



In the shadow of National Socialism: Early emigration and suicide of the oral pathologist Rudolf Kronfeld (1901–1940)

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ARTICLE INFO

Keywords:

Rudolf Kronfeld
Oral pathology
Histopathology
Anti-Semitism
Medical emigration
National Socialism

ABSTRACT

The physician Rudolf Kronfeld (1901–1940) is undoubtedly one of the pioneering and most influential representatives of modern histopathology and oral pathology. Already at a young age he became a protagonist of the renowned, internationally leading “Vienna School”.

Kronfeld’s outstanding professional significance stands in a peculiar contrast to the research situation to date: His curriculum vitae, but also his family background – and here in particular the fate of his family members in the Third Reich – have received little attention so far.

Thus, the present study attempts to shed light on Kronfeld’s life and work and, in particular, the complex implications of his Jewish background. It is based on archival sources and a systematic re-analysis of the relevant specialist literature.

The analysis demonstrates that Kronfeld’s early emigration was driven in part by the anti-Semitism that was tangible in Vienna in the 1920s. The last years of his life were considerably burdened by a serious illness and by repressive experiences which his Jewish family members and companions underwent after the “Anschluss” of Austria into Nazi Germany. Both essential events presumably contributed significantly to Kronfeld’s sudden suicide in 1940, at the height of his professional success.

1. Introduction: career stages and state of research

The physician and university lecturer Rudolf Kronfeld (1901–1940; Fig. 1) [1] is considered a pioneer of modern oral pathology and periodontal histopathology [2–7]. He was born in Vienna and grew up in an educated middle-class family, a dynasty of physicians with Jewish roots [8], which brought forth many prominent figures. Following his medical studies and doctorate, he took his first promising career steps at the Department of Histopathology of the Dental Institute of Vienna, which would become the initial nucleus of the internationally renowned “Vienna School”. From 1927 onwards, under the direction of the Jewish scientist Bernhard Gottlieb, he established key principles of modern oral pathology and oral histopathology [6,7].

In 1929 however, Rudolf Kronfeld decided to emigrate to the United States. Due to the international appeal of the “Vienna School”, Kronfeld had the opportunity to become the youngest professor [1] at Loyola University in Chicago where he was appointed a chair in histopathology, located at the Chicago College of Dental Surgery (CCDS) due to its oral pathological focus.

In Chicago, the graduated physician and histopathologist obtained the American dental degree as well as a doctorate of dental surgery and

established the Foundation for Dental Research in 1935. He won international renown with numerous ground-breaking publications, most notably in the field of oral and dental pathology and periodontal histopathology [6,7]. Particular attention was paid to his fundamental publications “Histopathology of carcinoma of the mouth” [9], “Dental Histology and comparative dental anatomy” [10] and “Histopathology of the teeth and their surrounding structures” [11, posthumous reprint 1945]. The latter book on histopathology was soon regarded as the standard textbook for study and research and was published in five editions until 1955 [3,6,7]. Kronfeld set himself the highest scientific standards [6,7]. Accordingly, he documented all his oral pathological studies with histological sections [7]. Among his most famous publications is a paper published in 1934 entitled “dens in dente”, in which he described the rare phenomenon of this malformation [12].

Kronfeld’s innovative research corresponded with animated activity in various professional associations and at international congresses. In 1939, Kronfeld was offered the position of president of the renowned American Academy of Periodontology. However, what at first glance reads like an impressive success story turns out to be a tragedy on closer inspection. At this point, Kronfeld was already experiencing an existential crisis, and only one year later he committed suicide [6,7].

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Fig. 1. Portrait of the physician and oral pathologist Rudolf Kronfeld (1901–1940) [1].

So far, the life and works of Rudolf Kronfeld have received little attention in the internationally relevant literature [2–7,13,14]. Especially his Jewish background, his family relationships and the influences of anti-Semitism and National Socialism on Kronfeld's life have until now been examined rudimentarily at best [2,5,6,8,13,14].

And yet his Jewish origins and family relationships in particular seem to require further clarification: As a result of the “Anschluss” of Austria into Nazi Germany at the behest of Adolf Hitler in the spring of 1938, which Rudolf Kronfeld had to witness from afar in the United States, all Jewish and politically suspicious university employees were dismissed from their positions. They were deprived of their rights and in many cases hastily attempted to flee the country [6]. Rudolf Kronfeld's father, the university lecturer Robert Kronfeld Sr., his brother, the glider pilot Robert Kronfeld Jr. [8], as well as several of his Jewish companions of the “Vienna School” [6] felt that their lives were endangered in Vienna. Against this background, the present study attempts to shed light on the course of Kronfeld's life and the manifold consequences of his Jewish background for his vita: What were the motives of the young researcher Rudolf Kronfeld to emigrate to the United States in the decade before Hitler seized power? How did he react to the far-reaching deprivation of rights and relegation of his family members and Jewish friends following the “Anschluss” of Austria into Nazi Germany and how can his tragic suicide in 1940 be explained? The following analysis focusses on these questions.

2. Materials and methods

The study is based on sources from the Archive of the Jewish

Community (IKG) of Vienna, the Vienna University Archive (UAW), the Municipal and Provincial Archives of Vienna (WStLA) and the National Archives of Austria (ÖStA), which were largely evaluated for the first time. In addition, a systematic re-analysis of the relevant international research literature on Rudolf Kronfeld, his family and on contemporary histopathology and oral pathology was carried out.

3. Results

The results of the research into Kronfeld's biography are presented below in three chronological sections that correspond to the central turning points in the life of Kronfeld:

3.1. Family background and studies in Vienna

At the end of the 19th century, Rudolf Kronfeld's grandparents Jacob and Ernestine Esther Kronfeld, née Sass, moved to the metropolis of Vienna with their children. It is not known exactly when and for which reasons the Jewish family, which had previously been resident in Galicia [15], decided to take this far-reaching step [8]. What is certain, however, is that Vienna, as one of the most modern cities in the world, experienced enormous immigration during this period. Especially in the eastern lands of the Habsburg Monarchy, anti-Semitism generally represented an important motive for emigration [16]. Accordingly, many of the capital's new residents were of Jewish faith. After centuries of discrimination and persecution, the equal rights of Jewish citizens in the Austro-Hungarian Empire had been legally defined in the Basic State Act (“Staatsgrundgesetz”) of 1867 [17].

In Vienna, Rudolf Kronfeld's father Robert Sr. (1874–1946) studied medicine [8,18] and married Hedwig Emma, née Deutsch (1874–1905) [19,20]. In 1897, he obtained his doctorate and earned the degree Dr. med. univ [21]. and then continued his postgraduate studies in dentistry [22]. In contrast to many other countries, the dental profession in Austria was not an independent profession; all dentists licensed in Austria were in fact general medical practitioners who later undertook further training in dentistry [23,24]. In addition to his work in the dental practice, Rudolf's father Robert Sr. taught as a demonstrator at the Dental Institute [22] and regularly published scientific papers [25,26]. His scientific interest was in paediatric dentistry and practical dentistry, his best known writings include the textbook “Praktische Zahnheilkunde für Ärzte und Studierende” (“Practical dentistry for physicians and students”) from 1900 [27] and the monograph “Die Zähne des Kindes” (“The teeth of the child”) (*transl. KR*) from 1903 [28], which became a standard textbook [7,8,22,29,30].

Their son Rudolf was born in 1901 [7], followed in 1904 by his younger brother Robert Jr., who was to become an internationally renowned gliding pioneer [8] and later set records and won prizes on such a large scale that the “Kronfeldgasse” in Vienna was named after him [31,8].

Hedwig Emma died in 1905 [20] and so Rudolf and Robert Jr. were raised by their stepmother [7], the second wife of Robert Sr., Valerie Kronfeld, née Traub [32]. The family lived at Bognergasse 7 in the 1st district of Vienna [33]. Early on, Rudolf and Robert Jr. were introduced to the cultural and scientific life of Vienna in the multinational state of Austria-Hungary. Their father was regarded as a family-friendly, culturally committed and professionally competent physician [8,34]. His apartment in the “Bognergasse” was later even described as “one of those cultural cells from which the cultural body of Vienna was built” (*transl. KR*) [34]. The family also included Rudolf's paternal uncle, Dr. Adolf Kronfeld (1861–1938), who was a renowned psychiatrist, co-founder of the Vienna medical orchestra, editor of the “Wiener Medizinische Wochenschrift” (“Vienna Medical Weekly”) (*transl. KR*) and honorary organiser of international medical training courses [8]. The sons Rudolf and Robert Jr. had a good relationship with their father. They often engaged in sports and went on long hikes. Fascinated by nature and biology, Rudolf acquired comprehensive botanical

knowledge as a child [7]. This was certainly promoted by his godfather [8,35] and further brother of his father, the no less well-known collector, botanist and cultural editor Dr. Ernst Moritz Kronfeld (1865–1942) [8]. Although Rudolf's parents were of Jewish descent, the children were brought up in the Christian faith as was the case in many assimilated Jewish families of the upper middle classes [1,34,36]. Robert Kronfeld Sr. had already converted to Catholicism in 1893, long before his children were born [37,38]. Nevertheless, Robert Sr. and Hedwig Emma Kronfeld had their marriage entered in the marriage register of the Jewish community in 1898 [19]. Rudolf and Robert Jr. were also entered in the birth register of the Jewish community, although their parents forwent Hebrew names and the usual reading in the synagogue [39,40]. In 1908, Robert Sr. and his two sons were baptised as Lutheran [8]; their entry in the registry can be found directly below that of the later nuclear physicist Lise Meitner [35]. Rudolf's prominent uncles Adolf and Ernst Moritz had also converted to the Christian faith [8]. Throughout his life, Rudolf Kronfeld seemed to identify with the Lutheran denomination, as the entry on religious affiliation in the registry of the University of Vienna [41], the participation in a Christian organisation in the United States [7] and the description in an obituary [1] suggest.

In 1920, he graduated from secondary school in Vienna and enrolled for medical studies at the University of Vienna (Fig. 2) [7,41]. At the same time, he also worked at the Dental Institute of the University of Vienna, where the oral pathologist Bernhard Gottlieb had set up a histopathological “laboratory” in 1923, which quickly gained relevance



Fig. 3. Training room of the histopathological department of the Dental Institute Vienna, approx. early 1930s [42].

and represented the initial nucleus of the “Vienna School”. Rudolf Kronfeld obtained his medical license and doctorate in 1926 [7].

3.2. Career start and emigration in the context of professional and political upheavals

Kronfeld made a promising start to his career at the University of Vienna. Following his studies, he worked in the laboratory of the histopathological department (Fig. 3) [42] under the direction of Gottlieb from 1927 onwards [7,14]. The Institute in “Türkenstraße” was in the centre of the faculties from which a large part of the formative currents and developments in the natural sciences and humanities in Vienna emerged at the turn of the century. In the same street, Lise Meitner had carried out her first experiments on radioactivity at the Institute of Physics a few years earlier, influenced by the research of Albert Einstein, amongst others; Sigmund Freud's practice was located in a parallel street [36].

In the 1920s, pathology and dentistry, as well as oral pathology at the interface of both disciplines, benefited from the height of Viennese research. Kronfeld, who had started his training in pathology with the Vienna pathologist Richard Paltauf, had regular scientific exchanges with Paltauf's successor Carl Julius Rothberger and with Gottlieb, both of whom were already internationally known in the 1920s. All the above mentioned persons had also close contacts to the renowned Viennese anatomist and histologist Julius Tandler. At that time, Tandler stood as a person for a close relationship between anatomy, pathology and oral pathology; his institute was a kind of “crystal nucleus” for the emerging “Vienna School” [43].

In the course of the development of that “School”, a medically diversified, scientific basis was created which brought progress in areas such as definitions, naming of diseases and fundamental research [7]. Oral pathology and dentistry, disciplines that had received little scientific attention for a long time, now emerged as ambitious medical subdivisions to which Viennese physicians could devote themselves in the context of a postgraduate specialisation [23,24]. Due to this complex and extensive professional training and further education, Austrian oral pathologists and dentists had a deeper medical knowledge than colleagues that had trained elsewhere [14]. This also applied to Rudolf Kronfeld, who, due to his full medical training and his pathological knowledge, saw himself more as a physician or oral pathologist than as a dentist. In contrast to most of the university teachers employed at international dental schools, Kronfeld had studied medicine and only dealt with dentistry after his exam within the framework of further training. Besides, he was more of a scientist than a (dental) practitioner.

Viennese scientists, such as the physician and dentist Moriz Heider (“A tooth must be seen in its connection with the entire organism”,

Es wird um dringlich letztere (siehe!) ersucht. Die Prüfung der akademischen Reife wird erstreckt auf, Nationalität und zuletzt letztere Eintragungswahlbestimmungen.

Gegenwärtig im I. Semester.

Nationale
für ordentliche Hörer der medizinischen Fakultät.

Nr. und Name des Studierenden:	Rudolf Kronfeld		
Staatsbürgerschaft:	österreichisch		
Geburtsort und -land:	Wien, O. U.		
Mutterprofe, Alter:	Deutsch; 27 Jahre		
Religion, welchen Ritus oder Konfession:	Evangelisch, O. B.		
Wohnung des Studierenden:	Wien I. Fingerg. 7.		
Beruf, Stand und Wohnort seines Vaters:	Dr. Joh. Schwarz, I. Fingerg. 7.		
Name, Stand und Wohnort seines Vormundes:			
Beschreibung der Reifeprüfung, an welcher der Studierende das letzte Semester abgebrocht:	Maturitätsprüfung Wien I.		
Ob er ein Stipendium (Stiftung) im Betrage von unter bzw. 19 3. K. h. verdienen kann			
Anführung der Grundzüge, auf welcher der Studierende die Immatrikulation oder Zulassung antrifft:	Reifezeugnis		
Verzeichnis der Vorlesungen, welche der Studierende zu hören beabsichtigt.			
Gegenstand der Vorlesung	Stündliche Stundenzahl	Beurteilung des Vorlesers	Eigenständige Vorlesung des Studierenden, jedoch Zulassung des Vorlesers bei Zulassung des Vorlesers
Deskriptive Anatomie	6	H. H. H. H.	Rudolf Kronfeld
Topograph. Anatomie	2	Tandler	
Skizzenübungen	3	H. H. H. H.	
Allg. Biologie	5	H. H. H. H.	
Physik f. Med.	5	H. H. H. H.	
Chemie I. f. Med.	5	H. H. H. H.	
Chem. Übungen f. Med.	5	H. H. H. H.	
Pharmakol. anat. u. physiol. Vorlesung	5	H. H. H. H.	
Liquidierung der Annullen.			
Von der Fakultät bei Zulassung des Studierenden laut Zeugnis vom 19. 3. 1921		Blattzahlbeitrag K. h. Blattzahl und Sitzungsgebühren K. h. Kollektionsbeitrag K. h. Sollbetrag K. h.	
1921		1921	

Fig. 2. Rudolf Kronfeld's first semester at the Medical Faculty of the University of Vienna in the year 1920/1921 [41].

[23]) and the anatomist Tandler, who focused on the relationship between structure and function of tissue in his research, had created the early basis for many ground-breaking results of the “Vienna School” [2,4,7,8,14]. Tellingly, Kremenak/Squier speak of “pioneers in oral biology”, referring to Bernhard Gottlieb and his younger colleagues Bálint Orbán, Harry Sicher, Joseph P. Weinmann and, of course, Rudolf Kronfeld [6]. A monograph by Gottlieb and Orbán [44] from 1938 later summarised the results of their research and concepts in periodontal histopathology and gathered all publications of the “Vienna School” until 1935 [2,14]. But other specialised pathologists were also active at the University of Vienna at that time, such as Herwig Hamperl, one of the most important histopathologists of the 20th century [45], and Hans Popper, who later went down in medical history as a hepatopathologist [46].

From the 1920s onwards, more and more international networks were established at universities, facilitating the exchange of scientific knowledge and personnel [6]. In 1926, Gottlieb, Orbán and Kronfeld met with representatives of Loyola University, Chicago, at the Seventh International Dental Congress in Philadelphia [14]. The Dean of Loyola University, William Logan, offered to Bernhard Gottlieb to invite one of his colleagues to establish a research program. The approaches and professional profiles of both scientific locations were to complement each other: Vienna’s histopathological orientation on the one hand and the American technical expertise on the other [6,13,14]. In 1927, the Department of Histopathology and the associated scientific department at the Chicago College of Dental Surgery (CCDS) was initially headed by Bálint Orbán for two years [7,13,14]. He was so successful that, following a “general meeting” of the International Association for Dental Research (IADR), Orbán, Kronfeld, Gottlieb and other scientists established the “Vienna Section” in Chicago in March 1929. At the subsequent general meeting, the members presented eight publications and in turn influenced other sections, such as those from Budapest and Prague [13].

In May 1929, Gottlieb was then able, in consultation with his colleagues stateside, to make Kronfeld an offer to move to Chicago. He was to replace Orbán, who wanted to return to Gottlieb’s histopathological department after a two-year research period [7,13]. This exchange offered Kronfeld a unique opportunity to become a professor of histopathology at only 28 years of age and to further develop the science department established by Orbán. The job in the United States provided not only a prominent academic position, but also social security due to a correspondingly higher salary. Consequently, Kronfeld made the decision to accept the offer from Chicago in 1929 [7].

3.3. Career continuity in the United States and the long arm of National Socialism

Kronfeld apparently quickly established himself in the United States. He taught histopathology at CCDS as the youngest professor at Loyola University [1]. In April 1930, he married the American Margaret North from St. Louis, whom he had previously met in Vienna [1,6,7], in the United States, a step that presumably made his social assimilation and integration in the States much easier.

In the obituaries written later by his colleagues in Chicago, Kronfeld is described as an ambitious and humanistic team player full of enthusiasm [1,6,7,47,48]. He quickly enjoyed great popularity and was regarded as exceptionally collegial, which Warren summed up with the following words: “[Kronfeld had] more friends than is common for one man” [1]. His excellent didactic abilities were also praised; apparently, he was always concerned about the interests and the proper education of the students [7,47,48]. In his lectures he mostly taught using histological slides of microphotographs (Fig. 4) [7,42].

In addition to his teaching activities as a professor, the oral pathologist also attended college himself in order to obtain the American dental degree, so as to have an additional dental qualification recognised in the United States beyond his medical license [7]. In an

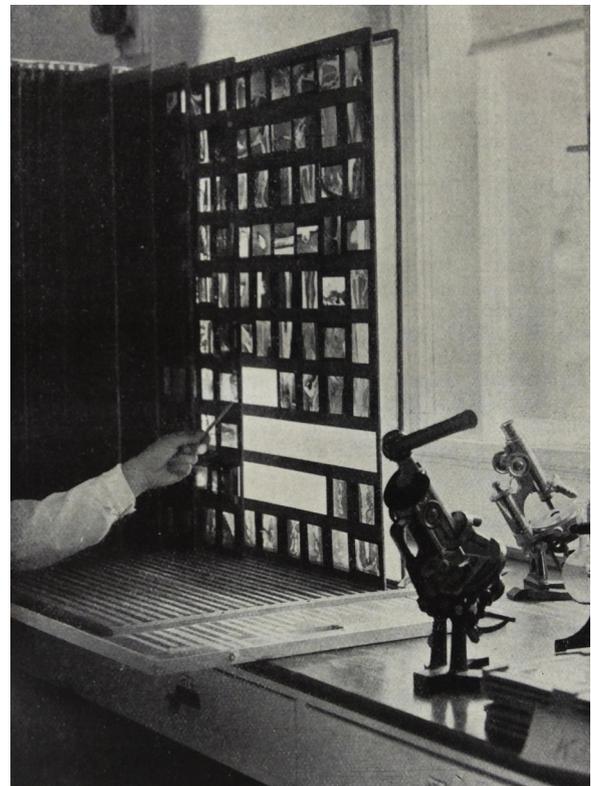


Fig. 4. Showcase of slides of histopathological sections of the Dental Institute Vienna, approx. early 1930s [42].

article published in the “Zeitschrift für Stomatologie” (“Journal of Stomatology”) (*transl. KR*) in 1931, Kronfeld described the high demands imposed on the practical training of dental students at the Dental School of Loyola University. A second aspect also caught Kronfeld’s eye in this context: In contrast to Vienna and other dental schools in Chicago, women were not admitted to study here [7,49].

Kronfeld’s career in the United States flourished. As the successor to Bálint Orbán, who had returned to Vienna, he assumed the aforementioned professorship as well as the management of the newly established histopathological scientific department. Here, questions arising from everyday clinical practice were addressed jointly by students and teaching staff [7,13]. This approach reflects the very modern concern to substantiate clinical practice with a scientific basis [2,3,5,47]. Kronfeld’s scientific approach was in keeping with the wealth of experience of Gottlieb, Logan and their colleagues, who had formulated their endeavour to create a synthesis of the technology-centric American orientation and the Viennese histopathological (“biological”) emphasis [6,7,14]. With an eye toward the interface between clinical practice and research, Kronfeld later appealed to his colleagues in various American professional journals: “Biologic research has laid the foundation for correct diagnosis and the proper treatment of dental and oral disease.” Without scientific foundation, clinicians and the technology industry would be doomed to failure: “...an honest admission of lack of knowledge is far preferable to a pseudoscientific, unsound explanation” [6,50].

Kronfeld set himself the highest scientific standards [6,7]. Accordingly, he documented all his oral pathological studies with histological sections [7]. In 1931, he was the first to measure histological sections of teeth and demonstrate the width of the periodontal ligament [2,51]. In 1933, together with Logan, he published a landmark paper in the “Journal of the American Dental Association” [6,52]. Using autopsy material from infantile bones of the age range from newborns to 15-year-olds, they demonstrated the chronologically exact local growth and calcification of unerupted permanent teeth. By means of the

“celloidin technique”, they succeeded in the revolutionary depiction of hard and soft tissue in microscopic sections that were six to eight centimetres in size [6]. In 1933, Kronfeld also received the American doctorate of dental surgery [7]. His previously mentioned paper “dens in dente”, published in 1934, was featured in the “Journal of Dental Research” in 2019 in a section called “historical highlights” [53].

Kronfeld published a total of 43 articles in American journals, 19 in German journals, one in an English journal, as well as two reference books ([7] with publication list). His book on histopathology [11], still re-published years after his death, received an excellent review from the “Journal of American Dental Research” and became an international reference work [3,6,7]. The great scientific activity and increasing renown of the scientific department of the chair of histopathology at CCDS, which had been expanded by Kronfeld and his team, were rewarded in 1935: The president and chairman of the Pepsodent Corporation granted the university a research loan in the amount of 25,000 U.S. dollars. The money went into the establishment of the Foundation for Dental Research. This newly founded organisation with an interdisciplinary research approach was headed by Kronfeld as director and an eight-member supervisory committee under the leadership of William Logan. Kronfeld’s laboratory was able to move to larger premises that were technically better equipped and to hire more staff. Collaborations with other chairs and laboratories were promoted and implemented, such as with the John McCormick Institute for Infectious Diseases under the bacteriologist Ruth Tunnicliff [6]. The Foundation for Dental Research would later establish itself as an internationally renowned contact point for scientists [6,7].

Kronfeld also remained open-minded and interested in other scientific disciplines. In addition to his teaching and laboratory work, he obtained a Bachelor of Science from the College of Liberal Arts at Loyola University in 1935. Moreover, Kronfeld was an active member in university politics and various professional organisations such as the International Association for Dental Research (IADR), the American Academy of Periodontology (AAP) and the Chicago Dental Society (CDS) [7]. His exhibition of two hundred microphotographs, which he presented together with Logan at the congress of the World Dental Federation in Vienna in 1936, attracted particular attention [6]. Kronfeld’s predecessor in Chicago and former colleague from Vienna, Bálint Orbán, acted as organiser of the event [13,14].

In 1937, Kronfeld was elected Vice-President of the IADR, and in the same year he was appointed Fellow of the AAP. In 1939, he finally assumed the position as President of the prestigious AAP [7]. By this time, however, Kronfeld’s personal and family situation had already become considerably overshadowed: In 1938, he was diagnosed with a severe, progressive illness [6,7]. Additionally, terrifying news arrived from home. On the day of the “Anschluss” on March 13, 1938, the situation in Austria became life-threatening for all those who, according to the National Socialist definition of the Nuremberg Laws, were regarded as “Jews” [6], as the anti-Jewish laws of Nazi Germany now also applied here. In Vienna there were degrading scenes, violent riots and mass arrests of Jews [54].

Meanwhile, Kronfeld had also been appointed President-elect of the IADR in 1938, undoubtedly the highest office of his scientific career. However, he never took up the post: Kronfeld committed suicide in his laboratory on February 13, 1940 [6,7]. In Europe, Kronfeld’s death remained unmentioned during this time [7], while downright hymnic obituaries appeared in the United States [1,47,48].

4. Discussion

In his native Austria, Kronfeld had made a promising start to his career in the 1920s as young member of the “Vienna School” and, following his emigration to the United States in 1929, he was able to develop into a researcher of international stature within ten years. While these two statements are as clear as they are undisputed, two other, much more complex aspects of Kronfeld’s biography require

closer examination and critical discussion: (1) the motives behind his emigration to the United States as early as 1929 and (2) the circumstances surrounding his suicide in 1940.

What ultimately prompted Kronfeld to move from Vienna to Chicago in 1929, and what role did anti-Semitic tendencies and currents play in this?

To get closer to the answer to this question, it is necessary to begin with his father’s decision to convert to the Christian faith: It can be assumed that this decision was based not least on the hope that the Jewish origin and the social reservations associated with it would be shed at least in part. Many Jews took this step at that time [6,16]. Rudolf’s prominent uncles Adolf and Ernst Moritz also converted to the Christian faith [8], and yet early on they had to learn that this changed little in public perception: Both were listed as “Jews” with short biographies and indication of address in the anti-Semitic encyclopaedia of persons “Semi-Kürschner” (a revised edition was published in 1929 as “Sigilla veri”) [22,55,56], clear evidence that Jewish ancestry could not be readily “overwritten” in public by converting to Christianity [16]. Instead, Jewish ancestry remained relevant to everyday life even after the conversion. To put it pointedly: Regardless of the religious affiliation an individual felt or declared, externally they were still regarded as Jewish. Accordingly, the confrontation with their own origins was inevitable even for converted or secular Jews and was clearly palpable long before the National Socialists’ power spread in Vienna [57]. The encyclopaedia “Semi-Kürschner” published by Philipp Stauff in 1913 and containing roughly 7000 biographies can be regarded as telling evidence of the ethnic discrediting of Jews in Imperial Austria [58].

The Basic State Act of 1867 granted Jews in Austria all rights, but it by no means eliminated the partly latent, partly publicly perceptible anti-Semitism [16]. On the contrary: The varied and colourful cultural life, the legislative and democratic progress of the First Austrian Republic in Vienna in the 1920s were increasingly threatened by anti-Semitic and German National currents [57]. The universities also became the scene of an identity struggle fought out in almost all regions and areas of the “First Republic” [59]: Even during Kronfeld’s time as a student, conflicts among the student body were sometimes violently fought out and Jewish students were expelled from lecture halls [60]. As early as 1922, German National-minded student representatives and professors had received support from the rector of the University for their demand to restrict the admission of students of Jewish origin. In the year of Kronfeld’s graduation (1926), the National Socialist German Students’ League (“Nationalsozialistischer Deutscher Studentenbund”) was founded [59]. Anti-Semitism was thus also openly visible in academia and regained social acceptance [57,59,60].

It was precisely in this social environment that Kronfeld found himself when he received the attractive job offer from Chicago. Even though there are no historically documented statements by Kronfeld on why he left his homeland, the anti-Semitism in Vienna conceivably tipped the scales. Recent research in particular supports such an interpretation. Medical historian Michael Hubenstorf stresses that the emigration movement of Austrian physicians in the first decades of the 20th century was based on two socio-politically relevant mechanisms that were often interlocking: on the one hand the *internal repression*, e.g. the feeling and the realisation of Jews to be located at the fringes of society due to an (assumed) religious or racial “otherness”, and on the other hand the *socio-economic development*, e.g. the experience of limited and/or obstructed career and income prospects in their native country of Austria [61].

In fact, the career prospects of young scientists such as Kronfeld had demonstrably deteriorated in Vienna in the late 1920s. Competition for university positions had long existed due to financial straits, with a preference for German National-minded scientists becoming apparent [61]. The precarious overall economic situation in the 1920s affected habilitation candidates and private lecturers in particular [59]. Staffing decisions were (and are) typical indicators of socially practised stigmatisation and discrimination [61]. And indeed, in the late 1920s, and

especially since the early 1930s, there were hardly any vacancies filled by Jews [62], unless they had influential superiors who supported their cause. Many (young Jewish) scientists had to be content with volunteer positions or endured precarious employment conditions. The world-famous Jewish hepatopathologist Hans Popper is a particularly prominent example of this. In the years before his dismissal in 1938, Popper was employed by Hans Eppinger as a volunteer, i.e. as an extraordinary, unpaid assistant, despite his acknowledged outstanding work achievements, as no permanent positions were awarded to Jews (any more). Consequently, Popper was forced to earn his living by conducting privately organised training courses. Two other Jewish assistants of Eppinger also worked unpaid, while most of Eppinger's long-time and salaried assistants were also members of the SS, the National Socialist Schutzstaffel [46]. In Vienna in the 1930s, the number of university positions decreased even further and "Jews were certainly out of the question" (*transl. KR*) [63].

There are no sources regarding the financial situation of Rudolf Kronfeld at the end of the 1920s at the University of Vienna. But a look at Kronfeld's superiors and his colleagues, all of them young representatives of the "Vienna School", shows the fragile professional constellation in which Kronfeld found himself in Vienna and how grim his prospects in this regard were: While Popper had a powerful "Aryan" employer in Eppinger who was close to National Socialists [46], Kronfeld's boss Gottlieb was a Jew himself and thus a target for projection for anti-Semitic colleagues and fellow citizens. Moreover, the most important colleagues of the "Vienna School" – Orbán, Sicher, Weinmann –, but also the anatomist Tandler were also of Jewish origin. In the 1920s, attentive observers recognised the symptoms of a socio-political development that, though not foreseeable in this manner, would lead to the expulsion of the Jewish population of Vienna and likewise to the scientific decline of the university and, ultimately, to the Holocaust [61]. These symptoms included the activities of the National Socialist German Students' League, founded in 1926: From the outset – presumably in the interests of Austrian National Socialists and their strategies for an overthrow – its members pursued an aggressive agenda and met those that they declared as "Jews" with (physical) violence [59].

Undoubtedly, Kronfeld was aware of the implications and consequences of this development as well as the specific, extremely difficult constellation of a Jewish-dominated "Vienna School" whose political support was fragile. In fact, by the end of the 1930s, all five of the oral pathologists mentioned above had lost their employment at the University of Vienna in the course of the "Anschluss" of Austria and had thus become victims of anti-Semitic National Socialism.

Moreover, the above assumptions regarding far-reaching anti-Semitism are supported by the limited empirical data available: A gender-specific study by the Austrian Heritage Collection project in the mid-1990s documents a survey of former Austrian citizens who emigrated to the United States as a result of National Socialism. 61% of male victims (n = 289) had anti-Semitic experiences in Austria *prior* to the "Anschluss" of Austria. More than a third of those who had explicitly described experiences of anti-Semitic violence in more detail (n = 27) named universities as places of anti-Semitic violence [60].

Furthermore, for Kronfeld there was not only a palpable, growing social pressure in his politicised homeland. Rather, three further factors need to be identified. Firstly, there was a clear *professional* incentive to emigrate. Kronfeld could expect a liberal and cosmopolitan environment at Loyola University in Chicago. Besides, emigration was not uncommon in the academic field as part of the noticeable international process of scientific "brain drain" [61]. And indeed, Kronfeld was enthusiastic about the local training conditions and research structures right from the start and accordingly developed an enormous drive for scientific action. Secondly, the paid professorship and the management of the research institution in Chicago offered a considerable *financial* incentive. The third, as it were private motive was his wife Margareth North-Kronfeld, who originally came from the United States and

accompanied him back to her homeland, an aspect that must have considerably encouraged him to take the big step of emigration. Thus, it can be stated that the well-paid position in Chicago with clear career prospects, as well as the American origin of his wife provided further compelling inducements to emigrate.

In contrast to his predecessor, Bálint Orbán, Kronfeld was not interested in a temporary research stay. It seems obvious that, when Kronfeld decided to go to Chicago in 1929, he did so with the aim of staying there [6]. He left Vienna and thus brought about a significant change in his life. However, the price for this new personal freedom was having to leave behind his old social environment and family.

The second finding to be discussed here is the background to Kronfeld's suicide:

What is certain is that Rudolf Kronfeld was diagnosed with a serious illness in 1938 and that he confided this fact to hardly anyone. To this day, there are various speculations as to which rapidly progressing disease it could have been [7]; in most of all cases, the diagnoses were made retrospectively and are thus speculative and, from the point of view of historical science, questionable [64]. Immediately after his death, the daily Chicago Tribune suspected progressive paralytic symptoms of an earlier polio infection [6,7,65]. While Jackson/Jackson later assumed multiple sclerosis [6,7,66], Carranza recently suspected amyotrophic lateral sclerosis [2].

Moreover, the situation of his friends and his family in Vienna gave Kronfeld cause for great concern: In Germany and, following the "Anschluss" of Austria in March 1938, also in Vienna, the anti-Semitic mood erupted in the form of dismissals, repressions and acts of violence against Jews [54,60]; this also affected several important pathologists and dentists [67,68]. Gottlieb, Sicher, Orbán and Weinmann were all forced to emigrate during this period. They belonged to the group of people who managed to leave the country before the end of 1939 [6].

Rudolf Kronfeld's brother Robert Jr. (1938) [8,69] and his father Robert Sr. (1939) [8,70] were able to flee to Great Britain with their respective wives, while other family members did not survive the Third Reich. But also the surviving family members were exposed to strong repressions up to their escape, as the example of Robert Kronfeld Jr. shows: Rudolf's father illustrated the situation of his son Robert Jr., who temporarily lived in Germany and could not continue his career as a glider pilot after the handover of power to the National Socialists, in a letter he wrote in the mid-1930s: "The question: race and denomination [...] has now unfortunately been brutally brought to light [...]. His parents were Jews [...] This is the truth, and that his work in and for Germany [...] is at present being made problematic, if not impossible, he feels quite painfully" (*transl. KR*) [71]. Files of the National Socialists in the National Archives in Vienna document the harassing conditions imposed on and the deprivation of rights, dispossession and police persecution of Robert Kronfeld Jr. and his wife Margarete until their departure, but also abroad (Fig. 5) [69]. Their parents also had to cede their rights as citizens and all their assets to Nazi Germany [70]. Even

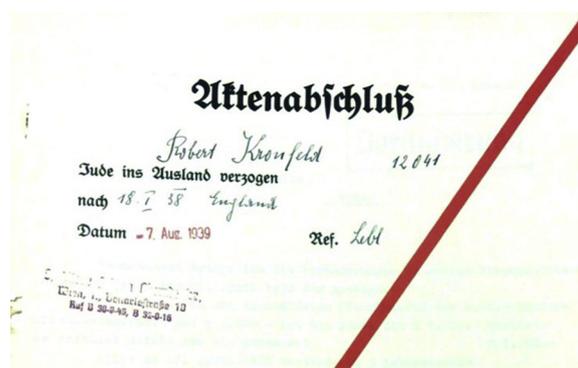


Fig. 5. Excerpt from the files of the National Socialists in the emigration of Robert Kronfeld Jr. [69].

after they were forced to emigrate, there was no end to the deprivation of rights: In fact, according to a leading article in the post-war newspaper “Neues Österreich” (“New Austria”) of August 25, 1953, in the course of the Austrian judiciary’s examination of Nazi crimes, the “cultivated physicians’ home” of the Kronfelds had become “free loot” (*transl. KR*). According to the article, Robert Kronfeld Sr. and his sons had to flee “across the border with ten marks each” (*transl. KR*) [34].

The other members of the family suffered even greater misfortune. While Rudolf’s uncle Adolf died in June 1938 as a result of a stroke, his godfather Ernst Moritz Kronfeld and his wife Rosalie (1874–1942) failed to emigrate, although they had made great efforts to leave the country in the form of petitions. Ernst Moritz Kronfeld finally died in 1942 in his Viennese apartment, ill and without assets, having been extensively oppressed and deprived of rights by the Nazi regime. His wife Rosalie Kronfeld was deported to Theresienstadt and murdered in the Treblinka extermination camp [8].

Back to Rudolf Kronfeld: While his professional career had arrived at its zenith in 1938/39 with the election as President of the IADR, in his private life he not only had to deal with his serious illness, but also to worry about the future of his family members. Anti-Semitism, which he seemed to have escaped in 1929, had caught up with him again (in the form of the vital threat to his relatives), with the difference that now his health was badly affected, and he ultimately had to follow the events in Europe helplessly from afar. In September 1939, with its attack on Poland, Nazi Germany plunged the world into a war at the end of which more than six million European Jews had been murdered [54].

Even though there is no recorded farewell letter from Kronfeld that could explicitly give information about the motives of his suicide, the personal experience of a progressive illness [1,6,7,47] might have been aggravated by the depressing world political situation and the uprooting and disfranchisement of his family members in Europe. In any case, Rudolf Kronfeld had lost all will to live at that time, and so in early 1940 he chose suicide as the last act of self-determination. A similar assumption was made by a former colleague from Chicago in an obituary [6,47].

After Kronfeld’s death, Bálint Orbán, who had been able to emigrate successfully, was again appointed as his successor. Orbán also took over the professorship of histopathology and the research laboratory at CCDS. After 1945 he remained in the United States [6,13], as did many other pathologists who had been forced to emigrate, such as the hepatopathologist Hans Popper [46], the nephropathologist Paul Kimmelstiel [72] or the general pathologist Philipp Schwartz [73]. Far fewer Jewish representatives of this field who had been deprived of their rights continued their careers in other countries such as Great Britain (e.g. Walter Pagel [74]) or Switzerland (e.g. Walther Berblinger [75]). Only few deprived pathologists died in their home country (e.g. Carl Julius Rothberger in Austria [43]).

Remarkably, in addition to Kronfeld and Orbán, all other key representatives of the “Vienna School” succeeded in emigrating to the United States. They all remained there permanently – a “brain drain”, from which the formerly leading Viennese oral pathology never entirely recovered.

Source of funding

This article has been written as part of the DGP-funded research project on the “Role of Pathology and its Representatives in the Third Reich”. The sponsor had no involvement in this paper.

Declaration of Competing Interest

None.

Acknowledgments

The authors thank the staff of the Archive of the Jewish Community

of Vienna, the Vienna University Archive, the Municipal and Provincial Archives of Vienna and the National Archives of Austria for their research support.

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