Diamonds

IAN SMILLIE

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Ian Smillie

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Abbreviations

AFDL	Alliance of Democratic Forces for the Liberation of Congo-Zaire (Alliance des forces démocratiques pour la libération du Congo)
CAR	Central African Republic
CSR	corporate social responsibility
DDI	Diamond Development Initiative
DNPM	National Department of Mineral Production (Departamento Nacional de Produção Mineral)
DRC	Democratic Republic of Congo
DRI	Directorate of Revenue Intelligence
DTC	Diamond Trading Company
FNLA	National Liberation Front of Angola (Frente Nacional de Libertação de Angola)
GATT	General Agreement on Tariffs and Trade
HRD	Diamond High Council (Hoge Raad voor Diamant)
IBA	impact benefit agreement
IDSO	International Diamond Security Organisation
JRC	Responsible Jewellery Council
KP	Kimberley Process
KPCS	Kimberley Process Certification Scheme
LAICPMS	laser ablation inductively coupled plasma mass spectrometry
LVMH	Louis Vuitton Moët Hennessy
MIBA	Société Minière de Bakwanga

MLC	Congolese Liberation Movement (Mouvement de libération du Congo)
MONUA	UN Observer Mission in Angola
MONUSCO	United Nations Stabilization Mission in the Democratic Republic of Congo (Mission de l'Organisation des Nations Unies pour la stabilisation en République démocratique du Congo)
MPLA	Popular Movement for the Liberation of Angola (Movimento Popular de Libertação de Angola)
NDMC	National Diamond Mining Company
NGO	non-governmental organization
NPLF	National Patriotic Liberation Front
OFAC	Office of Foreign Assets Control
OSLEG	Operation Sovereign Legitimacy
PAC	Partnership Africa Canada
ROC	Republic of Congo
RUF	Revolutionary United Front
SLST	Sierra Leone Selection Trust
UAE	United Arab Emirates
UNAVEM	United Nations Angola Verification Mission
UNGA	United Nations General Assembly
UNITA	Union for the Total Independence of Angola (União para la Indepêndencia Total de Angola
UNMIL	United Nations Mission in Liberia
UNOCI	United Nations Operation in Côte d'Ivoire (Opération des Nations Unies en Côte d'Ivoire
UNSC	United Nations Security Council
WDC	World Diamond Council
WTO	World Trade Organization
ZANU-PF	Zimbabwe African National Union-Patriotic Front

Introduction

I first encountered diamonds in 1967 when, fresh out of university, I went to Sierra Leone to teach at a small secondary school in the heart of the country's remote diamond district. Koidu was a wild and lawless place – not, perhaps, unlike Dawson City at the height of the Yukon gold rush. But without snow.

After my time in Koidu, I didn't give diamonds much thought, going on to work elsewhere in Africa and Asia as a development practitioner and later as an aid administrator, consultant and sometime writer. Then, during the late 1990s, as Sierra Leone descended into one of the world's most horrific humanitarian crises, diamonds came into focus again when I joined an effort to understand how the war was being financed. My colleagues and I learned that diamonds were also fueling conflict in other countries. In 2000, as Sierra Leone's war entered its ninth year, I was appointed to a UN Security Council Expert Panel to examine the connection between diamonds and weapons. I traveled extensively to the diamond capitals of the world: Antwerp, London, New York, Tel Aviv; and to Freetown, Monrovia, Conakry, and Johannesburg – places where diamonds began their journey through a secretive underground network that ran from rebel armies to the fingers of brides in waiting.

I took part in the "blood diamond" campaign and I participated in negotiations that led to the creation in 2003 of the first-ever international certification system for rough

diamonds. In 2008 I was the first witness at the war crimes trial in The Hague of former Liberian President and warlord, Charles Taylor, where I spoke about his role in the illicit diamond trade. I helped to start an organization called the Diamond Development Initiative that works on the problems of Africa's many artisanal diamond diggers. And in 2010 I wrote a book about diamonds called *Blood on the Stone: Greed, Corruption and War in the Global Diamond Trade*.

I will explain below why the content of this book is different from that one, but first a note on style. Rather than write this book entirely in the third person, I have been encouraged by Polity Press to describe in the first person some of the events in which I played a direct role. I hope the approach will make the book readable and a little more genuine than if I were to feign distance and complete impartiality.

There are several compelling reasons for a new book about diamonds, one that brings together for the first time three aspects of the diamond industry: the diamond mystique, born of geology, history, and commercialization; blood diamonds; and the development potential in very poor countries of a mineral sold on the basis of love, prestige, and wealth.

The diamond "industry" involves some of the world's largest mining companies (De Beers, Rio Tinto, Anglo American); millions of artisanal diggers, cutters, and polishers; and a $70 billion retail jewelry business. Polished diamonds are India's largest export, rough diamonds are the largest export from the Democratic Republic of Congo, and diamonds represent significant elements in the economies of Australia, Belgium, Botswana, Canada, Israel, Russia, and South Africa. The irony in the numbers is that the sole use of gem diamonds is for decoration. They have no other purpose. Their mystique has deep historical roots, but it is today a product more of Hollywood, advertising, and market management than it is of reality, or even scarcity.

Because of their great value, diamonds have always been of interest to thieves, smugglers, and the entertainment industry. This aspect alone makes them worthy of study, and over the years several popular books have been written about diamonds: Edward Jay Epstein's 1982 *The Rise and Fall of Diamonds: The Shattering of a Brilliant Illusion*; *The Last Empire: De Beers, Diamonds and the World*, by Stefan Kanfer (1993); *Diamond: A Journey to the Heart of an Obsession* by Matthew Hart (2001). Diamonds have been a plot device and the *leitmotif* for novelists from Rider Haggard to Graham Greene and Ian Fleming, and songwriters from Jule Styne to Kanye West.

There is much more than this to the diamond story, however. During the 1990s, rebel armies in Angola, Sierra Leone, and the Democratic Republic of Congo – bereft of Cold War financial support – turned to the exploitation of natural resources to finance their wars. Diamonds soon became the most expedient vehicle for purchasing illicit weapons in a post-Cold War world awash in cheap AK-47s. "Blood diamonds" fueled wars that took the lives of hundreds of thousands of Africans, eventually becoming the focus of attention for humanitarian organizations, campaigning non-governmental organizations (NGOs), governments, and the UN Security Council. This aspect of the industry also became a subject of popular novels and films, including the Hollywood thrillers *Die Another Day* (2002), *Lord of War* (2005), and *Blood Diamond* (2006). Serious books were written on the subject as well, among them *Blood Diamonds* (Greg Campbell, 2002, updated in 2012) *Blood from Stones* (Douglas Farah, 2004), and Tom Zoellner's *The Heartless Stone* (2006).

The campaign to curtail the trade in conflict diamonds is of interest for several reasons. First, it involves the hard work by dedicated NGOs, journalists, politicians, business leaders, and civil servants to create a regulatory system in an industry that had successfully defied US anti-trust legislation and

government controls right through a century that included two world wars, the Cold War, and the end of colonialism. The second theme has to do with regulation. Completely unregulated before 2003, diamonds had become the perfect tool for money laundering, tax evasion, drug-running, and weapons-trafficking. The regulatory system that was eventually initiated in 2003 is of interest because of the negotiations that brought industry, civil society, and 81 governments together at the same table.[1] It is important because the Kimberley Process Certification Scheme was viewed as a possible model for the regulation of other minerals that have fallen prey to rebel armies in Africa – gold, tungsten, tantalum, and tin. Third, the Kimberley Process is of continuing interest because, despite its initial promise, it has foundered on political and commercial shoals that have, astonishingly, and despite the best efforts of some participating governments and NGOs, seen it condone corruption, human rights abuse, smuggling, and violence. This aspect of the diamond story is very much alive and current, but it is rarely examined outside the gray literature produced by interested NGOs and industry. The implications of a failed Kimberley Process are, for African producing countries and the industry, enormous.

These represent three aspects of the diamond story, but there is a fourth that has rarely been examined: the role and potential of diamonds as a generator of development in some of the world's poorest countries. Geology has scattered diamonds in a very democratic manner. By volume, Australia has in recent decades been the world's largest producer. Some of the most valuable mines are found in Russia and Canada. India, the sole source of diamonds in ancient times, is today home to – by some estimates – almost a million diamond cutters and polishers. Brazil, Venezuela, and Guyana host small but not unimportant diamond operations. But more than half of the world's diamonds, by value, are produced in

Africa. Botswana is by far the largest producer, and diamonds have played a major role in South Africa and Namibia. They represent key elements in the economies of 13 other African countries, among them the poorest in the world. But diamonds, which seemed to hold great promise during the first half of the twentieth century, were whisked away under the noses of colonial governments willing to settle for a pittance of their value in royalties. The independence movement and its outcome in many countries led diamonds into darker paths of corruption, theft, money laundering, and eventually violence.

Today, things have changed. Despite its failings, the Kimberley Process has turned a bright light on diamonds. There is much greater transparency. And an industry once insulated by a cartel and its compliant customers has been obliged to do business differently. The same is true of certain African elites who once saw diamonds as their private milch cow. In many developing countries, diamonds were at the best of times, economically speaking, a zero-sum game, and at the worst of times the center of cataclysmic violence. Today, they represent a fragile but renewed opportunity for development. This part of the diamond story has rarely been told.

I am very grateful for the helpful comments of people who read an early draft: Dorothée Gizenga who has a development perspective on the diamond industry, Alan Martin who has advocacy experience, and Matt Runci, a long-time industry insider with an ethical perspective on the long haul. Shawn Blore, diamond investigator *par excellence*, dug up much of the detail on which this book is based and persuaded me to toughen up the parts of chapter 6 where I might have been going soft.

Ian Smillie
Ottawa

CHAPTER ONE

The Geology and History of Diamonds

Geology

The geology of diamonds is important to an understanding of how the industry has developed, why blood diamonds became so ubiquitous, why some mines require hundreds of millions of dollars in capital investment, and why in other places diamonds can be mined with little more than a shovel, a sieve, and a strong back.

Most of the diamonds mined today were formed more than 100 million years ago, some perhaps 3 billion years ago, long before the dinosaurs, long before single-cell organisms began to turn themselves into what we would recognize today as animal life. Diamonds formed in the upper mantle of the earth, some 150 kilometers below the surface, between its core and its crust. The right combination of minerals, heat, and pressure formed the crystals, and volcanic eruptions through the crust brought them to the surface, embedded in what has become known as kimberlite magma. Some of these "pipes" exploded into the atmosphere, scattering magma and diamonds across vast areas. Others never made it to the surface, leaking into horizontal "dykes," sometimes a kilometer or more in length. Yet others saw daylight and then sank back, soon enough covered – in the millennial sense of the term "soon enough" – in silt and debris, hidden from view.

Kimberlite eruptions took place around the world, egalitarian in their geographic spread. The best in terms of their

diamond content are in Southern Africa, northern Canada and Yakutia in Russia's far northeast. But diamonds are also found in Australia and West Africa, and directly across the Atlantic from West Africa in Brazil, where the South American land mass broke away from Africa 200 million years ago.

Kimberlite pipes are petrified conical formations with relatively small footprints. The smallest have a surface area of only 5 or 6 acres, while the largest, like one at Fort à la Corne in Saskatchewan, cover as many as 500 acres. Not all of these pipes were created equal. The quality of their diamonds, if there are any at all, depends on a variety of factors, including the speed with which the volcanic magma rose to the surface. Thousands of kimberlite pipes have been discovered, but the number worthy of investment – the ones that are economically feasible – can be counted on the fingers of four or five hands. Given the level of effort and expenditure that goes into exploration, however, it is clear that geologists believe there are more to be found. Canada is a reminder and an icon. The pipes that led to the creation of the great diamond mines in Canada's Northwest Territories lay undiscovered until 1991, even though the search for them – a modern-day quest for King Solomon's Mines – had consumed tens of millions of dollars over the previous two decades.

Time has changed what nature wrought. Over several ice ages and 100 million rainy seasons, the tops of some kimberlite pipes eroded, and the diamonds or their trace elements were transported hundreds of miles from their origin. Telltale indicator garnets may be close to the original pipe, or they may have been carried hundreds of miles away by rivers, or in a jumble of glacial moraine. In the case of some well-established diamond areas, the originating kimberlite pipe still remains to be found. The world's first, and some of its best, diamonds were mined at Golconda in central India, and yet their geological source has never been discovered.

Erosion has created what are known as alluvial diamonds, from the Latin *alluvium*, meaning "to wash against." Alluvial diamonds have washed away from the original kimberlite pipe, down rivers and streams, sometimes scattering across hundreds of square kilometers and into the sea. These diamonds may be very close to the surface, leading to a frenzied diamond rush when they are first discovered, or they may be under 10 or 20 meters of overburden, the detritus of 100,000 millennia. Regardless, they do not require the capital-intensive investment of an undisturbed kimberlite pipe. Mining these diamonds requires little more than ingenuity and muscle.

As the story unfolds, it will become clear that the difference between diamonds from the two sources – kimberlite and alluvial – has made all the difference in both regulation and the potential for diamond-related development. While there is no guarantee that a kimberlite mine will be well managed or that it will become an engine of development, the possibility and examples exist. In the case of alluvial diamonds, the opposite has been true. Inexpensive to mine and almost impossible to police, alluvial diamonds are accessible to very poor people, but they have also been a source of chaos, social upheaval, and political corruption. And they were at the very epicenter of Africa's worst post-Cold War conflicts.

Crystallography and history

The crystallography of diamonds has also shaped the political economy of the industry and efforts at regulation. Three-quarters of the world's diamonds are so small, so badly formed or so poorly colored that they are relegated to industrial use as abrasives for metalworking and drilling. The value of these diamonds – worth as little as 30 cents, and usually not more than $10 a carat – is based on one of the diamond's primary features, its hardness. And with good reason: diamond

is the hardest known natural material on earth. Its name, appropriately, derives from the Greek *adámas*, "unbreakable," a root still used in English for "adamant," meaning firm and unyielding.

The purest gem diamond is made up of nothing but carbon, crystallized into different forms: the eight-faced octahedron, the six-faced cube, the twelve-faced dodecahedron, the four-faced tetrahedron, and others. When they were being formed, some diamonds picked up impurities – nitrogen, hydrogen, boron – and these affect both color and luminescence. This in turn may provide a clue as to where the diamond was mined. "Blue" diamonds are found mainly in India, while most Canadian diamonds run from clear to a very light yellow. But yellow and blue diamonds are found elsewhere and it is virtually impossible, even for the most trained eye, to identify the geographical source of a polished diamond. It is more possible to make an educated guess about the origin of rough diamonds if they are in a group originating from the same source. It is likely, however, that an expert would be more confident in saying what they are not than what they are. Sierra Leone, for example, has a high-quality "run of mine average." Looking at a parcel of unlabeled Sierra Leonean diamonds, it would be easy enough to say that they are not from Côte d'Ivoire, where the average quality is significantly lower. Most of the diamonds mined at Marange in Zimbabwe are coarse and low in quality, with distinctive brown and black coloration. In a parcel, they are easily enough identified as Zimbabwean. But Marange's better-quality gems, while still of green and brownish hues, are similar to stones found in most other diamond mines around the world.

The fact is that, once mixed with others – and often before, in most cases – it is impossible for even the most educated and experienced eye to know where a rough diamond originated. This feature, historically of little interest beyond the

mining and investment community, became extremely important during the 1990s and afterwards in the efforts to track and trace conflict diamonds, and to create a global regulatory system.

But the story is getting ahead of itself. What distinguished diamonds in antiquity was their hardness, and only the best-shaped crystals – uncut and unpolished – were used for jewelry. There are several references to diamonds in the Bible, the oldest in the Book of Exodus, thought to have been written in the sixth century BCE. The "breastplate of judgement" is said to contain an emerald, a sapphire, and a diamond (Exodus 28:18), and diamonds appear again in Ezekiel, Jeremiah, and Zechariah as metaphors for the hardness needed to cut stone, or the hardness of human hearts. In Roman times, Pliny the Elder described the properties and value of diamonds in his *Natural History*, saying, "The substance that possesses the greatest value, not only among the precious stones, but of all human possessions, is *adamas*; a mineral which, for a long time, was known to kings only, and to very few of them."[1]

Diamonds, like other gemstones, were said to have magical powers, assisting in childbirth, warding off epilepsy and the evil eye, detecting poison. It was not until the fourteenth century that they were first cut and polished, revealing a more authentic feature, one that made them – then and now – the most prized of jewels: the way in which white light is refracted off the facets to create a spectrum of colors known as "fire."

Pliny and the Biblical writers before him were referring to Indian diamonds, the only known source until the eighteenth century. Arab traders were the purveyors of these diamonds for centuries, but it was a French traveler and connoisseur, Jean-Baptiste Tavernier, who brought the most spectacular Indian diamonds to the attention of European royalty. Between 1630 and 1680, Tavernier visited and documented the mines of Soumelpur, Raolconda and Kollur, the source

of the 108-carat Koh-i-noor. The Koh-i-noor, "Mountain of Light," is now set in a crown that spends most of its time in the Tower of London with the other British Crown Jewels.[2] Indian mines also produced the 280-carat Great Mogul, the 140-carat Regent Diamond, and the Tavernier Blue. Tavernier brought his 112-carat namesake back to France where he sold it to Louis XIV. Later it was cut into three stones, the largest of them the fabled Hope Diamond, now part of a necklace residing in a sealed glass vault at the Smithsonian Museum of Natural History in Washington.

Indian production declined rapidly after 1700, replaced by diamonds from an unexpected new source, Brazil. In 1725, deposits of rough diamonds were discovered in the eastern province of Minas Gerais, in an area where the primary diamond settlement grew into a town that was named for its fabled output: Diamantina. More diamonds were discovered in Bahia province and Mato Grasso – alluvial diamonds, easily accessible to diggers known in Portuguese as *garimpeiros*, meaning "prospectors." During the eighteenth century, Brazilian diamond production rose to 50,000 carats a year, flooding the world market and serving to cheapen a once-rare commodity. Prices became so depressed, in fact, that production dropped and failed to recover for almost a century. It was not until the late 1800s that Brazilian production recovered, rising to 200,000 carats a year or more. But by then Brazil had been eclipsed by South Africa, where discoveries in the 1860s set in motion a chain of events that would change the diamond industry for all time.

Some stories have the first South African diamond discovered by a Griqua boy near the Vaal River in 1859. A more common tale makes 15-year-old Erasmus Jacobs the hero, playing a game of "Five Stone" near Hopetown, 20 miles south of the Vaal on the Orange River, with a rock that turned out to be a 21-carat diamond. Certainly it was Jacobs' find,