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OPENING CEREMONY

A.L. Copley Memorial Lecture

S. Witte
Dept. of Medicine, Diakonissen-Krankenhaus
Karlsruhe, Germany

Alfred Lewis Copley died in New York City in the night of January 28, last year, in consequence of a kidney carcinoma. His death came unexpectedly for many of us, although his close friends had known of his serious illness for many years. He worked on his life's work until the very last stage of his life. As late as December 31, 1991 he informed his many friends of the completion of his book entitled "ONE MAN - TWO VISIONS, L. Alcopley - A.L. Copley, Artist and Scientist"(1). The book was published by Pergamon Press some months ago, and compiled by his friend Alex Silberberg. This unique work is and will remain a notable memorial to a unique man.

His life's data is as turbulent as this century itself. Born 19th of June 1910, he resided in Dresden until 1930. Afterwards, he studied medicine at six different universities in Germany. In doing this he saw himself following a tradition originating in the Renaissance. The last five semesters he was at Heidelberg University where he studied philosophy under Karl Jaspers, and attended lectures on comparative literature and history of art. In the field of medicine he was fascinated by Hans Sachs, the immunologist, who led him to his career as a scientist and in whose institute he attained his doctoral thesis in 1935.

He summarized the time at Heidelberg as "an unusual, rich, and exciting experience in spite of the many highly disturbing changes made by the Nazi-Regime". In consequence he went to Basle, Switzerland, where he studied physical chemistry. In 1937 he moved to the United States of America and started work as a research associate at different universities: Kansas City, Charlottesville, Virginia, and New York City. In New York he worked in the laboratory of Professor Chambers. In 1943 he became a US citizen.

1949 he married Nina Tryggvadottir, an Icelandic painter. They had one daughter, Una Dora. She is also a painter and lives in New York City. His wife died in 1968.

The family went to Paris in 1952 where AL worked for 5 years. His last position was with the Centre National de Transfusion Sanguine with Professor Soulier. Later on he worked at the Charing Cross Hospital, London at the Medical Research Laboratories. In 1960 he returned to New York City working at the New York Medical College, where he eventually became a Research Professor of Medicine. In between, from 1965 to 1971, he also worked at the Veterans Administration Hospital East Orange, New Jersey. Since 1974 he worked at the Polytechnique University of New York and it that was also where he ran the Editorial Executive Offices of the journals which he had founded.

His first journal was "Biorheology", which he founded in 1962 together with George Scott Blair, who was followed by Alex Silberberg. 10 years later, in 1972, he started the journal "Thrombosis Research" with Birger Blombäck as Co-Editor-in-Chief. His third journal was our journal "Clinical Hemorheology", with myself as Co-Editor-in-Chief, which started in 1980. All three journals were published by Pergamon Press, founded by the late Robert Maxwell.

AL Copley's scientific activities were not limited to journals, but are also manifested in the foundation of scientific societies. In 1963, the Fourth International Congress of Rheology was held at Brown University, Providence, Rhode Island, where he organized a Symposium on Biorheology (2). Among the participants of this symposium the idea came up to found an international society, which finally was realized in 1966 on the occasion of the First International Conference of Hemorheology organized by AL under the auspices of the University of Iceland(3). On this memorable occasion and in impressive surroundings, the International Society of Hemorheology was founded. AL was elected its president.

At the International Conference on Hemorheology, held at Heidelberg, Germany in 1969(4), AL was awarded the degree 'Doctor medicinae honoris causa' from the medical faculty of the University of Heidelberg. On that very special occasion, which could be also seen as a form of reparation, he expressed his deeply felt gratitude to Hans Sachs, "in whose laboratory for the first time I had observed various rheological phenomena in blood systems".

At this conference at Heidelberg the International Society of Hemorheology was renamed and started its very successful course under today's name 'International Society of Biorheology'.

The field of Clinical Hemorheology found its most active forum at European conferences on Clinical Hemorheology, first established at Nancy, France in 1979, and after that held periodically every two years and AL participated in them regularly.

At Siena, Italy, 1985, during a lecture at the Fourth European Conference on Clinical Hemorheology he gave a last review of the history of clinical hemorheology and presented an insight into the future, in which he himself could not longer actively participate (5).

As we are recalling all these activities with societies, conferences and congresses, we must not forget that we owe them practically all to Al Copley's scientific activities.

The term "Humoral Rheology" was created by AL in 1942 in his paper on "Anomalous flow properties of human blood", (6) in the Journal of General Physiology Vol.26, 49 - 64).

The term "Hemorheology" he used for the first time in 1951 at the 25th Meeting of the American Institute of Physics in Chicago(7). Together with Robert Chambers in 1953 (8) he published findings on the Induction of petechiae by a local application of plasmin to the rabbit's nictitating membrane. This experiment led him to the idea "that fibrin is a constituent of the inter-endothelial cement or of an endothelial coating contributing to the integrity of the wall of blood vessels".

In a most respected lecture on "Thrombosis and Thrombo-Embolicism in Blood Capillaries", given at the International Conference on Thrombosis and Embolism at Basle, Switzerland in 1954 (9), he suggested "that the so-called endocapillary layer of the endothelium may be identical with non-gelated fibrin". From that he developed the idea of the vessel - blood organ as a "Symbiosis". He predicted that this organ will continue to fascinate and challenge generations of biorheologists.

He looked out for and stimulated scientists all over the world who worked on blood flow in vivo, the border field between blood and vessel wall. The properties and processes on surfaces especially related to plasma-fibrinogen caught his special attention and stimulated his experimental work and theoretical ideas. This met with my vitalmicroscopical findings on concentration of fluorescent labeled fibrinogen on the wall of the microcirculatory vessels in vivo and in situ and the relations between blood coagulation and capillary permeability.

In the course of this co-operation the term "Perihemorheology" was created, which indicates "the rheology of fluids and structures in the perivascular spaces including the lymph as well as the exchanges of rheological processes between the vessel-blood organ and its surrounding tissues as well as in reverse" (10).

Without being able to go into further details of the fields of his scientific activities for the moment, we see and revere Copley as a scientist in triple character: as a teacher, a founder and an explorer (11).

However, he lived a second life as an artist as many of us are very grateful to have had the opportunity to witness and admire. His career as a drawer started in 1937, as a painter in 1939. In the beginning he characterized himself as a figurative painter, from 1948 he devoted himself to abstract art. We had the opportunity to see samples of his art in several one-person shows presented at biorheological congresses. A large exhibition was planned in Dresden for this year, a difficult enterprise considering the numerous, very large sized paintings of his last years.

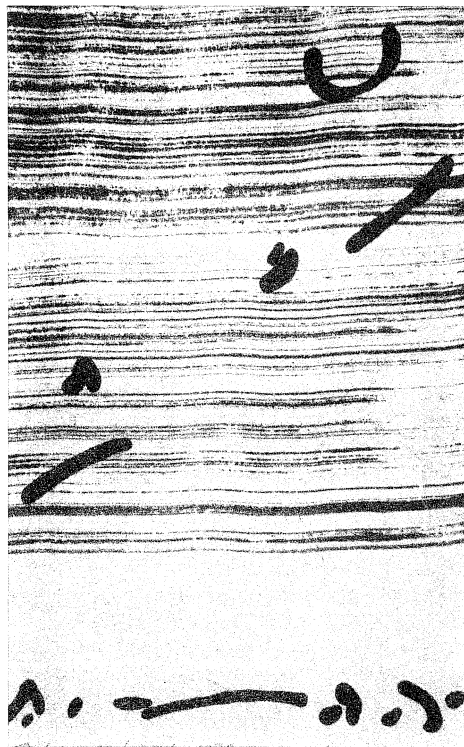


Fig. 1

L. Alcopley. Original size 21 x 13cm, signed: "Für Siegfried"
Alcopley 1979

But he also created drawings in miniature, part of them as delicate as filigree, which he described as "letter - less writings", others in broadly outlined oscillations, of which a typical example is the "open circle" (12).

I have discovered many relations between his art and his science: the dynamism, the continuous flow, the consideration of minutest details.

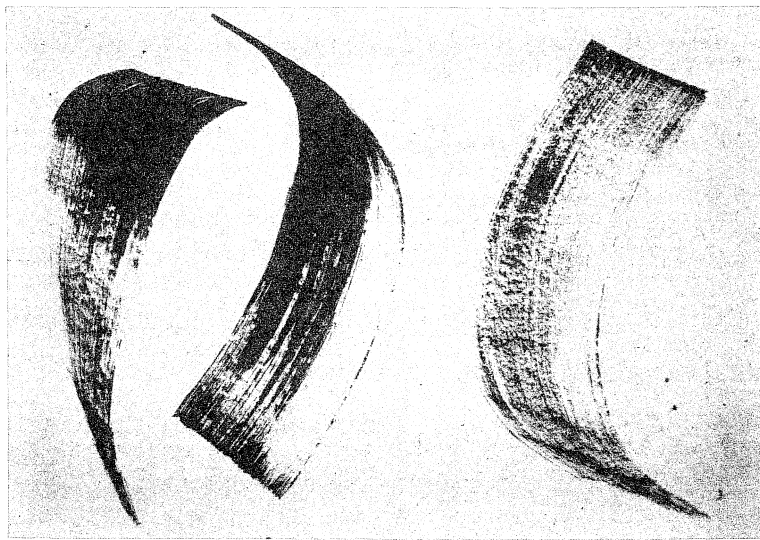


Fig. 2

L. Alcopley. Original size 34 x 44cm, signed: "Für die lieben
Siegfried und Elisabeth" Alcopley 1893

This unity of his life he has expressed himself in the title of his last great book: ONE MAN - TWO VISIONS.

His personality continues to live in the memories of many people round the globe, whom he inspired scientifically, delighted artistically, and enriched personally. His visions will be spreading among science, fine arts, and in the human community.

May the vision of the prophet Daniel be his, as the bible says... "and they that be wise shall shine as the brightness of the firmament ..."

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