



is

life?

with francisco varela

and h.h. the dalai lama, heinz von foerster, amy cohen varela, jean-pierre dupuy, evan thompson, humberto maturana, anne harrington among others.

anne harrington among others.

produced by marcel hoehn, t&c film zürich in collaberation with cultural fund suissimage, swiss television dre arg ser idde suisse, telectub contributions by swiss federal office of culture (edit), city and control of zürich, volkart foundation, padma ag, succès cinèma © 2004 t&c film zürich www.montegrande.ch

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## **SYNOPSIS**

How is it possible for body and mind to exist as an integrated whole? The Chilean neurobiologist Francisco Varela devoted his entire life - from childhood to death – to answering this question. The structure of the film is based on Varela's non-linear thinking and focuses on autopoiesis, ethics, consciousness, meditation and dying. The film also includes narrative accounts and reflections from Varela himself, his relatives, leading scientists, friends and thinkers, including His Holiness the 14th Dalai Lama, Heinz von Foerster (the father of cybernetics), Jean-Pierre Dupuy, Evan Thompson, Anne Harrington, Humberto Maturana, etc. Three key concepts shape the film: the relationship between body and mind (embodiment), the meaning of self-responsibility (autonomy) and spirituality.

### FRANZ REICHLE: ON THE MAKING OF THE FILM

(Explanations of terms printed in bold type can be found at: http://en.wikipedia.org/wiki/Brockhaus)

The Film 'MONTE GRANDE – what is life?' developed directly out of work on my last film, DAS WISSEN VOM HEILEN (THE KNOWLEDGE OF HEALING). By confronting issues of health and illness from the perspective of Tibetan medicine and Buddhist philosophy, I discovered completely new dimensions to the notion of what life is, or could be, and where it would make sense for us to take a closer look. I became interested in the connection and interaction between body and mind through consciousness. At the same time I was fascinated by the ethics, countenance, and the sense of responsibility and respect for others that was so clearly and salutarily evident among the doctors I observed while making 'The Knowledge of Healing'. I wanted to continue researching in this area. I imagined entering the cinema and enjoying images and sounds that, without commentary, would make life appear to be rich and meaningful. One should be stimulated in ways that are profound, factual and not esoteric. One should investigate phenomena such as the relationship between mind and body, spirituality or death.

'It will be my most ambitious project yet,' I wrote in an application for funding. Admittedly I had a good feeling about it at the time, but while working on the film I was still anxious as to whether I'd actually succeed in finding a viable way of realizing my vision. And whether I could deal with these demanding and sometimes wild themes while at the same time creating a simple straightforward film that would appeal to a wide audience.

In the course of my research I decided that the main figures in the film would be four scientists from four continents. They would all know each other, would all be leading figures in their respective fields, and would all – in quite different ways – be involved in research into life: an Italian chemist, a Chinese philosopher, an American science historian and a Chilean neurobiologist. Then something unforeseeable happened that proved later to lend a fundamental strength to the whole project:

Francisco J. Varela, Chilean, neurobiologist, consciousness researcher, one of the world's leading **cognitive scientists**, one of the four main figures in my film but the last I began working

with, became ill. Some months earlier we had arranged to meet in February in a village in the north of Chile, in the middle of the Andes, that you won't find on any map: *Monte Grande*. Then I lost all contact with him. I travelled nevertheless halfway around the world to make the appointment as arranged, rented a car in Santiago and took the Transamericana north through the desert to this little place called *Monte Grande*. There I found out that Francisco Varela had arrived the day before and was very ill, and that is was therefore uncertain whether I would be able to meet him.

Several years earlier Francisco Varela had developed a malignant tumour as a result of having Hepatitis C, a new disease at the time that is still incurable today. His liver had begun to fail and he was preparing himself for certain death when he received a liver transplant, practically at the last possible minute. He lived for several more years, with some complications, before the tumour returned. The operation was unsuccessful. He didn't respond to the first course of chemotherapy and his kidneys failed. So many of his relatives came together in Monte Grande in order to be together again with 'Pancho,' as they had called him lovingly since he was a child, and to say their final farewells. No one knew how much longer he had to live.

The next day I was allowed to meet him briefly – alone and without the camera – in Monte Grande, his most important 'place of reference' as he once called it. He was very weak and could only whisper, yet he was radiant and pleased that I had undertaken such a long trip despite the uncertainty as to his whereabouts. He promised that if he started feeling better I could visit him with my small video camera.

I got to know the family and was surprised by the simplicity, warmth and openness I encountered. I had complete access and could move around freely. We had intense deep conversations for which I remain thankful to this day. I was allowed to record everything. They told me stories about the village, the family, work, personal relationships, the putsch; and above all about dealing with those on the left and the right within the family, and about the acceptance and respect of both. Francisco was on the left and had wanted as a scientist in Chile to participate in the building of a modern socialist state under Allende.

The day before I had to leave *Monte Grande*, Francisco regained some strength thanks to a neighbour's herb tea preparation. I was outside filming when he called me to the house and I was able to spend some time with him, without asking any questions. Naturally I had many and

urgent questions that were specifically for Francisco Varela, the unique mastermind and cofounder of new hypotheses that will preoccupy us and provoke changes well into the 21st
century. Francisco was bedded down in a couch on the veranda and was ready for a
conversation. I requested a single question, which he granted me with an understanding smile.
'Francisco, what is special about *Monte Grande* and what significance does this place have for
you?' He started talking about *Monte Grande*, about his childhood and the discoveries of his
youth; and his eyes began to shine. He stopped occasionally for short breaks. He told me about
his whole life, like a legacy, with all the most important stages, with his profound meditation
experience. Again and again he returned to *Monte Grande* and continued talking about it for
about the length of a cassette. The meaning of this place couldn't be shattered even with an
atom bomb.

When I thought again about what Francisco had been telling me I realized that he had barely mentioned science. And when he had talked of science it was as if it were something normal, not something special; just something one can do like anything else. That was wonderful to hear from this important and highly regarded scientist and systems theorist; someone who had spent his entire life applying himself to one central question: How do the body and mind come together in one entity and how do they interact with one another? This was like a gift for me, and a kind of confirmation that my decision to base the film around one main figure only – Francisco Varela - was correct. I could approach him with all the fundamental and detailed questions I had prepared for this project, but in addition he had a wealth of personal experience he could refer to when discussing these things. But it was truly crazy: Francisco had come to Monte Grande to die, while I had come there because I wanted to make a film only with him. Was there no hope of recovery? Francisco and his family gave me their approval and their trust to use even the most personal of my video takes for the film, which had the working title of 'What is Life?'. But this wasn't enough for a film that I imagined as having a dense and interwoven structure. When I was back in Santiago I met Francisco Varela's first important teacher and later his partner, Humberto Maturana, one of the founders of the philosophical theory of constructivism (Konstruktivismus). In their most famous joint work, The Tree of Knowledge, they put forward, in a popular science way, the idea of life as a self-creating system. Life is not, as has previously been thought, and as Darwin would have had us believe, something primarily controlled from outside, but rather something self governing. They adopted the term autopoiesis for this idea. A self-governing, self-creating, living system. This new concept of life, which came out of the

field of biology, is influential for other thinkers in other areas. For example the sociologist *Niklas Luhmann* applied the concept of *autopoiesis* directly to social systems.

A few weeks later Francisco Varela's health had improved considerably. After he had completed another course of chemotherapy, we met again at his home in Paris. In the mid 1980s *Jean-Pierre Dupuy* of *CREA* had invited him to Paris where he conducted research, led several study groups at the university, and led research projects at *CNRS*. We had intense, profound and very personal discussions, all of which I recorded. And we confidently planned further meetings in Chile and at a place where he meditated in the South of France. Little did we know that these conversations in Paris were to be the last that were ever recorded.

In the 1980s Francisco Varela was one of the main founders of Mind & Life (www.mindandlife.org), a forum for discussion that brought together a group of scientists and His Holiness the Dalai Lama about once every two years. They endeavoured on the one hand to compare western research findings with the discoveries of Buddhist teachings and to pursue new directions for research, and on the other hand, to give new impulses to the Buddhist tradition. In May 2001 Francisco Varela was scheduled to present his latest scientific experiments in the presence of the Dalai Lama in Wisconsin USA. The investigations represented an important part of his scientific work as a whole, and of his personal development. But due to a sudden deterioration in his health, Varela sent Antoine Lutz, his Ph.D. student at the time, to give the presentation at the Mind & Life meeting in America. We recorded the event with several cameras and transmitted a live mix via the Internet so that Francisco could witness the proceedings from his deathbed in Paris. (These recordings were incorporated into the complementary TV film MIND AND LIFE). The Dalai Lama also took this opportunity on the last day of the meeting to say a few personal words to his 'dear friend and spiritual brother,' whose achievements he will never forget. Six days later Francisco Varela died in his flat in Paris at the age of just 54.

Francisco Varela's life began in *Monte Grande* and he returned again and again to this stony yet fertile place that somehow resembled an oasis from the biblical 'promised land'. *Monte Grande* became a metaphor for me, and for the film, so to speak. A protective and giving environment - the *Monte Verità*, but also the hill of Sisyphus, to be overcome.

After Francisco Varela's death I wanted to talk to with his friends and relatives in order to fill any gaps that remained and to finish my film. Out of these interviews, Francisco's last wife, Amy Cohen Varela, a literary critic and psychoanalyst, became a key figure in the film. Not only was she Varela's partner for many years, she also worked with him as co-author on many projects and publications. In Vienna I managed to meet one of Varela's precursors and the father of cybernetics, the 90-year-old (since deceased) *Heinz von Foerster* (www.univie.ac.at/constructivism/HvF.htm).

Most of the projects started by Francisco Varela were continued after his death, though some had to be discontinued due to the enormous void left by his absence. For example the search for a new definition of science was temporarily put on hold.

'MONTE GRANDE what is life?' ended up being anything but a linear biographical portrait. It also became more than a one-theme documentary. It is a cinematic attempt to represent what, from my viewpoint, Francisco Varela was working on and what he lived and realised towards the end of his life: **embodiment**. Thus the film begins with sections that are structured into the personal and the theoretical. These strands become interwoven with each other and with aspects of everyday life, illness and approaching death. Francisco Varela's hypotheses, theories and reflections on his own life, which are presented in the film, offer us important clues as to how why and how we can develop our minds in order to arrange living and living together in a more intense and attractive manner. He understood his role as a scientist as existing within this ethical context.

Franz Reichle, September 2004

### **AUTOPOIESIS**

The new term for life, as defined by the neurobiologists Humberto Maturana and Francisco Varela, is *autopoiesis*.

#### auto = self-

poiesis = creation or production autopoiesis = self-making, self-creating

The theory of a unity of subject and object in human history, the inseparable integrity of being, as proposed above all by sages, mystics and philosophers, has now also been backed up Maturana's and Varela's research in the field of natural sciences.

According to the old Darwinist thinking, a creature only survives if it adapts almost completely to its environment. It becomes slavishly dependent on an objective outside world. But for Maturana and Varela there is no 'objective' reality. If the basic requirements of life are fulfilled, then living systems (or 'non-trivial machines' as Heinz von Foerster described them – i.e. human beings) have complete freedom to create their own worlds instead of merely reacting to what already exists. The subject is therefore crucially involved in the creation of its only seemingly objective reality.

Maturana and Varela developed a system model of elementary life processes and the processes involved in arriving at knowledge or discoveries. This system model radically revolutionized the conception of the world as perceived by biologists, and also the layperson's traditional understanding of the world. It demonstrates that it is cooperation and tolerance rather than competition that form the foundation of all life processes. The world in which we live is a world that we create together through a process of cognition. It is up to us whether we recognize and act upon the rules of life as laid down in our biological inheritance, or whether we fail to recognize them and thus destroy the foundations of our life and our humanity.

The above passage on autopoiesis borrows freely from text by Goldmann Verlag, on the German edition of 'The Tree of Knowledge - the Biological Roots of Human Understanding' by Humberto Maturana and Francisco Varela.

## FRANCISCO J. VARELA: THE CENTRAL FIGURE IN THE FILM

The main figure in the film is the Chilean Francisco Varela, who died in 2001 at the age of 54. He was a famous neurobiologist and a leading figure in the field of cognitive science, who became known for his work (together with H. Maturana) on autopoiesis, a definition of life based on autonomy.

A main focus for Varela' work was the idea of building a bridge between the discoveries of the mind in science and the discoveries of the mind through experience.

After a simple, wonderful childhood in the village of Monte Grande in the north of Chile, and a rapid and successful period of study at Harvard, Pinochet's putsch in 1973 made Francisco confront death for the first time in his life. His father-in-law and friends of his were murdered. Later in exile he was twice confronted with his own death. Once while waiting for a transplant, and again following unsuccessful cancer treatment.

Already as a boy and up until his death, Varela was continually asking himself the same question: How is it possible that our body and mind live as one entity?

His strong humanistic commitment, his clear and realistic way of thinking, his warm-heartedness and the candour he brought to his relationships – with his wife, children, friends, students and colleagues, made him an exceptional man and a great catalyser of ideas. He once said, 'Ideas fly through the air; one only needs to be open in order to catch, understand and develop them.'

Francisco Varela died in Paris on 28 May 2001, two weeks after an unexpectedly severe relapse following the end of his course of chemotherapy. In the last few months before Varela's death Franz Reichle had several intense conversations with him on themes central to the film, and was able to record these discussions onto video.

For detailed information on Francisco Varela's career see: <a href="http://www.ccr.jussieu.fr/varela/varela/index.html">http://www.ccr.jussieu.fr/varela/varela/index.html</a>
For detailed information on his publications see also: <a href="http://www.enolagaia.com/Varela.html">http://www.enolagaia.com/Varela.html</a>

### **OTHER PROTAGONISTS**

with brief notes on their occupations and their relationships to Francisco Varela.

Amy Cohen Varela psychoanalyst, partner and collaborator in Varela's European period 13

H.H. Tenzin Gyatso, Dalai Lama Mind & Life partner and friend

**Evan Thompson** philosopher, 'nephew,' Ph.D. student, collaborator 12

Heinz von Foerster (1911-2002) physicist, magician, BCL founder, inspirer and friend 12

**Jean-Pierre Dupuy** philosopher, former director of CREA, patron and friend 13

Humberto Maturana biologist, joint developer of the autopoiesis idea

Anne Harrington scientist, Mind & Life partner 13

Hans Ulrich Obrist art conservator 14

Joan Halifax anthropologist, Zen priest, good friend 14

William Irwin Thompson poet and philosopher, patron and friend 14

Antoine Lutz Ph.D. student, Varela's representative at the Mind & Life meeting 2001 15

Samy Frenk biologist, companion during Varela's exile in America, friend

Christian Valdez photographer and filmmaker, childhood friend 15

Raoul Varela father, engineer and estate agent 15

Aida Inzunza doctor, companion during the Ph.D. years at Harvard

Miruska Milicic sister-in-law and good childhood friend

**Leonor Palma** senior forestry official, companion during the autopoiesis period and while Varela was in exile in America

Alejandra Vega historian, daughter of Leonor Palma

Javier Varela computer scientist, son of Leonor Palma

Leonor Varela actress, daughter with Leonor Palma

Gabriel Varela schoolboy, son with Amy Cohen 12

### **Amy Cohen Varela**

was born in the United States (Boston). After persuing undergraduate and graduate studies inComparative Literature (Brown and Columbia Universities), she completed a degree in Clinical Psychology at the University of Paris (Paris VII, Jussieu). She is currently persuing work initiated with Francisco Varela at the interface between psychoanalysis and neurophenomenology. Amy and Francisco have a son, Gabriel, born in Paris in 1992. His principal interest is archeology.

## **Evan Thompson**

Canada Research Chair, Associate Professor, Department of Philosophy, York University Toronto - http://www.yorku.ca/evant

## Author of:

with Francisco J. Varela and Eleanor Rosch, THE EMBODIED MIND: COGNITIVE SCIENCE AND HUMAN EXPERIENCE. MIT Press, 1991.

COLOUR VISION: A STUDY IN COGNITIVE SCIENCE AND THE PHILOSOPHY OF PERCEPTION. Routledge Press, 1995.

RADICAL EMBODIMENT: THE LIVED BODY IN BIOLOGY, HUMAN EXPERIENCE, AND THE SCIENCES OF MIND. Forthcoming.

#### **Heinz von Foerster**

Together with Warren McCulloch, Norbert Wiener, John von Neumann, and others, Heinz von Foerster was the architect of cybernetics.

Heinz von Foerster was born 1911 in Vienna, Austria, where he studied physics at the Vienna Technical University. 1944 he received a Ph.D. in physics at the University Breslau. After World War II he taught at the University of Illinois at Urbana-Champaign where he hold the professorship for signal engineering from 1951 to 1975. From 1962 to 1975 he also was professor for biophysics and 1958–75 director of the Biological Computer Laboratory. Additionally, 1956–57 and 1963–64 he was Guggenheim-Fellow; 1963–65 president of the Wenner-Gren-Foundation for anthropological research; 1971–72 secretary of the Josiah-Macy-

Foundation of the cybernetic program. H. von Foerster wrote a large number of scientific publications.

Heinz von Foerster died on 2 October 2002 in Pescadero, California.

http://www.univie.ac.at/heinz-von-foerster-archive/

## **Jean-Pierre Dupuy**

Professor of Social and Political Philosophy, École Polytechnique, Paris. Director of research at the C.N.R.S. (Philosophy). Former Director of C.R.E.A. (Centre de Recherche en Épistémologie Appliquée), the philosophical research group of the École Polytechnique, which he founded in 1982. Director of GRISÉ (Groupe de Recherche et d'Intervention sur la Science et l'Ethique), École Polytechnique. Full Professor (1/3rd time), Stanford University [French and Political Science]. C. S. L. I. (Center for the Study of Language and Information) Researcher, Stanford University. Science-Technology-Society Program Affiliate, Stanford University. Member of Académie Française des Technologies, Paris; of Conseil Général des Mines; Paris; and of COMEPRA (Comité d'Ethique et de Précaution) of INRA, Institut National de la Recherche Agronomique, Paris.

## **Anne Harrington**

Anne Harrington is Loeb Harvard College Professor for the History of Science at Harvard University; and currently also Visiting Professor in the History of Medicine at the London School of Economics. For six years (through 2002), she was Co-Director of the Harvard University Mind, Brain, and Behavior Initiative, that aimed to bring together the tools and insights of the neurosciences with understandings from the humanities and social sciences. She also was a member of the MacArthur Foundation Research Network on Mind-Body Interactions, where she focused particularly on the placebo effect, and currently serves on the Board of the organization Mind and Life (co-founded by Francisco Varela), that facilitates dialogue between the sciences and relevant aspects of Buddhism. In this latter capacity, she helped to edit two of the publications to emerge from the Mind and Life dialogues, including the proceedings from a larger public conference with the Dalai Lama held at MIT in the fall of 2003. She is also the author of several books: Medicine, Mind and the Double Brain (1987) Reenchanted Science (1997); and Stories under the Skin (in final preparation), of numerous articles and of three further edited collections.

### **Hans Ulrich Obrist**

Hans Ulrich Obrist was born in May 1968 in Zurich, Switzerland, and currently lives and works inParis. In 1993, he founded the Museum Robert Walser and began to run the Migrateurs program at the Musée d'Art Moderne de la Ville de Paris where he now serves as a curator for contemporary art. He is editor in chief of the hybrid artist pages Point d'Ironie, published by agnès b and begun in collaboration with her in 1997. He has been a frequent curator for the museum in progress, Vienna and lecturer at Facolta delle Arti, IUAV in Venice. From 1991 to the present he has curated or co-curated numerous exhibitions.

#### Joan Halifax

Joan Halifax Roshi is a Buddhist teacher, Zen priest, anthropologist, and author. She is Founder, Abbot, and Head Teacher of Upaya Zen Center, a Buddhist monastery in Santa Fe, New Mexico. She has worked in the area of death and dying for over thirty years and is Director of the Project on Being with Dying. She is Founder and Director of the Upaya Prison Project that develops programs on meditation for prisoners. For the past twenty-five years, she has been active in environmental work. She studied for a decade with Zen Teacher Seung Sahn and was a teacher in the Kwan Um Zen School. She received the Lamp Transmission from Thich Nhat Hanh, and was given Inka by Roshi Bernie Glassman. A Founding Teacher of the Zen Peacemaker Order, her work and practice for more than three decades has focussed on engaged Buddhism. http://www.upaya.org/roshi/roshi.html

#### William Irwin Thompson

In 1972, Thompson founded the Lindisfarne Association as an alternative way for thehumanities to develop in a scientific and technical civilization. Lindisfarne became an association of scientists, artists, scholars, and contemplatives devoted to the study and realization of a new planetary culture. Lindisfarne began its activities in Southampton, New York in 1973, moved to Manhattan in 1976, and, finally, to Crestone, Colorado in 1979 where today the Lindisfarne Fellows House and the Lindisfarne Chapel are located in association with the Crestone Mountain Zen Center. In 1997, Thompson retired from the presidency of the Lindisfarne Association. http://www.williamirwinthompson.org/

#### **Antoine Lutz**

is a post-doctoral fellow at the Keck laboratory, University of Wisconsin-Madison. His researchinterests focus on the relationship between brain integrative mechanisms, such as neural synchrony, and high-order cognitive and emotional activities, including consciousness. He currently do research with Dr. Richard Davidson on the neuro-functional and neuro-dynamical characterization of meditative states of long-time Buddhist practitioners. Engineer in Telecommunication and Computer Science (INT), he also received a BA in Philosophy at the Sorbonne University, Paris. He worked during his doctoral research in cognitive neuroscience with Dr. Francisco Varela at Paris University on the use of first-person methods to study the relationship between large-scale brain dynamics and subjective experience (neurophenomenology approach). http://tezpur.keck.waisman.wisc.edu/~lutz/index.html

## Raùl Varela Rodríguez

Born in La Serena – Chile on November 30, 1914

Married to Corina García Tapia. Two sons: Andrés and Francisco; one daughter: Corina. Degree: Civil Engineer, graduated from the University of Chile on December 1937. In 1943 starts his construction entrepreneur activity with the Architectural Department of the Public Works Ministry: The Housing Corporation Social Prevision Institute; and other private constructions in Concepción and Talcahuano. 1948-1995 begins contracting activities for Public Works in Santiago and other important cities of Chile, from La Serena to Osorno. This activity has continued as a Public Works Contractor and through his different Construction Companies, having built a great number of public and private buildings. In 1995 he left the Construction Company in the hands of his descendants. 1963-1969 Professor of Construction 5<sup>th</sup> year at the engineering School of the Catholic University of Chile

#### **Christian Valdez**

Born in 1947. 1970-1975: Studies of Cinematography and Photography at the State Institute of Cinematography in Moscow (VGIK) 1980-1989: Cameraman of the finnish TV in Moscow. 19891991: Cameraman of the finnish Tv in France. 1991-2004: Cameraman of the spanish TV in France.

### **BIO-/FILMOGRAPHY OF FRANZ REICHLE**

www.franzreichle.ch

Born in Switzerland in 1949.

Studies at the School of Art and Design, Zurich. 1968-73.

Graphic designer at Müller-Brockmann Zurich.. Award for best Swiss poster design.

Studies at the University of Art in Hamburg. (Hochschule für bildende Künste) 1974-80.

Teaching on film at the School of Art and Design Zurich 1981-84.

Lives in Buryatia, east Siberia, between Lake Baikal and Mongolia, 1989-95.

Stories and reports from Siberia for tv, newspapers, publishers.

Lecturer at the University of Applied Sciences and Arts Zurich (HGKZ), since 1996.

#### Films

2004 **MONTE GRANDE what is life?** Documentary FAZ 35mm, colour, 80min. With Francisco Varela. on Autopoiesis, ethics, consciousness, embodiment and dying. Script, direction, camera, editing

1997 THE KNOWLEDGE OF HEALING Documentary, blowup 35mm, colour, 90 min.

Science, application and therapeutic effect of the classic Tibetan medicine.

Script, direction, editing / Quality Award FDI, Film Award Zurich.

Editor of paper-back 'Das Wissen vom Heilen' / www.oeschverlag.ch

1992 **TRAUMZEIT (Journey to Indians of Siberia)** Documentary, 16mm colour, 87 min.

The extinction of a shamanistic tribe in East Siberia.

Production, script, direction, camera, sound, production.

1990 LYNX Documentary, 16mm, colour, 82 min.

Problems of civilized people with the wild of nature, illustrated by the Lynx.

Production, script, direction, camera, editing, / Quality Award FDI, Film Award Zurich.

1986 **AUGENBLICK** Experimental feature, 16mm, b/w and colour, 78 min.

A love story set during the Zurich's civil commotion of the eighties.

Script, direction, editing, production / Quality Award FDI.

1978 **ROSMARIE, SUSANNE, RUTH** Documentary, 16mm, colour, 80 min.

Three 16 years old girls in the traditionally minded Swiss canton of Appenzell'.

Script, direction, editing, production / Quality Award FDI.

## In postroduction:

2005 **MIND AND LIFE** additional documentary to MONTE GRANDE, colour, 52min.

Bridge between western and buddhist knowledge, with F. Varela, other western scientists and the Dalai Lama.

Production, concept, direction, editing.

## In projection:

2006 **FRANCISCO VARELA** (working title) DVD album with 5 discs.

Interactive work with an autobiography of Francisco Varela, further interviews and with both films MONTE GRANDE what is life? and MIND AND LIFE.

Production, concept, authoring.

2007 **SIBERIA** (working title) Short documentary, colour, 20 min. *Personal film diary during the Perestroika and later on.* 

### **CRITICAL OPINIONS OF THE FILM**

## Bernhard Pörksen (from German into English)

Francisco Varela was a master of synthesis. Admired, controversial, and endowed with the intoxicating passion of an exceptionally gifted researcher. He was highly instrumental in shaping modern systems theory as well as cognitive science. He was a friend of the Dalai Lama and an unorthodox inspirer on the international scientific scene. In Franz Reichle's film – the documentary account of a man's life in the face of imminent death – one gets to know Francisco Varela in a way that I would not have believed possible. This is the story of a man that is told affectionately and gently, touchingly and astutely. Varela spent his life building bridges: between Western science and Eastern wisdom, neurobiology and philosophy, abstract theory and practical life. This film succeeds – if only for 80 delightful minutes – in deconstructing the prevailing division between science and art.

Bernhard Pörksen is a junior professor of journalism and communication science at the University of Hamburg. He has written books in collaboration with Heinz von Foerster ("Understanding Systems") and Humberto Maturana ("From Being to Doing").

#### **Evelyn Fox Keller:**

Franz Reichle begins this cinematic portrait of Francisco Varela with Schroedinger's famous question, What is Life? This question also preoccupied Varela as a scientist, but Reichle subtly and surely transforms it into another, far more compelling concern, namely, What is a life? The film follows Varela through his many achievements, but it achieves its mission most powerfully with Varela's rapprochement with death. Here, in this journey, Varela finds the meaning of his life as a man, and Reichle finds his film. A powerful and beautiful achievement.

Evelyn Fox Keller, Ph.D., Professor of History and Philosophy of Science at MIT. She is the author of *A Feeling for the Organism: The Life and Work of Barbara McClintock; The Century of the Gene; Making Sense of Life: Explaining Biological Development with Models, Metaphors, and Machines a.o.* 

## Matthieu Ricard (from French into English)

A beautiful, moving, subtle and heartfelt movie on the life of a remarkable being. Francisco Varela was not only one of the most eminent neuroscientists of our times, but also a pioneer in fathoming the nature of consciousness and a visionary who created a bridge between modern scientists and buddhist practitioner experts in training the mind.

Matthieu Ricard, Ph.D., author, Buddhist monk at Shechen Monastery in Kathmandu and French interpreter since 1989 for His Holiness the Dalai Lama

.

## **Amy Cohen Varela:**

Franz, you have done an extraordinary work (and this is not the first one - "The Knowledge of Healing" is too). The way you work with fine detail, in images and words, in order to transmit in a subtle and profound way the huge oceans of emotion and thought that you were dealing with makes what looks like an impossibility blossom before our eyes into whole worlds of possibility. All the people I have spoken to loved the film, family, friends, scientists, nonscientists... everyone.

Amy Cohen Varela is currently persuing work initiated with Francisco Varela at the interface between psychoanalysis and neurophenomenology.

### **CREDITS AND TECHNICAL INFORMATION**

a film by Franz Reichle

with Francisco Varela (1946 – 2001)

**Participants** 

H.H. Tenzin Gyatso 14. Dalai Lama

Jean-Pierre Dupuy

Amy Cohen Varela

Heinz von Foerster

Samy Frenk

Joan Halifax

Anne Harrington

Aida Inzunza

Antoine Lutz

Humberto Maturana

Miruska Milicic

Hans Ulrich Obrist

Leonor Palma

Evan Thompson

William Irwin Thompson

Christian Valdez

Gabriel Varela

Javier Varela

Leonor Varela

Raul Varela

Alejandra Vega

## Collaboration on Pre-Production

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## Collaboration on Production

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#### Collaboration on Post-Production

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#### Archive Material

Joan Halifax, Raul Varela, William I. Thompson, Nina Hagen, Carl A. Kroch Library, Ithaca NY, Elaine Engst, Progress Film-Verleih GmbH Berllin, Sophie Bassouls / SY / Corbis, Antoine Lutz, Monica Gotta, Claudia Couwenberg.

Varela "The Portable Laboratory", Laboratorium 1999 curated by Barbara Vanderlinden + Hans Ulrich Obrist produced by Antwerpen Open and Roomade.

Produced by

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Sandra Gisler Production Manager
Paul Riniker Producer SF DRS

Soundedit

Jürg von Allmen C.A.S., Patrick Storck

On-line Editing and Film Transfer Swiss Effects Ian Mathys grading Brigae Haelg artwork Peter Demmer film transfer David Pfluger film transfer

Laboratory

Egli Film & Video, Zürich Ruth Kägi grading 35mm Peter Csordas video transfer

**Sound Studios** 

Digiton Zürich and SDS Bern

A production by T&C Film Zürich

in collaboration with Schweizer Fernsehen DRS SRG SSR idée suisse,

Kulturfonds Suissimage, Teleclub

Length: 80 minutes

Format: 35mm FAZ, Dolby SR

Original version English, Spanish, German, French

Distribution Switzerland:

Columbus Film, Steinstrasse 21, 8036 Zürich, Tel +41 (0)1 4627366, Fax +41 (0)1 4620112, info@columbusfilm.ch, www.columbusfilm.ch

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## SELECTED READING - some of the most important books of Francisco Varela

Humberto Maturana, Francisco J. Varela:

The Tree of Knowledge / A new look at the biological roots of human understanding. Shambhala/New Science Library, Boston, 1987.

Francisco J. Varela:

Cognitive Science / A Cartography of Current Ideas 1988

Francisco J. Varela, Evan T. Thompson and Eleanor Rosch:

The Embodied Mind / Cognitive Science and Human Experience

MIT Press 1993

## Francisco J. Varela:

Sleeping, Dreaming and Dying / An Exploration of Consciousness with the Dalai Lama. Wisdom Boston MA 1997.

# **PHOTOS** (download on www.montegrande.ch > press)



No 1 - Francisco Varela. Paris 2001.



No 2 - Going to Harvard. Santiago de Chile 1968.



No 3 – Valle Elqui near Monte Grande Chile.



No 4 – Amy Cohen Varela, Paris 2001.



No 5 - Francisco Varela in Monte Grande. Chile 2001.



No 6 – H.H. Tenzin Gyatso, 14. Dalai Lama, Dharamsala, India 2002.



No 7 – Heinz von Foerster. Vienna 2001.



No 8 – Jean-Pierre Dupuy. South of France 2002.



No 9 – Evan Thompson. Cortona, Italy 2002.



No 10 – Humberto Maturana. Santiago de Chile 2001.



No 11 – Anne Harrington. Cambrige MA 2003.



No 12 – Dr. Varela with parents. Graduation at Harvard 1970.

### **T&C FILM AG**

2004 MONTE GRANDE what is life? by Franz Reichle. Documentary.

DIMITRI — CLOWN

by Friedrich Kappeler. Documentary.

- 2002 MOTHER (Mutter)
  - by Miklos Gimes. Documentary. (Forum Berlin 2003) Award of outstanding Quality DHA.
- 2001 SECRET LOVE (STILLE LIEBE) by Christoph Schaub. With Emmanuelle Laborit, Lars Otterstedt, Wolfram Berger, Renate Becker. (Competition ,Festival des Films du Monde' Montreal' 2001.)
- 1999 BERESINA or THE LAST DAYS OF SWITZERLAND (Beresina oder Die letzten Tage der Schweiz) by Daniel Schmid. CH/D/A. With Elena Panova, Geraldine Chaplin, Martin Benrath, Ulrich Noethen, Stefan Kurt (Official Selection UN CERTAIN REGARD Cannes 1999, Award of outstanding Quality DHA).
- 1999 SANTIAGO CALATRAVA'S TRAVELS (Die Reisen des Santiago Calatrava) by Christoph Schaub.
- 1999 COINCIDENCE IN PARADISE (Ein Zufall im Paradies) by Matthias von Gunten. Documentary. CH/A.
- 2002 BRAIN CONCERT by Bruno Moll. Documentary.
- 1998 FULL MOON (Vollmond) by Fredi M. Murer. CH/D/F. ('Grandprix' The World Film Festival Montreal 1998, Quality Award DHA).
- 1996 THE KNOWLEDGE OF HEALING (Das Wissen vom Heilen) by Franz Reichle. Documentary. (Quality Award DHA, Film Award Zurich).
- 1995 THE WRITTEN FACE (Das geschriebene Gesicht) by Daniel Schmid. Documentary-fiction. CH/J. (Quality Award DHA, Film Award Zurich, Forum Berlin 1996).
- 1995 MEKONG by Bruno Moll. With Andrea Zogg, Sinta Tamsjadi.
- 1992 MEN OF THE SEA (Gente di Mare) by Bruno Moll. Documentary.
- 1992 OFF SEASON (Zwischensaison) by Daniel Schmid. CH/D/F. (Quality Award FDI, Film Award Zurich). With Sami Frey, Andrea Férréol, Maria M. Fellini, Dieter Meier, Arielle Dombasle.
- 1987 THE WAY THINGS GO (Der Lauf der Dinge) by Peter Fischli and David Weiss. Shortfilm. (Study Award DHA).
- 1985 AFTER DARKNESS by Dominique Othenin-Girard and Sergio Guerraz. With John Hurt, Julian Sands, Victoria Abril. (Quality Award DHA, Competition Berlin 1985).
- 1984 TOSCA'S KISS (II Bacio di Tosca) by Daniel Schmid.
  Documentary-fiction. (Winner of several festival Awards, Quality Award DHA).
- 1983 THE RIGHT WAY (Der rechte Weg) by Peter Fischli and David Weiss. Short feature film. (Study Award DHA).
- 1982 HECATE by Daniel Schmid. CH/F. With Lauren Hutton, Bernard Giraudeau. (Quality Award DHA, Competition Berlin 1983).
- 1978 THE SWISSMAKERS (Die Schweizermacher) by Rolf Lyssy.
  With Emil Steinberger and Walo Lüönd. One million spectators only in Switzerland. (Quality Award DHA).