

## Book Review

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### RIVER OF LOST SOULS: THE SCIENCE, POLITICS, AND GREED BEHIND THE GOLD KING MINE DISASTER.

By Jonathan P. Thompson. (Torrey House Press, 296 pages; 2018)

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#### I. Introduction

On August 5, 2015, contractors for the U.S. Environmental Protection Agency (EPA) investigating the Gold King Mine in southwestern Colorado accidentally released some three million gallons of contaminated water to the Animas River, triggering weeks of front-page headlines, months of Congressional hearings, and now years of litigation. *River of Lost Souls: The Science, Politics, and Greed Behind the Gold King Mine Disaster*,<sup>2</sup> a new book by Jonathan P. Thompson, suggests by its title a human folly behind this “disaster” much broader and deeper than one tragic accident wrought by EPA contractors. On this thesis, Thompson certainly delivers. However, what we get from the book is both less and so much more. Less, because one can finish the book and walk away wondering who really is to blame for the Gold King Mine spill. So much more, because *River of Lost Souls* is not really the story of a spill, but the story of a place: the Four Corners country of Colorado, New Mexico, Arizona, and Utah.

The story of this place is cause for celebration and despair: despair as Thompson chronicles one trauma after another visited upon this breathtaking country of mountains and desert; but celebration too as readers could not hope for a writer more capable and better situated than Thompson to explain these traumas to us. Thompson, who was born and raised in the Animas River valley, with family reaching back generations, returned to the area in 1996 to write for local newspapers and eventually the *High Country News*. On the fateful day of the Gold King Mine blowout in August 2015, Thompson—already an accomplished, award-winning writer—was at home in Durango, Colorado, working on another piece, when the story of a lifetime *literally* came to him. Hearing news of the spill on his Twitter feed, Thompson jumped into his car and drove upstream to confront the “[t]urbid, electric-orange water, utterly opaque, sprawl[ing] out between the sandy banks....”<sup>3</sup> Hours after dark, the sickly “slug” of orange water moving down the Animas River would reach Durango and continue on its long journey through four states, three tribal lands, and innumerable towns, villages, farms, and lives along the way. Thompson, the *writer*, would become part of the story. As national media descended on Durango and began reporting on the spill,<sup>4</sup> Thompson was already there and among the first to get the story and get the story *right*.<sup>5</sup>

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2 JONATHAN P. THOMPSON, *RIVER OF LOST SOULS: THE SCIENCE, POLITICS, AND GREED BEHIND THE GOLD KING MINE DISASTER* (2018).

3 Thompson, *supra* note 1, at 7.

4 See, e.g., David Kelly, *River Spill Is a Toxic Blast from the Past*, L.A. TIMES A-1, Aug. 10, 2015; Julie Turkewitz, *Environmental Agency Uncorks Its Own Toxic Spill*, N.Y. TIMES, Aug. 11, 2015; Richard Parker, *A River Runs Yellow*, THE ATLANTIC, Aug. 21, 2015.

5 See, e.g., Jonathan Thompson, *When Our River Turned Orange*, HIGH COUNTRY NEWS, Aug. 9, 2015; Jonathan Thompson, *Gold King Mine Water Was Headed for the Animas, Anyway*, HIGH COUNTRY NEWS, Aug. 28, 2015.

Importantly, Thompson remained in place after the media frenzy faded, digging deeper, continuing to explore both the causes and consequences of the spill.<sup>6</sup> In *River of Lost Souls*, Thompson's collective writings after the spill plus 20 years of local reporting before the spill<sup>7</sup> come together and expand into one heartbreaking whole. With the instincts of an old-time newspaperman<sup>8</sup> and the engagement of a New Journalist,<sup>9</sup> Thompson plunges into the story and emerges with an astonishing work of natural history, investigative reporting, and memoir. In the end, *River of Lost Souls* may not answer every question readers have about the Gold King Mine spill, but it will help readers see the spill in a new light: the spill as both a creature of place and a consequence of politics and greed.

Chapter 1 of *River of Lost Souls*, "Blowout," opens appropriately on the morning of August 5, 2015, when the EPA contractors investigating the flow of mine drainage from the Gold King Mine accidentally poked through a plug in the mine portal and released some three million gallons of contaminated water into the watershed of the Animas River.<sup>10</sup> The Gold King Mine blowout in August 2015 frames Thompson's book, but does not dominate it. Instead, with equal parts Wallace Stegner<sup>11</sup> and Edward Abbey,<sup>12</sup> Thompson gives us a sense of place "with a capital P,"<sup>13</sup> shaped by natural forces and the people who explored, settled, lived, and lost. We begin with geology, imagining "a land of ancient lakes of bubbling lava," where a "vast chamber of magma collapsed" 27 million years ago, leaving behind a region of mountains with natural mineral wealth.<sup>14</sup> In these same places today, we see a "community of McMansions" springing up north of Durango,<sup>15</sup> serving those drawn to the Purgatory Ski Resort and the new recreational economy of the San Juan Mountains. In Chapter 2, "Holy Land," we jump back in time 210 years to the first Spanish explorers standing on the bank of the Animas River and declaring its name.<sup>16</sup> And finally, of course, we consider the original inhabitants of this country, two thousand and ten thousand years ago.<sup>17</sup>

Most of the history recounted in *River of Lost Souls*, however, begins with Chapter 3, which takes us back to the 1870s or so when small farms began to sprout in the Animas River Valley and mining began in earnest in the high country of the San Juan Mountains. Encouraged by agreements with local tribes and passage of the

6 See Jonathan Thompson, *Silverton's Gold King Reckoning*, HIGH COUNTRY NEWS (May 2, 2016), available online at <https://www.hcn.org/issues/48.7/silvertons-gold-king-reckoning>

7 Thompson, *supra* note 1, at Acknowledgements.

8 Among Thompson's strongest apparent influences are small-town newspapermen such as David F. Day, editor of the *Durango Democrat*, who dared to speak up in 1900 against the pollution of the Animas River by local mining companies. Thompson, *supra* note 1, at 67-74. Thompson's influences also obviously include his father, Ian Thompson, who wrote for the *Silverton Standard*. See Jonathan Thompson, *Silverton's Gold King Reckoning*, HIGH COUNTRY NEWS (May 2, 2016). In tribute to this tradition, Thompson writes lovingly of the old newspaper office in Silverton, Colorado, that Thompson assumed in 1996 from generations of prior newspapermen including his own father. Thompson, *supra* note 1, at 241 ("It was a newspaper nostalgic's dream"). When asked about other writing influences, Personal Communication, Bookworks, Albuquerque, New Mexico (April 18, 2018) (book reading), Thompson mentioned DAVID LAVENDER, *ONE MAN'S WEST* (Doubleday, 1943). Lavender has been described succinctly as a "Colorado rancher and miner who ... became one of the most prolific chroniclers of the American West." Wolfgang Saxon, *David Lavender, 93, Whose Books Told the Story of the West*, N.Y. TIMES, April 30, 2003. Lavender's influence on Thompson and *River of Lost Souls* is readily apparent in the concern shown by each author for people, livelihoods, and the impacts of industry on the natural world.

9 For the manifesto of New Journalism, a movement from the 1960s in which nonfiction writers began to occupy more visible roles within their long-form stories, see TOM WOLFE, *THE NEW JOURNALISM* (1975). For a more recent take on this literary genre, see ROBERT S. BOYNTON, *THE NEW JOURNALISM: CONVERSATIONS WITH AMERICA'S BEST NONFICTION WRITERS ON THEIR CRAFT* (2005).

10 *Id.* at 5.

11 Wallace Stegner (1909-1993), known as the "Dean of Western writers," is often recognized for ushering in the modern tradition of Western literature with his groundbreaking work of nonfiction, *BEYOND THE HUNDRETH MERIDIAN: JOHN WESLEY POWELL AND THE SECOND OPENING OF THE WEST* (1953). See Charles F. Wilkinson, *The Law of the American West: A Critical Bibliography of the Nonlegal Sources*, 85 MICH. L. REV. 953, 959-960 (1987) (placing *Beyond the Hundredth Meridian* at the front of the essential reading list of works on the American West). Stegar later won the Pulitzer Prize for the fiction *ANGLE OF REPOSE* (1972) and the National Book Award for *SPECTATOR BIRD* (1977). For an encompassing review of Stegner's life, last work, and continuing influence on Western writers, see Janet C. Neuman and Pamela G. Wiley, *Hope's Native Home: Living and Reading in the West, A Review of Wallace Stegner's Where the Bluebird Sings to the Lemonade Springs: Living and Writing and the West.*, 24 ENVTL. L. 293 (1994).

12 See, e.g., EDWARD ABBEY, *DESERT SOLITAIRE: A SEASON IN THE WILDERNESS* (1968). In the unlikely case that any reader would miss the influence of Edward Abbey, Thompson directly quotes Abbey in the frontmatter: "Contempt for the natural world is contempt for life. The domination of nature leads to the domination of human nature."

13 Thompson, *supra* note 1, at 132. As Wallace Stegner famously observed in his essay, *The Sense of Place*, "If you don't know where you are ..., you don't know who you are." WALLACE STEGNER, *The Sense of Place, in WHERE THE BLUEBIRD SINGS TO THE LEMONADE SPRINGS: LIVING AND WRITING IN THE WEST* (1992) (paraphrasing author Wendell Barry).

14 Thompson, *supra* note 1, at 3.

15 Thompson, *supra* note 1, at 7.

16 Thompson, *supra* note 1, at 15.

17 Thompson, *supra* note 1, at 19.

General Mining Act of 1872,<sup>18</sup> settlers from Europe, China, and the post-Civil War United States flooded into the region, founding Silverton, Colorado, in 1873.<sup>19</sup> The Old West flourished and faltered and began its cycles of boom and bust.

Much of the important context for comprehending the Gold King Mine spill begins here, in the mountains around Silverton, with prospectors trying their luck and on rare occasions finding something worth finding. In Chapter 5, “Olaf and the Gold King,” Thompson brings one of those prospectors vividly to life: Olaf Arvid Nelson, who staked the claim on Bonita Peak in 1887 that would become the Gold King Mine.<sup>20</sup> Chapter 6, “Perfect Poison,” provides a healthy dose of the “science” promised in the book title, explaining with the ease of a seasoned STEM teacher how water draining from old mines such as the Gold King can combine “three innocent ingredients – oxygen, water, and iron pyrite” together to form sulfuric acid that can kill fish and bugs, and eat a shovel overnight.<sup>21</sup> This “acid mine drainage,” which remains a staggering problem for aquatic life throughout mining districts of the West,<sup>22</sup> became a particularly voluminous problem for the Gold King Mine, drawing the attention of EPA in 2014 and setting off the chain of events that led to the blowout on August 5, 2015.<sup>23</sup> Chapter 7, “Slime Wars I,” rounds out our introduction to contamination from the mining industry with a look at how the milling process extracts only a fraction of the metals from the mined ore and resulted historically in massive releases of mill wastes, or “tailings,” into nearby waterways.<sup>24</sup> The story here is how the Animas River, supposedly devastated by the carelessness of EPA’s crew in August 2015, was already “rapidly being destroyed ... by the absolute and unlawful recklessness of Silverton mill men” by the year 1900.<sup>25</sup> Drawing from newspaper accounts and other sources, Thompson colorfully depicts the “wars” between the upstream mills in Silverton and the downstream denizens of Durango, who in 1902 “surrendered” in this war and elected “to get its drinking water from elsewhere.”<sup>26</sup>

To this point in *River of Lost Souls*, readers could find most of the same major plot points in Thompson’s original reporting on the “Gold King Mine Disaster” published in the *High Country News*.<sup>27</sup> But the detail that we find in *River of Lost Souls* is deeper and richer. For example, where one earlier article briefly mentions the violence of the local miner’s union toward the Chinese-American population of Silverton in 1906,<sup>28</sup> the book allows pages to expand upon this dark, racist history that could otherwise be lost to nostalgia for the “good old days.”<sup>29</sup> The book also allows Thompson room to develop his thesis of the Gold King Mine spill as a consequence of politics and greed. Thompson gives us, for example, the story of Lena and Edward Stoiber, who became fabulously wealthy around 1900 thanks to Lena’s management skills and Edward’s expertise in metallurgical science. Nevertheless, this educated power couple of the Silverton mining district would not “devote just a fraction of their considerable talents to coming up with ways to mitigate mining’s damages ... rather than aiming all of their innovation toward increased profits.”<sup>30</sup> At some points, Thompson himself becomes a part of this unfortunate history. In one of the most remarkable passages late in the book, we see Thompson in 1996, “as the only member of the local press” corp, invited by a mine manager to venture underground and observe a “boxcar-sized concrete plug” installed a mile deep into the American Tunnel,

18 General Mining Act of 1872, 17 Stat. 91 (1872), codified at 30 U.S.C. §§ 22-54 (2015). Enacted in 1872, the General Mining Law remains in effect and virtually the same today, providing that “all valuable mineral deposits in lands belonging to the United States ... shall be free and open to exploration and purchase.” 30 U.S.C. § 22 (2015). For a thorough review of the General Mining Law in the context of modern mining contamination, see John Seymour, *Hardrock Mining and the Environment: Issues of Federal Enforcement and Liability*, 31 *ECOLOGICAL L. Q.* 795, 825-832 (2004).

19 Thompson, *supra* note 1, at 33-35.

20 Thompson, *supra* note 1, at 58.

21 Thompson, *supra* note 1, at 61-63.

22 To pick one example, the Gold King Mine itself is just one of more than 30 inactive mines in the Animas River watershed which together discharge a daily average of 5.4 million gallons of mine; that is, *every day*, the district produces a greater discharge of mine water than the infamous day of the Gold King Mine spill. U.S. EPA, *One Year After the Gold King Mine Incident* 6 (Aug. 1, 2016).

23 Thompson, *supra* note 1, at 274-275.

24 Thompson, *supra* note 1, at 67-70.

25 *Id.* at 67.

26 *Id.* at 77.

27 See *supra* notes 4-5.

28 See Jonathan Thompson, *Silverton’s Gold King Reckoning*, *HIGH COUNTRY NEWS* (May 2, 2016) (noting briefly, “In 1906, a union-led mob drove the entire Chinese-American population from town”).

29 Thompson, *supra* note 1, at 88-90.

30 *Id.* at 76-80.

theoretically shutting off the flow of acid mine drainage to the surrounding watershed.<sup>31</sup> Readers by this point will realize that the installation of these underground “bulkheads” will prove a massive hydrological mistake leading directly to the Gold King Mine blowout nearly 20 years later.

As a story of Place, much of *River of Lost Souls* really has little to do with the Gold King Mine blowout. In Chapter 9, “Hard Rain’s Gonna Fall,” we learn all about a torrential rainfall that led to massive flooding in the Animas River valley in 1911. In Chapter 10, “the Blackest Week,” we learn about the Spanish Flu epidemic which raced through San Juan County in the fall of 1918 and claimed at least 150 lives. In later chapters, we learn about the rise of industry and politics in the production of oil and natural gas in the Four Corners country. We learn about the Four Corners Methane Hot Spot,<sup>32</sup> uranium mill tailings dumped straight into the Animas River,<sup>33</sup> and an experiment with cloud-seeding known as Project Skywater.<sup>34</sup> At times, some readers could tire of the tangents to the story of the Gold King Mine.<sup>35</sup> At other times, the string of tragedies befallen this country can feel overwhelming. Thankfully, Thompson makes these tragedies bearable by maintaining throughout both his sense of empathy and sense of humor.<sup>36</sup>

And then there is the gorgeous language. Thompson looks up one wintery night and sees snowflakes “swarm[ing] the streetlights like a million falling moths.”<sup>37</sup> For Thompson, there is the potential for beauty everywhere, even on blustery spring days when “the yellow and gray dust lifted off the tailings piles and fluttered so lightly through the bright blue sky.”<sup>38</sup> It is probably no wonder that some of the most affecting passages from *River of Lost Souls* come in the recurring moments of memoir. In Thompson’s voice, Durango, Colorado, transforms from a town on a map in the nightly news to a scene from our own childhood memories:

I remember the soothing rhythmic sound of my mom’s loom, the staccato of my dad’s typewriter; racing our bikes around the block in the dark; playing hide-and-seek with all the neighborhood kids on summer nights and the euphoric feeling you get just as day slips into night and you’re running for base with all you’ve got and your feet leave the ground and for a second you’re flying, really flying.<sup>39</sup>

From front cover to back, we grow up with Thompson, see our parents age, find new people in our lives, and wonder what is next.

What is next for the Gold King Mine spill remains open to speculation, but it will involve lawyers and lawsuits. Environmental law forms another frame of reference for considering the same sets of facts examined in *River of Lost Souls*. The applicability of this frame is not lost on Thompson, who unerringly surveys a range of federal environmental statutes designed to prevent or remedy the string of ecological tragedies visited upon the Four Corners country. Thompson gives us the Wilderness Act<sup>40</sup> and the Federal Land Policy and

31 *Id.* at 247-48.

32 *Id.* at 170.

33 *Id.* at 178, 183.

34 *Id.* at 205.

35 At one point in *River of Lost Souls* (124), a fleeting reference to “William ‘Big Bill’ Haywood” may remind some readers of one of the most tedious works of Western literature in the last quarter-century: J. ANTHONY LUKAS, *BIG TROUBLE: A MURDER IN A SMALL WESTERN TOWN SETS OFF A STRUGGLE FOR THE SOUL OF AMERICA* (1997). At 880 pages, the plot could be fairly summarized as this: “A former state governor of Idaho is murdered and labor organizer Bill Haywood is accused of the crime but acquitted with the help of attorney Clarence Darrow.” Along the way, readers of *Big Trouble* are treated to hundreds of pages of the history of baseball and everything that happened in the early 1900s. Fortunately, compared to *Big Trouble*, Thompson’s *River of Lost Souls* is only one-third the length, so wherever we are in the book, we are never too far afield from the Gold King Mine spill.

36 Thompson’s fine sense of irony shines through in Chapter 13, where after examining the staggering environmental impacts from a coal-fired power plant near Farmington, New Mexico, Thompson gazes up at a massive ash impoundment pile and then notes a sign stuck in the base: “No Trash Dumping. Walk in Beauty.” Thompson, *supra* note 1, at 153. After another long stretch of histories and tragedies, Thompson delivers the comic relief with a bit about sitting in a Durango coffee shop in 1996, getting charged extra by the proprietor for complaining about home-baked cookies full of egg shells. Thompson, *supra* note 1, at 240.

37 Thompson, *supra* note 1, at 291.

38 Thompson, *supra* note 1, at 188.

39 Thompson, *supra* note 1, at 210.

40 Wilderness Act of 1964, 16 U.S.C. § 1131-1136.



Management Act,<sup>41</sup> two federal statutes designed to protect our public lands from the overreaches of human industry. We see the Endangered Species Act of 1973,<sup>42</sup> which should protect listed species of native fish in the Animas River watershed including the Razorback sucker and giant Colorado pikeminnow.<sup>43</sup> We see the Clean Water Act of 1972,<sup>44</sup> with its lofty goal “to eliminate the discharge of pollutants to navigable water by 1985,”<sup>45</sup> which might have been handy 72 years earlier to stop the direct discharge of tailings from Silverton mills into the Animas River. Perhaps most significantly, we see the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA),<sup>46</sup> better known as Superfund. We see how community interest in protecting the local mining industry led to local opposition to Superfund designation.<sup>47</sup> We also see how the Gold King Mine spill drove the local community to drop their opposition to Superfund, leading to formal Superfund designation in September 2016.<sup>48</sup>

Beyond the environmental statutes, we also find in *River of Lost Souls* regular references to legal proceedings concerning the impacts of mining activity to the environment and private property. Thus, we see the case of the owners of a hydroelectric plant near Telluride, Colorado, suing “an upstream mill operator because the latter’s tailings were mucking up its operations,” with a Colorado appeals court in 1897 upholding an injunction against the continued dumping.<sup>49</sup> We see a similar case from Jefferson County, Colorado, brought by downstream farmers against upstream mill operators, with the Colorado Supreme Court in 1935 upholding an injunction to prohibit further dumping of mill tailings into Clear Creek.<sup>50</sup> One thing we do not see in *River of Lost Souls* is the proper legal citation that every good law review editor will demand. The absence of proper legal citation is fine here, of course, for at least two reasons. First, Thompson is not writing a legal treatise.<sup>51</sup> Second, compared to the judicial decisions themselves, Thompson’s descriptions of the people and conflicts behind the reported cases are often far richer.<sup>52</sup>

Beyond the question of who was truly at fault for the Gold King Mine spill, Jonathan Thompson is clearly aiming for something bigger in *River of Lost Souls*. From beginning to end, *River of Lost Souls* is a story of Place, and as Wallace Stegner wrote, “No place is a place until things that have happened in it are remembered in history.”<sup>53</sup> Thompson has done some mighty fine remembering for us in *River of Lost Souls*. And the book is not just about looking backwards. The book is very much a contemporary comment on the Donald Trump era, where racism rises again,<sup>54</sup> where “alternative facts” are spewn with impunity,<sup>55</sup> and where “oil, coal, automobile, and utility executives knowingly steer us all headlong toward irreversible climate catastrophe...”<sup>56</sup> If *River of Lost Souls* is ultimately about Place, that place may be as broad as our nation – or as near as our soul.

41 Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1782.

42 Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1542.

43 Thompson, *supra* note 1, at 228-229.

44 33 U.S.C. §§ 1251-1387.

45 Thompson, *supra* note 1, at 223. *See also* Clean Water Act Sec. 101(a), 33 U.S.C. § 1251(a)(1) (goal of eliminating discharge of pollutants by 1985).

46 42 U.S.C. §§ 9601-9675.

47 Thompson, *supra* note 1, at 251-252, 272-273.

48 Thompson, *supra* note 1, at 279-280. The designated Superfund site is now formally known as the Bonita Peak Mining District site. 81 Fed. Reg. 62,397, 62,401 (Sept. 9, 2016).

49 Thompson, *supra* note 1, at 72-73. *Suffolk Gold Mining & Milling Co. v. San Miguel Mining & Milling Co.*, 9 Colo. App. 407 (1897).

50 Thompson, *supra* note 1, at 118. *Wilmore v. Chain O’ Mines*, 96 Colo. 319 (1935).

51 For proper legal citations and analysis concerning the Gold King Mine spill, *see, e.g.*, \_\_\_\_\_, 90 COLO. L. REV. \_\_\_\_ (2018); Clifford J. Villa, *The Gold King Mine Spill: Environmental Law and Legal Protections for Environmental Responders*, 2018 UTAH. L. REV. \_\_\_\_ (2019).

52 For one excellent example, Chapter 11, “Slime Wars,” begins with the tale of Hugh Magone, a farmer in Montana who brought suit in 1903 against upstream mining companies near Butte, Montana, to stop the dumping of mill tailings into Silver Bow Creek. Thompson, *supra* note 1, at 111-113. While Thompson brings colorful detail to this conflict between farmers and miners at the turn of the century, the only reported judicial decision in this case available via Westlaw deals exclusively with the minutiae of the court’s authority to require the deposition of a witness outside the State of Montana. *See Magone v. Colorado Smelting & Mining Co.*, 135 F. 846 (1905).

53 Stegner, *supra* note 11, *A Sense of Place*.

54 Thompson, *supra* note 1, at 128.

55 Thompson, *supra* note 1, at 268.

56 Thompson, *supra* note 1, at 80.

