

PREFACE

It is the intention of the BAAD* with this booklet on the Pioneers in Anthroposophic Pharmacy to bring back to our consciousness those pharmacists who have worked with the fundamentals of an extended and spiritual pharmacy.

Those who were personally addressed and given tasks by Rudolf Steiner deserve the merits for bringing into Pharmacy practice, some revolutionary new and different formulations and processes of medicine preparation.

These individuals, their students and their successors, always have the ideal before them, to work out of Anthroposophical Spiritual Science together with doctors with the purpose to transform substances of nature, in such a way that these assist the therapeutical aim of attaining the well-being of individual patients.

Ultimately all these personalities had the love of natural substances in their souls and knew that this attribute is able to enhance the activities of the pharmacist with human healing potential.

The whole life through, they carried this enthusiasm. They were able with their written works and with the medicines, which they had developed, to lay the foundation of a new Pharmacy. To continue their work should be our mission and obligation.

The acknowledgement of these eight chosen individuals as pioneers of Anthroposophic Pharmacy might also be seen as an attempt through the biographical sketches to draw a picture of this pioneer time. The publisher is aware that this selection could be seen as arbitrary, for of course there is a greater number of individuals who in different ways and means took up and made this new spiritual impulse for pharmacy visible.

We thank Johannes Zwiauer and Rudolf Plantener, themselves pioneers of Pharmacy and companions of some of the individuals here portrayed, for making the beginnings and roots of our work living for us . We also thank Wolfram Schwenk and the Verlag am Goetheanum for permission to use the biography of Theodor Schwenk, and we acknowledge Archiv. am Goetheanum, Verlag am Goetheanum, Wala and Weleda firms for the photographs.

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*BAAD German Association of Anthroposophic Pharmacists (Berufsverband anthroposophischer Apotheker in Deutschland), since 03.2006 called GAPiD (Gesellschaft anthroposophischer Apotheker in Deutschland)

PREFACE for ENGLISH TRANSLATION

It is a great pleasure for me that these biographical sketches of the pioneers in Anthroposophic Pharmacy could become available to the English speaking people.

My thanks go to Anna Meuss for her help in translations. I would also like to thank Johannes Zwiauer, Rudolf Plantener, Wolfram Schwenk and the Verlag am Goetheanum for their permission to translate their works and Claudia Suhr for providing the photographs used in the German publication.

I was very inspired when I first read these biographical sketches and I hope that other pharmacists will now be able receive some of this inspiration.

Dr. Judith Klahre-Parker,
Chair British Association of Anthroposophic Pharmacists (BAAP)



Walther Cloos, pharmacist

Born in Darmstadt, Germany, on 22 June 1900,
died in Ulm, Germany, on 30 June 1985.

Married, 3 children

Walther Cloos grew up in Darmstadt. He studied pharmacy at Stuttgart Technical University, where he also attended lectures on mineralogy and geology, doing his practical training and working as an assistant in pharmacies in the Spessart region, near Hamburg and in the southern Black Forest.

Walther Cloos met anthroposophy in Joanna Thylmann's reading group. Having heard Rudolf Steiner at the independent academic course held in Stuttgart in March 1921, he also attended a second course held in Darmstadt in July that year. Later he would say that he had not been as impressed by Rudolf Steiner as others were, and that it was only the study of Steiner's written works that he came to appreciate him. This is no doubt part of his independent nature.

Having completed his period as assistant pharmacist, Cloos worked in a chemical factory in Darmstadt.

Shortly after Rudolf Steiner's death, in April 1925, Cloos joined the laboratory staff of the Institute of Clinical Medicine in Stuttgart, the nucleus for what later would be the German Weleda Company. There he started to develop the method for metal distillation which Rudolf Steiner has suggested would increase the medical actions of metals. These metallic mirror preparations, called 'metallicum preparatum', have come to play an important role in the medicinal use of metals. Cloos was a true 'Son of Cain'. It was his task to take earth's substance and transform it, developing 'evolving nature' further for healing purposes. He would not shy away from using extreme industrial procedures involving enormously high temperatures and high vacuum to cope with something as tremendous as the distillation of metals.

Cloos also took great interest in the plant world, and especially in the medicinal plants he was growing himself at Weleda Schwaebisch Gmuend. Together with botanist Gerbert Grohmann and many farmers he studied the ideal conditions and best habitats for the different medicinal plants and their biodynamic cultivation. Optimum quality of medicinal plants was desirable as the starting point for optimum quality of the medicines made with them.

The main focus of his work at Weleda was, however, to be on the manufacture of medicines from minerals and metals. Over the years, Cloos worked out c. 200 production monographs for these. Nothing was too much trouble. Thus specially prepared tartar was roasted in air for Kalium carbonicum, with the potash recrystallized repeatedly. For Zincum valerianicum, isovaleric acid was obtained from valerian roots and made to react with zinc oxide. For Mercurius cyanatus, bovine blood as a carrier of

carbon and nitrogen in organic form would be carbonized together with an iron ore and potash. Hot water was used to precipitate out the resulting yellow ferrous potassium cyanide, and a freshly made iron chloride solution used to precipitate out the deep blue Prussian blue which was then converted to mercurous cyanide in a reaction with mercury salt made from cinnabar and aqua regia.

Cloos had a real gift for pharmaceutical processes. He was a great experimenter and a true alchemist of the modern kind, combining a Goethean approach of careful observation with a pleasure in doing things. He thus also had the courage to take up some suggestions Rudolf Steiner had made which were far from conclusive and implement them. An example are ‘mineral compositions based on the model of a medicinal plant’, using inorganic matter to recreate the functional relationship of the plant’s constituents. A real challenge, which he felt able to take up—perhaps the only one to do so—letting the substances and the process of their transformation be his teachers in the experiments.

Another example. Cloos took a long time to develop *Kephalodoron* (Bidor). Rudolf Steiner had given the quantities for iron vitriol, quartz and honey but not for the wine. It finally became clear that success depended on using only a small amount of wine.

Looking at Cloos’ rugged face with those clear, bright eyes, one might feel that a profound love for and inner involvement with the mineral world was reflected in it. It reminded one of the medieval alchemists of whom Rudolf Steiner spoke in his lectures on *Rosicrucianism and Initiation*.

Cloos had a fiery temperament, which was not always easy to deal with. He was very strict with himself and others. No one was really good enough to serve the cause. He had problems finding a successor. Yet he would always rank the Weleda task above any problems with other staff members.

In the 1960s and 1970s, an incredibly intensive and fruitful collaboration developed in Schwaebisch Gmuend with Pelikan, Schmiedel, Krueger and Theodor Schwenk, and this provided a solid foundation for Weleda medicines. Cloos kept in very close touch with the medical profession and this, too, led to enormously positive collaboration. At the same time he maintained a lively connection with the Science Section, and with students, farmers and gardeners, giving lectures and courses for them. This individual thus inspired and enthused many others in creative work.

Cloos also had an outstanding gift for putting things in writing. His talks were borne on enthusiasm, his writings showed convincing clarity in presenting trains of thought, marked objectivity and substantiation. Prematurely retired following a heart attack, he continued to be invited to give talks to a group of physicians at Lake Hallstatt in Upper Austria for some years. Dr Franz Bengesser had built a house there especially for small-scale medical meetings in a large room with a magnificent view of the lake. When Cloos was asked to speak on a particular subject there, he apologized for reading most of it aloud from one of his books, saying: I can’t put it any better than it says here.’

He did important work on geology and earth science. Some of his published works are briefly considered below.

Die Erde—ein Lebewesen. Beitrage zur Physiologie der Erde (the earth as a living entity—aspects of its physiology), published by Freies Geistesleben in Stuttgart in 1952. Scientific discoveries relating to the earth's mineral world are not used in this book to give a mechanistic interpretation of earth evolution but as pointers to an earlier life stage from which the natural worlds and humanity evolved. This also means that there is always a relationship to man, who belongs to both earth and cosmos. Man's relationship to the cosmos is to the atmosphere and hydrosphere for the rhythmical system of breathing and blood circulation, and to higher regions of a 'chemical kitchen' for the metabolic system; man's neurosensory system relates to the earth. He spoke of the Mediterranean as the heart in the earth organism. The mineralization process was shown to have an inner connection with the processes between flower and seed development in plant life, with mica, feldspar and quartz arising from an earlier, gel-like state of life. Humus develops through interaction of clay minerals that are the result of weathering and the metabolic and digestive processes of soil organisms, to be the organ of life and sense organ for the earth. The last two chapters are about shooting stars and meteors, the secrets of new mineral substance arising from the cosmos.

The Living Earth. The Organic Origin of Rocks and Minerals. About the world of mineral plants and their characteristics; plant nature and shist and shale development; animal nature and limestone; human nature and salt. The whole work bases on an important page from one of Rudolf Steiner's notebooks, where rocks are related to mineral, animal, plant and human being. The author worked with this for years before he wrote the book, asking the reader to relate inwardly to these cosmic processes. Apart from showing the evolutionary descent from spiritual, pre-earthly states to the earth stage, reference is also made to the seed character which the mineral world has for the future. A particularly delightful work is *Kleine Edelsteinkunde. In Hinblick auf die Geschichte der Erde* (a brief gemmology in the light of earth history), first published by Freies Geistesleben in Stuttgart in 1956. 4 editions mark the readers' delight in the book. Here we see how intimately the author knew the essential nature of precious and semiprecious stones. These utterly pure and glorious revelations of the mineral world are lovingly presented to the reader, their form, colour and transparency bearing witness to cosmic origin.

In *Werdende Natur* (evolving nature; Goetheanum Buecherreihe Nr. 8. Phil.-Anthr. Verlag, Dornach 1966), silica, the metals and the *tria principia* are considered in relation to human and earth evolution. Silica in earth's history; antimony in nature and in the laboratory; the geohistory of iron; Saturn/lead and Moon/silver processes in earth and man; polarity of iron and copper in the natural worlds and in the earth; gold in the natural world; the mercury process in nature and in the laboratory; salt process in nature and in the laboratory. The book includes important articles on mineral-based medicinal agents, with the author relating the natural-scientific phenomena to the spiritual-scientific information given by Rudolf Steiner.

Vom Arbeiten mit der werdenden Natur (working with evolving nature; Verlag Die Kommenden, Freiburg 1966). Cloos emphasises the difference in working with 'evolved nature', which is what natural scientists do, as compared to working with the evolutionary forces in nature which can be worked with using a pharmacist's skills.

Cloos also published numerous essays in a number of anthroposophical journals. I'd like to refer to a few of these.

He also sought to gain spiritual-scientific insight into the potentizing process, publishing a short special issue with another pharmacist (Krueger) where they considered the process from different points of view (*Anthroposophische Gesichtspunkte zum Potenzierungsprozess der Heilmittel*, Schwaebisch Gmuend 1984).

The atom bomb and atomic energy led Cloos to study Rudolf Steiner's references to radioactivity. He saw natural radioactivity as a necessary onset of earth's decay to make a future Jupiter state possible. This was a reactionary view to take at a time when radioactive decay was seen in a negative light because of its harmful consequences.

Cloos made a close study of alchemical writings. I had to find various things for him in Vienna's National Library. He thought it was a pity that many anthroposophists and his colleagues did not show more interest in the subject. People should take it up and learn from it, he thought. The last preparation he developed, 'Solutio alkaline: derived from his alchemical studies in relation to germination and fading away. It was to provide general support for the vital processes.

For the work at Weleda, Cloos took the issues of quality and anthroposophical substance very seriously. He was cared about the intensity with which anthroposophy lives in the firm, and presented a memorandum written for the staff about maintaining Weleda quality also to the Board of Management. He summed up the criteria in a document, which is probably not getting the attention it should, his testament, as it were, for those who came after him.

Walther Cloos retired from this work much too early. He could have done many more important things for the cause. His support was then given to the biodynamic farmers, people with whom he'd always had a strong inner connection, and he also helped with the production of vegetable paints at the Goetheanum.

For as long as he had the strength he was invited again and again to Austria and Holland where this impressive man was much appreciated. I'd like to include a story that made a great impression on me.

In talks with Mr Benesch, PhD, then head of the Christian Community Seminary, Cloos heard about Rudolf Steiner's references to salt, water and ash as substances for the baptismal rite. At the time these were only available to Christian Community priests. Cloos considered them to be equally important for pharmacists and asked Mr Benesch to make an exception and let him have a copy. He made further copies which he gave to pharmacists who were interested, asking them to maintain absolute confidentiality.

There was also an esoteric reference Rudolf Steiner had made to vivianite, natural iron phosphate, which Cloos made accessible to a small group of people interested in the subject.

Walther Cloos treated anthroposophical pharmacy with profound seriousness and a great sense of responsibility, bringing great respect and veneration to it, and this was most impressive. I am referring to this because it is an approach, which must seem anachronistic today when everything is available to anyone at all times. It does, however, reflect Rudolf Steiner's words that the laboratory bench needs to be an altar again if we are to find the right way of working with matter today and in future.

Walther Cloos showed this in his thinking, feeling and doing.

Johannes Zwiauer, PhD



Willem Frans Daems, PhD, pharmacist

Born in Amsterdam on 3 December 1911,
died in Arlesheim on 29 December 1994.
Married to Geertruide Ooms; 4 children.

Grandfather owned a furniture factory and all his six sons trained to be joiners. Willem's father later worked as a hospital administrator, however, which meant that Willem, his eldest son, also became familiar with the medical world.

Willem Frans Daems studied pharmacy in Amsterdam and wrote his doctorate thesis on the pharmaceutical history of medicinal plants acting as cardiac stimulants. He was also interested in history and linguistics. Apart from his scientific pursuits, Daems had a feeling for art, and this let powers of the heart enter into his work. He had gifts for music and rhetoric. An excellent piano player, he would add interest to courses he gave with musical interludes, playing solo or as an accompanist.

He ran the Weleda Arlesheim and Ita Wegman Clinic Choir for many years. He took a leading role in the professional body of Dutch pharmacists.

Daems was truly sanguine, open, warm-hearted, kindly and ready to help, though he could be forceful if something roused his just ire. He had a great sense of humour and this would also come into his talks, helping him to overcome many obstacles.

From 1938, Mr Daems worked as a pharmacist in Arnhem and Haarlem, moving to the pharmaceutical industry in 1948 and becoming director of Biochema in Leyden in 1951. There he met anthroposophy through a lecture. He and his wife then attended an introductory course.

Mrs Daems joined Weleda Arlesheim as a pharmacist in 1955, developing their documentation centre. From 1961 onwards he edited the *Weleda Korrespondenzblaetter fuer Aerzte*, playing a key role in this. In 1965 he became head of the medical department. From 1967 he published a bulletin for the Weleda firms to inform them on important developments in pharmaceuticals. He undertook the regular review of a large number of the major scientific journals, an enormous job, consistently and patiently continuing with this for years—sadly gaining little recognition for this. This tremendous amount of reading did, however, cause problems with a weakness of the eyes that had persisted from his youth. In later years he had to enlarge copies and use a magnifying glass, until finally only his wife's untiring efforts helped him to maintain his literary work to the end.

Mr Daems also continued his interest in history and linguistics, studying the history of medicine and pharmacy, Dutch language and literature, medieval Latin and complementary historical sciences.

His studies on the history of pharmaceuticals also covered medievalist researches, developing into a doctoral thesis for his second field of study in 1967. He was in touch

with many scientists in the field, lectured on early Dutch studies, contributed to the *Lexikon des Mittelalters* (lexicon of the Middle Ages), and was called to Wuerzburg University in Germany to teach history of medicine and pharmaceuticals in 1973. He was an acknowledged specialist in medieval studies. Mr Daems served on the council of the Swiss Paracelsus Society as co-editor of *Nova acta Paracelsica* and as a lecturer in pharmacognosy at a college for druggists in Neuchâtel. Among his many contacts around the world, a special one was with Professor Gundolf Keil, who held the chair for history of medicine at Wuerzburg. In 1980, Mr Daems was appointed vice-president of the Swiss Society for History of Pharmacy.

It is impossible to give a full appreciation of Daems scientific work in this context. A list of his publications includes more than 190 titles, about 50 of them in Dutch.

Mr Daems brought his scientific qualifications with him to Weleda. The anthroposophical background helped him to deepen and extend his scientific approach. Many papers appeared in the *Weleda Korrespondenzblaetter fuer Aerzte*, which he edited.

Mr Daem's feeling and love for medicinal plants resulted in many articles, others were on pharmaceutical processes. His interest in history also extended to Weleda whose name the firm bears. One important title, with P. G. Bellmann and G. Keil as co-authors, concerns Rudolf Steiner's priority in suggesting mistletoe as medicinal for cancer, another Ita Wegman's first clinical use of mistletoe on that indication. His interests went beyond the plant world, however, and he also wrote important articles on the medicinal use of minerals and metals.

Paracelsus studies were important to Mr Daems. As co-editor of *Nova acta Paracelsica*, he helped readers to gain insight into Paracelsus' way of thinking, which is not easily accessible to people brought up to think in terms of natural science.

Everything he had worked out for those numerous publications lived in the talks and courses he gave for physicians, pharmacists, chemists and Weleda staff.

Mr Daems also wrote many book reviews and re-published out-of-print works by his predecessors with explanatory prefaces. His artistic sense meant that he took care over careful and lovingly chosen illustrations.

The tremendous amount of work done called for immense application. Asked how he managed to do so much at his age, 80-year-old Mr Daems said dryly: 'Quite simple. Get up early every morning and keep working.' He maintained this way of working to the end.

At the request of the Medical Section at the Goetheanum, Mr Daems gave a course in the history of pharmacy from antiquity to the present time late in his life. Summing up the whole of his life's work he was once more able to entrust it to the hearts of his audience, doing so with much humour. He was no longer able to meet the request for a written

version. This was provided by his wife who used his papers, included some other characteristic papers and lovingly chose suitable illustrations. It was published as part of the Persephone Series by the Medical Section in 2001.

Looking back on the life and work of Willem Frans Daems, PhD, we see an upright man, open to the world, someone able to combine seriousness of purpose with warm humour. As a historian he had a great love of truth and was incorruptible. He was respected and appreciated for showing a scientist's sober objectivity, though he would openly speak of his anthroposophical convictions. He kept a close eye on developments at Weleda and would always respond to them in a personal way, also with concern if he saw the basis of its work being put at risk. He did not like any kind of mysticism, wanting to serve the scientific approach to anthroposophy. Over and above everything mentioned so far, he was a lovable, artistic person, with humour, always open and ready to help. He was a human being of the middle, which was his ideal.

Anthroposophically extended pharmacy owes much to Daems for his tremendous work in development and support. His work and the many human contacts made a major contribution to building bridges between anthroposophy and science in our day.

Johannes Zwiauer, PhD



Rudolf Hauschka, PhD

Born in Vienna on 6 November 1891,
died in Boll on 28 December 1969.

Life story and life aims

Rudolf Hauschka's childhood and youth were still embedded in the atmosphere that prevailed in the last years of the Austro-Hungarian Empire. He was born in Vienna on 6 November 1891, son of a metal ware manufacturer. His grandfather was a blacksmith.

When a violent clap of thunder shook the young child's soul, a first memory, it was his grandfather who lovingly and calmly comforted the infant, saying: 'Our heavenly father is talking!' In his memoirs, Rudolf Hauschka looked back repeatedly to those words which he remembered all his life, a source of veneration and trust in the divine and spiritual world.

Growing up, he spent much time at his grandfather's forge. The embers made red hot using the bellows and the glowing iron giving off sparks under the hammer made a deep impression, perhaps also laying a foundation for interest to arise in the world of matter and substances.

Later, at school, he grew most enthusiastic in the well-conducted, visually impressive chemistry lessons. This inclination ultimately led to the decision to study science in Vienna, above all chemistry. During his studies he realized, however, that working with the fascinating processes in the sphere of matter, processes of binding and separating and bringing together again, touched a question which lay deep down in his soul, a question for which none of his teachers had a satisfactory answer: What is life?

Rudolf Hauschka gained his doctorate immediately before the First World War broke out, putting an abrupt end to a sheltered childhood and youth as he was called to serve in the army.

Yet impulses, which had played an important role even in his youth were to determine and enrich his later life. These were painting and above all music. His activities in a youth movement had also made him see abstinence from alcohol as an important ideal in life, and this was to play a particular role in his later endeavours.

During the war and in the early years to follow, Rudolf Hauschka would repeatedly meet people who were connected with anthroposophy. The decisive encounter only came when he was 30, however, in Cologne. This enabled him to gain full access to Rudolf Steiner's science of the spirit. The circumstances of life were difficult at the time, but he managed to attend the anthroposophical summer conference in Arnhem in 1924, allowing him to make use of one of the last opportunities to see Rudolf Steiner. And he asked the question which had lived in him for so long: What is life? 'Study the rhythms.

Rhythm sustains life,' was the answer. These words spoken by Rudolf Steiner became the lodestar for the whole of his life. He also met Ita Wegman for the first time in Arnhem.

Professionally he had been involved in a number of projects in the chemical industry, and was then about to implement a process he had developed to produce leather from shark skin, initial trials having proved successful. (One might suspect that the leather industry would not have welcomed such competition.)

This was the time when he met Ita Wegman a second time (1928, in London). She asked him to join in the work on developing new medicines. This would be in connection with efforts to extend medicine on the basis of anthroposophy. He was not prepared for this and had a struggle with himself, for it meant giving up a promising professional career. 'Destiny gave me a push,' however, as he was to say later. Hauschka thus complied with Ita Wegman's request, now putting his life wholly at the service of anthroposophy. He went to Arlesheim, in Switzerland, and joined the scientific staff at the Institute of Clinical Medicine which Ita Wegman had established there in 1921.

Medicine had been taken over by materialism and had reached an absolute low by the beginning of the 20th century if one considers that it took its origin in the culture of the mysteries. It was Ita Wegman's most heartfelt desire to restore the spiritual dimension to medicine in collaboration with Rudolf Steiner. He had given his first lectures to members of the medical profession in 1920. Now ways must be found to let all that he had given bear fruit. Ita Wegman worked for this with the greatest possible intensity.

The task Rudolf Hauschka was set was far from minor. An approach to medicine given renewal out of the spirit needed adequate medicaments. Above all, methods had to be found of processing living organisms such as plants in the right way. The conventional method of making alcoholic extracts would not serve, as alcohol is hostile to life. This made sense to Hauschka, the teetotaller. Now the suggestion Rudolf Steiner had made five years earlier when he asked him to study rhythms, 'rhythm sustains life', came to his aid. He realized that water 'lives' in rhythm, in the movement of meanders, in clouds and rain, in eddies and waves. Water is *the* element which sustains life—without water there can be no life. This makes it the best possible medium for plant-based medicaments. The work is done by hand and with the greatest care—respect for the living plant, which is held in the human being's hand demands this. The time sequence of the pharmaceutical process—here intuition would tell that in nature, in the plant world, vital processes are at their most intense at sunrise and sunset; the times for processing the material would now be based on this—rightly so.

It is also important to be aware of the world-embracing dimension of these methods. Rudolf Steiner spoke very seriously of this in a lecture given in Dornach on 25 November 1917 [in *Wrong and Right Use of Esoteric Knowledge*, or, a more recent translation entitled *Secret Brotherhoods*; translator], referring to 'particular processes [which must be done] in the morning and in the evening'.

Hauschkas's development work was crowned with spontaneous success—but initially there were also setbacks and considerable problems with some plants. Again and again it needed careful observation and documentation; major corrections were needed as the years went on. But today, eighty years later, we may certainly speak of an 'achievement' with regard to the principle and to the correct use of rhythm in a pharmaceutical process guided out of spiritual insight (only the most important factors can be mentioned here). Rudolf Hauschka's merit cannot be rated too highly. With his insight into the needs of our time he laid down an important seed for the future.

Ita Wegman faced a difficult destiny in the 1930s. Indirectly this also had consequences for the life and work of Rudolf Hauschka. In 1939 he and Dr Margarethe Stavenhagen (later to be his wife) moved to Gnadewald near Innsbruck, with Ita Wegman's blessing. There they took over a local sanatorium as a temporary dependance of the Arlesheim clinic.

Meanwhile the Second World War had started, and institutions with anthroposophical orientation were suppressed under the Nazi regime. June 1941 saw a major wave of arrests (probably triggered by Rudolf Hess' flight to England), also for Rudolf Hauschka and all the sanatorium staff. They were kept under arrest in Innsbruck for some weeks and the sanatorium was requisitioned. They were questioned, but all in all got off lightly. Hauschka was actually able to continue work on his book *The Nature of Substance*, though he had to report to the police in Vienna once a week following his release. He took a risk and had the work printed, and part of the edition was sold. The Gestapo found out, however, and confiscated the rest. The secret police then had his PhD diploma checked. It seems that the work was too unorthodox in the eyes of the authorities, making them doubt his qualifications as a chemist.

The remarkable thing is that later on, in Eckwaelden, when the book was in its fourth edition, young people would again and again apply to work at Wala who had previously read the book. In the last years of the war, destiny finally brought together the four people who would soon establish Wala Pharmaceutical Laboratories, initially in form of an general partnership: Rudolf and Margarethe Hauschka-Stavenhagen and soon after Max Kaphahn and Maja Mewes. (The name Wala had already been arrived at in Arlesheim; it has a relation to mythology and also arose in a truly meaningful way from the abbreviations for the two original manufacturing processes 'Warmth – Ash' and 'Light – Ash'.)

The Americans appointed Dr Margarethe Hauschka chief physician at Munich-Hoellriegelskreuth Biological Hospital after the war. For just under five years this became the place where the Wala medicines were produced which were mostly used in the hospital. Max Kaphahn as business manager contributed his commercial expertise, and in December 1950 the firm, which was slowly growing, moved to Eckwaelden at the foot of the Swabian Alp. Initially the local curative education centre was able to provide premises. Wala's first building in Eckwaelden was erected in 1956, and the building complex gradually developed over the years that followed.

Mrs Mewes had the main responsibility for medicines production in Hoellriegelskreuth and initially also in Eckwaelden. In the new building, a pharmacist was especially appointed for this.

Rudolf Hauschka, who also took part in the teaching at the curative education institute, later moved with his wife to the newly-built house of the Margarethe-Hauschka School of Art Therapy and Rhythmical Massage in Boll. In the new Wala building, he would use his room mainly to receive the many people who came to see him from all over the world.

In the early 1960s, a government-appointed director of pharmacy turned up unannounced. He was an official who monitored pharmaceutical firms and had come to talk to Rudolf Hauschka concerning the new medicines legislation. The gentlemen had a lively conversation for more than an hour, even talking about shark fishing to start with, as the story went later. Finally the author of this memorial was asked to join them and take the very important person on a tour of the firm. During later visits, the official would always also ask about Rudolf Hauschka, whose warm, human approach had made a deep impression on him, as he would say on several occasions.

Rudolf Hauschka left this world on 28 December 1969. He always used to light the 'metal flames', i.e. the flames of the seven planetary metals, on New Year's Eve. That year his physical body was given to the element of fire on New Years Eve.

Rudolf Hauschka's individual spirit and the method of working with the life rhythms of plants on which he insisted caught the interest of many people—all over the world. Over the years, people from all the healing professions—physicians, pharmacists, students, people doing their practical years—would come to Eckwaelden, often from far away, and work there for a time. They went out into the world again, taking with them the spiritual impulse, a seed for the future, which they had received.

The aim in writing this appreciation of Rudolf Hauschka's life was above all to stress the inner consistency maintained in that life. Many details of a rich biography have thus been omitted. They may be found in Rudolf Hauschka's own books.

R. Hauschka's weighing experiments were repeated by Stefan Baumgaertner and published in 1992.

Rudolf Plantener

[Other works by Rudolf Hauschka include *Heilmittellehre* and *Ernaehrungslehre* (both in German only), and *At the Dawn of a New Age—Memoirs of a Scientist*, Canada: Steiner Book Centre 1985. Editor of English edition]



Hans Krueger, pharmacist

Born in Luebeck on 29 May 1898,
died in Niefern-Oeschelbronn on 27 March 1988.
Married; 1 son.

Hans Krueger wrote his own biography, according to which his father came from Mecklenburg and taught at a grammar school (classical languages) in Luebeck. His mother was from Luebeck; her father had moved from Silesia to Luebeck as a young pharmacist and established a studio as photographer, a new art at that time.

Even at grammar school Hans Krueger showed a marked interest in science, particularly aquaria and terraria. He had a large collection of snail and seashells. Annual holidays on the North Sea coast and a visit to Heligoland made a deep impression. The sphere of marine life and its rhythms caught his enthusiasm, as did the study of Haeckel's basic law of biogenetics. In his last years at school he went on extensive excursions locally, usually setting out before sunrise and on his own. Even at that age he was a life and health reformer and teetotaller.

In 1917, Hans Krueger did military service, first in the border region between Poland and Russia, and in 1918 in the offensive in northern France, where his company was decimated within a few weeks. His older brother sent him Rudolf Steiner's *Knowledge of the Higher Worlds* when he was on the eastern front.

After the war Hans Krueger studied at Kiel University, first science, but after the first semester changing to theology, as this seemed more important to him in the situation of that time. In Berlin, his brother drew his attention to Rudolf Steiner's *Theosophy*, and this brought him to anthroposophy. He joined the Berlin branch of the Anthroposophical Society in 1920. He attended a small anthroposophical group of theology students that year and heard Rudolf Steiner lecture in Stuttgart. He was also able to go to the first course for university students at the Goetheanum, daily seeing and hearing Rudolf Steiner and representatives of various specialist fields. This led to a crisis concerning his choice of vocation. He decided on pharmacy and later practised first in Luebeck and then in Berlin. In 1921 he attended the anthroposophical course for university students in Darmstadt and heard Wilhelm Pelikan speak. In Berlin he involved himself in the Independent Anthroposophical Society and took part in performing the Oberufer Christmas plays. He continued his studies in pharmacy from 1924, at the same time doing some part-time work at the pharmaceutical laboratories of the Institute of Clinical Medicine. For the next eighteen months he worked in pharmacies in Bochum. He married Frieda Meinelt.

In July 1927, Hans Krueger started to work at the Weleda pharmaceutical works in Schwaebisch Gmuend. The firm was then still in its beginning. He set up ampoule production. Together with Schmiedel, Pelikan and Spiess he was one of the original workers in pharmacy at the Weleda.

Taking up suggestions made by Rudolf Steiner, Hans Krueger worked together with Ehrenfried Pfeiffer and Dr Selawry to develop the method of sensitive copper chloride crystallization to study the quality of substance and life, i.e. the generative etheric powers of medicinal plants in relation to the part of the plant used, harvesting time, processing, etc., to produce medicines of the best possible quality. The effects of biodynamic fertilizers were also investigated. The method is based on the fact that following the addition of plant extracts, a 5% copper chloride solution changes its crystallization image in a way which is characteristic of the plant's generative powers, rendering quality criteria visible.

Hans Krueger's love for the plant world could be sensed if one went on one his unforgettable conducted tours of the gardens. He would guide visitors lovingly through the medicinal herb garden, referring with reverence to every characteristic of a plant, his attitude priest-like.

Hans Krueger published a number of essays. The different titles and their formulation give a feeling for the author's subtle, careful approach. He was a truly modest man, true to anthroposophy and his task as a pharmacist, wholly concerned to guard and cultivate esoteric deepening in working with substances. The quiet nobility of a true scholar became apparent at medical conferences, courses given for students and in conducted tours of the firm.

He took care to maintain links with physicians, farmers and the Science Section at the Goetheanum. His last major task was to put together all Rudolf Steiner's references to medicinal agents, a task he worked at for years with great care and his characteristic conscientiousness. It is an invaluable reference work for physicians and pharmacists.

Those who knew Hans Krueger will no doubt recall his tall, slim, elegant form, bending forward a little in loving attention to another person, listening and reflectively weighing the other's words carefully. His manner of expression was clear and accurate, but with the reserved depth of feeling of an artist and scholar who had great depth to him, always also with a religious element to it.

A reserved but nevertheless endearing individual to whom we are much indebted.



Wilhelm Pelikan, Dipl. Ing.

Born in Pola (Istria) on 3 December 1893,
died in Arlesheim on 17 November 1981.
Married. Son Traugott Michael (1925 – 1997)

His father was a government surveyor, German-Austrian, his mother came from Dalmatia and preferred to speak Italian rather than German. A happy mixture of northern and south-eastern soul elements in the Austro-Hungarian empire and this found its echo in Wilhelm's temperament.

After an early childhood in Galicia, where his father had been posted, he came to Vienna. An illustration of Goethe's *Tale* made a deep impression on the five-year-old—the venerable kings in a mountain cave, the old man with the lamp, the serpent in a great arch spanning the river. This mysterious picture lived in him until—at a much later time—he discovered what it was about.

Wilhelm Pelikan studied chemistry in Vienna and Graz. He was called up for military service in 1916, but a serious disease of the lung and heart soon put an end to this. He felt that he had been given to life anew. During his illness someone gave him Rudolf Steiner's *Knowledge of the Higher Worlds*. In 1918 he heard Rudolf Steiner lecture in Vienna, and later became his personal pupil and devoted his life to anthroposophy.

Initially Wilhelm Pelikan worked in Vienna's gold and silver refinery. In 1919, Dr Kolisko asked him to come and work at the Der Kommende Tag research institute in Stuttgart. He was involved in the anthroposophical association for academics, and gave lectures in Darmstadt and at the East-West Congress in Vienna. In 1922 Wilhelm Pelikan went to the newly opened laboratories of the Institute of Clinical Medicine in Stuttgart, where he worked on the metal mirror preparation process. Heart disease struck again, and he was present when Stuttgart physicians consulted with Rudolf Steiner. (Wilhelm Pelikan's stature suggested a robust constitution, but was in fact much more delicate. His resolute wife no doubt provided an important complement, also helping to cope with some inner problems.)

When Der Kommende Tag was dissolved in 1924, Wilhelm Pelikan became head of the Weleda then established in Schwaebisch Gmuend—on Rudolf Steiner's advice and in collaboration with Mr Schmiedel and Fritz Goette. He held this position for forty years. (Thanks to an enormous personal commitment, Mr Goette as business manager was able to prevent Weleda closing down under the Nazi regime.) Extremely fruitful collaboration with pharmacists Wilhelm Spiess, Walther Cloos and Hans Krueger, with flow scientist Theodor Schwenk and many physicians, among them Eugen Kolisko, Gottfried and Gisbert Husemann, Walther Buehler, Otto Wolff, Rudolf Treichler, Eberhard Schickler, Kurt Magerstaedt, Paul Paede, Norbert Glas, made it possible to bring many of Rudolf Steiner's suggestions to realization and so develop a range of anthroposophical medicines: typical medicines, metal mirror preparations, vegetabilized

metals, mineral compositions based on the model of a medicinal plant, and Rh preparations. Unique teamwork with skilled people soon made the German Weleda the most important branch of the Swiss parent company.

Working with biodynamic gardener Franz Lippert, Wilhelm Pelikan started to establish a medicinal herb garden, initially in the firm's grounds and later in Wetzgau, a plateau above Schwaebisch Gmuend. In due course they were able to harvest 200 different species of medicinal plant.

'Study sessions' were introduced for all staff during working hours to make them familiar with the spiritual background to their work. This was in accord with Rudolf Steiner's statement that every worker had a right to know how his work related to the activities of the firm as a whole.

Another social impulse was to have eurythmy at the works. All members of staff were able to take part in this during working hours, to balance out one-sidedness in their activities. Workers and department heads would do eurythmy together to the spoken word and to music. One aim was to let them experience the healing quality of this new art.

Wilhelm Pelikan also took a special interest in staff rehearsing and performing the Oberufer Christmas plays. This Christmas celebration, which is part of life in many anthroposophical institutions, brings players and audience together in an artistic activity.

The magazine *Weleda Nachrichten* (Weleda news) was created to make the medicines and body-care products more widely known. Initially it offered product descriptions and information on the spiritual background. Legal restrictions meant that it was mainly body-care and dietary products which were included. Later the magazine also covered other anthroposophical activities—education, curative education, anthroposophical medicine, biodynamic agriculture and social issues. This met readers' interests at a deeper level. Wilhelm Pelikan, his colleagues and many well-known individuals from outside the firm wrote important items. With print-runs getting bigger and bigger, the magazine soon came to be the anthroposophical publication with the widest range of information for an interested public.

Wilhelm Pelikan made it possible for the Schwaebisch Gmuend branch of the Anthroposophical Society to meet on the firm's premises from 1935 onwards. The branch was later given the name Raphael Branch to reflect the connection between the work done at the Weleda and the healing powers of the archangel Raphael-Mercury.

From 1948 onwards, Wilhelm Pelikan also joined the editors of *Weleda Korrespondenzblaetter fuer Aerzte*, a publication for interested members of the medical profession, with items on medicines and clinical experience written by pharmacists and physicians.

Fruitful collaboration of druggists and physicians made Weleda Schwaebisch Gmuend the centre for many medical conferences, medical students, pharmacists, chemists, staff from health food and organic produce stores, NMQPs [non-medically qualified practitioners; tr.], masseurs and physiotherapists, and also for gardeners and farmers. Lectures and lecture courses were soon given all over Europe and in many overseas areas where the anthroposophical healing impulse had taken root.

Apart from developing the manufacture of medicines and body-care products Wilhelm Pelikan also produced a Goethean study of metals and botany of medicinal plants. His approach to the world of substances was one of loving empathy as he sought to move delicately from revelations to the senses to the essence of things, bring the qualities of nature close to, and look for the relationship in, the human being, thus gaining gradual insight into the findings made by the spiritual investigator.

A first publication, *The Secrets of Metals*, New York: Anthroposophic Press 1973, concerned the planetary metals. Five more metals were added for the second edition of this work—zinc, aluminium (silver from clay), cobalt, nickel and antimony, and the non-metal sulphur.

He realized that a Goethean botany of medicinal plants was the basis for ‘rational’ treatment based on these plants. His writings showed sensitive penetration into the nature of the plants and an endeavour to establish a relationship to human pathology. He asked graphic designer Walter Roggenkamp to join him in the work, wanting to show also the biosphere of plants, their connection with the cosmos and the creative powers working on plants from outside in illustrations done with sensitivity. They also attempted to show the family type of the plants, a bold undertaking and a step towards overcoming the materialistic prejudice that the essential nature of a plant was confined within its physical limits. The aim was to encourage readers to see the plant in relationship to its environment.

Wilhelm Pelikan’s work was based on valuable work done earlier by the anthroposophical botanist Gerbert Grohmann, PhD, whose two volumes *The Plant* were an attempt to introduce readers to the anthroposophical view of plant nature.

It is remarkable how Wilhelm Pelikan, who was not a botanist, was able to gain such profound insight into the nature of medicinal plants that his 3-volume botany of medicinal plants [only vol. 1 translated into English, entitled *Healing Plants*. Tr.] continues to be a standard work.

Other publications included essays on essential nature and active principle, considering the question as to whether a medicinal plant merely contains active principles or if these are tools, which the plant as a whole is using. The vital processes of a plant produce compositions of substances. The plant is more than its active principles. To isolate them is to impoverish the plant. Synthetic reproduction is to imitate at the inorganic level the substances, which the plant creates out of its vital processes.

Wilhelm Pelikan also studied astronomy and published a small volume on Halley's comet in which he considered the spiritual nature of comets.

One particular area of scientific work he took up was research on the efficacy of potentized medicines. Mrs L. Kolisko's had worked with germinating wheat, her work based on a suggestion made by Rudolf Steiner. Wilhelm Pelikan took this further by excluding several sources of error. Wheat grains of greatest possible homogeneity were allowed to germinate in aqueous solutions of specific metal salts in different potencies, determining the mean length of shoot after a fixed period of germination. Growth was enhanced or reduced at different potency levels, resulting in characteristic growth curves for the potentized metal salt solutions. The statistics were improved in collaboration with Georg Unger, PhD, from the Section for Mathematics and Astronomy at the Goetheanum, and a scientific paper on the subject was published in 1965. It was the first statistically confirmed proof of efficacy for potentized substances.

A paper on radiation from iron and Mars influence: sealed iron cylinders have a radiation effect on wheat seed germinating in water inside them; plant growth is influenced depending on the season and also the rhythms in the movements of Mars and its relative positions. This demonstrates the connection between iron and Mars.

In response to the questions as to whether potency dilutions could be filtered, he wrote that working with the usual paper filters one cannot not demonstrate an influence on activity.

In 1963, at the age of 70, Wilhelm Pelikan retired from the firm in Schwaebisch Gmuend and continued to devote his time to research based on the wheat germination method. Christa Krueger-Woernle assisted him in this work after Mechthild Werner's death.

In 1965, Wilhelm Pelikan and his wife moved to Arlesheim so that he could continue his researches working with the Science Section at the nearby Goetheanum. He was also active in the Anthroposophical Society branch at the Goetheanum.

Leonardo da Vinci's *Last Supper* had been a special interest of his for many years. Late in life, this resulted in a small work on the subject which was published posthumously in 1988.

In 1980, he had to undergo a serious kidney operation. I was able to visit him afterwards and was impressed by his physical weakness and mental strength. 'Physically I'm not doing well, but the spirit is making progress,' he said.

He grew progressively weaker in those last days and was a patient at the Ita Wegman Clinic where, on 17 November 1981, a year after his wife, he crossed the threshold to the world of the spirit to which he had felt committed all his life.

On the occasion of a Weleda anniversary in Schwaebisch Gmuend where he—after his retirement—gave the special address, he said that ultimately the work done at Weleda

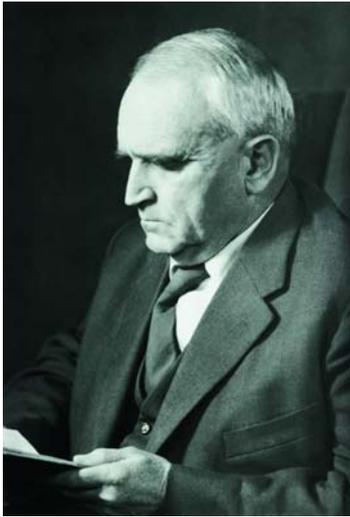
depended on whether the elemental spirits would be able to look kindly on what we were doing. His ideas were always devoted to wide horizons.

In conclusion I'd like to tell a story about Wilhelm Pelikan at one of the medical conferences in Salzburg. It was the time when physicians supporting Ita Wegman were in conflict with the Council at the Goetheanum. He himself took a positive view. After the conference he attended a meeting with the physicians who in their talks had said that they did not feel committed to the present Council but to the Foundation Council which had included Ita Wegman. Wilhelm Pelikan leapt to his feet and called out: 'That is because there always are people who cannot jump over their own shadow!' It was like a great roar of thunder breaking forth from his Jupiter nature. The physicians fell silent and withdrew. The Medical Section took responsibility for organizing future conferences after this.

If after all that has been said so far we consider what was the significance of Wilhelm Pelikan, then it clearly lies on the one hand in establishing and developing anthroposophical pharmaceuticals within the German Weleda, and on the other in his scientific achievement of laying the foundation for a Goethean study of substances and medicinal plants and his work on potentized substances.

Over and above this, one saw in Wilhelm Pelikan a strong, creative genius, selflessly serving the cause, and someone whom one also felt inclined to appreciate and love as a person.

Johannes Zwiauer, PhD



Oskar Schmiedel, PhD

Born in Vienna on 30 October 1887,
died in Schwaebisch Gmuend on 27 December 1959
Married, 2 daughters

Oskar Schmiedel's father had come to Vienna from the Saxon part of the Erzgebirge mountains; he had a paper factory. Oskar's mother was Viennese. Having completed his secondary education, Oskar did his year of military service and then went to study chemistry at Munich University.

Esoteric questions interested him from an early age, and he joined the Theosophical Society in 1907. Soon after this he saw and heard Rudolf Steiner and became his personal pupil after a hearing lecture in Michael Bauer's house in Nuremberg. This direct approach to anthroposophy was characteristic of the man. He devoted his whole life to it. Entering into the life of the Theosophical Society with typical enthusiasm, Oskar Schmiedel became involved in the development and first performance of the Mystery Plays, building scenery and acting as a stage hand; he designed the model for the Strader apparatus and was in charge of the first groups of eurhythmists appearing on stage. It was also in Munich that he met his wife.

As a student he had established a theosophical chemical laboratory for the development of new vegetable dyes according to directions given by Rudolf Steiner. Having obtained his doctorate he produced body-care products and did analyses for physicians. Schmiedel was a man of action, undertaking a wide range of practical tasks.

In 1914 the couple were called to Dornach by Rudolf Steiner to join in the work of building the First Goetheanum. In a primitive shed they produced vegetable paints for the paintings in the domes, protective varnish for the woodwork and modelling wax for the designers. The pigments for Dr Felix Peiper's colour-chamber therapy and medicines for a number of physicians based on information given by Rudolf Steiner were also manufactured by them.

During the war years, Oskar Schmiedel did military service in Innsbruck, where he had opportunity for a thorough study of Goethe's theory of colour. His wife ran the laboratory in the meantime.

After the war, he devoted himself wholly to producing the medicaments suggested by Rudolf Steiner. Thus he made the first mistletoe preparation for Ita Wegman. He also sold Ritter's photodynamic medicines. Collaborating with Dr Ludwig Noll he worked out a series of monographs, always referring back to Rudolf Steiner. These are in the 'Arlesheim list' and were the basic range of anthroposophical medicines – 15 formulations had been produced by the end of 1921.

On 6 January 1920 he heard Rudolf Steiner say in a lecture given in Basle [in *Social Issues*; tr.] that he hoped he might speak on the subject to members of the medical profession one day. Alert and active, Oskar Schmiedel took the initiative and organized such a course. This was the *Spiritual Science and Medicine/Introducing Anthroposophical Medicine* course given for about 40 mainly homoeopathic physicians in Dornach. In this sense, Oskar Schmiedel became the initiator of anthroposophical medicine, a deed of great merit.

In June 1921 Dr Ita Wegman established the Institute of Clinical Medicine in Arlesheim. New preparations were needed daily for the patients. A similar clinic, led by Dr Otto Palmer, has been established in Stuttgart, Germany, in 1920.

Rudolf Steiner gave further medical courses in 1921, 1922 and 1923, and at the request of the younger generation the *Course for Young Doctors* at Christmas and Easter 1924.

Medicines production soon could no longer be contained in the small laboratory. New rooms were made available through Dr Wegman's initiative near the Arlesheim Clinic for the Internationale Laboratorien AG (ILAG). In September 1924, Oskar Schmiedel became director of the whole enterprise, at Rudolf Steiner's request. When the anthroposophical economic enterprise Der Kommende Tag had gone bankrupt due to inflation, this then also included the branches in Schwaebisch Gmuend and Stuttgart. Branches were established in Holland, England, France, Austria and the USA. In 1928 the name of the firm changed from ILAG to that of 'Weleda', which Rudolf Steiner had suggested for the English firm.

From 1935 onwards Oskar Schmiedel also had to give more time to the German Weleda, together with Wilhelm Pelikan, Fritz Goette and Arthur von Zabern. He moved to Stuttgart and later to Schwaebisch Gmuend. The growth of the firms and the war made enormous demands on everyone involved.

After the war Oskar Schmiedel worked on the establishment and development of a number of firms abroad, doing so in Austria in 1949, where he also explored the places where Rudolf Steiner had lived when young. He published a booklet about this. He intended to do more on the subject, but it was only after his death that Mechthild Werner, who had looked after him in his last years, was able to do this.

In 1951, Oskar Schmiedel returned to Schwaebisch Gmuend, where he ran the Weleda together with Wilhelm Pelikan, Arthur von Zabern und Wilhelm Spiess until he died in his 73rd year. Hans Krueger, Walther Cloos, Theodor Schwenk, Alfred Friedrich, Mechthild Werner and others also contributed much to the work.

Apart from his work in developing the range of medicines and the manufacturing works, Oskar Schmiedel was particularly interested in all social impulses. He encouraged and supported the Study Sessions, works eurythmy, the Christmas Plays and the *Weleda Nachrichten* magazine. He loved the people he worked with and they felt respected and supported in their work and as human beings. He was bright and very civil, cultivated

collaboration with physicians and the Medical Section, and was able to act as a mediator in many conflict situations.

I once used the opportunity to ask him how it happened that Rudolf Steiner was not asked so many questions that were essential for the work. ‘Oh,’ he said, ‘he was asked questions all the time by so many people, who did not do anything, however. Others would not ask but act instead.’ He was one of these.

Asked which cosmetics were based on Rudolf Steiner’s instructions, he mentioned the hair lotion, for instance. Amazingly, Rudolf Steiner had dictated the directions to him straight off the cuff.

Schmiedel had never been a musician, but said he’d like a spinet for his 70th birthday. He took lessons and played every day, also together with friends. After one such evening he crossed the threshold, in full awareness, during the night. Mechthild Werner found him in the morning, his hands clasped. At first she thought it was a macabre joke—the kind of thing he was capable of—but then realized that he had departed from this earth.

The medical and pharmaceutical impulse owes much to this wide-awake and single-minded individual. And he was a wonderful, lovable person.

Johannes Zwiauer, PhD



Theodor Schwenk, Dipl. Ing.

Born in Schwaebisch Gmuend on 8 October 1910,
died in Filderstadt on 29 September 1986.
Married, 4 children.

Theodor Schwenk established anthroposophically extended flow and water research. He created a scientific basis for pharmaceutical potentization and with his widely known book *Sensitive Chaos: The Creation of Flowing Forms in Water and Air* [London: Rudolf Steiner Press 1965] gave rise to the study of the essential nature of water. His drop

image method serves to characterize water quality. He established the Institute of Flow Sciences in Herrischried, Germany, and was its first director.

Theodor Schwenk grew up in Schwaebisch Gmuend. His father, a freethinker, was a senior master at a vocational school, teaching physics, metalwork and mechanical engineering. His mother was a delicate and sensitive woman from a Swabian background of commerce and the Church. In the process of developing adult education, his father met Wilhelm Pelikan and Theodor and his older sister learned of anthroposophy through the latter. By the time he was 18, Theodor had studied the astronomy of the time and built his own telescope.

He studied mechanical engineering at Stuttgart Technical University, qualifying with an engineering diploma for hydro power plant. At the same time he attended with enthusiasm Ernst Fiechter's lectures on the history of architecture and art, a subject that interested him all his life and provided the motivation for many journeys in later life.

Following a short period of working as an engineer developing propulsion for ships, the young man, then 27, obtained a post as assistant to Ludwig Prandtl, the Nestor of German flow research, at the aerodynamic experimentation centre in Goettingen. When the war ended he gave up prospects of a career in aircraft engineering, returning to Schwaebisch Gmuend with his young family in May 1946, and obtained a post as unskilled worker at Weleda. – He had married Else Grimminger from Schwaebisch Gmuend in 1938 and they had three daughters and one son.

Thanks to a word put in by Fritz Goette, Theodor Schwenk was able, after just a few months, to use the loft of a Weleda store shed where he started his scientific investigations of Lili Kolisko's capillary dynamolysis method, confirming her findings. In growth experiments with wheat seedlings in potentized solutions, another method developed by L. Kolisko, long series of experiments with water led to his discovery of the openness of pure water to all kinds of variations in planetary positions. He was able to add to L. Kolisko's discoveries concerning the relationship of certain metal solutions to particular planets, and was particularly concerned to develop adequate concepts for phenomena of this kind, developing the theme in his *The Basis of Potentization Research*, New York: Mercury Press 1988. Another achievement was the empirical

demonstration of the relations between times of day and the cosmic forces of Pisces and Virgo. The Rh preparations were later based on this.

In the meantime Theodor Schwenk had been studying the phenomena of forms arising in moving water and discovered a relationship to organic forms. This became the basis for his book *Sensitive Chaos*. With a marked sense of beauty he worked together with Walther Roggenkamp to make it a scientific work of art. It was reviewed by Benesch (1962) who called it an 'important milestone' on the highly necessary road to making science truly spiritual'. Theodor Schwenk gave many lectures and courses on the subject, above all for the medical profession. He was a good speaker and much appreciated.

On the basis of his research findings he proceeded in the late 1950s to develop the drop image method as an imaging method for the study of aqueous solutions. Oskar Schmiedel, Wilhelm Pelikan, Hans Krueger, Walther Cloos, Georg Unger and others took an interest in and promoted his work.

Organizations, which had a connection with Weleda, also consulted him as an expert on flow physics. One was Dr Alexandre Leroi who needed to develop the machine for mixing Iscador. He brought Theodor Schwenk together with George Adams (formerly George Kaufmann) and again with Georg Unger and took the initiative to establish a research institute for the group, finding his first sponsors in the Voith family.

The Association for Movement Research was thus established in July 1959. This supported Theodor Schwenk when together with Helga Brasch he developed the Institute of Flow Sciences in Herrischried. He was its director from its opening in July 1961 to the end of 1975. George Adam's death in March 1963 ended the shared research work of the group, in which Olive Whicher and John Wilkes had also been involved. Theodor Schwenk continued to develop the drop image method for water research and published a book on this in 1967, further differentiating his observations concerning the way in which cosmic and earthly laws come together in water.

Endeavouring to use movement processes to make water receptive to creative powers, Theodor Schwenk developed concepts for guided movement in pharmaceutical mixing techniques; a number of medical groups took this up to good effect. When hostility came from various sides—for him, scientific honesty ranked above being involved in social groups—he withdrew more and more as he continued his work. On reaching retirement age he handed the direction of the institute over to his son and withdrew to Neustadt/Weinstrasse in Germany in 1977. Generous friends enabled him once again to set up a research laboratory and work on the question of vitalizing water in movement processes. He stopped this work, among other things for health reasons, in 1984, dissolving the laboratory. Having married Helga Brasch in 1983, he spent the last years of his life in Stuttgart.

Theodor Schwenk lived for his work. He took his responsibility as a scientist very seriously. This concerned not only how one dealt with research findings but with the research process itself. Taking up Goethe's scientific method he used an approach for

which one had to develop perceptive thinking of real fluidity. He struggled to make his search for insight selfless and devoted himself to the phenomena in a way that was sober yet loving, until they revealed their laws to him.

Wolfram Schwenk

[Another work available in English is *Water the Element of Life*, a volume of essays edited by his son Wolfram. New York: Anthroposophic Press 1989. Editor of the English edition of *Pioneers*.]



Wilhelm Spiess, pharmacist

Born in Eichstaett, southern Franconia, on 4 June 1885, died in Stuttgart on 15 April 1965.

Married.

Wilhelm Spiess grew up in the country, the eldest of seven children, his father being a forestry official. He went to grammar school, practised and studied pharmacy at Erlangen University. He worked at a total of 40 rural and city pharmacies in many different part of Germany. He got to know anthroposophy when he was 35, joining the branch of the Society in Nuremberg.

Applying for a position advertised at the Institute of Clinical Medicine in Stuttgart, he was presented to Rudolf Steiner and on 1 July 1922 became head of the pharmaceutical laboratory, which from 1924 onwards functioned as a branch of Weleda Stuttgart. Wilhelm Spiess held that position until he retired in 1961. His great experience and active approach to life enabled him to play a role in developing the Stuttgart firm and then also in Schwaebisch Gmuend.

He also had a great interest in agriculture, forestry and veterinary medicine. His family was accommodated in the building of the Christian Community in Stuttgart and this meant that he also got to know the priests Rittelmeyer and Beckh.

Working together with Schmiedel, Pelikan and Leinhas, Wilhelm Spiess was one of the Weleda pioneers. Between 1922 and 1924 he had repeated contact with Rudolf Steiner, and he liked to talk about this. Thus Rudolf Steiner was once shown fermented juices that would keep well, and we are told he said: 'Yet pharmacists will always say it can't be done without alcohol' (as a preservative). This remark later played a role in developing the Weleda Rh preparations, plant-based preparations preserved in a fermentation process that required no alcohol or subsequent pasteurisation.

Wilhelm Spiess' greatest ability was probably the mercurial one of a mediator, bringing people together, working with physicians and farmers, and real skill in getting people interested in anthroposophical pharmacy, providing information on new medicines and give help and support from rich experience deepened through anthroposophy.

As an old man he showed warm, winning character qualities. Oral communication was his forte, and so he did not publish much, but did make some important literary contributions, for instance on pharmacodynamics in Husemann/Wolff, *The Anthroposophical Approach to Medicine*, and the attempt to produce a medical vademecum together with Viennese physician Dr Ferdinand Wantschura (published in Stuttgart in 1962).

Wilhelm Spiess died at age 79, four years after retiring.

Johannes Zwiauer, PhD