

Hubertus Strughold

Life and Work in the Fields of Space Medicine

M. Campbell
and V. Harsch



The Book

Dr. Hubertus Strughold was an early pioneer of aerospace medicine. He was the Director of the Aeromedical Research Institute of the German Air Ministry in Berlin during World War II. After the war, he was brought to the U.S. as a part of "Operation Paperclip" and was instrumental in the early development of space medicine. His contributions were so fundamental that he is called "The Father of Space Medicine" and the Hubertus Strughold Award is given yearly by the Space Medicine Association for individual achievement in space medicine. Following his death, criticism of his possible involvement in World War II atrocities has emerged and most of his honors have been removed. This book is a detailed and well referenced biography of Dr. Strughold. The details concerning the controversy of his activities in World War II are covered comprehensively for the first time.

"We knew only a small part, and remained silent.
We know more now and this along with the consciousness:
if we would have known it, we would have also been silent."
Existential philosopher K. Jaspers, Heidelberg 1947

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Mark Campbell and Viktor Harsch

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Life and Work in the Fields of Space Medicine

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Contents

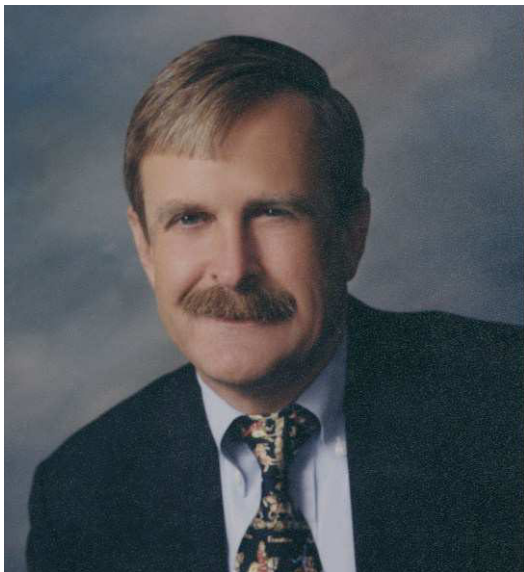
Introduction	7
Chapter 1. Childhood and Adolescence (1898-1918)	12
Chapter 2. Years of Study (1918-1924)	16
Chapter 3. The Wuerzburg Years (1924-1935)	19
Chapter 4. The Berlin Years (1935-1945)	27
Chapter 5. A New Beginning: Goettingen, Heidelberg and Nuremberg (1945-1947)	42
Chapter 6. Resettlement in the United States (1947-1950)	49
Chapter 7. School of Aviation Medicine (1950-1960)	61
Chapter 8. School of Aerospace Medicine (1961 - 1968)	77
Chapter 9. Retirement (1969-1986)	83
Chapter 10. Strughold´s Scientific Work	90
Chapter 11. The Controversy of Hubertus Strughold during World War II	96
Appendix 1 – Hypoxia experiments	119
2 – Hypothermia experiments	123
3 – Salt Water Drinking Experiments	128
4 – The Hypoxia-experiments on Children at AMRI- Berlin	130
5 – Internet Links	132

Documents	135
Notes	149
List of sources	185
Archival sources	185
List of works and sources 1923-1979	187
List of speeches, presentations and lectures 1946 – 1979	201
Oral history	217
Literature	219
Register of figures and tables	227
Index	231
Authors	235

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Mark Campbell

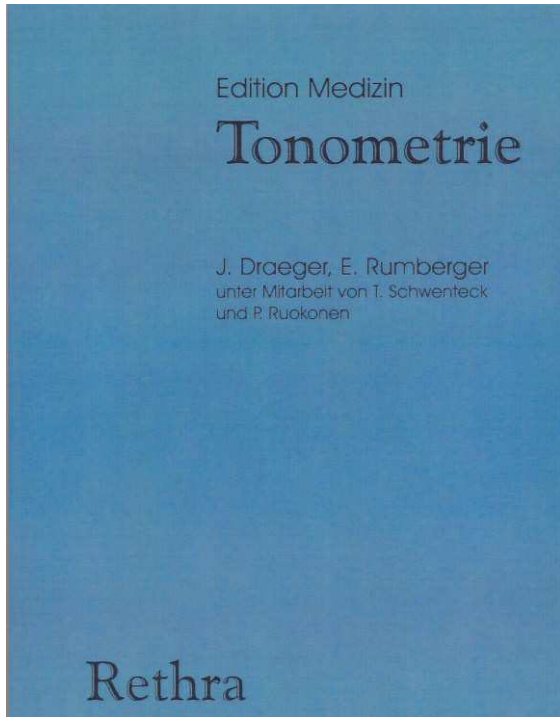


Viktor Harsch

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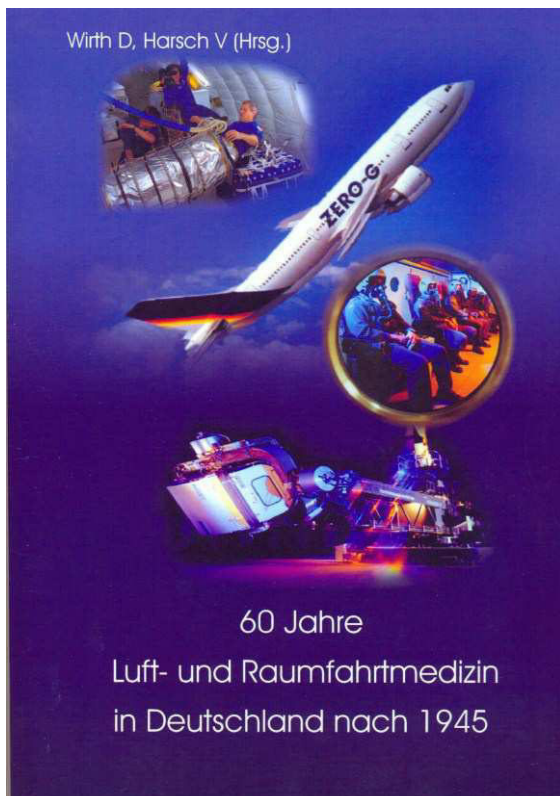
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Hubertus Strughold, The Father of Space Medicine

Introduction

Man mag vielleicht sagen, daß Raumfahrtphysiologie in das Reich der Phantasie gehört. Wir sollten jedoch immer wissen, daß in zahlreichen Fällen die Phantasie von gestern die Wirklichkeit von morgen ist.

Some will say that aerospace physiology belongs to the kingdom of fantasy. However, we should always remember that in many cases the fantasies of yesterday will become reality tomorrow.

Strughold 1951 (1)

Dr. Hubertus Strughold (1898-1986) is known as the “Father of Space Medicine”. The Space Medicine Branch of the Aerospace Medical Association initiated the “Hubertus Strughold Award” in 1963, given to the person each year for the greatest achievement in space medicine. Dr. Strughold has become extremely controversial since his death based upon alleged, but unsubstantiated links, to war atrocities in Nazi Germany during World War II. However, he was never a member of the Nazi party and no evidence of his involvement in any war crimes has ever been found. Despite many outstanding contributions in aerospace medicine, several books and many internet sites describe him in derogatory terms and most of his honors have been removed. A review of all available evidence, including examination of his files from the U.S. Dept. of Justice obtained under the Freedom of Information Act, shows no direct involvement, direction or participation by Dr. Strughold in any war crimes.

The commandant of the School of Aviation Medicine, Col. Harry G. Armstrong, organized the first Department of Space Medicine in the world on February 9, 1949. Dr. Hubertus Strughold became the first and only Professor of Space Medicine in 1958. Under his leadership, the school became a major center for basic and clinical investigations into the physiological and behavioral effects of spaceflight and the space environment.

In November 1948, Dr. Armstrong organized a panel discussion on the "Aeromedical Problems of Space Travel." Strughold resolved the contradiction inherent in the title of the symposium during his presentations by emphatically using the term "space medicine" for the first time. Dr. Strughold estimated that the main medical problems of space flight could be formulated, the majority of the questions fully answered within 10 to 15 years, and that the first manned space flights would become feasible between 1964 and 1969. In March of 1950, another symposium, “The Biological Aspects of Manned Space Flight”, featured Dr. Strughold as one of the main presenters. This conference led to discussions to form a permanent space medicine organization. On May 31, 1950, Dr. Strughold and 17 other aerospace medical experts founded the Space Medicine Branch of the Aerospace Medical Association.

In November 1951, Dr. Strughold organized a symposium discreetly entitled "Physics and Medicine of the Upper Atmosphere." A good portion of the material presented covered the nature of space, the mechanics of space flight, and the medical difficulties of sending a man beyond the sensible and breathable atmosphere. Two other space medicine symposiums were later organized by Dr. Strughold and conducted in 1960 and 1965.

In 1951, Dr. Strughold published this seminal paper in the *Journal of Aviation Medicine* (the forerunner of *Aviation, Space and Environmental Medicine*) in which he proposed a dramatic thesis concerning the human potential for space exploration. Dr. Strughold addressed the central problem of where space began and proposed that space was present in small gradations as altitude levels increased rather than existing in the remote regions of the atmosphere.

At the urging of Hubertus Strughold, the Air Force funded the construction of a space cabin simulator. In 1958, an Air Force airman spent seven days in the chamber performing a number of tasks for psychological monitoring and wearing biological instrumentation. Strughold had a long career at the School of Aviation Medicine. Among the fundamental studies initiated were those in acceleration, noise and vibration, atmospheric control, and nutrition. He contributed enormously to such space-travel problems as weightlessness, visual disturbances, and disruption of normal time cycles. He was particularly interested in the aspects of the space medical problems related to Mars.

Dr. Strughold's World War II record did not become a public issue until 1958, when a magazine article charged that he used prisoners in his German research. This charge was disproved by a Justice Department investigation. This 1958 investigation was dropped when the Air Force stated that Strughold already had been "appropriately investigated". The allegations resurfaced in 1974, when the Immigration and Naturalization Service (INS) investigated him for allegations of Nazi war crimes and considered possible deportation. The investigation was terminated several months later due to lack of evidence. The INS Director Leonard Chapman reported that inquiries to the military and other federal agencies had disclosed "no derogatory information" and therefore the INS considered the case closed. The Department of Justice – Office of Special Investigations reopened the investigation again in 1983, but this was terminated upon Dr. Strughold's death in 1986.

Several popular books have been published that have commented on the Strughold controversy. In "The Paperclip Conspiracy, The Hunt for Nazi Scientists" (1987), Dr. Strughold is not accused of any direct involvement in any war crimes, but of knowing about medical experiments that occurred at Dachau and trying to cover-up for his colleagues

The statement was made, "The Office of Special Investigation had an open investigation file on him (Dr. Strughold) since the early 1980's, with abundant evidence of his knowledge of and complicity in the Dachau experiments.

In the "Secret Agenda: The United States Government, Nazi Scientists and Project Paperclip, 1944-1990" (1991), it was stated, "Strughold was not arrested, interrogated, or even called as a witness at the trial, despite the derogatory information against him. It was a glaring example of how far the military went to protect him."

Mark L. Kornbluh, an assistant professor of history at Washington University in St. Louis, Missouri stated in 1992, "American scientific recruiting teams ignored the inhumane basis of much of their work and treated Nazi scientists as both colleagues and friends. The records of the Nazi activities of these scientists were altered, hidden, expunged, or classified. U.S. officials not only ignored the fact that many of these men were Nazis; they actively concealed that information in order to shield the Nazi scientists from prosecution. They then relocated them to new homes in America, with the understanding that the recruits would then share their technology with the U.S. government. The American space program became a veritable haven of ex-Nazis. Dr. Strughold pioneered aviation medicine through gruesome experiments conducted on prisoners in Dachau".

Brooks AFB Aeromedical Library was named after him in honor of his accomplishments in aerospace medicine in 1977. In 1995, the U.S. Air Force removed Strughold's name after the Jewish Anti-Defamation League (ADL) protested. "Paying tribute to Dr. Strughold was an obscene mockery of the pain and death suffered by his victims," commented ADL National Chairman Richard Strassler. The basis of the claim was his presence at the October 1942 meeting in Nuremberg where Dachau experiments were presented. The letter from the Air Force Chief of Staff to the ADL stated, "We are not in a position to draw any specific conclusions beyond this (his presence at the meeting) regarding the possibility of his complicity in or responsibility for the torture of concentration camp inmates in the guise of medical research. Although available information lends some support to those, including your organization, who maintain that Dr. Strughold was aware of and in some way aided such experiments, his death and the cessation of any formal investigation or proceedings concerning him make it unlikely that this question will ever be resolved conclusively. Nevertheless, and as you suggest, the evidence of Dr. Strughold's wartime activities is sufficient to cause concern about retaining his name in an honored place on the library."

In 1993, his portrait was also removed from a mural of medical heroes in a display of the "The World History of Medicine" at Ohio State University at the request of the World Jewish Congress. The German Society of Aviation and Space Medicine (DGLRM) had an award named after Dr. Strughold but canceled it due to the controversy. Dr. Strughold was inducted into the New Mexico Museum of Space History Hall of Fame in 1978. The museum removed him from the hall of fame in May 2006 after protests from the ADL.

At the time of his removal from the museum, the Institute of Ethics at the University of New Mexico released the following statement: "Surely recognition in a "Hall of Fame" should be reserved for those who represent widely held values of tolerances and respect for human dignity, and surely Hubertus Strughold, whatever his scientific contributions, should not be given a place of honor when his conduct failed to uphold those basic human values."

A careful review of Internet links using standard search techniques for "Strughold" reveals many obvious distortions. Some of these are minor and others outrageous. The most prevalent (all apparently from the same original source and simply repeated or magnified) state with confidence that Dr. Strughold was a Nazi, in charge of the Dachau experiments, was protected at the Nuremberg Trials, and involved in mind control experiments with psychoactive drugs at both Dachau and later in the U.S. under the C.I.A. In other web links, he is described as the examining physician when the aliens landed in Roswell, N.M. in 1947.

Dr. Stan Mohler tells the story of attending a lecture when he was a medical student in 1955 (this was two years before Sputnik brought space to the public's consciousness) where Dr. Strughold presented a talk on the "Medical Aspects of Space Travel". Halfway through the talk, a professor of physiology turned to Dr. Mohler and said in a loud voice, "This man is crazy!" This was loud enough to be heard by everyone in the room, including Dr. Strughold, who continued his talk without hesitation. I think that it serves as a good example of Dr. Strughold's life. Frequently misunderstood and a decade ahead of everyone else, but pressing forward with what he knew to be true and important; unwavering in his principles, beliefs, and ideas. As an example, Dr. Strughold never joined the Nazi party or allowed his staff to do so at a time when it would not only be advantageous to his career, but actually dangerous to not do so. He was as anti-Nazi as you could possibly be in his position without being arrested or executed. He specialized in aviation medicine at such an early time that he was discredited by his colleagues for his expansive ideas on future aeronautical possibilities. He then was a pioneer in the advancement of space medicine when the only activity was short unmanned suborbital flights using captured V-2s. He was pivotal in developing this discipline to such an extent that the U.S. was well prepared for the Mercury program in 1959. Finally, he was an advocate of the possibility of life on Mars and kept a "Mars jar" on his desk during the 1950s. This jar was growing lichen in an atmosphere of extremely dry, low pressure CO₂. In 1964, when Mariner 4 showed Mars to be more Moon-like, everyone dropped the idea of finding any life on Mars, except for Dr. Strughold. Now that there are hints of atmospheric methane and flowing salt water on Mars, exobiologists are becoming more confident that we will eventually discover some form of life on Mars.

It is important that future debate of Dr. Strughold's World War II activities be carried on with documented and well referenced facts and not with blatantly false information or politically inspired revisionist history. Everyone is entitled to their own opinion, but they are not entitled to their own facts. The Internet and several books criticizing Dr. Stughold have multiple distortions, misrepresentations, and assumed guilt by even casual association. It is highly unlikely that new information will become available in the future concerning Dr. Strughold as the true facts are either already known or will never be known. It is recognized that this issue will continue to be debated and will always be controversial. The Holocaust and the Nazi regime were horrific and any ties to that part of German history, whether real or remote, will always follow Dr. Strughold. Hubertus Strughold is still known (and will always be known) as the "Father of Space Medicine".