#### THE SURVIVAL OF EASTER ISLAND

In this book, Jan J. Boersema reconstructs the ecological and cultural history of Easter Island and critiques the hitherto accepted theory of the collapse of its civilization. The collapse theory, advanced most recently by Jared Diamond and Clive Ponting, is based on the documented overexploitation of natural resources, particularly woodlands, on which the culture of Easter Island depended. Deforestation is said to have led to erosion, followed by hunger, conflict, and economic and cultural collapse. Drawing on scientific data and historical sources, including the shipping journals of the Dutch merchant who was the first European to visit the island in 1722, Boersema shows that deforestation did not in fact jeopardize food production or lead to starvation and violence. On the basis of historical and scientific evidence, Boersema demonstrates how the society of Easter Island has responded to cultural and environmental change over the course of its turbulent history.

Jan J. Boersema is Professor of Principles of Environmental Sciences at Leiden University. He is editor-in-chief of the *Journal of Integrated Environmental Sciences* and editor (with Lucas Reijnders) of the textbook *Principles of Environmental Sciences* (2009).

Diane Webb has translated numerous books and scholarly articles on historical and art-historical subjects. She was a member of the team that translated *Vincent van Gogh: The Letters.* In 2005, she was awarded the Vondel Prize for Dutch Translation.

# The Survival of Easter Island

# Dwindling Resources and Cultural Resilience

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#### Los Hombros

Yo soy el peregrino de Isla de Pascua, el caballero extraño, vengo a golpear las puertas del silencio ...

#### Men

I am the pilgrim of Easter Island, the strange knight, come to knock on the doors of silence ...

Pablo Neruda

### Contents

## Timeline

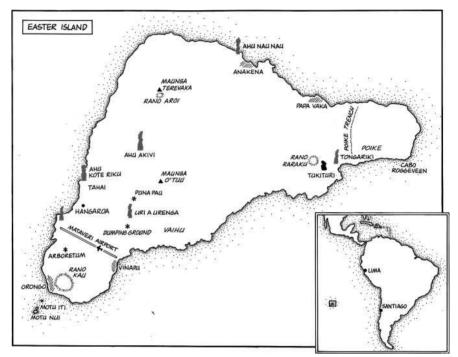
с. 300,000 вс	The island takes on its present shape through the coa- lescence of three volcanoes.
AD 1000–1200	Polynesian settlers reach the uninhabited island.
C. 1100	First settlement at Anakena appears.
1100–1250	Settlement and construction (Phase I) are under way;
	the statue cult begins; and traces of the felling and
	burning of trees from this period can be found.
1250–1550	The golden age (Phase II) occurs; the statue cult
	reaches its peak; deforestation gradually takes place.
c. 1550	Deep-sea fish disappear from the islanders' diet, owing
	to the lack of seaworthy canoes.
1550–1722	Natural resources dwindle (Phase III); the birdman
	cult arises.
c. 1650	The forests vanish completely; the statue cult gradu-
	ally disappears.
1722–c. 1800	The historical era (Phase IV) occurs; four great
	European expeditions call at Easter Island.
1722	On Easter Sunday, 5 April, the members of the Dutch
	expedition led by Jacob Roggeveen first sight the island
	and name it Easter Island.
1770	The Spanish arrive under the command of Don Felipe
	González de Haedo.
1774	The English arrive under the command of James
	Cook; the first artefacts find their way to Western
	museums.
1786	The French arrive under the command of
	Jean-François de Galaup, comte de Lapérouse.

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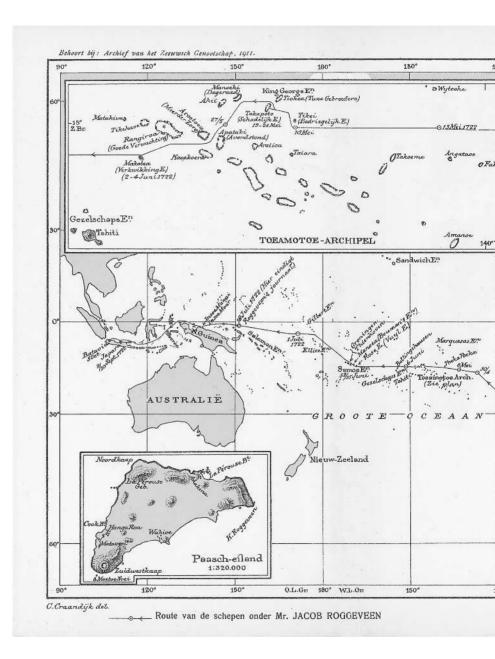
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Timeline

c. 1800–1862/63	The dark era (Phase V) occurs; the islanders bar- ter with food, and transients provoke several bloody incidents.
1862/1863 1864	Peruvian slave traders raid the island. The missionary Eugène Eyraud becomes the first for- eign resident on the island; repatriated Easter Islanders expose the remaining inhabitants to fatal viruses.
1864–1967	A turbulent period (Phase VI) ensues; Easter Island is renamed Rapa Nui; its inhabitants are baptized into the Catholic Church; and anthropologists come to study the island.
1877	Alphonse Pinart counts 110 inhabitants; the birdman cult ends.
1888	Easter Island is annexed to Chile.
1947	Thor Heyerdahl sails on the <i>Kon-Tiki</i> from South America to Polynesia.
1967–present	The contemporary age (Phase VII) dawns, marked by the construction of the landing strip at Mataveri.
1972	A report published by the Club of Rome points out the threat posed to society by the overexploitation of natural resources.
1974	Bill Mulloy publishes the first collapse story about Easter Island.
2010–15	Relations with Chile remain strained; plans to build a casino and a prison spark protests; and a limited form of self-government is established.
	Easter Islanders claim property rights to tracts of land; protests lead to clashes between Easter Islanders and the Chilean authorities in which people are wounded.
2015	Easter Island has a population of approximately 6,000; more than 80,000 tourists visit it every year.

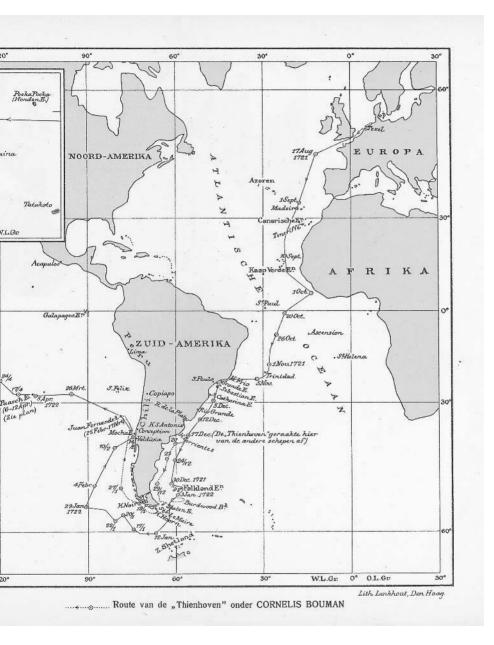


MAP 1. Geography of Easter Island as it appears in this book.



MAP 2. Route taken by the three ships belonging to the expedition led by Jacob Roggeveen. Archief van het Zeeuws Genootschap der Wetenschappen, 1911.

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### Acknowledgments

Let me begin with a word of thanks to the island and its inhabitants, among whom I spent a number of weeks in the autumn of 2007. I thank my host, René Pakarati Icka, and his partner, Tonia Mahoney Pate, for their generous hospitality as well as for taking me on tours of the island and providing me with a wealth of information.

My working life at the University of Leiden and VU University, Amsterdam, has always been characterized by a series of short projects that take up whatever time I have left after my academic duties. Since most of these jobs are pleasant as well as useful, any long-terms projects I may be contemplating are usually relegated to the sidelines. Hence the advice given to me by my wife, Anthonia: 'If you want to write that book about Easter Island, you'll have to go someplace else to do it.' Fortunately, I was able to follow her advice with the endorsement and support of the university. In 2009 and 2010, I spent four months as a visiting professor at the University of East Anglia in Norwich and more than six months as a visiting Fellow at St Edmund's College, Cambridge. It was a wonderful experience, and during that productive time the foundation was laid for *Beelden van Paaseiland*, the Dutch version of this book, which was published in April 2011 by Atlas Publishers in Amsterdam.

The book appeared just in time for me to take it along, in May of that year, to a conference in New York, where I showed it to Beatrice Rehl of Cambridge University Press. Beatrice had supervised the publication of *Questioning Collapse*, so she and Cambridge seemed ideally suited to producing an English version of my book. Luckily, Beatrice showed an interest, and the Dutch version received favourable reviews, so after acquiring the rights and finding sufficient funding, Cambridge invited Diane Webb to do the translation. A writer can only be extremely grateful for having

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I would also like to thank everyone who has helped me since the publication of Beelden van Paaseiland: Frans Berkhout, Bert Boekschoten, Morgan de Dapper, Ton Schoot-Uiterkamp and Wonu Veys all read the book and provided me with valuable commentary. Many others have sent their reactions to parts of the book or pointed out minor errors. Brigid Mulloy allowed me to see letters and objects from 1960, when, as a little girl, she lived with her parents on Easter Island. Ruud Paesie took me on an inspiring 'Roggeveen hike' through Middelburg, and I had informative and fascinating talks with Roelof van Gelder, Jacob Roggeveen's biographer. Herman de Swart was unflagging in his efforts to draw my attention to the more obscure speleological literature about the island. Paul Bahn read the English translation and kept me from making numerous small errors. He does not agree with every aspect of my reconstruction, but is happy to see it published, because, as he said, 'life would be very dull if we all wrote the same things and came to the same conclusions from the poor and patchy evidence available to us all'.

The collapse theory, as formulated by Jared Diamond, was no longer defended at the international conferences of the Easter Island Foundation held in July 2012 in Santa Rosa, California, and in November 2012 at the Royal Museums of Art and History in Brussels. So far, however, no one has been able to come up with a plausible scenario of what really happened: no sooner is one riddle solved than another one crops up. Easter Island continues to stymie researchers.

I hope that my readers appreciate the results of my efforts to piece together the puzzle that is Easter Island. If not, the blame rests squarely on my shoulders and not on those of the people mentioned above.