

# Immigration, Colonisation and its Environmental impacts in "(sub)tropical Germanies"

Sílvio Marcus de Souza Correa (UFSC)  
[silviocorrea@cfh.ufsc.br](mailto:silviocorrea@cfh.ufsc.br)

Eunice Sueli Nodari (UFSC)  
[eunice.nodari@gmail.com](mailto:eunice.nodari@gmail.com)



Bildarchiv der deutschen Kolonialgesellschaft in der Universitätsbibliothek Frankfurt

Bild Nr. 037-0603-03

Environmental Change and Migration in Historical Perspective

Rachel Carson Center

Munich, August 4-6, 2011

## Introduction

In the 19<sup>th</sup> century, millions of Germans migrated to many parts of the World, including some tropical and subtropical regions. Southern Brazil was the destination of thousands, in which the majority settled in the forest areas. "The Brazilian experience" generated controversy about the German immigration in the tropical and subtropical areas. However from 1870 to 1910, nearly 3 Millions of people left Germany.<sup>1</sup> With the "Scramble for Africa", the debate about the acclimatisation of the German immigrants in the overseas renewed, mainly in the new colonies. (Togo, Cameroon, German South-West Africa, German East Africa). Still at the end of the 19<sup>th</sup> century, Pacific Islands (Samoa, New Guinea, Bismarck Archipelagos etc.) and an enclave harbour in China were part of the overseas territories of the German Empire.<sup>2</sup>

In tropical and subtropical regions, the German colonies engaged in a ecological competition with local communities, which promoted not only changes in the traditional economy of the various places, but also environmental impact. Not all the German colonies spread out in the tropical and subtropical regions were part of the Imperialist Project of Second Reich, since many German colonies in the Americas were established before the German unification in 1871. This didn't stop a Pan-Germanism discourse that saw the overseas German colonies as "German (sub) tropical" in which in cultural and commercial terms, could revolve around the Vaterland<sup>3</sup>.

In those overseas colonies, German immigrants were responsible for anthropic changes in the nature, which contributed significantly to the extinction of native species, pollution of the soil, the river, etc. Floods, pests and biological invasion of exotic species were some of the problems related to the history of the German immigration and Colonisation in many tropical and subtropical regions.

Some examples of the environmental impact in the "German (sub) tropical" that related to the German colonialism in Africa or in southern Brazil will be presented through a series of connected histories. However it should be noted that the intention of sampling the German colonies of southern Brazil and of the South-West Africa (current Namibia), to the subtropical areas, and of the German colonies of Togo, Cameroon and East Africa, to the tropical areas, do not exclude eventual connections with other German colonies in subtropical regions, like Chile and Argentina, or in Tropical regions, like New Guinea or Samoa. The sample that served as a base for this project about

---

<sup>1</sup> "Die Auswanderung nach überseeischen Ländern", in *Kolonie und Heimat*. In Wort und Bild, Berlin, 26.02.1911.

<sup>2</sup> For a historic syntheses of the German colonies in Overseas, see GRUNDER, Horst. **Geschichte der deutschen Kolonien**. 5. Auflage, Paderborn: Schöningh, 2004.

<sup>3</sup> HELL, Jürgen. "Die Politik des Deutschen Reiches zur Verwandlung der drei brasilianischen Südstaaten in ein überseeisches Neudeutschland (1890-1914)", Semesterbericht des Lateinamerika-Instituts der Universität Rostock, Herbstsemester 1966.

the German immigration and colonisation in tropical and subtropical regions and its environmental impacts, should not, therefore, serve for the generalisation nor the reduction of the environmental impacts of the German colonisation or the German colonialism in many regions of the globe.

Based on travel accounts, news from newspapers like the *Kolonie*, *Blumenauer Zeitung*, *Der Urwaldsbote*, *Windhoeker Anzeiger*, *Luderitzbuchter Zeitung*, *Swakopmunder Zeitung*, *Deutsch-Sudwestafrikanischer Zeitung* and *Deutsch-Ostafrikanischer Zeitung*, magazines like *Kolonie und Heimat* or *Der Tropenpflanzer* and other documents, tries to demonstrate how much some of the oversea German communities share the same beliefs, that are, the domination of the culture (German) over the nature ([sub]tropical) and they took the German immigrants as "civilisation pioneers" (*Pionieren der Kultur*). The effects were catastrophic, and some examples (species extinction, biomes and Ecosystem degradation, etc.) will be discussed in this work.

### **The German immigration in tropical and subtropical zones**

During the 19<sup>th</sup> century, the vast German immigration mainly to the USA and Brazil, had much environmental impact. In southern Brazil, the majority of the Germans went to the interior of the country, to valleys or forest regions. Within one hundred years, those areas of German colonisation became rural, some even urbanised and industrialised. It's important to emphasise that the German immigration of the 19<sup>th</sup> century was the first colonial experience in Brazil, where the immigrants received from the government of the southern provinces of Santa Catarina and Rio Grande do Sul authorisation and even subsidy to deforest, populate and introduce their "portable biota".<sup>4</sup> It is worth remembering that the immigrants knew very little or close to nothing about the tropical environment. The German propaganda also competed to a false idea of Brazil<sup>5</sup>. Even so, the immigrants tried to impose themselves over the host environment via the culture and the ecological experience that they had brought from Europe.

To learn new health care in a tropical climate was crucial to the ecological adaptation of the German immigrants. In many books written in German in the 19<sup>th</sup> century, the authors shared their "Brazilian experience" with their readers, many of them also immigrants. The Bavarian Friedrich von Weech was one of them. In his book, some of the tropical diseases, preventative techniques and ways to cure were covered, as well as methods for pests control, etc. Also, the Prussian Theodor Rodowicz-Oswiecimsky wrote about the health care with the German colonists in his book. As well as books, newspapers and almanacs in German language and published in the German colonies, in

---

<sup>4</sup> Alfred Crosby highlighted the role of the "portable biota" (generally, plants and domestic animals necessary to the colonial agricultural-cattle raising) for the adaptation and imposition of the settlers in the New World. CROSBY, Alfred. **O Imperialismo Ecológico**. Sao Paulo: Companhia das Letras, 1994.

<sup>5</sup> WEECH, Friedrich von. **A agricultura e o Comércio do Brasil no Sistema Colonial**. Sao Paulo: Martins Fontes, 1992, p.184

Brazil as well as in Africa, played an important role in the dissemination of the Immigrants healthcare in the tropical and subtropical regions. Magazines like *Über Land und Meer* and *Kolonie und Heimat* also covered these subjects in their pages.<sup>6</sup>

Since the pioneering phase of the German colonisation in the south of Brazil, the immigrants and their descendants had the help of popular medicine; so, a number of curative recipes with medicinal herbs were becoming appropriate by the colonial pharmacology.<sup>7</sup> Infusion with trunks of a tree ("morcegueira") was recommended against Malaria, as it had quinine. The trunk of *Peroba* was recommended to prepare a tea against fevers (einen fieberheilenden Tee).<sup>8</sup> Friedrich von Weech considered that the immigrants could prevent themselves from many diseases through great moderation on their lifestyle.<sup>9</sup> Also Rodowicz-Oswiecimsky treated some tropical diseases, epidemics and cured with vine and other home medication.<sup>10</sup>

As well as tropical diseases, climate factors made the immigrant's adaptation difficult. Friedrich von Weech said that "air humidity is such a problem, that people can not protect themselves sufficiently against its ill health effects."<sup>11</sup> According to Rodowicz-Oswiecimsky, the majority of the German houses in the area of Schröderort had problems with humidity. There was also the danger of flooding.

When it rains and the tide is in, this elevates the water level, which when coinciding with rain, these places become big lakes. These areas become submersed and with them, the houses are flooded<sup>12</sup>

On a trip to the first German colony of the south of Brazil, Oskar Canstatt also commented on the vulnerable position of that "Small Germany" by the Sinos river shore.

The location for the foundation of the settlement was not well chosen, as it was on a low land, by the river shore, and as nothing was done with regard to building dams to protect them, what happens is annually, when the rivers flood, the settlement is affected by great floods.<sup>13</sup>

In the middle of the forest, in uninhabited places, the immigrants strived to adapt to the new

<sup>6</sup> See, for example, the article "Gesundheitsverhältnisse und Körperpflege in Südwest", in *Kolonie und Heimat*. In *Wort und Bild*, Berlin, 02.11.1910, S.9-10.

<sup>7</sup> ENTRES, Gottfried. "Flora in Santa Catharina", in **Gedenkbuch zur Jahrhundertfeier deutscher Einwanderung im Staate Santa Catharina**. Florianopolis: Alberto Entres & Irmão, 1929, p.131-132.

<sup>8</sup> idem, p. 132.

<sup>9</sup> WEECH, F. von. Op. Cit, p. 41.

<sup>10</sup> RODOWCIZ-OSWIECIMSKY, Theodor. **A Colonia Dona Francisca no Sul do Brasil (1853)**. Joinville: FCC Edições/Editora da UFSC, 1992, p. 39.

<sup>11</sup> WEECH, F. von. Op. Cit, p. 39.

<sup>12</sup> idem, p. 49.

<sup>13</sup> CANSTATT, Oskar. **Brasil: Terra e Gente (1871)**. Brasília: Editora do Senado, 2002, p. 404.

environment. Some attempts were unsuccessful. Many of them died and the cemeteries of the forest (Urwaldsfriedhof) formed part of the colonial landscape.<sup>14</sup> On the other hand, the colonisation represented the domination of tropical nature, especially through the regular activities of agriculture and cattle-raising and the use of natural resources like water and wood for the day to day life of the colonies. The environmental impact from that, was anticipated by some. Still in the middle of the 19<sup>th</sup> century, the Prussian Rodowicz-Oswiecimsky made the following prediction:

In my opinion, it could happen that in the future there will be lack of water to the colonists, in years of extensive draught, although at the moment, all the land is inundated with water, but this will disappear with the cultivation and consequent drainage.<sup>15</sup>

In 1858, Robert Ave-Lallemant associated the low level of the river Pardino to the deforestation of the riparian areas. To the German traveller, "deforestation in miles of extension, will diminish the water formation".<sup>16</sup> In the same year, the German immigrant Martin Buff associated the power of the waters that destroyed the local bridge during the floods to the deforestation of the river shores.<sup>17</sup> Despite the social and ecologically difficulties experienced by the German communities, many travellers saw in the German colonies landscaping of southern Brazil the representation of the "new Germanies"<sup>18</sup>. New Hamburg, New Hartz, New Wuttemberg, New Friburg and so many others toponymies in German colonisation zones in Brazil were examples of these "New Germanies". There were also some criticism to the reproduction of the *modus vivendi* of the Germans, because "instead of starting by cultivating what was a natural plant from the region, they wanted (the colonists) to make Brazil into Europe, and planted peas, asparagus instead of beans."<sup>19</sup> If the "Brazilian Germany" had as the protagonists their own German immigrants and their descendants, the "German Africa" was more a product of the colonialism than the German colonisation. Contrary to the "Brazilian experience", Germans that emigrated to colonial Africa around 1884 and 1914 had the support of the German government and of many German organisations engaged on an imperial project in the tropics. As well as the institutionalisation of the tropical medicine in Germany, a huge scientific publication about the colonies in Africa contributed to a better knowledge of the tropical environment. This way, the immigrants could count on other "tools" to manage the imperial intent to domesticate the tropical nature.

---

<sup>14</sup> "Der Urwaldsfriedhof. Totenfestgedanken", in *Kolonie und Heimat*. In Wort und Bild, Berlin, 21.11.1909, S. 11.

<sup>15</sup> RODOWICZ- OSWIECIMSKY, T. Op. Cit., p. 58

<sup>16</sup> AVE-LALLEMANT, Robert. **Viagem ao Sul do Brasil (1858)**. Belo Horizonte: Ed. Itatiaia, 1980,p.176.

<sup>17</sup> MARTIN, H. **Santa Cruz. De colonia a freguesia**. Santa Cruz, Edufsc, 1979, p. 59.

<sup>18</sup> Cf. CORREA, Silvio Marcus de S. *Narrativas sobre o Brasil Alemão ou a Alemanha Brasileira*. Anos 90. vol. 12, n.21/22. Porto Alegre, Editora da UFRGS, 2005, p. 227-270.

<sup>19</sup> RODOWICZ- OSWIECIMSKY, T. Op. Cit., p. 61.

## Acclimatisation of the German immigrants in the (sub) tropical regions

A few weeks after the end of the Berlin Conference, Dr Rudolf Virchow (1821-1902) made a speech on the Reichstag that caused great impact between the parliamentarians that were in favour of the colonial expansion.<sup>20</sup> The doctor and deputy had doubts about the German acclimatisation in tropical regions.<sup>21</sup> Other German doctors believed that the mesologic condition of the tropics contributed to the degeneration of the Arian race. However, the Berlin Conference had secured advantages to Germany if they took part in the "scramble for Africa". In this way, the German experience in southern Brazil could be useful to the expansionist pretensions of II Reich. It's appropriate to emphasise that many German doctors, like Ernst Below (1845-1910) and Robert Koch (1843-1910), adhered to the colonial project of the II Reich and defended the German expansion in tropical zones.<sup>22</sup>

In February 1886 under the auspices of Deutsche Kolonialverein (DKV), Dr. Wilhelm Breitenbach (1856-1937) started a round of conferences about the chances of German immigration in Brazil.<sup>23</sup> The conference round of Dr. Breitenbach was part of the discussion promoted in that year by DKV about the possibilities of the German installation in America, Africa, Asia and Oceania. The DKV even formed a commission of specialists to discuss the subject, which recommended care to the German immigrants' health in tropical climates. In 1889, another commission, under the command of Dr. Virchow, with Robert Koch and others, also elaborated a similar opinion.<sup>24</sup>

A series of factors favoured, however, the colonial expansion of the German Empire. Therefore, the tropical medicine was constituted on a instrumental science of the colonialism.<sup>25</sup> From 1883 to 1914 Robert Koch and other German doctors took part in many expeditions through Africa to study tropical diseases like cholera, malaria and the so called sleep-disease. Even with all the investment in tropical medicine, the German government has never obtained significant contingent of German immigrants to the colonies in Africa. In January 1911, for example, there were still some discussion about the mesologic conditions of the colony of Cameroon for the German immigration, as there were restrictions to the regions of tropical forests, especially due to Malaria.<sup>26</sup> As well as the

---

<sup>20</sup> VIRCHOW, Rudolf. Rede vor dem Reichstag, Sten. Bericht des Reichstags, Bd.82, Sitzung von 16.03.1885, S. 1855-62.

<sup>21</sup> LORENZ, Stella. "Processos de purificação: expectativas ligadas à emigração alemã para o Brasil (1880-1918) Espaço Plural, Ano IX, N. 19, 2008, p.34

<sup>22</sup> Just before the Berlin Conference, 250 doctors were part of the Deutsche Kolonialverein (DKV). In 1903, the number exceeded 1500 with the deutsche Kolonialgesellschaft, the institution that succeeded DVK. Cf. ECKART, Wolfgang. Die Medizin und das „Grössere Deutschland“. Kolonialpolitik und Tropenmedizin in Deutschland, 1884-1914. Berichte zur Wissenschaftsgeschichte 13 (1990) 129- 139

<sup>23</sup> Deutsche Kolonialzeitung, Freiburg, 1886, Heft 6, S. 165

<sup>24</sup> LORENZ, Stella. Op. Cit.,p.34

<sup>25</sup> Cf. ECKART, Wolfgang. Die Medizin und das „Grössere Deutschland“. Kolonialpolitik und Tropenmedizin in Deutschland, 1884- 1914. Berichte zur Wissenschaftsgeschichte 13 (1990) 129-139.

<sup>26</sup> "Über die Frage der Besiedlungsfähigkeit von Kamerun". Kolonie und Heimat. In Wort und Bild. Berlin,

German immigration to the south of Brazil, there were some discussion in Germany in the press about the possibilities of the immigration the East Africa.<sup>27</sup>

As well as doctors and engineers, other scientists and technicians helped with the Imperial politic of II Reich. Amongst them, stood out some botanists and geographers who studied the mesologic conditions of the tropical regions and their different biomes and ecosystems, as well as their natural resources, so to promote a German colonisation based on a tropical agriculture. Ferdinand Wohltmann was a very knowledgeable scientist of the tropical agriculture, and his tropical agriculture manual guided some agricultural projects during the German colonialism.<sup>28</sup> In 1888, he was for the first time in the German colony of Cameroon. A year later, he travelled on a study journey to the south of Brazil under the auspices of the Hamburger Kolonisationsverein. Between 1896 and 1903, Wohltmann made a few scientific expeditions through “tropical Germanies” of Togo, Cameroon, East Africa and Samoa. Leo Waibel was another of those German scientists who was in Africa and Brazil, meeting in loco the reality of the German colonialism and the German colonisation in distinct moments in both Atlantic shores.

Over and above the scientific publications about tropical agriculture, like the magazine *Der Tropenpflanzer*, others publications emphasised the viability of the colonial project. Amongst them, stood out the magazine *Kolonie un Heimat*. In many of its editions, there are letters from German immigrants, in which one of the principal topics is their adaptation to the climate and their prosperity in the tropics. In them, Africa “became Germanised”, especially the German South-West Africa, where they live “almost like in the middle of the rural Germany”.<sup>29</sup>

### **Degradation of the biomes and ecosystems**

In the colonial Africa under German rule, there was a degradation of the biomes and ecosystems caused by processes of “rationalisation” of the agriculture, cattle-raising, mining and extraction. In Togo and in Cameroon, the environmental impact of the cattle-raising was smaller than in the German South-West Africa and the German East Africa. In the Cameroon case, some of Ferdinand

---

29.02.1911. S.14

<sup>27</sup> See, for example, articles from Dr. Wilhelm Lehmann “Südbrasilien als Ziel deutscher Auswanderung”, *Kolonie, Santa Cruz*, 23, 26, and 28 January 1909, and the articles of the Sanitarist Dr. Daubler: “Die Ansiedlung von Deutschen in tropischen Hochländer”, *Deutsch- Ostafrikanische Zeitung, Dar es Salaam*, 06 August 1911; “Die Ansiedlung von Deutschen in tropische Hochländer (II)”, *Deutsch- Ostafrikanische Zeitung, Dar es Salaam*, 09 August 1911; article of Dr. Th. Forster: “Die Ansiedlung von Deutschen in tropische, deutschen Kolonien”, *Deutsch- Ostafrikanische Zeitung, Dar es Salaam*, 13 September 1911; still the articles “Die Eignung Deutsch-Ostafrika als Ziel für die deutsche Auswanderung” *Deutsch- Ostafrikanische Zeitung, Dar es Salaam*, 07 October 1911; “Die Besiedlungsmöglichkeit Ostafrikas”, in *Kolonie und Heimat*. In *Wort und Bild*. Berlin, 05.02.1911. S.14

<sup>28</sup> *Handbuch der Tropischen Agrikultur für die deutschen Kolonien in Afrika auf wissenschaftlicher und praktischer Grundlage*. Bd. 1: Die natürlichen Faktoren der Tropischen Agrikultur und die Merkmale ihrer Beurteilung. Verlag Duncker & Humblot Leipzig 1892.

<sup>29</sup> *Kolonie und Heimat*. In *Wort und Bild*, Berlin, 21.11.1909.

Wohltmann projections allow the suppositions of deep alterations on the landscape of some regions, but the environmental impacts were not considered.<sup>30</sup>

Deforestation in Togo affected some crops of tropical fruits, like cocoa and banana, on the coastal border. In Cameroon, they used artificial handling of pastures in certain areas of the interior, like in Dschang, in the high lands where an experimental station for cattle-raising was installed, also with the introduction of the Zebu cattle and Adamaua horses.<sup>31</sup> In Dschang, the tsetse fly didn't exist, which was very important for the development of cattle-raising.<sup>32</sup>

In the German East Africa, the culture of agave and other crops also demanded the deforestation and burning of forests, introducing some techniques for the development of agricultural exportation that were not used by the native farmer.<sup>33</sup> As well as the colonial economic imperative, the deforestation also addressed measures of sanitation for the German immigrant's survival.

Even though radical measures like deforestation and the extermination of wild animals were defended by eminent doctors like Dr. Robert Koch, the "Modernisation" of the African landscape was nothing more than a disastrous project of the German colonialism.<sup>34</sup> Maybe, the German South-West Africa (current Namibia) was the one that came closest to the idealisation of the Pan-Germanism propaganda of the II Reich, due to its location in a subtropical region. A thorough reading of the articles about the African colonies in the magazine *Kolonie und Heimat* or in the newspapers in German language, *Dar es Salaam*, *Lüderitzbucht*, *Windhoek*, or *Swakopmund*, allows to notice, however, the discrepancy between the project and the colonial reality.

In southern Brazil, the rural environment was deeply marked by the cultural landscape of the German colony. The German geographer Leo Waibel was one of the first researchers to study the cultural landscapes of the zones of German colonisation in the southern Brazil and to point to the environmental impact of the economic organisations of the German immigrants, which agricultural techniques, at least in the first phase of the colonisation, were rudimentary. The burning of vast extension of forests for the subsequent planting, were described by many German travellers. The German doctor Robert Ave-Lallemant reported when he visited the German colonies in the interior of Brazil, that "over there resonate the axe in the forest, over there the fire from the plantation burn forests untamed".<sup>35</sup> Emphasised still that only the smoke, in some places already opened in a "ocean

---

<sup>30</sup> WOHLTAMNN, F. *Der Plantagenbau in Kamerun und seine Zukunft. Drei Reiseberichte.* Verlag F. Telge Berlin 1896.

<sup>31</sup> *Kolonie und Heimat.* In *Wort und Bild*, Berlin, 07.11.1909.

<sup>32</sup> *Kolonie und Heimat.* In *Wort und Bild*, Berlin, 10.10.1909.

<sup>33</sup> "Wie in Ostafrika eine Plantage entsteht", in *Kolonie und Heimat.* In *Wort und Bild*, Berlin, 27.02.1910, S.02-3

<sup>34</sup> In the German colony of Cameroon, the deforestation was proposed by the German doctor Dr. Nagele. Cf. BAUCHE, Manuela. *Trypanosomen und Tinbeef – Medizinisches Wissen um Schlafkrankheit zwischen Kamerun und Deutschland, 1910-1914*, in: SEIFERT, Marc et al. (Hrsg.) *Beiträge zur I. Kölner Afrikawissenschaftlichen Nachwuchstagung.*

<sup>35</sup> AVE-LALLEMANT, R. *Op. Cit.*, p.169.

of forests” accused the German establishment that, “from the chaos of the wild nature” would sprout a civilisation.<sup>36</sup> Also Oskar Canstatt reported that he had the chance to appreciate a “beautiful spectacle”, when in front of his window, “they put fire into a clearing on the coast”.<sup>37</sup>

In 1828, Friedrich von Weech described the procedure of the burnings for the reader interested in immigrating to Brazil.<sup>38</sup> Also, the Prussian Rodowicz- Oswiecimky, described in his book the techniques to deforest and burn the forest.<sup>39</sup> He also commented on the increase of the agricultural and cattle raising activities to the detriment of the forest and its biodiversity, above all, the handling of the artificial pastures. “In this way goes the farmhand advancing, year after year, knocking down trees and always increasing their pastures and, consequently, their animals”.<sup>40</sup>

Probably, the German immigrants had no idea that their isolated actions would have the environmental impact that happened, because of the aggregate effect of the burnings here and there. As well as the reduction of biodiversity, of the animal and vegetable kingdom, the deforestation deeply altered the colonial landscape of southern Brazil.

Contrary to the agricultural experience of the German immigrants in the south of Brazil, that organised themselves in small rural properties and focused on an internal market, the German immigrants in the tropical Africa (Togo, Cameroon, and the current Tanzania) and subtropical (current Namibia) organised themselves based on large estates and focused on the external market. On top of the plantations oriented for the agricultural exportation (cocoa, agave, rubber, etc.), cattle-raising (cows, goats, etc.) and the mineral extraction (copper, diamonds, etc.) played an important role in the colonial economy in the “German Africa”. However, these activities were also developed by privately funded societies and not only German immigrants. In the German East Africa for example, a Deutsch-Ostafrikanische Plantagensgesellschaft developed different agricultural crops, (tobacco, coffee, agave...) from 1886 to 1910. Other societies planted coffee, like for example, the Usambara-Kafeebau-Gesellschaft, and agavea, like the Deutsche Agaven-Gesellschaft, and still others products in different districts (Usumbara, Tanga, Pangani...) of East Africa.<sup>41</sup> It's appropriate to emphasise that there was an enormous increase of the cultivated area of the European's properties in the German East Africa, this is, from 8,235 hectares in 1902 to 81,831 hectares in 1912, which the mainly products were coconut, cotton, agave and rubber.<sup>42</sup> From the coffee produced in the German East Africa in 1912, 57% derived from the European properties.<sup>43</sup> From the cocoa produced

---

<sup>36</sup> Idem, p.172.

<sup>37</sup> CANSTAT, O. Op. Cit., 2002, p.420.

<sup>38</sup> WEECH, F. von. Op. Cit., p.114.

<sup>39</sup> RODOWCIZ-OSWIECIMSKY, T. Op. Cit., p.62.

<sup>40</sup> Idem, p.72.

<sup>41</sup> WAIBEL, Leo. **Die Rohstoffgebiete des tropischen Afrika**, Leipzig, 1935, p.179-180.

<sup>42</sup> Idem, p.180.

<sup>43</sup> Idem, p.194.

in Cameroon in 1912, 85% derived from European owners.<sup>44</sup> In Togo, only 1,443 hectares were cultivated in European properties in 1912.<sup>45</sup>

In the Namibia coast, the extraction of guano, was also an activity performed by some privately funded societies.<sup>46</sup> Still in the South-West Africa, other societies, like Afrika-Kolonial-Marmor-Gesellschaft, explored the marble in a total area of 80,000 hectares.<sup>47</sup> It was the diamond exploitation that caused the biggest euphoria in the German South-West Africa.<sup>48</sup>

Regarding the cattle-raising, the natural pastures of the South-West Africa were insufficient for the grazing of the native groups (Hereros and Namas) and mixed (like the Rehoboth) and still for the cattle of the German farmers and Boers. The cattle-raising introduced by the Germans and their Boers neighbours fermented an ecological competition with native groups in many African regions. Not only the best pastures were privatised by the white farmers, but there was also the confiscation of the cattle of the natives that owed money. There was also the bovine pest by the end of the XIX century, responsible for a drastic reduction of the herd of the native pastors, and other problems resulting from the introduction of a "modern cattle-raising". These ecological crises stirred up the tension in the inter-ethnic relations in the South-West Africa that resulted in the colonial war (1904-1907) between the Germans against Hereros and Namas.

In addition to the dispute for the pastures and for the control of the territory, there was also competition for rare water sources. To the German engineer Theodor Rehbock, the colony of the south west of Africa depended on a hydraulic solution for the development of its economy.<sup>49</sup> If in the subtropical Africa the desert was the greater natural obstacle, in tropical Africa it was the forest. In the "tropical Germanies", the deforestation occurred more for the plantation of crops for agricultural exports or for the flow of products to the hinterland and not to a subsistence economy as was in the "German Brazil" of the pioneer phase.<sup>50</sup> There was also deforestation in the "German Africa" for the benefit and exportation of wood, what didn't happen in the valley regions, where the German immigrants settled in the south of Brazil. Incidentally some European immigrants, like Marie van Langendonck, lamented the wood "waste" that was burned after the clearing of the forest.<sup>51</sup> Also, Oskar Canstatt stated that "the value of the costly wood did not matter in the case,

---

<sup>44</sup> Idem, p.358.

<sup>45</sup> Idem, p.342.

<sup>46</sup> In the newspaper of Windhoek There are news about the extraction of guano since the end of the 19<sup>th</sup> century. Cf. Windhoeker Anzeiger, 19.01.1899; Windhoeker Anzeiger, 17.08.1899.

<sup>47</sup> "Marmorvorkommen in Südwest", in Nachrichtenbeilage zu Kolonie und Heimat, Nr. 11, S.02, Berlin, 13.02.1910.

<sup>48</sup> "Bilder von Diamantenfelder in Südwest", in Kolonie und Heimat. In Wort und Bild, Berlin, 16.09.1910; "Auf den Lüderitzbuchter Diamantenfeldern", in Kolonie und Heimat. In Wort und Bild, Berlin, 19.02.1911

<sup>49</sup> REHBOCK, Theodor. **Die Besiedelung Deutsch-Sudwestafrikas**. Berlin: DKG, 1900.

<sup>50</sup> Images of the rudimentary techniques, including burnings, for the preparation of the soil for the plantation of the crops for the agricultural-exportation were reproduced in the article "Wie in Ostafrika eine Plantage entsteht", in Kolonie und Heimat. In Wort und Bild, Berlin, 27.02.1910, S.02-03.

<sup>51</sup> LANGENDONCK, M.. 2020, p.54.

because there was no way to remove them from the forest.”<sup>52</sup>

In the German colonies in the south of Brazil, the consumption of wood occurred more for the construction of houses, cow-sheds, warehouses etc. Due to the lack of mineral coal in the region, the firewood extracted from the forest was used daily in the houses of the immigrants and their descendants for over a century. In addition, brick factories, bakeries, steam ship's furnaces and tobacco drying ovens, for example, consumed tons of wood, generally from the native trees, for over a century. According to the Belgian traveller Alexander Baguet, in the German colony of São Leopoldo, there were “brick factories, tanning, distilleries and sawmill sustained by wood of all the species that the neighbours forests offered.”<sup>53</sup> The same happened in the Rio Pardo valley, where German colonists planted tobacco, making that region the biggest producer in Brazil.<sup>54</sup> In the German colony of the south west of Africa, tobacco was also introduced by the German immigrants.<sup>55</sup> If in southern Brazil, transportation by the river with steam boats or by land with bullock carts allowed the flow of the agricultural production in the German colonies located in the valleys of the Pardo and Taquari rivers, in Africa, rail transportation was an imperative for the flow of the colonial production. For the construction of the railways, vast extensions of forests were cleared in the regions of Togo, Cameroon and in some districts of the German East Africa. The deforestation along the railways were also seen as a way of sanitation to avoid the infection of tropical diseases. The railway was also fundamental for the transportation of copper, marble, diamond and other animal products through the South-West Africa.

### **Extinction of native species and biological invasion of exotic species.**

Alfred Crosby has already demonstrated how much the undertaking of the modern colonial enterprise depended of the adaptation of the European immigrants “biota portable” in the new host's environment. The introduction of animals and plants was significant to the colonial landscape of Brazil. During colonialism, many biomes and ecosystems in Africa were, equally, altered by the introduction of exotic species. However, the biological invasion of some species compromised in Africa as well as in Brazil, the survival of native species. After all, the agriculture and cattle-raising practised by the German immigrants and their descendants were economic activities that demanded deforestation, artificial handling of pastures and the introduction of exotic animals and plants that competed with the native species for the always scarce natural resources. On the other hand, the deforestation and burning destroyed the wild animal's habitat. According to Rodowicz-

---

<sup>52</sup> CANSTATT, O. Op. Cit., p.420.

<sup>53</sup> BAGUET, A. *A viagem ao Rio Grande do Sul*. Santa Cruz do Sul: Editora da UNISC, 1997, p.35.

<sup>54</sup> CUNHA, Jorge. *Os colonos alemães e a fumicultura: Santa Cruz do Sul, Rio Grande do Sul 1849-1881*. Santa Cruz do Sul: Ed. Da FISC, 1991.

<sup>55</sup> “Neues von Tabakbau in Südwest”, in *Kolonie und Heimat*. In Wort und Bild. Berlin, 13.03.1910, S.06.

Oswiecimsky, “with the constant noise of forest clearing, however, and the fire, animal and birds were leaving for distant areas.”<sup>56</sup>

The hunting practised by the German immigrants were also responsible for the vast decrease and even extinction of certain species of wild animals in southern Brazil and in the German colonies in Africa. In the forests of southern Brazil, the jaguar was systematically hunted not only for its skin or the prestige of having hunted such a animal, but because the big feline was the largest predator of calves, piglets, chicken and dogs. In 1827, the mercenary Carl Seidler wrote in his travel book in the neighbourhood of one German colony in the south of Brazil, that “the spotted jaguar, always in lurking, killed not only the dogs, so necessary to the colonists, but carried on their back even a fat ox or a strong horse”.<sup>57</sup> Rodowciz-Oswiecimsky also commented that pets were prey for the jaguar.<sup>58</sup> In their turn, the sub-director of a German colony in the interior of Rio Grande do Sul, reported to the president of the province, Jose Antonio Pimenta Bueno, that “tigers” killed dogs in the new-founded colony, and the presence of these felines in neighbourhood bothered the German immigrants.<sup>59</sup>

Other mammals like the capybara, tapir and the monkey, were hunted not so much for their nutritious value or for the taste of their meat, but to avoid the damage of their visits to thousands of colonists.<sup>60</sup> Also, the German traveller Robert Ave-Lallemant commented that they used to hunt monkeys, not only for its meat, but because the troops of monkeys caused great damage to the thousands of colonists.<sup>61</sup>

On the other hand, the deer and the armadillo were hunted for their meat, as well as the paca that “gave an excellent taste”.<sup>62</sup> The hunting practised by the German hunters was, therefore, limited by their own geography of the valleys. According to Rodowciz-Oswiecimsky, its very hard to hunt in closed forests.<sup>63</sup> However, rifle, gunpowder and gunshot lead for hunting were part of the things the German immigrants received, according to a report of the translator agent Peter Kleudgen.<sup>64</sup>

In the colonial Africa, the popularisation of hunting for sport between the colonists the had an aggregate effect. As well as the German colonists, soldiers and officials of the Schutztruppe, traders

---

<sup>56</sup> RODOWCIZ-OSWIECIMSKY, T. Op. Cit., p.87.

<sup>57</sup> SEIDLER, Carl. **Dez anos no Brasil**. Brasília: Editora do Senado, 2003, p.330.

<sup>58</sup> RODOWCIZ-OSWIECIMSKY, T. Op. Cic., p.54.

<sup>59</sup> Letter from Evaristo Alves D'Oliveira, sub-director of the colony of Santa Cruz, Pedro Ferreira de Oliveira, president of the Province of Sao Pedro do Rio Grande do Sul, of 27 November 1850. Historical archive of Rio Grande do Sul, [caixa 33, maco 62], Porto Alegre.

<sup>60</sup> SEIDLER, C. Op. Cit. p. 330.

<sup>61</sup> CORREA, Sílvia M. De S. e BUBLITZ, J. **Terra de Promissão**. Uma introdução à eco-história da colonização do Rio Grande do Sul. Passo Fundo/Santa Cruz: Editora da UPF/Editora da UNISC, 2007, p.57.

<sup>62</sup> Idem, p.87.

<sup>63</sup> RODOWCIZ-OSWIECIMSKY, T. Op. Cit., p.87.

<sup>64</sup> Manuscript of the translator agent of the colonisation Peter Kleudgen (1851). Historic archive of Rio Grande do Sul [caixa 20, maco 37], Porto Alegre.

and employees of the colonial administration hunted. The hunting trophy was very desirable by the colonial culture. The colonial homes decoration, hotel rooms, restaurants, clubs and associations were adorned with hunting elements (stuffed animals, or animal heads as trophies or simply skin or horns). As well as the hunting for sport, there was also the commercial hunting, above all, the ones directed for the feather, skin and ivory market. In the Namibia's case, there was also whale hunting, by two whaling societies (Walfanggesellschaften), both founded in 1912.<sup>65</sup> Besides, the whaling enterprise was considered an important increase in the development of the colonial economy.<sup>66</sup>

As well as the sport and commercial hunting, there was also the hunting by express order of the government and as a preventative sanitation measure. In 1910 the government of the German East Africa ordered the extermination of various wild animals in the proximities of Kilimanjaro, so as to protect the farmer's cattle of a eventual contamination, since the bovine pest had been detected in the neighbouring British colony. In this way, the "sanitary isolation" was carried out in detriment of thousands of wild animals. Some German scientists like Paul Matschie and Carl George Schillings even went so far as to call the killings promoted under the governor Rechenberg a "civilised scandal" (Kulturskandal).<sup>67</sup>

Despite the killings, the interior of the German East Africa showed itself inhospitable to the German colonisation. As well as the tropical diseases, the distances and the geographic environment made it difficult the advancing of the colonisation. Even though the high lands were targeted by few German immigrants as their conditions favoured to the climate adaptation, the revolt Maji-Maji inhibited the projects of colonisation. Like that, the landscape of hinterland of the German East Africa was little altered by the colonialism, summarising a railway, a missionary station, and a farm here and there. However, in environmental terms, the introduction of exotic plants caused biological invasion, new pests and the reduction in biodiversity, above all, by the preliminary deforestation for the agricultural exportation of crops like the rubber, including plants of the north of Brazil.<sup>68</sup> It should be stressed that the plantation of Brazilian origins rubber in the German East Africa dated of the end of the 19<sup>th</sup> century.<sup>69</sup> As well as the Brazilian rubber, the Mexican Agave was introduced in the East Africa.<sup>70</sup> In the Equatorial Africa, the extraction of native rubber was an important activity

---

<sup>65</sup> SCHMIDT, Wilhelm u. WOLCKE-RENK, I. **Deutsch-Sudwest-Afrika**. Fotos aus der Kolonialzeit. 1884-1918. Erfurt: Sutton Verlag GmbH, 2001, p.55.

<sup>66</sup> "Eine neue Industrie für Lüderitzbuch", Swakopmunder Zeitung, Swakopmund, 23.05.1912.

<sup>67</sup> CORREA, Sílvia M. S. "*Ou temos uma colônia ou um jardim zoológico*": *Society and Environment in "German Africa"*, I International Meeting of African Studies, Rio de Janeiro: UFF, 2011.

<sup>68</sup> "Anzapfen eines Kautschukbaumes", Kolonie und Heimat. In Wort und Bild, Berlin, 13.03.1910, S.14.

<sup>69</sup> WOHLTMANN, F. **Deutsch- Ostafrika. Bericht über die Ergebnisse seiner Reise, ausgeführt im Auftrag der Kolonial- Abteilung des Auswärtigen Amtes Winter 1897/98**. Berlin: Verlag F. Telge, 1898. About 3 types of rubber from Brazil, see also "Kautschuk-Kultur", Deutsche Ostafrikanische Zeitung, Dar-es-Salaam, 07.04.1900.

<sup>70</sup> WAIBEL, L. Op. Cit., p.186.

for the colonial economy.<sup>71</sup> The rubber extraction, however, helped to drastically reduce the vine in which latex was extracted from the forest. This didn't only happen in the Belgian Congo, but probably, in its neighbouring German colony.

Regarding the cocoa, the Germans tried many species in their plantations in equatorial Africa, like the cocoa from the Guinea islands, from Trinidad and a hybrid from central America. As well as the cocoa, other exotic tropical plants were introduced in the equatorial Africa. In the central and south part of Cameroon, German immigrants with some agriculture experience in Sumatra introduced tobacco.<sup>72</sup> This way, in different parts of the German empire, plants were adapted with the aim of developing the colonial economy. For that, the know-how acquired in practising tropical agriculture in a colony, could serve for the introduction of new cultures elsewhere. As well as the tobacco culture in Cameroon, there was also the case of the cocoa crop in Samoa, introduced by German immigrants with African experience.<sup>73</sup>

On the Atlantic side, the African landscape of Togo, Cameroon and Namibia, were indeed modified by the German colonialism, as happened in other areas of the Indian and Pacific Oceans, as shown by the collection of images of colonial landscapes of Ferdinand Wohltmann.<sup>74</sup> This modification was due not only to the introduction of new crops for exportation. Other elements of colonialism marked the landscape. Telegraphic cables and railways crossed Togo and Cameroon' forests as well as the desert of Namibia. Over and above this, the port cities – like Lomé (Togo), Lüderitzbucht and Swakopmund (Namibia) – changed the coastal landscape of the colonial Africa under German rule. The colonist's farms were also a factor of alteration of the African landscapes, as were some mineral extraction mines with their compounds or worker reserves in close proximity. In the rural zone of Namibia, the German colonists cattle-raising was responsible for the introduction of new breeds of the cattle as well pigs and goats (from Europe, South Africa and even Argentina). During the war with the Hereros, as a matter of fact, horses were imported from Argentina and camels from Egypt for the soldiers of Schutztruppe.

The exploitation of wood was also an important activity during the German colonial rule, but nothing compared to the quantity (in tons) during the French mandate in the Equatorial Africa of post-bellum.<sup>75</sup> In the German East Africa, the potential of the forest resources was already discussed by the local press in the beginning of the 20<sup>th</sup> century that similarly made the apology of the

---

<sup>71</sup> WOHLTMANN, F. **Der Plantagenbau in Kamerun und seine Zukunft. Drei Reiseberichte.** Berlin: Verlag F. Teige, 1896. From the same author see: Bericht über seine Togo-Reise. Ausgeführt im Auftrag der Kolonial-Abteilung des Auswärtigen Amtes im Dezember 1899. in *Der Tropenpflanzer*. Beihefte Bd. 1, Nr. 5., Berlin, 1900.

<sup>72</sup> WAIBEL, L. Op. Cit., p. 361.

<sup>73</sup> "Der Kakao. Seine Kultur und Verarbeitung", *Kolonie und Heimat*. In *Wort und Bild*. Berlin, 12.02.1911, S.2-3.

<sup>74</sup> WOHLTMANN, Ferdinand. **120 Kultur -und Vegetations-Bilder aus unseren Deutschen Kolonien.** Berlin: Verlagsbuchhandlung Wilhelm Susserott, 1904.

<sup>75</sup> WAIBEL, L. Op. Cit., p.351.

German immigration when designating the German's as “pioneers of the civilisation” (Pionieren der Kultur), that is, as people capable of transforming the wild nature in cultural landscape.<sup>76</sup>

If the human element is decisive in the landscape modelling, it can't be forgotten that the war between German and Hereros (1904-1907) resulted in genocide.<sup>77</sup> The Hereros presence was almost excluded from the colonial landscape in the South-West Africa. In southern Brazil, the extensive expansion of the German colonisation compromised the ecology of the native groups Xokleng and Kaingang, including the regular activity of the “Bugreiros”<sup>78</sup>. Such practice was revealed as a way of extermination of the natives of the south of Brazil in XVI International Congress of Americanistes in Wien in 1908.<sup>79</sup>

### **Pests and catastrophes**

As well as these confrontations, the history of the German colonisation in southern Brazil and of the German colonialism in Africa was marked by pests and catastrophes. Friedrich von Weech informed in his book about the existence of numerous insects (fleas, bugs, flies and ants...) that molest during the whole year, being the largest inconvenience in Brazil.<sup>80</sup>

In the colonial press newspapers in German language, there are an enormous quantity of articles about agricultural pests. On August 2<sup>nd</sup> 1918, the Blumenau newspaper reported a cloud of grasshoppers passing using the following terminology:

“Passed, yesterday, by the city of Blumenau a giant swarm of grasshoppers in the direction of the interior of the town in which, no doubt, will cause great damage to the plantation. After the devastating frost, the grasshopper pest. Still to come a river flood.”

In the book celebrating the centenary of the German immigration to Rio Grande do Sul (1824-1924), the grasshopper pest was approached as a problem that worried the colonists from time to time. In the first decades of the 20<sup>th</sup> century, they used arsenic to fight the grasshoppers. However, ants were considered more damaging than the grasshoppers.<sup>81</sup> Friedrich von Weech and Theodor Rodowicz-Oswiecimsky commented on their respective books about the ants and even other “pests” like mosquitoes, fleas, cockroaches and mice. In relation to the fight against the ants, some adverts

<sup>76</sup> “Die Holzschätze unserer Kolonie und ihre Ausnutzung”, Deutsche Ostafrikanische Zeitung, Dar-es-Salaam, 14.09.1901.

<sup>77</sup> ZELLER, J.; Zimmerer, J. (Hrsgs.) Völkermord in Deutsche-Südwestafrika. Der Kolonialkrieg (1904-1908) in Namibia und seine Folgen, Ch. Links Verlag, Berlin, 2003.

<sup>78</sup> Bugre is the so-called savage Indian, in the colonial language. So bugreiro is the “hunter of Indians”.

<sup>79</sup> PENNY, H. Glenn. The politics of Antropology in the Age of Empire: German Colonists, Brazilian Indians, and the Case of Alberto Vojtech Fric, Comparative Studies in Society and History (2003), 45: 249-280; See also FRIC, Albert. “Volkerwanderung, Ethnographie und Geschichte der Konquista in Sudbrasilien”. In Verhandlungen des XVI Internationalen Amerikanisten-Kongresses (Wien, 1909), 63-67.

<sup>80</sup> WEECH, F. von Op. Cit., p. 42-43.

<sup>81</sup> AMSTAD, Pe. **100 anos de imigração alemã (1824-1924)**. São Leopoldo: Ed. Unisinos, 1999, p.234.

for machines and poisons vaguely described the idea of soil contamination by extremely toxic products like arsenic.<sup>82</sup> Methods against termites and ants were also shared by Germans in different places. In the magazine *Kolonie und Heimat*, for example, a German from Erfurt made suggestions to his compatriots in the German South-West Africa to fight the termites and ants pest.<sup>83</sup> As for the *Lüderitzbucht* newspaper, an article was published about an efficient way to fight the ants in the south of Brazil.<sup>84</sup> In the *Dar-es-Salaam* newspaper, some articles about termites considered these insects as a pest in tobacco plantations.<sup>85</sup> Other pests attacked the plantations. As well as a new pest in the coffee plantation, a possible fungus could have been responsible for the damage in the sorghum plantation in the German East Africa.<sup>86</sup> In the German South-West Africa, an article in the *Lüderitzbucht* newspaper described the cotton pest caused by a fungus (*Kräuselkrankheit*).<sup>87</sup>

In the German East Africa, the pests were not only related to the agriculture. The newspapers mention a "lion pest".<sup>88</sup> Even German newspapers in the south of Brazil reported the lions that "infested" the neighbouring *Dar-es-Salaam*.<sup>89</sup>

In Brazil, the pests were more the ones related to the agriculture and not only in German colonisation zones. In 1918, the pink caterpillar (*Gelechia gossypiella*) caused great damage in the cotton harvest of the estate of Pernambuco, informed a newspaper from Blumenau.<sup>90</sup> In another article, the Blumenau newspaper informed that the "pest had been introduced here in 1916" and had already been responsible for a damage of 50% in the cotton plantation in São Paulo. According to the newspaper, it had been proved that the pink caterpillar "adapted itself here, and seriously threatened the future of the nascent cotton plantation".<sup>91</sup>

In the south of Brazil, where the German colonists established on the shores of the Pardo river and in areas neighbouring specialised in the plantation of tobacco, the hail storms sometimes represented a catastrophe. Another climatic problem for the agricultural colonies was frost as already mentioned in an article of the *Der Urwaldsbote* newspaper.

Between the catastrophes, the floods occupy an important place in the memory of many German communities in the south of Brazil.<sup>92</sup> As a matter of fact, some commemorative albums of the

<sup>82</sup> See, for example, article of the "devastator" machine, invented by C. A. Berger, in Rio Grande do Sul. *Der Hausfreund*. São Paulo, 16.01.1904, p.22.

<sup>83</sup> "Ein Mittel gegen die Termiten – und Ameisenplage?" in *Nachrichtenbeilage zu Kolonie und Heimat*, S.03, Berlin, 27.02.1910.

<sup>84</sup> "Vermischte Nachrichten", *Lüderitzbucht Zeitung*, Lüderitzbucht, 18.10.1922.

<sup>85</sup> *Deutsche Ostafrikanische Zeitung*, *Dar-es-Salaam*, 17.02.1900; 31.03.1900.

<sup>86</sup> "Zwei neue Kulturschädlinge", *Deutsche Ostafrikanische Zeitung*, *Dar-es-Salaam*, 9.11.1901.

<sup>87</sup> "Ein Mittel gegen die Kräuselkrankheit der Baumwolle", *Lüderitzbucht Zeitung*, Lüderitzbucht, 24.02.1912.

<sup>88</sup> "Vermischtes", *Deutsche Ostafrikanische Zeitung*, *Dar-es-Salaam*, 7.09.1901.

<sup>89</sup> "Afrika", *Fortschritt*, Santa Cruz, 09.01.1904.

<sup>90</sup> *Der Urwaldsbote*, Blumenau, 20.08.1918.

<sup>91</sup> *Der Urwaldsbote*, Blumenau, 27.09.1918.

<sup>92</sup> MENDES, Simoni. As diferentes percepções sobre as enchentes no Vale do Itajaí. In: *Simpósio Internacional de*

German colonisation dedicate some pages and images to the floods. However, the registration of these catastrophes in commemorative books is an apologetic way to emphasise certain values as perseverance, tenacity and work of the German immigrants and their descendants before certain adversities.<sup>93</sup>

Like the power of the waters that carries everything during a river flood, the enclosed forests with their entanglement almost impassable and their immense trees also present an obstacle to colonisation. In these commemorative albums, the image of the immigrant “explorer of the forests” is a constant. Poems in German language were also written about the floods or about the exploration of the forests and published in these commemorative albums. Also, in the almanacs and German language newspapers you can find many references to literature in respect to the catastrophes, above all, the floods.

Needless to say that the German colonisation in the Brazilian provinces of Rio Grande do Sul and Santa Catarina occurred mainly in the low regions, of forests valleys. The floods are inescapable in the history of Blumenau. Since the first years of the colony, the floods were commented in a letter of Dr. Blumenau. Also Charles Darwin commented about another flood in Blumenau to his naturalist friend Fritz Muller. In a newspaper of Swakopmund an article also described a flood in Blumenau.<sup>94</sup> The report also asked for help for the German community affected by the waters of Itajai river.

In 1919, the newspaper *Der Urwaldsbote*, of Blumenau, reported the floods in Rio Grande do Sul, notably in the German colonisation zones. The river Taquary rose nearly 10 meters, isolating the town of Estrela. Also, the town of Lajeado was stricken by the flood in which the impact was compared to the floods of 1873 and 1912. As well as the material damage, there were dozens of deaths.<sup>95</sup>

## Final considerations

The German immigration in Brazil and in Africa didn't have the same demographic weight. In southern Brazil, the first colony was founded in 1824 and the number of German immigrants in the country reached more than 200,000 in one hundred years. In Africa, the German colonies became a reality from 1884, but the total number of German immigrants in all the colonies never reached 20,000 in thirty years. The German immigrants nevertheless managed to radically modify the

---

História Ambiental e Migrações, Florianópolis. Anais do Simpósio Internacional de História Ambiental e Migrações (cd-rom), 2010.

<sup>93</sup> See for example the memory book celebrating 100 years of German immigration in Santa Catarina estate (1929) or the book of the centenary of Blumenau (1950).

<sup>94</sup> “Die Überschwemmungen von Blumenau”, *Swakopmunder Zeitung*, Swakopmund, 02.12.1911.

<sup>95</sup> “Überschwemmungen in Rio Grande do Sul”, *Der Urwaldsbote*, Blumenau, 12.12.1919.

colonial landscape from both side of the Atlantic. Such modification on the landscape didn't happen without environmental impacts.

Some environmental impacts were short term, whilst others happened in the medium to long term. The evaluation of the environmental impacts of short, medium and long term is a difficult job for the historians. In the majority of the cases, it is impossible to infer with precision the degree of the environmental impact. What we can do, is an approximate calculation, taking as a base the remaining traces left over from the immigrants intervention in host ecosystems, in its fauna, flora and also in the social and ecological organisation of the human groups there already established. From that, the historians can make a correlation between the deforestation of the river forest with its soil erosion or the clearing of the forests with the extinction of certain plants or the disappearance of wild animals, etc.

In terms of the human ecology, for example, one of the biggest impacts of the German colonisation happened in the native population, especially Xokleng and Kaingang in the south of Brazil. In the colonial Africa, the "ecological dispute" was different between the natives and the adventitious, because the German colonialism did not manage to attract an expressive contingent of the European colonists to the African continent. The work of the African were essential to the colonial economy. Despite that, the imperial discourse of the II Reich emphasized the German immigration, even if minimal, so that it was carried out the pre-established roles of a colonial society of hierarchic structure, where the white people gave orders and the black ones obeyed. Without German immigration, even in small numbers, there would be no owners of the powers in the colonial Africa under the German rule. In the Brazil of the 19<sup>th</sup> century, an immigrant's discourse made an apology of the German immigrants work, minimising the value of the native workers and those of African origins. Like that, German immigrants gave orders to invest or to work in different historic and geographic contexts, and this resulted in changing the biomes and ecosystems, causing environmental impacts that can even today be identified in the landscapes of Africa or southern Brazil.