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Stanisław Karłowski (1879-1939): Pioneer of Biodynamic Farming and Organic Agriculture in Poland

John Paull
University of Tasmania, Hobart, Tasmania, Australia

Pawel Bietkowski
Stowarzyszenie Demeter-Polska, Silnowo, Poland

ABSTRACT

Stanisław Karłowski (1879-1939) was one of the great champions of Biodynamic farming during its formative years. After an illustrious career as an international banker, in 1920 he purchased the Szelejewo Estate in Poland comprising 1,724 hectares. Rudolf Steiner (1861-1925) presented his Agriculture Course at Koberwitz (now Kobierzyce, Poland) in the summer of 1924. Rudolf Steiner called for farming to be based on natural and biological principles and the farm to be considered as an organism. His seminal course laid the grounds for the subsequent development of Biodynamic and organic farming. Stanisław Karłowski encountered Biodynamics in 1929. He converted his Szelejewo Estate to Biodynamics, thereby creating what was, at the time, likely the largest Biodynamic (BD) farm in Europe, and perhaps the world (c.f. Ehrenfried Pfeiffer's farm, Loverendale, Netherlands, was 320 hectares). Stanisław Karłowski published a series of seven booklets (in Polish) promoting the practice of Biodynamics (including a translation of Ehrenfried Pfeiffer); these are believed to be the first Biodynamics publications in Polish. Stanisław Karłowski ran courses on Biodynamics at his Estate and made BD preparations available. He engaged in lively debate and advocacy for Biodynamics in Poland's 'Agricultural Gazette'. He implemented Rudolf Steiner's injunction to test the ideas of the Agriculture Course and he published his results and observations in 'Demeter', the leading Biodynamics journal of the time. With a leading Polish Anthroposophist artist, Franciszek Siedlecki, he developed advertising material for Biodynamic bread from his Szelejewo Estate. Stanisław Karłowski was a member of Rudolf Steiner's 'Experimental Circle of Anthroposophic Farmers and Gardeners', the 'inner sanctum' of those pioneering the development of Biodynamics in its gestational years of the turbulent interwar period. He founded an association to progress biological farming practices. The breadth and depth of Stanisław Karłowski's dedication to Biodynamics flags him as an exceptional member of the Experimental Circle. He brought to the task an economic viewpoint, the attention to detail of a banker, and the independence of thought of a non-Anthroposophist. Within weeks of the German invasion of Poland, Stanisław Karłowski was executed by a Nazi firing squad in the town square of Gostyń, his wife was deported, his beloved Szelejewo Estate was appropriated by the Nazis, and Poland was extinguished as a sovereign state. The present paper establishes Stanisław Karłowski as a pre-eminent pioneer and champion of Biodynamic and organic agriculture.

Keywords: Rudolf Steiner, Ehrenfried Pfeiffer, Experimental Circle, Koberwitz, Kobierzyce, Franciszek Siedlecki, WW1, WW2.

INTRODUCTION

Stanisław Franciszek Józef Karłowski (1879-1939) was a Polish banker, Senator, and farmer [1]. The present account demonstrates that he pioneered Biodynamic and organic farming on his Szelejewo Estate of 1,724 hectares in south east Poland. This account limits itself to the two decades of his farming life (1920-1939) - from his acquisition of Szelejewo Estate shortly after the end of World War I (WWI) through to his public execution in the opening weeks of World War II (WWII).

Stanisław Karłowski lived in turbulent times. The interwar war years were times of rebuilding and recovery, social unrest, global financial disruptions, the Great Depression, and the rise of Nazism in Germany and Fascism in Italy.

In agriculture, these interwar years witnessed the rise of chemical agriculture. The pre-war innovation of the Haber-Bosch process of 'fixing nitrogen' had enabled the industrial scale killing of WWI using synthetic nitrogenous explosives [2, 3]. The war over, the massive investment in this chemical technology was promptly repurposed to produce synthetic nitrogenous fertilizer with the view to converting farmers to chemical agriculture. This intrusion was counterpointed by the development of Biodynamic (BD) and, later, organic farming.

In this Introduction the authors take the opportunity to provide some background and context in which to consider the contribution of Stanisław Karłowski to Biodynamic and organic agriculture.

Biodynamic farming

Biodynamic farming is a niche version of organic agriculture. The foundations of Biodynamics were laid at Koberwitz (now Kobierzyce, Poland) in a course of eight lectures in the summer of 1924 by the New Age philosopher, Dr Rudolf Steiner (1861-1925) [4].

It has been observed that: "Dr Rudolf Steiner … had ideas of his own about most things" [5, p.10]. Rudolf Steiner called for an agriculture differentiated from chemical agriculture. He described the farm as "an organism" [4]. He did not give a name to his envisioned agriculture. Failing health in the following months, and death in the following year, prevented him repeating the Agriculture Course or elaborating on its themes.

The decade and a half following the Agriculture Course was the gestational period for this new agriculture. Experiments were conducted and the differentiated agriculture that Rudolf Steiner had called for was developed. The name evolved, and eventually, in 1938, it was publicised and publicly promoted as 'Biodynamic farming' in Ehrenfried Pfeiffer's canonical work, 'Bio-Dynamic Farming and Gardening' [6, 7]. Biodynamic agriculture promptly served as the progenitor of 'organic farming' (in 1940) [8, 9].

Poland has a claim to fame as being the global epicentre for Biodynamic and organic agriculture. Kobierzyce (formerly Koberwitz) is a Polish village, a short bus ride (c.30 minutes) from the Polish city of Wrocław (formerly Breslau). There, Dr Rudolf Steiner presented his Agriculture Course to 111 farmers and others [10]. Steiner stated that this was a course on what Anthroposophy, his New Age philosophy, has to say about farming and food production [11].

Steiner told his audience that a farm is 'an organism', that there is the objective to be a self sustaining entity with low or no external inputs, and that the focus of production ought to be on biology rather than chemistry [4].

Stanislaw Karłowski's adventures in Biodynamics occurred mostly during the gestational period, before the term 'Biodynamic farming' was coined, and before the knowledge of Steiner's agriculture was public knowledge. However, for the purposes of the present paper the authors use the terms 'Biodynamics', 'Biodynamic farming', 'Biodynamic agriculture' and 'BD' (interchangeably), rather than the more cumbersome 'biological-dynamic method' (and variations thereof) that were in currency during the gestational period of Biodynamics with which this paper deals.

Experimental Circle

With an eye to the future, Rudolf Steiner founded the 'Experimental Circle of Anthroposophic Farmers and Gardeners' at the Agriculture Course at the Koberwitz Course. Rudolf Steiner was mortally ill when he delivered the Course, and he perhaps foresaw that he may not live to oversee the development of his agriculture ideas. The task of the Experimental Circle was to put the "hints" of the Course to the test, to determine what works in practice, and to publish the results [11].

Sixty Koberwitzers, attendees at Steiner's Agriculture Course, were the first to join his Experimental Circle. Once the Agriculture Course was published (in German and English) there was the opportunity for non-Koberwitzers to join in the work and to share the mission of the Experimental Circle. Almost eight hundred individuals from around the world had joined the Experimental Circle by the outbreak of WWII (1 September, 1939) [12-15]. By that time, Ehrenfried Pfeiffer had published his 'Bio-Dynamic Farming and Gardening' in German, English, Dutch, French and Italian [6, 16-19] arguably thereby fulfilling Rudolf Steiner's injunction to publish the results of the work of the Experimental Circle [7].

Those who applied for membership of the Experimental Circle signed a confidentiality agreement in which they specified where they were to conduct their experiments, and they committed to keep the contents of the Agriculture Course secret: "I hereby undertake to preserve the strictest secrecy in all quarters as to the content of the aforesaid Lecture-course. I will conduct the experiments in such a way as to exclude all possibility of imitation; and I undertake to lay the same obligations of silence on any of my fellow workers. Moreover I undertake to burn after use any extracts or notes which I may make from the aforesaid Lecture-course" [in 20, p.25].

Three or four Polands

Poland is a parliamentary republic, the capital is Warsaw, the population of the country is 38 million, and the land area is 304,255 square kilometres [21]. Poland is bounded in the north by the Baltic Sea, and shares borders with Germany, Czechia, Slovakia, Ukraine, Belarus, Lithuania and Russia (Kaliningrad Oblast is a Russian territorial exclave bordering north east Poland).

Throughout history, Poland has shape-shifted many times [22]. In the lifetime of Stanisław Karłowski and the immediate aftermath, there have been various Polands - say three, or four. The reader is forewarned that the history of Poland is complex. Albert Einstein advised, of a

subject, to make it "as simple as possible but not more so". The authors have endeavoured to follow this dictum, yet be aware that the reality is more complicated and convoluted than several paragraphs allow.

Poland is sandwiched between powerful neighbours, Germany to the west and Russia to the east. To the south was the Austro-Hungarian Empire (not of concern once it imploded in the course of WWI). To the north is the Baltic Sea, the only fixture across time, and Poland's sole boundary defined by a geographic-fixture.

In the period considered in the present paper (the lifetime of Stanisław Karłowski and the immediate aftermath): (a) there was no Poland at all on the world map before the end of WWI; (b) Poland was restored to the world map by the terms of the Versailles Treaty after WWI; (c) during WWII, there was no independent Poland, with the territory apportioned between Germany and Russia; (d) after WWII, Poland gained territory in the West from Germany, and relinquished territory in the East to USSR (and this is, more or less, present day Poland).

For the first forty years of Stanisław Karłowski's life there was no Poland on the world map. He was born in Prussia, he worked in Germany, he traveled on an Austrian passport [23, 24]. So, the Poland of his first 40 years is 'vestigial Poland'. It is a Poland without territory, comprised of the Polish language, Polish folklore, and Polish people. Nevertheless, this vestigial Poland harboured aspirations of a return to statehood and the departure of occupiers from various territorial Polands of past centuries. By the time of Stanisław Karłowski's birth, a territorial Poland was beyond living memory.

Poland was described (from 1795 until 1918) as: "merely a geographical region of historical and ethnographic import" [25, p.254]. There was the Polish language and Polish culture but no Poland on the world map. Poland was erased from the map of Europe from 1795 to 1918. However, this lengthy hiatus failed to extinguish Polish identity, culture, language nor aspirations for a sovereignty reborn. Like those frogs cocooned deep in the Australian desert, patiently waiting for years, ready to emerge when the right conditions manifest [26], Poland re-emerged onto the world stage as a separate state in the wake of the defeat of the Germany and the Armistice of WWI.

The population of the newly re-minted Poland was 27,192,674, according to the 1921 census [25]. "Poles form rather more than two thirds of the population of the republic … the German population has been reduced to about one half by emigration; but Germans still number over a million, especially in the towns and the west. Of Jews there are over 2 millions … Meanwhile differences in birthrate are rapidly making Poland more Polish" [25, p.255].

The independent post-WWI Poland was extinguished in the early weeks of WWII, beginning with the Nazi blitzkrieg from the West. Poland was partitioned into three slices; the western slice was incorporated into the German Reich, the central slice became the German-ruled territory 'Generalgouvernement' (General Government), and the eastern slice was occupied by the Soviets.

Breslau ('Festung Breslau', Fortress Breslau) was one of the last holdouts of the retreating Nazi army in 1939 [27]. It was finally relinquished on 6 May 1945 just two days before the German

surrender. Following World War II, the German/Polish border moved westward to incorporate an eastern slice of post-WWI Germany, including, for example, Breslau and Koberwitz (now Wrocław and Kobierzyce) into the post-WWII Poland. The Polish/USSR border meanwhile also shifted to the west.

Polish language

Polish is a Slavic language written in the Latin (Roman) alphabet. For non-native speakers, Polish is challenging language, in all its aspects, including spelling, pronunciation and grammar [28]. The Polish alphabet has 32 letters, excluding q, v and x, and including ą, ć, ę, ł, ń, ó, ś, ź, and ż. The inclusion of these nine diacritics (accents) has a bearing on the mechanics and the results of digital text searches (and so may be an issue of practical importance to the reader) [29].

The name of the subject of the present paper, 'Stanisław Karłowski', includes two diacritics (viz. L with stroke. occurring twice). The consequence of this is that searches for 'Stanisław Karłowski' (with diacritics) may produce different results to a search for 'Stanislaw Karlowski' (without diacritics). This distinction applies to all Polish words using diacritics. This applies to web search engines and personal computer search engines, for example, searching for references in Endnote and searching for text using Apple's Spotlight. The appropriate dictum to adopt is 'Searcher beware' (of the diacritics).

The Polish language is phonetic, and that is helpful. However, Polish includes sounds that are not found in English, and letter combinations that do not occur (or are unlikely) in English. Added to that, some letters in Polish are pronounced unlike in English. The Polish 'j' is pronounced as an English 'y'. The Polish 'w' (as in 'Stanisław Karłowski') is pronounced as an English 'v'. The Polish village of Kobierzyce and the nearby city of Wrocław, are pronounced (approximately) as 'koe-bee-err-жit-zay' (sorry, there is one Cyrillic letter in there) and 'vrots-waarff', respectively. The German versions of these place names are 'Koberwitz' and 'Breslau'. Surnames in Polish may vary with gender, so 'Stanisław Karłowski' but 'Róża Karłowska' and 'Pauletta Karłowska' (first and second wives).

Biodynamics and Organics currently in Poland

Poland presently reports 507,637 hectares of certified organic agriculture accounting for 3.5% of agricultural land and 18,598 producers (compared to the world total of 75 million certified organic hectares accounting for 1.6% of global agricultural land and 3.4 million producers) [30]. Poland recently reports 4,261 hectares of Biodynamic agriculture (compared to a world total of 251,842 Biodynamic hectares) [31].

METHODS

Important sources of material for the present paper include: Biblioteka Narodowa (National Library of Poland), Warsaw, PL; Zakład Narodowy im. Ossolińskich (National Institute Ossoliński), Wrocław, PL; Wielkopolska Digital Library (Digital Library of Greater Poland), Poznań, PL; and the Archive of the Zygmunt and Jan Karłowski Foundation, Warsaw, PL; Archiwa: Towarzystwo Antropozoficzne w Polsce (Archive of the Anthroposophy Society in Poland), Warsaw, PL; Das Archiv des Goetheanum (Goetheanum Archive), Dornach, CH; Rudolf Steiner Archiv, Dornach, CH; and the Secretariat of the Anthroposophy Society, Dornach, CH. Family materials have kindly been made available (Stanisław Karłowski had 3 children, 8 grandchildren, and 12 great-grandchildren). WorldCat (worldcat.org) and AbeBooks

(abebooks.com) have been useful for published works. Google Maps (maps.google.com) has been useful for place names, locations, and distances. Deepl (deepl.com) and Google Translate (translate.google.com) have served well for assistance in translating various texts. Contemporary accounts are cited wherever possible.

WWII witnessed 93% of archives in Poland destroyed. "The Germans liquidated Polish libraries, razed historical monuments and markers, forbade the teaching of history and geography, and ransacked most of the Polish archives" [32, p.21]. Added to this wanton destruction, in the opening weeks of WWII, Stanisław Karłowski was executed by firing squad, his wife was deported, and the Szelejewo Estate was appropriated by the Nazis. The consequence is that much material has been destroyed, lost or dispersed.

The present authors are interested in learning of further Stanisław Karłowski material that may be disbursed in caches of material, including correspondence of Stanisław Karłowski, that may have survived the passage of time, but is unknown to them at the present time.

For the present paper, where possible, for the purpose of veracity, contemporary eye witness accounts are quoted. These are generally sources that are otherwise inaccessible to readers, either because they are in Polish or are from obscure sources, or typically both. Throughout the present paper, Polish words retain their diacritics. To facilitate digital search results for those lacking a Polish keyboard, some keywords are provided here sans diacritics: Stanislaw Karlowski, Roza Karlowska, Gostyn, Poznan, and Gdansk. Within quoted text, where diacritics are lacking, they are lacking in the original.

RESULTS

Stanisław Karłowski (1879-1939) was an international banker before he ventured into farming in Poland [24, 33, 34]. During his farming life (1920-1939) he was also a Senator in the Polish Parliament (1930-1935) [1]. He brought the skills of a banker to bear on his farming and Biodynamics (Fig.1).

Stanisław Karłowski was a member of the Experimental Circle tasked with testing Rudolf Steiner's hints of the Agriculture Course. He converted his Szelejewo Estate to Biodynamics. He translated into Polish and published a Biodynamics booklet by Ehrenfried Pfeiffer. He published at least a further six booklets in Polish related to Biodynamics practice. He ran Biodynamics courses at his estate. In the Polish agricultural press he engaged in public debate about Biodynamics, championing the cause and defending against detractors. In German, he published, accounts of his Biodynamics experiences in 'Demeter', the leading journal of the Biodynamics movement at the time. He developed marketing material for Biodynamic bread made from Biodynamically grown ingredients from his Szelejewo Estate. He founded as association and journal to promote agricultural views congruent with Biodynamics. Within weeks of the German invasion of Poland, Stanisław Karłowski was publicly executed by firing squad of the Nazi SS (Schutzstaffel) Einsatzgruppen death squad which was tasked with the extermination of the Polish educated class to create "an intellectual desert" [Hans Frank, 1939, in 35, p.10, 36].

Figure 1. Stanisław Karłowski portrait (1930, detail) art by Kazimierz Pochwalski (1855-1940)

Fruits of war - The Szelejewo Estate, 1920

The end of WWI saw Poland reborn. The Treaty of Versailles stated: "Germany … recognises the complete independence of Poland, and renounces in her favour all rights and title over the territory" [37, Art.87].

The Szelejewo Estate became available in the wake of the post-WWI peace. After the Armistice (11 November, 1918) and the Treaty of Versailles (signed 28 June, 1919; effective from 10 January, 1920), estate owners in post-WWI Poland had the choice of taking Polish citizenship or selling and moving.

The Versailles Treaty stated: "German nationals habitually resident in territories recognised as forming part of Poland will acquire Polish nationality ipso facto and will lose their German nationality … Within a period of two years after the coming into force of the present Treaty, German nationals … habitually resident in any of the territories recognised as forming part of Poland will be entitled to opt for German nationality … Persons who have exercised the above right to opt may within the succeeding twelve months transfer their place of residence to the State for which they have opted" [37, Art.91].

Poland's Central Liquidation Office (Głównego Urzędu Likwidacyjnego) was authorised by the law of 15 July, 1920, to implement the "liquidation of private property" of those not opting for Polish citizenship [38].

Stanisław Karłowski took up the opportunity presented. He purchased the Szelejewo Estate from Heinrich Prinz von Schönburg-Waldenburg in a contact dated 2 December, 1920 [39]. The

relinquishing owner stated: "I had no illusions that I would be able to keep Szelejewo for myself and my family. As a result of the Versailles agreements, taking this property away from me would not have been allowed; but it was subject to seizure anyway, and since I did not feel like becoming a Polish citizen, I sold this property, whether I wanted to or not, to a certain Mr. Karlowski, who was so close to my heart, and in the end I was satisfied, because despite the prohibition of exporting the receivables from the transaction, during the meeting at the barbed wire at the border crossing in Zduny I came to an agreement with an honest buyer, who despite inflation saved at least a small fraction of the value for me" [40, p.302].

The Szelejewo Estate was a prize. "The total area is 1,724 ha: arable land 1,492 ha, meadows 7 ha, pastures 17 ha, forest 208 ha. The estate consists of 5 farms: Szelejewo, Stefanowo, Bielawy, Antonin and Józefowo" [41, p.9]. The Estate included a palatial manor house (Pałac Szelejewo) and impressive ancillary buildings [41] (Fig.2). The purchase price was 40 million Deutsch marks, settled with 20% cash and 80% mortgage. With hyperinflation, by 1923 (for example) the face value of the mortgage was reduced to only a few US cents.

Until the purchase of Szelejewo, Stanisław Karłowski had spent his professional life as an international banker, including in Berlin, Brussels, London, Antwerp, Lviv and Warsaw [34]. With Poland reborn after the Armistice, for the first time in the life of Stanisław Karłowski there was a Poland to call home.

At the time of the purchase of Szelejewo "75% of the population [of Poland], i.e. some twenty-five million people, lived on farms" [42, p.133]. The agricultural sector that Stanisław Karłowski now adopted as his own had been ravaged by years of war: "Since the fighting in World War I continued uninterruptedly for nearly four years on Polish territory, Polish agriculture suffered greater damage from that war than did the agriculture of any other European country. Poland lost more than a million and a half farm buildings and one-third of its livestock; and 20 percent of its arable land area was put out of production for several years following the war" [42, p.133].

Figure 2. Szelejewo Pałac (postcard, c.1928) by Nakladem Majęin.

A contemporary account reported the agricultural circumstances of Poland: "An unusually great proportion of the population lives by agriculture. The soil is mostly light fertile loam, well adapted for cereals … Much of the fertile soil is rich pasture-land, and much is occupied by forests … Rye, oats, wheat, barley, and other cereals, potatoes, sugar-beet, hemp, timber, honey and wax, cattle, pigs, sheep and horses … constitute the natural riches of thee country" [43, p.255].

At 1,724 hectares, the Szelejewo Estate was a large farm by Polish, and by European standards (then and now). With a view to breaking up large land holdings, land reform laws of 1919 and 1920 set maximum land holdings, reportedly at variously 60 ha, 150 ha, 180 ha, 300 ha and 400 ha [44, 45]. Despite this legislation, it appears that the Szelejewo Estate managed to maintain its 1,724 hectares intact.

Introduction to Biodynamics, 1929

Stanisław Karłowski states that: "When I first heard about the Biodynamic method in 1929. I was immediately convinced of its principles" [46, p.130]. At this point he had been farming the Szelejewo Estate for almost a decade.

Stanisław Karłowski describes his experience up to that point: "so far I have been cultivating my land according to the generally known rules of intensive farming … The results of the farm were not favourable and did not remain in the right relations to the extensive tillage, including the use of purchased fertilizers … Soil worsening, beet and potato diseases and weakening of cereal seed quality. The results of the research indicated that the current management must be incorrect. Therefore, I turned to the Chamber of Agriculture and commissioned soil analyses in all fields in 1929. On this basis, a significant humus deficiency was found even on the best land. So in spite of large-sale cattle breeding and intensive use of green manure, there is a humus deficiency! This was a demonstration of intensive farming based on scientific principles!" [46, p.130].

Stanisław Karłowski was receptive to a new approach: "After this bad experience, I considered the Biodynamic method to be the right one because it pays more attention to the care of humus and bases agricultural production only on the use of the forces of nature" [46, p.130].

In his 'Demeter' account, Stanisław Karłowski does not declare the circumstances of this introduction to Biodynamics 'in 1929', and those circumstances remain a mystery. In the absence of any firm evidence, the present authors can only speculate.

There were, in 1929, a multitude of candidates for introducing Stanisław Karłowski to Biodynamics. There was the Anthroposophy Society in Poland, founded in 1923 [47]. There were 32 attendees from Poland at the Koberwitz course of 1924 [48] (note however, that that analysis mapped addresses onto the current, i.e. post WWII, Polish boundaries, rather than the Polish boundaries applying in 1924; none of these 32 were ethnic Poles). There were Biodynamic preparations being produced and used beginning shortly after Koberwitz, for example: "These early 'preps' were made and buried at the farm of Margarete von Tepper and her son Gerd Heinrich" [49, p.2] at Sępólno near Bydgoszcz (Bromberg) [50].

By 1929 there were at least two ethnic Poles who had (since Koberwitz) joined the Experimental Circle, Frau von Kryzanowska (#28) of Krakow and Frau Jadwiga Siedlecka (#37) of Warsaw [51].

In Warsaw, the next-door neighbours of Stanisław Karłowski were the Anthroposophist couple, Franciszek Siedlecki and Jadwiga [Wiga] Siedlecka, who held Anthroposophy meetings in their apartment (until at least 1934). Wiga Siedlecka was a leading advocate in Poland for Anthroposophy. She established the first Anthroposophy group in Warsaw with the meetings held at the Siedlecki apartment [52, 53]. Wiga was a very early member of the Experimental Circle (#37), probably joining in 1926 (but possibly as late as 1929) [51]. Wiga's brother, Stefan Markowski, was a banker, as was Stanisław Karłowski, and the families socialised together. Between neighbourliness and socialising there was ample opportunity for an introduction to Biodynamics via the Siedlecki family.

There was the first "public" Conference of the Anthroposophy Society in Poland in Warsaw in October 1929 [54, p.393, 55]. At this "foundation conference", Dr Guenther Wachsmuth, the head of the Natural Science Section at the Goetheanum, presented two "Talks about Agriculture" [54, p.394, 56]. He reported that: "in Poland … in connection with this conference agricultural experimental circles are arising as they have already done in other countries" [54, p.396]. One speculation has Karłowski and Wachsmuth meeting as strangers-on-a-train: "The year 1930 saw a fateful encounter between Günther Wachsmuth and Senator von Korlowski [sic] … the gentlemen met on an express train and got talking" [57, p.74].

There was a Biodynamics conference at Marienstein, Germany, in May, 1929 [58]. There was a Conference of the Experimental Circle at Dornach, Switzerland, in September, 1929, [59].

Another speculation suggests that Stanisław Karłowski was introduced to Biodynamics by his "good friend and neighbour" Baron Karl Massenbach with an Estate in Pniewy (Pinne in German) [60]. However, Massenbach did not join the Experimental Circle until 1934, #625) [51].

Dr Nicolaus Remer is a candidate for helping Stanisław Karłowski convert Szelejewo to Biodynamics: "he worked for years on the first bio-dynamic research farm in Marienhöhe near Berlin, Germany. He helped in the transition of big farms in the former east Germany which is now Poland" [61, p.ix]. During WWII Remer rescued Karłowski's wife, Pauletta Karłowska, after she was deported from the family Estate [62]. So, Remer, who had the Biodynamic experience and credentials to be a convincing advocate, is a further candidate for introducing Stanisław Karłowski to Biodynamics.

There are multiple options for the 1929 introduction to Biodynamics, intentional or perhaps accidental. The present authors found no evidence to choose beyond speculation between the candidates and hypotheses.

Stanisław Karłowski was not found to be a member of the Anthroposophy Society in the Archives of the Anthroposophy Society in Poland nor in the records of the Secretariat of the General Anthroposophical Society in Dornach - although he was a member of the Experimental Circle, joining in 1936.

Conversion to Biodynamics, 1930

Stanisław Karłowski made a start with Biodynamics at the beginning of 1930. After the initial success, he decided later the same year to convert the whole Szelejewo Estate to Biodynamics. He carried out this plan progressively over the next several years.

Stanisław Karłowski states: "I started then in Spring 1930 with the cultivation of 22.5 ha of potatoes on manure, treated with [BD] preparations 502-507. Their yield was 240 q/ha [quintals per hectare; 1 quintal = 100 kg], while potatoes grown on regular manure gave a yield of 210 q/ha. Potatoes fertilised with the Biodynamic method were dark green, while traditionally cultivated potatoes were faint, often infected by diseases and died out faster. The observations made during the growth of the plants during this first little experience were much more convincing than the increase yield of 30 q/ha and for this reason, in the Autumn of 1930, I decided to convert the whole farm" [46, pp.130-131].

Farm workers were trained in Biodynamic methods: "In each of the manor farms … the composting master was properly trained to treat the manure and slurry with [BD] preparations and make compost … the ground pits where the manure was collected were filled with clay so that the manure could be stored in heaps laid on the soil surface. The slurry storage pits also had to be arranged properly to allow the addition of preparations and their operation" [46, p.131].

Stanisław Karłowski writes with a banker's attention to detail: "In the following marketing year 1931/32, 169.5 ha were converted, another 347.5 ha in 1933/34, another 661.25 ha in 1935/36, and the manure treated with Biodynamic preparations was applied to the last fields. Thus, with the four-year rotation that I am using, the conversion was completed after four years. And so, in 1935/36 the first full four-year crop rotation cycle after the conversion period began" [46, p.131].

Stanisław Karłowski offered social proof of the efficacy of Biodynamics: "all those who looked at my fields pointed out the good condition of the crops in comparison with those of my neighbours. Especially this year the difference was significant, which best proves that the Biodynamic method has a double benefit, especially in years of drought" [46, p.133]. "In horses, and especially in foals, the epidemic of zolanosis has completely subsided" [46, p.133].

The quality of produce was of economic importance: "Sugar beets … are the main source of my income … The sugar content of beet is quite good … my sugar factory pays for beets depending on the sugar content … this creates additional income which can only be attributed to the Biodynamic method … the health of my beets has improved significantly … the beets sprayed with Biodynamic preparations are apparently more resistant to fungal diseases" [46, pp.132-133].

Yields were good: "Biodynamically grown rye works very well. It gives a high yield of both straw and grain. I harvest up to 25.66 q/ha … winter barley gave a record yield of 40 q/ha" [46, p.133]. In a world of runaway inflation, uncertain supply chains, expensive inputs, and low commodity prices, and political and social uncertainty, Biodynamics was an attractive option for Stanisław Karłowski and he reported his positive experiences. In any event, it seems that Karłowski was attracted to the philosophy of biological and natural, to the practical positive results of

Biodynamics, and to the low input approach of Steiner's agriculture, rather than to some esoteric appeal of Anthroposophy or Rudolf Steiner.

The conversion of the Szelejewo Estate to Biodynamics made it one of the largest, perhaps the largest, Biodynamic farm of the era. Ehrenfried Pfeiffer's Biodynamic farm at Loverendale, Netherlands, was 320 hectares [63]. Erhard Bartsch's Biodynamic farm at Marienhöhe (near Bad Saarow), Germany, was 100 hectares [64]. Ernesto Genoni's Demeter farm in Dandenong (Melbourne), Australia, was less that 100 hectares [65]. The global total of biodynamically managed land was 25,000 ha in 1935 [66], so that Karłowski's 1,724 ha accounted for 7% of the global total.

Biodynamics booklets, 1934-1939

Stanisław Karłowski published at least seven Biodynamics booklets from 1934 to 1939. The present authors have identified five such booklets, three of them are numbered and dated, viz. as "Nr.4", "Nr.5", and "Nr.7". A further two booklets are un-numbered and of earlier dates, and are taken to be the first two in the series (viz. notionally Nr.1 and Nr.2).

Two of the booklets (Nr.1 and Nr.7) are translations by Stanisław Karłowski. Nr.1, 'Practical tips on the use of the Biodynamic method …' is a translation of a work of Ehrenfried Pfeiffer (1899-1961), M Kuntzel, and Erika Sabarth. Ehrenfried Pfeiffer was the coordinator of Biodynamics research at the Natural Science Section at the Goetheanum, Dornach, Switzerland. Pfeiffer published a series of booklets on Biodynamics [7], he was a compelling advocate for Biodynamics [67], and he is also a candidate for introducing Stanisław Karłowski to Biodynamics.

The booklet Nr.7, 'The Soil and its Products', is a translation of an English-language booklet by the Biodynamics advocate C. Alma Baker, a New Zealander who farmed in Malaysia [68].

The booklet Nr.7 reappears as a paper in the final issue of his journal 'Biologia a Zycie' [69]. Two other papers by Stanisław Karłowski appeared in issues of 'Biologia a Zycie' [70, 71], and it is hypothesised that these are the 'missing' booklets, viz. Nr.3 & Nr.6.

The series of Stanisław Karłowski's seven Biodynamic booklets are identified (with the aforesaid qualifications) as:

[Nr.1] *Praktyczne wskazówki zastosowania metody biologiczno-dynamicznej na roli i w ogrodzie. Dla członków Zespołu pracy rolników i ogrodników pracujących według metody biologiczno-dynamicznej* [Practical tips on the use of the biological-dynamic method in the field and in the garden. For members of the Farmers and Gardeners Work Team working according to the biological-dynamic method [un-numbered] [72];

[Nr.2] *Działanie preparatów metody biologiczno-dynamicznej* [Action of preparations of the biological-dynamic method] [73];

[Nr.3?] *Wpływ paszy na zdrowie zwierząt i jakość produktów pochodnych* [The effect of feed on animal health and the quality of derived products] [74];

Nr.4. *Praktyczne wskazówki racjonalnego zakładania i stosowania kompostów* [Practical tips for the rational establishment and use of composts] [75];

Nr.5. *Organizacja kompostowania surowców* [Organization of the composting of raw materials] [76];

[Nr.6?] [*Biologia gleby w praktyce rolniczej* [Soil biology in agricultural practice] [see 70]; Nr.7. *Ziemia i jej płody* [The soil and its products] [77].

Public advocacy for Biodynamics, 1934

Stanisław Karłowski was an articulate champion for Biodynamics. He presented his results at an Agricultural Congress and he engaged in lively debate in the pages of Poland's Agricultural Gazette. A 1935 account observes: "Senator Karłowski tirelessly approaches the 'new faith' in agriculture, he can be heard everywhere, soon we will be listening to him on the radio" [78, p.513].

At an Agricultural Congress: "Senator Kalowski was listened to calmly at the last All-Poland Professional Agricultural Congress, when he wanted to explain the main principles of the 'B.D. method'. He was skilfully led to declare his readiness to put his farm at the disposal of the Faculty of Agriculture of the University of Poznań, and the speaker of the Congress, Professor Niklewski promised his cooperation … I am convinced that some kind of cooperation will take place here, about which you spoke in such high-flown words, and from now on the Szelejewski experiments will be harmonised with the scientific direction to a general benefit" [78, p.514]. Bronisław Niklewski wrote in 1933 in favour of Biodynamics, with some reservations [24, 79]. Stanisław Karłowski explained in a 1934 issue of the Agricultural Gazette: "This method is based on the interaction of two factors: biological and dynamic … The biological factor … Goethe … this great German spirit was precisely the inspiration of Dr Rudolf Steiner, who has the merit of creating methods of plant production based solely on the existing creative forces of nature. Dr Rudolf Steiner's methods, presented by him in 1924, have been practically tried out for 10 years and make the application of biological principles more accessible to practical farmers. The aim of the method is to create conditions for plant production which are most similar to natural conditions by bringing well digested manure to the soil … the task of the dynamic side is to increase the creative power of nature and to use the influence of earth and cosmic waves for plant growth … A further principle of the biological-dynamic method is to create an autarky for each farm (economic self-sufficiency)" [80, p.1218].

Stanisław Karłowski defended Biodynamics against opponents. He related that "there was an attack on the whole front on the method of tillage by Biodynamic means … [published by] the United Nitrogen Factories in Mościce and Chorzów" [80, p.1217].

Stanisław Karłowski questioned the motives of opponents to Biodynamics: "Why this nervousness and so much malice and bile poured out, so much inaccuracy and untruth? There are people who apparently think that knowledge can be replaced by jokes and ridicule of uncomfortable views for whatever reason. In Germany, this campaign has already taken place on the initiative of the fertilizer industry, which has a whole legion of mercenaries writing countless articles and countless volumes of publications for money" [80, p.1217].

In the Agricultural Gazette, Stanisław Karłowski declared that: "as a practitioner who has been using the biological-dynamic method for 4 years on the whole agricultural area (1500 ha), I must protest in the name of truth against Mr Jerzy Ryx's treatment of the subject and misleading farmers about the value of the method. My 4-year practice with this method is an excellent test" [80, p.1217].

He singled out a BD opponent: "Mr Ryx without any knowledge of the subject, to which he confessed, and in order to fight a completely unnecessary and harmful fight … launched a campaign against the b-d method" [81, p.94]. "I found that Mr Ryx was fighting with a clear goal of discrediting and burying the b-d method at least for some time in Poland" [81, p.98].

There is an advertising dictum that 'No publicity is bad publicity'. Stanisław Karłowski reported that the attacks on Biodynamics had backfired: "by combatting this method, it was brought to the attention of those farmers who had known nothing about it until then, and only after a press polemic did they become interested in it. How powerful the fertilizer industry is in Germany, is most clearly shown by the fact that autonomous authorities [in Germany] … have announced a ban on publishing and reading about this method. This was clearly an abuse of power, so Reich Minister Rudolf Hess, Reich Deputy Fuhrer, took up the matter and ordered … an end to the polemics … Minister Hess declared a need to stop unilateral attacks on the biological-dynamic method and that the biological-method can be of importance from the point of view of both the health of the population and agricultural policy; the value of this method will be determined without any prejudice by practice and scientific observations, which should not be influenced by press agitation" [80, p.1218].

Looking to the future: "All chemicals, whether in the form of artificial fertilizers or as a mean to combat plant diseases, are unnecessary. This method makes it possible to maintain an intensive economy without incurring debts for artificial fertilizers … The biological-dynamic method has the great advantage that it does not require any risky inputs, is based on self-sufficiency of the farmer and ensures continuous improvement of the soil, which is extremely important for feeding future generations of an increasing population" [80, p.1218].

Even in this gestational period for Biodynamics (the interwar years), Stanisław Karłowski regarded the methods as proven and not experimental: "the soil gains efficiency from year to year … the method of biological-dynamic management is applied in Szelejewo, not as an experiment, but as a normal system of management on the whole area of production" [80, p.1219].

Are Biodynamic farmers Anthroposophists? "Dr Steiner set up an Experimental Circle which began to apply his instructions … you can work with the b-d method but you do not necessarily need to be an Anthroposophist. I, for example, have not read Dr Steiner's philosophical works at all, because the philosophy of the Catholic Church is completely sufficient for me to live, and yet I successfully apply the b-d method in the garden and in agriculture" [81, p.95].

Stanisław Karłowski further addressed the decoupling of Biodynamics and Anthroposophy quoting Swiss Biodynamic farmer, Edmund Ernst, from the Third International Bern Conference on Artificial Fertilizers: "I am here with a few friends who use this method, but none of them belong to the Anthroposophists. As far as Anthroposophy is concerned, none of them is a believer, and I know that of the entire scientific circle in Switzerland, that of the farmers and gardeners who practically apply the method, only 2 belong to the Anthroposophists. The others are by no means believers in Anthroposophy. In the name of the truth, I would like to tell you that our circle does not in any way require that those who use the biological-dynamic method must also deal with the secret knowledge that goes on in the Anthroposophical direction" [81, p.98].

Stanisław Karłowski explained "Preparations necessary for the application of the b-d method are not traded. Farmers or horticulturists wishing to apply this method may apply to the 'Farmers and Horticulturists working with the biological-dynamics method' one of which is located in the Szelejewo Estate, Gostyń district, and the other in the Pniewy [the Estate of Karl August von Massenbach], Szamotuły district. The members of the Working Team receive the necessary preparations and have permanent professional counselling … New members of the Team have to take a one-day course, which is sporadically organized in both locations. The fee for Team membership is PLN 8 per 1 ha subject to the b-d method" [82, p.280].

Biodynamic bread, c.1934

A prominent Polish Anthroposophist artist, Franciszek Siedlecki (1867-1934), designed an advertising poster for Stanisław Karłowski for marketing Biodynamic bread from the Szelejewo Estate (Fig.3). The advertisement (undated, c.1934) proclaimed the wholesomeness and health benefits of the product.

The text reads: "Zywila whole wheat bread is made from flour containing natural nutrients and dietetic wheat grains produced biologically in the Szelejewo Estate. Bread made from this flour contains ingredients that stimulate glandular functions and have a positive effect on digestion" (Fig.3).

Franciszek Siedlecki and his wife Jadwiga (Wiga) Siedlecka (1877-1952) lived next door to the Karłowski family in Warsaw. They had spent time with Rudolf Steiner at Dornach, including the period 1913-1919 [53, 83]. In Dornach, Franciszek Siedlecki managed the glass work shop (Glashaus) [52]. He and Wiga Siedlecka designed and fabricated the etched glass windows for the first Goetheanum [83, 84]. They laboured for years creating their magnum opus, "fourteen huge panes", "3 metres 70 high by 70 cm wide", "there was no income, only words … There was fame, but not a kopek" [Siedlecki, 1916, in 83, pp.23-24]. The windows were entirely destroyed when the first Goetheanum burnt to the ground on New Year's Eve, 1922 [85].

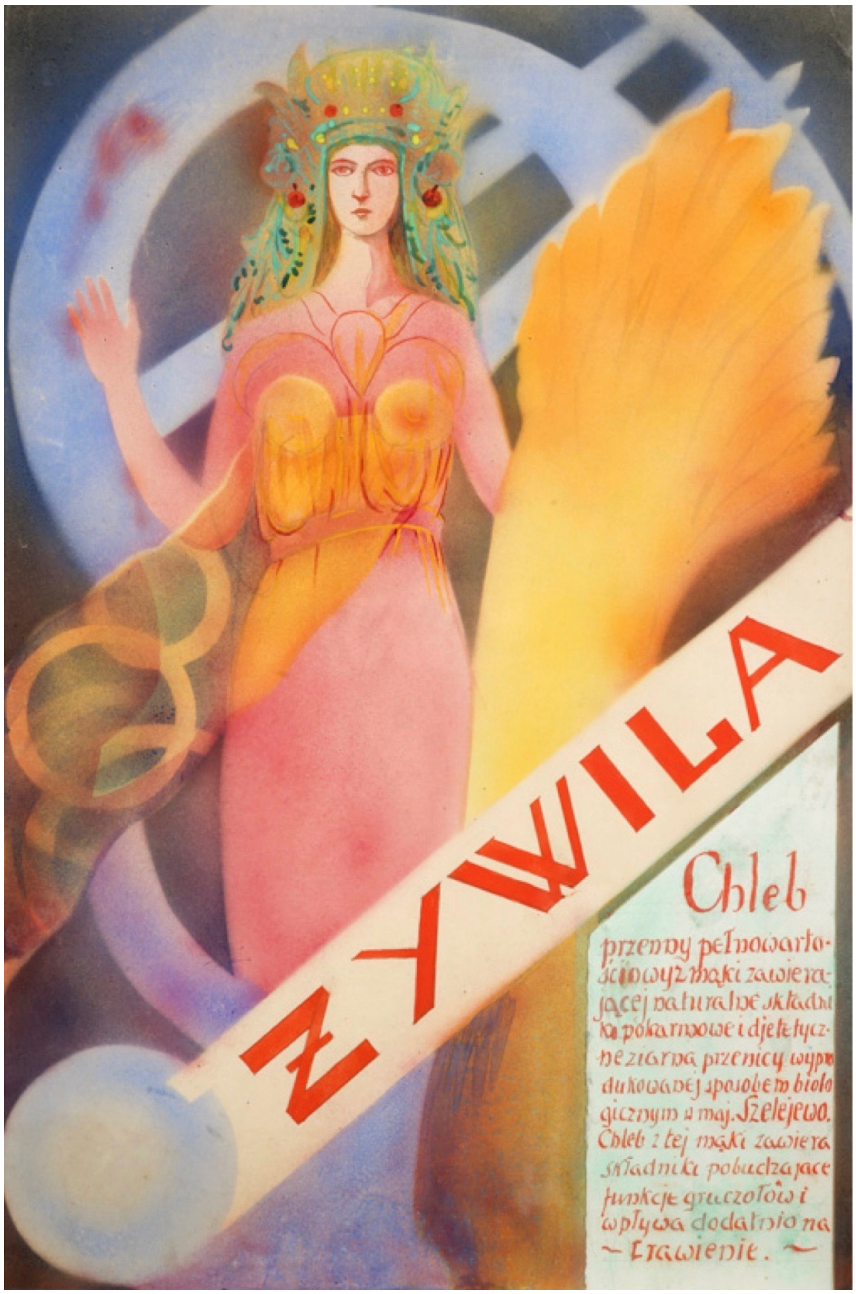

Figure 3: Poster for Szelejewo Estate bread (c.1934), by Anthroposophist artist Franciszek Siedlecki (1867-1934) (size c.A2)

The Żywila figure of the poster is a svelte Polish Demeter-like goddess (Demeter: Greek goddess of Agriculture) depicted with a luxuriant sheaf of golden wheat (dwarf wheat was only developed after WWII). Żywila is a princess of Polish legend [86]. The name is perhaps a portmanteau of Żywie, Slavic goddess of health, and Zizilia, Slavic goddess of love.

The Chleb (bread) poster is one of the earliest advertisements for a Biodynamic product (and most likely the first in Poland). Dr Erhard Bartsch (1895-1960), the editor of the Biodynamic journal 'Demeter' and a Biodynamic farmer at Marienhöhe, near Bad Saarow (Germany), was aware of the need to differentiate Biodynamic products in the marketplace: "to the consumers

in the cities it is a great advantage not to allow the extra quality products obtained by biological manuring to disappear on the general market" [87, p.58].

The Chleb poster was designed to differentiate this Żywila bread in the marketplace, to identify the provenance of the ingredients (Szelejewo Estate), to proclaim the distinctive method of production, and to assert its health-giving properties.

The bread poster was not the only commission of Stanisław Karłowski to Franciszek Siedlecki. The artist designed the etched bookplates for the Horynieck Library (Bibliotecka Horyniecka) books (the library was inherited by Karłowski), including one bookplate (posthumously) for Róża Karłowska (1886-1918), circa 1925, recording the provenance of the books, and featuring two female figures including Demeter.

Biodynamic courses, 1935

Stanisław Karłowski presented Biodynamics courses at his Szelejewo Estate. An attendee at one such course (held on 6 April, 1935) has recorded an account of proceedings [78]. He declares that: "Senator Karłowski seems to have been entirely called upon to point out new ways for our agriculture" [78, p.510].

Why courses? "The idea of these course in Szelejewo arose from the fact that among the numerous correspondence received by Senator Karłowski, there were many questions that did not lend themselves to a suitable written answer … In the natural order of things, the owner's proposal to come to Szelejewo for an answer was born. Anyway, the proposal was tempting, because it promised to see an interesting farm and an interesting host" [78, p.515].

Why attend? "I would like to listen to his lectures, take a look at the excellent methods of collecting and treating manure, as well as preparing composts, such manure and composts which allegedly make the expense of foreign auxiliary fertilizers unnecessary, but ensure maintenance of production at a high level. This has to be seen" [78, p.515].

Breakfast: "The Szelejewski palace is already crowded. At the threshold we are greeted by the hospitable host Senator Karłowski". Those present included the director of the local Chamber of Agriculture, and Mr Leszczyński, secretary of the Experimental Circle" [78, p.514]. From sixty invitations, about 30 attended, the course beginning with "a hastily eaten breakfast" [78, p.514]. The host: "Our host, Senator Karłowski sits on a high stool and we begin to listen to the Course. This is already the second such conference. A few weeks ago the first one took place, which was attended by a dozen or so people. It also lasted from morning to afternoon, with lectures, discussions, and a visit to the farm-yard, combined with demonstrations" [78, p.515].

The instruction: "the Course began in the hall of the Szelejewo administration building. We sat down in the prepared rows of chairs, looking around curiously, because the walls were hung with numerous awards of the Szelejewo farm, we remember the numerous splendid specimens of the Szelejewo livestock (horses, cattle, sheep) at the General National Exhibition, 1929. In the cupboard there are specimens of cereals and sugar-beet, bred in Szelejewo, as a branch of the Sandomierz-Wielkopolska seed-breeding farm" [78, p.515].

The BD principles: "At the beginning Senator Karłowski repeated the already known principles of his method, compacted in a biological-dynamic way … But the highlight of our excursion to Szelejewo was the demonstration of piles and heaps of manure and composts, the way they were arranged and treated, and then the demonstration of the composts themselves in numerous varieties, in large samples, placed in baskets on the demonstration table" [78, p.515]. Passion and experiments: "he does not have a foundation of professional theoretical knowledge … he is called to work out practical methods of manure and compost handling, he shows a great inclination and a passion towards the calling and he has the means for experiments" [78, p.510]. Karłowski explains: "Since humus supports the microbial life in the soil, without which soil cannot be fertile, well decomposed organic matter determines the productivity of the soil. Efforts to improve and increase manure and compost reserves, even if rather large and in some cases cumbersome, will not be wasted but will pay off a hundredfold. The humus content of the soil can be increased by increased production of manure and compost on the farm by growing leguminous and other plants for green manure" [78, p.518].

The editor of the Agriculture Gazette (Gazeta Rolnicza'), Dr Lutosławski, travelled from Warsaw for the Course (c.350 km) and delivered the after dinner oration. He "asked Mr. Karłowski whether he would consider it appropriate to have more comparative field experiments with his own methods of plant cultivation, based so unilaterally on organic fertilisation and with a clear predominance of active humus? But Sen. Karłowski replied that he did not consider these comparative experiments necessary, as it was sufficient for him to be deeply convinced of the correctness of the applied method. Under these circumstances, the discussion on this topic, which in my opinion is vital, could not be continued" [78, p.519].

Silliness? "Several times in this otherwise interesting discussion an irrational attitude to purely technical issues emerged. And we have omitted in the above-mentioned report of the 'Course' a whole part of the - how shall we put it - silliness, for which we shall still consider the sprinkling of humus solutions and silica in water suspension on the soil and growing plants, as well as the inoculation of manure and composts with preparations the composition of which is kept secret - until normal experiments have been carried out" [78, p.519].

Endorsement: "I had the opportunity to be to be present at the 'Course' in Szelejewo … and I strongly urge others to eagerly accept the invitations of the kind owner of Szelejewo for the next courses, there is a lot to see, especially in late spring and early summer, when the crops will be splendid in the fields, when demonstration field experiments with manure, differently treated, and with various composts will be established" [78, p.515].

Advocacy: "Senator Karłowski's consistent advocacy in this direction should produce results, read widely around the country using the methods of the 'Szelejewo Courses'" [78, p.518].

Converting skeptics: "Dinner, a pleasant social atmosphere created above all by the unforced simplicity of the host" [78, p.519]. "On my right, P. Jozef Rulikowski reflects aloud on the circumstances of the 'Course', the knowledge received and the strong impressions made. He is a sceptic. But he decides to develop his efforts to be admitted to the 'Group of farmers and gardeners working according to the biological-dynamic method', with its seat in Szelejewo and saleable contributions, with the strict statute obliging the members (among others, the point of conventional penalties for exceeding the authority)" [78, p.520].

In summary: “Senator Karłowski's theories bring to the fore a new type of total farm, a proper rural farm, which, by skilfully combining plant production with animal production, makes itself independent of external, aggressive influences, sometimes costing a lot of money (see auxiliary fertilisers!). Is there any exaggeration here? Certainly, there is some exaggeration, but the core of the idea is well captured. *In hoc signo vinces* [In this sign you will conquer] - says Mr Karłowski, and perhaps he is right. But ... even closer comparative experiments with the method, which we cannot take from Thaer or Dr. Steiner, are necessary” [78, p.521].

Experimental Circle, 1936

Karłowski joined the Experimental Circle of Anthroposophic Farmers and Gardeners on 24 January, 1936. He was issued a copy, Number 625, of the German-language edition of the Agriculture Course [51]. The written and signed commitment of members was to keep the contents of the Agriculture Course confidential.

Seven individuals from Poland joined the Experimental Circle in the period to 1 September, 1939 (that is from the issue of #1 of the published Agriculture Course up to the outbreak of WWII). By then, there were a total of 696 copies of the German edition and 66 copies of the English edition distributed. Each member received a numbered copy of the Agriculture Course (the archival records are substantially complete however there are some gaps, and some early issues lack the date of issue) [51].

Karłowski was the sixth of seven applicants from Poland to join the Experimental Circle. The recipients in Poland of the Agriculture Course were: #28 Frau von Kryzanowska (Krakau) (July 1929); #37 Frau W Siedlecka (Warsaw) (July 1929); #324 Frau J Szczypiorska, Warsaw (5 November, 1929); #582 Karl August von Massenbach, Pniewy (26 January, 1934); #594 Freün Annemarie von Massenbach, Pniewy (12 June, 1934); #625 Senator von Karłowski, Szelejewo (24 January, 1936); #632 Frau Wanda Peliska, Wilno, Poland (now Vilnius, Lithuania) (14 April,1936) [51].

Each copy of the Agriculture Course was individually numbered and endorsed with the recipients name on the title page, which stated: “This manuscript is intended only for use by the person named above” [20, p.25].

There were no further applicants to the Experimental Circle from Poland in the remaining years of the interwar years and nor were there any further applications in the following two decades (through to 1958 when the accessed records cease) [51].

The expectation of members of the Experimental Circle were that they: “carry out the experiments in a practical way in their own experimental stations, and in such a way that it is impossible for non-members of the Experimental Circle to ascertain how the preparations are made” [59, p.367].

Experimental Circle members were warned of “premature communication of the methods to the outer industrial world … our agricultural methods and preparations should only be carried into the world by those who have a thorough grasp of the spiritual-scientific and practical questions concerned” [59, p.367].

Stanisław Karłowski was a most unusual member of the Experimental Circle. By the time he joined, he had already converted his whole farm to Biodynamics, he had already translated and published the first Biodynamics works to appear in Poland, he had already defended Biodynamics against detractors in the national agricultural press, and he had already run Biodynamics courses at his farm and distributed the BD preparations.

Stanisław Karłowski did not attend the Agriculture Course at Koberwitz in 1924. He never met Rudolf Steiner. He was not an Anthroposophist. He did not read Rudolf Steiner's vast canon of non-agriculture works. Stanisław Karłowski was a pragmatic Biodynamicist - interested in the Biodynamics method for what it could deliver in terms of agronomics, economics, and health. In this regard he was unlike the many. Stanisław Karłowski brought to Biodynamics the vision of a holistic banker.

Demeter, 1937

The leading Biodynamics journal of the time was 'Demeter: Monatsschrift für biologisch-dynamische Wirtschaftsweise' (Monthly for biological-dynamic farming). 'Demeter' was published out of Bad Saarow, Germany (90 km east of Berlin) and edited by Dr Erhard Bartsch, a leading Biodynamics pioneer and farmer (and a Koberwitzer) [48].

Stanisław Karłowski contributed to 'Demeter' a detailed account of his conversion of the Szelejewo Estate to Biodynamics (see 3.03) [46]. In 'Demeter' he provided longitudinal data on yields of various crops. It was an obligation of all members of the Experimental Circle to experiment and test. Stanisław Karłowski was the exception amongst members for honouring that obligation by actually collecting, collating and publishing data.

Society for the Promotion of the Principles of Life and Economy, 1938

The culmination of Stanisław Karłowski's enthusiasm for Biodynamics advocacy was the founding of the 'Society for the Promotion of the Principles of Life and Economy in Accordance with Nature' (Towarzystwo Krzewienia Zasad Życia i Gospodarki Zgodnej z Przyrodą) on 17 November 1938. There were 22 founding members at the inaugural meeting held at the University of Poznań [88].

Stanisław Karłowski appears to have been the prime mover of the new Society: "In the introduction, Senator Karłowski explained the aim and tasks of the Society to be established. On the basis of numerous examples of the application of the biological method, especially in his own farm since 1930 and the positive results achieved thanks to it, he came to the conviction that only biological methods applied in all walks of life - in agriculture, health care, horticulture, medicine, town planning, etc. - can provide full guarantees of health and normal human development. Artificial, non-biological methods sooner or later produce negative results" [88, p.58].

A new society and journal: "These thoughts led to the founding of a Society whose aim was to promote (mainly through a magazine) the principles of life and economy in harmony with nature. The creation of an independent journal is very necessary in the present conditions, as many professional journals are directly or indirectly dependent on industry. It is therefore difficult for these journals to be objective in their judgement" [88, p.58].

At the inaugural meeting of the new Society, Stanisław Karłowski was elected as President: "the meeting came to the conclusion that the founding of a society and the publication of an organ to familiarise the public with these issues is important and desirable … The organ of the Society will be the bi-monthly 'Biology and Life'. The Society's Board of Directors was elected, with Senator St Karłowski as President" [88, p.59].

The first editorial of 'Biology and Life' stated the rationale for the new journal: "What are our aims? Is it necessary to publish a journal? We will try to give a brief answer to both questions. We are observing a dangerous phenomenon of the deterioration of human living conditions. As a result, many common diseases and hereditary burdens are multiplying. Modern medicine is often helpless in the face of these facts, treating mainly diseases, while it has almost no influence on removing their causes … This economy has all the hallmarks of a predatory economy that destroys livelihoods. In many cases it has led to the extreme impoverishment and destruction of cultivated soils, turning entire tracts of the country into deserts, the most recent and discouraging example being that of certain territories of the United States of America … As a result of faulty plant nutrition, a number of foodstuffs have lost their nutritional value, causing consumers a great deal of metabolic suffering. This state of affairs raises legitimate concerns for the future of the organic basis of our existence, and there are increasing calls for a turn from the wrong path" [89, p.3].

The editor of 'Biology and Life' continued: "we consider it an urgent civic need to establish a periodical independent of any industry, a periodical that will only explain, from the point of view of the objective achievements of modern science, the thoughtlessness and artificiality of many of the methods used today, and will point out the resulting damage both to health and to the overall economy of man … From 1 January 1939 onwards, issues of our journal will appear every two months. In addition to articles, especially in the field of the application of biology to life and farm … It is our fervent wish to put our everyday life and our economic methods on a healthier, more successful track! There is still time. If we do not turn back, there may come a time when we will have to pay a price for today's negligence, the amount of which cannot be established. Let us remember that the land we inhabit is to be the basis of our existence for ever. Today's generation cannot afford, for the sake of temporary profits, an economy that ruins the natural basis of production. It is our duty to do everything possible to increase its productive forces to the highest possible limits, in harmony with the whole of nature" [89, p.4]. Four issues of 'Biology and Life' appeared. Three issues included an article by Stanisław Karłowski [69, 71]. The uptake, distribution and reception of 'Biology and Life' are unknown. In any event, the invasion of Poland by Germany on 1 September, 1939, would have brought the journal to an end, with paper requisitioned for war purposes, and "the prohibition against [publishing] anything not war related" [Gerd Heinrich, 1944, in 50, p.145]. Poland's 2,250 periodicals were "reduced to nothing" [32, p.22], and the Polish educated classes were targeted for "liquidation" by the Einsatzgruppen Nazi murder squad [90].

The rationale and founding sentiments of 'Biology and Life' are congruent with the sentiments of contemporaneous groups and publications elsewhere. The Biodynamic farmer and advocate in Switzerland, Ehrenfried Pfeiffer, published 'Bio-Dynamic Farming and Gardening' in 1938 [6, 17]. The Biodynamic farmer in England, Lord Northbourne, coined the term 'organic farming' and published 'Look to the Land' in 1940 [8, 9]. The organics advocate in USA, Jerome Rodale, launched his periodical 'Organic Farming and Gardening' in 1942 [91]. Organics advocates

founded the 'Australian Organic Farming and Gardening Society' in Sydney in 1944 [92]. The Soil Association was founded in England in 1946 [93].

Invasion & execution, 1939

Adolf Hitler (1889-1945) declared: "The destruction of Poland is our primary task. The aim is not the arrival at a certain line but the annihilation of living forces … Be merciless! Be brutal … It is necessary to proceed with maximum severity … The war is to be a war of annihilation" [quoted in 35, p.4].

Heinrich Himmler (1900-1945) echoed Hitler's sentiments: "It is essential that the great German people should consider it as its major task to destroy all Poles" [quoted in 35, p.4]. The Nazi 'rationale' was that the Poles were 'untermenschen' (sub-humans) [94] and Germany needed 'lebenstraum' (living space) [95].

In pursuit of his delusions, Adolf Hitler declared a campaign of unbridled war crimes, of killing civilians: "without pity or mercy all men, women, and children of Polish descent or language. Only in this way can we obtain the living space we need" [22 August 1939, in 35, p.3].

Before the invasion of Poland, a book of Polish extermination targets was compiled by the Geheime Staatspolizei (Gestapo); it named 61,000 Poles to be murdered (the name 'Stanisław Karłowski' does not appear in the edition available to the present authors) [96]. This was to be a war, to be waged not for domination but rather for extermination: "September 1, 1939 … this was the inauguration of the German policies of systematic terror, enslavement, and extermination of civilians on an unprecedented scale … the Germans waged war against the Polish people, intent on destroying the Polish nation" [35, p.1].

Stanisław Karłowski had the wherewithal to flee in the early weeks of the German invasion, he was one of the wealthiest local residents, an 'oligarch' by one account [34], he spoke multiple languages, and he had lived and worked abroad, including in Britain, Belgium, and Germany. Adolf Hitler's vision of 'living space' in the East for his Third Reich and his disdain for the Slavic people were both available for scrutiny in his manifesto 'Mein Kampf' [95]. But, even in September 1939, who could imagine that Hitler would or could translate his rantings into an actual policy of genocide against Poles? Or that Hitler could inveigle an army into murdering civilians? Karłowski was entitled to the reasonable assumption that an invading German army was in pursuit of territorial conquest (after all Europe had been at that for centuries), rather than war crimes and genocide. Stanisław Karłowski had decades of experience with Germans and Germany, had studied and worked in Berlin, was even described as a "Germanophile" by his second wife [Paula Karlowska, 1965, in 36, p.79]. His fair expectation would have been that an invading force would behave in an honourable manner, albeit in pursuit of a dishonourable quest.

Germany invaded Poland on 1 September 1939. There was no declaration of war but on 3 September this invasion triggered a declaration of war on Germany by Britain. "Every nation under enemy occupation during World War II experienced a reign of terror by the Nazis. But no nation suffered more than Poland. Poles were shot … for merely being Polish" [35, p.34].

Stanisław Karłowski did not flee in the face of the invading German army. Unbeknown to him, the Nazis had a plan to murder educated, wealthy, influential Poles at the earliest opportunity. Stanisław Karłowski did not see out the year of the invasion. By all accounts, Karłowski was an honourable man, while he expected war, perhaps even the occasional war crime, he would not have anticipated war crimes on an industrial scale.

The German blitzkrieg (lightning war) [97] proceeded with brutality: "immediately after their entry into Poland, the Germans set to work to exterminate the Polish intellectual classes. They at once murdered large numbers of Polish priests, landowners, officials, lawyers, professors, teachers, and doctors … also … merchants, artisans, labor leaders, Trades Union leaders, Leaders of peasants' agricultural organizations, etc." [98, pp.28-29].

The German Guidelines for the Administrative Reconstruction of Posen (Poznań) advised: "Each locality is to be given a German character as quickly and as thoroughly as possible" [36, p.123]. "In mid-September, Einsatzgruppe VI was ordered to pacify the [Poznań] region" [36, p.132].

Shortly after the invasion, the new Chief of Civil Administration at Poznań reported: "Within a week it was possible in close cooperation with the military to sift through and cleanse not only the town but also the vast majority of the districts … The issuing of weapons to ethnic Germans … public executions … must be viewed as highly necessary for pacification purposes … The focus of the police has been on the Polish upper class" [25 September, 1939, in 36, p.122].

The Polish government in exile reported: "In the County town of Gostyń, at eleven o'clock on the morning of October 21, 1939, thirty persons were shot, among them the local leader of the National Party, Mieczysław Hejnowicz and his brother, several prominent members of the intellectual class, as well as many land owners from the surrounding country, including Mr Edward Potworowski, of Gola, a Papal Chamberlain and Director of the Catholic Action organization; the former Senator Stanisław Karłowski of Szelejewo; Count Grocholski and … Baron Graeve of Borek. The son of one of the condemned succeeded only in obtaining permission to be shot in his father's place" [98, p.35].

An eye witness to these executions recalled: "I was ten years old … I will never forget October 21, 1939 … In the corner of the market … the Germans tore up cobblestones and dug a row of railway sleepers into the ground, so long that that they protruded from the ground for about 2 meters. The whole wall was about 8 metres long, was covered with sandbags from the bottom to the top. It was, as it turned out, the wall of the so-called bullet trap, under which 30 Poles were executed … the inhabitants of Gostyń were gathered around and placed around the square. About 11.00 a firing squad appeared, consisting of 30 soldiers in Feldgrau [greenish-grey] uniforms, with rifles. Prisoners were led out ten at a time. An officer with a pistol in his hand gave a signal and a volley was fired, taking the lives of these unfortunates. The soldiers fired Mauser-type rifles, with the first row of shooters, the one closest to the prisoners kneeling on one knee, the second in a bend, and the third row of murderers was in an upright position … After these bodies were removed, the second ten were led out of the town hall. They were placed again against the wall of sacks and sleepers. The officer in charge stood on the left and that moment something unexpected happened … The Pole, standing in the row, first from the left, with his back to the shooters quickly turned and hit the officer with all his strength, perhaps

in the face. The German fell over … that Pole, he was supposed to be, as I know from stories told by adults, Mr Karlowski, a landowner from the district of Gostyń … The real terror of the invader had begun" [99].

Pauletta Karłowska recalled the events: "Many of the large landowners in the Gostyń District, including my husband Stanislaw von Karlowski, owner of Szelejewo Manor, and other prominent members of this circle were arrested on October 19, 1939, taken to Gostyń, and locked in the cellar of the municipal office there. The prisoners were not even given straw; there was just a concrete floor on which they had to lie. They were not fed either, but we were allowed to bring them food. On October 21, when we brought the prisoners breakfast, the guards pressed us to hurry; I feared the prisoners would be transported to a concentration camp, but what happened was much worse. Around 10:00 in the morning, the prisoners were assembled at the main square and murdered, shot in the back of the neck … This murder squad then went from one place to another, from one shooting to another … My husband, the son of a landowner from the Poznań District, was educated in Berlin and was decidedly a Germanophile; for this reason he was often treated with hostility by the Poles" [1965, in 36, pp.78-79].

Pauletta Karłowska, was deported: "The Germans began the deportation of the Polish population from the town of Gostyń, in Poznańia, on December 8, 1939 … On December 16 Germans from Riga arrived [for resettlement]. The first transport of deportees from Gostyń, numbering 1,100 people, was sent to Rawa Mazowiecka [near Warsaw]. These poor people were transported in large dung carts … as though they were … convicts. The sight of the people weeping in the carts was dreadful. The monastery was turned into a temporary concentration camp … Among them were … Mrs Karlowska" [98, pp.190-191]. She was later rescued by German Biodynamic farmer Dr Nicolaus Remer [62]. The Szelejewo Estate was appropriated by the Nazis.

As in other Polish cities and towns: "the Germans began to deport Poles from Poznań, the capital of Western Poland, a city of 270,000 (of whom 97 per cent were Poles and only 1 per cent Germans … The deportations [were] carried out in the most brutal manner … All those people … were robbed of everything they possessed. In their place 36,000 Baltic Germans and a large number of German official and military families were settled in Poznań. There by resorting to unprecedented violence and robbery they have succeeded in temporarily changing the ethnic features of one of the great historical towns of Europe" [98, p.158].

In the course of the next several years, the Nazis refined their methods of Polish extermination: from Stanisław Karłowski's firing squad in the city square, to firing squad in front of trenches (no transport required for the corpses), to beheading and public hangings (which saved bullets), to specially rigged trucks with the exhaust diverted into the cargo bay (saved ammunition and personal intervention), to the poison (Zyklon B) gas chambers and ovens of concentration camps (which enabled mass murder on an industrial scale) [32, 100].

More than six million of the population of Poland perished in WWII; 22% of the total population. "About 50 percent of these victims were Polish Christians and 50 percent were Polish Jews" [35, p.39].

Russian troops pushed the Nazi army back through Russia, back through Poland, and eventually took Berlin. Adolf Hitler suicided on 30 April, 1945. Germany surrendered on 8 May, 1945. The German occupation governments of Poland collapsed. The map of Poland once again underwent a transformation. The western border of Poland moved to the west as Germany ceded territory to Poland (East Prussia and Silesia), putting Breslau (now Wrocław) and Koberwitz (now Kobierzyce) in Poland. The eastern border also shifted to the west with Polish territory ceded to Russia. The northern Polish border shifted northward to the Baltic Sea putting the seaport city of Danzig (now Gdańsk) in Poland. Poland was under communist rule as the Polish People's Republic, until 1989. The war and decades under communism erased the Biodynamics legacy of Stanisław Karłowski and others, and these decades were not conducive to Biodynamics. Post-communism, Poland is now the 'Republic of Poland' (a member of the EU and NATO). A Polish version of the Agriculture Course was published in 2007 [101, 102].

DISCUSSION AND CONCLUDING REMARKS

Stanisław Karłowski was one of the first wave of organics pioneers, the wave after Rudolf Steiner's Agriculture Course of 1924 and before the evolution of either term, 'Biodynamic farming' or 'organic agriculture'. He was forging a path and leading the way in pursuit of natural farming without synthetic chemicals. His farm, Szelejewo Estate, in Poland, was an important locus of organic and Biodynamic adoption, innovation, and advocacy.

He was enthused with what was, at the time, called the biological-dynamic method. It was an enthusiasm borne of his lived experience of the practice, economics, and agronomics of Biodynamics. We can infer from his actions that the question he asked himself is identical to that raised half a world away and almost a century later: "The big question for us is how can Biodynamics play a role in a return to natural food production on a meaningful scale? How can Biodynamics be made so attractive and easy to adopt that it undergoes massive uptake?" [103, p.5].

Stanisław Karłowski was one of the nearly 800 worldwide members who joined the Experimental Circle (up to WWII). There were few, less than a handful anywhere in the world, who took up the task of experimentation, implementation and advocacy more tenaciously than Stanisław Karłowski. He was the leading exponent of Biodynamics in Poland. The first to translate Biodynamic material into Polish, he was making the material accessible to Poles in their mother-tongue. Many would have felt tightly bound by the secrecy of the confidentiality agreement of the Experimental Circle, but Stanisław Karłowski regarded the essence of the method as proven by his own practice, and he acted to disseminate it.

The chain of custody of Biodynamics in Poland was smashed by the Nazi invasion of Poland. Practitioners of Biodynamics were murdered, property was appropriated for the SS and thousands of incoming German 'settlers', libraries and archives were destroyed and the land plundered. The crime of Stanisław Karłowski was not being a Biodynamicist but being a Pole, and more particularly being an educated Pole.

The turbulent history of Poland since 1939 has not been conducive to the preservation of the legacy of Karłowski. The personal papers and library of Karłowski appear to have not survived intact. Nevertheless, it seems likely, to the present authors, that some untapped remnants or diaspora of Stanisław Karłowski's papers, books, records, photos, and/or correspondence will

have survived in personal or archival collections, perhaps in Poland, Germany, Russia, or elsewhere. The authors of the present paper are interested to learn of any cache of letters or trove of books or documents of Stanislaw Karłowski which can cast further light on the life and times of this champion of healthful and ecologically sound farming practices.

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