

# Nicaragua, Panama and the dream of a canal (part 1)



**With Nicaragua planning a new canal to link the Atlantic and Pacific, Sean Brady considers the lessons of the Panama Canal when engineers face up to nature on such a grand scale.**

## Introduction

With an estimated cost of \$50bn, the Nicaragua Canal will be one of the largest construction projects ever attempted – if, of course, work on it actually resumes following its suspension in late 2015<sup>1,2</sup>. It will stretch 172 miles through jungle, across Lake Nicaragua, connecting the Atlantic to the Pacific, and providing a competitor to the Panama Canal. While we may like to label it a construction project, history tells us that major endeavours to tame nature generally demand extraordinary prices in political, financial and human terms.

Take the Panama Canal: by the time it was completed in 1914, it had resulted in revolution and the formation of a new republic. It had led to the fate of two nations being decided by a simple postage stamp, caused the 19th century's largest financial crash, and changed the way we think about tropical disease. In human terms, it cost more than 20 000 lives<sup>3</sup>.

While the problems faced in Nicaragua will no doubt be different, examining previous attempts to cut a ribbon of water between the Atlantic and Pacific gives context to what may lie ahead. It also tells us that what's currently taking place in Nicaragua is not a new story – it's simply the next chapter in a drama that's been played out in Central America since Spanish explorer, Vasco Núñez de Balboa, crossed the isthmus in 1513 and became the first European to set eyes on the Pacific Ocean.

## Birth of an idea

The completion of the Suez Canal in 1869 suddenly made a canal in the Americas appear possible. The rewards for successfully cutting a path through the isthmus would be

immense. It would reduce the 14 000-mile sea journey from New York to San Francisco to just 6000 miles, avoiding the need to travel round treacherous Cape Horn. Nicaragua was the first choice of route, with Panama a close second, but as is often the case, the attributes of the idea were less important than the man selling it.

Frenchman, Vicomte Ferdinand de Lesseps, certainly had the right attributes: charisma, conviction and distinguished heritage. The family's wealth, however, was a fiction, and de Lesseps found himself, at age 43, a disgraced diplomat<sup>4</sup>. He then attempted the most unlikely of endeavours, building the Suez Canal. It was a remarkable decision: he was neither an engineer nor had a technical background, nor had he any experience in finance. At best he

route – geography ruled out a sea-level canal, which is what he'd built at Suez. But he believed such a canal was possible in Panama, without the need for locks. While critics disagreed with him, de Lesseps, now aged 74 and at the height of his fame, simply ignored them, saying "science has declared that the canal is possible and I am the servant of science"<sup>5</sup>.

He travelled to the isthmus, and with French flags flying was given a hero's welcome. Back in France he set up a private newspaper to promote the canal, went on a lecture tour, and bribed influential newspapers and politicians for coverage of his scheme. In December 1880, more than 10 years after the completion of Suez, he formed the *Compagnie universelle du canal interocéanique*. One hundred



was only considered a mediocre administrator. But he had diplomatic skills, and he believed that a canal through the desert was possible, despite its critics. Even when the Rothschild banking house demanded a high commission for funding the project, he raised the money himself. He sold shares publically, generating 200M francs from 25 000 small investors. His confidence was well placed: the canal was a success, its investors got rich, and he was hailed as *Le Grand Français*.

In 1879, when talk in Paris turned to a canal in the Americas, the challenge was too tempting for de Lesseps to pass up. Immediately he discounted the Nicaragua

thousand people clambered for shares. Finance was now secured by public means, and he pronounced that in just seven years the canal would be complete.

## The French

The French attempt in Panama was a debacle. While one team began dredging Panama Bay on the Pacific side of the isthmus, a second began work on the Atlantic side in Limon Bay. A third team began in the mountains, the Cordilleras, excavating what would be known, notoriously, as the Culebra Cut (Figure 1). At Culebra, de Lesseps' engineers estimated 74M cubic metres of material would require

excavation from a nine-mile-long channel.

The project's true enemies, however, soon presented themselves: climate and disease. Workers struggled in conditions de Lesseps had never anticipated – he'd visited Panama in the dry season, missing the eight-month-long wet season. He hadn't seen the torrential downpours, nor the Chagres River burst its banks and flood to depths of 10m. This river crossed the proposed canal route several times and a solution to the flooding would have to be found. The rain made conditions intolerable for the workers. It swamped construction and washed spoil back into the Culebra Cut. The men had to cope with dense jungle, venomous snakes, spiders and big cats. They were forced to live in filthy conditions, and almost every type of tropical disease attacked them: typhoid, cholera, smallpox, malaria, dysentery and yellow fever.

Despite the conditions, workers continued to arrive from France, Jamaica, Colombia, Venezuela, Cuba and the USA. By May 1884, there were 19 000 people working on the canal. But the problems continued, particularly in Culebra. Philippe Bunau-Varilla, a 26-year-old engineer, battled with its excavation, with the work becoming paralysed by inefficient equipment and little room to remove spoil. Worse, the 74M cubic metres of material that required excavation was an underestimate – it had to be revised to 120M cubic metres. Despite the increase, de Lesseps kept his original finish date of 1888, insisting all was well. But five years into the seven-year project,

## "HISTORY TELLS US THAT MAJOR ENDEAVOURS TO TAME NATURE GENERALLY DEMAND EXTRAORDINARY PRICES"



there was still no plan to deal with the Chagres River flooding, and less than one quarter of the planned works was actually achieved. Yellow fever had been the real threat all along – at one point over 200 workers were dying every month, coughing up black blood.

News of the problems eventually reached France and de Lesseps couldn't keep it quiet any longer. In February 1889 the company went into liquidation, and over 800 000 people lost their savings. It was the worst financial collapse of the 19th century, and the resulting scandal brought down the French government. In seven long years, little inroads had been made on Culebra and there was only an 11-mile ditch dug inland from the Atlantic. It had cost \$280M. The French simply walked away and the jungle reclaimed the isthmus. More than 20 000 perished in the attempt.

### The Americans

Now the task would fall to the Americans. But why would they want it? The USA wasn't interested in a canal, and, in the years that followed, Nicaragua would be its preferred choice – the long shadow of French failure would lie like a scar in the Panamanian jungle.

Indeed, for a canal in Panama to become reality would require the intrigues of the forgotten engineer who'd been bested by the Culebra Cut, Philippe Bunau-Varilla. It was he who would influence the US Senate, ferment revolution and star in a tale that almost defies belief – a tale we will conclude next month.

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