Dissecting the History of Anatomy in the Third Reich - 1989-2010: A Personal Account

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This paper is a personal narrative of involvement with the revelations of the use of anatomical and pathological specimens of victims of Nazi terror. The narrative documents responses to the question of the retention and use of anatomical and pathological specimens from victims of Nazi terror by leading academic and scientific institutions and organizations in Germany and Austria including the government of the Federal Republic of (West) Germany, the University of Tübingen, the University of Vienna, the Max Planck Society and the Anatomische Gesellschaft. It begins with the public revelations of 1989 and concludes with the September 2010 Symposium on the History of Anatomy during the Third Reich at the University of Würzburg. The narrative documents a 22-year transition in attitude and responses to the investigation and documentation of the history of anatomy and pathology during the Third Reich. The chronicle includes the 1989 proposed "Call for an International Commemoration" by the author, together with the bioethicist Professor Arthur Caplan, on the occasion of the planned burial of the misbegotten specimens and the responses to that proposal.

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1. Revelations: 1989

In 1989 it was revealed that academic and scientific institutions in the Federal Republic of (West) Germany had in their collections human specimens from the Hitler period which had been derived from victims of Nazi terror. The specific organizations involved were the Institute of Anatomy of the University of Tübingen and

the Max Planck Society Institute of Brain Research in Frankfurt (Dickman, 1989; Walsh, 1989).

In response to these revelations the Senate of the University of Tübingen authorized an investigative commission chaired by a noted legal scholar and included as members an historian, members of the faculty, a member of the Jewish community and a student representative. The official report of the Tübingen commission documented the fact that cadavers of hundreds of persons executed by the Gestapo in Stuttgart were delivered to the Institute of Anatomy. The majority of the subjects were Polish and Russian prisoners enslaved in communities in the region and executed by Gestapo guillotine for various purported "crimes". The identity of each of the subjects and the cause of death was documented in the records of the Institute of Anatomy including the specifics of the preparation made from that person's remains (Universität Tübingen, 1990). The idea and the reality of the Tübingen inquiry was met with hesitation and resistance within the university and the staff of the anatomical institute (Arnold, 1989). Undergraduate medical students at Tübingen played an important part in bringing the investigation to fruition. A vital role was played by the late Professor Jürgen Peiffer in his capacity as guide and advocate for the students. Professor Peiffer was an eminent neuropathologist and one time director of neuropathology at the University of Tübingen. Peiffer had studied with Professor Julius Hallervorden and subsequently documented the role played by Hallervorden and other neuropathologists in exploiting the killing of psychiatric and handicapped patients during the Hitler period (Peiffer, 1991, 1999, 2006).

The specimens at the Max Planck Society Institute for Brain Research were part of what was probably the world's largest and foremost neuropathological collection. They consisted of brain tissue derived from victims of the Nazi 'euthanasia' killing operations including 'euthanasia' of children in special institutions and the Aktion T-4 'euthanasia' killing of adult patients in

psychiatric hospitals. Specimens were sent from institutions and individuals throughout the country, possibly including the brains of victims of low pressure research conducted at Dachau on behalf of the SS and the Luftwaffe (Schmuhl, 2009). Brains of child 'euthanasia' victims were also collected by the Kaiser-Wilhelm Institute of Psychiatry in Munich (Peiffer, 2000).

2. 'Euthanasia' killing and the Collection of Brain Specimens

The best known of the various 'euthanasia' programs is the T-4 'euthanasia' action which was a highly organized national program of medicalized killing of adult psychiatric patients. The administrative headquarters were situated in a large residence in Berlin at #4 Tiergartenstrasse. Thus, the code-name Aktion T- 4. Under T-4, six killing centers were established for different regions encompassing Germany and Austria. T-4 killing centers were characterized by a gas-chamber disguised as a shower room and a cremation oven (usually, but not always, on site). Gas chambers were constructed within hospital killing centers (e.g. Hadamar) or as a separate structure on the grounds of the designated killing institution (e.g. Grafeneck). A transportation arm was instituted by the T-4 administration with a fleet of special buses for the delivery of patients from psychiatric institutes to a regional killing facility (Friedlander, 1995). Brains of the victims were collected on site at the T-4 killing centers and sent to a neuropathology laboratory, usually the KWIBR (Kaiser Wilhelm Institute for Brain Research). The major T-4 killing and collecting location was in Brandenburg. The large psychiatric hospital known as Brandenburg-Görden included a 'special section' for children as well as a neuropathological laboratory. Adult patients from Brandenburg-Görden were murdered in the gas chamber on the grounds of the Brandenburg prison located in the city of Brandenburg. Children from the 'special' facility of the Brandenburg-Görden institution were killed in the hospital by means of starvation and poisoning with medication or in the T-4 gas chamber in Brandenburg (Peiffer, 1999, 2000; Schmuhl, 2009).

The neuropathologists, professors Julius Hallervorden and Hugo Spatz, were principally responsible for the acquisition of the brains of 'euthanasia' victims. Professors Hallervorden and Spatz were internationally renowned, having been honored by the eponymous designation ("Hallervorden-Spatz Disease") of a congenital neurological disorder with distinct

pathological features first identified by them in a report published in 1922. The 1922 report was based on research Hallervorden and Spatz conducted while working in the laboratory of Professor Walter Spielmeyer at the Kaiser-Wilhelm Institute of Psychiatry in Munich (Hughes, 2007).

The Kaiser-Wilhelm Institute for Brain Research had originally been established by the neuropathologists Oskar Vogt and his wife Cecile with support from the German government, the Krupp family and the Rockefeller Foundation. In 1930 the KWIBR was housed in a large new facility in the Berlin suburb of Buch. Because of internal institutional politics following Hitler's rise to power, Oskar and Cecile Vogt were eventually forced out of the KWIBR. In 1937 Oskar Vogt was replaced as Director by Hugo Spatz. On January 1, 1938 Julius Hallervorden accepted an invitation to join his friend and colleague Hugo Spatz at the KWIBR as director of the Histopathological Department and deputy director of the KW Institute. Hallervorden's appointment included the transfer to the KWIBR of the Department of Pathology of psychiatric institutions in the state of Brandenburg which had been headed by Hallervorden since 1929. In 1938 the laboratory of the Brandenburg state institution was moved from Potsdam to the state hospital at Brandenburg-Görden where it became a critical link between the killing of patients and the study of their brains by the KWIBR (Hughes, 2007; Schmuhl, 2009). The Kaiser-Wilhelm Institute of Psychiatry (KWIP) in Munich had been founded by the noted psychiatrist Emil Kraepelin with funding from the Rockefeller Foundation as well as generous bequests from the expatriate American Jewish philanthropist, James Loeb (Macrakis, 1989; Chernow, 1993). The KWIP during the Hitler period was led by Professor Ernst Rüdin, a leading architect and proponent of the Nazi eugenics policies and programs. Peiffer has determined that 192 brain specimens from child victims were sent to the Munich psychiatric institute from Eglfing-Haar (144), Kaufbeuren (23), and Ansbach (22) (Peiffer, 2000).

3. Postwar Evidence

The critical revelations on neuropathology and the role of the KWIBR, Prof. Hallervorden in particular, were made by the Austrian-born, Boston neurologist, Dr. Leo Alexander, in his capacity as a consultant to the Secretary of War of the United States. As part of his investigations into criminal activities of German

physicians, Alexander paid a surprise visit to Julius Hallervorden. The meeting took place on June 14 and 15, 1945 in Hallervorden's temporary quarters in Dillenburg in Western Germany. It followed an earlier trip to the Hadamar T-4 killing site which was nearby. The details of the Alexander-Hallervorden encounter are contained in a report by Alexander (Alexander, 1945). In his report Alexander noted that as a consequence of the bombing of Berlin and the impending collapse of the Nazi state, most of the KWIBR was dispersed from Berlin-Buch to three sites: 1. Munich: The Section of Anatomy and General Pathology headed by Prof. Spatz was relocated to the Deutsche Forschungsanstalt für Psychiatrie (KWIP). 2. Dillenburg: The Section for Special Pathology headed by Prof. Hallervorden was transferred to the Schloss Hotel in Dillenburg in western Germany. 3. Göttingen: The Section for Neurophysiology and Electroencephalography, headed by Dr. A.E. Kornmueller, was moved to a new Institute of Physiology in the Faculty of Medicine of the University of Göttingen. In May 1944, Hallervorden moved the entire neuropathological collection of 110,000 specimens from 2800 cases to the new location in Dillenburg where, during his visit June 14 and 15, 1945, Dr. Leo Alexander observed the collection "intact, accessible and catalogued" (Alexander, 1945). During the same visit Hallervorden acknowledged his role in exploiting the remains of victims of the T-4 'euthanasia' killing (Alexander, 1945; Schmidt, 2006). After the end of World War II, the former Kaiser-Wilhelm research organization was reconstituted and renamed the Max Planck Society with the former KW institutes assuming the new name. Functionally, the Max Planck organization and institutes were essentially the same as their predecessor. The former KWIBR was eventually reestablished in Frankfurt as a Max Planck Society institute in which the original neuropathological collection came to be housed. Professors Hallervorden and Spatz relocated to the Frankfurt institute where they remained after their retirement. Neither Hallervorden nor Spatz was ever prosecuted for their involvement in 'euthanasia' activities. Hallervorden died in 1965 and Spatz in 1969 (Hughes, 2007). The 1989 revelations of the brain specimens initially concerned the collection in the Frankfurt Institute. Despite the 1989 revelations, neither the parent Max Planck research organization nor the involved Max Planck research institutes at that time undertook any detailed investigation into or documentation of the role played by its institutes or scientists in the 'euthanasia' killing operations of the Third Reich. Nor was there any documentation about the victims. The response of the Max Planck organization

was to bury the specimens (MPG Presseinformation, 1990).

4. Anatomical Specimens: A Call for an International Commemoration

In reaction to an international public outcry over the revelations and ensuing controversy concerning the anatomical and brain specimens, the Federal Government of (West) Germany charged the Standing Conference of Ministers of Culture of the Länder (states) to respond to the question of the use of specimens from victims of Nazi terror by universities within the jurisdiction of the respective states (Stavenhagen, 1990). In the Federal Republic, responsibility for culture and education rested within the states and not the federal government. The Standing Conference issued an initial report on the anatomical specimens in July 1989, with a supplemental report in February 1991. A subsequent statement was issued on January 25, 1994 (Standing Conference, 1991; Kultusminister der Länder, 1994). The 1994 report concluded that "...all specimens, including those of unknown origin, were removed from the relevant collections, and these specimens were dealt with in a dignified manner (i.e. interment)" (Hasenclever, 1994). After the revelations of the anatomical and pathological specimens I, together with Professor Arthur Caplan of the University of Minnesota, issued a joint "Call for an International Commemoration" on the occasion of the planned burial of the specimens (Seidelman and Caplan, 1989). Caplan and I had each undertaken scholarly work related to the history of medicine during the Hitler era and the ethical challenges arising from that period. Caplan had recently organized an international scholarly symposium on the subject, the proceedings of which were subsequently published in the volume *When Medicine Went Mad: Bioethics and the Holocaust* (Caplan, 1992). While Caplan and I are both Jewish, neither of us is a survivor of the Holocaust nor were any members of our immediate families directly affected by the Holocaust. During WW II Caplan's father, Sidney, served in the 2nd Chemical Battalion of the 45th Infantry Division, 7th Army of the United States and was personally involved in the liberation of the Dachau concentration camp in April 1945 (Uek, 2011). The underlying impetus for the "Call" was Caplan's and my awareness of the historical importance of German medicine in the development of modern medical science and the contemporary system of medical education in North America. Many of the significant scientific and intellectual advances in modern medicine occurred in

universities, clinics and research institutes in Germany and Austria during the late 19th and early 20th centuries. These include: microbiology, immunology, X-rays, anatomic and cellular pathology, thoracic surgery and psychiatry, amongst others. The German universities and laboratories influenced the American educator Abraham Flexner in his formulations on medical education undertaken on behalf of the Carnegie and Rockefeller foundations (Bonner, 2002). Rockefeller philanthropy contributed towards the construction and funding of Kaiser-Wilhelm research organizations including the institutes of brain research and psychiatry as well as the KW Institute of Anthropology in Dahlem (Weindling, 1993). Innumerable physicians from the United States and Canada travelled to Austria and Germany to study with leaders in the field. The richness of the German and Austrian intellectual pedigree of modern medicine was described by the eminent physician William Osler whose roots were in Canada and whose career flourished in the United States as a co-founder of the newly established Johns Hopkins University School of Medicine and in the United Kingdom as Regius Professor of Medicine at Oxford University (Cushing, 1925; Bliss, 1999).

Given the role the Austrian and German institutions played during the Hitler period, Caplan and I were of the opinion that the planned burial of the specimens would provide an opportunity for medical and scientific institutions and universities in Germany to reconcile the tragic experience of the Nazi era with the moral challenges facing contemporary medicine throughout the world.

The "Call for an International Commemoration" was delivered to the Max Planck Society, the University of Tübingen and the office of the then Chancellor of the Federal Republic of (West) Germany, Helmut Kohl.

Not surprisingly, neither the Federal Government nor the Institute of Anatomy of the University of Tübingen or the Max Planck Society supported the idea of an International commemoration (Stavenhagen, 1990; Arnold, 1989; Hasenclever, 1990). The Tübingen specimens were buried in a special section of the Tübingen cemetery reserved for subjects who had been anatomized at the anatomical institute. The specimens from the Max Planck institutes, which consisted mainly of glass slide preparations, were buried in two adjoining gravesites in the Forest Cemetery in Munich. Munich was chosen as the burial site because that city is the administrative home of the Max Planck Society.

Memorial ceremonies were held respectively in Munich and Tübingen in May and July 1990.

In 1990, the government of West Germany, through the Foreign Office and the German consulate in Toronto extended an invitation to me to visit West Germany as its guest. After being assured that there were no conditions associated with the invitation and that I could determine the itinerary of his visit, I accepted. During a two week journey that took place in March of 1991, I was provided with information and evidence that suggested that suspect specimens remained to be found in the collections of two universities; Heidelberg and Munich. Subsequent to my return to Canada, I submitted a report on this matter to the Foreign Office of the Federal Republic recommending that the universities concerned undertake an investigation with outside experts based on the model established by the Tübingen investigation. In the case of the University of Munich, there was a question concerning documentation in the National Archives of the United States that needed to be examined by experts (Seidelman, 1991). While internal inquiries were made by both institutions neither institution undertook an investigation by outside experts (Seidelman, 1991–92, 1991–93).

The question of the anatomical specimens in West Germany faded. The colossal events associated with the collapse of the Soviet Union and the unification of the Federal and Democratic republics of Germany undoubtedly overshadowed these matters. One unforeseen consequence was the fact that with German unification medical faculties and anatomical institutes in the former East Germany came under the jurisdiction of the Federal Republic with the respective states in the east joining the Standing Conference of the Ministers of Culture and Education. East Germany had opened up and the question of specimens from victims of Nazi terror in institutions in the east would eventually come under scrutiny. In addition, archival records from the former East Germany became accessible (Peiffer, 2006).

5. Austria: "Pernkopf Anatomy," The University of Vienna, Brains of Child Victims, and the Museum of Natural History

A separate but related development occurred in 1994 in New York. That year Professor Howard Israel, then of the Faculty of Dentistry of Columbia University in New York, raised questions about the renowned atlas of human anatomy, *Pernkopf Anatomy*. Israel noted that

some of the paintings in early editions of the Pernkopf atlas included Nazi insignia in the signature of the artists. He was concerned specifically that some of the subjects portrayed in the paintings may have been victims of Nazi terror (Israel, 1998).

Pernkopf Anatomy is an iconic atlas of human anatomy. The atlas, as documented by Williams, represented a convergence of one of the foremost anatomical institutes in the world, the Institute of Anatomy of the University of Vienna; a leading Vienna-based publisher of anatomical texts, Urban and Schwarzenberg; outstanding artists in the person of the painters Eric Lepier, Ludwig Schrott, Karl Entresser and Franz Batke; as well as the application of the then new technology of four color offset lithography. The quality of the color reproductions represented a major advance in graphic representation in a field that demands visual clarity. The Vienna artists were employed by the publisher, Urban and Schwarzenberg. The anatomized subjects were from the Vienna anatomical institute where the dissections had been performed. Originally published sequentially in a series of volumes between 1937 and 1960, it was later revised into two volumes, the first volume of which appeared in 1963 and the second in 1964. It was translated into Italian, Spanish, Japanese and English editions. While most of the incriminating Nazi insignia had been removed from later versions of the work, they were included in the first editions published in the English language (Williams, 1988).

While specific questions raised about the atlas were published in 1996 (Israel and Seidelman, 1996), much about Pernkopf and the institute of anatomy had been known for many years (Malina, 1998). Pernkopf's nefarious political and professional career had been known in Vienna and beyond for decades. The Institute of Anatomy, headed by Pernkopf, had a notorious reputation for blatant and violent racism. Eduard Pernkopf was a member of the German National Socialist Party who, immediately after the Anschluss, was appointed dean of the Faculty of Medicine and subsequently rector of the University of Vienna. The exclusion of Jewish faculty during Pernkopf's tenure as dean occurred faster than at any institution in the Third Reich. The anatomy institute's role in exploiting the bodies of victims of Nazi terror was also well known and had been documented in a series of contemporary drawings by the artist Leopold Metzenbauer which, at the time of the 1995 inquiries, were to be found in the archives of the Dokumentationsarchiv des österreichischen Widerstandes in Vienna. The

Metzenbauer drawings, which are in the collection of the Kulturabteilung der Stadt Wien (Department of Culture, city of Vienna), graphically illustrate the abundance of headless cadavers and severed heads stored in the anatomical institute (MUSA, 2011). The political affiliation of Pernkopf and the Vienna artists was also known with Pernkopf and Batke having been incarcerated after the war because of their political activities (Weiser-Varon, 1978; Weissmann, 1987; Ernst, 1995; Hildebrandt, 2006).

Vienna was also the home of two other notorious collections of human specimens, namely at the Vienna Museum of Natural History and the large Vienna psychiatric hospital at Baumgartner-Höhe, now known as Otto-Wagner-Spital.

The collection in the Vienna Museum of Natural History consisted of specimens purchased from the anatomist Professor Hermann Voss who, in his capacity as head of anatomy at the Reichsuniversität of Posen in German-occupied Poland, prepared skeletal specimens from the cadavers of Polish resistance fighters executed by the Gestapo. The furnace of the Posen anatomy institute served as a cremation oven for the disposal of the remains of the executed Polish victims. Voss exploited the supply of bodies of young executed subjects to prepare skeletal specimens for teaching and for profit. Voss also prepared Plaster-of-Paris death masks of Jewish Holocaust victims from a concentration camp near Posen. Some of the remains from the Jewish Holocaust victims, specifically their heads, were skeletonized for sale. Skulls of the Polish resistance fighters and Jewish Holocaust victims along with the death masks of Jews were purchased by the Vienna Museum of Natural History to be part of that institution's Race Gallery which included Jewish artifacts. The museum's anthropological collection included Plaster-of-Paris life-masks prepared by museum staff from Jews assembled at the Vienna stadium in readiness for their transport to Buchenwald where most died. The material collected from Jews at the Vienna stadium was comprised of photographs, hair clippings and personal anthropological records on the individual subjects as well as the life-masks. In 1991, the skulls of the Jews in the museum collection were buried in a Jewish cemetery in Vienna, while the death masks were given to the Jewish community of Vienna. Nine years later, the skulls of the Polish victims were given to representatives of the government of Poland (Elon, 1997; Aly, 1994; Knigge and Seifert, 1999; BBC, 1999; Berner, 2011).

The large Vienna psychiatric hospital at Baumgartner-Höhe housed the collection of brain specimens of child victims. The children had been housed in a special killing institution within the hospital complex known as 'Am Spiegelgrund.' Hundreds of such specimens remained at the hospital, ironically under the control of Dr. Heinrich Gross, who was directly implicated in the murder of many of the children. The presence of the specimens was well known before the Pernkopf revelations (Silvers and Hagler, 1997; Neugebauer and Stacher, 1999; Seidelman, 2002).

6. Pursuing the Truth in Vienna: A New Approach

Professor Howard Israel's inquiries regarding the Pernkopf atlas resulted in a joining together with me in a collaborative effort. I suggested to Prof. Israel that, given my recent experience in Germany, rather than pursuing the issue as individuals, an attempt should be made to engage a major Holocaust organization in the effort. It was also agreed that the approach should be that of a presentation of the evidence, raising questions to be addressed and recommending a proper, objective investigation modeled on that undertaken by the University of Tübingen (Israel, 1994; Seidelman, 1994). A major Holocaust research organization was considered, not because it was assumed that the possible victims were Jews, but because such an organization would have both the awareness and expertise as well as reputation that could advance any approaches that are made to the authorities in Austria.

As a consequence, on December 29, 1994, during a visit to Israel, I met in Jerusalem with senior officials of the Israel Holocaust Martyrs Remembrance authority, Yad Vashem; the Chairman, Brig. Gen. (Res.) Avner Shalev, the Vice-Chairman, Ambassador (Ret.) Reuven Dafni and the Chief Archivist, Yaacov Lozowick. Documentation had been previously sent to Yad Vashem. The Yad Vashem officials agreed to raise the issue privately in correspondence with Austrian authorities including the Chancellor of Austria. Amb. Dafni was designated the responsible Yad Vashem authority in the matter. Howard Israel and I were requested to assist in the formulation of the letters to be sent by Yad Vashem (Seidelman, 1995). Upon Ambassador Dafni's retirement in August 1995 responsibility for the file was assumed by Dafni's successor Amb. Johanan Bein.

A letter from Yad Vashem to the Austrian officials was drafted in early 1995. The final version dated March 23, 1995, under the signature of Amb. Dafni, was mailed to the presidents of the universities of Vienna, Innsbruck and the president of Urban and Schwarzenberg, the publisher of the Pernkopf atlas which employed the Pernkopf artists and published the paintings under question. A letter was sent to the University of Innsbruck because, according to the medical artist David Williams, some of the original Pernkopf specimens were to be found at the Innsbruck anatomy institute which was headed by the then editor of Pernkopf Anatomy, Professor Werner Platzer. The letter was copied to the Chancellor of Austria, Dr. Franz Vranitzky (Dafni, 1995). The March 23, 1995 letter raised the following issues:

- *The signatures with Nazi insignia in the paintings of the artists Eric Lepier, Karl Entresser, and Franz Batke.*
 - *Many of the original paintings by Lepier included a stylized swastika in his signature.*
 - *Two paintings by Entresser of the thigh of a circumcised male subject incorporated a symbol of the SS (Schutzstaffel) terror organization in his signature.*
 - *Paintings by Franz Batke from the year 1944 used an SS symbol for the numerals "44."*
- *Suspensions concerning the origins and circumstances of the cause of death of the circumcised male portrayed in the Entresser paintings.*
- *The origins and cause of death of a cachectic young male subject with a haircut resembling that of a concentration camp prisoner.*

The critical request of the March 23 letter was for an investigation "...by outside experts with proper documentation" and an official report be issued in the public domain. The investigation by the University of Tübingen was proposed as the model for an inquiry (Dafni, 1995). In their response to the March 23rd letter, officials at the universities of Vienna and Innsbruck, while acknowledging that the cadavers of executed prisoners were anatomized at the Vienna institute, denied that any victims of the Hitler regime could have been portrayed in the Pernkopf atlas. Specifically, they stated:

- *The hair of all cadavers was shaven for hygienic reasons, therefore the person portrayed in the 1952*

volume should not be construed as a Nazi victim because of the fact that his hair is shorn.

- *All subjects portrayed in the 1952 volume were from after 1945 and not from wartime.*

- *The Vienna Institute was bombed during the war and no specimens and records from wartime are still in existence (Firbas, 1995; Gisel, 1995; Krause, 1995; Muehlberger, 1995; Platzer, 1995).*

A close examination of the evidence provided by the Austrian officials revealed that their assertions were false and misleading for the following reasons:

- *The illustration of the man with the closely shaven head in the 1952 volume is the only one in either the 1943 or 1953 volume in which the subject's head had been so closely and coarsely shaven. Some subjects portrayed in the 1943 volume are actually shown with a full head of hair. Others in the 1952 volume had been shaven pre-mortem allowing for some regrowth before death.*

- *The assertion that all subjects portrayed in the 1952 volume were from after 1945 was blatantly false in that some of the paintings in that volume had been signed by the artist Franz Batke for the years 1943 and 1944 (Pernkopf, 1952).*

- *With respect to the contention that specimens from after 1938 had been destroyed in a bombing, a 1990 student dissertation on the history of the Vienna Faculty of Medicine during the Hitler period documented that some subjects from the anatomical institute had been identified after the war (Lehner, 1990).*

- *According to the American artist David Williams, who researched the history of the Pernkopf atlas in Austria and personally knew the artist Franz Batke, many of the original Pernkopf specimens were to be found at the University of Innsbruck, which was then headed by Pernkopf's onetime student and the then editor of Pernkopf Anatomy, Prof. Werner Platzer (Williams, 1988).*

The aforementioned discrepancies were detailed in a letter from Yad Vashem mailed on July 31, 1995 and signed by Amb. Bein (Bein, 1995). After receiving the July 31, 1995 response from Yad Vashem detailing the inconsistencies in the reports of the university officials, the Rector of the University of Vienna, Prof. Ebenbauer, came to the realization that he had been misinformed by

the experts called upon to respond to Yad Vashem. Prof. Ebenbauer's candid recollection on this subject was made in his introductory remarks to a 1999 University of Vienna symposium entitled "Medicine Under Scrutiny" at which I was the keynote speaker (Ebenbauer, 1999). In February 1997 Prof. Ebenbauer and the Senate of the University of Vienna announced a committee of investigation chaired by Dr. Gustav Spann of the Institute for Contemporary History of the University of Vienna known as "The Senate Project: Studies on Anatomical Science in Vienna 1938–1945." The Senate Project included historians, experts from outside the university and a representative of the Vienna Jewish community. It was staffed with a fulltime researcher and included an examination of death/burial records for the City of Vienna. The mandate included other institutions such as the Vienna Museum of Natural History (Universität Wien, 1997; Ebenbauer and Schütz, 1997). The final report of the committee was published on October 1, 1998. The report documented that the Institute of Anatomy of the University of Vienna received 1377 cadavers of persons executed in the execution chamber of the Vienna regional court (Landesgericht). The investigation revealed the existence of approximately 200 specimens from possible victims of Nazi terror at other institutes at the University of Vienna. The committee established an association between university scientists and Dr. Heinrich Gross's research on the brains of children murdered in the 'euthanasia' killings at Spiegelgrund. In addition to the University of Vienna, the investigation documented a relationship between the Faculty of Medicine of the University of Graz and an SS medical research institute in Graz that had received cadavers and body parts of victims murdered at the concentration camps of Mauthausen and Gusen. Also considered in the report was documentation on the anthropological collection of the Vienna Museum of Natural History (Universität Wien, 1998; Angetter, 2000; Hubenstorf, 2000; Seidelman and Israel, 2000).

The Vienna investigations and report, together with that of Tübingen, constituted the defining events in the accounting and documentation of the exploitation of the bodies of victims of Nazi terror by universities, institutions (including a major museum), physicians, scientists, anthropologists, artists and a leading medical publisher during the Third Reich and the continuing legacy as represented by the physical remains of the victims and the published artistic representations.

Following the publication of the report, the University of Vienna undertook to remove all human specimens linked

with the Hitler period and those whose provenance could not be determined. They were collected in coffins in the basement storage area of the Institute of Anatomy. The Chief Rabbi of Vienna determined that since some of the specimens may have been derived from Jewish victims that the burial should be in the Jewish cemetery in Vienna. On March 22, 2002, two and half years after the publication of the report on the Senate Project and seven years after the first letter from Yad Vashem, the remaining specimens were buried.

7. Child 'Euthanasia' in Vienna and the Brains of Murdered Children

The Pernkopf controversy stimulated renewed interest in the matter of the brain specimens from murdered children at the Vienna Psychiatric Hospital. In 1999 the criminal case against Dr. Heinrich Gross was reopened and Gross was charged with murder with respect to the killing of children at Am Spiegelgrund during the years 1941–1943 when Gross was in charge of the infant ward of that facility. The case was reopened because of new evidence discovered in the recently opened files of the Secret Service of the former German Democratic Republic, the Stasi. In the year 2000, the case against Gross was suspended when the court determined that Gross was suffering from dementia and could not understand the nature of the criminal proceedings (BBC, 2000).

In April 2002, two years after the suspension of the murder charges against Heinrich Gross, the brains of hundreds of murdered children were buried in a special section of the Vienna main cemetery and a memorial service conducted on the occasion of the burial of the brains of the last two of the known victims (Connolly, 2002). Heinrich Gross died in December 2005, in his 90th year (Associated Press/NY Times, 2005).

8. The Max Planck Society and the legacy of the Third Reich

At the time of the 1989 revelations involving brain specimens in the collection of the Max-Planck Institute of Brain Research, the parent Max Planck Society did not undertake any investigations into the origins of the specimens and the role played by institutes and staff of the antecedent Kaiser-Wilhelm organization. Eight years later, in 1997, the then President of the Max Planck Society, Professor Hubert Markl, formed a Presidential

Commission entitled "History of the Kaiser Wilhelm Society in the National Socialist Era." This was a five-year research program that got underway in March 1999 with an international conference on research and perspectives on the history of science in the National-Socialist period (Ruter, 2000).

On June 7, 2001, Professor Markl addressed a special symposium entitled "Life Sciences and Human Experimentation at Kaiser-Wilhelm Institutes – The Auschwitz Connection." Survivors of the Auschwitz twin experiments attended at the invitation of the Max Planck Society. In his symposium address Markl acknowledged the continuity between the former Kaiser-Wilhelm Society and the Max Planck Society and the acceptance of responsibility for everything, positive and negative including the admission of guilt. He recognized the "...scientific evidence historically proving beyond the shadow of a doubt that directors and employees at Kaiser Wilhelm Institutes co-masterminded and sometimes even actively participated in the crimes of the Nazi regime, thus allowing – indeed demanding – clear recognition of these facts." He acknowledged culpability in three areas:

1. *"Nazi racial legislation, including the revolting 1935 Nuremberg Laws, and its practical application for purposes of "racial hygiene" was supported and sometimes even initiated by a number of directors and employees at Kaiser Wilhelm Institutes, such as Ernst Rüdin or Eugen Fischer."*
2. *"Involvement in criminal euthanasia based on eugenics and "racial hygiene" or even the mere use of killed victims for scientific experiments by Kaiser Wilhelm scientists such as Hugo Spatz or Julius Hallervorden was a clear and indubitable violation of the boundaries of ethically responsible research."*
3. *"(Kaiser Wilhelm scientists) knowingly and willingly using without permission the allegedly scientific research facilities at Nazi coercive institutions, be they psychiatric clinics or concentration camps like Auschwitz. These especially included certain projects involving studies conducted on twins at the Kaiser Wilhelm Institute for Anthropology, under the administration of Otmar von Verschuer beginning in 1942. Although concentration camp doctor Josef Mengele did not work as an employee or on behalf of the Kaiser Wilhelm Society, he was a protégé of Otmar von Verschuer's, under whom he had earned his doctorate in 1938 at the University of Frankfurt. Even after that, they*

maintained close contact with one another, as various documents clearly show. We may never be able to clear up all the details of their relationship, but today, it is safe to say that Verschuer knew that crimes were being committed at Auschwitz, that he and his employees used the victims for scientific purposes, and that he probably had an active influence on how these crimes were carried out"(Max Planck Society, 2001). The investigations and official reports of the inquiries into the institutes of anatomy at the universities of Tübingen and Vienna, along with the Presidential Commission of the Max Planck Society represent pivotal events in the documentation of the role of prestigious academic and scientific organizations in the policies, programs and crimes of the Hitler period; crimes which scientists and physicians exploited, in life and death, the vulnerability of a multitude of innocent victims of Nazi terror irrespective of age, gender, race, religion or political persuasion. Science had superseded humanity.

9. A New Century: Reflection, Accountability and Integrity

In contradistinction to the earlier resistance in the 1980s and 1990s in Germany and Austria the 21st Century saw a significant change to transparency and honesty. Six departments of anatomy in Germany (Hamburg, Bonn, Heidelberg, Halle, Marburg and Jena) undertook their own investigations into the role of their respective institutes during the National Socialist Period as well as an investigation of their collection for specimens derived from victims of the NS period. Two reports on such investigations have been published in English for the universities of Marburg and Jena. In 2002, Professor Gerhard Aumüller and Dr. Kornelia Grundmann of the Department of Anatomy of the University of Marburg published an important survey of anatomy in Germany during the Third Reich including a documentation of events at the University of Marburg (Aumüller and Grundmann, 2002). In August 2003, the Federal Chamber of Physicians of Germany (Bundesärztekammer) issued a report of a Working Group on Human Remains in Collections. The Working Group comprised an expert committee of anatomists, historians and ethicists which included, amongst others, professors Peiffer and Aumüller. The report entitled, "Recommendations on the treatment of human remains in collections, museums and public places" included consideration of the remains of victims of the Nazi Period and referenced the 1989 decision and 1994 report of the Standing Conference of the Ministers of Education

and Cultural Affairs. Significantly, with respect to human remains from the Nazi era, the Working Group proposed a detailed investigation into the provenance of each specimen (Bundesärztekammer, 2003). Two years later, in 2005, Professor Christoph Redies and colleagues at the Institute of Anatomy of the University of Jena, together with the historian Michael Viebig, published a report of such an investigation into the collection of the Jena anatomical institute (Redies et al., 2005).

10. Clinical Anatomy and a New Generation of Scholars

In 2009, the historiographic and moral challenges of anatomy in the Third Reich resurfaced on the pages of the American journal *Clinical Anatomy*. In January, 2009, *Clinical Anatomy* published a paper on the problematic legacy of the Berlin anatomist, Professor Hermann Stieve which evoked a strong exchange involving historiographic questions concerning Stieve's legacy as well as moral questions arising from Stieve's exploitation of female prisoners for his anatomical research which had been published during and after the war (Winkelmann and Schagen, 2009; Seidelman, 2009; Levi, 2009; Winkelmann and Schagen, 2010a,b; Hildebrandt, 2010). Concurrent with this debate *Clinical Anatomy* published three essays by Dr. Sabine Hildebrandt of the Department of Anatomy of the University of Michigan which, in their totality, constituted the first comprehensive overview of the history of anatomy in the National Socialist period (Hildebrandt, 2009a,b,c). A physician/anatomist, Hildebrandt is a graduate of the University of Marburg. A member of the Division of Anatomical Sciences of the University of Michigan School of Medicine, Dr. Hildebrandt is a leading scholar of the history of anatomy, the Third Reich in particular, and the moral implications of that legacy.

The combination of the controversy over the legacy of Hermann Stieve the anatomist and the publication of the Hildebrandt overview of anatomy in the Third Reich provoked an effort by the anatomists of Germany to examine their discipline's own problematic history (Seidelman, 2010; Pringle, 2010). This undertaking was led by Prof. Christoph Redies of the University of Jena and strongly supported by the Board of the Anatomische Gesellschaft (Profs. Baumbart-Vogt, Korf, Timmermans, Rune, Paulsen).

Over two decades after the controversy over the anatomical and pathological specimens first emerged, a new generation of German scholars exemplified by Professor Redies, and Dr. Hildebrandt, along with the leadership of the Anatomische Gesellschaft rose to the challenge. On September 29, 2010, the Anatomische Gesellschaft held a special symposium attended by German anatomy professors and scholars on the history of medicine in Germany who joined together to carry the mission of exploration forward (Hildebrandt, 2011). This volume represents the contributions to and the record of that significant event.

11. Whither This Legacy?

The history of anatomy in Nazi Germany is but a part of a larger story yet to be written, namely the role of the German academic medical enterprise during the Hitler regime. How was the remarkable legacy of the German/Austrian universities, clinics, laboratories and research institutes that transformed modern medicine distorted by the Hitler state into an instrument of hate and destruction that supported and exploited the greatest organized program of human destruction in the history of civilized society?

The study of the history of anatomy in the Third Reich is but one gateway into a deeper examination of the pedagogy of medicine that documents the culture of medical education and the academic milieu of that era. While there has been some exploration of this subject there has been no comprehensive overview (Roelke, 2010). Academic medicine of the Hitler state was a complex enterprise that deserves a proper systematic exploration not just to understand the pathology of medicine during the Third Reich, but also to get a better understanding of ourselves.

With the advancement of modern medical science there occurred a significant international exchange of ideas, personnel, information and influences that contributed to developments within the Nazi state. Any examination of the transition of academic medicine in Germany and Austria must take into consideration the pertinacious influences of medicine from outside Germany and Austria including eugenics, enforced sterilization, racism, unethical experimentation and grave robbing in such countries as the United Kingdom, the United States, Canada and Australia (Kuhl, 1995; Weiss, 2010).

The perversion of medicine and medical science did not begin with Adolf Hitler nor did it end with the judgment of the Nuremberg Medical Tribunal. In the seventh decade since the end of World War II the moral legacy and its challenges continue to unfold.

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The initial exploration could not have happened without the involvement of Prof. Benno Müller-Hill, Prof. Michael Kater, Prof. Arthur Caplan, and Prof. Herbert Hochhauser. Mr. Archie Rabinowitz and his late father Morris eagerly provided the translation of critical documents. In addition to the translations, Mr. Morris Rabinowitz generously gifted me with a copy of the first edition of the 2 volume English-language edition of the Pernkopf "Atlas of Human Anatomy." The late Prof. Jürgen Peiffer was not only a major figure in documenting the issue of anatomy and neuropathology in the Third Reich but he also provided me with information and support from the time of our first meeting in 1991 until the latter years of his life.

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Dr. Frank-Steiner was actively involved in the discussions with the University of Munich.

While I do not have the German language, I was fortunate to have expert translation from a number of persons for whom German was a first language and who

generously contributed their time and expertise. Principal translation was provided by the late Mr. Morris Rabinowitz and Professor Herbert Hochhauser of Kent State University. I had the additional advantage of expert consultation and assistance from a number of scholars who were fluent in German and English. They included, amongst others, professors Kater, Müller-Hill and Peiffer and latterly Prof. Volker Roelcke and Mr. Joel Levi of Tel-Aviv. During my 1991 visit to Germany, the Foreign Office of the Federal Republic, through Inter-Nationes, generously provided the services of an interpreter who attended every meeting with people who did not have the English language.

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The journal, *Clinical Anatomy*, and in particular the Editor Prof. Stephen Carmichael, played a vital catalytic role through his personal interest and the journal's support for the publication of papers and letters dealing with the subject of the history of anatomy in the Third Reich; Dr. Hildebrandt's papers in particular as well as those dealing with the subject of Prof. Hermann Stieve's research on female prisoners. Prof. Christoph Redies and Dr. Sabine Hildebrandt, through their efforts, have shown that the work of the past 22 years had meaning and was never in vain. This paper is dedicated to the memory of those people who played a significant role in this narrative and have since passed away; Mr. Morris Rabinowitz of Toronto, Prof. Jürgen Peiffer of the University of Tübingen, Amb. Reuven Dafni of Israel, Rector Prof. Alfred Ebenbauer of the University of Vienna, and Lord Rabbi Immanuel Jakobovitz. Two important personal mentors were the late Prof. Charles Roland, the former Jason Hannah Professor of the History of Medicine at McMaster University, and the late Prof. Velvl Greene who, as the Director of the Lord Immanuel Jakobovitz Center for Jewish Medical Ethics at Ben-Gurion University of the Negev, was my guide through the ethical issues arising from the use of pathological anatomical specimens derived from victims of Nazi terror.

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