Maps Against Imperialism: Frank Horrabin and Alexander Radó's Atlases in the Interwar Period

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Abstract Though radical or critical cartographies are recent trends, maps that question the political order were conceived much earlier. This article deals with several atlases which were made between the two world wars, by Frank Horrabin, a British socialist, and Alexander Radó, a Hungarian communist. Both shared a conception of maps as tools to denounce and combat bourgeois imperialism. They presented their works as new projects, different from ordinary atlases: they wanted them to be rooted in current affairs and to provide dynamic approaches. They favoured small-scale representations and demonstrated a clear awareness of the interdependence of phenomena on the globe's surface. Their cartography, which may be described as 'persuasive', left much room to thematic maps, mainly on economic and geopolitical topics. In particular, their atlases outlined all forms of domination and imperial control. Horrabin and Radó used a variety of graphic means (arrows, colours, typography, and layout) to reinforce their message, which gave their maps a definite connection with those drawn by German geopoliticians in the 1920s and 1930s. The general picture that emerged from this cartography was that the world was a battlefield of imperialistic rivalries, fraught with threats and friction points. Founded on Marxist ideology, this cartography placed special emphasis on Soviet Union, presented as a peaceful State, encircled and threatened by imperialist blocs.

1 A Left-Wing Philosophy of Mapping

As is well known, maps were, throughout history, tools that served power. In the contemporary period, they were particularly involved in the building of nation-states and in colonial control. Over the past decades, the inseparable link between maps and the established powers has been called into question by several branches

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of cartography, derived from the critical thinking initiated by Brian Harley (Harley 1988, 1989). Alternative maps have flourished, as part of movements such as radical cartography, counter-mapping or indigenous cartography.

However, it is possible to identify an early map production that anticipated the practices of critical cartography. In this article I examine the case of several atlases which were made between the two world wars, by Frank Horrabin, a British socialist, and Alexander Radó, a Hungarian communist. There is no indication of any contact between these two personalities. They just shared, for three of their atlases, the same English publisher: Victor Gollanz, the editor of George Orwell, close to the pacifist and socialist ideas. It is of interest, though, to bring together a few atlases made by Horrabin and Radó, to highlight their common threads: proximity, formal and ideological. Horrabin as well as Radó advocated for internationalism and against imperialism, and their atlases challenged the usual image publicized in commercial and official cartographies. Published over a short period of 12 years (between 1926 and 1938), they are to be understood within the context of a struggle between capitalist states and the Soviet Union, which was then the only state to follow the socialist model.

Therefore, the following questions are raised: what identifies these atlases, in terms of content and topics, structure, graphic design? How does this 'socialist cartography' relate to other forms of persuasive cartography produced over the same period, in particular by German or Hungarian extreme right-wing elements? More generally it seems important to rescue from oblivion an original discourse, much less common than the one designed to reinforce the traditional view of the Nation or the Empire.

James Francis Horrabin (1884–1962), also known as Frank Horrabin, was a British socialist, a representative of the left wing of the Labour Party. In 1921 he joined the newly founded Communist Party of Great Britain, but left it fairly quickly, to go back to the Labour. In the interwar period, Horrabin was especially involved in several socialist societies, notably the *Plebs League*, which sought to promote a class education of workers, based on Marxism. Horrabin was one of the key players in several institutions set up by the *League*, such as the Central Labour College, that worked until 1929. Horrabin was an autodidact, with no training in geography, but he had been trained in design, at the Sheffield Art School. He turned to cartography during his career as a journalist: he first illustrated articles and books with maps and diagrams, and later produced a large number of atlases, notably on World War II, the USSR, or Africa. Horrabin's graphical production has been mentioned in several recent books, but has only been the subject of a single general study (Bithell 1984a, b). Horrabin's work has also been addressed from the perspective of his contribution to a 'socialist geography' in England (Hepple 1999).

Alexander (or Sándor) Radó (1899–1981) shared with Horrabin a left-wing commitment, but his life was much more eventful, reflecting the political upheavals of his time. He was a Hungarian Jew who joined the Hungarian Communist Party when it was founded, in November 1918. He participated in the Bela Kun

revolution, and after its failure, he took refuge in Austria, and later in Germany. During this time, he continued to be involved in left-wing politics, but also completed his studies in geography and cartography, first at the University of Vienna, and in 1922–1925 at the universities of Leipzig and Jena. Radó made a number of trips to Moscow and became a Soviet spy, in probably as early as 1919. Based in Berlin after 1925, he pursued his intelligence work, under the cover of cartographic activities for German editors. After 1933, Radó fled to France, and later to Switzerland, where he founded a news agency, which provided maps to reviews and newspapers. To be complete, it can be said that Radó is considered as one of the greatest spies of the period, and that the intelligence activity of his network allowed him to alert Stalin of the impending Barbarossa operation, among other valuable information. Radó's life trajectory is known to us from a CIA report (Thomas 1968) and Radó's own memoirs (Radó 1971, uncensored version in 2006). His work as a spy-cartographer has been addressed in numerous recent studies (Schlögel 2003; Schneider 2006; Barth 2010; Bourgeois 2011; Heffernan and Győri 2014; Boria 2014; Rivière 2016).

Horrabin and Radó's cartographic activities were motivated by their left-wing ideology. Regarding Horrabin, he claimed to produce maps specifically for the worker's education. He began to publish them, together with charts, in socialist newspapers such as the *Daily Herald* or the *Lansbury's Labour Weekly*. He also used them for booklets and cheap textbooks, or to illustrate his lectures at the Central Labour College. In a 1923 geography textbook, Horrabin presented the map as an element of pleasure and recreation for the reader and an attractive way to educate and to deliver messages. He did not define a clear political project for his atlases, but they were mainly targeted at those who studied imperialism and they strongly opposed capitalist empires compared to Soviet Russia, a federation of worker's republics. In the short texts he wrote as introductions, he clearly placed his atlases under a Marxist perspective.

Radó, for his part, connected his cartographic approach with his stay in Moscow, in 1921, at the meeting of the Third International. The young Hungarian cartographer, then looking for Russian maps for his documentation, met Lenin in a corridor of the Kremlin: 'When he learned that my scientific interest focused on geography and cartography', wrote Radó, 'he explained to me in a few words that special methods of cartographic representation had become necessary, as a result of the problems with imperialism' (Radó 1972: 48). He stated further: 'I have tried to get that done, in line with the spirit of Lenin, in my first cartographic work, the *Atlas of imperialism* (published in Berlin in 1929 and in Tokyo in 1930)' (Radó 1972: 49). In any event, this anecdote about a discussion with Lenin should not hide the fact that Radó was likely influenced by forms of persuasive cartography developed by German geopoliticians or Hungarian revisionists, in the interwar period (Herb 1997: 152).

2 To Show Today's World

Our corpus of analysis is made up of two atlases from Horrabin: the first he published, *The Plebs Atlas*, in 1926, and *An Atlas of Empire*, dated 1937. *The Plebs atlas* was made up of '58 maps for worker-students', reproducing illustrations made by Horrabin for the 'Geographical Footnotes' of *The Plebs* and The *Lansbury's Labour Weekly*. *An Atlas of Empire*, published in paperback format by Gollancz, contained 70 maps, each one with a facing text page. A third work, *An Atlas of Current Affairs* (Horrabin 1934) will also be mentioned, though it is less clearly ideological: its introduction sounded more neutral, as if the atlas was trying to reach a larger audience.

With regard to Radó, his first atlas is rather well known. The *Atlas für Politik, Wirtschaft, Arbeiterbewegung* [Atlas for Politics, Economy, and Labour Movement] was published in Vienna and Berlin in 1930, according to its copyright. Its subtitle, '1. Der Imperialismus', flagged it as a first volume. Radó stated his intention to issue a second volume on the workers' movement and a third one on the Soviet Union—but the rise of the Nazism in Germany prevented him from realizing this project (Radó 1980). The other work of interest is Radó's second atlas, *Atlas of To-Day and To-Morrow*, published in London in 1938. It was said to be an entirely revised edition of the previous one, and it is indeed a completely different work, despite a similar political message.

Our two cartographers presented their atlases as new projects that stood apart from existing publications. 'It is not its aim […]', said Radó about his second publication, '[…] to improve on existing geographical atlases with their accurate and multi-coloured drawings of cities, rivers and mountains' (Radó 1938: IX). Horrabin made a comparable remark: '[This atlas] is not intended to take the place of an ordinary reference atlas […]. The maps on the following pages make no attempt at crowding in all the names and facts possible' (Horrabin 1926: 3).

Consequently, they highlighted specific characteristics. First, they claimed that they wanted to focus on 'current events'. This is obvious first of all in some of the titles that were chosen: 'Current Affairs', 'To-Day and To-Morrow'. Moreover, both Horrabin and Radó insisted on this in their introductory remarks. Horrabin wanted to call 'the student's attention to essential points of present-day world geography' (Horrabin 1926: 3) or 'to illustrate current happenings' (Horrabin 1926: 4). He further suggested that his maps should be used for reading a newspaper intelligently: they could then be corrected or commented upon in the margins with a pencil, when the newspaper gave additional information. Radó stated a similar intention in his second atlas, expressing the wish to seize the evolving world of his time: 'The purpose of this atlas is to provide, so to speak, a snapshot photograph of our rapidly changing world' (Radó 1938: IX). He also shared the concern to help the reader, through the 'comprehensive picture' he proposed, 'to understand the age in which we live' (Radó 1938: IX). Of course, this common orientation was linked to our cartographers' experiences in journalism. Both prepared news maps for print media. It was even the essential cover activity of the successive news agencies that

Radó founded in Berlin (Pressgeo), Paris (Inpress) then Geneva (Geopress S.A.). It is noticeable too, that Horrabin drew maps on up-to-the-minute information for a BBC television talk, 'News Map', from 1937 onwards. With their atlases dealing with current issues, Horrabin and Radó are among the precursors of a type that primarily flourished after 1980, with for instance *The State of the World Atlas* (Kidron and Segal 1981) or the *Atlas stratégique* (Chaliand and Rageau 1983).

From this first characteristic, a second one follows: emphasis was given to dynamics, as opposed to static views of traditional geography. In the statements made by Radó or by Theodore Rothstein, the Russian Bolshevik who prefaced the 1930 atlas, one can detect a touch of irony towards a descriptive geography that recorded endless towns, mountains, rivers and so on. This orientation led to a static view and was a keynote of bourgeois knowledge. Horrabin, too, distinguished his approach from that of an 'ordinary reference atlas' (Horrabin 1934: 5). The remarks he made in a 1923 textbook for workers, *An Outline of Economic Geography*, enlightens us on that point (Hepple 1999: 86): Here Horrabin opposed a pure geography, mainly descriptive and physical, to the geography 'from the working class point of view' (Horrabin 1923: 9). Pure geography, produced by the bourgeoisie, collected 'a mass of facts' (Horrabin 1923: 9), not subjected to interpretation. Working class geography was 'studied in relations with history and economics' (Horrabin 1923: 9). It was deliberately selective, aiming at a simplification of information and focusing on problems that world's workers would someday have to solve. In this way, the atlases examined here were sorts of inventories of 'hot spots' of the time, of problems that carried with them the seeds of crises or conflicts. They were simple guides, as Horrabin put it, 'to key facts and key places of the world of to-day' (Horrabin 1934: 5).

Last, Horrabin's and Radó's atlases demonstrated a common concern for what we would today call globalization. It has been asserted (Henrikson 1975; Schulten 2001; Capdepuy 2011) that the sense of a globalized world emerged in cartography during World War II, as if the global war led to imagine a global cartography. However, Horrabin and Radó fully understood the interrelations between the different parts of the world. 'I hope', said Horrabin in his first atlas, 'that readers will be able to study an area not only by itself, but in relation to its larger world-setting' (Horrabin 1926: 5). He later added, regarding his *Atlas of Current Affairs*: 'The maps have been grouped in seven main divisions—Europe, the Mediterranean area, the Americas, the Far East, and so on. But the world today is interdependent; and various cross-references will indicate the impossibility of studying any one problem *in vacuo*' (Horrabin 1934: V). For his part, Radó seemed well aware of the internationalization of markets and of the global competition, whether political or economic. In his atlases, he favoured maps on a small scale, depicting the world, the oceans or continental groupings. Finally, it is important to underline that in their atlases both Horrabin and Radó emphasized the relations and flows, as we will see below.

3 A Prominent Theme: Economic Phenomena

If we take a closer look at the atlases, a first point of interest is their thematic orientation. It may not surprise us that Horrabin and Radó, steeped in Marxism, gave prominence to economic maps. They were both experts in the field of economic geography. Horrabin had given a central role to the subject, which he introduced and taught at the Labour College from 1918 onwards. To him, it was one of the pillars of workers' education. He had also published a popular textbook in this field, as mentioned above. Similarly, Radó conceived his study of imperialism through the prism of economic geography: raw materials distribution, activities, and international trade. He had the same experience as the British journalist, teaching the subject when he was in Berlin, at the Marxistische Arbeiterschule. Furthermore, in his preface to the 1930 atlas, Theodor Rothstein distinguished Radó's work from geopolitics by pointing out that the latter forgot the economic forces. Yet 'A truly scientific geography will necessarily be built only in the closest context to the study of economics, and that means that it will only develop into a social science and will bear fruit as a real scientific discipline if it is Marxist, that is, if historical materialism is treated' (Rothstein in Radó 1930: 5).

When Horrabin drew political maps, he regularly enriched them with indications on resources and commercial routes, as we can see for example on a map of the Near East (Horrabin 1934: 64), with the mention of the oil fields and pipelines, or a map of Morocco (Horrabin 1926: 56), which displayed the major trade routes at the same time.

This economic trend is much more systematic in Radó's atlases. In the last part of the first one, he alternated a map of nationalities and an economic map for each country. In both editions he also provided economic maps on a world-wide scale, product by product, in a part entitled: 'Targets of imperialism (resources and markets)'. Radó mixed several distributions on a single map, not least to highlight a mismatch: producers and consumers, resources and industry, as for instance a world map of rubber resources and automobile production (Radó 1930: 59). In the 1938 edition, he systematically added a flow map, showing the trade relation, for each country case.

However, most interesting in Radó's cartography is his representation of financial capitalism. This topic appeared in his first atlas, with a choropleth map that showed the impact of World War I on the value of currencies. It was much more developed in the second atlas, in particular with spectacular maps of the flows of capital (Radó 1938: 7 and 11) (Fig. 1). These were probably the first maps that had ever been made on financial flows. Only one earlier example on a similar topic is known: a representation of international credits between the different parts of the world, by the Austrian philosopher, sociologist, and economist Neurath (1936: 61). It is not insignificant to mention here the central character of the Viennese circle, inventor of the ISOTYPE (International System Of TYpographic Picture Education), a pictographic language he created with Gerd Arntz in 1920. We will see further that Radó was likely influenced by Neurath's method of data representation.

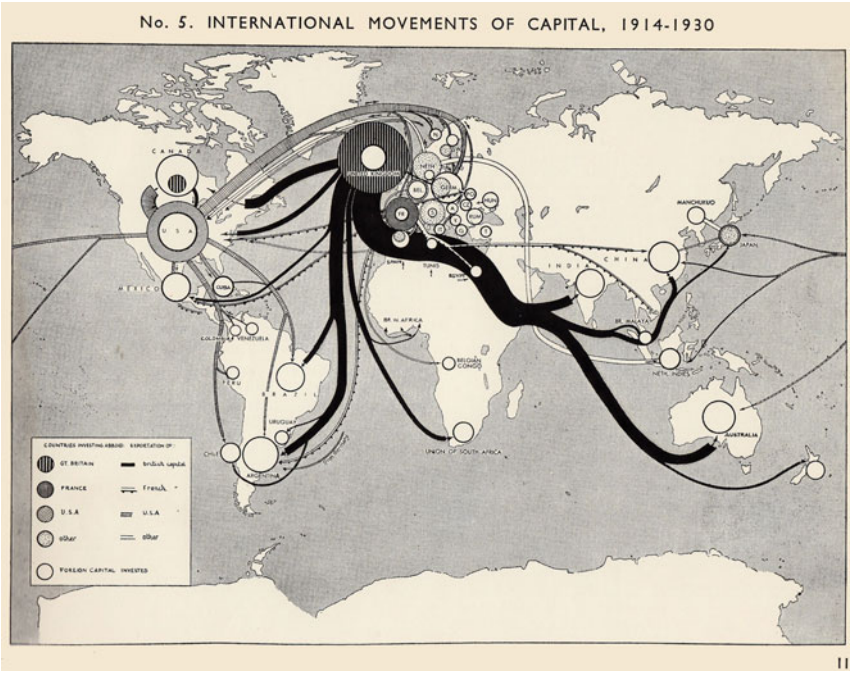

Fig. 1 'International movements of capital, 1914–1930', in: Rado S, *Atlas of To-Day and To-Morrow*, 1938, p. 11

In some ways, Horrabin's cartography was more traditional than that of Radó. He used statistical representations with parsimony and never drew any flow map, simply indicating routes or networks (railways, pipelines). His only reference to financial capitalism was on the dust jacket of *An Atlas of Empire* (Horrabin 1937), illustrated with a globe surrounded by a chain whose links were formed of symbols of the main currencies. Finally, it can be seen that most of the maps addressed economics in a confrontational manner: the words *struggle*, *war*, or *Kampf* recurred in titles and legends, reflecting the general idea of imperialist rivalries.

4 The Geopolitical Vision

Geopolitics was the second prominent theme developed in the atlases. They depicted a world divided in blocks, wholly owned and controlled by the capitalist powers. This world was the theatre of a constant fight for space, routes and resources, and the maps reviewed all the friction points or places of competing ambitions. From the authors' view, only the Soviet Union remained on the sidelines

of the struggle. The atlases also offered a comprehensive study of all the forms of political domination, whether it was over colonized people or over national minorities.

With Radó, the fight took place between five colonial empires and several 'Little Colonial States' (Radó 1930: 40–41). The Soviet Union was considered separately, as the proletarian great power and the only non-imperialist power (Radó 1930: 42–43). Horrabin distinguished larger ensembles: five 'Great World Groups' (Horrabin 1926: 10) corresponding to five dominant powers. However, the overall plan of the atlases did not strictly follow these divisions. It was mostly thematic in Radó, and more classical in Horrabin, based on continents. Within these frameworks, each major power was observed through its spatial extension, often starting with decentred views (Fig. 2) which were unusual in the cartography of the period, dominated by the Eurocentric outlook. It concluded an analysis of geographic locations, which was reminiscent of the German school of geopolitics, but also of more classical geographers, like Carl Ritter.

The capitalist blocks were once again addressed according to their rivalries. Sets of arrows showed lines of penetration, strategic or political ambitions, as we can see on a map from Radó's first atlas, which depicted the opposition between British and American imperialisms, strengthened by a high contrast of colours (Radó 1930: 65) (Fig. 3). This divided world was fraught with threats of crises and wars.

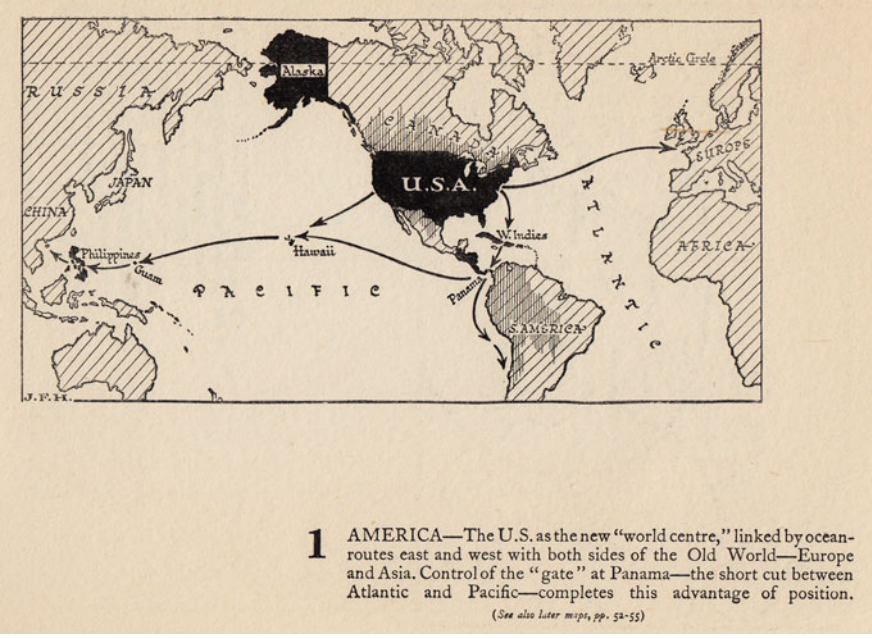

Fig. 2 'America', in: Horrabin JF, *The Plebs Atlas*, 1926, p. 11

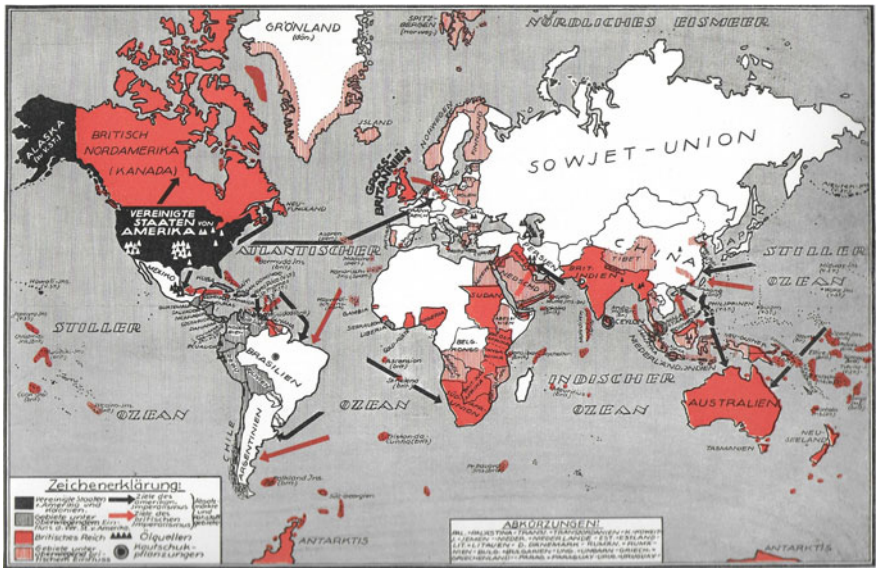

Fig. 3 'Der Kampf um die Weltherrschaft' (the fight for world domination), in: Radó S, *Atlas für Politik, Wirtschaft, Arbeiterbewegung*, 1930, p. 65

A second main geopolitical topic was the examination of all forms of domination, of colonized people or minorities. Horrabin emphasized the colonial control with striking maps, such as one of Africa (Horrabin 1937: 24) (Fig. 4) where he grouped all the colonies under a single pattern, and left in white the only two independent states, Liberia and Egypt. However, the common practice was rather to represent space as a political or ethnical patchwork. The patchwork primarily resulted from colonial partitions, as we can see in the case of India, with recurring maps that showed the inextricable tangle of British possessions and feudatory States under protection (Horrabin 1934: 128, 1937: 78; Radó 1930: 134–135, 1938: 37).

Most of the time, the territorial mosaic was tied to multinational States. Horrabin drew several maps on the subject in *An Atlas of Current Affairs*, primarily concerning Eastern and Central Europe, but also Spain and Belgium. He added a map of 'Nationalities in South America' (Horrabin 1934: 90), which merely identified the countries in which native Indians, blacks and mulattos formed the majority of the population. At last, Horrabin drew a unique map of religious diversity, in the case of India (Horrabin 1934: 130), as it was 'another of the complications' (Horrabin 1934: 131) that had to be solved in the sub-continent.

Radó's concern for minorities was even greater, perhaps because of his own Hungarian origin. He gave in his first atlas no less than thirteen maps on the topic and he provided the reader in the 1938 edition with a detailed cartography of all situations: one State with several nationalities or one nationality divided between several States. For him, the problem was not purely European. The notion of

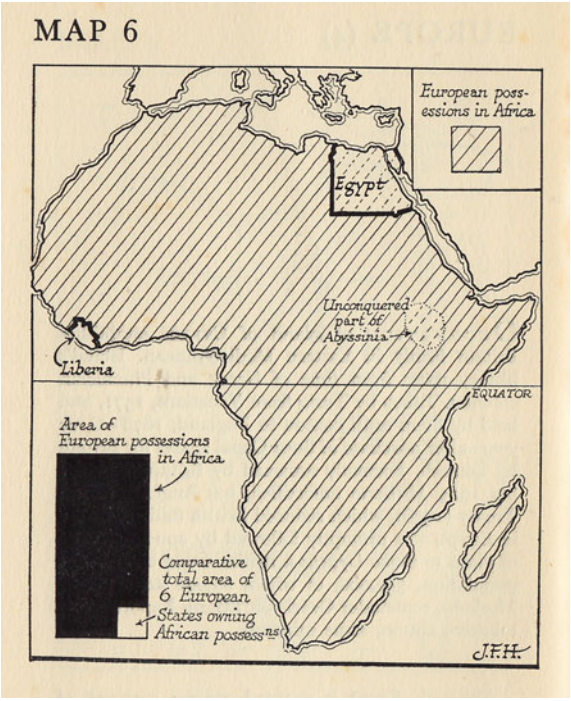

Fig. 4 'Colonial possessions in Africa', in: Horrabin JF, *An Atlas of Empire*, 1937, pp. 24–25

internal divisions was extended to other categories, notably the 'race', which allowed him to show a patchwork of the same type for the United States, with 'white', 'negro', 'Indian' and Asiatic population (Radó 1930: 145).

The atlases thus brought the attention to areas of potential conflicts. Several maps clearly identified immediate threats: the Germans in Central Europe, the Hungarian irredentism, Macedonia, South Tyrol, and so on. This left-wing geopolitical vision was that of a world, at the highest and ultimate stage of capitalism, filled with divisions and oppression, and pushed towards a new war. To build this image, the authors conflated very different political situations. Radó even collated all forms of domination in a single world map of 'oppressed peoples' (Radó 1930: 163) (Fig. 5).

As can be seen from this map, the Soviet Union was granted special treatment in the atlases. It was considered as one of the 'Great Groups', but neither Horrabin nor Radó marked it as an 'Empire'. It was described as a federation, whose domination on parts of Asia was non-colonial in nature. As a consequence, Russia was absent from Horrabin's *Atlas of Empire*. In the four other atlases, the vision on the country had two main dimensions. First, the Soviet Union was depicted as a victim, stripped of the territories which formed the 'cordon sanitaire'. Several maps in different atlases dealt with the same subject. Horrabin commented on it in the *Plebs Atlas*: 'Russia was robbed her Baltic coastline' for keeping it 'out of Europe' (Horrabin 1926: 34).

Fig. 5 'Die unterdrückten Völker des Welt' (Oppressed People of the World), in: Radó S, *Atlas für Politik, Wirtschaft, Arbeiterbewegung*, 1930, p. 163

The second issue was to present Russia as a peaceful State, threatened by the imperialist powers that surrounded it. With Radó for instance, a world map of weapons depicted over armed neighbours, when Russian military forces were expressed in contrast by a few pictograms (Radó 1930: 29). Thus, the Soviet Union appeared as a citadel under siege. Another map developed a thematic of encirclement by imperialist Great Britain, with a set of arrows, or axis of deployment (*Aufmarschlinien*) against Soviet Union (Radó 1930: 91). However, this view of Soviet Union was partly offset by another one: that of an emerging great power. Several maps stressed the vastness of the country, when many comments were nothing less than pure propaganda, celebrating the demographic potential, the economic development and the successful planning.

Faced with Empires often shown as composite, Russia appeared a homogeneous territory, where the problem of nationalities had been solved. In Radó's chapter on nationalities and economic issues, the Soviet Union was only depicted with administrative maps, including a general one, entitled: 'The solution of the national question in Soviet Union' (*Die Lösung der Nationalen Frage in der Sowjetunion*, Radó 1930: 157). The federal structure and the existence of autonomous towns and republics, 'a political experiment at a gigantic scale' (Horrabin 1934: 113), seemed to address all of the issues. In Radó's first atlas, Russia was always displayed with a solid red, and the problems of oppression and minorities seemed to stop short at its borders (Fig. 5).

5 The Language of Persuasive Cartography

The maps we examine here mostly fall under the category of 'persuasive maps', a now widely accepted expression, which is preferred to 'propaganda' or 'suggestive maps' (Tyner 1974, 1982, 2015). Persuasive maps are defined as maps intended primarily to influence opinions or beliefs, to send or reinforce messages rather than to communicate objective geographic information (Tyner 2015: 1087). Obviously, no map is solely objective, as it always depends on choices made by an author, of geographical objects or phenomena, as well as graphic signs. Conversely, a persuasive map is not without a descriptive, neutral or 'scientific' content. Today, rather than a strict opposition objective/subjective or science/propaganda, it is considered that maps fall within a continuum from descriptive to persuasive, without ever corresponding purely to one category or the other (Tyner 1982, 2015).

In the case of Horrabin and Radó, we are obviously close of the persuasive end of the spectrum: both claimed to be selective and subjective, and did not disguise their desire to transmit a political message through their maps. That being said, the maps from our atlases were far away from some categories of persuasive cartography, such as allegorical or satirical maps. Their external appearance was classical: they included title, legend and usually (but not systematically) a scale. They made use of abstract symbols or pictograms, and never included any anthropomorphic or zoomorphic figure. What, then, were their 'persuasive' characteristics, both in content and form, when compared with usual geopolitical maps of the period (Boria 2008; Muehlenhaus 2013; Herb 2015)?

First, the persuasive nature was reflected in the bias introduced by the comment texts, the titles, the legends of the maps. Most of the time, the map reading was guided towards a specific meaning, by mostly interpretative texts, that clearly reflected the author's ideological positions. Thus, Radó recalled with some pride a commentary made by Harold Nicholson in the *Daily Telegraph* about his second atlas: 'The author does not say a word about his political opinions, but everything he says bears witness to his ideological convictions' (quoted in Radó 1972: 75).We have already mentioned, for instance, the warlike tone of the vocabulary. Examples could be multiplied, such as the world map of weapons entitled 'Preparing for next war' (Radó 1930: 28–29) or a map of maritime routes in the Mediterranean interpreted as showing 'conflicting interests' (Horrabin 1934: 52).

On the content level, one can also point out simplifications that are similar to manipulations of information. In the *Plebs Atlas* for example, as pinpointed by Jeremy Black (Black 2015: 154–155), Horrabin drew *The New Map of Europe* to show 'the workings of imperialism' which were said to be 'as clearly traceable in Europe as in the other continents' (Horrabin 1926: 23). The map depicted in black the 'BRITISH possessions and "colonies"' (Horrabin 1926: 23, quotation marks from Horrabin), a category that included Portugal, Greece, Denmark, Holland, Norway, Finland and the Baltic States. In his 1930 atlas, Radó proposed a very similar map, *Europa 1929* (Radó 1930: 21), replacing the 'possessions and colonies' with a more skillful 'Influence and interests areas' (*Einfluss und Interessen Gebiete*).

In terms of graphism, the analysis requires us to distinguish between the atlases of the corpus. Radó produced two atlases very different of style. Regarding the first one, the *Atlas für Politik* […], the maps were prepared in cooperation with Karl Metzler, a graphic artist who was a member of the German communist party (KPD). This atlas was the only one printed in colour. Actually, forty-five maps out of 120 were in black and white, seventy used red in addition, and only five red and blue. This atlas was the closest work to a propaganda visual discourse. It made use of violent contrasts, notably to oppose the Soviet Union, in red, to other powers, or to enhance Empires and their colonies. The graphic design 'screamed' at the reader, with large swatches of deep black, heavy-faced letters, thick lines or symbols. The visual manipulation blatantly appeared with the use of a Mercator projection to exaggerate the surface of Russia on several world maps. A few years later, a geographer close to the National Socialists, Max Eckert-Greifendorff, denounced this attempt to make the Soviet territory seem even more powerful, 'and so on to externally demonstrate and document the overwhelming power of Bolshevism on earth' (Eckert-Greifendorff 1939: 340, quoted in Schlögel 2003).

Radó's second atlas looked very different from the previous. It benefitted from the collaboration of a professional cartographer, Marta Rajchman, a young woman who had been trained at the School of Cartography of the Paris Sorbonne University, in the same year as Jacques Bertin, the famous French theoretician of semiology of graphics. The subjective or ideological dimension lay above all in the structure of the book, its themes, comment texts and titles, with a focus remaining on confrontations and problems. However, the tone had become more sober and composed. The presentation returned to a more neutral and scientific type, with dense comments on each map, enriched by statistical tables. The map design still relied on contrasts, for example to depict the spatial extension of empires, but it was generally speaking fine and accurate. It used in a unique modern way all the possibilities of the black and white, in particular for statistical maps that combined variations of size with different patches or patterns. At last, there were a few examples, in this atlas and the previous one, of maps that have probably been influenced by Neurath's ISOTYPE method, with statistical data expressed by a range of geometrical or pictorial symbols.

Horrabin's atlases appeared much more homogeneous with regard to their design. The British journalist was the unique author and designer of his maps, most of which he signed in the lower corner with his monogram, JFH. His style can be described as sketchy or diagrammatic. His maps, all in black and white, were very simplified and clearly legible. Horrabin probably took into account the constraint of being published in a small size, in newspapers or atlases in paperback format. He also claimed this simplicity, in a way which can recall modern discourses on map communication: 'I have aimed at leaving out everything non-essential to the illustration of a particular point. I am a firm believer in the theory that a map should be designed to make some one point clear—and other points be left to other maps. Not only elementary students, but older readers, are befogged by the wealth of detail, all of it emphasized equally, in an ordinary map' (Horrabin 1926: 3–4). He further explained that he had to draw several maps of China, in order to avoid compressing facts into a single map.

Horrabin used solid black with parsimony. He preferred patterns of etchings or points, or various types of dashes to symbolize linear objects. His maps were more qualitative than those by Radó. Economic or demographic data were often limited to locations: 'coalfield', 'Wool area within circle', 'Areas of densest population' and so on. Horrabin never drew a flow map in any of the atlases we examine here, and only two choropleth maps, both in the 1934 atlas, with a limited number of classes, three to show the levels of densities in Belgium (Horrabin 1934: 50), and five for the percentage of black population in the United States (Horrabin 1934: 74).

Furthermore, Horrabin's cartographic style was characterized by the singular use of various graphic devices to assist the reading that we would now call didactic aids. One of them was the use of arrows pointing at specific locations, whose names were inscribed in a rectangular box. Important places, lines or areas are thus highlighted as hot spots of the map. It may be tempting to establish a link between this practice and the experience of Horrabin as a cartoonist: he drew from 1919 to 1951 a strip for British newspapers, 'The adventures of the Noah family', later entitled 'Japhet and Happy'. In his atlases, the maps seemed to speak out with 'balloons', like a comic strip character. Another interesting feature was the use of double arrow lines with indications of distances, rather than showing a scale bar. It allowed bringing out phenomena of remoteness or proximity from a strategic location, such as a strait. Lastly, Horrabin strove to facilitate comparisons, whether demographic or spatial. In his analysis of empires, he often enriched the maps with histograms (bar charts) to compare population values. He also multiplied inset maps, showing at the same scale a home country and a colony, and in a more dramatic way, he sometimes superimposed their outlines (Fig. 6).

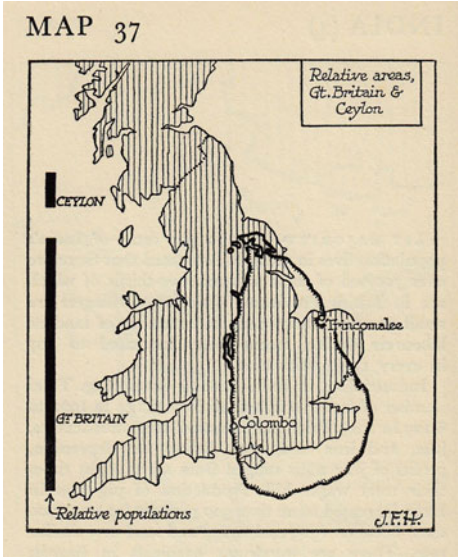

Fig. 6 'India (5)', in: Horrabin JF, *An Atlas of Empire*, 1937, p 86

The link between our atlases and other forms of persuasive maps produced in the interwar period, notably by German geopoliticians, has to be qualified. Obviously, Horrabin and Radó's atlases cannot be understood independently of this context. Geopolitics was referred to explicitly in Rothstein's introduction to the *Atlas für Politik* […], and Radó knew well the literature in the field, as can be inferred from his memoirs, which mentioned Karl Haushofer and his review, *Zeitschrift für Geopolitik* (Radó 1972: 75). Regarding Horrabin, the similarity of his maps with those made in Germany was underlined in his time (Crone 1934: 273). Horrabin and Radó shared this philosophy to simplify information and design, in order to convey a clear and tendentious message. However, they did not go as far as the German geopoliticians in their design practices. They almost never used the map to project a prospective scenario, as a surface of experimentation, even if highlighting the hot spots could appear as a 'conjugation in a future tense' (Raffestin et al 1995: 250) of space. In the same way, the superimposition of geometric shapes (circles, triangles) and the shift towards a form of spatial modelling are not found in their maps. Horrabin and Radó leaned toward graphic simplification, but they never developed the geometrization of space which was a hallmark of German geopolitics. If there is a lowest common denominator of these different mapping practices, it is the dynamic view and the use of the arrow as an interpretative sign, charged with a range of meanings: sticking point and danger area, aims, pressure, territorial ambition, axis of expansion, axis of deployment.

6 Conclusion: An Unorthodox Marxism

Horrabin's and Radó's atlases are a rarity and a curiosity in interwar persuasive cartography, largely dominated by right or extreme-right maps, attempting to spread nationalist and revisionist ideas. Their approach broke with the usual promotion of the interests of a particular country: it was more comprehensive, tinged with universalistic claims. In its own way, each atlas brought out global discrepancies, between ethnic dividing lines and post-war borders, or between economic ties and the world political divisions. Admittedly, it is true that this leaning toward internationalism went along with an undisguised support for the Soviet Union, the great proletarian power.

In their comments, the authors lifted the banner of Marxism-Leninism, and in fact we have shown that they put forward subjects linked with this political philosophy, giving for instance a key-role to economics, or placing imperialism at the heart of their analysis of international relations. However, our corpus of atlases conveyed a much-biased version of Marxism. Above all, maps show spatial objects, when the keystone of Marxism is the materialist conception of history. History had only a small presence in the atlases. Horrabin only tackled a very immediate history, as the consequences of the Treaty of Versailles, or chronological steps of some colonial conquests. Radó proved slightly more orthodox, as he made a few historical world maps that depicted the steps toward building imperialism from the late

nineteenth century. Even so, the approach he generally took was to emphasize geopolitical news, far from a long-term analysis. Another notable absence in the atlases was modes of production and social issues. They put forward the struggle between great powers but neglected the struggle of classes. China was the only case which allowed evoking a form of social revolution. Horrabin drew a map of areas controlled by peasant soviets in China (Horrabin 1934: 104), but his commentary showed his uncertainty as to their communist inspiration. When Radó provided a map on the same topic (Radó 1938: 78), the China Soviet government had been dissolved and the Chinese red army had been placed under the authority of the nationalist government of Nanking.

The atlases we examined here are often considered as precursors in the history of critical cartography. They indeed responded to Lenin's wish to arouse a form of counter-cartography in front of 'bourgeois' representations. However, if they had some Marxist features, their authors were not theoreticians and they stood away from an orthodox Marxist analysis. This is consistent with remarks made by the German sociologist Karl Wittfogel in 1929, on Horrabin's economic manual (Hepple 1999). The cartographic representation invariably leads to give primacy to geographical dimension: positions, extent, distance and communications. Finally, the originality of these atlases probably lies in the connection they made between politics and economics, and in the way they anticipated a globalized world. One can ask whether a social cartography would have been possible at the time, but when it existed, it was made at a much larger scale, primarily for cities, and aggregate statistics were missing. However, these atlases may be associated with several other attempts, at the same period, to introduce a spatial dimension which was lacking in Marxism (Bassin 1996).

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