Non-Fiction

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Account of Texas natural gas boom.

SHALE BOOM

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SHALE BOOM

The Barnett Shale Play and Fort Worth

DIANA DAVIDS HINTON

TCU Press
Fort Worth, Texas

CONTENTS

INTRODUCTION

In 1956, M. King Hubbert, a geologist working for Shell Oil Company, predicted that oil production in the United States would peak in the early 1970s and steadily decline thereafter. Coming after years of postwar boom in the oil patch, during which time the petroleum industry found millions of barrels of new reserves, Hubbert's predictions were, to say the least, startling and apparently counter to common sense. But, confounding his critics, Hubbert proved to be right—in terms of what happened during the next half century: US oil production peaked in 1970 and then began what seemed an inevitable decline.[1]

Hubbert's pessimistic outlook was not the first of its kind. Partly because many oil wells come in for relatively strong production only to have production wane over time, even in the American petroleum industry's earliest years, there were those who wondered how long "rock oil" production would hold up. In 1909, David T. Day of the United States Geological Survey (USGS) offered the alarming forecast that US oil production would be insignificant by 1935. Ironically, in that same year, thanks to the bonanza discovery of the giant East Texas oilfield, the American petroleum industry struggled to right itself after a crisis brought about by markets awash with too much oil. Yet even during that crisis, there were prophets of future oil famine who warned that too much oil on the market encouraged waste of a finite resource it had taken millions of years to create.[2]

So Hubbert was not the first industry observer to forecast future oil shortages, nor would he, by any means, be the last. The energy crisis in the 1970s, largely the outcome of an economic witch's brew of increased energy demand, low petroleum prices, misguided federal regulation, and international politics seemed to make it obvious that the prophets of shortage were right. America's production of oil and gas had nowhere to go but down. Even as global petroleum markets suffered from a glut of oil in the later 1980s, the pessimists remained credible. They included highly knowledgeable industry observers like Princeton University geologist Kenneth S. Deffeyes, who, in 2001, predicted that global oil production would reach its maximal level in 2005. In a 2008 edition of his work, *Hubbert's Peak: The Impending World Oil Shortage*, Deffeyes noted that global oil production "stopped growing" in 2005, promoting a crude oil price spike of $140 a barrel. He had said there was "a geological limitation to the oil supply in the ground," and, as he put it, "The urge to say, 'I told you so,' is too much to resist."[3]

And yet as I write this, the global petroleum industry is once again in economic crisis from overproduction, as the supply of oil has greatly outstripped demand. Starting in June 2014, oil prices have dropped from roughly $100 a barrel to levels below $30 a barrel. The United States is now the world's largest combined producer of oil and gas. In 2014, the United States produced an average of 8.7 million barrels of oil a day, outproducing Saudi Arabia, and oil imports fell to a five-year low. During the same year, natural gas production averaged 74.7 billion cubic feet a day, keeping gas prices low and confounding expert opinion of only a decade earlier that the nation would need to import increasing volumes of natural gas to meet demand. The amount of oil and gas in storage has shot up, with oil stockpiles nearing record levels.[4] Once again, the prophets of shortage are wrong. But why? The developments responsible for beginning a dramatic reversal of national petroleum fortunes are the subject of this book.

Before going further, let me stress that the prophets of shortage, for the most part, have not been misguided or ill-informed industry observers. Nor would I argue that a future petroleum shortage could

not happen. The history of the petroleum industry has always been full of surprises. Forecasters not only have to work with known sources of petroleum, but they must also base their estimates of future supply on available technology and prevailing prices. You may know the petroleum is there, or suspect it is, but is it technologically possible and affordable to get it out of the ground? When Hubbert made his prediction in 1956, he was working with known reserves exploited by the exploration and production technology of his time—which also happened to be a time of falling petroleum prices and rising industry costs. In effect, for his time, he was right. Similarly, if you were an American geologist in 2000, it was reasonable to think that most of the world's petroleum reserves, accessible and affordable using conventional methods, were already known. What turned dire forecasts upside down was the use of new technology to access oil and gas in shale. This breakthrough came in the Barnett Shale, and it has had immense national and global significance. The prophets of shortage did not foresee that.

To explain how technological changes could have so enormous an impact, it is necessary to introduce some greatly simplified petroleum basics. Oil and gas come from organic matter contained in sedimentary rock. They can move through some types of rock and not others, moving until trapped by folds or faults in rock they cannot penetrate—salt, for example. The rate at which oil and gas move through rock depends on the rock's permeability. They may move quite readily through sandstone but take millions of years to migrate through dense, minimally permeable rock like shale. Regardless of the natural permeability of the rock containing oil and gas, if that rock can be broken or shattered around a wellbore to create cracks or openings through which oil and gas can move easily, it would be possible to get out much more oil and gas in a far shorter time than it would take to produce them from unbroken rock. Production is thus stimulated by what amounts to an artificial enhancement of permeability.

Over time, the petroleum industry has used various ways to open up rock around a wellbore. Early Pennsylvania oilmen discovered they could bring greater production from a new well by pouring

CHAPTER 2

Opening the Barnett

Even if one thought that North Texas was not past its peak as an oil-producing region in 1945, one would not have anticipated much profitable exploration and development in the Fort Worth Basin. Nor would one have predicted a fortune could be made producing the region's natural gas. From a conventional industry perspective, North Texas was a mature producing region in which deeper drilling might mean some modestly attractive finds, but exploration dollars might better be spent elsewhere. Thus, regional development would have its ups and downs in the half century after World War II, when the industry as a whole experienced periods of boom and bust, but better-funded wildcatters, like the major companies, directed their attention elsewhere. To open up production from the Barnett Shale, a formation whose gas had not been profitable to exploit, it took a wildcatter with an unconventional exploration strategy—Houston independent George P. Mitchell.

The war's end saw the American economy enter an extended period of tremendous growth, a nationwide boom that generated skyrocketing demand for oil and natural gas. In 1946, when wartime price controls on crude oil ended, oil prices soared. Oilmen had postponed many projects during the war because of shortages of materials and labor; now they

hurried to take projects off the shelf and put thousands of veterans to work in the field. Rising crude oil prices let prospectors in North Texas, as elsewhere, take on the expense of deeper drilling to wildcat in a new range of formations, but they might also let oilmen make money on the sorts of ventures typical of the mature producing region, drilling relatively inexpensive, shallow wells to tap smaller pools. Higher prices made up for modest yields. Accordingly, both major companies and independents took another look at petroleum possibilities in the Fort Worth Basin. True, its tantalizing oil shows in the past had led to drilling many a dry hole, but deeper drilling might bring in profitable production. Moreover, applying new technology, in the form of seismic work in exploration and well stimulation through acidizing and hydraulic fracturing (fracking), might mean better chances for paying wells. And in an area where tests for oil had often only brought in gas, there was yet another encouraging new development: a postwar surge in demand for natural gas.[1]

Though used as fuel for decades, before 1945 an enormous amount of natural gas went without a market, largely for lack of pipelines capable of shipping large quantities over long distances. In the late 1920s, improved pipeline-welding technology began to overcome this barrier. In the 1930s, long-distance gas pipelines connected Texas Panhandle fields to various midwestern cities, but most natural gas was still consumed close to producing fields or, when produced with oil, simply flared at the wellhead. Wartime demand for petroleum, however, encouraged shipment of southwestern natural gas to fuel factories and steel mills in places like Ohio and Pennsylvania. Because natural gas was so inexpensive, demand for it accelerated after the war, and gas companies proliferated as Texas oilmen stepped up to the plate to meet that demand. The gas producer thus found it much easier to sell gas but still would not receive high prices for it. In particular, gas going to the interstate market fetched prices held at very low levels by the Federal Power Commission, and until the 1960s, federal price controls also helped hold back intrastate gas prices. For the prospector,

was so great that it had had to extend its marketing to East Texas and the Houston area. And by that time, not only did it have independent competitors tapping the Barnett, but George's spectacular success had captured keen industry attention. In particular, Oklahoma City-based Devon Energy, with a similar focus on gas, began talking with the company about a merger in the spring of 2001, a merger that was announced on August 14 of the same year. Devon purchased Mitchell Energy's assets for $3.1 billion and assumed $400 million of Mitchell's debt. By the time the merger was official at the end of January 2002, daily Barnett production from Devon's newly acquired leases was 365 million cubic feet—and what would become an all-out boom was underway.[34]

All this was largely the result of George Mitchell's tenacity and willingness to take the sort of risks that flew in the face of conventional thinking. How could so much gas be produced from a rock as unpromising as Barnett Shale? How could using a fracking fluid composed mostly of water be superior to ordinarily used gel? For that matter, how could a deal worth considering come from the hands of a Chicago bookie? Most importantly, as Dan Steward argues, George Mitchell was a visionary who believed that the future of energy lay not in oil but in natural gas.[35] Vision, however, is unproductive without the courage to act on it and the determination to keep going against the odds. In the mid-1990s, most Fort Worth independents either condemned Mitchell for sitting on a huge lease inventory without substantial production or saw him as deluded. As Ken Morgan summed up the oil community verdict, Mitchell was a "good guy, worked hard, tried to make it, made plenty of money . . . but this [going after the Barnett] is folly."[36] Larry Brogdon likened Mitchell's determination to unlock the Barnett to the tenacity of a terrier:

> I don't know if you've ever seen a Boston terrier. . . . You give 'em a towel, and they'll grab it in their mouth, and you play tug of war with 'em . . . and they won't let go. That's the way he was about the Barnett.[37]

Mitchell's stubborn faith in the Barnett paid off beyond what anyone could have predicted. As Charles Moncrief observed, "He just revolutionized the oil business. That's all there is to it. Just simply that man."[38] Brogdon summed up Mitchell's achievement more graphically:

> We can never repay George Mitchell for what he did. . . . He stayed with it when nobody else would. . . . The city of Fort Worth ought to have a huge statue of [him], like what they've got when you drive down on [Interstate] 45 going to Houston, you see a big statue of Sam Houston. There ought to be one like that for George Mitchell for what he's done, not only for this area but for what it has done for our country . . . and what it's going to do for the world.[39]

Like John D. Rockefeller, George Mitchell had an enormous impact on the global petroleum industry. But as it was with Rockefeller, what he did in showing how one could produce petroleum from previously untapped and untappable source rock would generate unforeseen controversy as well as enormous wealth.

independent, Rick Harding. The Harding Company had picked up leases in the Metroplex along an old Mobil pipeline going from Keller to Corsicana. If Harding could persuade ExxonMobil to let the line be used to ship his gas, he could solve the problem so common among Barnett independents: the lack of pipeline infrastructure. Talks began in 2004, and at the end of 2006, Harding and ExxonMobil created a partnership between Harding Company affiliate, Cinco County Barnett Shale, and an ExxonMobil subsidiary, Metroplex Barnett Shale, the partnership to be called DDJET Ltd. The name reflected the counties the partnership intended action in—Dallas, Denton, Johnson, Ellis, and Tarrant Counties. Cinco County would pick up leases and permits; Metroplex would operate drilling and production, and gas produced would go into the old Mobil line. The arrangement allowed ExxonMobil to try its luck in the play while keeping a low profile and gave Harding a way to drill wells and ship out the gas they produced.[31]

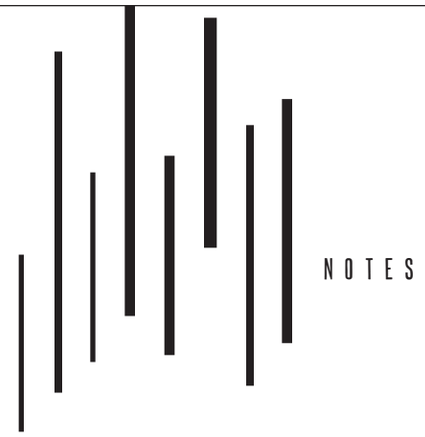
By the end of 2006, the Barnett Shale action was increasingly a game for big players. Costs of leases and drilling escalated dramatically, requiring enormous amounts of capital to stay in the game. Smaller independents did not abandon the Barnett, but as the cost of leases in the most promising areas skyrocketed, many who sold out to bigger players for handsome profits either cut back their involvement or ventured into relatively untried parts of the shale. So as drilling rigs moved into city neighborhoods, college campuses, and downtown, those with deeper pockets came to dominate the action, and of that group, Chesapeake was most aggressive at pushing forward inside city limits. But moving into town would make the problems of urban drilling noticeable—and more controversial.

CHAPTER 4

Into the Boom

By 2006 it was clear that the Barnett Shale play had produced a massive regional boom along with gigantic quantities of natural gas. The boom would bring in thousands of workers, both in oil field work and in supplying everything the industry and workers needed. But the communities and urban neighborhoods seeing workers and rigs come into town were far from prepared to cope with problems generated by an industrial invasion. True, the boom meant an incredible economic windfall. But how were urban industry operations to be adjusted to guarantee neighborhood comfort and, more importantly, safety? When city governments and communities struggled to address new and pressing problems, there were no convenient models for action. As for industry members, they, too, were on unfamiliar turf: usual operating procedures out in the country were not necessarily suitable within city limits. The breakneck pace of the boom, however, left scant time to reflect on new problems.

From the beginning of 2006 to the end of 2007, Barnett Shale action generated spectacular growth in metropolitan Fort Worth and out into adjoining Denton, Johnson, and Parker Counties, where leasing had been lively for months. But drilling rigs also followed landmen south and west into Bosque, Ellis, Erath, Hamilton, Hill, Hood, and Palo Pinto Counties. That no one knew exactly what the play's limits would be merely spurred wildcatters on. By the end of 2007, some daring



NOTES

INTRODUCTION

1. Kenneth S. Deffeyes, *Hubbert's Peak: The Impending World Oil Shortage* (Princeton: Princeton University Press, 2009), 1–4.
2. Roger M. Olien and Diana Davids Olien, *Oil and Ideology: The Cultural Creation of the American Petroleum Industry* (Chapel Hill: University of North Carolina Press, 2000), 121–125, 192–193.
3. Deffeyes, *Hubbert's Peak*, xi. Similarly, in 2005, Deffeyes's year of peak global production, Matthew R. Simmons argued that pessimism about global oil supply was justifiable because it was unlikely that Saudi Arabia could continue to product oil at high rates as its oil fields aged; Matthew R. Simmons, *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy* (New York: John Wiley & Sons, Inc., 2005), xvi–xvii.
4. "U.S. Oil and Gas Drilling Boom's Economic Impact," *Midland Reporter-Telegram*, May 21, 2015; Jeffrey Sparshott, "Oil Boom a 'Game-Changer' on Trade Deficit," *Wall Street Journal*, February 6, 2015; Jennifer Hiller, "American Crude Hits a 114–year High, Led by Shale," *Midland Reporter-Telegram*, April 6, 2015; Robert Grattan, "Industry Passes the All-Time High for Inventories," *Midland Reporter-Telegram*, May 27, 2015.
5. Jim Malewitz, "Study: Barnett Shale Richer than Previously Thought," *Midland Reporter-Telegram,* December 20, 2015. Estimates of the size of Barnett reserves, however, have been highly variable. In 2013, a group of geoscientists offered a figure of 45 trillion cubic feet; John Browning,

Scott W. Tinker, Svetlana Ikonnikova, Gurcan Gulen, Eric Potter, Qilong Fu, Susan Horvath, Tad Patzek, Frank Male, William Fisher, Forrest Roberts, and Ken Medlock III, "Study Develops Decline Analysis, Geologic Parameters for Reserves, Production Forecast," *Oil & Gas Journal* (2013): 62. But a year later, Rafael Sandrea and Ivan Sandrea suggested the Barnett's ultimate recovery would be twenty trillion cubic feet, with a gas in place estimate of an average of fifty trillion cubic feet per square mile; "New Well-Productivity Data Provide US Shale Potential Insights," *Oil & Gas Journal* (2014).

CHAPTER 1

1. For an excellent recent study of the Cross Timbers region, see Richard V. Francaviglia, *The Cast Iron Forest: A Natural and Cultural History of the North American Cross Timbers* (Austin: University of Texas Press, 2000), 1–13, 76–81, *et passim*. See also Terry G. Jordan, with John L. Bean, Jr., and William M. Holmes, *Texas: A Geography* (Boulder: Westview Press, 1984), 31, 35–36; Washington Irving, *A Town on the Prairies*, edited and with an Introductory Essay by John Francis McDermott (Norman: University of Oklahoma Press, 1956), 125.
2. Francaviglia, *The Cast Iron Forest*, 112–116; Jordan, *Texas: A Geography*, 16, 34. A useful introduction to the histories of the counties in this region may be found as entries in Ron Tyler et al., eds., *The New Handbook of Texas* (Austin: The Texas State Historical Association, 1996). See, for example, "Clay County," vol. 2, 146; "Denton County," vol. 2, 599; "Jack County," vol. 3, 890; Johnson County," vol. 3, 966–967; "Palo Pinto County," vol. 5, 29–30; "Parker County," vol. 5, 63–64; "Wise County," vol. 6: 1028–1029; Randolph B. Campbell, *Gone to Texas: A History of the Lone Star State* (New York: Oxford University Press, 2003), 216.
3. Stephen Powers, *Afoot and Alone: A Walk from Sea to Sea by the Southern Route, Adventures and Observations in Southern California, New Mexico, Arizona, Texas, Etc.*, edited and with an introduction by Harwood P. Hinton (Austin: The Book Club of Texas, 1995), 115–116.
4. Francaviglia, *The Cast Iron Forest*, 144, 163–165; John S. Spratt, *The Road to Spindletop: Economic Change in Texas, 1875–1901* (Austin: University of Texas Press, 1970), 81–82; Tyler et al., *New Handbook of Texas*, "Boll Weevil," vol. 1: 628–629.
5. United States. Department of the Interior. United States Geological Survey, *Water Supply Paper 317*: C. H. Gordon, "Geology and Underground Waters of the Wichita Region, North-Central Texas" (Washington, DC: Government Printing Office, 1913), 34, 37, 73, 78; Spratt, *Road to Spindletop*, 261–264. Much has been written about Thurber. Three especially helpful works are Don Woodard, *Black Diamonds! Black Gold!* (Lubbock: Texas Tech University Press, 1998); John S. Spratt Sr., *Thurber, Texas: The Life and Death of a Company Coal Town*, ed. Harwood P. Hinton (Abilene: State House Press, 2005); and Marilyn D. Rhinehart, *A Way of Work and a Way of Life: Coal Mining in Thurber, Texas, 1888–1926* (College Station: Texas A&M University Press, 1992).
6. Gordon, *Geology and Underground Waters*, 11, 34; Catherine Troxell Gonzalez, *Rhome: A Pioneer History* (Burnet: Eakin Press, 1979), 31; *Decatur News*, July 10, 1908.
7. University of Texas. Bureau of Economic Geology. University of Texas Bulletin 2544: W. M. Winton, *The Geology of Denton County* (Austin: University of Texas, 1925), 14–16; *Decatur News*, September 20, 1907; *Fort Worth Star-Telegram*, June 27, 1923; United States. Department of Interior. United States Geological Survey, Bulletin 629: *Natural Gas Resources of Parts of North Texas*, Eugene Wesley Shaw, "Gas in the Area North and West of Fort Worth" (Washington, DC: Government Printing Office, 1916), 54.
8. Frank J. Gardner, *Rinehart's North Texas Oil: A Correlation of Characteristics of the Oil Fields of North and North Central Texas* (Houston: Rinehart Oil News Company of Texas, 1941), 17; *Oil & Gas Journal*, April 28, 1920, 64. For a lengthy survey of oil and gas shows in North Texas, see C. A. Warner, *Texas Oil & Gas Since 1543* (Houston: Gulf Publishing Company, 1939), 226–227.
9. Warner, *Texas Oil*, 226–227; George H. Fancher with Robert L. Whiting and James H. Cretsinger, *The Oil Resources of Texas: A Reconnaissance Survey of Primary and Secondary Reserves of Oil* (Austin: The Texas Petroleum Research Committee, 1954), 333; Frank J. Gardner, *Rinehart's North Texas Oil*, 17.
10. Diana Davids Olien and Roger M. Olien, *Oil in Texas: The Gusher Age, 1895–1945* (Austin: University of Texas Press, 2002), 4–5, 9; For the fullest

SELECTED BIBLIOGRAPHY

DOCUMENTS FROM CITY GOVERNMENTS AND STATE AGENCIES

City of Cleburne. State of the City Report, 2010.

City of Cleburne. *Monthly Economic Development Trends Report*: July, 2010.

City of Fort Worth: Ordinances.

Railroad Commission of Texas. Office of the General Counsel. Oil and Gas Docket No. 7B-0268629: Commission Called Hearing to Consider Whether Operation of the Range Production Company Butler Unit Well No. 1H (RRC ID 253732) and the Teal Unit Well No.1H (RRC ID 253729) in the Newark East (Barnett Shale) Field, Hood County, Texas, are Causing or Contributing to Contamination of Certain Domestic Water Wells in Parker County, Texas, 2011.

Texas Commission on Environmental Quality. Ethridge, Shannon. "Health Effects Review of Ambient Air Monitoring Data Collected by Wolf Eagle Environmental Engineers and Consultants for DISH, TX." Austin: *Summary of TCEQ Actions Relating to the Barnett Shale*, 2009.

——. "Responses to Representative Lon Burnam's Oil and Gas Questions." Austin: *Summary of TCEQ Actions Relating to the Barnett Shale, Attachment 9*, 2009. http://www.oilandgaslawyerblog.com/TCEQ%2520Summary%2520with%2520Burnam%2520Q%26A%5B1%5D.pdf.

——. *Summary of TCEQ Actions Relating to the Barnett Shale, Attachment 8*, 2009. Texas Department of State Health Services. "Dish, Texas Exposure

Investigation, Dish, Denton County, Texas: Final Report." Austin: Texas Department of State Health Services, 2010.

NEWSPAPERS

Abilene Reporter-News
Austin American-Statesman
Cleburne Times-Review
Dallas Business Journal
Dallas Morning News
Dallas Observer
Decatur News
Denton Record-Chronicle
Fort Worth Business Press
Fort Worth Record
Fort Worth Star-Telegram
Fort Worth Weekly
Lubbock Avalanche-Journal
Midland Reporter-Telegram
New York Daily News
New York Examiner
New York Times
The Oklahoman
Wall Street Journal
Weatherford Democrat
Weatherford Star-Telegram
Wichita Falls Times Record News
Wise County Messenger

INDUSTRY PUBLICATIONS

AAPG Explorer
American Oil & Gas Reporter
Bulletin of the American Association of Petroleum Geologists
Drill Bit

E&P
Energy in Depth
Fort Worth Basin Oil & Gas Magazine
Oil and Gas Financial Journal
Oil and Gas Investor
Oil and Gas Journal
Oil Voice
Oil Weekly
PennEnergy
Powell Barnett Shale Newsletter
Search and Discovery
World Oil

REPORTS BY SCHOLARS AND CONSULTANTS

Armendariz, Al. "Emissions from Natural Gas Production in the Barnett Shale Area and Opportunities for Cost-Effective Improvements." Environmental Defense Fund. Austin, Texas. 2009.

Bowman, Jeff R. "Air Quality in the Barnett Shale—A Thirty-one Part Scientific Study." 2010-2011. http://www.barnettshalenews.com/documents/ntxairstudy/Air%20Quality%20in%20the%20Barnett%20Shale%20by%20Jeff%20R%20Bowman%20MPH%20March%2026%202011.pdf

Groat, Charles G., and Thomas W. Grimshaw. "Fact-Based Regulation for Environmental Protection in Shale Gas Development." Austin, Texas. The Energy Institute, University of Texas at Austin. Feb. 2012.

R. W. Harden & Associates, Inc. "Northern Trinity/Woodbine GAM Assessment of Groundwater Use in the Northern Trinity Aquifer Due to Urban Growth and Barnett Shale Development." Austin: Texas Water Development Board, 2007.

IHS Cambridge Energy Research Associates. "Fueling North America's Energy Future: The Unconventional Natural Gas Revolution and the Carbon Agenda: Executive Summary." Cambridge: IHS CERA, 2010.

Industrial Hygiene and Safety Technology, Inc. "Review of Ambient Air Monitoring Project and Related Communication Concerning Gas Well Emissions Provided for the City of Fort Worth Environmental Management Department." 2009.

Mike Moncrief, interviewed by Diana Davids Hinton, February 28, 2013, Fort Worth, Texas.

Ken Morgan, interviewed by Diana Davids Hinton, July 30, 2010, Fort Worth, Texas.

Marty Searcy, interviewed by Diana Davids Hinton, February 20, 2009, Fort Worth, Texas.

Dan B. Steward, interviewed by Diana Davids Hinton, March 4, 2010, Dallas, Texas.

Hollis Sullivan, interviewed by Diana Davids Hinton, July 27, 2010, Fort Worth, Texas.

David Watts, interviewed by Diana Davids Hinton, July 20, 2009, Midland, Texas.

Dan Williams, interviewed by Diana Davids Hinton, July 30, 2010, Fort Worth, Texas.

Dan and Debora Young, interviewed by Diana Davids Hinton, July 28, 2010, Fort Worth, Texas.

George M. Young, Jr., interviewed by Diana Davids Hinton, July 28, 2009, Fort Worth, Texas.

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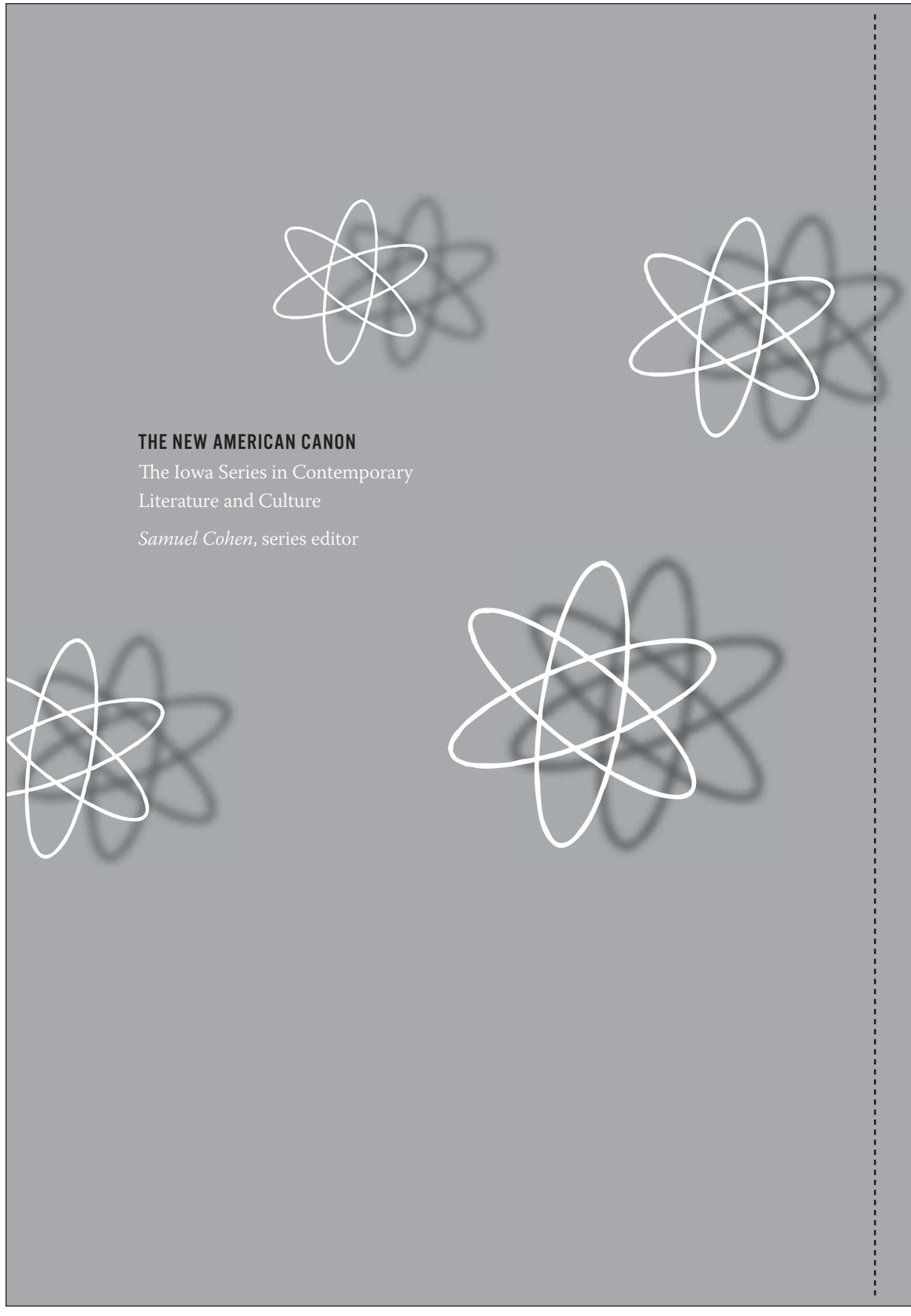
The Meanings of J. Robert Oppenheimer, Lindsey Michael Banco, University of Iowa Press, 2016

Scholarly text exploring representations of J. Robert Oppenheimer in various media.

THE MEANINGS OF J. ROBERT OPPENHEIMER



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THE MEANINGS OF J. ROBERT OPPENHEIMER

LINDSEY MICHAEL BANCO

UNIVERSITY OF IOWA PRESS, IOWA CITY

aim of analyzing material representations and ways in which his embodiment and disembodiment in physical space is related to the knowledge museums create. The final part of the book consists of a single chapter: an analysis of Oppenheimer's own writing. That chapter examines his speeches and essays as acts of self-fashioning within public textual spaces. Although it does not privilege his own public self-representations over representations in other forms and by other people, the last chapter does approach Oppenheimer's texts as something of a response to the representations discussed in earlier chapters. Consistent with this book's focus on presence and absence, its final chapter traces Oppenheimer's use of self-negation and synecdoche in his public articulations of scientific and cultural knowledge.

My analysis of representations that span the better part of the seventy years since the Trinity test is an attempt to address, through the illumination of many different facets of Oppenheimer representation, the powerful claims staked by nuclear culture. From the utopian visions of plentiful and revolutionary power in the 1950s to massive antinuclear demonstrations in the 1980s, from Mutually Assured Destruction to terrorist dirty bombs, and from Three Mile Island and Chernobyl to Fukushima, nuclear ideas and technologies have shaped the world. The degree to which Oppenheimer figures directly or indirectly in these manifestations is, of course, open to debate, but those cultural productions in which he does appear hold an important key to understanding one of the most equivocal, and certainly the most destructive, technologies the world has ever known.

PART I

READING OPPENHEIMER

In a well-known piece of nuclear criticism, the philosopher Jacques Derrida asserts that, because Hiroshima and Nagasaki represented the end of a conventional war rather than the beginning of a nuclear one, nuclear war has not yet occurred and remains "fabulously textual." As a (thus far) purely rhetorical event, nuclear war is wholly encoded in linguistic and visual representation and is only comprehensible through interpretation and decoding ("No Apocalypse" 23). Despite the realities of Hiroshima and Nagasaki, and despite the fabulously expensive materiality of subsequent weapons proliferation, the bomb exists largely as a discursive construction for most who live in its shadow. As a "nonevent," nuclear war remains hypothetical. It is an underlying foundation of geopolitical relations, a supposition or possibility in warfare. It is also a fantasy, dwelling at least partly beneath rational thought, that structures narratives and discourses. The nuclear event occurs as fabulation, but its material consequences, manifested through those bomb-structured narratives and discourses, are nonetheless real. In a book of postmodern philosophy provocatively titled *Letter Bomb*, Peter Schwenger writes: "Nuclear strategy mingles science with beliefs about others' beliefs, and of course about others' science, and one's own, in a proliferating and paradoxical network of speculation which yet constitutes our reality" (v). The ways in which texts signify, and how their significations interact, inform understandings of the bomb, but as Schwenger points out, the reality of the bomb also tells us as much about literature as our textual fantasies tell us about the bomb.

I am not the first to note that Oppenheimer functions as an important "text" for discussing the ideological assumptions, material operations, and cultural effects of nuclear weapons—or broader issues such as national defense and even science and technology themselves—but he remains

a vital node in the web of nuclear signification.[1] As a sign circulating throughout nuclear culture and lending meaning to many of its facets, he becomes a discursive construction that can be read in a variety of ways.[2] Oppenheimer's circulation and the many acts of reading and rereading Oppenheimer constitute an example of Schwenger's "letter bomb," a productive explosion of language and textual production that counteracts the annihilating, supremely negating qualities of the nuclear explosion. Whether this kind of textual fabulation counts as hope in the nuclear age is open to debate, but a reading of its outlines and trajectories can, at the very least, help produce knowledge about one of the central figures in the development of this vexing technology.

Part 1 will read Oppenheimer in a series of textual formations. It will assume that texts have material relations with the world and thus exceed their putative status as mere language games. First, I begin with the assumption that the facticity of the life of a historical figure is in part constructed through the genre of biography. The word "biography," signaling "life writing," renders one of the most powerful signifiers of a historical figure (his or her life, as "actually" lived) into textual form. The word reinforces the fact that the historical events in a life make sense *as* a life when imparted "graphically," when written into existence as narrative. Such texts are thus a crucial starting point for this project because, in positing *a* life—the life of Oppenheimer—and in offering ways it can be known, they posit life itself and the ethics of how life is valued as an ante in the nuclear gamble. Next, I examine historical texts, those (highly privileged) textual iterations that situate Oppenheimer within the truth of history at the same time that they constitute constructions *of* history. Again, the assumption that history is a text positions history itself—the archive that comprises it, the subject positions from which it can be ascertained—as another wager to be won or lost at the technomilitary table. And third, the fictional text, in which imagination is the primary discursive mode for understanding Oppenheimer, both supplements the facticity of biography and history and complicates the kinds of knowledge they produce. Once again, imagination is both a portal through which nuclear weapons and war may be understood and one of the crucial human endeavors put at risk by the bomb. Each of these kinds of text and the interpretations I supply are part

of a broad, multidisciplinary discussion of the meaning of Oppenheimer and his relation to nuclear weapons.

Within these textual forms, Oppenheimer assumes a variety of meanings and—as I argue by focusing on the way these texts depict his search for knowledge—lends an equally varied range of meanings to atomic weapons. In some instances, the rhetoric presents him as an intellectual hero and thus justifies and celebrates the construction of atomic weapons. In other instances, he is inscribed as more maleficent, which brings into question not only atomic bombs but nuclear science in general as a knowledge-production endeavor. Both of those discursive strategies rely upon an unambiguous subject—a hero or a villain—at odds with Robert Oppenheimer's complexity. Other textual Oppenheimers exist as nearly illegible traces, shadows or gaps in the text that function as complex and shifting contradictions of the strategies just described. In any case, he becomes both a textual object to be interpreted and a lens through which nuclear culture can be interpreted.

images, however, *Countdown to Zero* also questions the culpability of its own medium in the proliferation of nuclear weapons. A curious image of Oppenheimer, appearing about halfway through Walker's film, features him slightly off-center against a white background, slowed down slightly, and flicking his eyes slowly down and back up again. Reminiscent of how Errol Morris manipulates footage of his subjects' faces in his documentaries, this image also foregrounds the role of cinematic images—insubstantial in their flickering etiolation yet substantial when suggesting three-dimensional reality and movement—in the construction of multiple Oppenheimers in the realm of public knowledge.[18]

These media representations of Oppenheimer are all consistently interested in exploring his relationship with knowledge, and their status as visual media ensure that this relationship is characterized by the interplay of visibility and invisibility. Fictional or nonfictional, cinematic or televisual, they also explore their own operation as tools of mediation for nuclear culture particularly suited to the postmodern age. The obscurity into which Oppenheimer is frequently cast in these productions is perhaps, in some instances, simply denial—repressing the individual seen as responsible for the existence of a dreadful technology and pushing back against the perceived inevitability of the scientific method—but in other cases, these instances of opacity ask pointed questions about the role television and film play in constructing knowledge. Can we say we "know" how nuclear weapons came to be and what nuclear weapons mean if the instruments for accessing them consist largely of media productions? In what ways do visual mediations convey knowledge, in what ways do they construct it, and how significant are the differences between these two things? The next chapter will engage with these questions by extending the notion of visual mediation into another form: nuclear science museums.

CHAPTER 5

"THE BONY TRUTH": OPPENHEIMER IN MUSEUMS

Before discussing the representation of Robert Oppenheimer in museums, places in which the materiality of history assumes prominence in depicting the past, I wish briefly to discuss another "transitional" genre, one that (like novels and films) fictionalizes its subject but (like museums) makes use of material representation: drama. Theatrical productions about Oppenheimer frequently appeal to the material reality of the bomb. But like museums, which trade on "the bony truth" (Fortey 295) of physical artifacts and concrete, often three-dimensional representation, theater also confronts the transience of history with a tangible, in situ reality. The "liveness" of plays, the "presence" they depend on, and the sense of (potential) interactivity and (apparently) unmediated access they offer, make them an appropriate entry point into a discussion of museums, which offer many of the same effects. At the same time, an onstage Oppenheimer can only be experienced through the fictive and figurative strategies theater nevertheless employs.[1] Furthermore, one of the features of postwar atomic theater, in both the United States and Britain, is its repeated failure to depict the bomb.[2] Even when some of the most prominent dramatists in the United States during the 1950s and 1960s tried their hand at writing drama about the atomic bomb, they too failed.[3] The bomb, and with it Oppenheimer's (in)tangibility, thus does not appear very often on the

stage during the Cold War despite the tantalizing and suggestive nature of the material.

When he does appear in drama, the plays in question demonstrate a variety of strategies for managing the relationship between Oppenheimer's embodiment and the immateriality of history and inscrutability of nuclear science. Some plays, such as German dramatist Heinar Kipphardt's *In the Matter of J. Robert Oppenheimer* (1964), are examples of "documentary theater."[4] They foreground historical verisimilitude and claim authentic access to the past.[5] In other plays, the Oppenheimer narrative has received more expressionistic treatments that, collectively, constitute an engagement with the poetics of history. But rather than asserting the discovery of Oppenheimer as a historical referent, they question the possibility of doing so. For instance, although Peter Sellars's libretto for John Adams's opera *Doctor Atomic* (2005) is drawn from original source material, the staging is highly stylized: productions in Amsterdam in 2007 and New York in 2008 featured video projections, animated physics equations, and a chorus ensconced in a giant periodic table. Along with the grandiose and nonrealist nature of opera itself, such techniques ensure that the production unsettles the notion of objective, transparent access to history. Carson Kreitzer's play *The Love Song of J. Robert Oppenheimer* (2003), a precursor to *Doctor Atomic*, also takes a poetic approach to Oppenheimer—evident through its title's evocation of T. S. Eliot, through its inclusion of mythical and Biblical characters, and through its surreal staging.[6] More recently, the Royal Shakespeare Company's production of Tom Morton-Smith's play *Oppenheimer* has drawn rave popular reviews for its extension of this tradition of stylizing Oppenheimer, with one reviewer calling the play a "dramatised graphic novel."[7] With the stage surface functioning as a giant chalkboard throughout the production, Morton-Smith's play affirms the conjunction of text and material image and, with it, the "writability" of the history being enacted. Collectively, these plays explore Oppenheimer's positioning among presence and absence, creation and destruction, and other fraught binaries and ultimately (un)substantiate on stage the elusive qualities of the bomb and the man. The existential threat posed by the bomb, its ability to destroy everything, seems to constitute an obstacle for some dramatists (as it does for many other artists) and, for others,

generates a powerful desire to question the narratives of history and the possibility of objective, material knowledge of that history. Theatrical productions about the bomb do not occupy a prominent place in this book, despite the resurgence of science on stage in recent years,[8] but they do serve to introduce many of the negotiations between materiality and immateriality that can be found in atomic museums.

Atomic Tourism: The Place of the Museum

When I visited the Bradbury Science Museum in Los Alamos in 2013, a banner outside the building featured an image of Robert Oppenheimer and Leslie Groves at the Trinity site with the following text: "Learn how Los Alamos National Laboratory scientists are using the latest technologies to solve today's complex challenges related to defense, energy, and the environment." This banner juxtaposes the past (signaled by the black-and-white image of Oppenheimer and Groves) and the present (signaled by the contemporary "challenges" identified in the text). But it also juxtaposes the role of the museum, one of interpreting and preserving the past, with the role of a public relations agency, one of promoting corporate science. What sorts of knowledge, then, does a museum like this one create, and with what kinds of authority? How does that knowledge support or challenge the narratives underlying the museum's content and those of modern museums in general as mechanisms for the production of truth?[9] This chapter addresses such questions in its exploration of how Oppenheimer is represented in museums devoted to the science and history of nuclear weapons. Thus, *The Meanings of J. Robert Oppenheimer* now moves from analyzing visual iterations of Oppenheimer toward iterations that combine textual and visual dimensions with spatial, material, and sometimes monumental ones. This move shifts the emphasis toward forms of representation that emerge from a science museum's exhibitionary practices. These practices of showing, which resonate with the larger scientific aim of making the world visible, are supplemented by the additional complications of moving spatially *through* a representation. The strange relationship between the concrete and the ephemeral at the center of the Oppenheimer

that Oppenheimer's "remarkable capacity for seeing the other point of view" (132) made him a formidable opponent of any simplistic assessments of atomic weapons work. Far from being the cold-blooded scientist, he "could quote Dante and Proust. He could refute objections by citing passages from the works of Indian sages which he had read in the original. And he seemed to be aflame with an inward spiritual passion" (132). Such humanism, wide-ranging erudition, and Romantic sensibility allow Jungk's Oppenheimer to seek knowledge from many places. Jungk reproduces a long quotation from Oppenheimer's own deliberation about targeting Japan, a text in which he ultimately affirms using the bomb on Hiroshima and Nagasaki but which is nevertheless full of hedging and qualification. In one section Oppenheimer claims: "We said that we didn't think that being scientists especially qualified us to know how to answer this question of how the bombs should be used or not; opinion was divided among us as it would be among other people if they knew about it" (186). Similarly, statements such as "Oppenheimer oscillated between fears that the experiment would fail and fears that it would succeed" (200) and "seldom can jubilation have made a man so sad and adulation made a man so skeptical as they did Robert Oppenheimer as he watched the frenzied delight with which his countrymen greeted the end of the Second World War" (229) ensure that Jungk's book emphasizes Oppenheimer's engagement with moral responsibility. Although such attention leads Wilson to criticize Jungk for assuming "U.S. physicists [should] bear the full responsibility for the bomb" (146) despite its internationalist origins, Oppenheimer's anguish over the consequences of Los Alamos allows *Brighter than a Thousand Suns* to denaturalize significantly the work of making nuclear weapons.

Such denaturalization begins with the heliotrope in the book's title, with the "thousand suns" evoking an otherworldly realm whose excess, signaled by the bomb's still "brighter" luminescence, cannot but make the work of nuclear weapons overwhelm the benign sunlight that falls on earth. Despite Jungk's occasionally employing the familiarity of the sun and its associated metaphors to domesticate the bomb, his title reinforces the incomprehensibility of the results of the undertaking.[17] One of the epigraphs to Jungk's book, a quotation from the *Bhagavad Gita*, is the apparent source of his title:

> If the radiance of a thousand suns
> were to burst into the sky,
> that would be
> the splendor of the Mighty One—
> (vii)

This occurrence of the heliotrope, in almost as prominent a textual place as the title of the book, reinforces the excessive, supernatural multiplicity of the sun at the same time that it associates it with the virtually incomprehensible power of a deity. Later, when readers arrive at Jungk's account of Oppenheimer's late-night meeting with Groves on board a train as they plan the construction of Los Alamos, the epigraph from the *Bhagavad Gita* reappears in Jungk's own prose (or, more accurately, in the English translation of his prose): "The train thundered through the darkness of the night while man envisioned a light that would be brighter than a thousand suns" (128). The devotional diction in this sentence, not to mention its remarkably trainlike string of iambs, elevates the men in the train to the prototypical "man" who, in this moment, is envisioning usurping the power of God. Jungk again returns to this quotation from the *Bhagavad Gita* in his account of the Trinity test, where readers finally discover the purported "source" of the sacred text: "People were transfixed with fright at the power of the explosion. Oppenheimer was clinging to one of the uprights in the control room. A passage from the *Bhagavad-Gita*, the sacred epic of the Hindus, flashed into his mind" (201). There follows a requotation of the lines in Jungk's epigraph. Helpless and "clinging" before the bomb, the language Oppenheimer has in which to cast this scientific and technological achievement is religious, reflecting the inadequacy of rational thought. The language he uses to describe the bomb is not the scientific language of solar energy. Rather, it is nonrational language, drawn from the fearful uncanniness of thousands of suns bursting.

Jungk's association of the heliotrope with unfathomable divinity has the defamiliarizing effect of distancing the bomb from mortal and technological realms and of inverting Enlightenment tropes so the "light" shed on the physical world becomes inscrutable. It also paves the way for the possibility in later histories of moral abdication on the part of the nuclear

tropes of knowledge, cinematic mediation, and Oppenheimer's poetic and scientific sensibilities. Sitting in a seminar room with other Los Alamos scientists, Oppenheimer watches filmed military coverage of the attack on Japan. Over the mechanical hum of the film projector and the droning voice of one scientist reciting statistics of death and destruction, Groves lets out the occasional whoop of delight that contrasts with Oppenheimer's silence. Several shots feature the film projector itself in the foreground, its turning reels mounted one above the other and connoting the inexorable track of technological "progress." Full of cutaways of the horrified Oppenheimer, this lengthy segment of the episode features the actors watching a display of destruction and mangled bodies. *Oppenheimer* lingers on this footage, just as Oppenheimer does, and the film-within-the-film constitutes a twinned "making visible"—cinematic light and shadow, projected in a room full of actors in a production of light and shadow—that discloses the destruction wrought by the awful light of the atom bomb. As the episode ends, Oppenheimer gets into a car and drives away. The final shot of the episode sees him leaning, in profile, into the frame, nearly silhouetted by the bright window behind him, and for the first and only time in the miniseries, the turning tape reels that appear each time the credits roll fade in slowly over the scene. At the end of every other episode, the frame fades to black before the turning reels fade in; but here, superimposed over his stricken face and enclosed by the vehicle in which he sits, the reels are both a visual echo of the film projector reels that so horrified the scientist moments ago and another evocation of technological mediation as a central trope in the film. They help visually obscure him (as does his position in the car), but they also make visible the role of cinematic technology in the construction of the appalling knowledge he has just acquired (fig. 7).

It is important to remember that *Oppenheimer* was not a theatrical release but rather a television miniseries. As if to remind viewers that the knowledge they are acquiring about the Manhattan Project comes through television, a piece of technology whose development is intermingled with the end of the World War II, the sixth episode includes a peculiar moment involving a television set. Beginning in 1949 and tracing Oppenheimer's appearance before the House Un-American Activities Committee and his tangles with Lewis Strauss of the Atomic Energy Commission, the

FIG. 7. Oppenheimer *(1980). Courtesy of the British Broadcasting Corporation.*

episode features a conversation between Edward Teller and Oppenheimer in Oppenheimer's home in 1950. As they discuss the hydrogen bomb, the television in the living room is on, and Senator Joseph McCarthy is interrogating suspected Communists. After Teller complains that too much public debate is delaying the production of the bomb and that the Soviets pose a pressing danger, Oppenheimer says, gesturing toward the television: "You'd rather the public stuck to that?" The production cuts to the television set, and at that moment the broadcast goes to commercial and a human-sized cigarette package tap-dances on a stage. Oppenheimer's remark disparages the investigation as lurid sensationalism, but his dismissive remark, coupled with a strangely extended shot of the TV set and its puerile commercial, has the effect of bringing television itself into question. The investigation becomes ridiculous not merely for its paranoia but also for its status as television entertainment. The inescapably commercial nature of television, reinforced by the disquietingly lengthy shot of the

process helps mediate the relationships between remembering and forgetting, between celebrating and criticizing Enlightenment narratives of progress, and between mastering and being mastered by the nuclear past.[3] In the last case, the (in)visibility coursing through the nuclear narrative and associated so strongly with Oppenheimer becomes a site for negotiating rather than for fixing meaning. The nuclear future is potentially as volatile as the nuclear past.

NOTES

Introduction

1 This phrase comes from the well-known and frequently recounted moment when Oppenheimer, on first seeing the mushroom cloud in the New Mexico desert, supposedly thought of a line from the *Bhagavad Gita*: "I am become Death, the destroyer of worlds."

2 I draw the phrase from Porter xi.

3 Writer Eric Schlosser calls the bomb "the most dangerous technology ever invented" (480); historian H. Bruce Franklin believes that the "decision to use nuclear weapons on two Japanese cities was perhaps the most important conscious choice in human history" (149) and that such weapons "have transformed the fundamental conditions of human existence" (155); anthropologist Joseph Masco claims that the "Manhattan Project was not simply a technoscientific success; it was an act of world-making" (333); and historian Gerald DeGroot begins his study of the bomb with this claim: "Nothing that man has made is bigger than the bomb" (viii).

4 Philosophies of science broadly called "social constructivist"—in which social interaction, historical context, and other contingencies work to produce what we call "objective reality"—are multifaceted and have had considerable influence on the basic premises of this book. For influential studies of the social construction of scientific knowledge, see Latour; Latour and Woolgar.

5 For a discussion of secret U.S. geography, see Paglen. Hunner also discusses the role of secrecy at midcentury, identifying it as the generator of a

PART I

1 For a discussion of the importance of Oppenheimer's correspondence to nuclear culture, see Taylor, "The Politics of the Nuclear Text" 431.
2 Like "text," the word "discursive" is used quite broadly in this book. It refers to myriad cultural productions through which the discourse of nuclear culture circulates: books, film, television, museum installations, and other forms.

CHAPTER 1

This chapter contains revised and expanded material from my article "The Biographies of J. Robert Oppenheimer: Desert Saint or Destroyer of Worlds," which originally appeared in *Biography* 35.3 (2012): 492–515, and which is used gratefully with permission.

1 Cognizant of Schlaeger's contention that "there is no meaningful talk about a 'life' beyond interpretation" (58), this distinction between the terms "life" and "life-text" is my attempt to maintain the distinction between the actual, historical facts of a figure's life—facts that must remain contingent and potentially unknowable—and the textual interpretation of those facts in the form of the biography. My focus in this chapter will be on the "life-text."
2 On the conservative dimensions of biography as a genre, see Batchelor.
3 This number does not include several children's books about Oppenheimer, such as Toney Allman's *J. Robert Oppenheimer: Theoretical Physicist, Atomic Pioneer* (2005) or Glenn Scherer and Marty Fletcher's *J. Robert Oppenheimer: The Brain Behind the Bomb* (2008), most of which seem to be in the "Great Man of Science" vein. Allman's book, for instance, is part of a series titled "Giants of Science," while Scherer and Fletcher's is part of a series called "Inventors Who Changed the World."
4 For modern biography's origins in the eighteenth century, see Holmes 25.
5 On the role of supposition in biography, see Ellmann 18.
6 Such similarities are discussed in Young 203.
7 Although it is a trenchant study of Oppenheimer's downfall and rehabilitation, Priscilla McMillan's *The Ruin of J. Robert Oppenheimer and the Birth of the Modern Arms Race* (2005) will not figure into this analysis because its focus on the last decade or so of his life makes it the most limited in scope of the four biographies. Her focus does, however, emphasize Powers's point that the work done in Los Alamos is but "the middle chapter" in Oppenheimer's life. Powers, "An American Tragedy," *New York Review of Books*, September 22, 2005, http://www.nybooks.com/articles/archives/2005/sep/22/an-american-tragedy/.

8 Hunner makes a similar although more broadly conceived argument in an article (and, later, a book) about how Los Alamos and the region constitute the political and technological wellspring of more than sixty years of nuclear culture. He, too, discusses ways Oppenheimer's redefinition of physics occurred specifically in the context of the American West but does not analyze the conceptual and representational operations of the desert in detail. See Hunner, "Reinventing Los Alamos" and *J. Robert Oppenheimer* 46.
9 In comparing Oppenheimer to the figure of the Romantic artist I must emphasize the opposition between the Romantic artist and the Romantic scientist. Deeply indebted to the critical portrait offered in Mary Shelley's *Frankenstein* (1818), the Romantic scientist is distinctly *un*emotional, having removed himself from human relations and stifled all feeling. His irresponsible shirking of social and ethical obligations constitutes a deeply critical portrait of the scientist (Haynes 3). Such a portrait is of course common in cultural perceptions of American science, including perceptions of Oppenheimer, so it sits uneasily next to portraits of the physicist as Romantic artist.
10 For a discussion of the desert's conceptual extremes, see Schüll, 379.
11 Pike's discussion of the Burning Man Festival argues that the desert functions as a blank space upon which to project the elaborate aesthetic for which the gathering is known. Graulund makes a similar, if more grandiose point: the "desert landscape is, by definition, an empty landscape" (145) and an "essentially incommunicable" (146) one, but in its saturation with light, it is also a generative one: "It has, after all, at different times been claimed as the origin of monotheism, language and even of mankind" (156).
12 Titus claims that the mushroom cloud "was almost immediately recognized as a symbol of U.S. power" and was, moreover, quickly romanticized in popular culture to create "a sentimentalized myth about this period in history" ("The Mushroom Cloud as Kitsch" 102) that helps conceal the bomb's destructive potential. Although this argument has merit, I find problematic the suggestion that popular culture is inherently sentimental. As my analysis of these biographies and other texts about Oppenheimer implies, the rhetorical strategies used to represent atomic bombs are not necessarily or consistently kitschy, nostalgic ones.
13 The phrase comes from the title of Río's article, "The Desert as a National Sacrifice Zone: The Nuclear Controversy in Nevada Fiction."
14 Rosenthal makes this point in her analysis of the power of the mushroom cloud as a national image.
15 The term "spectator democracy" comes from the title of Kirsch's article

editorial apparatus, and so on—to characterize the larger world outside of the text to which autobiography refers and which strongly influences the circulation, reception, and meaning of autobiographical texts.

Conclusion

1 Haynes's *From Faust to Strangelove* remains the most comprehensive discussion of the figure of the scientist in Western culture.
2 On terrorism in the (neo)liberal era, see Berman.
3 For these points about forgetting and remembering the infrastructure of the nuclear past, I am indebted to Taylor, "Our Bruised Arms" 17–18.

BIBLIOGRAPHY

Abbey, Edward. *Desert Solitaire: A Season in the Wilderness*. New York: Ballantine, 1971.

Adler, Silvia. "Silence in the Graphic Novel." *Journal of Pragmatics* 43.9 (2011): 2278–2285.

Allman, Toney. *J. Robert Oppenheimer: Theoretical Physicist, Atomic Pioneer*. San Diego: Blackbirch, 2005.

Amrine, Michael. *Secret*. Boston: Houghton Mifflin, 1950.

Anderson, Oscar E., Jr. Review of *Brighter than a Thousand Suns*, by Robert Jungk. *Isis* 51.1 (1960): 117–119.

Anderson, Perry. *The Origins of Postmodernity*. New York: Verso, 1998.

Arbab, John. "Oppenheimer and Ethical Responsibility." *Synthesis: The University Journal in the History and Philosophy of Science* 5 (1982): 22–43.

Arnold, Kenneth. "The National Atomic Museum, Albuquerque, New Mexico: Where 'Weapon Shapes' Are Not Enough." *Technology and Culture* 30.3 (1989): 640–642.

Aubrey, Crispin, ed. *Nukespeak: The Media and the Bomb*. London: Comedia, 1982.

Auslander, Philip. *Liveness: Performance in a Mediatized Culture*. London: Routledge, 1999.

Bachelard, Gaston. *The Poetics of Space*. Trans. Maria Jolas. Boston: Beacon, 1969.

Banco, Lindsey Michael. "'Hiroshima Is Peanuts': The Strange Landscape of *The Day After*." *Arizona Quarterly* 71.1 (2015): 101–128.

Barth, John. *Giles Goat-Boy*. New York: Doubleday, 1966.

Barthes, Roland. *Camera Lucida: Reflections on Photography*. Trans. Richard Howard. New York: Hill and Wang, 1981.
———. "The Death of the Author." In *Image/Music/Text*. Ed. and trans. Steven Heath. London: Fontana, 1977. 142–148.
———. "The Discourse of History." In *The Rustle of Language*. Trans. Richard Howard. Oxford: Blackwell, 1986. 127–141.
———. *Mythologies*. 1957. Trans. Annette Lavers. New York: Hill and Wang, 1972.
Bartter, Martha. *The Way to Ground Zero: The Atomic Bomb in American Science Fiction*. Santa Barbara, CA: Praeger, 1988.
Batchelor, John. Introduction to *The Art of Literary Biography*. Ed. John Batchelor. Oxford: Clarendon, 1995. 1–11.
Baudrillard, Jean. *America*. Trans. Chris Turner. New York: Verso, 1988.
Beaty, Bart. "Introduction." *Cinema Journal* 50.3 (2011): 106–110.
Beck, John. *Dirty Wars: Landscape, Power, and Waste in Western American Literature*. Lincoln: University of Nebraska Press, 2009.
The Beginning or the End. Directed by Norman Taurog. MGM, 1947.
Benjamin, Walter. "Theses on the Philosophy of History." In *Illuminations*. Ed. Hannah Arendt. Trans. Harry Zohn. New York: Schocken, 1969. 253–264.
Berlatsky, Eric L. *The Real, the True, and the Told: Postmodern Historical Narrative and the Ethics of Representation*. Columbus: Ohio State University Press, 2011.
Berman, Paul. *Terror and Liberalism*. New York: Norton, 2003.
Bethe, Hans. Review of *Brighter than a Thousand Suns*, by Robert Jungk. *Bulletin of the Atomic Scientists* 14.10 (1958): 426–428.
Bingham, Dennis. *Whose Lives Are They Anyway? The Biopic as Contemporary Film Genre*. New Brunswick, NJ: Rutgers University Press, 2010.
Bird, Kai, and Lawrence Lifschultz, eds. *Hiroshima's Shadow: Writings on the Denial of History and the Smithsonian Controversy*. Stony Creek, CN: Pamphleteer's Press, 1998.
Bird, Kai, and Martin J. Sherwin. *American Prometheus: The Triumph and Tragedy of J. Robert Oppenheimer*. New York: Knopf, 2005.
Blouin, Michael, Morgan Shipley, and Jack Taylor, eds. *The Silence of Fallout: Nuclear Criticism in a Post-Cold War World*. Newcastle upon Tyne: Cambridge Scholars, 2013.
Bock, Dennis. *The Ash Garden*. New York: Knopf, 2001.
Bogard, Larry. *Los Alamos Light*. New York: Farrar, Straus and Giroux, 1983.
Bok, Sissela. *Secrets: On the Ethics of Concealment and Revelation*. New York: Pantheon, 1983.
Boone, Joseph A., and Nancy J. Vickers. "Introduction: Celebrity Rites." *PMLA* 126.4 (2011): 900–911.

Boorstin, Daniel. *The Image: Or, What Happened to the American Dream*. New York: Atheneum, 1962.
Bové, Paul, ed. *Early Postmodernism: Foundational Essays*. Durham, NC: Duke University Press, 1995.
Boyer, Paul. *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age*. Chapel Hill: University of North Carolina Press, 1985.
Bradbury Science Museum Gallery Guide. Los Alamos, NM: Los Alamos National Laboratory, 2013.
Braudy, Leo. *The Frenzy of Renown: Fame and Its History*. New York: Oxford University Press, 1986.
Brians, Paul. *Nuclear Holocausts: Atomic War in Fiction, 1895–1984*. Kent, OH: Kent State University Press, 1987.
Broderick, Mick. *Nuclear Movies*. Jefferson, NC: McFarland, 1991.
Brossard, Nicole. *Mauve Desert*. 1987. Trans. Susanne de Lotbinière-Harwood. Toronto: Coach House, 1990.
Brown, Tom, and Belén Vidal. *The Biopic in Contemporary Film Culture*. New York: Routledge, 2014.
Buck, Pearl S. *Command the Morning*. New York: John Day, 1959.
Butler, Robert Olen. *Countrymen of Bones*. New York: Horizon, 1983.
Caine, Barbara. *Biography and History*. Houndmills, UK: Palgrave Macmillan, 2010.
Canaday, John. *The Nuclear Muse: Literature, Physics, and the First Atomic Bomb*. Madison: University of Wisconsin Press, 2000.
Carpenter, Charles A. *Dramatists and the Bomb: American and British Playwrights Confront the Nuclear Age, 1945–1964*. Westport, CT: Greenwood, 1999.
Carson, Tom. *Gilligan's Wake*. New York: Picador, 2003.
Cassidy, David C. *J. Robert Oppenheimer and the American Century*. New York: Pi, 2005.
Casti, John L. *The One True Platonic Heaven*. Washington, DC: Joseph Henry, 2003.
"Challenge of the Sixties." *Panorama*. Produced by Michael Peacock. British Broadcasting Corporation, 1960.
Chaloupka, William. *Knowing Nukes: The Politics and Culture of the Atom*. Minneapolis: University of Minnesota Press, 1992.
Chapman, James. *Film and History*. New York: Palgrave Macmillan, 2013.
Cheng, Eileen Ka-May. "Exceptional Historiography? The Origins of Historiography in the United States." *History and Theory* 47.2 (2008): 200–228.
Chernus, Ira. *Nuclear Madness: Religion and the Psychology of the Nuclear Age*. Albany: State University of New York Press, 1991.

White, E .B. *The Wild Flag: Editorials from the "New Yorker" on Federal World Government and Other Matters*. Boston: Houghton Mifflin, 1946.

White, Hayden. *The Content of the Form*. Baltimore: Johns Hopkins University Press, 1987.

———. *Metahistory: The Historical Imagination in Nineteenth-Century Europe*. Baltimore: Johns Hopkins University Press, 1973.

Whitlock, Gillian. "Autographies: The Seeing 'I' of the Comics." *Modern Fiction Studies* 52.4 (2006): 965–979.

Wiener, Jon. *How We Forgot the Cold War: A Historical Journey across America*. Berkeley: University of California Press, 2012.

Williams, Paul. *Race, Ethnicity and Nuclear War: Representations of Nuclear Weapons and Post-Apocalyptic Worlds*. Liverpool: Liverpool University Press, 2011.

Willis, Martin T. "Edison as Time Traveler: H. G. Wells's Inspiration for His First Scientific Character." *Science Fiction Studies* 26.2 (1999): 284–294.

Wilson, Rob. "Producing American Selves: The Form of American Biography." *Contesting the Subject: Essays in the Postmodern Theory and Practice of Biography and Biographical Criticism*. Ed. William H. Epstein. West Lafayette, IN: Purdue University Press, 1991. 167–192.

Wilson, Robert R. Review of *Brighter than a Thousand Suns*, by Robert Jungk. *Scientific American* 199.6 (1958): 145–146, 148–149.

Winkler, Allan M. *Life under a Cloud: American Anxiety about the Atom*. Urbana: University of Illinois Press, 1999.

Wiseman, Thomas. *Savage Day*. New York: Delacorte, 1981.

Wray, Matt. "A Blast from the Past: Preserving and Interpreting the Atomic Age." *American Quarterly* 58.2 (2006): 467–483.

Wyden, Peter H. *Day One: Hiroshima and After*. New York: Simon and Schuster, 1984.

Yoneyama, Lisa. *Hiroshima Traces: Time, Space, and the Dialectics of Memory*. Berkeley: University of California Press, 1999.

Young, Robert M. "Darwin and the Genre of Biography." *One Culture: Essays in Science and Literature*. Ed. George Levine. Madison: University of Wisconsin Press, 1987. 203–224.

Zeman, Scott C., and Michael A. Amundson, eds. *Atomic Culture: How We Learned to Stop Worrying and Love the Bomb*. Boulder: University Press of Colorado, 2004.

Zindel, Paul. *The Gadget*. New York: HarperCollins, 2001.

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Unutterable Horror: A History of Supernatural Fiction,
edited by S. T. Joshi, PS Publishing, 2012

Two-volume scholarly text on supernatural fiction.

UNUTTERABLE HORROR

A History of Supernatural Fiction

Volume 1: From Gilgamesh to the End of the Nineteenth Century

S. T. JOSHI

PS 2012

UNUTTERABLE HORROR:
A HISTORY OF SUPERNATURAL FICTION
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significant influence on many minor poets of the period, as in, say, Elizabeth Rowe's "The History of Joseph." The few noteworthy supernatural poems of this era— John Gay's "A True Story of an Apparition" (1720), which contains some splendid horrific imagery; David Mallet's ballad "William and Margaret" (1730), a powerful fusion of love and death; William Collins's "Ode to Fear" (1746), heavily indebted to classical literature for its images—do not, cumulatively, amount to much. And the two most noteworthy instances of graveyard poetry, Edward Young's *Night-Thoughts* (1742–45) and Thomas Gray's *Elegy Written in a Country Churchyard* (1751), have little or nothing of the horrific about them.

It is, accordingly, not a little surprising that, even in the wake of James Macpherson's "Ossianic" poems of the 1760s—prose translations or paraphrases of ancient Gaelic poetry, full of wild imagery just on this side of supernaturalism—a humble little book published on Christmas Day of 1764 would initiate a literary genre that would ultimately gain immense popularity and, on occasion, produce works of substantial merit; but such are the vagaries of literary history.

III.
THE GOTHICS

1. Types of Gothic Fiction

In the second edition (1765) of *The Castle of Otranto,* Horace Walpole subtitled his novel "A Gothic Story." Although it is difficult to deny that Walpole did, after a fashion, give birth to the Gothic novel, we should be aware of a number of caveats surrounding this conventional assertion. Firstly, as James Watt reminds us (*Contesting the Gothic* 3), most novels under consideration here did not refer to themselves as "Gothic" novels but as "romances," reflecting a desire to segregate themselves from the realistic novels of Richardson, Fielding, and Smollett. Moreover, Gothic fiction took its own time in developing; Walpole's work did not suddenly impel a legion of imitators. In Frederick S. Frank's definitive listing of 422 Gothic novels (1762–1826) in Marshall Tymn's *Horror Literature* (1981), we can gain a good idea of how quickly the Gothic novel proliferated; broken down in roughly five-year intervals, the rate of production is as follows:

1764–1770: 4	1796–1800: 107
1771–1775: 6	1801–1805: 71
1776–1780: 3	1806–1810: 64
1781–1785: 7	1811–1815: 26
1786–1790: 30	1816–1820: 38
1791–1795: 47	1821–1826: 5

(The total excludes a certain number of titles that are undated.) It can be seen from this breakdown that the true explosion of Gothic novels did not begin until the late 1780s, probably through the simultaneous influence of Ann Radcliffe and the founding in 1790 of William Lane's Minerva Press, which was

consciously designed to capitalise on the burgeoning interest in Gothic fiction, with the result that it published some of the worst drivel ever seen in English literature.

What, exactly, does it mean to refer to a work as a "Gothic novel"? Linda Bayer-Berenbaum provides a compact definition of the term:

> The word *Gothic* originally referred to the Northern tribes that invaded Europe during the fourth, fifth, and sixth centuries. The term was later applied by Renaissance critics to the style of architecture that flourished in the thirteenth century, because these critics thought that the style had originated with the Goths. This architecture was held in low esteem during the Renaissance, and the word *Gothic* therefore developed pejorative connotations suggesting the uncouth, ugly, barbaric, or archaic. It implied the vast and the gloomy, and subsequently denoted anything medieval. Later the word indicated any period in history before the middle or even the end of the eighteenth century. *Gothic* loosely referred to anything old-fashioned or out of date. The ruins of Gothic cathedrals and castles were naturally termed *Gothic,* and soon any ruins—the process of decay itself—became associated with the Gothic as did wild landscapes and other mixtures of sublimity and terror. (19)

It is because, among many other reasons, the Gothic novels almost always drew upon the mediaeval past—with the exception of *Frankenstein* and a few others—that the term "Gothic" should be restricted to the works of this period and not extended to the entire range of supernatural, horrific, or weird fiction.

It is, moreover, inaccurate and misleading to speak of "The Gothic Movement" as if it were a monolithic entity. Even though the great majority of the immense number of Gothic novels produced during this period (1764–1820) were crass imitations of a handful of illustrious exemplars, the movement (if it can even be called that) quickly fragmented into a number of discrete subgenres that had relatively little to do with one another. Even if a few of the leading figures of Gothic fiction made a token acknowledgement to *The Castle of Otranto* as the *fons et origo* of their own work, it becomes clear that several writers, especially Clara Reeve and Ann Radcliffe, consciously departed from the model established by Walpole and worked in very different directions; by the end of the period (roughly coinciding with the emergence of the greatest of Gothic novels,

Charles Robert Maturin's *Melmoth the Wanderer,* 1820), Walpole's absurd little novel had largely been forgotten as a model, even if it continued to be reissued and read. By around 1795, indeed, Radcliffe in turn had become both the pinnacle of Gothicism and the springboard for still further deviations from it, especially in the work of M. G. Lewis and, later, William Godwin, Charles Brockden Brown, Mary Shelley, and Maturin.

We can, therefore, identify the following types of Gothic fiction:

1. The pure historical novel set in mediaeval times;
2. The mingling of the historical novel with the supernatural tale;
3. The "explained" supernatural, where the supernatural is suggested only to be explained away (usually implausibly) as the result of misconstrual or trickery;
4. The Byronic Gothic—a shorthand term not intended here to suggest any direct connexion with Byron, and featuring a focus on a hero/villain who seeks to transcend human bounds;
5. What I would call the Christian supernatural, where supernaturalism is manifested in a specifically Christian mode, either by the utilisation of the actual figure of the Devil, or of demons in league with the Devil, or subordinate entities (evolving out of Christian theology, even if their ultimate origin predated Christianity) such as witches and vampires.

Of these schools, I will have nothing to say of (1)—whose pioneering work was Sophia Lee's *The Recess* (1783–85)—and relatively little of (2), since I maintain that these works had a very slight influence on the progress and development of subsequent supernatural literature, or even the non-supernatural literature that might conceivably be considered horrific. Indeed, it is worth noting that, of the 422 works cited in Frank's list, only 106 can be clearly identified as supernatural. It is true that Frank's idea of what constitutes "Gothic romance" is rather generous, including everything from Goethe's *Götz von Berlichingen* (but, oddly, excluding *Faust*) to the pornographic novels of the Marquis de Sade to the early historical novels of Sir Walter Scott to Choderlos de Laclos's *Les Liaisons dangeureuses,* but nevertheless the relative paucity of actual supernaturalism in the fiction of this period is noteworthy.

The Gothic novel has been the subject of an immense amount of scholarly and critical work—far out of proportion, in my judgment, to its merits on

abstractly aesthetic terms. This work ranges from largely historical accounts—including the pioneering studies by Edith Birkhead (*The Tale of Terror,* 1921) and Eino Railo (*The Haunted Castle,* 1927)—to those utilising every conceivable sort of theoretical presupposition, including recently even that of queer theory (see Haggerty, *Queer Gothic*). Of this work I intend to say little, as the great majority of it is not germane to my overriding purpose of establishing the nature, purpose, and function of the supernatural in literature. There is, perhaps, some justification in the critical obsession with this period, since the Gothic novel really was a dominant branch of prose fiction during this time and is therefore of significance to the overall literature and culture of Europe and the United States; but the single-minded focus on this period, conjoined with the deliberate ignorance of subsequent strains of supernaturalism that are of immensely higher literary calibre, makes one seriously doubt the critical judgments of the scholars involved. I shall have more to say about their theorisings about the nature and direction of Gothic fiction at the end of this chapter; for now it may be more productive to gain some idea of the particulars of the leading instances of Gothic fiction before offering some theoretical proposals of our own.

II. The Historical Supernatural

What led Horace Walpole (1717–1797) to write *The Castle of Otranto,* self-published at his "Gothick" castle at Strawberry Hill on Christmas 1764 (although the first edition bears the date of 1765), under the pseudonym Onuphrio Muralto, is not entirely clear, in spite of the massive amounts of documentary evidence that Walpole himself left, chiefly in the form of correspondence, that would presumably allow an understanding of his chameleonlike and perhaps contradictory personality. Son of the prime minister Robert Walpole, he himself failed at politics and so devoted himself to being a wealthy dilettante, an occupation he practised with verve. His literary tastes can be gauged more from what he disliked than from what he liked; his letters are filled with somewhat captious criticisms of the novels of Fielding and Richardson, and also of Shakespeare's *Midsummer Night's Dream.* His disdain for Pope, the icon of eighteenth-century classicism, does suggest a certain fatigue with rationalism unenlivened by imagination.

Even Walpole's building of Strawberry Hill is not without its paradoxes and ambiguities. He did not begin fashioning it into a neo-Gothic castle until around 1750; and prior to this date he can still be seen expressing approval of Palladian classicism in architecture and using "gothic" as an epithet. Moreover, Walpole cannot be said to have invented or initiated the taste for Gothic architecture: as James Watt reminds us, the Gothic revival had really commenced as early as the 1740s (*Contesting the Gothic* 15). But the decade and a half of work on his castle prior to writing *The Castle of Otranto* does appear to have had some effect in casting Walpole's mind to the mediaeval past and in seeing in that past a fruitful source for literary composition. His canonical utterance on the matter occurs in a letter to Horace Mann when he first conceived the idea of building the castle: "I am going to build a little Gothic castle at Strawberry Hill. If you can pick me up any fragments of old painted glass, arms or anything, I shall be excessively obliged to you. I can't say I remember any such thing in Italy, but out of old châteaus I imagine one might get it cheap, if there is any" (10 January 1750). Three years later he followed up on the idea:

> I thank you a thousand times for thinking of procuring me some Gothic remains from Rome; but I believe there is no such thing there: I scarce remember any morsel in the true taste of it in Italy. Indeed, my dear Sir, kind as you are about it, I perceive you have no idea what Gothic is; you have lived too long amidst true taste, to understand venerable barbarism. You say, 'you suppose my garden is to be Gothic too.' That can't be; Gothic is merely architecture; and as one has a satisfaction in imprinting the gloomth [*sic*] of abbeys and cathedrals on one's house, so one's garden on the contrary is to be nothing but *riant,* and the gaiety of nature. (Letter to Horace Mann, 27 April 1753)

There is much of interest here—notably the notion that Gothic was inherently barbaric in contrast to the "true taste" of the Georgian era—but it may be worth focusing on Walpole's blandly dogmatic utterance that Gothic could apply only to architecture. Manifestly, in the course of the next fourteen years he came to realise that Gothic could be a literary mode also—hence *The Castle of Otranto.*

There is little need to rehearse the plot of this well-known work. It features the attempts of Manfred, the usurper of the noble line of Otranto and occupier of the eponymous castle, to preserve his ill-gotten gains either by fostering the

BIBLIOGRAPHY

A. Primary Texts

Aeschylus. [*Tragedies.*] Tr. Herbert Weir Smith. London: William Heinemann; Cambridge, MA: Harvard University Press, 1922. [Vol. 1 contains *The Persians.*]

Apollonius Rhodius. *The Voyage of Argo.* Tr. E. V. Rieu. Harmondsworth: Penguin, 1959 (rev. ed. 1971).

Apuleius. *The Golden Ass.* Tr. W. Adlington (1566), rev. S. Gaselee. Cambridge, MA: Harvard University Press; London: William Heinemann, 1915 (rpt. 1977).

Atherton, Gertrude. *The Caves of Death and Other Stories.* Ed. S. T. Joshi. Tampa, FL: University of Tampa Press, 2008.

Austen, Jane. *Northanger Abbey.* Ed. Anne Henry Ehreinpreis. Harmondsworth: Penguin, 1972.

Balzac, Honoré de. *The Works of Honoré de Balzac.* New York: Thomas Y. Crowell & Co., 1900. [Vols. I & II contain *The Magic Skin,* "Melmoth Reconciled," *The Quest of the Absolute;* Vols. III and IV contain *Seraphita, Louis Lambert,* and "The Elixir of Life."]

Baudelaire, Charles. *Les Fleurs du mal.* Tr. Clark Ashton Smith. In Smith's *Complete Poetry and Translations, Volume 3: The Flowers of Evil and Others.* Ed. S. T. Joshi and David E. Schultz. New York: Hippocampus Press, 2008.

Beowulf: The Donaldson Translation. Ed. Joseph F. Tuso. New York: W. W. Norton, 1975.

Bierce, Ambrose. *The Collected Works of Ambrose Bierce.* Washington, DC: Neale Publishing Co., 1909–12. 12 vols.

———. *A Much Misunderstood Man: Selected Letters of Ambrose Bierce.* Ed. S. T. Joshi and David E. Schultz. Columbus: Ohio State University Press, 2003.

———. *The Short Fiction of Ambrose Bierce: A Comprehensive Edition.* Ed. S. T. Joshi, Lawrence I. Berkove, and David E. Schultz. Knoxville: University of Tennessee Press, 2006. [*SF*]

———. *A Sole Survivor: Bits of Autobiography.* Ed. S. T. Joshi and David E. Schultz. Knoxville: University of Tennessee Press, 1998.

Braddon, Mary Elizabeth. *The Cold Embrace and Other Ghost Stories.* Ed. Richard Dalby. Ashcroft, BC: Ash-Tree Press, 2000.

Brontë, Charlotte. *Jane Eyre.* Ed. Margaret Smith. London: Oxford University Press, 1973.

Brontë, Emily. *Wuthering Heights.* Ed. Ian Jack. Oxford: Oxford University Press, 1995.

Broughton, Rhoda. *Rhoda Broughton's Ghost Stories and Other Tales of Mystery and Suspense.* Stamford, UK: Paul Watkins, 1995.

Brown, Charles Brockden. *Edgar Huntly; or, Memoirs of a Sleep-Walker.* [*The Novels and Related Works of Charles Brockden Brown.* Vol. 4.] Ed. Sydney J. Krause et al. Kent, OH: Kent State University Press, 1984.

———. *Wieland and Memoirs of Carwin the Biloquist.* Ed. Sydney J. Krause and S. W. Reid. Kent, OH: Kent State University Press, 1978. [Reprint, with new introduction, of *The Novels and Related Works of Charles Brockden Brown,* Vol. 1 (1977).]

Bulwer-Lytton, Edward. "The Haunted and the Haunters; or, The House and the Brain." In Herbert A. Wise and Phyllis Fraser, ed. *Great Tales of Terror and the Supernatural.* New York: Random Hopuse (Modern Library), 1944. 283–323.

———. *A Strange Story; Zanoni.* Chicago: Bedford, Clarke, n.d. [Novels paginated separately.]

Burns, Robert. *The Poetical Works of Burns.* Ed. Raymond Bentman. Boston: Houghton Mifflin, 1974.

Catullus et al. *Catullus, Tibullus, and Pervigilium Veneris.* London: Heinemann; New York: Macmillan, 1912.

Chambers, Robert W. *The Slayer of Souls.* New York: Doran, 1920.

———. *The Yellow Sign and Other Stories: The Complete Weird Tales of Robert W. Chambers.* Ed. S. T. Joshi. Oakland, CA: Chaosium, 2000.

Coleridge, Samuel Taylor. *The Poems of Samuel Taylor Coleridge.* Ed. Ernest Hartley Coleridge. London: Oxford University Press, 1912.

Collins, Wilkie. *The Haunted Hotel and Other Strange Tales.* Ware, UK: Wordsworth, 2006.

———. *Tales of Terror and the Supernatural.* Ed. Herbert Van Thal. New York: Dover, 1972.

Conrad, Joseph. "Heart of Darkness." In *Heart of Darkness and The Secret Sharer.* New York: Signet, 1950.

Cram, Ralph Adams. *Black Spirits and White.* Leyburn, UK: Tartarus Press, [2004].

Crawford, F. Marion. *Khaled: A Tale of Arabia.* London: Macmillan, 1891.

———. "The King's Messenger." In *Great Weird Tales,* ed. S. T. Joshi. Mineola, NY: Dover, 1999. 153–61.

———. *Wandering Ghosts.* New York: Macmillan, 1911.

———. *The Witch of Prague.* London: Macmillan, 1891.

Dante Alighieri. *Inferno.* Tr. John D. Sinclair. New York: Oxford University Press, 1939.

Defoe, Daniel. "A True Relation of the Apparition of One Mrs. Veal." In *Daniel Defoe.* Ed. James T. Boulton. London: Batsford, 1965. 134–41.

Dickens, Charles. *The Complete Ghost Stories of Charles Dickens.* Ed. Peter Haining. New York: Franklin Watts, 1983.

Doyle, Sir Arthur Conan. *The Best Supernatural Tales of Arthur Conan Doyle.* Ed. E. F. Bleiler. New York: Dover, 1979.

Edwards, Amelia B. *The Phantom Coach: Collected Ghost Stories.* Ed. Richard Dalby. Ashcroft, BC: Ash-Tree Press, 1999.

Eliot, George. "The Lifted Veil." In *George Eliot's Works.* Boston: Estes & Lauriat, 1893–95. 21.253–313.

Erckmann-Chatrian [Emile Erckmann and Alexandre Chatrian]. *The Man-Wolf and Other Tales.* London: Ward, Lock, [1876?].

Euripides. *Medea and Other Plays.* Tr. Philip Vellacott. Harmondsworth: Penguin, 1963.

———. [*Plays.*] 4 volumes. Tr. Arthur S. Way. London: Heinemann; New York: G. P. Putnam's Sons, 1919. [Volume 2 includes *Cyclops.*]

Fielding, Henry. *Tom Hones.* Ed. John Bender and Simon Stern. Oxford: Oxford University Press/World's Classics, 1996.

Freeman, Mary E. Wilkins. *Collected Ghost Stories.* Sauk City, WI: Arkham House, 1974.

Gautier, Théophile. *Avatar.* In *Tales Before Supper.* Tr. Myndart Verelst [i.e. Edgar Saltus]. 1888. Rpt. New York: AMS Press, 1970. 33–174.

———. *One of Cleopatra's Nights and Other Fantastic Romances.* Tr. Lafcadio Hearn. New York: Worthington, 1882. [Contains "One of Cleopatra's Nights," "Clarimonde," "Arria Marcella," "The Mummy's Foot," "Omphale: A Rococo Story," "King Candaules."]

———. *The Works of Théophile Gautier.* Trans. F. C. de Sumichrast. New York: George D. Sproul, 1901–02. [Contains *Jettatura* (Vol. 11) and *Spirite* (Vol. 15).]

The Epic of Gilgamesh. Tr. Andrew George. London: Allen Lane/The Penguin Press, 1999.

Gilman, Charlote Perkins. "The Yellow Wall-Paper" [*sic*]. In *The Oxford Book of Gothic Tales,* ed. Chris Baldick. Oxford: Oxford University Press, 1992. 249–63.

Godwin, William. *St. Leon.* Ed. Pamela Clemit. London: Oxford University Press, 1994.

Goethe, Johann Wolfgang von. *The Poems of Goethe.* Tr. Edgar Alfred Bowring. New York: Hurst & Co., 1874.

Haggard, H. Rider. *She: A History of Adventure.* London: Penguin, 2007.

Hawthorne, Nathaniel. *The House of the Seven Gables.* In *The House of the Seven Gables*

Fiction

The Iron Orchard, Tom Pendleton, TCU Press, 2019

Reprint of 1966 cult novel about the early Texas oil business.

THE IRON ORCHARD

a novel

TOM PENDLETON

TCU Press
Fort Worth, Texas

PART II

17

In September 1930 a wiry little man with a heavy nose and sleeve garters and a dream found his big oil field that he had spent most of his life searching for. His name was Columbus Marion Joiner and his well was on the Daisy Bradford farm in Rusk County, Texas, in an area that most major company geologists had condemned as unpromising for oil production. It was the third well that Dad Joiner had attempted on the Bradford place. The first two had been junked and abandoned due to bad luck and old worn-out equipment, and it took Dad years of dogged shoestringing, drilling until the money ran out, then shutting down while he went about the country selling shares in his leases to get money to drill some more, before he finally got the hole down to the Woodbine sand at 3,700 feet, which was his objective. When he finally made it, he merely discovered the biggest oil field in the USA.

Within a couple of years there were thousands of wells flowing from this great East Texas Field which produced from a buried sandy shoreline that stretched for fifty-five miles north and south and from three to nine miles east and west. Wells were even drilled on town lots in the hamlets that lay in the field's fairway, and overnight these hamlets became raging boomtowns choked with adventurers of every shape and hue drawn from all quarters of the land by the smell of oil and money. Show people, come down to Kilgore from Dallas to entertain the grimy throngs, had to step over flowing rivulets of oil in going from hotel to theater. East Texas was the biggest, richest, wildest, gaudiest oil bonanza of all.

Dad Joiner didn't make much money out of his discovery, and once he had made the strike it seemed, almost, as if he didn't care. But, without

intending it, he did a lot more than find a gigantic oil field. He set wheels and forces in motion that fundamentally changed the character of the oil business.

Jim McNeely married Lee Thomas Montgomery three months to the day after he left Dead Lake. In the interim, after her flight from the gross, self-centered husband she had never loved, Lee went home to her father's house in McCamey, Texas, and, in due course, obtained a divorce from Clyde Montgomery. She hired a lawyer in Odessa who filed a routine divorce action alleging mental cruelty.

Clyde Montgomery, with shocked and outraged pride, responded by filing a countersuit charging her with desertion and with adultery, naming a violent, disreputable, discharged ex-Bison roustabout called James McNeely as the other guilty party. Jim McNeely, who had landed in Odessa and was by then having dickering talks with Ben Sullivan and exploring other possibilities, sent word to Clyde that he wanted to meet with him face to face and straighten the matter out, and that any time and place that suited Clyde would be all right with him, so long as it was immediately.

In a couple of days Clyde sent word back through his lawyer that he didn't have time to waste on such sordid affairs. But at the same time he withdrew his countersuit and said he would not contest Lee's divorce. Then he told it around that he felt that it was good riddance of bad rubbish and that he was letting *her* get the divorce out of courtesy though she didn't deserve it, and that he felt damned lucky to have found out about her before they had any children. He soothed his injured feelings with the incensed sympathy he received from the Bison elite who lived in the little box houses at the Dead Lake Camp and stuck together like a bunch of company sheep.

During this time Jim McNeely made regular trips to McCamey to see Lee. He had several long talks with her father, whose first name was also Lee. They sat after dark in the backyard of the older man's comfortable house, under a big willow tree. Lee Thomas told him many things about his daughter, Lee Montgomery, that were pleasant to the father in the remembering and sounded good in the listening to Jim McNeely, who felt strangely happy to find himself in love with a young, beautiful married woman whom he hardly knew, and to be talking with her father on terms that were not only not dangerous but downright friendly.

Lee Thomas Montgomery had been christened Lee Thomas, after her father. This, Jim McNeely learned, was because she had been born when her parents were past forty and because Lee's mother, knowing there would be no more children and that her husband had his heart set on a son, thought the next best thing was to name the child after him.

"Good thing my name wasn't Roscoe," Lee Thomas said. "But hell, Lee was more fun than any boy would have been. She *liked* to go fishing and hunting with me. Not too many boys really like to go rambling around with their old man. I put "Helen Lee" on her birth certificate so she could have a girl's name if she wanted it, but before she got out of grade school she dropped the Helen. Said it was tacky. Took her about a year to break me of calling her by the two names."

Lee Thomas had had a slight stroke the winter before, and he walked rather poorly with a cane, and the muscles on one side of his face sagged, pulling down one eye and the corner of his mouth, and his speech was a little marbled. Jim McNeely liked Lee Thomas and thought he must have been a fine-looking man when he was younger. He would almost have to have been to be Lee's father.

"I never thought too well about Lee marrying Clyde," the gray-haired man said thoughtfully, swirling the last of a toddy in his good hand, sitting back in his canvas chair in the darkness under the tree. "But you can't live other people's lives for them. After they get grown about all you can do is hope for the best. And then help pick up the pieces if they stump their toe."

He was silent awhile, then he said, "This one seems a lot more likely to me than the first one. I don't like divorce. I really don't. But if you've made a bad mistake I figure it's better to rub it out and start over than try to live with it all your life. I don't know a thing in this world about you, Jim, I mean not very much. But I can see the difference in Lee. She's real worked up and ready to go out and fight wildcats barehanded, and that's the way it ought to be with a young woman. It wasn't like that before." He paused again and drained his glass. "I'm not well-to-do by any stroke of the imagination. But I've got a little property and I still take a little out of the mud-business I started here, just enough to run me, though the two boys I've turned the franchise to have a right to take me out for a few thousand any time they want to. They tell me keeping my name in the business helps them, but I know they're just doing it to give me something to do and some place to go to get out of the house. Anyway, Lee's sold on

you, and if she is, I am, too. And so if you need any help getting started, why I'll do whatever I can, money or otherwise. I figure that whatever I've got, why it'll do Lee more good now when she needs it than later on down the line when the Lord decides I've been around too long. It might not mean anything to her then."

That was the offer, set before him without strings, and Jim McNeely felt called upon to speak. He was touched. Nobody had offered him money without strings ever before in his life.

"Mister Thomas, I appreciate your—your trust in me—and that Lee's not making a mistake. I don't know what to say. I love Lee and I want to marry her. But I don't need anybody to help me. Well, maybe I do—I guess everybody needs help. Anyway, I don't want any. I'll make it, or I won't, on my own. I've got a little money. I think I'll make it."

The old man set his empty glass down on the ground and laughed. "Looks like little old Lee's finally gone and lucked out and got herself a man. I don't know where you all think you're headed, but it ought to be an interesting ride. Wish I could be around to see how it comes out."

"Aw you'll be around a long time, Mister Thomas."

"Yeah," said the old man dubiously. "Maybe so. Anyway, if I can help you, holler."

"I will," said Jim McNeely. "I appreciate it." And he did.

18

It was nearly midnight. Jim McNeely sat at the battered desk in the office of the Sullivan Well Servicing Company in Odessa, Texas, knuckling his brow under the naked globe which hung on a fly-specked wire from the ceiling. He had sat a long while filling pages of a tablet with figures, then tearing them off, wadding them up and throwing them irritably at the waste basket in the corner of the room. He still wore a white shirt with dark blue tie from the funeral. His coat hanging on a wall hook still had the wilted pallbearer's bud pinned to the lapel. The small office was sparsely furnished with the old desk, three dirty yellow-oak chairs, a filing cabinet, an ancient hand-crank adding machine and a still more ancient Oliver typewriter. A calendar of an oil-field supply company, depicting a full-ripe girl wearing only a tin safety hat, hung on the back of the door.

In several hours of figuring he had engaged in a bitter running argument with himself over what he should do about Mrs. Sullivan. He did have some choice. She didn't have to buy his interest in the business if she didn't want to. She probably didn't have the money anyway. But he didn't have to buy her out, either, and certainly not at the same figure that he had, gradually, over three years, acquired his interest from Ben. The equipment was old when he had started with Ben, and Ben had put in a hellacious "going concern" factor when he set the price. This seemed all right at the time because Jim McNeely was out of a job, and didn't know anything about anything except oilfield pipe-lining. But he knew that he could now duplicate the equipment, brand new, for what he would have to pay Mrs. Sullivan for her half on the old basis.

The Colorado Kid, Stephen King, PS Publishing, 2007

Novel, fancy hardcover reprint, with color plates,
of book first published in mass-market by Hard Case Crime.

2

Here was the thing Stephanie loved best about *The Weekly Islander*, the thing that still charmed her after three months spent mostly writing ads: on a clear afternoon you could walk six steps from your desk and have a gorgeous view of the Maine coast. All you had to do was walk onto the shaded deck that overlooked the reach and ran the length of the newspaper's barnlike building. It was true that the air smelled of fish and seaweed, but everything on Moose-Look smelled that way. You got used to it, Stephanie had discovered, and then a beautiful thing happened—after your nose dismissed that smell, it went and found it all over again, and the second time around, you fell in love with it.

On clear afternoons (like this one near the end of August), every house and dock and fishing-boat over there on the Tinnock side of the reach stood out brilliantly; she could read the SUNOCO on the side of a diesel pump and the *LeeLee Bett* on the

hull of some haddock-jockey's breadwinner, beached for its turn-of-the-season scraping and painting. She could see a boy in shorts and a cut-off Patriots jersey fishing from the trash-littered shingle below Preston's Bar, and a thousand winks of sun glittering off the tin flashing of a hundred village roofs. And, between Tinnock Village (which was actually a good-sized town) and Moose-Lookit Island, the sun shone on the bluest water she had ever seen. On days like this, she wondered how she would ever go back to the Midwest, or if she even could. And on days when the fog rolled in and the entire mainland world seemed to be cancelled and the rueful cry of the foghorn came and went like the voice of some ancient beast . . . why, then she wondered the same thing.

You want to be careful, Steffi, Dave had told her one day when he came on her, sitting out there on the deck with her yellow pad on her lap and a half-finished Arts 'N Things column scrawled there in her big backhand strokes. *Island living has a way of creeping into your blood, and once it gets there it's like malaria. It doesn't leave easily.*

Now, after turning on the lights (the sun had begun going the other way and the long room had begun to darken), she sat down at her desk and found her trusty legal pad with a new Arts 'N Things column on the top page. This one was pretty much

interchangeable with any of half a dozen others she had so far turned in, but she looked at it with undeniable affection just the same. It was hers, after all, her work, writing she was getting paid for, and she had no doubt that people all over the *Islander*'s circulation area—which was quite large—actually read it.

Vince sat down behind his own desk with a small but audible grunt. It was followed by a crackling sound as he twisted first to the left and then to the right. He called this "settling his spine." Dave told him that he would someday paralyze himself from the neck down while "settling his spine," but Vince seemed singularly unworried by the possibility. Now he turned on his computer while his managing editor sat on the corner of his desk, produced a toothpick, and began using it to rummage in his upper plate.

"What's it going to be?" Dave asked while Vince waited for his computer to boot up. "Fire? Flood? Earthquake? Or the revolt of the multitudes?"

"I thought I'd start with Ellen Dunwoodie snapping off the fire hydrant on Beach Lane when the parking brake on her car let go. Then, once I'm properly warmed up, I thought I'd move on to a rewrite of my library editorial," Vince said, and cracked his knuckles.

Dave glanced over at Stephanie from his perch on the corner of Vince's desk. "First the back, then the

First Edition

Frost on Glass, Ian R MacLeod, PS Publishing, 2015

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Mixed collection of short stories and non-fiction.

Story credits appear at the end of the book.

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Contents

Introduction *Don't Look Back*

You should never look back, especially when it comes to short stories. They're like flings or affairs rather than the marriages of novels, and it's all too easy to get drawn away from the road ahead by picking over old joys, regrets and what-might-have-beens. Still, any collection such as this cannot help but cast a glance over its shoulder, and I, both as a reader and a writer, have an abiding interest in how fiction is written—something I intend to explore in this book.

Writing is at least as much a craft as it is an art, and one of things I aim to do in these pages is to offer some insight into how various aspects of my stories came about. I've written a long new story, *Frost on Glass*, which gives this collection its name and is itself about writing, and the frustrations of trying to master and control something so evanescent, along with a substantial new essay *I've Got This Idea For a Story . . .* which is both an examination and a spirited defence of that most fundamental and tricky of writerly subjects. I've also included various other non-fiction pieces I've written here and there over the years, which touch in one way or another on the process of writing.

As for the stories, and despite all the things I say about them, I hope that they speak for themselves.

The Discovered Country

The trees of Farside are incredible. Fireash and oak. Greenbloom and maple. Shot through with every colour of autumn as late afternoon sunlight blazes over the Seven Mountains' white peaks. He'd never seen such beauty as this when he was alive.

The virtual Bentley takes the bridge over the next gorge at a tyrescream, then speeds on through crimson and gold. Another few miles, and he's following the coastal road beside the Westering Ocean. The sands are burnished, the rocks silver-threaded. Every new vista a fabulous creation. Then ahead, just as purple glower sweeps in from his rear-view over those dragon-haunted mountains, come the silhouette lights of a vast castle, high up on a ridge. It's the only habitation he's seen in hours.

This has to be it.

Northover lets the rise of the hill pull at the Bentley's impetus as its headlights sweep the driveway trees. Another turn, another glimpse of a headland, and there's Elsinore again, rising dark and sheer.

He tries to refuse the offer to carry his luggage made by the neat little creature that emerges into the lamplit courtyard to greet him with clipboard, sharp shoes and lemony smile. He's encountered many chimeras by now. The shop assistants, the street cleaners, the crew on the steamer ferry that brought him here. All substantially humanoid, and invariably polite, although amended as necessary to perform their tasks, and far stranger to his mind than the truly dead.

He follows a stairway up through rough-hewn stone. The thing's name is Kasaya. Ah, now. The east wing. I think you'll find what we have here more than adequate. If not . . . Well, you *must* promise to let me know. And this is call the Willow Room. And *do* enjoy your stay . . .

Northover wanders. Northover touches. Northover breathes. The interior of this large high-ceilinged suite with its crackling applewood fire and narrow, deep-set windows is done out in an elegantly understated arts-and-craftsy style. Amongst her many attributes, Thea Lorentz always did have excellent taste.

What's struck him most about Farside since he jerked into new existence on the bed in the cabin of that ship bound for New Erin is how unremittingly *real* everything seems. But the slick feel of this patterned silk bedthrow . . . The spiky roughness of the teasels in the flower display . . . He's given up telling himself that everything he's experiencing is just some clever construct. The thing about it, the thing that makes it all so impossibly overwhelming, is that *he's* here as well. Dead, but alive. The evidence of his corpse doubtless already incinerated, but his consciousness—the singularity of his existence, what philosophers once called "the conscious I", and theologians the soul, along with his memories and personality, the whole sense of self which had once inhabited pale jelly in his skull—transferred.

The bathroom is no surprise to him now. The dead do so many things the living do, so why not piss and shit as well? He strips and stands in the shower's warm blaze. He soaps, rinses. Reminds himself of what he must do, and say. He'd been warned that he'd soon become attracted to the blatant glories this world, along with the new, young man's body he now inhabits. Better just to accept rather than fight. All that matters is that he holds to the core of his resolve.

He towels himself dry. He slips on his watch—seemingly a Rolex, but a steel model, neatly unostentatious—and winds it carefully. He dresses. Hangs up his clothes in a walnut panelled wardrobe that smells faintly of mothballs, and hears a knock at the doors just as he slides his case beneath the bed.

"Yes? Come in . . . "

When he turns, he's expecting another chimera servant. But it's Thea Lorentz.

This, too, is something they'd tried to prepare him for. But encountering her after so long is much less of a shock than he's been expecting. Thea's image is as ubiquitous as that of Marilyn Munroe or the Virgin Mary back on Lifeside, and she really hasn't changed. She's dressed in a loose-fitting shirt. Loafers and slacks. Hair tied back. No obvious evidence of any make-up. But the crisp white shirt with its rolled up cuffs shows her dark brown skin to perfection, and one loose strand of her tied back hair plays teasingly at her sculpted neck. A tangle of silver bracelets slide on her wrist as she steps forward to embrace him. Her breasts are unbound and she still smells warmly of the patchouli she always used to favour. Everything about her feels exactly the same. But why not? After all, she was already perfect when she was alive.

"Well . . . !" That warm blaze is still in her eyes, as well. "It really *is* you."

"I know I'm springing a huge surprise. Just turning up from out of nowhere like this."

"I can take these kind of surprises any day! And I hear it's only been—what?—less than a week since you transferred. Everything must still feel so very strange to you."

It went without saying that his and Thea's existences had headed off in different directions back on Lifeside. She, of course, had already been well on her way toward some or other kind of immortality when they'd lost touch. And he . . . Well, it was just one of those stupid lucky breaks. A short, ironic keyboard riff he'd written to help promote some old online performance thing—no, no, it was nothing she'd been involved in—had ended up being picked up many years later as the standard message-send fail signal on the global net. Yeah, that was the one. Of course, Thea knew it. Everyone, once they thought about it for a moment, did.

"You know, Jon," she says, her voice more measured now, "you're the one person I thought would never choose to make this decision. None of us can pretend that being Farside isn't a position of immense privilege,

Afterword *Silver Machines*

One of the things I've become conscious of as I put this collection together, and especially as I've reviewed what I've said and written over the years about writing, is how unsettled I've become about the issue of genre. Most often, when people ask me what I write, I'll say SF and perhaps add that I also write fantasy, but the reality is that I'm not remotely happy with either of those labels. Of course, that's what much of my work is, at least in the sense that that's how it's categorised, and it's hard to imagine how a story such as *The Discovered Country*, which is set in the future, and involves downloaded personality and virtual reality, could be thought of as anything other than SF. But still, when I tell people what I write, I want to say, yes, a lot of it's SF, but I wish I could call it something else.

I'm well aware that this is a drift of loyalties that many writers who become "pigeonholed", as they might see it, into a certain area of literature, experience as they get older and more pompous. Writers of thrillers who think their latest work is "more than" a thriller. Or, indeed, so-called mainstream writers who'd very much like their static works to be thought of a beach-book material. Still, as far as I'm concerned, there was a time when SF, or at least a certain kind of SF, was genuinely at the cutting edge of what could be achieved in literature. I grew up, or grew into, reading writers like Ballard and Aldiss and Silverberg and Priest, as well at Fowles and Pynchon, when they were at their most ambitious and experimental, and saw a road ahead where SF wouldn't so much be absorbed into the literary mainstream as become the way ahead for it.

Of course, and although I describe the excitement of that time of

discovery further on in this collection, that didn't happen. Neither did I ever want to become the kind of writer who takes great stylistic and structural risks—the biggest risk of all, of course, being that you become unreadable. But what I did want to become, and still want to be, is a writer who can tell a story which incorporates strangeness and wonder—and, sure, addresses the past, the present and the future—but one who also writes with a sense of style, and creates a vivid sense of place and character, and, above all, engages the reader's emotions. And, if there is a template for that aim, it's *Weihnachtsabend* by Keith Roberts. Which is the story I set out to try to copy when I wrote *The Discovered Country*.

I can well remember first reading *Weihnachtsabend* sitting on a coach on a rainy daytrip to Bourton-on-the-Water in the Cotswolds on what must have been my sixteenth birthday, with Hawkwind's Silver Machine riding surprisingly high in the charts. The premise is an alternate Britain which has succumbed to Hitler, and in it a man and a woman arrive through a snowy landscape at a Christmas house party in a grand stately home where they find their loyalty to the regime, and each other, tested. Lamborghinis are offered. A love affair resurfaces. The children of the privileged families of the British Reich are sent on a scary midnight hunt for presents while being stalked by the demon Hans Trapp. The Boxing Day hunt gains a horrible new twist.

Roberts wasn't a writer who surprised with his intellectual or technological insights. He was also often weak on plot, although not in the case of *Weihnachtsabend*, which is probably why it's one of his most fondly remembered works. But he had an artist's eye for words, and, at his best, a Hardyesque insight into both the small tragedies of the human condition and, especially, into his female characters. When it came to depicting women, his later work often veered towards the sort of objectification to which many male writers, from Hardy himself to John Updike, are prone, but at his best he could make them both mysterious and empathetic, incredibly *other*, yet amazingly real. Which is, I suppose, what all people, outside the frail illusion of self that we strive to maintain inside our own heads, truly are. I'll leave you to judge which side of the line I fall with Thea in *The Discovered Country* and the female characters in my other

The Metanatural Adventures of Dr. Black, Brendan Connell, PS Publishing, 2014

Collection of linked short stories and miscellany in the form of scientific memoir.

THE METANATURAL ADVENTURES OF DR. BLACK

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THE METANATURAL ADVENTURES OF DR. BLACK

BRENDAN CONNELL

INTRODUCTION
BY JEFF VANDERMEER

2014

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Contents

Dr. Black and the Guerrilla

I.

The mountains were the colour of chrysoprase. The train rattled over the joints of the tracks, passed through fincas sprinkled red with coffee beans and over precipitous bridges, the white froth of rivers raging far below. The windows of the carriage were all half down. The doctor relaxed his gaze on the luxuriant countryside. The delicate murmur of Spanish reached his ears.

"Sí, así és . . . "

" . . . Oh no, no tienen nada en contra de las ideas; solamente a los que las divulgan."

"Las ideas son peligrosas . . . "

"Claramente."

" . . . . mejor aún . . . la Guerrilla de la Luz Ardiente . . . "

Clickety-clack.

He had an attack of drowsiness. When he awoke the sun was setting. Evening swept over the jungle and it changed; into something perilous—a whispering mass of black waves which lurked beneath primordial orange, the newborn sky of night. The carriage was dark and the people within were silhouettes and shadows; a few murmured together in low, indistinguishable tones; he heard an old man's voice, which was like rust[1].

At Los Moscadinos, the doctor took up his duffle bag and deboarded, as did a few other passengers, who then quickly disappeared into the dark. The station was empty; huge moths beat against the single light

1. He, Dr. Black, polymath and great phytographist, foremost of amateur nephologists, etc., is in San Corrados, where he is conducting researches for his mammoth study *A Key to All Gods*, id est, he is attempting to locate the Yaroa tribe and investigate their practices regarding the deity Apozitz.

that illuminated the signboard. Orthopterous insects crunched beneath his feet. He made his way onto the street, which was paved with bricks. A few men were sitting in front of a shop opposite him, on empty crates, smoking cigarettes and muttering together in low voices.

He approached and smelled the stale smell of drunkenness.

"Does anyone know which direction to take for the Hotel San Salvador?" he asked.

Eight malevolent eyes looked at him.

"Hotel San Salvador," he repeated.

"Not . . . goddamned Oficina de Turismo," one man grunted.

"Forty pesos," said another.

" . . . part of Trujillo's death squad," said a third.

The men were drunk on aguardiente; martyring themselves on the public street in the name of poverty and hopelessness while their wives and mothers wept at home, praying to Our Lady of Desperate Hours in the shape of six peso reproductions (40 x 50 cm framed matted prints, and 25 cm cold-cast resin statuettes) inspired by the miraculous picture kept at La Cienega[1].

The doctor looked at the fourth, an emaciated and ragged individual whose tongue was pressed delicately between his teeth, as if he were caught frozen in the process of lisping.

"The Hotel San Salvador," Black asked; "tell me amigo, where is it?"

The man did not answer, but simply pointed up the street; and the doctor turned and walked in that direction, hearing laughter behind him. In San Corrados there were many kinds of laughter. There was the laughter of joy and the laughter of derision. There were loud bursts and soft chuckles. The girls laughed flowers, and the politicians laughed

1. This village, 20 miles north of Los Moscadinos, claims that its icon of Our Lady has been repainted by the touch of the Supreme Being. After some of the paint on the icon in the local church had been removed for restoration, it was miraculously repainted in the middle of the night by a hand so expert that all who saw the work called it unearthly. Villagers believe the painting is protected by divine power. Tradition has it that a band of the country's worst thieves and drunkards once tried to steal it, but suddenly broke down in tears, and thereafter lived the lives of honest citizens.

venom. The rich men laughed with self-satisfaction, and the poor gave the laughter of misery, of resignation; and then there was the laughter of defiance.

Black himself, when he finally found the Hotel San Salvador, let go an audible expulsion of air from his lungs,—but not laughter. He sighed as he looked up at: a seedy and ill-kept edifice; peeling pink paint and cracked walls. A vague light crept through curtained windows which were shielded by iron bars. The doctor rang the bell. A few moments later a man in a wheelchair, with a face like a chisel, opened the door.

"I believe you have a reservation; for a Black,—Dr. Black."

The man paused for a moment and stared penetratingly into the doctor's eyes, before replying. "Yes," he said, "we have a room with a bed."

He back-wheeled, and Black entered.

"Alejandro!" the man called out, and an instant later an obsequious and dirty looking youth made his appearance and showed the doctor upstairs. A white door with a brown patch of dirt around the handle. When the light to the room was turned on, he saw a mouse scurry across the floor and disappear into a small aperture in the wall. The only furniture: a single chair, a zinc-topped table and a bed. It was a room, still tainted by the spirits of dead love-making, bed-wetting and probable suicide.

"It is not unlike a jail cell," the doctor thought, and then said aloud: "Is this the best chamber in the castle?"

The young man shrugged his shoulders and gave a meaningless smile. After receiving a few coins, he turned and left. Black set down his duffle bag, unbuttoned his shirt and lay upon the bed. His forehead glistened with sweat. From somewhere in the night he heard the sound of a badly played guitar. He stared up at the yellow stains on the ceiling: one was in the shape of the Hebrew letter *lamed*, another a Stillson wrench. He closed his eyes and experienced the residual movement of the train: as often occurs upon the termination of a long rail voyage, he still felt as if he were physically in motion; and the gears of his mind were turning. Thoughts flowed in layers, arranged themselves in his brain in classificatory divisions, beginningless ideas and images and endless conceptions. Adhering strictly to fact, the moment was for him a large pad containing

a framework of metal springs which supported his reclining body, yet San Corrados was for his imagination, which was the revelation of science and as profound as the human soul, still a banquet of wonderful things:

1. Anthropological and archaeological studies
   a. Local divisions of aboriginal peoples
      i. In preparation for marriage, the females of the Vacotocha tribe are placed in baskets in the huts of their future in-laws and must remain suspended over an open fire of jacaranda wood unceasingly for a period of three months. The Vacotocha are known for their use of a number of hallucinogens in magico-religious practices. They have a rich and complex set of theological concepts and believe that every human being is endowed with three souls.
      ii. The Guaya live in the south-western region of the country, along the Río de la Muerte and its tributaries. The men wear loin cloths dyed red from the onoto berry. Their peculiar wardress consists of grass skirts and long blond (zeñojañe) grass wigs. Their diet is made up in a large part of the succulent, greasy larvae of Caryobruchus known as 'etéme', which they skewer or wrap in leaves and gently roast, or, occasionally, consume raw. Guaya marriage restrictions include sib and phratry exogamy. Since the first European contacts, the population of this tribe has diminished disastrously (new diseases, deliberate campaigns of extermination).
      iii. The Ajaja Muajaja, or Monkey Sucking Tribe, live only in a few remote villages of the rain forest of San Corrados. Only a handful of outsiders have come in contact with them. Communication is difficult as their language consists of a series of whooping sounds, which have never been properly researched by anthropologists. They are a matriarchal society. Each female, of child-bearing age, wears, almost by way of decoration, a baby monkey on each breast. They have also been known to breast-feed small pigs and raccoons. Communities range in size from 8 to 100 people. Though in previous times they ate their dead, as a way of keeping their loved ones with them forever, their current custom is to store them in large jars placed inverted in the earth.
      iv. Most importantly, the Yaroa: little studied, reputed worshippers of the god Apozitz, that mysterious senior deity. Their language is closely related to Jorá. As yet, their only contact with white men has been limited, for the most part, to the occasional killing of rubber tappers, gold-prospectors and missionaries.
   b. Flagelantes
      i. Maria of Monte Carmelo: pleasure and delight, thoughts on love while whipping herself with leathern thongs / two raw red patches / Sisterhood of Penance.
      ii. The Brotherhood of the Iron Candle flagellate themselves twice a day. Discalced, they proceed gradually to the public square, where they strip to the waist and prostrate in a large circle—each one, by his posture, signifying the nature of the sins he wishes to expiate, the murderer lying on his back, the adulterer on his face, the bearer of false witness on one side holding up three fingers, etc. First they let themselves be beaten by the Master, and then, after rising to their feet, stand in a line and scourge themselves ruthlessly, crying out that their over-hot blood is being merged with the cooling Blood of Christ and that their penance is the only thing preserving the whole world from the flames of absolute destruction.
      iii. The Disciplinaries of Christ Jesus/auto-flagellate/butterfly-shaped bruises/faces covered.
      iv. Brotherhood of the Purple Silence/my father beat you with whips, but I will beat you with scorpions/strike themselves solely with glass-laden wooden paddles/occasional ritual crucifixions.
2. The broad range of nature
   a. The giant tree rat of San Corrados, a pale grey animal, streaked with white from head to snout and belonging to the abracomid family (a peculiar bouquet of frantic mammals). These are, it would seem, the same creatures which were kept as pets by the ancient Incas, their skeletons having been found in the tombs of their owners.

A Gallery of Interesting Things

If you take a drowned fly, one dead up to twenty-four hours, put it the sun and cover it with salt, it will come to life again.

In Java it rains ninety-seven days a year.

On January 31st, 1889, an unexplained barometric oscillation took place over Central Europe.

The bodies of bees, when dried, powdered and mixed with oil, make an excellent cure against baldness.

Margaret Rich Evan, at the age of 70, was known as the best wrestler in Wales.

In October, 1909, Dr. A.P. Brigham proved that the maximum number of inhabitants that the United States of America could support would be 305,000,000.

On the 17th of June, 1278, two hundred madmen began to leap about on the Mosel Bridge in Utrecht. All fell in the water and drowned.

The Hipparchia Janira butterfly bears on its wings an exact likeness to Henry Peter Brougham, 1st Baron Brougham and Vaux.

If you hang branches of an elder bush in your house, flies will not come near.

On March 15th, 1860, a certain Mr. Goodman, between the hours of 10 a.m. and 7:20 p.m., smoked seventy-two cigars.

In Amsterdam, in 1682, a woman gave birth to a dog.

In Gloucester, Massachusetts, a goose lived to be 95 years old.

Take the skin of a young rabbit and cut it into two-inch wide strips. Gather mugwort on the first degree of the sign of Capricorn and sew it into the strips and then fold them in half and sew them up. With these make garters. When worn, you will be able to walk very fast.

Saturn is the most beautiful object in the sky.

The progeny of a single fly in a year is 2,080,320.

On May 27th, 1876, Commandant Tegrad successfully photographed a bottle using only his mind.

Suggested Reading

A Key to All Gods, in twenty-nine volumes. Printed by the Watson Ethnological Society, Boston, for its members

Regiae Biblothecae Matritensis Codices Graeci Manuscripti, Madrid, 1769

Conclusiones, Regulae Tractatus et communes Opiniones, Venice, 1568

Bible Wines, or, The Laws of Fermentation and Wines of the Ancients, New York, National Temperance Society and Publishing House, 1874

Supramundane Facts in the Life of Rev. Jesse Babcock Furguson, A.M., LL.D., Including Twenty Years' Observation of Preternatural Phenomena, London, 1865

A Table, exhibiting the Moon's age by Inspection, London, 1810

Annals of King David, London, 1823, Sudbury Printer, Gate Street, Lincoln's Inn Fields

Learn Syriac in 30 Days, Integrated Learning Publications, 1973

Telemetry Equipment Buyers Guide, 1970, Value Engineering Publications, Inc.

Balloon terms, their definitions and French equivalents, Washington, Government Printing Office, 1918

Sarvadharmasvabhāvasa-matāvipañcita-samādhiraja

Synagoge, Printed for the Booksellers, circ. 1860

Fiamme d'amor divino dell'anima desiderosa di fare tutto il bene e d'impedire tutto il male, 1681, G.C. Wagner

Jackson's gymnastics for the fingers and wrist, London, 1865, N. Trübner & Co.

Questionnaire

Please fill in the following questionnaire and send it, along with a $1 (US banknotes only) processing fee to 525 Lolita St, Santa Fe, NM 87501, or deliver in person, on August the 3rd, between the hours of 3 and 4 p.m. at Piazza San Marco, Venice (give to the man with the small moustache standing in front of the Caffé Florian).

Please rate your level of satisfaction:

Extremely Satisfied ☐
Very Satisfied ☐
Quite Satisfied ☐

How much will you say under interrogation?

Everything ☐
Nothing ☐
Something ☐

Can you get the Tao?

Yes ☐
No ☐

Please explain, in ten words or less, the aspects represented in unity.