

Racial anthropology in Turkey and transnational entanglements in the making of scientific knowledge: Seniha Tunakan's academic trajectory, 1930s–1970s

History of the Human Sciences
2023, Vol. 36(2) 154–177
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DOI: 10.1177/09526951221096252
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Abstract

This article situates the trajectory of the academic life of Seniha Tunakan (1908–2000) within the development of anthropology as a scientific discipline in Turkey and its transnational connections to Europe during the interwar period and up until the second half of the 20th century. Relying on the archives of the Max-Planck-Gesellschaft, the archive of the Humboldt-Universität zu Berlin, the Politisches Archiv des Auswärtigen Amtes in Germany, and the Prime Ministry's Republican Archives in Turkey, it focuses on the doctoral studies of Seniha Tunakan in Germany and her life as a female PhD researcher in the capital of the Third Reich, as well as her entire research career after her return to Turkey. Through Tunakan's career, the article also provides an analysis of the perpetuation of German race science in the Turkish context, shedding light upon the success of the Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik (Kaiser Wilhelm Institute for Anthropology, Human Heredity, and Eugenics) and its transnational impact.

Keywords

archeological human remains, genetics, physical anthropology, racism, twin research

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This article situates the trajectory of the academic life of Seniha Tunakan (1908–2000) within the development of anthropology as a scientific discipline in Turkey and its transnational connections to Europe during the interwar period and up until the second half of the 20th century. From a global history of science perspective, the article engages with the scholarship developed over the past two decades on the issues of nationalist politics, international scientific networks, and transnational race discourse (McMahon, 2019). Within this broad literature, there has been significant interest in race science, physical anthropology, genetics, and the international role of the Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik (Kaiser Wilhelm Institute for Anthropology, Human Heredity, and Eugenics; KWI-A).¹ I will, therefore, give further details about the relatively high number of foreign students at the KWI-A—in keeping with its international profile—and the similarities of Tunakan’s career trajectory to those of fellow students from India, Japan, China, and Hungary (Schmuhl, 2008: 281–2). These young scholars educated at the KWI-A adopted German theories and methods related to racial difference and later held influential positions in their home countries, perpetuating these ideas in the aftermath of World War II (see Barbosa, 2018; Hyun, 2019; Lipphardt, 2012).² Even though there is a decade between their studies, there are very interesting parallels between the academic trajectories of Seniha Tunakan and Irawati Karvé, an Indian racial anthropologist, who as a young woman studied under Eugen Fischer (1874–1967) at the KWI-A and then became a key figure in nationalist anthropometry in India (see Barbosa, 2018).

In what follows, I first focus on the initial steps that the Turkish government took to support the discipline of anthropology, including the sending of students to Europe to be educated in racial physical anthropology. Relying on the Archives of the Max-Planck-Gesellschaft, the archive of the Humboldt-Universität zu Berlin, the Politisches Archiv des Auswärtigen Amtes in Germany, and the Prime Ministry’s Republican Archives in Turkey, the main section of the article focuses on Seniha Tunakan’s doctoral studies in Germany (1937–41) under the supervision of Eugen Fischer and Kurt Gottschaldt (1902–91) and her life as a Turkish woman and doctoral researcher in the capital of the Third Reich. The last section provides an exhaustive analysis of all Tunakan’s published works on archeological human remains, twins, and hand- and fingerprints. The article specifically highlights the impact of the KWI-A and Tunakan’s German professors not only on her future career but also on the course of research in physical anthropology, genetics, heredity, and criminology in Turkey.

Racial anthropology in Turkey and transnational entanglements in the making of scientific knowledge

The impact of race science on the formation of new states in the Middle East in the 20th century was remarkable, and as producers of medical and anthropological knowledge, state-supported anthropologists were engaged in the intellectual work of ethnic nationalism (see Burton, 2021). The development of anthropology as a scientific discipline in Turkey was closely connected to a newly defined national goal, namely the ‘identification of the anthropological characteristics of the Turkish race’. The new nationalist state

mobilized paleoanthropology, anthropometry, and craniometry with the political goal of establishing the Turkish race as a European race (and not Mongoloids) and Turks as the *autochthonous* (indigenous) inhabitants of Anatolia (unlike the Kurds, Armenians, Greeks, and others; Maksudyan, 2005a, 2005b, 2021). As in other national contexts, comparisons of skull shapes, anthropometric measures of the face, or eye shapes also supported territorial claims. As McMahan notes, it was a typical strategy to associate one's own national race with 'prestigious categories such as European and Aryan', while dismissing others as primitive or pre-Aryan (McMahon, 2019). From the perspective of the global development of the racial sciences, racial scientists in Turkey incorporated schemes of colonial racism into their framework of nationalism. Scientists at the service of the state were able to maintain a racial hierarchical distinction between the Turks as the 'rulers' (colonizers) and non-Muslims and non-Turks as the 'ruled' (colonized; see Hyun, 2019).

A Turkish Institute of Anthropology was founded in 1925 in the Faculty of Medicine at the University of Istanbul (then Darülfünun). The practitioners at the institute were all medical doctors (mostly anatomists) who had recently begun to present themselves as anthropologists.³ The official journal of the institute, the *Turkish Review of Anthropology*, published between 1925 and 1939, was the primary and official organ for initiating and coordinating anthropological research and disseminating findings. The first issue of the journal appeared in October 1925, with only two articles: one explaining the objectives of the journal in the manner of an opening manifesto (Berkol *et al.*, 1925) and the other discussing the theoretical significance of human morphology and physical anthropology (MacAuliffe, 1925). In a letter to the director of the Turkish Institute of Anthropology dated 17 November 1925, Mustafa Kemal wrote that he had been happy to receive the first product of the Turkish Institute of Anthropology, namely the first issue of the *Review*. He added: 'I wish success to the institute in its valuable work, which targets the aim of investigating the Turk' (Kansu, 1940). This letter makes clear the journal's goal of carrying out research on the Turkish race.

The first research project undertaken by the scholars of the journal was a comparative study on the physical development of children with different 'racial origins' (these included Armenians, Jews, Greeks, and Turks; Berkol *et al.*, 1926a, 1926b, 1927b). Following this, another study was conducted that attempted to determine the characteristics of the 'Turkish race', based on the 'Istanbul Bone Collection', which consisted of bones collected from the largest Muslim cemetery in the city of Istanbul (Karacaahmet). This research series was published over three consecutive issues from 1927 onward (Berkol *et al.*, 1927a, 1928, 1929).

Although the journal was named the *Turkish Review of Anthropology* and the association was called the Institute of Anthropology, there were neither any trained anthropologists nor a well-established research center for anthropology in the first years of the Turkish Republic. However, by the 1930s, a number of individuals had studied anthropology in Europe, mainly in Paris, Geneva, and Berlin, with official support. Şevket Aziz Kansu was one of the first of these individuals to study anthropology abroad, and also one of the most important. Kansu was a medical doctor who worked as an assistant in the Department of Internal Diseases at the University of Istanbul. In 1927, he was sent to the Paris Anthropology Institute at the École des Hautes Études. He worked in the

Broca Laboratory of Anthropology, under the supervision of Georges Papillault. Based on his work on the morphology of the skulls of ‘Neo-Caledonians and African Negroes’, he received a diploma in anthropology. Following his return to Turkey in 1930, Kansu became the de facto editor and director of the *Review*.

Another important name was Afet İnan, one of the eight adopted daughters of Mustafa Kemal, who went to Switzerland in 1935 and was a student of Eugène Pittard (1867–1962) at the University of Geneva from 1936 to 1938.⁴ By October 1938, İnan had already been appointed to the chair/professorship (*kürsü*) of the ‘Turkish History Thesis’ at Ankara University.⁵ The subject of her PhD dissertation, defended in 1939, was the racial characteristics of the Turkish people, based on anthropometric measurements of 64,000 people. The research, which was given state support, took six months (19 June–31 December 1937) and involved civil and military doctors, medical personnel, and teachers of physical education (İnan, 1947).

During the same period, Seniha Tunakan was sent to Berlin to study at the KWI-A under the supervision of Eugen Fischer (see Schmuhl, 2012). Government officials in Turkey had at least two considerations when deciding upon the anthropological instruction that these students would receive, together with their supervisors. Allegiance to the idea of race and the racial sciences was of primary importance. Secondly, the students were intentionally sent to different research institutes in different countries—Kansu to Paris, İnan to Geneva, Tunakan to Berlin—so as to educate a generation of researchers who would have access to different schools of thought, publications, and languages.

Seniha Tunakan as a student of anthropology in Nazi Germany

According to the resumé submitted for her dissertation defense, Seniha Tunakan was born in Istanbul in 1908 as the first child of a Bulgarian immigrant couple, Hüsnü and Sadriye.⁶ She lost her father at an early age. Her maternal aunt, a graduate of the prestigious American Girls’ College and a teacher of English, and her husband, a professor at Istanbul Technical University, who had no children of their own, provided for and supported Tunakan throughout her schooling and further studies (Erdentuğ, 1998: 31). In Istanbul, she attended a well-known girls’ school (Erenköy Kız Lisesi) and passed her graduation exams in summer 1928. She then studied at the Faculty of Natural Sciences at Istanbul University, where in February 1932 she passed her exams in zoology, botany, geology, anatomy, and physiology. That same year, she was selected by Şevket Aziz Kansu as his assistant at the Turkish Institute of Anthropology, where she worked for two years (1933–5).⁷ During this period, she took part in two of Kansu’s research projects and published two articles with him as the second author. Their first coauthored article, appearing in the March 1934 issue of the *Review*, was entitled ‘A Study on the Correlation Between Descriptive Characteristics and the Morphology of the Skull’ (Kansu and Tunakan, 1934). Their second collaboration, published in the following issue (no. 17–18, March 1935), was entitled ‘Aid to the Anthropological Examination of the Turkish Skeleton I: Scapula’ (Kansu and Tunakan, 1935).⁸ The authors noted that the ‘scapular index’ (the ratio of the width of the scapula to its length) was a useful measure of racial difference. Based on the 70 ‘Turkish scapula bones’ measured for the project, Turks were categorized together with Europeans. The

closeness of the professor and his assistant, as well as their dedication to the study of the Turkish race, can be seen in their choice of surnames after the introduction of the Surname Law of 1934.⁹ Both opted to have 'blood' (*kan*) in their surnames; Tunakan's name, literally translated as 'Danube Blood', referred to her family's Bulgarian origins.

In 1936, thanks to Kansu's recommendation, Tunakan won a university-wide contest to continue her studies in anthropology abroad.¹⁰ The KWI-A was an obvious choice not only due to the long-term scientific association between Germany and Turkey, but also because from its foundation in 1927 until its dissolution in 1945 (Schmuhl, 2008), it was globally one of the most important research centers in the fields of physical anthropology, human genetics, and eugenics. Situated in Dahlem, in the southwest of Berlin, and directed by Fischer from 1927 to 1942, and subsequently by Otmar von Verschuer (1896–1969), the KWI-A invited guest researchers from all over the world, shaped research questions for new investigations, developed new concepts and methods, and thus had a profound impact on the international scientific community working on heredity and genetics. The KWI-A always had a significant number of international postdoctoral scholars as well as PhD students in the 1930s and 1940s. Between 1933 and 1939, it hosted scholars and students from China, Czechoslovakia, India, Italy, Japan, the Netherlands, Norway, Poland, Romania, Switzerland, Spain, Turkey, and Hungary (ibid.: 166–7). In the period from 1939 to 1945, the mix of countries was slightly different, with scholars visiting the institute from Bulgaria, Croatia, Finland, India, Japan, the Netherlands, Norway, Portugal, Romania, Switzerland, Spain, Turkey, and Hungary (ibid.: 281–2). Throughout the Third Reich, the KWI-A willingly placed itself at the service of the genetic health and racial policy of the National Socialist regime without breaking off its international contacts.

Seniha Tunakan enrolled in the Faculty of Mathematics and Natural Sciences at the Friedrich-Wilhelms-Universität zu Berlin in the summer semester of 1937 (April–September), studying anthropology, ethnology, and prehistory.¹¹ She started her doctoral studies at the KWI-A in the fall semester of 1938–9.¹² Being admitted into an internationally reputed research center for the racial sciences was an important step in her rapidly progressing scientific career. Tunakan's doctoral research, however, did not follow her earlier work as a research assistant in Istanbul, which had included classical anthropometric measurement of human bones and paleoanthropology. Instead, she was assigned to the Department of Hereditary Psychology, headed by Professor Kurt Gottschaldt (1902–91), who then became her doctoral supervisor.

Tunakan's dissertation, entitled 'Hereditary Psychological Studies on Movement Associations' (*Erbpsychologische Untersuchungen über Bewegungszuordnungen*), was on the genetic basis of fine motor skills, specifically the influence of genetic factors on the interaction of optical perception and arm movements. Following the research design of her supervisor, Gottschaldt, and benefitting from access to his data sets, Tunakan used the twin method (*Zwillingsmethode*).¹³ Gottschaldt's primary research focus in this period was the organization of a set of 'twin camps' (*Zwillingslager*) for the purpose of observing children. These were summer camps for dozens of pairs of twins, designed to make it possible for long-term observation (*Dauerbeobachtung*) of the children's daily rhythms in a natural setting (Gottschaldt, 1937a, 1937b). The first

such camp was set up as a pilot project in the summer of 1936 with support from the Berlin division of the National Socialist People's Welfare organization (Nationalsozialistische Volkswohlfahrt, NSV). Over the following two years, during the summers of 1937 and 1938, larger camps were established for eight-week periods at a children's summer home on the island of Norderney, in the North Sea (Ash, 1998: 344; 1999: 287–8). During these research settings, a total of 138 twin pairs—69 identical and 69 non-identical—and two sets of triplets were observed, ranging in age from 4 to 18 years (Gottschaldt, 1942: 94).

In publications resulting from this research, Gottschaldt made two main claims. On the one hand, he asserted that the intelligent problem-solving behavior of identical twins, as measured using the concordance/discordance method, was more similar than that of non-identical twins. This expression of a higher intellectual 'giftedness function' ('Funktion der Begabung') was, therefore, 'largely hereditary'. The measurements of 'basic temperament' and 'emotionality' were still more similar in identical twins. These 'endothymic' functions were even more heritable than intellectual functions (Gottschaldt, 1942). The Nazi government looked favorably on this research because of the implications of these arguments for racial hygiene and eugenicist research and policy. Both Fischer and Otmar von Verschuer presented Gottschaldt's research as valuable for devising new instruments for positive eugenics. Fischer had stressed the importance of psychological research for 'positive race hygiene' and 'the biological foundations of culture' in a report to the Kaiser Wilhelm Society in 1933. Verschuer, who had introduced the term *hereditary psychology* (*Erbpsychologie*) into the institute's research program in the 1920s, praised Gottschaldt's 'twin camp' method as 'a particularly valuable supplement and deepening' of the testing and genealogical methods that were standard in eugenics research (Ash, 1999: 289).

For her doctoral research experiment, Tunakan drew on Gottschaldt's data set of twin measurements. The investigation, intending to determine the hereditary psychological basis of fine motor skills, relied on 56 pairs of identical and 52 pairs of non-identical twins and the statistical analysis of a total of 35,416 individual experimental findings (Tunakan, 1941). Gottschaldt's examination report (*Gutachten*), submitted to the Dean's Office before Tunakan's oral examination, makes it clear that he was not content with the progress of his PhD student, for whom the research agenda was proving to be relatively difficult and extensive ('relativ schwierig und umfangreich').¹⁴ Although she had shown 'great diligence' in carrying out the experiments, she usually needed help and support with their analysis, especially with regard to statistical and mathematical methods that were foreign to her:

Miss Tunakan recently presented the written formulation of her doctoral thesis to me. Unfortunately, I have to imagine that in its present form, the work is not yet sufficient. Even if I take into account that Miss Tunakan, as a foreigner, has to overcome linguistic difficulties, the general line of thought does not yet show the necessary independence and clarity. The work of Miss Tunakan must therefore be reworked, which will not be possible without strong support.¹⁵

Tunakan's supervisors, Gottschaldt and Fischer, were well aware that she was not ready for the oral examination and that her dissertation was not satisfactory. A central issue was Tunakan's linguistic limitations. As Fischer put it, Tunakan's language capacities were deficient ('mangelhaft') and her writing also suffered from a certain clumsiness ('Ungeschicklichkeit').¹⁶ That is why Professor Gottschaldt had to revise the work, despite the fact that he had been 'drafted for military service and could only use Saturday–Sunday for the job'. Though she had failed to impress her supervisors with signs of excellence, however, the KWI-A also had to contend with the declared expectation of and pressure from the Turkish government to grant Tunakan her degree. Gottschaldt noted that he had been asked in February 1941 by the 'General Inspectorate of Turkish Students in Europe' for information about Tunakan's studies. In his response, he had expressed the hope that Tunakan would soon be able to complete her studies in Germany and pass her doctoral examination. Fischer's letter to the dean referred to the importance of maintaining scientific relations with Turkish colleagues and the need to make an exception by graduating Tunakan:

Since Miss Tunakan's scholarship is definitively coming to an end and for reasons of our scientific relations [wissenschaftlichen Beziehungen] with Turkish colleagues, I would absolutely [unbedingt] like to see her doctorate completed, I am asking for an exception [bitte ich um diese Genehmigung einer Ausnahme].¹⁷

It is not at all clear whom Fischer was referring to as his 'Turkish colleagues'. There is no known evidence of his being involved in scientific collaborations with anyone from Turkey. His mention of 'scientific relations' seems to be a reference to the maintenance of foreign relations between the two countries. One thing is clear, though: both Fischer's and Gottschaldt's reports prove that the Turkish government authorities and 'colleagues' wanted Tunakan to graduate during the summer of 1941. The professors were also not especially hopeful that an extension would lead to better results. In the end, she was granted her degree thanks to political pressure and connections, even though her research did not meet the academic standards of the institute.¹⁸

Life in Berlin as a foreign student

Tunakan came to Germany in 1936 as a 28-year-old single woman. Before leaving Istanbul, she was engaged to be married, but the relationship ended after a brief period. She was a fairly shy and introverted character, who suffered from a slight speech impediment that became apparent in moments of excitement. In a letter to Otmar von Verschuer in 1955, Fischer described her in the following terms: 'She speaks German quite well, is just a little *shy* [schüchtern] and *self-conscious* [befangen], has a little difficulty in speaking, but that disappears completely when she warms up a bit' (emphasis added).¹⁹

Tunakan was first enrolled as a guest student at the Staatliche Erziehungs und Bildungsanstalt Droyßig,²⁰ which was a secondary school for girls at the time, in order to learn the German language. One can assume that this was a difficult period of her residence in Germany. As a newcomer to the country, she had almost no language skills, and

she was accommodated at a boarding school in a remote and small city. All foreign students had to pass the language examination at the German Institute for Foreigners (Deutsche Studienwerk für Ausländer) and without this certificate, they were not allowed to start their studies. Tunakan managed to prove her German competency in 1937 and then came to Berlin.

Around 100 students were sent to Germany with Turkish state scholarships in the academic year 1937–8. Based on the records of the International Office of the Lecturers of the University and Higher Education Institutions in Berlin (Auslandsamt der Dozentenschaft der Universität und Hochschulen in Berlin), 24 graduate students and scholars from Turkey were based in Berlin as of 1 June 1937.²¹ Tunakan was not yet listed as one of them. She also did not appear on the list prepared on 1 May 1938, as she was still an undergraduate student in the Faculty of Mathematics and Natural Sciences and was not yet considered a ‘foreign scholar’.²² In the list prepared on 1 August 1940, hers was the last name in the category ‘Türkei’, along with 11 others.

The International Office, politically and financially supported by the Foreign Office and the Reich Ministry of Education, was the main propaganda body targeting foreign scholars. German fellowship programs for foreign scholars—such as those offered by the Alexander von Humboldt-Stiftung and the Deutscher Akademischer Austauschdienst—were shaped by a larger, specifically National Socialist, foreign cultural policy (Impekoven, 2013: 263). From the winter semester of 1936–7 onward, the International Office was responsible for the supervision (*Betreuung*) of foreign guests at Berlin universities. They offered these international academics opportunities to build scientific networks with German colleagues, as well as to acquaint themselves with ‘Germany’s achievements [das Schaffen Deutschlands] in cultural, scientific, economic, and educational fields’. They were exposed to ‘the richness and diversity’ of the art scene through invitations to museum exhibitions, theaters, concerts, and operas. Various scientific conferences and lectures were organized to promote ‘scientific stimulation and deepening’. Through invitations to German homes, lectures, musical performances, and joint sporting events, the foreign guests were also given the opportunity to get to know German scholars and colleagues on a personal level, beyond the professional and technical connections already established.²³ According to the busy activity report of the International Office for the spring semester of 1940, 86 meetings were organized in the private houses of German faculty members and retired academics, hosting around 953 foreign guests.²⁴ The number and range of scientific, political, artistic, and sporting events offered to the international scientific community at this time is truly remarkable. Almost 150 events were organized in Berlin to bring international scholars together with Germans academics and to dazzle them with the accomplishments of the Nazi regime in science, industry, the arts, politics, and sports.²⁵

Without doubt, Tunakan was also expected to be present at several of these events, which was made clear through the mediation of her supervisors at the KWI-A, as well as personal invitations from the International Office. Given her research field, it is possible that she took part in the guided tour to the Women’s Milk Collection Center (Frauenmilchsammelstelle) and the Polyclinic for Hereditary and Racial Care (Poliklinik für Erb- und Rassenpflege). She may also have visited the NSV’s recreation home (*Erholungsheim*) for ‘Mother and Child’ (Mutter und Kind) in Rehberge.²⁶

Turkish students in Berlin

The Turkish state expected quite a lot from its handpicked students. In order to stress the importance of the duty awaiting them and to exalt them as the hope and future of the young republic, the Turkish embassy in Berlin frequently invited students and gave them a chance to meet the ambassador personally.²⁷ The students also often took part in other diplomatic events at the embassy. For instance, Tunakan was invited to the embassy for a reception on 29 October 1939 celebrating the '16th birthday' of the Republic.²⁸ Accounts by students who had been in Germany between 1935 and 1941 stressed the pride they had felt at being Turks in Hitler's Germany. The students also recalled that the International Office had often invited them to a variety of events, including concerts, theaters, museum openings, and banquets held in the homes of distinguished and respected families (Böer, Haerkötter, and Kappert, 2002: 320).

The supervision of these students by resident and visiting Turkish inspectors in Berlin was quite strict. Those who did not loyally continue their studies, or whose political and moral attitudes were called into question, were sent back (Böer, Haerkötter, and Kappert, 2002: 307).²⁹ On the other hand, the inspectors could also serve as the students' confidants and helpers. During their arrival, they usually met them at the train station, arranged their accommodation, and took them to their rented rooms. They also accompanied their young charges during their first few weeks in the big city. The Association of Turkish Students in Berlin (Berlin Türk Talebe Cemiyeti) and the Turan General Turkish Student Association (Allgemeiner Türkischer Studentenverein 'Turan') were also important institutions for the guidance and orientation of new students (Mangold-Will, 2013: 299).

The forms Tunakan filled out for her oral examination in 1941 give her address in Berlin as 'Kaiserallee 20' (today Bundesallee) in Wilmersdorf. In the *Berliner Adressbuch* for 1941, a Frau Marianne Bandelow (p. 86), a Frau Else Borkmann (p. 286), and a Frau Margarete Paetsch (p. 2251) are all registered at this address. The apartment that she stayed in was probably a 'pension', providing its residents with a furnished room, along with breakfast and dinner. For students in Berlin, renting a room in a family household would mean relatively close and friendly contact with native German speakers and therefore a chance to develop their language skills. Many Turkish students rented rooms in the apartments of 'German Jews', who at the time were not allowed to rent their rooms and apartments to 'Aryans', and so were forced to offer better options at much cheaper prices (Böer, Haerkötter, and Kappert, 2002: 315).³⁰

There is little information on Tunakan's daily routine or her acquaintances in Berlin. Yet it is probable that Tunakan was engaged with the large group of students from Turkey in the city. Among them were several university students and PhD candidates, such as archeologist Jale İnan (née Ogan),³¹ philosopher Macit Gökberk,³² and opera singer Saadet İkesus,³³ who all returned to Turkey in the early 1940s and assumed prestigious positions at universities, replacing the German-Jewish exiles who had originally arranged for their PhD studies in Germany (Maksudyan, 2022). Based on the accounts of this select group of students in Berlin, many of them embraced Berlin's rich cultural scene with enthusiasm. They admired the beauty, cleanliness, and discipline of the city, and enjoyed the theaters, opera houses, and concerts. Ekrem Akurgal noted that they had

gone to the opera (*Staatsoper*) every week, often in a group large enough to occupy two rows (Böer, Haerkötter, and Kappert, 2002: 312). Their active participation in the cultural life of Berlin was made possible by the reasonably generous stipends allocated to Turkish students. The scholarships awarded to Turkish students in the 1930s and 1940s were between 90 and 100 Turkish liras per month, and the exchange rate of one Turkish lira was between 5 and 6.50 marks. In other words, while German students had a monthly stipend of 100 to 150 marks, the Turkish students had almost 650 marks at their disposal (*ibid.*). The nighttime meeting place of the Turks in Berlin was the legendary Turkish Club (Türkischer Club Berlin), located in Charlottenburg—more specifically, on Kurfürstendamm 197, at the corner of Bleibtreustraße—on the first floor.

KWI-A contacts and war years in Berlin

The outbreak of World War II led to a drop in the number of foreign scholars in Germany: there were a total of 1002 scholars from abroad hosted in the country in August 1940, 481 of whom were in Berlin.³⁴ Within a few months, the number decreased further. As of 1 October 1940, there were 908 foreign scholars in Germany; Berlin was the largest center hosting them (405), followed by Munich (119), Cologne (118), Vienna (114)—which was by then officially part of Germany—and Leipzig (45).³⁵

At the beginning of the war, all assistants at the KWI-A and the majority of the male doctoral students were drafted. Many research projects were therefore suspended, and the supervision of the foreign guest scholars and the remaining doctoral students became difficult. As noted above, Tunakan's supervisor Kurt Gottschaldt was also drafted in mid 1941, and this had partly facilitated the approval of her degree. In a draft of the annual report for 1940–1, Fischer lamented that scientific activity at the institute had come to a halt due to conscription, and that even among the doctoral students, only 'foreigners and ladies' remained (Schmuhl, 2008: 278–9). Tunakan, who had spent the first two years of the war at the institute, was one of them. In fact, the only researchers who were able to work actively and continuously at the KWI-A throughout the war were international researchers and women doctoral students. During Tunakan's studies at the KWI-A, the number of doctoral students fluctuated significantly: 24 in April 1938–March 1939,³⁶ 18 in 1939–40,³⁷ 34 in 1940–1,³⁸ and 13 in 1941–2.³⁹

In all these reports, Tunakan was listed together with one or both of two other foreign students: Haring Tjittes Piebenga from the Netherlands (1907–81)⁴⁰ and Masataka Takagi from Japan (1913–62?).⁴¹ Takagi was also registered as part of Gottschaldt's department from 1938 until 1943, and he also used the twin method in his research. It is highly probable that Tunakan and Takagi were in contact during their time at the KWI-A, working together at the same laboratory, with the same supervisor, on similar dissertation projects. In addition to her international colleagues, Tunakan may have established contacts with other women doctoral students at the KWI-A, particularly Lieselotte Block (1918–2012)⁴² and Eva Justin (1909–66).⁴³ Block's research on skin thickening in the hands may have been interesting to Tunakan, and may have inspired her later research on dermatoglyphics. During her last year in Berlin, Tunakan probably also had the chance

to get acquainted with another woman scientist, Karin Magnussen (1908–97), who started working at the KWI-A in 1941 (Schmuhl, 2008: 282).

Tunakan's research career in Ankara

Kansu era: Research on archeological human remains

During the six years that Tunakan was in Germany, her contact with her former professor and mentor, Şevket Aziz Kansu, continued, with the latter constantly checking on her wellbeing. Kansu and his wife visited her in Germany a number of times, making detours in their travel plans to attend a conference (Erdentuğ, 1998: 30). While attending the second International Congress of Anthropological and Ethnological Sciences in Copenhagen in August 1938, Kansu extended his stay in order to visit Tunakan in Berlin.⁴⁴ After returning to Turkey in 1941, Tunakan started working at the Anthropological Institute of the new Faculty of Languages, History, and Geography (DTCF), joining Kansu, then the director of the Anthropological Institute. She took over the teaching responsibility for courses on osteometry and craniometry, while also replacing the French textbook with a German one (ibid.).

During his time as the dean of DTCF (1942–4) and as the first president (*rektör*) of the newly established Ankara University (1946–8), Kansu was extremely supportive of Tunakan, especially due to their continuous collaborative work on prehistory, with the pair analyzing skeletons sent over to the institute from most excavations throughout Turkey (Erdentuğ, 1998: 25). As part of her contribution to the 'Turkish History Thesis' and in the wider context of the racist nationalism that existed in Turkey during the 1930s and 1940s, Tunakan studied the skeletal remains, especially skulls, of ancient peoples from important archeological excavations in Turkey (Kansu and Tunakan, 1945, 1946, 1947, 1948). State-supported excavations in 1933, in line with the 'Turkish History Thesis', strived to establish 'Anatolia as the Turkish homeland' since prehistoric times, as well as highlighting the role of Central Asia and Anatolia as the 'cradle of civilization' (Atakuman, 2008: 220–5). As long as human skeletal remains from ongoing excavations were sent to Kansu, then a prestigious member of the Turkish Historical Society as well as president of Ankara University, 'the inseparable duo' continued to produce new articles based on the material. However, in the early 1950s, after Kansu had become relatively inactive at the institute, Muzaffer Şenyürek (1915–61), a paleoanthropologist with a PhD from Harvard University who had been promoted to a full professorship in 1951, became the recipient of the excavated bones (Erdentuğ, 1998: 31). Tunakan worked with Şenyürek on a research project (Şenyürek and Tunakan, 1951a, 1951b), but did not continue to collaborate with him. She resumed her work with archeological human remains only in the 1960s and 1970s, some time after Şenyürek's untimely death in a plane crash while he was returning from the excavations in Seleucia Pieria in Antioch in 1961 (Tunakan, 1964, 1965, 1971).

Thanks to both the academic and the administrative support of Kansu, Tunakan became an associate professor (*doçent*) at the Institute of Anthropology and Ethnology in 1945.⁴⁵ Furthermore, throughout her Ankara years, Tunakan was treated as a family member in the Kansu household, where she was a frequent guest. It is also a strange

coincidence that both researchers retired in 1973, after which they continued their close relationship (Erdentuğ, 1998: 26; Magnarella, 1976: 263–74).

The Fischer effect: Human genetics and racial hygiene

In the 1940s, Tunakan also introduced the main arguments of her German supervisor Eugen Fischer on racial anthropology to the Turkish reading public. In a 1943 article entitled ‘The Birth of the Races’, Tunakan cited only three sources in her bibliography: *Menschliche Erblehre und Rassenhygiene* (Human Heredity and Racial Hygiene), a collaborative work by Erwin Bauer, Fischer, and Fritz Lenz (1936); ‘Fischer’s Lecture Notes at the University of Berlin’ (no date and no publisher provided); and another article by Fischer, ‘Die Entstehung der Menschenrassen’ (The Origin of Human Races; Fischer, 1938). Tunakan stated that the emergence of races could be researched through ‘race history’—relying on human skulls and other bones—and through ‘hereditary research’ on mutations (Tunakan, 1943). She defined races as ‘human communities with certain hereditary characteristics. Each group has such characteristics that these characteristics alone are sufficient to distinguish one group from another.’ In addition to anatomical and physiological characteristics, such as height, skull shape, or skin color, pathological and psychological characteristics also definitively distinguished one group from another. More importantly, she argued that races were homozygous groups of people who carried genetic factors that were not present in any other group.

Tunakan’s publications on racial genetics and heredity were mostly introductory review articles, presenting the main findings of the available literature on the subject, with a tendency to overrepresent German racial anthropology. Tunakan often summarized the works of Fischer, as well as other literature that she was exposed to at the KWI-A. Her article on ‘hair colors in today’s human races’ and its heredity (Tunakan, 1950) was based entirely on the chapter on hair color in Baur, Fischer, and Lenz’s *Menschliche Erblehre und Rassenhygiene* (1936). Another article only summarized the most important works in the field of genetics with a specific focus on heredity patterns and the racial value of certain physical characteristics, such as blood type; fingerprints; ‘Mongoloid’ pleats; hair form, shape, and color; eye color; skin color; nose, lips, and ear shape; and skull measurements (Tunakan, 1961). Her short article on the relevance of anthropology for paternity tests, especially in the context of forensics and criminology, was also a review article on genetic research (Tunakan, 1963).

Apart from her constant citation of Fischer’s works, it is clear that the social and academic relationship between Tunakan and Fischer continued in the postwar period. Along with several former students and assistants, she was invited to the *Fischertreffen* in July 1954, organized by Otmar von Verschuer on the occasion of Fischer’s 80th birthday, to take place during the Anthropological Congress in Münster. Thanking the professor for the kind invitation, Tunakan excused herself due to a personal matter (‘persönliche Angelegenheit’).⁴⁶ Probably influenced by the desire to reconnect, Tunakan decided to make a European tour in the fall of 1955. In Fischer’s words, her main aim was to update her education and follow ‘the latest developments in anthropology and human genetics with regard to new literature, techniques, findings, etc.’.⁴⁷ During what was probably her first visit to Germany in 14 years, Tunakan stayed at Fischer’s house in

Freiburg for a few days. She also visited Adolf Schultz (1891–1976) in Zürich, traveled to Geneva, and went to Kiel to see Johannes Schaeuble (1904–68), who had been on her dissertation committee. Furthermore, when she declared her intention to stay in Germany until the end of the year, Fischer asked Verschuer ‘to accept her into the Institute [of Human Genetics at the University of Münster] and take her into his fatherly care [väterlichen Obhut]’. Verschuer responded rather quickly and positively: ‘Of course, on your recommendation, I will gladly take Miss Tunakan as a guest at my institute.’⁴⁸ Tunakan was invited to come in November 1955, and Verschuer promised to provide her with a small room. Tunakan was thus granted a two-month guest researcher position at the Institute of Human Genetics at the University of Münster at the end of 1955. There is not much trace of her research stay in Germany, but it was during this period that Fischer shared with her his latest article on ‘insect diet’ in early humans (Fischer, 1955: 1–37). His loyal student then wrote a 30-page-long review (!) of this article, published in the ‘Reviews Section’ (Yayınlar üzerine) of the faculty journal, though it in fact provided an exhaustive summary of the article in its entirety (Tunakan, 1959a).

Research on dermatoglyphics

Starting in the 1950s, Tunakan produced single-authored articles focused on the heredity and genetics studies that she had been introduced to at the KWI-A. These represented a clear return to her work on dermatoglyphics—the study of ridge patterns of the skin—and the genetics of twins. Her comparative investigations of the palm and fingerprints of Turks (and Turkish criminals) resulted in a small monograph (Tunakan, 1948) and three articles on the subject (Tunakan, 1954, 1960b, 1969). The objective of her 1948 book was to reveal that the ‘Turkish race is closer to European races’ and to establish the ‘rightful place of the Turkish race among other races of the world’. The data set had been collected by Tunakan herself in the summer of 1937 from students in several secondary schools and two primary school camps with the permission of the Istanbul Directorate of National Education (İstanbul Milli Eğitim Müdürlüğü). She had taken the hand- and fingerprints of 120 boys and 140 girls, with 520 handprints taken from 260 children altogether (Tunakan, 1948: 11). The main finding of the book, which was actually the one and only aim of state-sponsored anthropology in Kemalist Turkey, was to demonstrate the ‘the remoteness of the Turkish race from the Mongoloid races and its belonging to the European races’ (ibid.: 62).

Her short (nine-page) 1954 article was a comparative study of the same 260 children with 333 criminals (308 male and 15 female), again stressing that dermatoglyphics was a significant measurement technique for differentiating between races. All her publications on the subject relied on the same 1937 student data set. The data on the ‘criminals’ had been collected by Saim Apay in 1944 for his PhD dissertation (see Apay, 1946). The inspiration for this article was again Fischer and his 1949 article on the ‘four-finger line’ (‘Vierfingerfurche’; Fischer, 1949). Citing Fischer, Tunakan argued that the frequency of the ‘four-finger line’ was a clear indication of the difference between races, between sexes, and between ‘normals and those that could be called abnormal’ (‘normal-lerle anormal diyebileceğimiz guruplar’; Tunakan, 1954: 120). These ‘abnormals’ were defined as ‘idiots, those suffering from hereditary mental illnesses, criminals, etc.’

(ibid.: 122). The research data not only proved *again* the affinity of the Turkish race with the European races, but also demonstrated a clear distinction between it and the ‘Mongoloid race’. Tunakan also stressed that Turkish criminals were three times more likely to have the ‘four-finger line’ than normal people (ibid.: 125).

Her 1960 article again compared the same 260 school children with 268 male criminals, this time specified as ‘murderers and criminals who committed more than one offence’ (Tunakan, 1960b: 92).⁴⁹ This article was also quite short (six pages), repeating the findings of her earlier research through different measurement techniques. Tunakan repeated the argument that fingerprints were anthropologically relevant for differentiating between races, as well as for telling criminals apart from ‘normal people’. Her third article, a continuation of the earlier two articles, compared the palm prints of Turkish criminals with those of ‘normal people’ (Tunakan, 1969: 2). As in many politically motivated race analyses, she chose to discredit her findings as ‘statistically irrelevant’ when the average of the students was higher than that of the ‘criminals’—in other words, when the ‘abnormals’ had better results. The importance of Fischer’s research in human genetics and the well-deserved place of the Turkish race among the European races were again repeated in this final publication on the subject.

Research on newborn babies and the genetics of twins

Tunakan’s second research project in Ankara was on newborn babies and the genetics of twins, and was published in three parts (Tunakan, 1955, 1959b, 1960a). In her first article, on twin births, she began with the claim that anatomical, physiological, pathological, and psychological research on twins was important from a genetic point of view, and she cited Reinhold Lotze’s (1937) book on ‘twin research’, as well as the collected work of Bauer, Fischer, and Lenz, *Menschliche Erblehre und Rassenhygiene* (1936). As there had been no research on the number of twin births in Turkey, Tunakan carried out a demographic analysis based on all the births in Ankara Maternity Clinic in the years 1952, 1953, and 1954 in order to calculate the proportion of twins in the entire newborn population. The numbers suggested that the average percentage for Ankara for these three years (1.35%) would situate Turkey somewhere between Germany (1.25%) and the Scandinavian countries (1.4–1.6%; Tunakan, 1955: 18).⁵⁰ In a second, connected publication, Tunakan once again started with the bold claim that ‘the most efficient method of anthropology and hereditary biology is the *twin method*’ (emphasis in original), since ‘the multilateral and mixed influences of heredity versus environment’ could be comprehended only through research on twins—just as her mentors at the KWI-A, especially Fischer, Gottschaldt, and Verschuer, had suggested (Tunakan, 1959b: 513). For this research, she was granted access to the birth records of the largest maternity clinic in Istanbul (Zeynep Kamil Hastanesi) for 1945–56. In this analysis, the proportion of twin births was calculated to be 1.27%, which was slightly lower than the findings of the Ankara study (ibid.: 516). Her final article on twin research was a rather simple literature review on the emergence of monozygotic and dizygotic twins in humans and animals, with a specific focus on the dasypus, a primitive mammal known for its hard armor-like shell (Tunakan, 1960a).⁵¹

As part of her interest in twins and her links with birth clinics, she also produced a connected article on ‘the Mongolian spot’—or slate grey nevus, a blueish congenital birthmark with wavy borders and an irregular shape on the lower back, buttocks, sides, and shoulders—on Turkish neonates (Tunakan, 1956).⁵² This article provided a very detailed summary (and criticism) of the previous research undertaken on Turkish newborns (Field, 1940; Kansu, 1932; Somersan, 1938) and contributed to this literature with a new data set of 1013 neonates born in the Ankara Maternity Clinic in 1954. Compared to the findings of her finger- and palm print research, the results of this analysis were actually discouraging for Tunakan, situating the Turkish race closer to the ‘dark-skinned Southern European and Eastern Mediterranean races’ (Tunakan, 1956: 50).

Conclusion

Seniha Tunakan retired from her professorship at Ankara University in 1973 at the age of 65 with a meager publication record of 1 monograph, 14 single-authored articles, and 8 coauthored articles. It is often claimed that the racial paradigm of the early 20th century in physical anthropology was marginalized in the postwar period. However, Tunakan’s research agenda; her publication record, with its obsession with proving the European credentials of the ‘Turkish race’; and her continued academic contacts with Germany prove that the practice of racial physical anthropology was far from being abandoned, both in Turkey and in the transnational context. As Lipphardt notes, ‘German race science—with regard to its theoretical groundings, research problems, research designs, methods, practices, results, and interpretations—was far more embedded in contemporary research on human biological diversity around the world than is generally assumed’ (Lipphardt, 2012: S69).

Likewise, descriptive analyses of human skeletal remains, along with cranial morphology, were the main methods of physical anthropology used in Turkey up until the 1970s and 1980s. Tunakan herself wrote her last article on the skeletal remains of the Malatya-Aslantepi excavations (Tunakan, 1971), while around the same time, Kansu published ‘The Race History of Turkey’ (Kansu, 1976). Even after Kansu and Tunakan retired, the department’s research methods continued to lean heavily on anthropometry and racial paleoanthropology. Their academic heir, Armağan Saatçioğlu (1944–90), still used the anthropometrically based racial histories of the 1930s to distance the ‘Turkish race’ from the ‘Mongol race’, arguing for the ‘purer’ origins of Alpin Turks in Anatolia (Saatçioğlu, 1978, 1982). As noted by Burton, there was a certain consistency from the skull measurements of the early 20th century to Cold War surveys of blood groups, and even to the Human Genome Diversity Project of the 1990s (Burton, 2021). The passage ‘from racial-anthropology to population genetics’ was usually not very complicated (Teicher, 2020).

Tunakan’s academic trajectory from the Turkish Institute of Anthropology in Istanbul, to the KWI-A in Berlin, and to the DTCF in Ankara can be read as a microhistory of the development of anthropology as a scientific discipline in Turkey, reflecting the obsession of the Turkish state and its office-holding physical anthropologists with racial classification. The broader significance and contribution of this article to the history of race science and anthropology lies in its case study on the long-term global influence of the KWI-A in

diffusing the main tenets of German race science, physical anthropology, and genetics. Remarkably, Tunakan's research articles on archeological human remains, twins, and palm and fingerprints, as well as her review articles on heredity and genetics, blended the racial scientific agenda of the Turkish government together with the main lines of the KWI-A's research agenda on race and heredity.

Declaration of conflicting interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Einstein Stiftung Berlin (grant no. EGP-2018-445).

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Notes

This research was completed thanks to a line of funding from the Einstein Stiftung supporting academic freedoms. I would also like to thank Prof. Oliver Janz for hosting me as an Einstein Guest Professor at the Friedrich-Meinecke-Institute at FU Berlin. Last but not the least, I am truly grateful to Lara Wankel, Sevilya Altın, and Hatem Hegab for their diligent work as research assistants, helping me bring together a range of scattered sources. I also would like to sincerely thank the anonymous reviewers of the journal for their invaluable comments and rigorous reports, as well as the editor of *History of the Human Sciences*, for their helpful suggestions and feedback.

1. I thank the anonymous reviewer of this article for pointing this out.
2. I am grateful to the anonymous reviewer for encouraging me to highlight this global and comparative dimension.
3. A large number of people can be identified throughout Europe in this period who held the double title of doctor/biologist/anatomist and anthropologist. This was especially the case in the initial years of the development of physical anthropology in each country. Consider, for instance, Paul Pierre Broca, Paul Topinard, and Francis Galton.
4. Eugène Pittard (1867–1962) was an important figure among those who specialized in physical anthropology (and phrenology). His books included *Les crânes valaisans de la Vallée du Rhône* (1909–10), *Les races belligérantes* (1916), *Les races et l'histoire* (1924), *Les Tziganes ou Bohémiens* (1932), and *La castration chez l'homme et les modifications morphologiques qu'elle entraîne* (1934). He also wrote numerous articles that were published in the *Turkish Review of Anthropology*, either in French or in translation.
5. Prime Ministry Republican Archives (Başbakanlık Cumhuriyet Arşivi; hereafter 'BCA'), 30-18-1-2, 85/91, 26 October 1938.
6. Both her parents were born in cities in present-day Bulgaria. Her father, Hüsnü, was born in Plovdiv in 1873, and her mother, Sadriye, in Shumen in 1887. Her father passed away in 1918. Handwritten questionnaire, ?1941, Archiv der Humboldt-Universität zu Berlin (hereafter 'HU UA'), MNF 1, Nr. 172 (no. 43).
7. Seniha Tunakan, resumé, 1941, HU UA, MNF 1, Nr. 172 (no. 41).

8. The title of the French summary was slightly different: 'Osteologie des turcs: L'omoplate'.
9. The Surname Law (Soyadı Kanunu) of the Republic of Turkey was passed on 21 June 1934. The law obliged all Turkish citizens to adopt fixed, hereditary surnames.
10. In the academic year 1937–8, around 100 students were sent to Germany with scholarships from the Turkish Ministry of Education.
11. Her name appears in the records for the first time during the summer semester of 1937, in Matrikel no. 12/A 1258. 'Alphabetisches Verzeichnis der Studierenden der Friedrich-Wilhelms-Universität zu Berlin, SoSe 1937', HU UA, RS.01.
12. In the records of the Friedrich-Wilhelms-Universität zu Berlin (1810–1945), she was registered for 11 consecutive semesters, until 'Trimester 1941'. Tunakan was no longer on the list of registered students for the winter semester of 1941–2. See 'Alphabetisches Verzeichnis der Studierenden im WiS 1941/42', HU UA, RS.01.
13. Twin studies received lavish support in Nazi-era scientific institutes. In 1939, interior minister Wilhelm Frick ordered that all twin births in Germany be registered and reported, in part to aid in such research (Proctor, 1988). Later, being a twin saved some children from immediate murder at Auschwitz, while Josef Mengele used them as 'subjects' for his infamous twin 'experiments' (Lifton, 1986).
14. Kurt Gottschaldt, report, 21 May 1941, HU, UA, MNF 1, Nr. 172 (no. 47).
15. Ibid.
16. Eugen Fischer, letter to the dean, 6 June 1941, HU UA, MNF 1, Nr. 172 (no. 46).
17. Fischer, letter to the dean, 6 June 1941.
18. Tunakan's dissertation was listed as 'in press' ('im Druck') in the annual report for April 1942–March 1943. *Jahresbericht des Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik, April 1942–März 1943*, Archives of the Max-Planck-Gesellschaft (hereafter 'MPG Archives'), I. Abt., Rep. 3, Nr. 20.
19. 'Sie spricht ganz gut Deutsch, ist nur etwas schüchtern und befangen, hat eine kleine Sprechschwierigkeit, die aber völlig verschwindet, wenn sie ein wenig warm geworden ist.' 'Brief von Eugen Fischer an Otmar von Verschuer über S. Tunakan, 17.10.1955', MPG Archives, III. Abt., Rep. 94, Nr. 69–13.
20. Droyßig is a small town close to Leipzig. For further information on this institution, see the collection Landesarchiv Sachsen-Anhalt, C 23 Droyßig, Staatliche Erziehungs und Bildungsanstalt Droyßig, 1855–1924, available at: <https://www.deutsche-digitale-bibliothek.de/item/L6TRBWMH2KSX56JOYBAWZPW5G5LW3ALD>.
21. 'Das Auslandsamt der Dozentenschaft der Universität und Hochschulen in Berlin, Das Auslanderliste vom 1, Juni 1937', Politisches Archiv des Auswärtigen Amtes (hereafter 'PA AA'), RZ507/064037 (0268–274).
22. 'Das Auslandsamt der Dozentenschaft der Universität und Hochschulen in Berlin, Das Auslanderliste vom 1, Mai 1938', HU UA, RS.01, Nr. 164 (nos 83–93).
23. 'Das Auslandsamt der Dozentenschaft der Universität und Hochschulen in Berlin, Das Auslanderliste vom 1, Juni 1937', PA AA, RZ507/064037 (0268–274).
24. 'Das Auslandsamt der Dozentenschaft der Universität und Hochschulen, Reichstätigkeitsbericht, 1 April 1940 bis 30 September 1940', PA AA, RZ214/99062 (nos 232–46).
25. Here is a summarized list of the events organized in the course of the summer semester 1940: 8 large events, including conferences, excursions, and lectures; 86 smaller house events/parties; 11 'Monday afternoons' ('Montagnachmittage'), artistic and musical events with 80–120 participants; 9 scientific tours; 6 industrial tours; 2 'sociopolitical' tours; 8 political tours; 5 artistic events; 5–10 Sunday excursions ('Sonntagsausflüge'); 36 tennis tournaments; and 17

- swimming afternoons. German hosts were also provided with 422 theater and concert tickets to offer to their foreign students. 'Das Auslandsamt der Dozentenschaft der Universität und Hochschulen, Reichstätigkeitsbericht, 1 April 1940 bis 30 September 1940'.
26. 'Das Auslandsamt der Dozentenschaft der Universität und Hochschulen, Reichstätigkeitsbericht, 1 April 1940 bis 30 September 1940'.
 27. During one such meeting, the ambassador, Kemaladdin Sami Pasha, told Melahat Togar that she should learn not only the German language but everything it was possible to learn, and then take this knowledge back to the homeland (Böer, Haerkötter, and Kappert, 2002: 307).
 28. BCA, 30-10-0-0, 198/353, 30 November 1939.
 29. Among those who were sent back were the future famous writer Sabahattin Ali and the ethnologist Pertev Naili Boratav (see Böer, Haerkötter, and Kappert, 2002: 307).
 30. In their accounts, both Ekrem Akurgal and Saadet İkesus noted that they had rented rooms in Jewish households (see Böer, Haerkötter, and Kappert, 2002: 315).
 31. İnan received a scholarship from the Alexander von Humboldt-Stiftung, a program financed by the German Foreign Office, and came to Berlin in 1935 to study classical archeology. She did her PhD with Gerhart Rodenwaldt and received her doctoral degree in 1943 with a dissertation entitled 'Kunstgeschichtliche Untersuchung von Opferhandlungen auf römischen Münzen' (An Art-Historical Study of Sacrificial Acts on Roman Coins).
 32. Gökberk graduated from the Faculty of Letters in Istanbul University's Department of Philosophy in 1932. In the same year, he became an assistant in that department and translated Hans Reichenbach's lectures (in German) into Turkish. In 1935, he went to the University of Berlin for his doctoral studies. He completed his PhD in 1940, under the supervision of Eduard Spranger, with a dissertation entitled 'Die Wissenschaft von der Gesellschaft im System Hegels und Auguste Comtes' (The Science of Society in the System of Hegel and Auguste Comte). He then returned to Turkey and resumed his position in Istanbul University's philosophy department.
 33. As a student of the newly established Ankara State Conservatory, İkesus received a state scholarship in 1935 to study in Germany, based on the recommendation of the composer Paul Hindemith, the exiled director of the conservatory who had recently been forced by the Nazis to leave his post at the Music Academy in Berlin. In 1935, she was enrolled at the Universität der Künste in Berlin. She was educated in vocal pedagogy and in stage acting. In 1941, she returned to Turkey at the request of theater director Carl Ebert, who had also fled the Nazi regime in 1940. İkesus was employed at the Ankara State Conservatory as the first Turkish female vocal coach.
 34. 'Reichsausländerliste, 1 August 1940', PA AA, RZ214/99062 (nos 118–26).
 35. 'Das Auslandsamt der Dozentenschaft der Universität und Hochschulen, Reichstätigkeitsbericht, 1 April 1940 bis 30 September 1940'.
 36. 'Jahresbericht des Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik, April 1938–März 1939', MPG Archives, I. Abt., Rep. 3, Nr. 16.
 37. 'Jahresbericht des Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik, April 1939–März 1940', MPG Archives, I. Abt., Rep. 3, Nr. 18.
 38. 'Jahresbericht des Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik, April 1940–März 1941', MPG Archives, I. Abt., Rep. 3, Nr. 17.
 39. 'Jahresbericht des Kaiser-Wilhelm-Institut für Anthropologie, menschliche Erblehre und Eugenik, April 1941–März 1942', MPG Archives, I. Abt., Rep. 3, Nr. 19.
 40. Piebenga (born in Franeker on 5 November 1907) was an anthropologist, translator, and publicist. In the 1930s, he studied biology and anthropology in Berlin, where he received his doctorate in 1941 for an anthropological study of the population of Urk. In 1930, he founded the

Frison Student Society Redbad in Utrecht. During World War II he joined the SS, and in February 1942 he was appointed head of the Boerenschool in Riis, a kind of folk high school run on a National Socialist basis. Immediately after the liberation, he was interned in Camp Sondel, and later in Westerbork.

41. Takagi earned his PhD in 1936 in the Department of Literature at Tokyo's Imperial University. He studied psychology, anthropology, and ethnology as a Humboldt Scholar at the University of Berlin from 1936 onward. Between 1938 and 1943, he was a doctoral student at the KWI-A. During this time, he also freelanced as a translator for the Japanese embassy. In 1944, he worked as an 'animal psychologist' at the Zoological Gardens in Berlin. He returned to Japan in 1948 and became a professor in the Department of Natural Sciences at Toho Daigaku University in Tokyo. Takagi was registered missing in August 1962 during an expedition to the South Pacific.
42. Block studied under the supervision of Eugen Fischer. She wrote a dissertation entitled 'Über die Hautfölderung auf dem Handrücken und dem übrigen Körper' (On Skin Thickening on the Back of the Hand and the Rest of the Body) in 1944.
43. Justin refused to work on the topic originally proposed by her supervisor, Kurt Gottschaldt, and also stopped attending his lectures. Instead, at the beginning of March 1943, she submitted a dissertation entitled 'Lebensschicksale artfremd erzogener Zigeunerkinde und ihrer Nachkommen' (The Life Fates of Gypsy Children Raised Outside the Race)—a topic that had not been registered with any professor at the institute. In order to receive her degree, she required prominent support, and Fischer's role was decisive.
44. The Prime Ministry's Republican Archives document the daily allowance Kansu received to attend the conference: BCA, 30-18-1-2, 83/32/15, 16 April 1938.
45. Her promotion to full professor, however, was not quite as smooth, as she had to wait until 1961, by which time most of the researchers who had received their PhDs and started working at the DTCF at around the same time as her were already professors.
46. 'Fischertreffen—Zum 80. Geburtstag von Prof. Eugen Fischer, 1954', MPG Archives, III. Abt., Rep. 86A, Nr. 52.
47. 'Brief von Eugen Fischer an Otmar von Verschuer über S. Tunakan, 17.10.1955'.
48. 'Brief von Eugen Fischer an Otmar von Verschuer über S. Tunakan, 17.10.1955'.
49. She makes this specification only in the abstract.
50. Tunakan provided the following numbers on different countries: 'On average, twin births are higher in northern Europe than in southern countries. For example, this ratio is 1.4–1.6% in Scandinavian countries; 1.25% in Germany; 1.13% in France and Italy; 0.8–0.4% in Greece, Argentina, Brazil and some other southern countries; it is 0.57% in Japan' (Tunakan, 1955: 18).
51. In a loosely connected but methodologically separate article, Tunakan discussed the possible contribution of the Institute of Anthropology to paternity testing, especially in legal disputes. She argued that the Institute could determine the father of a child through blood tests, photographs of the people involved from different perspectives, and hand- and footprints (Tunakan, 1963).
52. The spot was named after the Mongolians by the German anthropologist Erwin Bälz, who erroneously believed it to be peculiar to the Mongolian race.

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