

## Historical Profile of Kurt Karl Stephan Semm, Born March 23, 1927 in Munich, Germany, Resident of Tucson, Arizona, USA Since 1996

Liselotte Mettler, Prof. Dr. Med

Kurt Semm, at 75 years of age, was the oldest participant at the 11th International Congress and Endo Expo 2002 of the Society of Laparoendoscopic Surgeons in New Orleans, Louisiana, September 11-14, 2002.

It is an honor for me as his student and friend, and recipient of the Society's 2002 Excel Award, to briefly review his personal and professional life, dedicated to operative laparoscopy, which he likes to call pelviscopy.

The term pelviscopy was selected by Kurt Semm in 1970 to differentiate between the gynecological laparoscopic procedure and that of the internists who performed laparoscopy with upper abdominal screening and liver biopsy. Semm hoped that the introduction of a new surgical term would persuade the medical insurance companies to pay a higher fee for the different pelviscopic procedures. This differentiation remained in the German Society of Gynecology and Obstetrics for over 30 years from 1965 until 1995. As gynecologists have now extended their surgical procedures out of the minor pelvis into the entire abdomen, with lymphadenectomies and other procedures, laparoscopy is a more appropriate term.

In the early 1960s, Kurt Semm, as a talented university assistant, had already dedicated his life to laparoscopy. He had recognized the potentials of this surgical technique to solve the limitations and side effects of laparotomic surgery. In 1958, he wrote his treatise *The Problem of Labor Contractions Under the Influence of "Oxytocin-oxytocinase"* Metabolism under the auspices of the Nobel Prize winner, Professor Adolf Butenandt. Shortly after this, Kurt Semm left the endocrinological field and dedicated many scientific papers to the diagnosis and therapy of infertility.

Based on Kurt Semm's dual training as a toolmaker and physician, his first attempts to overcome laparotomy focused on developing an electronic insufflator for CO<sub>2</sub>, a uterine manipulator, and a tubal patency-testing device.

The first presentations of his inventions at German, Austrian, and Swiss gynecological meetings were 40 years ago in the early 1960s.

The endoscopic publications of Palmer in the 1960s stimulated Semm to use laparoscopy in gynecology. At that time, the pneumoperitoneum for liver biopsies and diagnosis was produced with air. Semm's experiences with the construction of the universal perturbation apparatus for the perturbation of the Fallopian tubes with CO<sub>2</sub> led to the invention of the CO<sub>2</sub> pneu-automatic insufflator.

Resulting from his interest in helping couples overcome infertility, Kurt Semm founded the German Society of Fertility and Sterility in 1956.

In 1964, Semm received his professorial degree from the Department of Obstetrics and Gynecology, Munich University.

Throughout Kurt Semm's fight to establish the use of

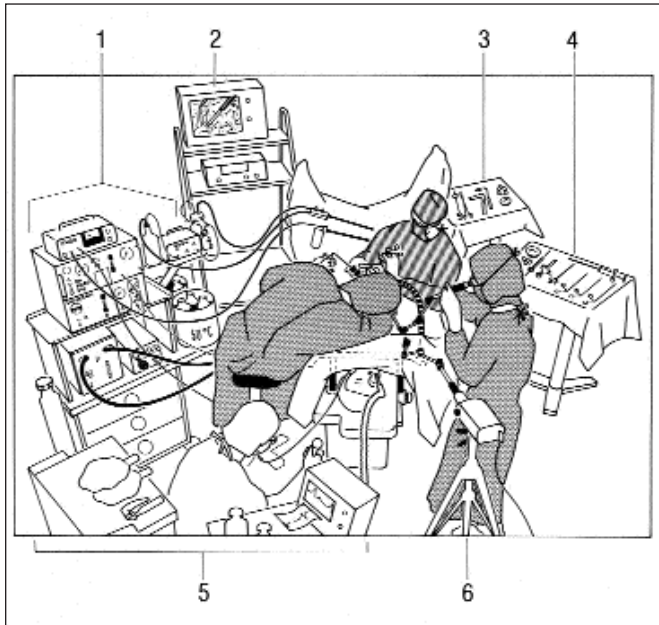


Kurt Karl Stephan Semm, Prof. Dr. Med.

Department of Obstetrics and Gynecology, University of Kiel, Kiel, Germany.

Address reprint requests to: Liselotte Mettler, Prof. Dr. Med., Department of Obstetrics and Gynecology, University of Kiel, Michaelisstr. 16, 14105 Kiel, Germany. Telephone: 49 431 5972086, Fax: 49 431 5972116, E-mail: lmettler@email.uni-kiel.de

© 2003 by JSLs, *Journal of the Society of Laparoendoscopic Surgeons*. Published by the Society of Laparoendoscopic Surgeons, Inc.



**Figure 1.** Arrangement of equipment in an endoscopic operating room: endoscopy cart (1), video cart (2), vaginal instrument table (3), endoscopic instrument table (4), anesthesia (5), television camera with articulated optical attachment (6).

laparoscopic surgery in gynecology and general surgery (he always had positive interaction with urologists), the following 3 events demonstrated the lack of acceptance of laparoscopic surgery in the medical community between 1965 and 1985:

1) Kurt Semm was in the middle of a slide presentation on ovarian cyst enucleation by laparoscopy when suddenly the projector was unplugged with the explanation that such unethical surgery should not be presented.

2) After his appointment as chairman of the Department of Obstetrics and Gynecology, University of Kiel, in 1970, Kurt Semm introduced laparoscopic surgery into the Kiel department. **Figure 1** depicts Kurt Semm and his team performing a myomectomy in the days prior to video laparoscopy, which began in Kiel in 1986.

At the request of coworkers, Kurt Semm had to undergo a brain scan because colleagues suspected that only a person with brain damage would perform laparoscopic surgery.

3) During a gynecological conference in Kiel in 1972, after Semm had performed an ovarian cyst enucleation by laparoscopy, a famous German gynecological profes-

sor gave me the following advice: “My young colleague, if you wish to advance in the German academic world, don’t pay any regard to Semm’s nonsense.”

Upon requesting that surgeons at Kiel University in the years 1975 through 1980 perform laparoscopic cholecystectomy, Semm was greeted with laughter. His suggestion was rejected, and we were told they had enough work to do repairing the intestinal damage that occurred during extensive laparoscopic adhesiolysis. The few cases of bowel lesions that did occur were all discovered in enough time to allow safe surgical correction.

Kurt Semm performed the first appendectomy in our department in 1981. After he had presented a lecture on this topic at a surgical meeting in Germany, the president of the German Surgical Society wrote to the board of directors of the German Gynecological Society requesting the suspension from medical practice of this impertinent colleague.

Semm submitted a paper on laparoscopic appendectomy to the *American Journal of Obstetrics and Gynecology*, which was rejected as unacceptable for publication on the grounds that the technique reported on was “unethical.”

The first publications on diagnostic laparoscopy by Raoul Palmer appeared in the early 1950s, followed by the publications of Frangenheim and Semm. Diagnostic laparoscopies were well accepted, but the surgical laparoscopy performed by Semm in Kiel after 1970 was considered “magic” in Germany and abroad.

Semm continued to present his techniques in Germany, Europe, and in the United States of America. In the early 1970s, although sterilization by laparoscopy was accepted in the United States, laparoscopy was still considered only a diagnostic procedure.

At the Department of Obstetrics and Gynecology, University of Kiel, Germany, gynecological laparoscopic surgical operations, such as ovarian cyst enucleation, myomectomy, ectopic pregnancy treatment, adhesiolysis, and hysteroscopy, were routinely performed. Hans Lindemann and Kurt Semm practiced CO<sub>2</sub> hysteroscopy during the mid 1970s (1973 to 1976).

In 1981, Professor Jan Beermann from Detroit, Michigan, president of the American Society of Reproductive Medicine (at that time the American Fertility Society), visited Kurt Semm to see the “magic surgery.” On the day of his arrival, Jan Beermann was lucky to witness a bilat-

eral adnexectomy performed by Kurt Semm. When Kurt wanted to show him photos of the patient before the operation, Beermann said "No, I just want to see it in reality." In the operating theater, Beerman observed a simple adnexectomy by laparoscopy, accepted that it was possible, left the operating theater, and disappeared from the hospital. He told us, "All I wanted to see was the reality of this surgery. Now, I am ready to go on my planned hunting trip." His later comments in the United States helped to make laparoscopic surgery acceptable.

At a European meeting in northern Italy, after a lecture by Kurt Semm on operative laparoscopy, Jordan Phillips, director of the American Association of Gynecological Laparoscopists, accused Semm of taking the technique to the absurd and of not even being recognized in his own country. Jordan Phillips later became a good friend of Kurt Semm and withdrew his words of the early 1980s. From 1986 onwards, Jordan Phillips organized 76 laparoscopic surgical training courses for Kurt Semm and his team throughout the United States of America. The AAGL continues to run these courses today on a broad scale and a very knowledgeable American and international faculty runs them.

Kurt Semm never stopped traveling throughout Germany and the world to defend his laparoscopic surgical procedures. Through his knowledge, he developed many apparatuses and instruments. Once he had an idea, it was quickly materialized by his own medical instrument company Wisap in Munich, Germany, which still produces endoscopic instruments of high quality.

After a lecture by Kurt Semm in 1972, Melvin R. Cohen of Chicago, Illinois, ordered 100 insufflators (CO<sub>2</sub> pneu) from the Wisap Company. Up until this time, the company had only sold 10 insufflators. To fulfill these orders, Wisap had to hire new personnel, because at that time they were understaffed to meet such demands. Today, many companies produce an electronically powered version of the CO<sub>2</sub> pneu-electronic.

As Semm's techniques spread throughout Germany during the 1970s and 1980s, the saying went, "Let's just wait until Semm takes out the uterus by laparoscopy." At that time, this was an unthinkable and unacceptable procedure.

In 1984, Semm had already described laparoscopic assistance to vaginal hysterectomy in his book *Gynäkologische Laparoskopie*.<sup>1</sup> This major surgical "cook-book" for gynecological endoscopic abdominal surgery,

with an introduction by Raoul Palmer, was translated into English by E. R. Friedrich and published by the American Yearbook Company in 1987. Translations into 8 other languages followed. A logical continuation of the book has recently been published under the title *Endoskopische Abdominalchirurgie*.<sup>2</sup> Laparoscopic assistance to vaginal hysterectomy has been performed in our department since 1984 on a regular basis if the uterus is immobile, the adnexa adherent to the pelvic wall, or if the patient has undergone previous abdominal surgery. As we at Kiel are a "vaginal" school, however, the saying went that only weak surgeons considered it necessary to add laparoscopic surgery to vaginal hysterectomy. The laparoscopic part of the hysterectomy always consisted of the dissection of the adnexa and the round ligament with dissection of the uterus only to above the sacrouterine and cardinal ligaments. The hysterectomy was then performed vaginally similar to the present type I laparoscopic-assisted hysterectomy.

From the beginning, Kurt Semm used photographic methods and film to document his laparoscopic activities. Because a third person could not visualize the operation field until 1985, the films had the utmost significance. Kurt Semm produced over 30 endoscopic films and more than 20 000 color slides to inform interested colleagues of his technique. In 1985, he constructed the pelvi-trainer = laparo-trainer, a practical surgical model whereby colleagues could practice laparoscopic techniques firstly by viewing through the plexiglas transparent trainer, then by covering the trainer, and lastly by working via the video screen. American medical societies were astonished to observe Semm and his coworkers transporting these trainers over the Atlantic in their hand luggage to demonstrate laparoscopic surgery. These trainers have now been replaced by newer modifications and by virtual reality simulators that allow optimal surgical training before live surgery is performed.

Kurt Semm invented many instruments and apparatuses for laparoscopic surgery not only for the gynecologist, but also for the general surgeon and those in other disciplines. Semm has published over 1000 papers. His activities in national and international professional organizations, many of which were founded by him, are numerous. He was president of the International Federation of Fertility Societies, is an honorary member of all endoscopic societies, and for 25 years was a brilliant teacher and head of one of the largest university clinics in Germany.

Kurt Semm loves sailing and flying. He often invited visitors on board his yacht or took them flying in his private plane. He was frightened only once on these trips when Professor Soitchi Sakomoto from Tokyo, Japan, told him that he used to be a Kamikaze flyer.

Semm was married for 30 years to Roswitha von Morozowicz who died of breast cancer in 1986. In the summer of 1986 Kurt Semm became a member of the Leopoldina, the German Academy of Scientists in Halle on the Saale, which dates back to the year 1652 and is the oldest society of scientists in the world.

Since 1994, Kurt Semm has been married to Isolde Semm, an Irish gynecologist. Together they have 2 children and now live in Tucson, Arizona. Isolde Semm is president of the endoscopic instrument company Wisap with activities in Germany and many overseas countries.

It has been an honor to have witnessed the milestones that Kurt Karl Stephan Semm achieved in the field of laparoscopic surgery. Students, friends, and peers all wish him well and will never forget him. Few people are present in the world who have achieved what Kurt Semm has achieved in 75 years. He is a man of great rep-

utation whose methods have been well understood and developed further. Kurt Semm's books were the bible of operative laparoscopy and endoscopic surgery for over 30 years. His first atlas on pelviscopy and hysteroscopy was published in 1976, a slide atlas on pelviscopy, hysteroscopy, and fetoscopy was published in 1979, and his books on gynecological endoscopic surgery in German, English, and many other languages were published in 1984, 1987, and 2002.

Late, but with great pleasure, Kurt Semm received the "Pioneer in Endoscopy" Award from the Board of Governors of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES) in New York in March 2002. The Society of Laparoendoscopic Surgeons gave him a standing ovation at their last annual meeting in New Orleans in September 2002. He received an honorary membership in the ISGE in Cancun, Mexico in 2003.

#### References:

1. Semm K. *Gynäkologische Laparoskopie*. Stuttgart: Schattauer Publishing House; 1984.
2. Mettler L, Semm K, eds. *Endoskopische Abdominalchirurgie*. Stuttgart: Schattauer Publishing House; 2002.

## KURT KARL STEPHAN SEMM

The Society of Laparoendoscopic Surgeons  
wishes to express great sadness at the passing of  
our friend and colleague Kurt Karl Stephan Semm.

Dr. Semm was an innovator and pioneer who cared for patients and friends with generosity, passion, and grace. He served the Society as an active member of the International Advisory Board and as a contributor to our journal, JSLS. Dr. Semm was an SLS Excel Award winner for his lifelong commitment to laparoscopic surgery and education.

We will miss him as a colleague, a physician and as a friend.