actors, and machines. In processual representation, the performance of people and machines is often presented as fluid and skilled; it rarely includes detours, diversions, or mistakes. Notice that in the long-take example sequences I begin with, the processes of window installation, pickpocketing, bathing, and watering the dusty ground in the shape of a square have been rendered continuously, without digressions or interruptions. The night watchman of *El Velador* does not pause midway through the watering process to get a cup of coffee; Jeanne Dielman does not step out of the bath mid-soaping to retrieve another bar of soap; Nanook does not go in search of his long-bladed knife before making the opening for the window in the igloo. Nor do the sequences include moments of equivocation or experimentation as the character decides which way to proceed or, having decided on a course of action, switches gears or tries to learn on the spot how to, for example, cut through ice. The eschewal of interruptions, digressions, or experimentation in the performances of actors and social actors alike is a feature of processual representation. The strategies for avoiding such detours vary, ranging from doing multiple takes (to get a smooth one) to deliberately selecting skilled social actors or rigorously training actors, as was the case with Delphine

Seyrig in the production of *Jeanne Dielman* and with Bresson's automatism method for directing actors.[22]

The inclusion of interruptions, digressions, or experimentations is as anathema to the process genre as it would be anathema to a recipe or to a how-to manual.[23] How-tos are necessarily repeatable protocols; they are the result of experience and tradition, sedimented knowledge, best practices—skill. Although film, by its nature, records the singular instance, processual representation displays its generic, universal aspirations by eschewing interruptions and digressions. Moreover, these interruptions and digressions (when they are present) arrest the absorption of processual representation.

Modern Times (Charlie Chaplin, United States, 1936) presents an instructive counterpoint to processual representation as it elevates the disruption of the industrial production process in the film's opening sequence to a formal conceit. The beginning of the film thus functions to halt a certain kind of absorption and to particularize and individualize the industrial worker that the film analogizes to sheep in one of its opening shots. A few minutes into *Modern Times*, Chaplin is working on a conveyer-belt assembly line tightening bolts with two wrenches. Suddenly he has an itch and scratches his armpit. This interrupts his work; he falls behind. Trying to catch up, he knocks into the worker next to him on the assembly line. This attracts the attention of the shop foreman, who berates him. Chaplin defends himself; he tries to explain what happened, gesturing with his arms. He falls behind again but manages to catch up by temporarily speeding up his own gestures. Then a fly starts buzzing in his face. He tries to swat it away with his wrench-wielding hands. Now he has fallen behind again, but this time he quickly recovers. The foreman comes over and whacks the fly on Chaplin's face, which sends Chaplin reeling, but he manages to resume his work. Then one of his wrenches gets caught on the metal plate whizzing by; in his attempt to release it, he knocks into his neighbor, who in turn knocks into *his* neighbor. Both respond angrily. The conveyer belt must be momentarily halted as the foreman intervenes. Later in the film, a similar conceit is used in the feeding machine segment in which an engineer is demonstrating a Rube Goldbergian invention designed to feed a worker lunch while he continues to work, uninterrupted, on the assembly line. The machine begins its smooth and efficient demonstration, only to spectacularly malfunction and break down, mauling Chaplin's face with a corncob and dumping soup on his chest.

Modern Times's representation of factory production is anti-processual, as the operations of workers and machines are subject to constant disruption.[24] In this case, the smooth and efficient functioning that one has come to expect in representations of factory production is thwarted by the "flawed" performance of the operator and of the feeding machine.[25]

Subject Matter for Processual Representation

So far we have seen various ways that filmmakers can use the resources of film to produce processual representations. But if processual representation is a formal achievement—a way to make a process in life look like a process in representation—some processes lend themselves more than others to this approach. The process genre favors visible movement. My exemplary sequences all represent actions involving visible physical movement, whether of the human body or of machines. It is largely because the actions are kinetic that they can be rendered sequentially on film.[26] Nonkinetic, mental processes such as adding together two plus two or remembering where I left my keys are not available for a similar kind of *photographic* deconstruction and recomposition.[27]

The centrality of movement and its subjection to a sequential structure in most of the sequences I describe demonstrate why they may be fruitfully compared with the late nineteenth-century photographic motion studies of animal and human locomotion (and of human labor) in the work of Étienne-Jules Marey, Eadweard Muybridge, and Félix-Louis Regnault. In a way analogous to Flaherty, Dassin, Bresson, Akerman, and Almada, these chronophotographers were interested in representing the successive phases of complete action and in an analysis of those actions that ordered, and then rendered, them sequentially—but also commonsensically. Marey abandoned the graphic method he had developed for analyzing processes such as the horse's gallop and the flight of birds precisely because Muybridge's photographically based example showed Marey that the visualization of movement is more convincing when the viewer can directly correlate the image with her own sense perception.[28]

Most instances of processual representation involve the representation of technique, skill, or artifact production. While it is not inconceivable that other kinds of kinetic processes, such as art-making processes or artistic performances, could be presented processually (and, indeed, such attempts exist), they strain the meaningfulness of processual representation and

thus highlight processual representation's special relation to subject matter that is general, repeatable, functional, and instrumental.

Part of the power of much processual representation comes from its double register as both a representation of a particular, specific instance of process (e.g., *this* bath, *this* burglary) and as a representation of a general kind of action (e.g., bathing, burgling). This double register is manifested in the way that Washburne seamlessly moves from a particular pot made by the German potter working—in a definite way, at a definite historical moment—right in front of her eyes at Hull House to her flowerpots at home via an association with the generic category: flowerpot. "My flowerpots," she writes, "made by such as he, gain a new significance. . . . The rough, red surface of them is written all over with the records of human patience, human cooperation with nature, human hopes and fears."[29]

While a processual representation of an instance of studio art making or an artistic performance could provide an after-the-fact description of an event that occurred in a definite way and in a definite historical moment, such a processual representation would likely not be simultaneously apprehended prescriptively, as a how-to. Each subject matter presents its distinct challenges for meaningful processual representation.

There are examples of processual representations of studio art making. In *The Mystery of Picasso* (Henri-Georges Clouzot, France, 1956) one can see Picasso's hand—in real time—producing several drawings and paintings. In the long sequences of Jacques Rivette's *La Belle Noiseuse* (France and Switzerland, 1991), the hands of an actual painter, Bernard Dufour—rather than of the actor playing the painter character—are filmed at work on a figurative drawing.

These are indeed processual representations, but they are quite unlike the more than four hundred episodes of *The Joy of Painting*, in which Bob Ross guides viewers through a series of techniques to create representational scenes (of recognizable woods, trees, bodies of water, mountains, sunsets, mist, fire, and so on.). For example, in the first episode of the first season, titled "A Walk in the Woods," Ross demonstrates how to make "cuts" through the layers of paint with a knife to produce the impression of sticks lying on the ground, which in turn helps to "create the illusion of distance in a painting," he explains. *The Mystery of Picasso*, by contrast, is not teaching techniques; it is not a how-to.

As a thought experiment, I can imagine renaming *The Mystery of Picasso* "How to Paint like Picasso," for in some literal sense one could copy Picasso's motions, his lines, his figures to produce replicas—just as one might

do watching a *Joy of Painting* episode. Yet the Picasso film renamed would be a wry misdirection, since it is intuitively clear that to paint like Picasso is a matter of something else entirely—not technical procedures, not the mimicry of his lines and figures, but something rather more unrepresentable. In *The Mystery of Picasso*, the processual representation quite misses its mark, because the *kind* of process represented is an artistic one and, although it may be conceivably repeated, the repetition would be meaningless from the perspective of art production. The processual representation of Picasso at work might be interesting for Picasso studies, but not for understanding something consequential about how to make *art*. Perhaps this merely confirms the common sense captured in the title of James Elkins's book *Why You Can't Teach Art* (2001).[30]

In the case of artistic performance, the difficulty is different. Consider the difference between trying to represent how to do a fouetté pirouette processually and trying to represent Alvin Ailey's *Revelations* processually. What would a processual representation of a fouetté look like? It could be rendered in the form of pictorial instructions: one could show a few different positions of the leg as it makes its way to a passé position and then show the body in different phases of the pirouette, leaving out innumerable intermediate positions. But a demonstration of a fouetté (which would show the pirouette in its entirety, leaving out nothing)—like the craft demonstration that Washburne describes—might also constitute a processual representation. While the first approach to the representation of a fouetté would be easily recognized as a how-to, the second approach leaches into a solely descriptive representation and thus exerts a certain pressure on the notion of processual representation. But still, the nature of the fouetté as a semantic unit in much dance choreography lends to it the kind of futurity characteristic of processual representation. Like the pot in Washburne's account, even a real-time demonstration of the fouetté must evoke its generic, useful, repeatable character.

The case of a processual representation of Ailey's *Revelations* is categorically distinct.[31] *Revelations* is above all choreography; as it happens, it is choreography that is performed by the Alvin Ailey dance company every season. In some sense, choreography is like a recipe, and some have attempted to use one dance notation or another to document dances for future performance. Conceivably, *Revelations* could be represented processually using dance notation, diagrams, and so on. Still, a cinematographic recording of a performance of *Revelations* in its entirety would be the most natural form of a processual representation. But notice: such

a representation could not contain any ellipses. Ailey's *Revelations* may have a beginning, middle, and an end; it may be a kind of process. But it is the kind of process in which every moment—every pirouette, every dégagé, every tendu—counts. The "result" of *Revelations is* the set of all its moments. (One could not understand how to perform *Revelations* if large portions of the piece were elided.) Such a representation, of the piece in its entirety, would amount to a filmed demonstration. But unlike with the filmed demonstration of a fouetté, a filmed "demonstration" of *Revelations* would look like a representation of an artistic performance—its prescriptive, how-to valance would be effaced. While perhaps technically a processual representation, its how-to character would be overwhelmed by the differential significance of a filmed performance. The fouetté was a recognizable semantic unit of dance, but a performance of *Revelations* is an artistic representation that mobilizes a distinct set of criteria for judgment. One judges art differently from a how-to. No matter the beauty, the grace, the extension of the demonstrator of a fouetté, if the demonstration is too quick or captured from an adverse angle and difficult to see, the processual representation would be a poor one. The point that I wish to emphasize is that one usually recognizes processual representation from the *kind of knowledge* it pretends to provide and from *the way* it absorbs the viewer. Certain subject matter can get in the way of this recognition and is therefore ill suited for a processual treatment.

ABSORPTION

The exemplary sequences described earlier are among the most widely praised and best loved in the history of global cinema. We have seen that they have a lot in common: they present processes of human form-giving activity in the style of a filmic how-to manual. But this is probably not what we remember about these sequences. What we remember is how they made us feel—absorbed, mesmerized, hypnotized, transfixed, fascinated. And we remember this because it somehow caught us off guard. Who would think of ice-window installation as high drama, replete with suspense and surprise? Who could imagine that thirty-three wordless minutes devoted to breaking into a safe could be so enthralling?

Critics testify to this effect. Of that *Rififi* sequence, Jamie Hook writes that it is "tingling, ecstatic," and Pauline Kael writes that it is "engrossing" and "absorbing."[32] "Hallucinatory," appealing to "our pure attentiveness," says the French theater scholar Jacques Guicharnaud.[33] Accounting for his

own response to the igloo window sequence in *Nanook*, the ethnographic filmmaker and scholar David MacDougall writes:

> Flaherty uses a technique of arousing curiosity and then satisfying it. . . . The technique might be thought to *distance* us from Nanook's world, since Nanook is manifestly always one jump ahead of us in understanding, but the effect is *curiously the opposite*. As the ice window slides into position, we have a moment of elation at this ingenuity, as though we had thought of it ourselves. We find ourselves placed within the communal resonance of a small but satisfying achievement as though we were present at the event, much as we might join in the satisfaction of changing a tire while actually doing no more than hold[ing] the tools.[34]

Nanook, *Pickpocket*, *Rififi*, *Jeanne Dielman*, and *El Velador* all depict handwork. Yet even when machines are doing the work, observers have been known to take great pleasure in witnessing it. In an 1894 interview with *McClure's Magazine*, Jules Verne reveals one of the abiding fascinations of his childhood:

> No, I cannot say that I was particularly taken with science. . . . But while I was quite a lad I used to adore watching machines at work. My father had a country-house at Chantenay, at the mouth of the Loire, and near there is the government machine factory of Indret. I never went to Chantenay without entering the factory, and standing for hours together watching the machines at work. This taste has remained with me all my life, and to-day I have still as much pleasure in watching a steam-engine or a fine locomotive at work as I have in contemplating a picture by Raphael or Correggio.[35]

A parenting guidebook published in 1954 with practical suggestions for children's activities recommends "watching machines and gadgets in action," noting, "The operations of machines and mechanical gadgets of all sorts fascinate youngsters. Some exert an almost hypnotic appeal. All bear investigation."[36] The philosopher of the history of technology Otto Mayr introduces his 1976 volume on philosophers and machines by highlighting the "intellectual, almost spiritual appeal of machinery." He continues, "Construction, operating, even watching machines provides satisfactions and delights that can be intense enough to become ends in themselves. Such delights are purely aesthetic. . . . It should be recognized . . . that the fascination and delights of machinery are a historical force, insufficiently appreciated perhaps because of a cultural bias, but nevertheless real, a

force that has affected not only technology but also philosophy, science, literature, or in short, our culture at large."[37]

Contemporary commentators on the staggering popularity (billions of views, tens of millions of fans) of BuzzFeed's Tasty "hands and pans" videos on Facebook strive to articulate the precise effect of the form on adult viewers.[38] Writing for *The Cut*, Dayna Evans describes not being able to look away when she encounters them on her feed:

> Inevitably, the Zen-like state that they put me in—who doesn't like to see a task go from start to finish in under one minute—caused me to seek them out myself in times of panic or desperation. They are the basic salve to all ills. I may never make chocolate galaxy bark, but it helped me not lose my mind on Monday. In fact, I've never made *any* of the dishes on Tasty's site, and I probably never will. To me, that's not the point.[39]

While exemplars of the process genre display this quality of absorption to a greater or lesser degree, I would maintain that at the heart of the process genre—its secret—is its capacity to absorb us in the drama and magic of labor.

I use the term "absorption" as shorthand for what I take to be a common experience of immersion when one is faced with processual representation. But whether we use the term "absorption" or another proximate term, such as "immersion" or "fascination" or "enchantment," there are two points I wish to emphasize about this spectatorial effect of processual representation.

First, it is a very familiar effect that has been attributed by different authors to particular works of art, to particular media, to particular everyday experiences. For example, in her treatment of enchantment, Rita Felski conjures this aesthetic experience as it pertains to certain works across media. Her phenomenological description incorporates several of the words the commentators cited earlier have used to approximate their experience of processual representation:

> Wrapped up in the details of a novel, a film, a painting, you feel yourself enclosed in a bubble of *absorbed attention* that is utterly distinct from the hit-and-miss qualities of everyday perception. . . . Descriptions of enchantment often pinpoint an arresting of motion, a sense of being *transfixed*, *spellbound*, unable to move, even as your mind is *transported* elsewhere. Time slows to a halt: you feel yourself caught in an eternal, unchanging present. Rather than having a sense of mastery over a text, you

> are at its mercy. You are *sucked in*, *swept up*, *spirited away*, you feel yourself enfolded in a blissful embrace. You are *mesmerized*, *hypnotized*, *possessed*. You strain to reassert yourself, but finally you give in, you stop struggling, you yield without a murmur.[40]

If Felski asserts the transmedial character of this experience, Michael Fried has drawn distinctions across media. Whereas in the medium of painting Fried considers beholder absorption—that is, a "state or condition of rapt attention, of being completely occupied or engrossed"—historically contingent (i.e., the same works strike historically placed beholders as absorptive in one historical moment and as theatrical in another), he considers cinema constitutively absorptive.[41] Of course, the absorptive character of cinema is practically a cliché in popular as well as scholarly treatments of the medium's specificity. In the sphere of everyday life, John Dewey characterized "all those who are happily absorbed in their activities of mind and body," from the poet to the mechanic to the housewife tending her plants, as being involved in an aesthetic experience.[42] Meanwhile, the psychologist Mihaly Csikszentmihalyi has developed a self-help program for achieving happiness derived from his theory of "flow"—that is, "a state of optimal experience characterized by total absorption in the task at hand: a merging of action and awareness in which the individual loses track of both time and self."[43] From this abbreviated inventory it should be clear that the experience of absorption in art and in life is widespread. Moreover, watching a process or watching someone absorbed in a process and engaging in one oneself produces similar phenomenological effects on the observer and the doer. Still, what makes the absorption of processual representation a noteworthy effect rather than just par for the course?

Before addressing this question, there is a second point that bears emphasis. While absorption does not map precisely onto narrative, the two terms are closely correlated. It is not a coincidence that in "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde," Gunning uses the phrase "diegetic absorption" as a contrast to the "exhibitionist confrontation" of early cinema.[44] The association of absorption with narrative is strong enough that narrative—which is not the sole province of fiction—is often taken for granted as the catalyst for absorption in all media. For example, only after discussing the phenomenon for a few pages in *A Feeling for Books* does Janice Radway gloss the novelist Reynolds Price's notion of "narrative hypnosis" as "a phrase that underscores the deep involvement of the body in the act of reading," leaving the modifier "narrative" unremarked.[45]

Victor Nell's *Lost in a Book* makes clear that getting lost in a book is a phenomenon that belongs as much to fiction as to narrative nonfiction, as much to the final entries of Captain Scott's journals as to a "newspaper account of tankcar derailment that sends poisonous fumes creeping toward a sleeping community."[46] What unifies these instances for Nell is what he calls the "witchery of a story" or "story magic."[47]

I propose that narrative is indeed useful for thinking about absorptive spectatorial effects in the process genre. But the sort of rudimentary narrative at play—what Peter Hühn calls "process narration"[48]—is one that does not rely on human characters or psychological identification, instead using structural conceits to generate interest. The surprise, the noteworthiness, of processual representation's absorptive effects thus owes to unacknowledged assumptions about what sort of subject matter and formal treatment can produce the quality of immersion described by Felski. And so, one *New York Times* writer endeavoring to pinpoint the source of people's fascination with "hands and pans" videos quotes a Facebook commenter smitten with the Tasty producer Scott Loitsch's very popular churro ice cream bowl video (over 183 million views): "'Call me a nut, but is it wrong that I can't take my eyes off the guy's hands? I want to know what the rest of this man looks like, and if he's single.'"[49] It is a funny line and one that notes the video's effect ("I can't take my eyes off the guy's hands") while trying to attribute the effect to something intelligible and familiar (often associated with narrative), such as the fascination with an attractive actor/character ("I want to know what the rest of this man looks like") rather than to the *unexpected* fascination of faceless process. The narrative dimension of the fascination with the characterless process is what bears investigation.

LABOR AND TECHNOLOGY

My exemplary sequences are all representations of labor, which is not to say that they are representations of wage labor. *Peek Frean* represents wage labor, but *Nanook, Rififi*, *Pickpocket*, and *Jeanne Dielman* do not. While it is common to think of labor as restricted to paid work, by labor—and following from the Hegelian and Marxian tradition—I mean form-giving activities, which include paid labor as well as unremunerated labor.[50] Moreover, form-giving activities encompass work in industry, craft, and agriculture, certainly, but also hunting, gathering, foraging (e.g., picking an apple from a tree); the labor of social reproduction, including cleaning and caring; affective labor; and the labor involved in manipulating sym-

bols, as in computer programming and teaching.[51] The activities pictured in my sequences are such form-giving activities: in *Peek Frean* and *Nanook of the North* they involve fabrication (of biscuits and ice windows); in *Rififi* and *Pickpocket* they involve a kind of foraging; in *Jeanne Dielman* they involve social reproduction; in *El Velador* they involve the transformation of matter (from dry to wet).

In the process genre, whether the form-giving activity depicted is waged or unwaged, whether it is *thought of* as skilled (as in *Nanook of the North*) or unskilled (as in *Rififi*, *Peek Frean*, *Pickpocket*, *Jeanne Dielman*, and *El Velador*), all form-giving activity is *treated* as skillful. Even when the process genre is depicting not labor but merely movement, such as walking, the movement itself is treated as an exercise of skill. Even when the movement depicted is that of machines, the machines are shown to be well designed; they operate smoothly and are effective. What concept can bring together the effectiveness of skilled human labor, human movement, and machine operations?

The process genre is a genre concerned fundamentally with technique, which Marcel Mauss defined as "action which is effective and traditional," which involves an "ensemble of movements or actions," that "work together towards the achievement of a goal known to be physical or chemical or organic."[52] Under the rubric of technique, I would include the technique involved in craftsmanship (where the process employs tools as well as machines); the technique on display in the design and operation of machines (even those designed for mass production under a Taylorized organization of the labor process); and what Mauss called "techniques of the body," such as walking, running, jumping, sleeping, resting, eating, swimming, washing, rubbing. The first two of these categories—craftsmanship and the design and operation of machines—I say more about later. In the meantime, a word about "techniques of the body" is in order.

Arguing that the human body should be apprehended as "the first and most natural instrument," Mauss uses the phrase "techniques of the body" to highlight the ways in which actions as seemingly natural and primordial as walking are actually techniques—that is, a way of doing something that is learned, transmitted, and variable across time and culture rather than inherited, spontaneous, and unchanging. Providing an example, Mauss claims that he can recognize a woman who grew up in a convent by the way she walks, with her fists closed: "I can still remember my third-form teacher shouting at me: 'Idiot! Why do you walk around the whole time with your hands flapping wide open?'" "Thus," Mauss concludes, "there

exists an education in walking, too."[53] Of course, to consider walking, running, jumping, sleeping, resting, eating, swimming, washing, rubbing, etc. all as *techniques* of the body is to understand human activity on a continuum of practical cultural knowledge.

Moreover, for my interests here, on Mauss's capacious understanding, all human action, then, from the walking captured by chronophotography to the labor of pot making (observed by Washburne), falls under the heading, technique. Through its concern with technique, the process genre brings together processual representations of basic movement with complex representations of labor.

While the categories of technique and labor are not identical as we saw earlier, the paradigm examples of the process genre represent the technique involved in craftsmanship and the technique relevant to industrial mass production—both of which require labor. At the heart of the process genre, then, is the representation of labor. But processual representation brings out the *skilled* character of technical processes. It is an *aesthetic of labor*. As such, the representation of craftsmanship is a natural subject matter for the process genre. Because technique implies tradition (to the extent that techniques are transmissible, or teachable, between people and across generations) and tradition implies training, and training is an "acquisition of efficiency" in Mauss's phrase, techniques are also defined by their efficiency, their effectiveness to their practical aims. Thus, built into the idea of a technique is the idea of skill, competence, dexterity, craft, or the Latin *habilis*—namely, a way of "designating those people with a sense of the adaptation of all their well-co-ordinated movements to a goal, who are practised, who 'know what they are up to.'"[54] Such people are generally called craftsmen, and Mauss is not alone in his emphasis on the competence of the craftsman. Craftsmanship is widely thought to designate, in the words of Richard Sennett, "an enduring, basic human impulse, the desire to do a job well for its own sake."[55]

This basic understanding of craftsmanship is echoed in the critic Jacques Guicharnaud's reading of *Rififi*'s processual representation of the actual heist:

> The question "Will they be copped?" yields precedence to the other question, "How do they go about it?" "Noble"—such is the epithet that some critics have applied to the film. For, in connection with activities regarded as socially harmful and inexcusable, Jules Dassin has managed to evoke a fundamental and fundamentally moral theme, namely, the greatness,

> the dignity of man's intelligence and labor. . . . Everything that follows the burglary scene in *Rififi* (assaying the stolen jewels, selling them to the fence, stuffing the money in a suitcase) is much less exciting than the actual robbery. If there is any danger, as has been alleged, that this film may lead some youths to take up burglary, it will not be because of the profit motive. Those on whom its "evil influence" might take effect are not the slothful who dream of "making an easy buck," but the hard workers, the connoisseurs of the job well done, the perfectionists, all who have the vocation of a skilled craftsman or precision engineer.[56]

Here Guicharnaud proposes that despite first appearances, the subject matter of *Rififi*'s representation is labor—but the traditionally vaunted labor of the craftsman.

Let us consider the example of *Rififi* in more detail. What is it about its rendering of the burglary that lends it the *impression* that the thieves are skilled craftsmen? They are thieves, after all; they produce no tangible object; they actually introduce disarray into the scene. Three things stand out. First is the systematicity of the plan. But how does the spectator know that the plan is systematic? Partly because the plan unfolds with no interruptions, mishaps, false starts, or last-minute correctives. If the process were represented as inchoate or digressive or spontaneous, it would not seem like a result of experience, care, and skill—training and tradition in a certain sense. The second feature of the representation that stands out is the thieves' facility with the instruments and their dexterous employment. But, again, how? If the movements of the actors were hesitant and fumbling rather than smooth and knowing—the result of long experience—the impression of a job well done would not have been achieved. Third is the seeming absorption of the agents in their tasks. Had the thieves been represented as absentminded or haphazard, like Chaplin in *Modern Times*, rather than as concentrated on the particulars of each successive task, the effect would have been different. The point I am making is not that the pro-filmic reality is an instance of craftsmanship (maybe it is, maybe it is not), but that the representation—because of its formal elements—conveys the *impression* of craftsmanship.

If the thieves in *Rififi* can be apprehended as craftsman, surely the form givers in *Pickpocket*, *Nanook of the North*, *El Velador*, and even *Jeanne Dielman* can be also, for as in *Rififi*, they all are cast as perfectionists, "connoisseurs of the job well done." (It may seem odd to describe Dielman as a connoisseur of bathing, but if the task of bathing is to soap, scrub, and

rinse every part of the body, one could hardly conjure up a more systematic and thorough approach than hers.) But in all of these cases, the attribution of craftsmanship applies not merely because the activities appear to be skilled and the labor competent. Craftsmanship is relevant (and it comes up in various critical commentaries) because the labor process pictured is artisanal: the craftsmen are authors and masters of the entire process, from beginning to end. On display is the "personal know-how" Peter Dormer associates with craft, as opposed to the "distributed knowledge" associated with industry.[57] Moreover, perhaps the most stable and distinguishing element in the notoriously slippery and shifting concept of craft—more stable than the perfectionism of skilled work—is its "politics of work."[58] "It is not craft as 'handcraft' that defines contemporary craftsmanship," writes Dormer, "it is craft as knowledge that empowers a maker to take charge of technology."[59]

So far I have been emphasizing the association of the process genre with the representation of the technique involved in craftsmanship. This may seem counterintuitive, given that not all processual representations present artisanal production such as that depicted in several of my examples. Indeed, processual representation primarily has been associated with the depiction of industrial mass production (i.e., the assembly line fabrication of modern commodities such as cars, televisions, or textiles) and thus with industrial cinema. One might even think that the processual syntax *is* a formal syntactic correlate of Taylorist production schemes and thus that it is intrinsically tethered to the alienation of labor in industrial capitalism. While these are intelligible associations, I would maintain the inverse claim: processual representation—even when it visualizes industrial production—evinces the spirit of craftsmanship. This is precisely what has made the process genre a favored genre among corporations. Because industrial process films track the production process from beginning to end (even when the steps are presented out of order)—from raw material to finished commodity—the spectator, unlike the factory worker, occupies a position analogous to the artisan who has knowledge of every step in the production process. The spectator, like the artisan, gets what is denied the worker: a cognitive map of the process and the concomitant satisfaction of seeing it through to completion.

There is something else. Even when the processual representation of industrial processes concentrates on the operation of machines, as in the sequence from *Peek Frean*, the interest for the spectator, I would maintain, is less the repetition of a particular machinic operation (though that might

induce a pleasant stupor) than the ingenious design and effective functioning of the machine. Who, watching *Peek Frean*, is not momentarily distracted from the child laborer to marvel at the genius of the uppermost track of the conveyer belt that collects the dough remainder for reuse? Here, I suggest, is also the spirit of craftsmanship—both because a "precision engineer" (if we deploy Guicharnaud's phrase) has invented these machines and because the machines are effective, perfectionistic maybe; they do a good job, in imitation of the skilled craftsman.[60] In a striking articulation of this sentiment, Samuel Goodrich expressed his wonder in 1845 at the dexterous functioning of the cotton mill:

> The ponderous wheel that communicates life and activity to the whole establishment; the multitude of bands and cogs, which connect the machinery, story above story; the carding engines, which seem like things of life, toiling with steadfast energy; the whirring cylinders, like twirling spindles, the clanking looms—the whole spectacle seeming to present a magic scene in which wood and iron are endowed with the dexterity of the human hand—and where complicated machinery seems to be gifted with intelligence—is surely one of the marvels of the world.[61]

Rather than comparing the human being to the machine, Goodrich sees through the machine to the intelligence of the human being who labored to design it.[62]

While it is a Ruskinian commonplace to oppose the crafted to the machined, to exalt flawed human endeavor in the one and lament machinic perfection in the other, it is the craftsman (in an older tradition) that has long been identified with perfectionism and the job well done. Indeed, as Dormer has argued,

> The model of perfection that technology delivers is not set by machines but by humans. We set up machine technology to achieve more efficiently that which we can nevertheless and with great effort achieve without machine technology. The standards of "perfection" that are so often ascribed to the example of machine production were set first by human imagination and craft achievement. . . . There is a tendency . . . to see regularity, neatness and "perfection" as cold, and irregularity as "warm." But regularity is as much a human desire as irregularity and some people feel warmly emotional towards the precision of a motor vehicle, an aircraft component or a machine tool as others do towards carved stone or textured pots.[63]

The process genre in its representation of technical processes—whether craft or industrial—delivers the impression of regularity, neatness, perfection, and skill, as well as an artisanal organization of the labor process. This is the ethos of craftsmanship at whose core is the humanist and materialist insight expressed, without shame, by Roland Barthes in his discussion of the plates of Diderot's *Encyclopédie*. Referring to a plate depicting—processually—the activities undertaken in an artificial flower maker's workshop, Barthes writes, "Not only does nothing recall the flower, but even the operations which lead to it are constantly antipathetic to the idea of the flower: these are stampings, stencilings, hammer taps, punch-outs: what relation between such shows of strength and the anemone's fragile efflorescence? Precisely a human relation, the relation of the omnipotent praxis of man, which out of nothing can make everything."[64]

Of course, the aura of craftsmanship that attaches generally to processual representation has a different significance—and suggests a very different politics of work—depending on what sort of labor is being depicted. After all, representing artisanal labor as craft is one thing, but representing assembly line labor as craft-like is quite another. For the boy in *Peek Frean* whose job it was to continuously feed the conveyor belt with empty metal baking sheets, the difference is of central importance.

MATERIAL CONSCIOUSNESS

I said earlier that all the sequences I have described involve technique, whether techniques involving external instruments (as in the biscuit making and hosing sequences, where machines and tools are being used) or techniques of the body (as in the bathing sequence, where the primary instrument is the body). Technique implies not only instruments but also materials. After all, instruments work on matter. A person walks on sand, on concrete, on grass; she sits on wooden chairs, metal stools, overstuffed sofas, the tile floor. Her technique of walking or sitting is shaped by matter.

Instruments—whether the body or an external tool or machine—and material are central to the fascination of my example sequences, which, in scrutinizing technique, also reveal something about the transformative relations among force (labor), instrument, and material, as well as something about force, instrument, and material as things in themselves, each with its own distinctive properties.

The sequences, to a greater and lesser degree, impart a "material consciousness," to use Sennett's phrase—that is, they impart a palpable, syn-

esthetic sense of matter, both instruments and the material that resists their force.[65] The fascination and heightened awareness of tools and materials often depends on a gesture of defamiliarization. *Rififi* transforms an umbrella from a tool of deflection into a tool of collection; in *Pickpocket*, a man's hands become dainty, nimble, almost autonomous dancers; in *El Velador*, the hose acts as a kind of paintbrush. A similar defamiliarization is at work in relation to material: *Nanook* registers a distinctive quality of the material ice—namely, its translucence—that is surely one of its neglected use values for the Western spectator. In the *Jeanne Dielman* sequence—where the body acts as both instrument and material—the body, which is usually thought of in terms of its singularity, is suddenly apprehended for its symmetry and duality: every part on the left side has its counterpart on the right, every front face has its backside. In *El Velador*, water—both instrument and material—morphs from lifegiving substance into a means of petrifying unruly dirt.

Several of these sequences employ other formal resources besides narrative conceits in their efforts to heighten material consciousness. One resource is sound. The thirty-three-minute heist sequence in *Rififi* has no dialogue, but its use of sound is key. The soundscape is dominated by the heightened sound of the encounter of labor, instruments, and materials: the clacking of metal instruments as they are assembled; the prying apart, piece by piece, of a surprisingly thin veneer of wood floor tiles; the muted sound of a mallet buffered by a thick sock covering it as it pounds a chisel; the scratchiness of the matchbox Dassin opens to store his half-smoked cigarette. The soundscape synesthetically evokes the haptic quality of the materials: the hard coldness of metal, the graininess of wood, the woolliness of wool, the coarseness of the matchbox's striking surface. In *El Velador*, the final sequence amplifies the sound of water hitting the dirt, of the wind, and of Martin's shuffling footsteps on the dusty ground. We know that the ground is being *sprinkled* with water not so much because we see Martin's fingers redistributing the water from the hose, but because of the sound the water (seems) to make as it hits the ground and because the flat square shape could not have been achieved by a single, thick, water stream. The sound of Martin's footsteps on the ground conveys the dryness of the ground; the sound of wind suggests the dustiness of the air. This environment—marked by dry land and strong wind—makes the reason for Martin's activity almost comprehensible.

Another resource in the quest for material consciousness is duration. Without the length of Jeanne Dielman's bathing sequence we would not

have apprehended the relentless symmetry of the body. Other resources might include the use of the close-up or of light, as in the shot from *Rififi* in which almost buoyant debris catches the light cast by the hole in the floor as it floats to the ground.

But what does this material consciousness amount to? One paradoxical feature of this materialism that insists on the physical qualities of instruments and raw material (e.g., concavity, translucence, wooliness), on their presence as things in themselves, is that it deinstrumentalizes what are, at bottom, instrumental activities: bathing, burgling, pickpocketing, building. Thus, representationally, it lends (or perhaps restores) to practical activity an aesthetic dimension; art and technology reunite. Moreover, defamiliarized materials and instruments set the stage for invention and innovation. Attentiveness to the material qualities of objects makes possible learning and repurposing, which are manifestations of human intelligence and at the core of technological development.

As a consequence of the materially conscious approach that my examples take, they suggest a definite vision of skill that is ecological, on the one hand, and insider, on the other. In an ecological approach to skill, skill, according to Tim Ingold, is "a property not of the individual human body as a biophysical entity, a thing-in-itself, but of the total field of relations constituted by the presence of the organism-person, indivisibly body and mind, in a richly structured environment."[66] The anthropologist Gregory Bateson insisted in his account of a skilled woodsman felling a tree that the entire man-ax-tree system (i.e., labor, instrument, raw matter) demanded researchers' attention.[67] In my sequences, to a greater and lesser degree, the medium-specific resources of cinema (such as sound, editing, cinematography, etc.) underline, to a greater and lesser degree, an ecological approach by stressing the sensuousness of the environment.

Still, the perspective of the maker is central. The haptic character of the sequences helps to convey the importance of perception to learning a skill—even if the representations are not intended didactically; it brings watcher and doer into close proximity. Here haptic visuality—the mode of reception in which one perceives the figure with detailed textural intricacy—and kinesthetic empathy or sensorimotor identification come together.[68] Learning a skill, it has been argued, is not a matter of mere observation and mechanical imitation. Scholars of education in skill have pointed out that "through repeated practical trials, and guided by his observations, [the novice] gradually gets the 'feel' of things for himself—that is, he learns to fine-tune his own movement so as to achieve the rhythmic

fluency of the accomplished practitioner."[69] In the same way that cinema is not literally haptic, watching even a particularly haptic rendering of skilled bodies in motion is no substitute for experience and no shortcut to embodied knowledge. Still, some images are more haptic than others, and some renderings of skilled human action provide more information than others. The sequences I have discussed do not merely recapitulate a set of steps in a how-to process. Through their heightened, medium-specific attentiveness to the material dimensions of instruments and other matter, they in effect evoke the proprioception of a practitioner in action and thus invite the spectator's kinesthetic identification with the active practitioner.[70] The material consciousness of these sequences makes of them robust, sensuous how-tos—not merely cool, detached instruction manuals.

KNOWLEDGE

Although none of my example sequences were intentionally produced to be instructional, aiming to guide the action of others, commenters have often discussed them in such terms. Pauline Kael describes *Rififi* this way: "A quartet of thieves breaks into a jewelry store, and for a tense half-hour we watch as they work, silently. It is like a highly skilled documentary on how to disconnect a burglar alarm and open a safe."[71] Jacques Guicharnaud went even further in the describing the film: "What a marvelous object lesson it is, comparable to the shorts, dealing with locksmith's work or ceramics, that are used in schools, what an intensely practical demonstration! Movements of an hallucinatory objectivity make plain and 'explain' to us the art of piercing a ceiling, of putting a burglar alarm out of commission, of forcing a safe, with the admirable utensils of the burglar's trade."[72] It was rumored that *Rififi* was censored by the Paris police because they feared it would be used as a practical guide to burglary.[73] Roger Ebert describes a sequence from *Pickpocket* by writing: "Consider a sequence in which a gang of pickpockets, including Michel, works on a crowded train. The camera uses close-ups of hands, wallets, pockets and faces in a perfectly timed ballet of images that explain, like a documentary, how pickpockets work. How one distracts, the second takes the wallet and quickly passes it to the third, who moves away."[74] There is something hyperbolic in these commentators' assimilation of processual representation to practical, imitable instructions. Indeed, I take this hyperbole to be a shorthand way to indicate the rigorousness of the form of processual syntax rather

than an indication of the real-world applicability of these representations of practical activities.

The commonsense identification of the process genre with the how-to, with the instructional, with the educational film—in other words, with narrowly didactic ends—indicates the genre's close relation to knowledge. We might say that this is a genre trading on the pleasures of knowing. But, the epistephilia in question here is more expansive than the mere desire to *know how* to do something that is implied by a narrow conception of the how-to.[75] And this is why processual representations—across media—often are not intended and do not function as guides to action.

Diderot's *Encyclopédie* presents a striking example of this, for it was not bound to any narrowly didactic or pedagogical functions.[76] Unlike other technical literature of the period, the *Encyclopédie* was not intended for the craftspeople it depicts, for would-be apprentice artisans, for intermediaries distributing commodities on the market, or for the average man on the street. It was designed for a literate cultural elite.[77] The historian William Reddy contrasted Diderot's *Encyclopédie* with the well-used 1723 *Dictionnaire universel du commerce*, describing the former as a "luxurious coffee-table" book.[78] Indeed, the plates of the *Encyclopédie* offer a range of pleasures—aesthetic, to be sure, but epistemological, as well. The *Encyclopédie*, Barthes writes (and surely the insight applies to its readership, as well), was "fascinated, at reason's instance, by the wrong side of things," by the desire to "get *behind* nature"[79]—to cross-section it, to amputate it, to turn it inside out, to know it.

The *Encyclopédie*'s most potent method for "knowing nature" was processual syntax. What Barthes, in his essay, terms the "genetic" type of illustration depicts—within a single frame and often in a cutaway view that pulls back the outer layer of the workshop—a series of sequential steps, appropriately numbered, that, undertaken in order, follow the trajectory of the object from raw material to finished product (see figure I.7).[80] This paradoxical "trajectory of substance," which could yield a "delicate flowered carpet" from "an enormous mass of wood and cordage" is "nothing," Barthes writes, "but the progress of reason."[81] The "progress of reason" is evident in the genetic type of illustration, surely, but it is also evident in the bifurcated plates that present, in the top portion, either a tableau vivant—usually a long view, depicting people and instruments in a naturalistic context—or a genetic view like the one in the top portion of figure I.7; in the bottom portion they present an "anthological" illustration that depicts—in close-up and with striking detail—the relevant instrument(s)

or machine(s) or material(s) usually against a blank backdrop, isolated from any context (see figure I.7):

> The image is a kind of rational synopsis: it illustrates not only the object or its trajectory but also the very mind which conceives it; this double movement corresponds to a double reading: if you read the plate from bottom to top, you obtain in a sense an experiential reading, you relive the object's epic trajectory, its flowering in the complex world of consumers; you proceed from Nature to sociality; but if you read the image from top to bottom, starting from the vignette, it is the progress of the analytic mind that you are reproducing; the world gives you the usual, the evident (the scene); with the Encyclopedist, you descend gradually to causes, to substances, to primary elements, you proceed from the experiential to the causal, you intellectualize the object.[82]

The interesting point here is not merely the Aristotelian one that posits, "All men by nature desire to know." It is that a processual syntax—whether image-based or discursive—affords peculiar epistemological insights.

Processual representation might be thought of as the representational form of what Pamela Smith, writing on sixteenth-century natural philosophers such as Paracelsus, has termed "artisanal epistemology." Artisanal epistemology refers to the species of knowledge possessed by the artisan that is not reducible to the practical knowledge of how to do or make something.[83] For Paracelsus and others, this species of knowledge challenged the stark divide that existed, into the seventeenth century, between theory and practice, for it, too, claimed a wholly philosophical knowledge of nature, but one gleaned from experience rather than from contemplation, from the artisan's intimate bodily work with living nature. In artisanal epistemology, sense perception (especially observation) and imitation (of masters and nature) are paramount; however, they are conceived as forms of cognition.[84]

Thus, as I suggested earlier, processual syntax is the syntax of the artisan because it adopts her perspective (even if it does not adopt her literal point of view). Moreover, the employment of various medium-specific resources in processual representation to convey something of the materiality of instruments and matter suggests the centrality of the artisan's experience. But the genre's evocation of this perspective—which is resolutely empirical and materialist, grounded in sensuous experience and the faculties of human sense perception—promises to generate theoretical knowledge.

Summarizing, besides the kind of practical knowledge provided by instructionals that people actually consult and imitate, the process genre exhibits a range of different kinds of knowledge. There is the knowledge garnered from discovering hidden truths about everyday things such as flowerpots and cookies, about foreign and archaic processes such as traditional Italian weaving methods, about the functioning of machines, about difficult-to-achieve tasks such as breaking into a room holding a safe without making any noise, and so on. There is the knowledge of materials and instruments, of nature—the behavior of wood when wet and when dry; the translucence of ice; the lightness of dry dirt; the leverage of a chisel. There is knowledge about the relation of cause and effect, about reasoning.

The Process Genre as a Ciné-Genre

In the preceding discussion of the marks of the genre, I focus on image-based representation, particularly from cinema. However, the process genre includes text-based how-tos that include written recipes, instruction manuals, and some didactic literature. What, then, is the relationship of the process genre to image-based media? To moving-image-based media? If the definitive feature of the process genre is processual representation, some processual representation is in words, some in images; among the latter, some is in still images, and some is in moving images. The latter, I am arguing, is the core phenomenon.

IMAGE

The discursive representation of processes has a long history, and some researchers have suggested that recipes and how-to books emerged prior to pictorial instructions, as early as the 1400s.[85] Still, the development of pictorial instructions marked a watershed moment in this story of the process genre, for pictorial instructions could decode and supplement discursive how-tos. After all, language is a limited medium for conveying the relevant information. "Craftwork," Sennett has noted, "establishes a realm of skill and knowledge perhaps beyond human verbal capacities to explain; it taxes the powers of the most professional writer to describe precisely how to tie a slipknot. . . . Here is a, perhaps *the* fundamental human limit: language is not an adequate 'mirror-tool' for the physical movements of the human body."[86] Sennett proposes the image as a viable substitute.

To the extent that the how-to in most of its manifestations and regardless of its original purpose (whether pedagogical or not) is devoted to describing physical actions—which necessarily unfold in time—it is the province of the pictorial image, on the one hand, and it is time-based, on the other. The process genre is fundamentally an image-based and durational genre. Even when its exemplars evoke a sense of touch or the sensation that we occupy another body in motion, it is the versatility of the image that is at work. And because action unfolds in time, the genre is also time-based. Film is especially well equipped to represent time, as both duration and ellipsis. I say more about this later.

MOVING IMAGE

We have seen that as a category of representation, the process genre encompasses a variety of media and media platforms; it shares exemplars with distinct film genres such as the industrial, the educational, and the ethnographic film; and it spans a broad historical period, corresponding roughly with the advent of modernity. I have proposed "genre" as a category term to capture the process phenomenon. This term has its drawbacks.[87] It is rarely used to unify a single category across different media and across time. And there has been disagreement about deriving a genre category using a retrospective, critical-taxonomic approach rather than contemporaneous, circulating classificatory terms found in reviews from the relevant period or from industry-generated materials.[88] Still, "genre" is a flexible term, and I use it here in its loosest—and most basic—sense, to designate a kind. Of course, there are other category terms, many themselves quite contested, such as "mode" or "topos" or "subgenre" or "form" that might also conceivably apply. But each of these alternative category terms is ultimately unsatisfying, although "mode" presents the strongest case for an alternative.[89]

The sense of the term "mode" relevant here posits that mode is a kind of adjectival modification of a genre, as in the tragic, the comic, the pastoral, the melodramatic. Because of its modifying function, a mode can be present in different genres and across different forms. Where one finds a characteristic that is present in different media, in the same medium from different time periods, and in different media from different time periods, it is common to understand that feature as a mark of a modality rather than as a genre convention. This is perhaps why the process genre—given its manifestations in different media, time periods, and genres—may look at first like a mode.

The texts that make up a mode are often structurally, syntactically heterogeneous but thematically specific. That is, a mode, as David Duff puts it, is "non-specific as to [literary] form and mode of representation."[90] Given a mode's promiscuity across media, this formal variation is understandable. The thematic specificity of a mode has been understood as something deeper, more robust than merely shared semantic elements. A mode has been described as having something akin to a "world view," "vision," "sensibility," "spirit," "tone," "essence."[91] So, as Fredric Jameson put it (following Northrop Frye), a mode is defined by a "generalized existential experience behind the individual texts."[92]

The scholarly treatment of screen melodrama highlights a case in which the transmediality of melodrama generated a new critical framework that apprehended melodrama as a mode rather than as a genre. When Peter Brooks introduced the notion of the melodrama as fundamentally a modality rather than a genre, he in effect brought the study of melodrama across three media—theater, the novel, and cinema—closer together. The marks of the melodramatic mode became less a set of fixed stylistic conventions than a stylistically open-ended "theatrical substratum," "a semantic field of force," "a certain fictional system for making sense of experience" in a post-sacred era in which there is a need "to locate and make evident, legible, and operative those large choices of ways of being which we hold to be of overwhelming importance even though we cannot derive them from any transcendental system of belief."[93] In Linda Williams's adaptation and popularization of the modality approach to screen melodrama, the mode of melodrama admits considerable formal, stylistic, structural variation ("proteanism") across time, place, and medium because melodrama—to achieve its moving effects—must update and modify its representational choices.[94]

Modality is a broader, more encompassing classification schema than genre. Genres, considered critical categories rather than categories of reception, are widely regarded as both thematically and formally specific.[95] Genres, it is often said, are constituted by common semantic elements, as well as by their common syntactic structures.[96] The role of the syntactic—understood as a formal, structural feature of an individual text—in genre classification suggests to me that the process genre is best treated as a genre rather than as a mode. While the process genre encompasses different media and media from distinct geographical areas and historical periods, the syntactic, formal dimension is essential to its designation across space and time.[97] In other words, the process genre is formally specific in that its expressions use a definite structure (processual representation).

The process genre is also thematically specific in the narrower sense that its exemplars often contain common semantic elements such as craftsmen, instruments, artifacts, workshops, workers, machines, factories, and so on. But the process genre is also thematically specific in the more robust sense that Jameson invokes to describe mode—that is, it expresses something akin to a worldview, an essence, a "generalized existential experience" related to human labor. I consider this robust thematic specificity to be the genre's "metaphysics of labor," its basic embrace of the existential, as well as the material, value of labor to human life.

The process phenomenon does not suggest an easy and obvious category designation. While its definite unity across media, time, and place indicates that it is indeed a category, the usual category terms prove inadequate. Indeed, I am drawn to the idea of genre precisely because of the fact that even other related but less usual categories, such as the "operational aesthetic," the "craftsmanship aesthetic," and "showing making," are manifestly different from the process genre.[98] Genre does not perfectly circumscribe the phenomenon, but I believe it is the best of the available category terms.

That said, while the process genre crosses media, it has a special relation to the medium of film that is manifest both in its affinity with the material substrate of the medium and in the history it shares with screen practice. The process genre's expression in cinema—the process film—is a privileged locus for studying this genre. Indeed, the process film can be profitably understood as a "ciné-genre." A ciné-genre is constituted primarily by medium-specific formal features and their concomitant visceral effects on spectators rather than by narrative elements that easily translate to other media.[99] Cinema, constitutively, has a special, medium-specific relation to process. Film is fundamentally processual: it treats time the way the process genre treats movement. If the process genre breaks visible processes (movement) down into sequentially-ordered component parts, film also breaks time down into sequentially-ordered component parts. Every second of projected film is, after all, standardly made up of twenty-four sequentially ordered instants: twenty-four still images when passed through a projector are rendered as one second of life. This basic principle holds even when the underlying technology is video or digital and when the rate of capture is thirty frames per second rather than twenty-four.[100] Moreover, like other ciné-genres, such as horror, the process film taps into a primal fascination inherent in cinematic form itself: its fascination with movement, its capacity to render processes, long and short, as sequential and linearly ordered. The index of that primal fascination is the absorption,

mesmerism, hypnotism that ubiquitously accompany both descriptions of process films and, often, of cinematic spectating itself.

Process and cinema are linked in another way. Screen practice, Charles Musser has argued, does not begin with the first public projection of photographic images in Paris in 1895 or with the invention of the magic lantern or with any other technological discovery. It begins in 1647 with the publication of a how-to manual, full of pictorial instructions displaying a process. Athanasius Kircher's *Ars magna lucis et umbrae* (*The Great Art of Light and Shadow*) was an illustrated manual that demystified the functioning of the "catoptric lamp." Kircher was not the inventor of the device, but through his manual he was its popularizer. With the publication of the *Ars magna*, the modern spectator was born, argues Musser. If the pre-screen era is defined by viewers' apprehension of reflected images in a darkened room as supernatural, magical phenomena, the screen era is defined by the spectator's apprehension of a man-made effect, a product of human labor, and the process by which that effect was achieved.[101] Cinema begins with processual representation. And the two have continued to mutually constitute their shared history.

OVER THE CHAPTERS TO COME, I present an account of the process genre. In chapter 1, "The Process Film in Context," I situate the process genre within two histories: the history of processual representation in related film genres such as industrial, educational, and ethnographic cinema, and the history of pre-cinematic expressions of processual representation, particularly craft demonstrations in international expositions and pictorial instructions.

In chapter 2, "On Being Absorbed in Work," I give an account of the special absorption produced by the genre. The chapter considers the genre in relation to narrative and to expositional structures such as curiosity, suspense, and surprise.

Chapter 3, "Aestheticizing Labor," argues that the category of labor is central to the process genre. In my account, the process genre is, in effect, always symptomatically reflecting on the interactions of human labor, technology (i.e., tools, instruments, machines), and nature. The chapter first examines the genre's relation to technique. Then it surveys the political implications of the ways in which labor is poeticized in the genre. In its most exalted examples, the process genre presents a striking paradox. On the one hand, it is the most instrumentalist of genres. After all, it is a genre constituted by the presentation of a sequential series of steps, all

aiming at a useful result; it is a genre that is usually associated with what scholars call "useful cinema."[102] On the other hand, it is a genre that has produced some of the most romantic, utopian depictions of labor in which labor figures not as that from which human beings seek relief in the form of listless leisure, but as the activity that gives human life meaning. The philosophical basis for the centrality of labor to life—what has been called the "metaphysics of labor"—finds expression in the process genre; thus, the genre stands in opposition to the politics of antiwork.

Chapter 4, "Nation Building," explores how the process genre has been mobilized for an array of racial or nationalist politics. While Fascist nation-states such as Italy under Benito Mussolini and Germany under the Nazis took a keen interest in processual representation in the development of propaganda materials, ethnographic process films have raised questions about the process genre, development, and the representation of non-Western "Others." Marxist filmmakers from Latin America have also adapted the process genre to their romantic anticapitalist political projects. The chapter surveys the implications of the process genre's frequent treatment of the relationship among nation, development, and civilization through an extended analysis of the early nonfiction process films of the New Latin American Cinema.

In chapter 5, "The Limits of the Genre," I take up the historical trajectory of the genre, inquiring into moments of exhaustion and renewal. What happens to the genre in postindustrial society? How does the genre grapple with nonkinetic forms of immaterial labor—in particular, affective labor? As its case study, the chapter focuses on *Parque vía* (Enrique Rivero, Mexico, 2008), winner of the 2008 Golden Leopard. *Parque vía* in some sense remakes Chantal Akerman's *Jeanne Dielman, 23 Quai du Commerce, 1080 Bruxelles*. The chapter explores the significance of *Parque vía*'s intertextual appropriation of *Jeanne Dielman*, which I read not as an attempt to capitalize on the prestige of Akerman's film but as a way to train spectatorial focus on the *work* of *affective* labor. The work of feeling has a different relation to time and a different potential for visualization from kinetic kinds of work—because of this, feeling, and affective labor more generally, are not easily adapted to processual treatments. *Parque vía* offers a meditation on the formal and historical limits of the process genre.

The epilogue, "The Spoof That Proves the Rule," reassesses the contemporary status of the process genre in light of a series of recent parodies or spoofs of its formal structures.

NOTES

ACKNOWLEDGMENTS

1 Carlos Alberto Mattos, *Vladimir Carvalho: Pedras na lua e pelejas no planalto* (São Paulo: Imprensa Oficial, 2008), 36, my translation.

INTRODUCTION

Epigraph: Marion Foster Washburne, "A Labor Museum," *Craftsman* 6, no. 6 (September 1904): 573–74.

1 Jane Addams, "First Report of the Labor Museum at Hull House, 1901–1902," 1902, 4, accessed November 7, 2018, https://digital.janeaddams.ramapo.edu/items/show/1189.

2 For a recent popular treatment of the world of YouTube how-tos, see Kevin Allocca, *Videocracy: How YouTube Is Changing the World . . . with Double Rainbows, Singing Foxes, and Other Trends We Can't Stop Watching* (New York: Bloomsbury, 2018).

3 Robert Pirsig, *Zen and the Art of Motorcycle Maintenance: An Inquiry into Values* (New York: Harper Torch, 2006); Richard Sennett, *The Craftsman* (New Haven, CT: Yale University Press, 2008); Matthew Crawford, *Shop Class as Soulcraft: An Inquiry into the Value of Work* (New York: Penguin, 2010); Charles Jencks and Nathan Silver, *Adhocism: The Case for Improvisation* (Cambridge, MA: MIT Press, 2013); James Livingston, *No More Work: Why Full Employment Is a Bad Idea* (Chapel Hill: University of North Carolina Press, 2016). Other recent treatments of craft and work include Alain de Botton, *The Pleasures and Sorrows of Work* (New York: Pantheon, 2009); Christopher Frayling, *On Craftsmanship: Toward a New Bauhaus* (London: Oberon Books, 2011); Kathi Weeks, *The Problem with Work: Feminism,*

Marxism, Antiwork Politics, and Postwork Imaginaries (Durham, NC: Duke University Press, 2011); James Livingston, *Against Thrift: Why Consumer Culture Is Good for the Economy, the Environment, and Your Soul* (New York: Basic, 2011); David Esterly, *The Lost Carving: A Journey to the Heart of Making* (New York: Penguin, 2013); Peter Korn, *Why We Make Things and Why It Matters: The Education of a Craftsman* (Boston, MA: David Godine, 2015); Richard Ocejo, *Masters of Craft: Old Jobs in the New Urban Economy* (Princeton, NJ: Princeton University Press, 2017). There have also been recent film programs and art exhibitions devoted to work and craft. For example, in 2010 the Flaherty Seminar, curated by Dennis Lim, was devoted to the theme of "Work"; in 2014, the Oriental Institute of the University of Chicago mounted the special exhibition "Our Work: Modern Jobs—Ancient Origins"; between November 2013 and August 2015, Gallery 400 at the University of Illinois, Chicago, hosted a series of exhibitions under the title "Standard of Living: Work, Economics, Communities"; in the spring of 2016, New York City's Museum of Arts and Design ran the exhibition *In Time (The Rhythm of the Workshop)*, which included a companion film program. Then there is Antje Ehmann and Harun Farocki's ongoing project, Labour in a Single Shot, begun in 2011 and featuring more than 475 short films about work.

4 For more titles, see Martin Loiperdinger, "Early Industrial Moving Pictures in Germany," in *Films That Work: Industrial Film and the Productivity of Media*, ed. Vinzenz Hediger and Patrick Vonderau (Amsterdam: Amsterdam University Press, 2009), 65–74; also see Jennifer Lynn Peterson, "Industrial Films," in *Encyclopedia of Early Cinema*, ed. Richard Abel (London: Routledge, 2005), 320–23.

5 For more on the relation of the industrial to the process film, see Patrick Russell, "From Acorn to Oak: Industrial and Corporate Films in Britain," accessed May 3, 2018, https://www.academia.edu/16506574/From_Acorn_to_Oak_Industrial_and_Corporate_Films_in_Britain_Business_Archives_2011_.

6 Tom Gunning, "Before Documentary: Early Nonfiction Films and the 'View' Aesthetic," in *Uncharted Territory: Essays on Early Nonfiction Film*, ed. Daan Hertogs and Nico de Klerk (Amsterdam: Stichtung Nederlands Filmmuseum, 1997), 9–25. Jennifer Peterson has included earlier (late 1800s) single-shot films in the category that she terms "industrial films," which, as I say, corresponds roughly with what Gunning means by "process film": see Peterson, "Industrial Films," 320–23.

7 Alison Griffiths, for example, refers in one place to "ethnographic process films" to describe the German film *Der Mauerische Töpfer* (The Moroccan Potter [1910]): see Alison Griffiths, *Wondrous Difference: Cinema, Anthropology, and Turn-of-the-Century Visual Culture* (New York: Columbia University Press, 2002). Even when the term is not reserved for production in the pre-documentary period, it is treated as a self-evident rhetorical structure. Charles Tepperman, for example, in a discussion of amateur filmmaking, refers to Grierson's *Drifters* (1929) as a process film and to the

amateur film *Ceramics* (Kenneth Bloomer and Elizabeth Sansom, 1933) as one of the more interesting process films because it recognizes "moments of visual affinity between process and camera," thereby displaying photogénie: Charles Tepperman, "Mechanical Craftsmanship: Amateurs Making Practical Films," in *Useful Cinema*, ed. Charles R. Acland and Haidee Wasson (Durham, NC: Duke University Press, 2011), 293–94. Still, the reference is made in passing. To date, the volume with most mentions of the process film (where it is treated as a rhetoric) is Hediger and Vonderau, *Films That Work*. But there also, the category is not theorized.

8 Peterson, "Industrial Films," 322.

9 Throughout this book, I use English translations of foreign language film titles unless the film is more widely recognized by its original language title.

10 See P. Adam Sitney, "The Rhetoric of Robert Bresson: From *Le Journal d'un Curé de Campagne* to *Une Femme Douce*," in *Robert Bresson*, ed. James Quandt (Toronto: Toronto International Film Festival Group, 1998). Sitney used the phrase "process sequence" in passing to refer to Robert Bresson's famous montages illustrating the craft of pickpocketing in *Pickpocket* and to the series of sequences in *A Man Escaped* devoted to documenting the protagonist's prison escape. I say more about *A Man Escaped* in chapter 2.

11 When the film won an award in Bratislava, the award certificate came with these words of praise: "For showing us how long it takes to water the long and dusty road to heaven."

12 In narrative theory, the scalar approach has been applied to the idea of "narrativity." David Herman, for example, considers narrativity a "scalar predicate" rather than a "binary predicate": something is more or less paradigmatically story-like rather than a story or not a story: David Herman, *Story Logic: Problems and Possibilities of Narrative* (Lincoln: University of Nebraska Press, 2004). This scalar methodological approach is sometimes called "classification by prototype": John Frow, *Genre*, 2d ed. (London: Routledge, 2014).

13 Later I consider process films that present the steps in a process out of sequence. This out-of-order presentation does not pose a problem for the category, because even when the steps are out of order in the plot, it is expected that the viewer will reorder them chronologically, as is done with any narrative. The spectator reconstructs the story from the information provided by the plot.

14 Ivone Margulies, *Nothing Happens: Chantal Akerman's Hyperrealist Everyday* (Durham, NC: Duke University Press, 1996), 66. Margulies uses "synecdochal tag" as a contrast to Chantal Akerman's formal treatment of domestic labor in the film *Jeanne Dielman, 23 Quai du Commerce, 1080 Bruxelles*. The idea is that a (temporal) *part* of an action stands in for the action in its temporal entirety. So, if tooth brushing takes about thirty seconds, in real time, from start to finish, it is tagged synecdochally when it takes up only ten seconds of screen time.

15 Live demonstrations have developed ways to condense time. In a live cooking demonstration, when something has to marinate or bake, the host might prepare two batches—one in front of the live audience and one ahead of time—so that, rather than waiting in real time for the process of marination or baking to finish, the cook can pull out the batch that was marinated or baked ahead of time and go on with the demonstration without pausing.

16 Hediger and Vonderau, in a short passage, have also noted similarities between industrial process films and the plates of the *Encyclopédie*: see Vinzenz Hediger and Patrick Vonderau, "Record, Rhetoric, Rationalization," in Hediger and Vonderau, *Films That Work*, 35–50.

17 Of course, we could argue about whether these are processes. What speaks for their being processes is that they have results and a repeatable, cyclical character—one gallop, one step, one rowing cycle brings the subject into position to initiate the next gallop, step, or rowing cycle.

18 See the treatment of Muybridge's placement of images in Marta Braun, *Picturing Time: The Work of Etienne-Jules Marey*, repr. ed. (Chicago: University of Chicago Press, 1995).

19 For more on media studies approaches to ASMR, see Joceline Andersen, "Now You've Got the Shiveries: Affect, Intimacy, and the ASMR Whisper Community," *Television and New Media* 16, no. 8 (December 1, 2015): 683–700; Michael Connor, "Notes on ASMR, Massumi and the Joy of Digital Painting," *Rhizome* (blog), May 8, 2013, accessed May 6, 2019, http://rhizome.org/editorial/2013/may/08/notes-asmr-massumi-and-joy-digital-painting/; Rob Gallagher, "Eliciting Euphoria Online: The Aesthetics of 'ASMR' Video Culture," *Film Criticism* 40, no. 2 (June 2016), accessed May 6, 2019, https://quod.lib.umich.edu/f/fc/13761232.0040.202/--eliciting-euphoria-online-the-aesthetics-of-asmr-video?rgn=main;view=fulltext.

20 See, e.g., "Big Sister Does Your Makeup Roleplay (Whispered)," YouTube, May 4, 2017, https://www.youtube.com/watch?v=-6yb8IL_a4o; "Male Grooming Session: Beard Trim and Haircut," YouTube, August 5, 2013, https://www.youtube.com/watch?v=PS4VBMshLMc; "Dressing Your Wounds—A Wounded Soldier—Nurse Roleplay," YouTube, August 29, 2016, https://www.youtube.com/watch?v=Z4AI8u4rPvM.

21 There are several ASMR triggering videos that do use processual representation—in particular, those available on the Unintentional ASMR YouTube channel.

22 See Robert Bresson and J. M. G. Le Clézio, *Notes on the Cinematograph*, trans. Jonathan Griffin (New York: New York Review of Books Classics, 2016).

23 Having said this, one might wonder about parallel editing as a kind of interruption. I have in mind cutting back and forth from one process to another. Surely, parallel editing between processes is a kind of interruption that weakens the absorption of observing each distinct process. Still, it is relatively common in process films and is a different kind of inter-

ruption from one that involves experimentation, on-the-job learning, or non-processual coffee breaks.

24 There are other films about work—even factory work—that refuse processual treatments (though they are not anti-process). Michael Glawogger's *Workingman's Death* (2005) is one example. Another recent one is *Machines* (Rahul Jain, India/Germany/Finland, 2016), which films, in an observational vein, the work of people and machines in a textile factory in Gujarat, India. Still, the portrait is noticeably not processual. Jain has suggested in an interview that he had rejected early on a processual syntax: "I made 60 cuts in the editing room of the film. . . . The first one was a very linear way of how the fabric was made just because it was easy to set up like that, but it was a total disaster. It felt like an infomercial that would air at 2 a.m. in the night. From the beginning I did have the sense that I did want to leave the film open-ended because for me, I was not trying to provide any answers about what this is or how this is done." I say more about anti-process films in chapter 5. See Jean Bentley, "'Machines' Director Rahul Jain Wanted to Ask a Very Simple Question with His Film—Watch," *IndieWire*, December 8, 2017, accessed June 3, 2019, https://www.indiewire.com/2017/12/machines-documentary-rahul-jain-interview-1201898134/. Of course, the politics of non-processual treatments of labor, inside and outside the factory system, vary—as these two examples suggest.

25 For a detailed theoretical treatment of the opening of *Modern Times*, see Garrett Stewart, *Between Film and Screen: Modernism's Photo Synthesis* (Chicago: University of Chicago Press, 2000).

26 Serial representations of plant and animal life cycles (e.g., Percy Smith's *The Birth of a Flower* [1910] and Painlevé's *The Seahorse* [1934] or *The Vampire* [1945]) are ambiguously related to the process genre. For a fascinating account of the historical role of processual instructional graphics (i.e., pictorial instructions) that depicted bodily movement in the development of the serial iconography used later in embryology, see Janina Wellmann, *The Form of Becoming: Embryology and the Epistemology of Rhythm, 1760–1830*, trans. Kate Sturge (New York: Zone, 2017). Wellman traces the representational conventions used in depictions of organic development to sixteenth-century pictorial instructions in combat skills.

27 Perhaps one could conjure up a drawn or computer-generated processual sequence that tries to render these activities as chronologically unfolding processes (visualization diagrams including some process diagrams and maps attempt something like this), but it would be somewhat difficult. This suggests processual representation's natural attraction to visible movement.

28 Braun, *Picturing Time*.

29 Washburne, "A Labor Museum," 574.

30 For a synthetic art-history treatment of the role of process in art making, in art theory, and in the genre called process art, see Kim Grant, *All about Process: The Theory and Discourse of Modern Artistic Labor* (University Park: Pennsylvania State University Press, 2017).

31 What I have in mind here is not a "making of" or "behind-the-scenes" approach to *Revelations*, for that sort of approach can fit more squarely within the genre. Frederick Wiseman's *La Danse: The Paris Opera Ballet* (2009) is an interesting case in this regard because it contains processual dance sequences and moves roughly from rehearsals to performances and covers several steps in between.

32 Jamie Hook, "Love Made Visible, or Why *Rififi* Is a Perfect Film," *The Stranger*, October 21, 2000, accessed September 29, 2014, http://www.thestranger.com/seattle/love-made-visible/Content?oid=5229; Pauline Kael, *5001 Nights at the Movies* (New York: Picador, 1991), 629–30.

33 Jacques Guicharnaud and Cynthia Goldman, "Of Grisbi, Chnouf and Rififi," *Yale French Studies*, no. 17 (January 1, 1956): 11.

34 David MacDougall, *Transcultural Cinema* (Princeton, NJ: Princeton University Press, 1998), 104, emphasis added.

35 R. H. Sherard, "Jules Verne at Home: His Own Account of His Life and Work," *McClure's Magazine* 2, no. 2 (January 1894): 118.

36 Lorene Kimball Fox, Peggy Brogan, and Annie Louise Butler, *All Children Want to Learn: A Guide for Parents* (New York: Grolier Society, 1954), 87.

37 Otto Mayr, ed., *Philosophers and Machines* (New York: Science History Publications, 1976), 4.

38 Another recent and related phenomenon is the popularity of Oddly Satisfying, a subreddit established in 2013 with millions of subscribers today. Oddly Satisfying videos—which are ubiquitous on YouTube and Instagram—include several processual video clips. For a recent article on the phenomenon rooting around for the explanation for its effects, see Emily Matchar, "Finding What's 'Oddly Satisfying' on the Internet," *New York Times*, February 22, 2019, accessed June 2, 2019, https://www.nytimes.com/2019/02/22/opinion/sunday/oddly-satisfying-videos-internet.html.

39 Dayna Evans, "Why These Recipe Videos Are Taking Over Your Facebook Wall," *The Cut*, March 23, 2016, accessed May 5, 2019, https://www.thecut.com/2016/03/zen-and-the-art-of-the-buzzfeed-tasty-video.html.

40 Rita Felski, *Uses of Literature* (Malden, MA: Wiley-Blackwell, 2008), 55, emphasis added.

41 Michael Fried, *Absorption and Theatricality: Painting and Beholder in the Age of Diderot* (Chicago: University of Chicago Press, 1988), 10; Michael Fried, *Art and Objecthood: Essays and Reviews* (Chicago: University of Chicago Press, 1998).

42 John Dewey, *Art as Experience* (New York: Penguin, 2005), 3.

43 Mihaly Csikszentmihalyi, *Applications of Flow in Human Development and Education: The Collected Works of Mihaly Csikszentmihalyi* (New York: Springer, 2014), 379.

44 Tom Gunning, "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde," *Wide Angle* 8, nos. 3–4 (1986): 63–70.

45 Janice Radway, *A Feeling for Books: The Book-of-the-Month Club, Literary Taste, and Middle-Class Desire* (Chapel Hill: University of North Carolina Press, 1997), 13.

46 Victor Nell, *Lost in a Book: The Psychology of Reading for Pleasure* (New Haven, CT: Yale University Press, 1990), 2.

47 Nell, *Lost in a Book*, 48.

48 Peter Hühn, *Eventfulness in British Fiction* (New York: De Gruyter, 2010), 2.

49 Amanda Hess, "The Hand Has Its Social Media Moment," *New York Times*, October 11, 2017, accessed May 6, 2019, https://www.nytimes.com/2017/10/11/arts/online-video-hands-buzzfeed-tasty-facebook.html.

50 I do not distinguish between "work" and "labor" but, rather, use the terms more or less interchangeably. While there are philological accounts of the historical difference between these words, the most compelling philosophical argument for such a distinction is in Hannah Arendt's *The Human Condition* and depends on the impermanence, perishability, and consumption (rather than use) of the products produced through labor as opposed to the relative stability and durability of the objects produced through work. For Arendt, human labor is little different from what nonhuman animals engage in to meet their subsistence needs. That is why she terms the human laborer an *animal laborans* and the human engaged in work a *homo faber*: see Hannah Arendt, *The Human Condition*, 2d ed. (Chicago: University of Chicago Press, 1998). But I do not ultimately find this comparison quite right; farming (labor) and pot making (work) both involve design, premeditation, organization, intention, variation, adaptability, and so on. Farming or humans' hunting is a different *kind* of activity from wolves' hunting. For critiques of Arendt's distinction between work and labor, see Mildred Bakan, "Hannah Arendt's Concepts of Labor and Work," in *Hannah Arendt: The Recovery of the Public World*, ed. Melvyn Hill (New York: St. Martin's, 1979), 49–66; Axel Honneth and Mitchell G. Ash, "Work and Instrumental Action," *New German Critique*, no. 26 (1982): 31–54; Sean Sayers, "The Concept of Labor: Marx and His Critics," *Science and Society* 71, no. 4 (2007): 431–54. For standard philological treatments of the two terms, see Hannah Arendt, "Labor, Work, Action," in *The Phenomenology Reader*, ed. Dermot Moran and Timothy Mooney (London: Routledge, 2002), 362–74; Frederick C. Gamst, "Considerations of Work," in *Meanings of Work: Considerations for the Twenty-First Century*, ed. Frederick C. Gamst (Albany: State University of New York Press, 1995), 1–45; Maurice Godelier, "Work and Its Representations: A Research Proposal," in *History Workshop Journal* 10 (1980): 164–74; Raymond Williams, *Keywords: A Vocabulary of Culture and Society*, rev. ed. (Oxford: Oxford University Press, 1985).

51 For this approach to labor, see the work of Sean Sayers, esp. Sayers, "The Concept of Labor."

52 Marcel Mauss, *Techniques, Technology, and Civilisation*, ed. Nathan Schlanger (Oxford: Berghahn, 2006), 82, 149. Mauss initially included religious rituals and artistic expressions in his definition of technique, though he would designate the difference between the use of technique in rituals and the use of technique to achieve "a mechanical, physical, or chemical effect" (98) as a matter of the intention and self-understanding of the agents. In later formulations, Mauss would explicitly exclude "those

religious or artistic techniques, whose actions are also often traditional and technical, but whose aim is always different from a purely material one and whose means, even when they overlap with a technique, always differ from it" (149). Mauss's distinction within the sphere of the "technical" aims at separating the sphere of art from technology, for to speak of artistic expression and religious ritual as technology would sow some confusion. Tim Ingold has faulted Mauss and others for imposing this artificial distinction. Ingold insists that the distinction between art and technology is relatively new, dating back to the late eighteenth century with the codification of the intellectual/manual labor divide. Ingold writes, "Where technological operations are predetermined, art is spontaneous; where the manufacture of artifacts is a process of mechanical replication, art is the creative production of novelty. These distinctions can be multiplied almost indefinitely, but they are all driven by the same logic, which is one that carves out a space for human freedom and subjectivity in a world governed by objective necessity." In contrast to this state of affairs, which is "closely tied to the rise of a peculiarly modern conception of the human subject," Ingold looks toward the classical Greek notions of *ars* (art) and *tekhne* (technology), which were very close in meaning: both meaning skill, of the sort tied to craftsmanship: see Tim Ingold, "Beyond Art and Technology: The Anthropology of Skill," in *Anthropological Perspectives on Technology*, ed. Michael Brian Schiffer (Albuquerque: University of New Mexico Press, 2001), 17–18. In fairness to Mauss, whereas he does acknowledge the unity of technique as encompassing art *and* ritual, he tries to separate out the category of technique that is *solely* concerned with practical usefulness because, like Ingold, he is interested in skill. Moreover, just because there was little distinction between art and technology in classical Greece does not mean that since then the phenomena to which art and technology refer have developed along the same path. For another critique of the separation between art and technology, see Alfred Gell, "The Technology of Enchantment and the Enchantment of Technology," in *Anthropology, Art and Aesthetics*, ed. Jeremy Coote and Anthony Shelton (Oxford: Clarendon Press, 1992), 40–63.

53 Marcel Mauss, "Techniques of the Body," in *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York: Zone, 1992), 458.

54 Mauss, "Techniques of the Body," 464.

55 Sennett, *The Craftsman*, 9. C. Wright Mills also has this view: see C. Wright Mills, *White Collar: The American Middle Classes* (New York: Oxford University Press, 1951). See also Harold Osborne, "The Aesthetic Concept of Craftsmanship," *British Journal of Aesthetics* 17, no. 2 (1977): 138–48; David Pye, *The Nature and Art of Workmanship* (Cambridge: Cambridge University Press, 1968).

56 Guicharnaud and Goldman, "Of Grisbi, Chnouf and Rififi," 12.

57 Peter Dormer, "Craft and the Turing Test for Practical Thinking," in *The Culture of Craft*, ed. Peter Dormer (Manchester, U.K.: Manchester University Press, 1997), 139.

58 For this view, see Paul Greenhalgh, "The Progress of Captain Ludd," in Dormer, *The Culture of Craft*, 104–15.

59 Dormer, "Craft and the Turing Test for Practical Thinking," 140.

60 It is controversial to assimilate design and craft. However, they have much in common; their histories are intertwined, and their separation from each other has been relatively recent. The point here is merely that the work of a designer of machines is similar to part of the work of the craftsman in that both do the work of conception. When one admires the work of the craftsman that one has personally observed, one must be partly admiring a design, a conception, that has turned out to be effective. For more on the distinction between design and craft, see Paul Greenhalgh, "The History of Craft," in Dormer, *The Culture of Craft*, 20–52; Howard Risatti, *Theory of Craft: Function and Aesthetic Expression* (Chapel Hill: University of North Carolina Press, 2009).

61 Samuel Griswold Goodrich, *Enterprise, Industry and Art of Man: As Displayed in Fishing, Hunting, Commerce, Navigation, Mining, Agriculture and Manufactures* (Boston: Thompson, Brown and Company, 1845), 327–28.

62 There is a relevant corollary to this—namely, the commonplace treatment of bird's nest building as a kind of craft. The Brazilian filmmaker Humberto Mauro, who in the 1930s–1950s was a prolific maker of process films about industrial as well as artisanal processes, made two versions of the same film about the autochthonous red ovenbird's fabrication of an unusual covered nest. *O João de Barro* (1956) is the most accomplished and rigorously processual, depicting as one would do with biscuit fabrication the steps in the construction of the nest. The temptation to assimilate the "skill" of birds to skill in humans is also exhibited in the anthropologist Tim Ingold's essay on the anthropology of skill, in which he describes the nest-building practices of weaver birds: see Ingold, "Beyond Art and Technology."

63 Dormer, "Craft and the Turing Test for Practical Thinking," 143.

64 Roland Barthes, "The Plates of the *Encyclopedia*," in *New Critical Essays* (Evanston, IL: Northwestern University Press, 2009), 32. For a contrary treatment of the ideology of the plates of the encyclopedia, see Daniel Brewer, "The Work of the Image: The Plates of the *Encyclopédie*," in *A History of Book Illustration: 29 Points of View*, ed. Bill Katz (Metuchen, NJ: Scarecrow Press, 1994).

65 See Sennett, *The Craftsman*.

66 Ingold, "Beyond Art and Technology," 20.

67 See Gregory Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology* (Chicago: University of Chicago Press, 2000).

68 For more on kinesthetic empathy, see Dee Reynolds and Matthew Reason, eds., *Kinesthetic Empathy in Creative and Cultural Practices* (Bristol, U.K.: Intellect, 2012).

69 Ingold, "Beyond Art and Technology," 22.

70 I am using the term "identification" loosely here. For more on the range of phenomena encompassed by motor empathy, from accompaniment,

imitation, and "proximity at a distance" to fusion and projection, see Adriano D'Aloia, "Cinematic Empathy: Spectator Involvement in the Film Experience," in Reynolds and Reason, *Kinesthetic Empathy in Creative and Cultural Practices*, 91–108.

71 Kael, *5001 Nights at the Movies*, 629.

72 Guicharnaud and Goldman, "Of Grisbi, Chnouf and Rififi," 11.

73 Roger Ebert, "*Rififi* Movie Review and Film Summary (1954)," accessed October 3, 2014, http://www.rogerebert.com/reviews/great-movie-rififi-1954.

74 Roger Ebert, "*Pickpocket* Movie Review and Film Summary (1959)," accessed September 24, 2014, http://www.rogerebert.com/reviews/great-movie-pickpocket-1959.

75 Bill Nichols introduced the term "epistephilia" into his discussion of documentary realist conventions to signal that the pleasure in knowing that characterizes documentary constitutes a "distinctive" yet far from innocent "form of social engagement": Bill Nichols, *Representing Reality: Issues and Concepts in Documentary* (Bloomington: Indiana University Press, 1991), 178. The idea is that documentary nurtures this pleasure in knowing by proposing documentary itself as a source of knowledge about the real world. I use "epistephilia" here only to point out that part of the pleasure of processual representation also derives from a pleasure in knowing and a desire to know.

76 John Pannabecker has insisted on the ideological diversity of the *Encyclopédie*'s written entries and its illustrations. Some entries, such as those by Diderot and Goussier, have the tone of lectures or reports or a dialogue between businessmen, while others, such as those by Prévost, Brullé, and Watelet, take the tone of a teacher initiating a student into an unfamiliar craft: see John R. Pannabecker, "Representing Mechanical Arts in Diderot's *Encyclopédie*," *Technology and Culture* 39, no. 1 (1998): 33–73.

77 Jacques Payen, "The Plates of the Encyclopedia and the Development of Technology in the Eighteenth Century," in *Diderot Encyclopedia: The Complete Illustrations, 1762–1777*, ed. Harry N. Abrams (New York: Harry N. Abrams, 1981), xi–xxx.

78 William Reddy, "The Structure of a Cultural Crisis: Thinking about Cloth in France before and after the Revolution," in *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai (Cambridge: Cambridge University Press, 1986), 264. Reddy's essay provides a relevant account of the rising importance of the merchant-connoisseur in eighteenth-century France and his dependence on accurate information about production processes (presumably including image-based processual representations) for this work.

79 Barthes, "The Plates of the *Encyclopedia*," 39.

80 Barthes, "The Plates of the *Encyclopedia*."

81 Barthes, "The Plates of the *Encyclopedia*," 32.

82 Barthes, "The Plates of the *Encyclopedia*," 33. One odd feature of Barthes's taxonomy is that, while he introduces it as a tripartite classification in the first few pages of the essay, in the latter part of the essay he reverts to

a bipartite classification that corresponds better to the linguistic analogy he wishes to make. In the bipartite classification, the genetic and the tableau vivant are folded into the single category of the "vignette." In the linguistic analogy, the "vignette" occupies the "syntagmatic dimension of language"; the "anthological" image, the paradigmatic dimension: see Barthes, "The Plates of the *Encyclopedia*."

83 Smith and others researchers of the early modern period have argued that the supposed gulf between the world of craft and the world of science was overstated. Craftsman were not only keepers of traditional knowledge; they were experimenters and creators of new knowledge. In other words, the scientific revolution owes a lot to the work of artisans: see Pamela O. Long, *Artisan/Practitioners and the Rise of the New Sciences, 1400–1600* (Corvallis: Oregon State University Press, 2011); Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press, 2006).

84 Smith, *The Body of the Artisan*.

85 Pamela Smith, "Making Things: Techniques and Books in Early Modern Europe," in *Early Modern Things: Objects and Their Histories, 1500–1800*, ed. Paula Findlen (New York: Routledge, 2012), 173–203.

86 Sennett, *The Craftsman*, 95.

87 The literature on genre is vast and diverse, and I will not survey it here. I only intend to give some indication of why I have used the notion of genre to talk about processual representation. I consider the definitions I am using basic and widely agreed on.

88 For this debate, see Rick Altman, *Film/Genre* (London: British Film Institute, 1999); Rick Altman, "Reusable Packaging: Generic Products and the Recycling Process," in *Refiguring American Film Genres: History and Theory*, ed. Nick Browne (Berkeley: University of California Press, 1998), 1–41; Tom Gunning, "'Those Drawn with a Very Fine Camel's Hair Brush': The Origins of Film Genres," *IRIS-PARIS* 20 (1995): 49–62.

89 Topoi usually refer to motifs, clichés, and repeated formulas contained *within* a media artifact rather than to the organizing structure of the work as a whole. In other words, if one were to treat processual representation as a topos, one might expect to find processual *moments* or *bits* in a number of media objects across time and space. And surely this is the case: there are many films that have processual segments. But the process genre designates works whose whole is shaped by processual representation: see Erkki Huhtamo, "Dismantling the Fairy Engine," in *Media Archaeology: Approaches, Applications, and Implications*, ed. Erkki Huhtamo and Jussi Parikka (Berkeley: University of California Press, 2011), 27–47. For examples of cinematic topoi from cinema studies that highlight the inappropriateness of the term for the process genre, see Alison Griffiths, "The Untrammeled Camera: A Topos of the Expedition Film," *Film History* 25, no. 1 (April 28, 2013): 95–109; Priya Jaikumar, "Haveli: A Cinematic Topos," *Positions* 25, no. 1 (February 1, 2017): 223–48. "Subgenre" might be another tempting term. But apprehending the process phenomenon as a

subgenre of the industrial or educational film or as merely a genre of early cinema is inappropriate in that, as I have tried to show, processual representation is employed in a range of genres and cannot be restricted to the period of early cinema or even to cinema as a medium. While "form"—as in literary forms such as nonfiction prose, fiction prose, poetry, drama, or fable or film forms such as documentary and experimental film—classifies according to the structure and organization of the whole, forms are agnostic in regard to subject matter and thematic content. While it is the case that most examples of the process genre are characterized by an overarching formal structure, my contention has been that they also encompass thematic concerns with technique, skill, and civilizational development. Processual representation understood as a film form comparable to documentary or experimental film or the short film is too broad and unspecific as a category designation.

90 David Duff, *Modern Genre Theory* (London: Routledge, 2014). See also Frow, *Genre*, xv.

91 Fredric Jameson, "Magical Narratives: On the Dialectical Use of Genre Criticism," in Duff, *Modern Genre Theory*, 168.

92 Jameson, "Magical Narratives," 168

93 Peter Brooks, *The Melodramatic Imagination: Balzac, Henry James, Melodrama, and the Mode of Excess* (New Haven, CT: Yale University Press, 1976), 148, xvii, vii.

94 Linda Williams, *Playing the Race Card: Melodramas of Black and White from Uncle Tom to O. J. Simpson* (Princeton, NJ: Princeton University Press, 2002).

95 For more on this distinction, see Altman, "Reusable Packaging"; Gunning, "Those Drawn with a Very Fine Camel's Hair Brush."

96 See Rick Altman, "A Semantic/Syntactic Approach to Film Genre," *Cinema Journal* 23, no. 3 (1984): 6–18. The distinction between "semantic" and "syntactic" in Altman is a bit tricky because his examples of syntactical approaches to the Western (e.g., Kitses's argument that the Western "grows out of a dialectic" between culture and nature) sound more thematic (along the lines of Jameson's understanding) than formal. Meanwhile, by "semantic" Altman means "lexical units" rather than "global meaning." Altman acknowledges that his definition of "semantic" differs from Jameson's definition in footnote 4.

97 Though it should be added that processual syntax is not the *kind* of syntactic, formal dimension that scholars of genre usually have in mind when they discuss a genre's syntactic structures.

98 It might be interesting to compare my approach to these three proximate scholarly projects that also grapple with the seductions of process in diverse cultural forms: Neil Harris's notion of the "operational aesthetic," which he first applied to P. T. Barnum's nineteenth-century amusements; Victoria Cain's "craftsmanship aesthetic," which refers to the interest Americans took in artisanal craft making between 1910 and 1945; and Ann-Sophie Lehmann's "showing making," which designates a transhis-

torical genre devoted to images of people making something. The three frameworks amount to three different efforts to demarcate and analyze a category of cultural production. While the process genre is related to these three concepts, I frame the "object" of study differently. This difference has a lot to do with my view that the process genre is best understood as a genre rather than as a mode. Harris, Cain, and Lehmann understand their respective phenomena as modes. Harris's operational aesthetic corresponds most closely to a mode in the sense that the operational aesthetic is thematically specific in this more robust sense of "generalized existential experience," but it is not formally specific—it includes how-to manuals and Barnum's nonprocessual performances. Harris's apprehension of the phenomenon looks deeply into it, exposing something more than merely semantic elements such as the presence of devices. Harris lights on a kind of spirit animating all of the operational aesthetic's expressions—namely, "a delight in observing process and examining for literal truth": Harris, *Humbug*, 79. Cain's designation, the "craftsmanship aesthetic," is also thematically specific, though in a less robust sense in that the thematic unity is defined by common semantic elements including the presence of craftsmen, workshops, and tasks. Still, the thematic unity approaches a "worldview" when Cain writes, for example, "The aesthetic celebrated the satisfactions of labor, placing human presence squarely at the center of its representation. It exalted the relationships among worker, skill, and tool. The sight of craftspeople gradually, lovingly shaping material into useful or impressive objects resonated with a public struggling with the new dynamics of scientifically managed corporations": Victoria E. M. Cain, "The Craftsmanship Aesthetic: Showing Making at the American Museum of Natural History, 1910–45," *Journal of Modern Craft* 5, no. 1 (March 1, 2012): 27. But the craftsmanship aesthetic is even less formally specific than the operational aesthetic: after all, it includes craft demonstrations as well as still photographs of American Museum of Natural History taxidermists at work. Finally, while Lehmann describes "showing making" as a genre, she treats it more as a mode. Showing making is thematically specific in the least robust sense; it is constituted by purely semantic elements—the presence of people, tools, and objects—and means many things. Meanwhile, showing making is formally nonspecific; it includes YouTube demonstrations of kneading clay, as well as flat Egyptian murals from 1400 BC and early modern portraits of artists: Ann-Sophie Lehmann, "Showing Making: On Visual Documentation and Creative Practice," *Journal of Modern Craft* 5, no. 1 (March 1, 2012): 9–23.

99 Gunning, "Those Drawn with a Very Fine Camel's Hair Brush."

100 For the debate about the significance of the emergence of digital technology for cinema's purported indexicality, see André Gaudreault and Philippe Marion, *The End of Cinema? A Medium in Crisis in the Digital Age* (New York: Columbia University Press, 2015); Tom Gunning, "What's the Point of an Index? Or, Faking Photographs," *Nordicom Review* 5, nos. 1–2 (2004): 39–49; Lev Manovich, *The Language of New Media*, rev. ed. (Cambridge,

MA: MIT Press, 2002); D. N. Rodowick, *The Virtual Life of Film* (Cambridge, MA: Harvard University Press, 2007); David Thorburn and Henry Jenkins, eds., *Rethinking Media Change: The Aesthetics of Transition* (Cambridge, MA: MIT Press, 2004). The point I am making here is a modest one: digital and analog recording (along with digital playback technology) standardly use—even if only metaphorically, not literally, as with photochemical technology—the concept of frame rate.

101 Charles Musser, *The Emergence of Cinema: The American Screen to 1907* (Berkeley: University of California Press, 1990).

102 As Haidee Wasson and Charles R. Acland understand it, "useful cinema" is "a body of films and technologies that perform tasks and serve as instruments in an ongoing struggle for aesthetic, social, and political capital": Haidee Wasson and Charles R. Acland, "Introduction: Utility and Cinema," in *Useful Cinema*, ed. Charles R. Acland and Haidee Wasson (Durham, NC: Duke University Press, 2011), 3.

CHAPTER ONE. THE PROCESS FILM IN CONTEXT

1 The picture I paint here is set in Europe and the United States, but I can imagine a parallel account of emergence, development, and diffusion focused on a different geographical context, such as Asia or the Middle East. Explorations of processual syntax outside the West could provide useful comparative cases. Along these lines, from 2014 to 2016, the Neubauer Collegium for Culture and Society at the University of Chicago sponsored the project "Knowing and Doing: Text and Labor in Asian Handwork," which organized three conferences devoted to exploring "the nature and history of . . . non-written forms of knowledge—farm work, construction, crafts, and skills that produce material objects" and thereby to expanding the sense of what constitutes a "text." The project was conceived and designed by Jacob Eyferth and Donald Harper. For more on representing craft knowledge in Asian contexts, see also Jacob Eyferth, "Craft Knowledge at the Interface of Written and Oral Cultures," *East Asian Science, Technology and Society* 4, no. 2 (June 1, 2010): 185–205.

2 Martin Loiperdinger, "Early Industrial Moving Pictures in Germany," in *Films That Work: Industrial Film and the Productivity of Media*, ed. Vinzenz Hediger and Patrick Vonderau (Amsterdam: Amsterdam University Press, 2009), 65–74.

3 Jennifer Lynn Peterson, "Industrial Films," in *Encyclopedia of Early Cinema*, ed. Richard Abel (London: Routledge, 2005), 320–23.

4 For accounts of the ambiguities of the "industrial film" as a generic label, see Frank Kessler and Eef Masson, "Layers of Cheese: Generic Overlap in Early Non-Fiction Films on Production Processes," in Hediger and Vonderau, *Films That Work*, 75–84; Vinzenz Hediger and Patrick Vonderau, "Record, Rhetoric, Rationalization," in Hediger and Vonderau, *Films That Work*, 35–50; Patrick Russell, "From Acorn to Oak: Industrial and Corporate Films in Britain," accessed May 3, 2018, https://www.academia.edu