Neo-colonial Continuities in the Mediterranean Infrastructure Projects of Atlantropa and Desertec

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Abstract

Herman Sörgel's gigantic project "Atlantropa" is a prominent European project in terms of infrastructure and territory in the first half of the 20th century. It is an example of a modernity that is necessarily believing in progress through technology – as will be shown the first section of this essay, but it is also profitable in that it historically locates Europe's current energy policy infrastructure projects in Africa, to which the second section of the essay is dedicated. The vision pursued under the name Destertec envisages the large-scale implementation of renewable energy power plants, especially solar thermal power plants in Northern Africa. Both projects share an unshakeable belief in ecomodernist ideas, meaning the solution of socio-economic and ecological challenges through technology (Gall, 2014). Furthermore, argumentation patterns of the 1920s based in colonial ideology of a Pan-Europa or Eurafrica still serve to advertise development programs in the 21st century. The historical perspective with an overview about "Atlantropa" thus serves as a mean to question justifications of recent European energy projects in Northern Africa.

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1 - The original name Panropa (1929-32) was borrowed from the Paneuropa-Union founded by Richard Coudenhove-Kalergi in 1923. It aimed at the political unific - tion of Europe after the First World War. For the colonial impetus of the Pan-europa-Union (Cupers, 2020: 24-32).

Herman Sörgel's Atlantropa

"Atlantropa" took shape from 1928 – first under the name "Panropa" (Cupers, 2020)[1] – and developed continuously in the 1930s, though it lasted until Sörgel's death in 1952. The basic idea from the beginning was the lowering of the Mediterranean Sea by two enormous dams in the Strait of Gibraltar as well as the Dardanelles. By 1931 Sörgel revised the plan towards two separate subsidence areas of 100 and 200 metres respectively, which were to be separated by a third barrier between Tunisia and Italy. In 1932, he presented the project in an exhibition.

The vision of Atlantropa pursued two concrete main goals. The first was to gain new territory. Studies of marine geography allowed calculations that a total of 576,000 square kilometres of new land would emerge from the Mediterranean. In addition to the power plants, several gigantic infrastructure projects such as bridges, tunnels, railway lines (Cape Town-Berlin

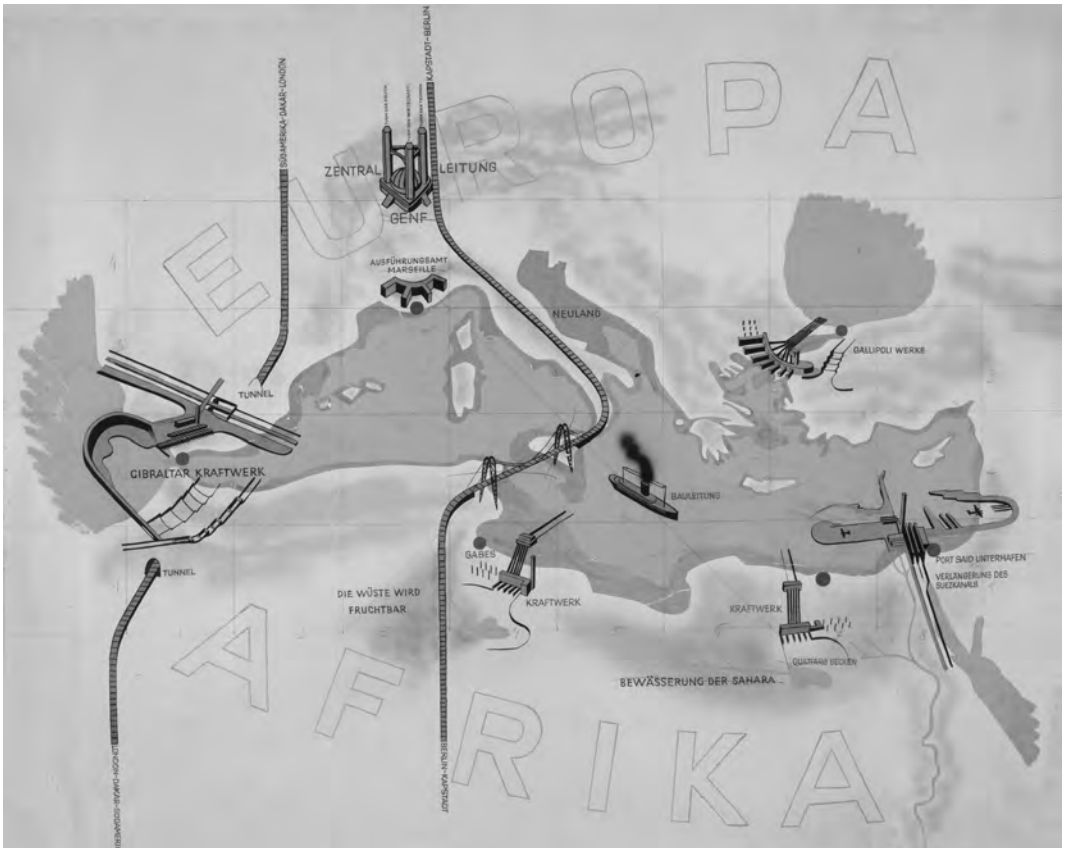

Fig. 1 - The project of Atlantropa. Source: Deutsches Museum, München, Archiv CD 78659.

and South America-Dhaka-London) and ports were to be built. In addition, entire new cities and modern extensions of historic cities were planned. However, the final expansion of all facilities in the western Mediterranean was only possible after a 100-meter drop in sea level. As the lowering could only occur slowly through natural evaporation, the desired level of Sörgel's schedule would only be achieved after 120 years after the construction of the barrier near Gibraltar. It would even take 250 years to reach the final stage planned east of Tunis.

The belief that the growing peoples of Europe needed new land in the first place is ideologically based on the 'Lebensraum' concept, which emerged around 1900 and was later taken up by the National Socialists (but then as 'Lebensraum im Osten' with a different geographical orientation). More generally, Sörgel's efforts to gain land can also be placed in the imperialist thinking of the Eu-

Fig. 2 - Atlantropa exhibition poster
Source: Deutsches Museum, München, Archiv BN 22039.

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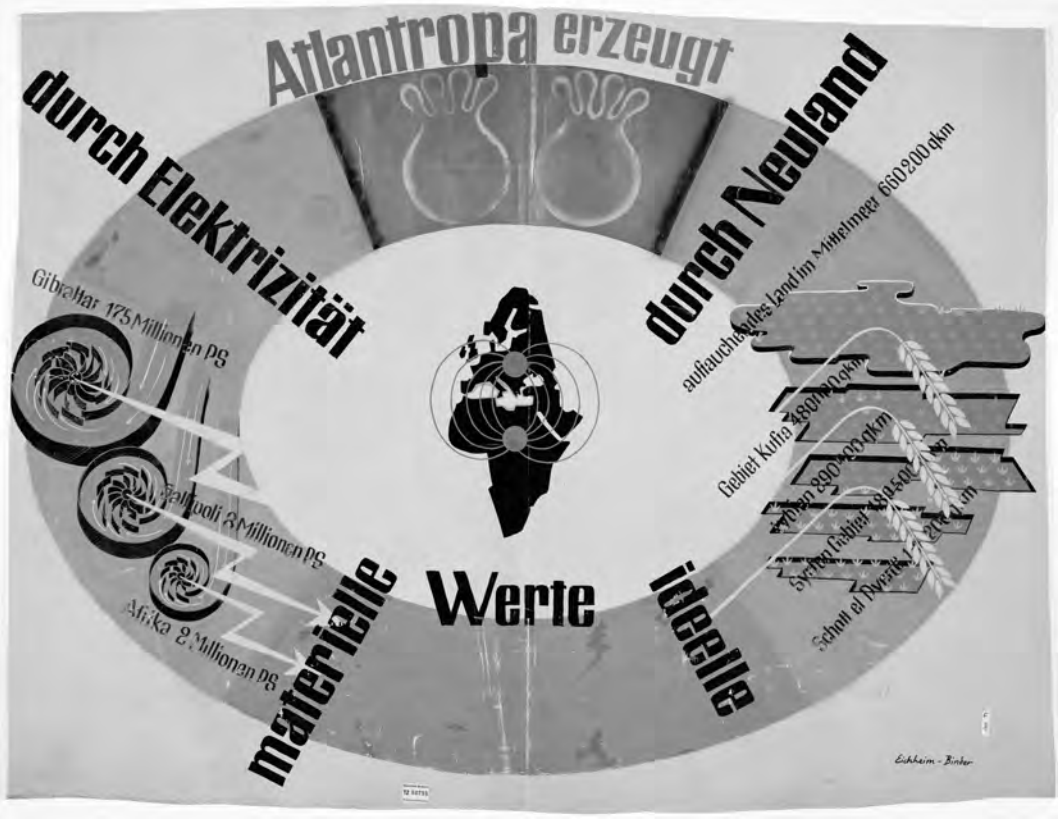

ropean powers. For the lowering of the sea level would also have reduced the distance between the continents of Europe and Africa to such an extent that a new 'supercontinent' – "Atlantropa" – would have emerged. Atlantropa was conceived by Sörgel as a geopolitical centre of power that could only successfully hold its own against the two emerging continents of America and Asia in a united effort. Thanks to the energy reserves, Atlantropa would be as good as certain of becoming the dominant world power, following Sörgel's argument in his publication *Die drei großen "A". Großdeutschland und italienisches Imperium, die Pfeiler Atlantropas. [Amerika, Atlantropa, Asien]* from 1938.

The second goal was the generation of electricity with a variety of energy infrastructure projects. They consisted of the largest, 35-kilometer-long hydroelectric power plant in the Strait of Gibraltar, the power station in Tunis, the Gallipoli plants at the entrance to the Black Sea, the Nile and the other hydroelectric power stations in Tunisia and Egypt. The latter would also fill large reservoirs and would thus also have the function of "irrigating the Sahara". Sörgel illustrated this idea 1931 in the poster "What is Atlantropa? Lowering the Mediterranean - Cultivation of Africa - Large power grid".[2]

Sörgel estimates that irrigation of North Africa would create 1.5 million square kilometres of "first-order cultivated land" and the same amount of "second-order cultivated land" (Fig. 3).

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The argumentation of the 'cultivation of Africa', which can certainly be understood in a broader sense, and the development of 'backward' population groups is a topos running through the centuries for the justification of colonial aspirations worldwide. This may be traced back to the Valladolid Debate (1550-1551) between the Spanish Dominican and historian Juan Ginés de Sepúlveda and Bartolomé de las Casas, also a Spanish Dominican and the first archbishop of Chiapas. The former argued that the indigenous population in the colonised territories were barbarians and that their enslavement was justified. To justify this argument, he relied mainly on the paradigms of Aristotelian natural law thinking. Las Casas, on the other hand, described the indigenous population as rational – although he also called them barbarians. He considered it indispensable and a question of

2 - Translated from the original: "Was ist Atlantropa? – Mittelmeersenkung. Afrikakultivierung. Großkraftnetz".

Fig. 3 - Was ist Atlantropa.
Source: Deutsches Museum, München, Archiv CD 70055.

ethics to bring them the Word of God. No clear winner emerged from the dispute, but the exploitation of the indigenous population and their exclusion from the category of 'human beings' was to have far-reaching consequences for Western thinking.
For instance, for the thinking of Georg Wilhelm Friedrich Hegel. He begins his *Lectures on the Philosophy of History* with the 'Oriental World' and justifies this as follows:

> China and India lie, as it were, still outside the World's History, as the mere presupposition of elements whose combination must be waited for to constitute their vital progress. The unity of substantiality and subjective freedom so entirely excludes the distinction and contrast of the two elements, that by this very fact, substance cannot arrive at reflection on itself – at subjectivity. [...] We cannot go further into the minutiae of their annals, which, as they themselves exhibit no development, would only hinder us in ours (Hegel, 2001: 1822-1830).

This thinking is prevalent also in the texts by Karl Marx. In his article for the New York Daily Tribune

(1853), Marx notes the brutality with which British 'civilization' is introduced into India. Nonetheless he writes:

> Sickening as it must be to human feelings to witness [...] we must not forget that these idyllic village communities [...] had always been the solid foundation of Oriental despotism, that they restrained the human mind, within the smallest possible compass, making it the unresisting tool of superstition, enslaving it beneath the traditional rules depriving it of all grandeur and historical energies. [...] England has to fulfil a double mission in India – he wrote – one destructive, the other regenerating – the annihilation of old Asiatic Society, and the laying of the material foundations of Western society in Asia.

It was Edward Said's ground-breaking *Orientalism* from 1978 which deconstructs the discursive hegemony of Western thinking over the non-Western 'other'. Neeladri Bhattacharya in his recently published *The Great Agrarian Conquest* shows, again in the context of the British colonization of India, how this cultural hegemony is also fundamentally related to territorial power (Bhattacharya, 2019). To sum it up: the intervention of Western projects in 'backward' or 'developing' countries for means of 'civilizing', 'cultivation' or 'development' is always deeply intertwined with – unequal – power relations. This argumentation has its roots are grounded in colonial patterns of thinking. Coming back to Sörgel's project, the power grid would also have the function of "forcing a guarantee of peace among the peoples". For the author, the explicit emphasis on the consolidation of the European power base is not contradictory to a peaceful coexistence of the European and African peoples: "What is technically possible should be exploited economically. The economic unit Atlantropa could thus at the same time, as a political power, save the culture of the Occident from destruction". For Sörgel, the creation of large power plants lead to the creation of new cultivated land. Sörgel was able to win over a long list of renowned architects for cooperation. Hans Poelzig, Fritz Höger, Hans Döllgast and Lois Welzenbacher provided sketches and drawings for individual buildings, power plants and entire cities. The architecture teachers Peter Behrens and Emil Fahrenkamp drew designs themselves and awarded selected Atlantropa projects

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to their students in Vienna and Düsseldorf. Erich Mendelsohn also participated with some enthusiasm, as did Cornelis van Eesterem; Mies van der Rohe showed interest, but ultimately did not deliver any material. Last but not least, a whole series of lesser-known architects made remarkable designs. In this respect, Atlantropa could be seen as an 'open source' project avant la lettre, a major joint project by leading architects of the time, which was certainly given a chance to be realised. Obviously problematic is that although architects from Germany and the Netherlands were involved, not a single representative of a European Mediterranean state, let alone one from Africa. In this regards Atlantropa clearly follows the well-trodden paths of the colonial way of implementing European ideas in colonised territories.

The project, which focused on Europe and North Africa, was completed in 1932, but in the following years Sörgel worked on an extension of the plan, which was eventually to encompass the whole of Africa. Together with his engineering consultant Bruno Siegwart, he visited the Oceanographic Museum of Monaco in 1934, where they were able to evaluate contour maps of the African continent. The two finally presented the expanded project, which by far outshone the previous plans of Atlantropa, in 1935 in the German architecture magazine Baumeister. They were particularly taken with the geographical formation of the Congo Basin, a plain almost completely surrounded by peripheral mountains 500 meters above sea level. A dam north of the capital Léopoldville (today: Kinshasa) was to create a huge freshwater reservoir with a surface area of 900,000 square kilometres, which would have flooded half of the country. Further north, in a second period, an equally large "Chad Sea", fed by a branch canal from the future "Lake Congo", should have been created, through which Sörgel wanted to influence the climate of the entire continent and supply the dry Sahel zone with rain. A third lake was planned in the area of the present states of Zambia and Zimbabwe, fed by the water of the Zambezi River which was to be dammed (Voigt, 1998). "The centuries have kept us and our technology Africa like a filled, untouched savings bank" (Sörgel, Siegwart, 1935: 37-39).[3] It goes without saying that these large-scale planning projects by Sörgel on the African continent were also carried

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3 – Translation by the author.

4 - Translation by the author.

out with complete disregard for cultural, social and ecological contexts. They use the topos of 'cultivation' for the exploitation of land and resources. In this sense, again, the technological implementations have to be understood as a means of colonization.
The almost infinite belief in the possibilities of the blessed technique are paired with a longing for meaningful sacrifices: "Atlantropa [...] is a fighting project, not a project of rest and stagnation, but a project of dynamics and development, of sacrifice and fighting spirit, of comradeship and cooperation, of production and creativity, of progress and movement (Geschichte, 1948: 3)". The Vision Atlantropa died in 1952 together with its creator Herman Sörgel.
Wolfgang Voigt's conclusion on Sörgel's project is ambivalent:

With cross-references to pacifism and the Pan-European movement, land reform, the philosophy of Oswald Spengler, cultural Americanism, Zionism and secular regimes from the 'Third Reich' to the UNO, Atlantropa proves to be a dazzling conglomeration of political strategies and trends (Voigt, 1998:6.)[4] Dirk van Laak states: "Sörgel and his plan embodied in its purest form the confidence with which technical understanding not only claimed primacy over economics and politics, but also set about a global reorganisation, hoping to reconcile all international competition in the sense of a project for humanity (Laak, 2014: 246f).

In the light of a colonial discourse, we clearly have to put in doubt Sörgel's humanitarian approach. His idea of a pan-European peace is embedded in a conceptual structure that oscillates between a longing for the Wilhelmine colonial heritage, the belief in the superiority of the white race and the Lebensraum-ideology taken up by the National Socialists.

Desertec and the consequences
In July 2008, the then French President Nicolas Sarkozy founded the Union for the Mediterranean (UfM) at the first Mediterranean Summit in Paris. The intergovernmental organisation is made up of 43 countries, including all 27 Member States of the European Union and 15 Mediterranean partners. As an extension of the Barcelona Process of 1995, the UfM was intended to act for the (security) political consolidation

and economic development of the countries bordering the Mediterranean and the countries of the EU. Decisive parts of the project were, on the one hand, the development of infrastructure, i.e. the expansion of shipping routes by means of modernised port facilities and the motorway and rail network, in particular the Trans-Magreb for stronger links between the countries of Morocco, Algeria and Tunisia. Secondly, a solar energy plan should implement alternative energy sources in the North African partner countries, which should produce electricity for export to the Mediterranean region and thus also guarantee Europe's energy security. Even then, there was criticism – not least from the then Libyan head of state Muammar al-Gaddafi – that Sarkozy had not consulted with the North African states in advance and with the UfM was seeking to divide already existing systems such as the African Union and the Arab League.
After a stormy, highly symbolic initial phase, things soon calmed down around the UfM and the consequences of the Arabellion of 2011 put the vision of a united Mediterranean region in the distant future. Despite the UfM's political failure, a number of projects based on economic cooperation emerged. In our context, the Desertec Foundation envisioned by German Gerhard Knies will be the focus. Its vision was the generation of green electricity using solar thermal power plants in the deserts of North Africa, which is transported to Europe via high-voltage direct current transmission. Desertec euphorically announced at its presentation:

> The DESERTEC Concept shows a way to ensure climate protection, energy security and development by using the world's most energy-rich locations to produce sustainable electricity from renewable energies. […] There is energy in abundance and we have the technologies to use it.[5]

Deserts rich in sunshine play a crucial role in the Desertec concept, because here, according to the Desertec self-representation, "in 6 hours more energy would be received from the sun than humanity consumes in a year". The solar thermal power plants would be supplemented by other renewable energy sources such as wind power and photovoltaics.
The map published by Desertec in 2011 shows a network of renewable energy power plants covering

5 - https://web.archive.org/web/20121019173335/http://www.desertec.org/de/konzept/ (24.06.20) (translation by the author).

Europe and North Africa, with the Sahel and West Asia to be integrated at a later stage. At first glance, it is astonishingly similar to Herman Sörgel's 1931 map. Like Sörgel, Desertec also stresses the developmental advantages of such a project for the North African region:

The generation of clean electricity offers the opportunity to create a basis for sustainable economic development: In the siting regions, not only jobs are created in the construction and operation of the power plants, but also opportunities for local companies to take over parts or even the entire value chain.[6]

The rhetorical consonance of Sörgel's "Afrikakultivierung. Großkraftnetz" has lost little of its radiance and persuasive power in the 21st century.
The continuity of colonial action is also obvious to the Algerian scientist and activist Hamza Hamouchene. He states:

This is a genuine concern given the language used in different articles and publications describing the potential of the Sahara in powering the whole world. The Sahara is described as a vast empty land, sparsely populated; constituting a golden opportunity to provide Europe with electricity so it can continue its extravagant consumerist lifestyle and profligate energy consumption. This is the same language used by colonial powers to justify their *civilizing mission* and, as an African myself, I cannot help but be very suspicious of such megaprojects and their 'well-intentioned' motives that are often sugar-coating brutal exploitation and sheer robbery (Hamouchene: 2015).

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In 2009, the Desertec Foundation, together with companies from the industrial and financial sectors, founded Dii GmbH (Desertec Industrial Initiative) based in Munich. Its primary objective was to examine the economic viability and profitability of the Desertec vision in the EUMENA region (Europe, Middle East, North Africa). In June 2012, Dii published a study entitled "Desert Power 2050", in which Fraunhofer ISI examined further scenarios.[7] The Dii shrank from 17 to only three partners by the end of 2014, namely the German RWE, Saudi Acwa Power and China State Grid – the story of yet another major vision was thus buried by the media. Nevertheless, a number of solar power plants have been built under its aegis in recent years in Morocco, Tunisia and Algeria, which are worth a closer look.

6 - https://web.archive.org/web/20121102062018/http://www.desertec.org/de/konzept/vorteile/ (24.06.20) (translation by the author).

7 – https://web.archive.org/web/20121116045041/http://www.dii-eumena.com/de/desert-power-2050.html (24.06.20).

Destertec praises the 'Green Energy' projects as important stepstones of an ecologically sustainable future. The reality on site is different, because the solar thermal power plants do not only work with photovoltaics but, as the name suggests, also with thermal energy. The advantage is that "desert electricity from solar thermal power plants [...] is available day and night thanks to heat storage and is therefore an ideal supplement for power grids with fluctuating renewable energy sources".[8] The disadvantage is that the panels require an estimated amount of 2.5 to 3 million cubic meters of water to be cooled in the heat of the day.[9] Hamouchene illustrates the problems this creates for the local population living in water-scarce regions by using the example of the Ouarzazate solar power plant in central Morocco. Particularly during droughts, the supply of water for irrigating the fields and for drinking becomes a massive problem (Hamouchene, 2015). The MENA (Middle East, North Africa) region is already one of the regions most affected by climate change, which has a particular impact on the water supply – even though the global carbon emissions are generated there are rather marginal.

The Desertec Foundation has published a set of criteria to ensure that large-scale solar projects in desert regions are implemented in an environmentally and socially responsible manner. However, Hamouchene, who critically accompanied the development of solar power plants in North Africa, views the situation quite disillusioned, because "in the absence of democratic control, transparency and citizen participation in decision making in the MENA region, those criteria will remain ink on paper (Hamouchene, 2015)".

The same problematics apply to Tunisia, which wants to increase its share of renewable energies in electricity generation from 4 percent today to 30 percent by 2030. Mansour Cherni from the Tunisian trade union federation Union Générale Tunisienne du Travail (UGTT) asked Desertec unpleasant, unanswered questions at the World Social Forum 2013 in Tunis: "Where will the energy produced here be used? Where will the water come from that will cool the solar power plants? And what do the locals get from it all? (Hamouchene, 2015)".

With the last question, Cherni addresses a further problem, namely the extent to which knowledge, expertise

8 – https://web.archive.org/web/20121102062018/http:/www.desertec.org/de/konzept/vorteile/ (24.06.20) (translation by the author).

9 – https://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Morocco_-_Ouarzazate_Solar_Power_Station_Project_II_-_ESIA_Summary.pdf (24.06.20).

and the design and manufacturing processes of the technologies are actually transferred to North Africa. This is more than unlikely, given the usual technology policies of transnational corporations and the protection of intellectual property. In fact, the solar thermal collectors were all manufactured in Germany, and the patents for the glass tube receivers are held by German companies.

> Without fair access to such technologies, MENA countries will remain dependent on the West and transnationals for future renewable development. [...] Whether fossil fuelled or renewable, energy schemes that don't benefit the people where the energy is extracted, that serve to prop up authoritarian and repressive regimes or only enrich a tiny minority of voracious elites and transnationals are scandalous and must be resisted (Hamouchene, 2015).

In November 2020, the "Desertec" project is being revived again under new prefixes. Instead of electricity, hydrogen is now to be produced on a large scale in North Africa and shipped to Europe via natural gas pipelines. However, electrolysis, as the production process is called (i.e. the splitting of water into hydrogen and oxygen), requires a lot of water. For every kilogram of hydrogen, 10 kilograms of water have to be fed into the grid. But as already mentioned, water is a rare commodity in the MENA region. The water is to come from desalination plants – also powered by wind and solar energy (Matthes; Aruffo; Ret-by-Pradeau, 2020). Critics, however, complain that the high costs would make production unprofitable. Herman Sörgel's historical transportation and energy infrastructure projects cast a glaring light on current projects in North Africa. The strategies used today must therefore be firmly placed in a colonial context: the exploitation of resources and the creation of energy is justified with cultivation and development. Decisions are made in Europe. Local people are neither heard, nor are their needs considered. The production of so-called green energy leaves unmentioned the environmental damage it causes in the region. Kenny Cupers therefore argues:

Decisions are made in Europe. Local people are neither heard, nor are their needs considered. The production of so-called green energy leaves unmentioned the environmental damage it causes in the region.

> Infrastructure measures are thus key to understanding the different futures in the process of African decolonisation and the continued influence of Europe in this process. [...] As

in the colonial past, the infrastructure connecting Africa to Europe continues to support the transport of goods primarily for the benefit of Europeans (Cupers 2020: 29).

The neo-colonial continuities of Eurafrican or Pan-European projects like "Atlantropa" and current strategies are also highlighted by Peo Hansen and Stefan Jonsson: "Today, even as the Eurafrican project is largely forgotten, the content of current EU policy making towards its African 'partner' demonstrates that its influence persists under the surface. The only way to comprehend the deep structures of current EU-African relations is to bring this history to life again, or at least bring it into the history books" (Hansen, Jonsson, 2018).
While the unchecked flow of energy to Europe is a crucial component of the idea, this cannot be said for the migration of people. On the contrary, it goes hand in hand with an increasing sealing off of Europe's external borders against refugees from Africa and Western Asia. This undermines the continuous assertion of humanitarian aid for the affected states. The primary reason for European infrastructure projects like "Desertec" is a different one: they are intended to provide access to cheap natural resources from the global South and channel them to the rich industrialised North, while maintaining the tradition of unequal (neo-)colonial power relations.

The primary reason for European infrastructure projects like "Desertec" is a different one: They are intended to provide access to cheap natural resources from the global South and channel them to the rich industrialised North, while maintaining the tradition of unequal (neo-) colonial power relations.

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