

DUST

A Film by Hartmut Bitomsky



Produced by ma.ja.de. filmproduktion
in co-production with
Dschoint Ventschr Filmproduktion,
Big Sky Film and WDR
in association with ARTE
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ICARUS FILMS

32 Court Street, 21st floor / Brooklyn, NY 11201
(718) 488-8900 / f (718) 488-8642
mail@IcarusFilms.com / www.IcarusFilms.com

Synopsis



Dust is everywhere and ever-present. A conglomeration of the smallest particles, dust nestles in carpets and in attics. It invades laboratories and settles on artworks. It is blown into the air from factory smokestacks and resides in every raindrop. It is fought and cleared away, but in this Sisyphean task, dust is set in motion and returns even as it is being removed.

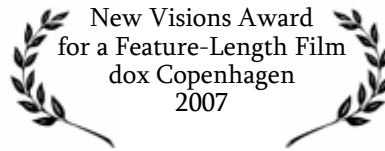
DUST examines the myriad forms and pathways of dust. It pursues dust to the places where it settles and meets the people who contend with it. Armies of cleaning men and women, manufacturers of vacuum cleaners and air cleansing products, housewives, toxic waste disposal workers, and museum custodians.

In examining the many types of dust, including microscopic particulates invisible to the naked eye, DUST hears from a variety of scientists—botanists, biologists, meteorologists, and astronomers—who investigate the environmental and health consequences of dust, from Sahara sandstorms and the Oklahoma dust bowl of the Thirties to the toxic dust generated by the 9/11 demolition of the WTC towers.

The phenomenological, philosophical and even artistic aspects of the culture of dust are also explored in interviews with artists and collectors. By closely examining a subject that surrounds us in our daily lives, but to which we rarely pay serious attention, DUST provides us with a new appreciation of the many ways in which dust affects our bodies, our environment, and even the cosmos.

Indeed, by enabling us to take such a close look at particles often invisible to the naked eye, DUST offers us a fresh, new way to see the entire world.

Festivals & Awards



World premiere at the Venice Film Festival / Orizzonti Competition 2007, Italy

Vancouver International Film Festival 2007, Canada

Viennale 2007, Austria

Hofer Filmtage 2007, Germany

DOK Leipzig 2007, Germany

DOKMA Maribor 2007, Slovenia

International Filmfest Braunschweig 2007, Germany

Sheffield International Documentary Festival 2007, UK

Leeds International Film Festival 2007, UK

Kasseler Dokumentarfilm- & Videofest 2007, Germany

Filmmaker Film Festival Milano 2007, Italy

Solothurner Filmtage 2008, Switzerland

DocPoint Helsinki 2008, Finland

Rotterdam IFF 2008, Netherlands

Göteborg IFF 2008, Sweden

Cinéma du Réel Paris 2008, France

Review Exerpts

"An unlikely but erudite documentary about the most ordinary subject imaginable. Bitomsky's dense, quicksilver voiceover, sense of philosophical depth, healthy good humor and wry intellectual poetry make this journey from microscopic to macrocosmic a meditation on the splendor of the futility of existence."

– **Film Comment**

"Bitomsky perceives his subject as one of nature's 'undefeatable' enemies, and yet one of its most fascinating. plunges into a deeply philosophical area regarding the ontology of dust-what it symbolizes and represents for mankind, and what it tells us about the nature of our world."

– **Nathan Southern, *All Movie Guide***

"Underlines how a very narrow focus can broaden one's perspective in the most powerful sense of the word. DUST is brilliant, be it as a philosophical reflection, an aesthetic portrayal, or a concrete educational lesson. It is a film, which, like Bitomsky's other works, bears its greatness in both the coolly perceptive and the poetically invisible."

– **DOX International Documentary Film Festival Program**

What's That in the Air?

Dust storms in Africa and Asia transport contaminants to the United States

By Doug Struck
Washington Post Staff Writer

Seventy-five years ago, aviator Charles Lindbergh turned the controls of his pontoon plane over to his co-pilot, wife Anne Morrow Lindbergh, while flying above Iceland. He thrust a makeshift metal arm holding a sticky glass plate from the cockpit. He wanted to see if the winds high aloft the Earth were as clean as they seemed.

They were not. Now, with NASA satellites and sampling by researchers around the world, scientists know that great billowing clouds of dust waft over the oceans in the upper atmosphere, arriving in North America from deserts in Africa and Asia.

Researchers have also found that the dust clouds contain not only harmful minerals and industrial pollutants, but also living organisms: bacteria, fungus and viruses that may transmit diseases to humans. Some say an alarming increase in asthma in children in the Caribbean is the consequence of dust blown from Africa, and predict they will find similar connections in the Southeast and Northwest United States.

Scientists are beginning to look at these dust clouds as possible suspects in transcontinental movement of diseases such as influenza and SARS in humans, or foot-and-mouth disease in livestock. Until recently, epidemiologists had looked at people, animals and products as carriers of the diseases.

"We are just beginning to accumulate the evidence of airborne dust implications on human health," says William A. Sprigg, a climate expert at the University of Arizona. "Until now, it's been like the tree falling in the forest. Nobody heard, so nobody knew it was there."

The World Meteorological Organization, a science arm of the United Nations, is alarmed enough to set up a global warning system to track the moving clouds of dust and to alert those in the path. Sprigg is heading the project.

He foresees a system soon in which forecasters can predict "down to the Zip code" the arrival of dust clouds. That forecast could prompt schools and nursing homes to keep their wards inside, and help public health doctors predict a surge of respiratory complaints.

ANALYSIS OF SOIL SAMPLES HAS long shown that minerals picked up from barren deserts reach distant shores, for good or bad. The Amazon rain forest in South America, for example, gets phosphate nutrients from dust blown in from northern Africa's Sahara Desert.

Industrial development has added heavy metals and toxic chemicals to that airborne mix. Korea and Japan periodically chafe as storms of "Yellow Dust" wash over from China, bringing a caustic mix of sand and industrial pollutants.

Even natural minerals can be harmful to humans, and dust-borne particles have been linked to annual meningitis outbreaks in Africa and silicosis lung disease in Kazakhstan and North Africa. The Dust Bowl storms of the 1930s in the United States brought graphic descriptions of choking sediment getting into the lungs of people and felling livestock.

But the advent of satellite images gave scientists a sobering look at how even faraway storms can reach us.

Traveling for a week over the Pacific from the Gobi and Taklimakan deserts in Asia, clouds carrying hundreds of millions of tons of dust regularly reach the northwestern United States. From the Sahara and Sahel deserts in Africa and the East, they roll across the Atlantic to the Caribbean and reach the southeastern United States in three to five days.

Authorities in Los Angeles estimate that on some days, one-quarter of the city's smog comes from China.

"There is plenty of evidence from space observations of the Northern Hemisphere that there is a persistent ring of industrial emission dust and other pollutants in the air. You can actually see this bathtub ring around the Northern Hemisphere," says Stanley A. Morain, who heads the Earth Data Analysis Center at the University

national study there, and researchers have documented an increase in pediatric hospital admissions when the dust storms are worst.

Scientists previously had thought bacteria and viruses picked up by the dust storms would die on long flights, when they are exposed to ultraviolet radiation and extreme temperatures. But three-inch African locusts have been found alive in the Caribbean after dust storms.

In the late 1990s, Eugene Shinn, who was studying the widespread die-off of Caribbean coral reefs for the U.S. Geological Survey in Florida, began wondering if smaller living organisms came with the dust. He eventually linked live microbes brought from Africa to sea fan disease, which was infecting the coral.

Shinn enlisted USGS microbiologist Dale Griffin. They and their colleagues devised a method of collecting air samples, using a contraption built with a vacuum pump from Home Depot drawing air through a two-inch round sterile filter.

In the first test, collected during a dusty day in 2000 over the Virgin Islands, Griffin says he thought they might find evidence of four or five different microorganisms growing colonies on the filter. Instead, he found 30 colonies, each with billions of cells.

"I did not expect that many," he says. "And we know that whatever grows on the filter represents only about 1 percent of what's really there. People just don't think about microorganisms moving around the atmosphere, at least that far."

Griffin says that "in Florida in the summer, when the dust storms are pulsing across, if you walk outside and breathe, 50 percent of the particles you breathe come from Africa," more than 4,000 miles away. They contain mold spores and bacteria that increase allergies and respiratory diseases.

Shinn, who is now retired, says that there has not been enough response to these findings.

"No one in authority really wants to hear about this problem, even when it is known that African dust sporadically exceeds EPA air standards in places like Miami during the summer months," Shinn said in a letter recently. "No government agency wants to face this problem because no one knows what to do about it."

"In my opinion, nothing will change regarding either African or Asian dust until we have a catastrophe such as a large-scale avian flu, West Nile virus, or some other deadly outbreak that cannot be explained away by the usual suspects," he says. "Meanwhile we will continue to employ agents to check for fruit in baggage and dirt on tourists' shoes while hundreds of millions of tons of soil dust carrying live microbes continue to be transported unchecked overhead."

Unchecked, perhaps, but not unwatched. The early warning system being devised by Sprigg will track those storms, integrating the data with weather forecasts, so that local authorities have notice of one to three days to take precautions. Parts of the system have already been set up in China and Europe.

In addition to medical precautions, police can be warned about deteriorating driving visibility and airports can plan to reroute planes, Sprigg says. He says he hopes the next step will be more aggressive medical research to determine the composition and human health threats of what is in those dust clouds.

"I really see some practical applications here," he says. "We are just getting started."



BY JEFF SCHMALTZ—NASA

African dust storms, like the one in this 2006 image, are suspected of carrying communicable diseases and other contaminants to the United States.

of New Mexico and collaborates with Sprigg.

"If something breaks out, it can move very quickly into other areas," he says.

DUST STORMS MAY BE INCREASING AS GLOBAL warming and desertification expand arid areas. The dust swirls into the atmosphere containing plant pollens, fungal spores, dried animal feces, minerals, chemicals from fires and industry, and pesticide residues.

Asthma in the Caribbean increased just as an African drought increased the amount of dust washing over the islands. Asthma has increased in Barbados 17 times since 1973, when the African drought began, according to a

Director's Statement

A speck of dust is just about perceptible to the naked eye. It's the smallest visible subject a film can be about – it's a medium of disappearance and a criteria of perception. Wherever we go, it has already beaten us; wherever we turn, it follows us. It is our past, our present and our future. It is universal and has a name in every language. It keeps housewives busy, as well as scientists, inventors, artists and entire industrial branches. It is blamed for feeding vermin and causing illness. It takes ownership of our possessions, it penetrates laboratories, it creates planets and galaxies. We're surrounded by it, it gets inside us, we shed it... It nestles right into the despair of its own existence.



Director's Biography

Hartmut Bitomsky (b. May 10, 1942) is a writer and essayist, film director and producer. He received his education at the Free University Berlin where he studied German Philology and Theater from 1962 to 1966. He finished his studies at the Berlin Film Academy in 1968.

For more than ten years since 1973 he was co-publisher and co-editor of the renowned German magazine "Filmkritik". He has written books and articles on film theory and film history and was also the editor of the German translation of André Bazin's "What Is Cinema?" in 1975.

In 1975 he founded his own film production company, Big Sky Film, which has produced most of his projects. Up to now he has directed and to some extent also produced more than 40 (mostly documentary) films, and his work has been shown at film festivals in Amsterdam, Berlin, Edinburgh, Hong Kong, Leningrad, London, Marseille, Melbourne, Montreal, Los Angeles, New Delhi, Rotterdam,

Seoul, Singapore, Tokyo, Venice, Vienna and many other places. Among the awards he has won is the acclaimed "Grimme Award in Gold" for the film "Reichsautobahn" in 1987.

Since 1975 he has taught at the Hochschule für Fernsehen und Film, München, at the Free University, Berlin and at the Film Academy, Berlin. In 1993 he moved to Los Angeles and served at the California Institute of the Arts as Dean of the School of Film/Video till 2002. He taught courses in Film Direction, Documentary Production and related topics. Since 2006, Hartmut Bitomsky has headed the Deutsche Film- und Fernsehakademie Berlin (dffb).

His last feature-length documentary film about the B-52 bomber, shot in the U. S., Germany and Vietnam, premiered in February 2001 at the Berlin Film Festival. The film had theatrical distribution in Germany and Japan and has been screened all over the world.

His work was honored in the year 2000 by the retrospective "A Tribute to Hartmut Bitomsky" at the Vienna International Film Festival. He is a member of the German-American Film Society and a Fellow of the Rockefeller Foundation.

Director's Filmography (selection)

1970 DIE TEILUNG ALLER TAGE (THE DIVISION OF EVERY DAY)

Instructional film on economy. Written, directed and produced with Harun Farocki. 16mm, b&w, 33 mins.

1971 EINE SACHE, DIE SICH VERSTEHT (A MATTER THAT'S UNDERSTOOD)

Instructional film on economy. Written, directed and produced with Harun Farocki. 16mm, b&w, 64 mins.

1974 CALL GIRLS

Short feature film. Written, directed and produced. 16mm, color, 9 mins.

1975 AUF BIEGEN ODER BRECHEN (BY HOOK OR CROOK).

Feature film. Written, directed and produced. 35mm, color, 94 mins.

1976 HUMPHREY JENNINGS (REPORT ON AN ENGLISH FILMMAKER)

Documentary film. Written and directed with Angelika Wittlich. 16mm, color, 67 mins.

1976 DER SCHAUPLATZ DES KRIEGES - DAS KINO VON JOHN FORD
(THE THEATRE OF WAR - THE CINEMA OF JOHN FORD)

TV documentary. Written and directed. Video tape, color, 91 mins.

1977 DIE KARAWANE DER WÖRTER (A CARAVAN OF WORDS)

TV feature film in 2 parts. Written, directed and produced. 16mm, color, 180 mins.

1978 DIE KULTUR REVUE (A CULTURAL REVUE)

TV documentary film in 4 parts. Written, directed and co-produced. Video tape, color, 175 mins.

1980/81 HIGHWAY 40 WEST - REISE IN AMERIKA (HIGHWAY 40 WEST - VOYAGE IN AMERICA)
Documentary film. Written, directed and produced. 35mm, color, 180 mins.

1983 DEUTSCHLANDBILDER (IMAGES OF GERMANY/GERMAN PICTURES)
Documentary film. Written, directed, edited and produced with Heiner Mühlenbrock. 35mm, b&w, 58 mins.

1985 REICHAUTOBAHN (HIGHWAYS OF THE 3rd REICH)
Documentary film. Written, directed, edited and produced. 35mm, b&w, 91 mins.

1988 DAS KINO UND DER TOD (CINEMA AND DEATH)
Documentary film. Written, directed and produced. Video tape, color, 46 mins.

1989 DER VW KOMPLEX (THE VW COMPLEX)
Documentary film. Written, directed, edited and co-produced. 35mm, color, 91 mins.

1991 DAS KINO UND DER WIND UND DIE PHOTOGRAPHIE
(CINEMA AND WIND AND PHOTOGRAPHY - 7 Chapters on Documentary Films)
Documentary film. Written, directed and produced. Video tape, color and b&w, 59 mins.

1991 KINO FLÄCHEN BUNKER
Documentary film. Written, directed and produced. Video tape, color, 53 mins.

1992 DIE UFA (UFA - A German Film Studio)
Documentary film. Written, directed and produced. Video tape, color, 88 mins.

1993 DIE UFA (2nd Version)
Written, directed and produced. Video tape, color, 80 mins.

1993 IMAGINÄRE ARCHITEKTUR. Der Baumeister Hans Scharoun
Documentary film. Written, directed and produced. Video tape, color, 80 mins.

1995 PLAYBACK
Documentary Film. Written, directed, co-edited and co-produced. Video tape color and b&w, 80 mins.

1997 B-52 Work in Progress
Documentary Film. Written, directed, edited and produced. Video tape, color, 22 mins.

2001 B-52
Documentary Film. Written, directed, edited and co-produced. 35mm widescreen, color, 108 mins.

Publications Hartmut Bitomsky (selection):

THE KIND OF RED OF TECHNICOLOR - Actuality of films and reality of production (Die Röte des Rots von Technicolor. Filmrealität und Produktionswirklichkeit), Neuwied-Berlin 1972.

Editing of and Introduction to THE SPIRIT OF FILM by Belá Balázs (Der Geist des Films), Frankfurt 1972.

German edition of WHAT IS CINEMA? by André Bazin (Qu'est-ce que c'est le cinéma?), Köln 1975.

THE REALITY OF THE IMAGES – The Filmmaker Hartmut Bitomsky (Die Wirklichkeit der Bilder – Der Filmemacher Hartmut Bitomsky), Essen 1992.

CINEMA TRUTH (Kinowahrheit), Berlin 2002.

And numerous publications of essays, articles, criticism, etc. in different books, magazines, newspapers as well as on radio broadcast.



Credits

Author and Director:	Hartmut Bitomsky
Camera:	Kolja Raschke
Sound:	Gerd Metz
Editor:	Theo Bromin
Co-Producer:	Werner Schweizer Hartmut Bitomsky
Commissioning Editors:	Sabine Rollberg (WDR/ARTE) Jutta Krug (WDR) Urs Augstburger (SF DRS)
Producer:	Heino Deckert

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