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Law, regulation and strategizing for disease of leprosy in 19th Century Northern Europe

ABSTRACT: The essay examines the phenomenon of leprosy, through a comparative investigation of the evolution of regulatory model in Norway for fighting the epidemic emergency and the development of colonial healthcare in the nineteenth century. The impact of segregation and other emergency laws and legal measures against Hansen's disease has been considered in relation to the factors of poverty, access to treatment and social mobility between urban and rural areas, colonial racism, developments in the organisation of the healthcare system and the improvement of public health, advances in medical research and experimentation.

KEYWORDS: leprosy, constitutional history of Norway, legislation and healthcare organisation, isolation policy and exile law, discriminatory treatment.

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1. *The United Kingdoms of Norway and Sweden after the Napoleonic Wars: profiles of the Norwegian Constitution*

The matter of leprosy in nineteenth-century Europe is inextricably linked to the events in Norway, indicating the paradigm shift and the divide between the Middle Ages and Modernity in terms of methods and results. The historical Norwegian example also intersects, as a necessary premise, with certain aspects of European constitutional history, with the presence of a model of constitutional monarchy, the origins of which can be traced back to a particularly complex time in Northern Europe. As a result of the Treaty of Kiel of 14 January and the Convention of Moss of 14 August 1814, the composite or multinational state model of Denmark-Norway-Schleswig-Holstein, which answered to an absolutist political system under Danish hegemony, collapsed. While progressively relegated to a rearguard position against the rise of the Swedish and Prussian powers, the Danish Monarchy boasted Europe's third largest merchant fleet, control of shipping traffic along the Oresund Canal to the Baltic Sea, and a colonial domain, established between the seventeenth and eighteenth centuries, extending to the West Indies (Dansk-Vestindien), West Africa (Christiansborg-Ghana) and India (Frederiksnagore-Serampore and Tranquebar). In the late eighteenth century, the main cities of this state were Copenhagen, Altona and Kiel in Holstein, Flensburg in Schleswig and Bergen in Norway¹.

The Danish absolutist system had stimulated the pursuit of legal uniformity with respect to medieval provincial regulations, according to the legal archetype of the *Danske lov* (1683), and the centralisation of power through specialised assemblies, offering members of the bourgeoisie the opportunity to access government posts, especially in the administration of finances, without renouncing the proposals for reform in matters of agriculture, trade and civil liberties under the influence of the Enlightenment legal culture². The adhesion of the Denmark-Norway monarchy to Napoleon's cause against Great Britain resulted in bankruptcy in 1813 and the transfer of the rights over Norway to Sweden, without the Atlantic dependencies of Iceland, the Faeroes and Greenland, under a regime of dynastic personal union³.

¹ J.R. Rasmussen, *The Danish Monarchy as a Composite State*, in N.A. Sørensen (ed), *European Identities, Cultural Diversity and Integration in Europe since 1700*, Odense 1995, p. 23-36.

² C. Løfting-H. Horstbøll-U. Østergaard, *Les effets de la révolution française au Danemark*, in M. Vovelle (ed), *L'image de la révolution française*, vol. I, Oxford 1989, p. 621-642.

³ U. Østergaard, *Stato e società civile in Danimarca: il paradosso danese*, in C. Sorba (ed), *Cittadinanza. Individui, diritti sociali, collettività nella storia contemporanea*, Atti del convegno annuale SISCO (Padova, 2-3 dicembre 1999), Roma 2002, p. 85. See also R. Berg, *Denmark, Norway and Sweden in 1814: a geopolitical and contemporary perspective*, in «Scandinavian Journal of History», vol. 39

Danish constituted a common language area in Denmark and Norway, nevertheless the period of union, which began in the fourteenth century, had not resulted in a merger between the two peoples, who had developed opposing lines of succession to the throne, with the hereditary line for the Norwegians and the elective approach for the Danes, resulting in the emergence of marked nationalist instincts in the late eighteenth and early nineteenth centuries. In the European dynamics of the struggle between constitutionalism and despotism, Norway took advantage of the transitional phase to assert its independence in February 1814, in violation of a treaty perceived as unfair, under the regency of the governor and heir to the throne of Denmark and Norway, Christian Frederik. Despite the particular position held by the regent, who aroused mistrust and opposing sentiments between Denmark and Sweden, jurists Christian Magnus Falsen and Johan Gunder Adler skilfully weaved together the work of the constituent assembly to reveal the reasons behind the Norwegian people's right to self-determination⁴, which led, on 17 May 1814, to the drafting of a Constitution, in the historical and cultural context of the great bourgeois revolutions of the seventeenth and eighteenth centuries, and to the election of Christian Frederik as King of Norway⁵.

The use of techniques to guarantee and limit power operated within the framework of a new political order, based on the harmonisation of the domestic legal tradition with European and American constitutional models, within a free, independent and indivisible state. In an international context that was not inclined to recognise Norwegian independence, the subsequent Convention of Moss prevented the military conquest of Norway by Sweden. With the abdication of Christian Frederik and the start of the process of unification, both the removal of the British naval blockade, which had triggered famine and a severe economic crisis, and the survival, with some adaptations, of the Eidsvoll constitution, with its concept of popular sovereignty, protection of property and safeguarding of national and individual freedom, were achieved⁶.

(2014), p. 265-286; R. Hemstad (ed.), *Like a Herd of Cattle'. Parliamentary and Public Debates Regarding the Cession of Norway, 1813-1814*, Oslo 2014.

⁴ M. Hommerstad, *Christian Magnus Falsen: stridsmannen*, Oslo 2015.

⁵ D. Tamm, *Cádiz 1812 y Eidsvoll 1814*, in A. Romano-F. Vergara Caffarelli (eds), *1812 fra Cadice e Palermo: nazione, rivoluzione, costituzione rappresentanza politica, libertà garantite, autonomie*, Atti del convegno (Palermo-Messina, 5-10 dicembre 2005), vol. II, Palermo 2012, p. 753-758.

⁶ For an investigation on this topic see E.M. Fuglestad, *Private Property and the Origins of Nationalism in the United States and Norway. The Making of Propertied Communities*, London 2018, p. 100 ss.; E. Holmøyvik, *Constituent Power and Constitutionalism in 19th Century Norway*, in U. Müßig (ed), *Reconsidering Constitutional Formation*, vol. II, *Decisive Constitutional Normativity. From Old Liberties to New Precedence*, Cham 2018, p. 275-309.

Norway's high level of independence was measured by the powers of a limited, hereditary monarchy, in personal union with Sweden, balanced by a bicameral parliamentary system (*Storting*), consisting of the *Lagthing* and *Odels-thing*. The two united parties maintained their own constitution, government and parliament. The Norwegian constitution gave the king considerable authority concerning defence, foreign policy, initiative of all legislation and suspensive veto over ordinary Acts. Parliament was given the authority to pass laws and the budget and the legal power to impeach ministers. Laws were published in the king's name, in the Norwegian language and with the Norwegian royal seal. The Swedish monarch, after being crowned and consecrated in Trondheim Cathedral (Nidaros), had to take oath before parliament, vowing to rule the kingdom of Norway in accordance with the constitution and its laws. In 1822, the country's Supreme Court became the second national court in the world to constitutionally review legislation⁷.

High bureaucrats (*embetsmenn*) had to be recruited from the Norwegian ranks. Their leading role went back to the time of absolutism, from families that had emigrated from Denmark to Norway, and their policy aimed at reducing the king's powers in favour of those of the Storting: the use of temporary decrees was curtailed and parliamentary sessions were prolonged. Until the 1888 Act, citizenship was based on *jus soli*, allowing foreigners who resided legally in the country for a relatively short time to acquire almost all the rights of birthright citizens. Voting rights were granted to senior civil servants, the bourgeoisie, landowning farmers and city landlords. In order to regulate migratory flows between Sweden and Norway, a deportation agreement was drawn up in 1855 for poor foreigners who had not obtained legal residence in the host country. The Dual Kingdom had two capitals, namely Stockholm and Christiania (Oslo), where the main part of the Norwegian government was seated. Despite their common Lutheran background, the Norwegian and Swedish churches remained separate⁸. Norway was only accountable for its national debt and in 1816 was established a semi-public central bank and a modern monetary policy⁹.

⁷ M. Langford-B.K. Berge, *Norway's Constitution in a Comparative Perspective*, in «Oslo Law Review», vol. 6, no. 3 (2019), p. 198.

⁸ On this matter: J.E. Myhre-P. Trabucchi, *Vicini e lontani: Svedesi nelle città norvegesi (1814-1914)*, in «Quaderni storici», vol. 36, no. 2 (2001), p. 517-540; D. Michalsen-O. Mestad (eds), *Rett, nasjon, union: den svensk-norske unionens rettslige historie 1814-1905*, Oslo 2005; R.E. Lindgren, *Norway-Sweden Union, Disunion, and Scandinavian Integration*, Princeton 2015.

⁹ For an investigation on this topic see G.C. von Unruh, *Eidsvoll: das norwegische Grundgesetz von 1814 als konstitutionelles Modell*, Kiel 1977; Ø. Sørensen, *The birth of the Norwegian constitution: the year of change*, Oslo 1986; J.E. Myhre, *Norsk historie 1814-1905. Å bygge ein stat og skape ein nasjon*, Oslo 2012; E. Fure-K. Mykland-B. Engelsen, *Eidsvoll 1814: hvordan grunnloven ble til*, Oslo 2013; G.F. Ferrari (ed), *Two centuries of Norwegian Constitution. Between tradition and*

2. *Leprosy in Norway and Public Health Emergency Laws*

Norway had acquired the traits of modernity in the relationship between the division of powers and limited government, but still faced a system of intervention measures not dissimilar to the medieval past in relation to the resurgence of a disease, leprosy, which had terrorized northern Europe between the twelfth and seventeenth centuries¹⁰. There were a few outbreaks in Finland, Sweden and along the Eastern Baltic coast in the late eighteenth and early nineteenth centuries, but the place where leprosy had become endemic was Western Norway. From 1764 to 1774, Pastor Strøm reported ten cases of leprosy in the parish of Bolden alone¹¹. The Danish physician, entomologist and botanist, Johann Christian Fabricius, described the health situation in Norway in 1778, separating the coastal areas between Trondheim and Bergen, which were struggling with leprosy¹², from the southern diocese of Kristiansund, which was struggling with a skin disease (*radesyge*), erroneously equated with leprosy, which, according to popular tradition, was caused by adulterous relations between Norwegian women and Russian sailors in Egersund harbour, but was later diagnosed as a form of tertiary syphilis¹³.

innovation, The Hague 2015; K. Gammelgaard-E. Holmøyvik (eds), *Writing democracy: the Norwegian Constitution, 1814-2014*, New-York-Oxford 2015; H. Bøhn-Ø. Eitheim-J.F. Qvigstad (eds), *Norges Bank 1816-2016 en historie i bilder. A pictorial history*, Bergen 2016; U. Müßig, *Juridification by Constitution. National Sovereignty in Eighteenth and Nineteenth Century Europe*, in Id. (ed), *Reconsidering constitutional formation*, vol. I, *National sovereignty. A Comparative Analysis of the Juridification by Constitution*, Cham 2016, p. 54-65; J. Elster, *A Race against Time. The Making of the Norwegian Constitution of 1814*, in J. Elster-R. Gargarella-V. Naresh-B.E. Rasch (eds), *Constituent Assemblies*, Cambridge 2018, p. 138-160; R. Hemstad, *The United Kingdoms of Norway and Sweden and the United Kingdom of the Netherlands 1814-1830: Comparative Perspectives on Politics of Amalgamation and Nation Building*, in «Scandinavica», vol. 58, no. 2 (2019), p. 76-97.

¹⁰ P. Richards, *The medieval leper and his northern heirs*, Cambridge 1977, p. 123 ss.

¹¹ Ibid., p. 102.

¹² J.C. Fabricius, *Lehrers der Oekonomie und Naturhistorie auf der Universität Reise nach Norwegen, mit Bemerkungen aus der Naturhistorie und Oekonomie*, Hamburg 1779, p. 372-375.

¹³ C.W. Boeck, *Traité de la Radesyge (Syphilis Tertiaire)*, Christiania 1860. On this matter see also: A. Kveim Lie, *Origin Stories and the Norwegian Radesyge*, in «Social History of Medicine», vol. 20, no. 3, (2007), p. 563-579. «A major concern for the health services was to stem ravaging epidemics, and possibly prevent their occurrence. One might believe that epidemics would only spread slowly, because of the local settlement pattern, but this is not quite true. Along the coast, the sea made relatively swift communication possible. In addition, when the great fisheries took place off the coast, thousands of fishermen from some distance away set out in their vessels. Temporary villages of very low housing standards were built, and these primitive agglomerations acted as nodes for the distribution of infections to large parts of

At the beginning of the nineteenth century, the priest Johan Ernst Welhaven, head of Norway's main healthcare and welfare organisation, St George's of Bergen, which had dealt with epidemics since the late Middle Ages as a hospital organisation run by clergymen¹⁴, published an article in the prestigious journal *Svenska Läkaresällskapetets Handlingar* (*Acta Societatis Medicorum Suecanae*), which, through the official organ of the Swedish Medical Society, raised interest in the frequency of the appearance of new cases of leprosy in the Scandinavian peninsula, in contrast with the rest of Europe. The pastor was credited with presenting an accurate report on leprosy, with illustrations of the effects of the disease on the hospitalised patients, of whom there were 66 in Bergen leper colony alone at the beginning of 1816¹⁵.

In Welhaven's time, with intervention of the local doctor, the seriously or chronically ill were confined to the hospital, although there were also cases of people who were cared for at home or who were hard to reach in inland areas. The prelate's fifteen-or-so years of experience told him that those at greatest risk were the fishermen on Norway's western and northern coasts. The deterioration of the economic conditions of the population as a result of the Napoleonic campaigns led to fears of an increase in the percentage of cases, the outcome of which was unpredictable. Welhaven was aware of vague and contradictory studies on the causes of the disease, which took into account climate, unhealthy fumes, poor hygiene, a diet rich in fatty foods and poor food storage. From direct knowledge of the sick, it could be surmised that the main factors of transmission were related to familiarity and heredity and direct contact, although in the latter case, transmissibility was not considered high. In the absence of a cure, the prelate endeavoured to provide the hospital with medicines for palliative care and pain therapy. The hospital's financial resources were insufficient, but its needs were partly met by donations of food and medicines. The sick were also allowed to carry out some work, in the manufacture of textiles for women and rural tools and fishing for men, indicating persistent links and movement of people between the city of Bergen and the leper colony, which was attached to a church in a central part of the city.

The pastor did not merely record the events passively but used the authoritative Swedish medical journal as a strategic tool to promote and present a plan

Norway» (Ø. Larsen, *Ideology or Pragmatism? Health Care Provision and Poor Relief in Norway in the 19th Century*, in O.P. Grell-A. Cunningham-R. Jütte (eds), *Health Care and Poor Relief in 18th and 19th Century Northern Europe*, London-New York 2017, p. 194).

¹⁴ D.C. Danielssen-C.W. Boeck, *Traité de la Spédalskbed ou Éléphantiasis des Grecs, Traduit du Norvégien, sous les yeux de M. D. Danielssen, par L.A. Cosson (de Nogaret), avec un atlas de 24 planches coloriées*, Paris 1848, p. 133.

¹⁵ T.M. Vogelsang, *Leprosy in Norway*, in «Medical History», vol. 9 (1965), p. 31.

of action, which helped combat the disease to a large extent. The article also contributed to the knowledge of problems that were part of an unprecedented constitutional framework, with Sweden and Norway independent but obedient to the same sovereign, and with mechanisms for cooperation in matters of common policy. The first step was to increase awareness of leprosy as a phenomenon that was no longer marginal and to ascertain the existence of strains, many more than people thought. The second step was to awaken the interest of the various governments, both local and national, in the leper colonies, particularly that of Bergen, which covered the western districts of Norway, which were those worst affected. The centrality of the stable presence of the priests in the community of the “unwell” in Bergen was not in doubt. There was an evolution in the number of lepers living in St George’s Leper colony. There were problems with the internal management of the hospital, related to the need for financial support, the need to expand the living space and diversify the male and female areas, the onset of depression among the sick, and difficulties in exercising property rights, freedom of movement, and family and sexual relations. Welhaven called for the intervention of the local government, which, faced with the possibility of a hereditary or contact-transmissible disease, had to act at the first signs of symptoms, strongly advising or even forcing people to undergo medical examination¹⁶.

The priest’s disclosure had significant consequences. A year after the publication of the article, St George’s Hospital was finally able to rely on the presence of a permanent doctor and a nursing staff capable of coping with the physiological turnover of heavy tasks. The supply of free medicines was also guaranteed¹⁷. The analysis of the economic and social consequences of Napoleon’s campaigns, from the privileged observatory of the hospital in Bergen, made Welhaven the forerunner of an unprecedented sensitivity to the effects of leprosy, in a context of general impoverishment of the population which amplified inequality, favouring the urban contexts and the upper middle class.

Despite the echo of Welhaven’s article, institutional communication was far from an acknowledgement of a pressing problem, even if, in the search for convergence between nationalism and localism, the suburbs began to attract attention from two different perspectives, both for their crucial role in the processes of identity construction in defence of cultural tradition and for the fear

¹⁶ J.E. Welhaven, *Beskrifning øfver de spetalska i S:T Jørgens Hospital i staden Bergen i Norrige*, in «Svenska Läkare – Sällskapetets Handlingar», vol. 3 (1816), p. 188-220. For a brief summary of the article in Italian see *Descrizione della Lepra (Elephantiasis) osservata nello spedale di san Giorgio a Bergen in Norvegia; da G.E. Welhaven, predicatore nello spedale, e comunicata dal prof. Thulstrup*, in «Annali universali di medicina», vol. 8 (1818), p. 96-97.

¹⁷ T.M. Vogelsang, *Leprosy in Norway*, cit., p. 31.

of the dangers of promoting forms of autonomy and self-government. It was only in 1832 that the central health authorities entrusted epidemiologist Jens Johan Hjort with the task of investigating the incidence, distribution and case history of leprosy in the various districts. The report, although incomplete, laid the foundations for a paradigm shift, both from a clinical-epidemiological and experimental point of view, highlighting the need for research into a disease that, until then, had been considered incurable¹⁸. The public relevance of leprosy, as a social problem, was now fully perceived within the dichotomy between centre and suburbs. Predominantly based on agriculture and fishing, Norway was struggling with an increasing flow of migrants to the most populated city, Bergen, and to Christiania, seat of the university since 1811, capital since 1814, which was about to be involved in an unprecedented economic and demographic boom¹⁹.

In the 1830s and 1840s, the divide between the industrialised metropolitan areas, characterised by economic liberalisation and the dissemination of romanticism and empiricism, and the rural areas, which, in opposition to central government pressure and cosmopolitan culture, were making their voices heard in parliament in order to obtain tax relief and forms of local independence, became increasingly clear. From the 1830s the farmers made up the majority in Parliament²⁰. Following Prince Oscar of Sweden's visit to St George's Hospital in 1833, a member of parliament from Bergen, Hans Holmboe, became spokesman in parliament for initiatives to fight the disease²¹. In 1836, a census of the leper population was taken for the first time, introducing a method that was perfected in the decades that followed, with surveys in 1845 and 1852²². A royal commission was set up and, in 1838, it explained the severity of the situation to parliament, suggesting possible courses of action. Daniel Cornelius Danielssen, physician at St George's Hospital in Bergen since 1839, was identified as the national contact for a programme of research into the clinical and pathological aspects of the disease. In 1842, parliament also approved the construction of four public leper hospitals. The first to be built in 1849, Lungegaards Hospital

¹⁸ L.M. Irgens, *Leprosy in Norway: An Interplay of Research and Public Health Work*, in «International Journal of Leprosy», vol. 41, no. 2 (1973), p. 190-191.

¹⁹ J.E. Myhre, «*The capital will soon be all of Norway*». *The growth of Christiania/Oslo since 1814*, in L. Nilsson (ed), *Capital Cities: Images and Realities in the Historical Development of European Capital Cities*, Stockholm 2000, p. 124-151.

²⁰ J.N. Knutsen, *Aspects of the Union between Sweden and Norway (1814-1905)*, in «Folia Scandinavica», vol. 4 (1997), p. 230-233.

²¹ L.M. Irgens, *The fight against leprosy in Norway in the 19th century*, in «Michael Journal», vol. 7 (2010), p. 308-309.

²² L.M. Irgens, *Leprosy in Norway*, cit., p. 191 ss.

in Bergen, with a capacity of ninety beds, was entrusted to the management of Danielssen. Rebuilt after the fire of 1853, it became the most important centre for clinical and scientific research into leprosy in Europe, with its own laboratory and library²³. Two new hospitals, *Pleiestiftelsen per spedalske nr. 1* in Bergen and *Reknæs* in Molde, were built in the following years, and the leper columns of St George in Bergen and Trondheim were renovated²⁴.

The 1845 census recorded the presence of 1,123 lepers, with a ratio of 8:10,000 inhabitants, an increase compared to the previous census of 5:10,000 inhabitants²⁵. Epidemiological research published later by Jens Johan Hjort merely confirmed the climate of those years, during which the concept of latency began to be discussed, linking the disease to poverty during infancy²⁶. 1845 was also the year in which the Poverty Act was passed, providing a model of segregation based on workhouses for the destitute, idle and vagrant, over the age of fifteen, the so-called “unworthy poor”, following the reforms of correctional institutions after the promulgation of the criminal code in 1842. The “worthy poor”, on the other hand, orphans, the sick and the elderly, were entrusted to a system of public assistance²⁷.

²³ L.M. Irgens, *The fight against leprosy in Norway*, cit., p. 308-311.

²⁴ P. Richards, *The medieval leper*, cit., p. 87.

²⁵ On this matter see L.M. Irgens, *Leprosy in Norway*, cit., p. 191; Id., *The fight against leprosy in Norway*, cit., p. 311.

²⁶ J.J. Hjort, *Om spedalskeden i Norge*, Christiania 1871.

²⁷ F. Ulvund, “A Deterrent to Vagabonds, Lazy Persons and Promiscuous Individuals”: *Control and Discretion in the Norwegian Workhouse System, 1845-1907*, in «Crime, History and Societies», vol. 16, no. 2 (2012), p. 34-35. For an investigation into Welfare System in Norway see A.L. Seip, *Sosialhjelpstaten blir til: Norske sosialpolitikk, 1740-1920*, Oslo 1984; G. Midre, *Bot, bedring eller brød? Om bedømming og behandling av sosial nød fra reformasjonen til velferdsstaten*, Oslo 2001; F. Ulvund, *Dei farlege fattige-Fattigdom som avvik i Noreg ca. 1840-1940*, in Y. Nedrebø (ed), *Fattigfolk i Bergens stift 1755-2005*, Førde 2005, p. 37-69. Essential references on the policies proposed as a solution to the problem of vagrancy in Europe are N. Haesenne-Peremans, *Les pauvres et le pouvoir. Assistance et répression au Pays de Liège (1685-1830)*, Courtrai 1983; S.J. Woolf, *The Poor in Western Europe in the Eighteenth and Nineteenth Centuries*, London-New York 1986; J.A. Davis, *Conflict and control: law and order in nineteenth-century Italy*, London 1988; R.B. Jensen, *Liberty and order. The theory and practice of Italian public security policy 1848 to the crisis of the 1890*, New York 1991; M.S. Dupont-Bouchat, *L'invention de la prison “moderne”: les modèles nordiques (16^e-18^e siècle)*, in B. Gamot (ed), *Histoire et criminalité de l'Antiquité au XX^e siècle. Nouvelles approches*, Actes du colloque, Dijon 1992, p. 495-507; A. Brown, *English society and the prison: time, culture and politics in the development of the modern prison, 1850-1920*, Suffolk 2003; M. Da Passano, *Il vagabondaggio nell'Italia dell'Ottocento*, in «Acta Histriae», vol. 12, no. 1 (2004), p. 51-92; B. Vanhulle, *Dreaming about the prison: Édouard Ducpétiaux and Prison Reform in Belgium (1830-1848)*, in «Crime, History and Societies», vol. 14, no. 2 (2010), p. 107-130; A. Eccles, *Vagrancy in law*

Between the 1840s and 1860s, the figure of Eilert Sundt, who developed fundamental research on the living conditions of prisoners, gypsies, vagrants, miners and fishermen, emerged. Parliament commissioned him to carry out an empirical analysis of the different dynamics of impoverishment in the Christiania and Bergen districts and village communities. The two main cities were characterised by the presence of a small number of wealthy people, civil servants, merchants and industrialists, and a large number of workers, living in very poor environmental conditions. The urban areas in the south-eastern part of Norway, especially Christiania, which had the fastest growing population in Northern Europe, also welcomed numerous Swedish immigrants and seasonal workers from the agricultural districts, mainly to meet the demand for domestics, construction and railway workers, and workers in the production of textiles, glass and wrought iron²⁸. In the main rural areas, the communities were compact and tightly knit, socially closed, geographically isolated and demographically restricted. A patriarchal system and small farming estates prevailed, providing day-to-day workers with higher wages than the large Swedish estates. The allodial system also ensured the continued management of the farms by families²⁹.

Based on the theory of the conflict between the social classes, Sundt believed that the causes of poverty and impoverishment were to be found in the socio-economic, moral and mental characteristics of a population left to its own devices or subject to forms of welfare, such as the poverty allowance, and therefore unaccustomed to entrepreneurial initiative and cultural and economic emancipation. Animated by progressive and radical ideas, in 1864 Sundt was one of the founders of the Christiania Workers' Society, encountering the hostility of the Conservative Party which, a few years later, blocked public funding, but not his research activities, which expanded its investigations into morbidity and hygiene³⁰. At European level, this last branch of study into human relations encountered the great discoveries of Pasteur and the British legislation, which, based on the concept of preventive medicine developed for cholera epidemics, imposed sanitary monitoring activities within the territory, as part of a Victorian

and practice under the old poor law, London-New York, 2012; J. Carré, *La prison des pauvres: l'expérience des workhouses en Angleterre*, Paris 2016.

²⁸ J.E. Myhre-P. Trabucchi, *Vicini e lontani*, cit., p. 522 ss.

²⁹ *Ibid.*, p. 526.

³⁰ E. Piotrowska-B. Piotrowski, *Hauptstadt (Kristiania) und Provinz in Eilert Sundts (1817-1875). Soziologischer Forschung*, in «Folia Scandinavica», vol. 2 (1994), p. 77-87.

model of social and hygiene rules to be extended to the Indian and African colonies³¹.

3. *From Scandinavia to the Colonial Empires: legally enforced exile for people with the Hansen's disease*

Medical research carried out by Daniel Cornelius Danielssen in Bergen led to the identification of three distinct forms of leprosy: *lepra anaesthetica*, *lepra tuberculata*, i.e., lepromatous and tuberculoid, and mixed or intermediate leprosy. For the first time, leprosy was clinically classified, making it fairly easy to differentiate it from other diseases, such as psoriasis, syphilis, morphea or scleroderma, and leucoderma. Together with Carl Wilhelm Boeck, who worked at the University of Christiania with studies in England, Italy and Greece, Danielssen wrote an innovative treatise on leprosy, *Om Spedalskbed*, in 1847. Financed by the Norwegian government, this opened the door to his management of the new hospital in Lungegaards³². The following year, the book was published in France as *Traité de la Spédalskbed ou Eléphantiasis des Grecs*³³, becoming the European reference for guiding medical research in this field³⁴.

Leprosy appeared to be a marginal phenomenon in many parts of Europe, but, nevertheless, it obliged countries to take action against the limited local outbreaks and to adopt measures in colonies infested with leprosy. Alongside the traditional mechanisms of isolation and social control, which interpreted the discipline of confinement for phenomena of vagrancy, prostitution, mental illness and leprosy in different ways, there was no lack of original solutions and new strategies in relation to the specific territorial, environmental, economic and cultural context. In the Dutch colony of Surinam, for example, legal

³¹ On this matter: M. Pelling, *Cholera, Fever and English Medicine, 1825-1865*, Oxford 1978; A.S. Wohl, *Endangered Lives: Public Health in Victorian Britain*, London 1984; R.J. Evans, *Epidemics and Revolutions: Cholera in Nineteenth-Century Europe*, in «Past & Present», vol. 120 (1988), p. 123-146; A. Hardy, *Cholera, quarantine and the English preventive system, 1850-1895*, in «Medical History», vol. 37 (1993), p. 250-269; T.S. Gale, *The struggle against disease in the Gold Coast: early attempts at urban sanitary reform*, in «Transactions of the Historical Society of Ghana», vol. 16, no. 2 (1995), p. 185-203; C. Hamlin, *Public Health and Social Justice in the Age of Chadwick*, Britain 1800-1854, Cambridge 1998; R.J. Davenport-M. Satchell-L. Matthew-W. Shaw-Taylor, *Cholera as a 'sanitary test' of British cities, 1831-1866*, in «History of the family», vol. 24, no. 2 (2019), p. 404-438.

³² D.C. Danielssen-C.W. Boeck, *Om Spedalskbed*, Christiania 1847.

³³ D.C. Danielssen-C.W. Boeck, *Traité de la Spédalskbed ou Eléphantiasis des Grecs*, cit.

³⁴ B. Getz, *Leprosy research in Norway, 1850-1900*, in «Medical history», vol. 2, no. 1 (1958), p. 65-66.

solutions were introduced to impose compulsory segregation in the case of leprosy, on the assumption of the racial inferiority of non-European farmers and the permanent disability of the sick, which affected the utilitarian criteria of maximisation for the economic system. A measure of this kind was considered indispensable for those areas directly controlled by the Dutch, which were characterised by intensive exploitation of the plantations and daily contact between settlers and locals, the latter under a regime of servitude. Social stigma and compulsory segregation, for the purposes of health, were used to keep the danger of contagion at bay, arranging hierarchies in a series of dichotomies, between colonisers and the colonised, civilisers and barbarians, centre and suburbs³⁵. Until 1863, the year slavery was abolished, the colony was subject to a strict race-based policy of confinement, with vast numbers of African and Creole slaves interned in the Batavia leper colony³⁶.

In the British colonies of Southern India, lepers were originally included in the indistinct category of Indian or Eurasian, male, poor and vagrant. The innovative research carried out by Danielssen and Boeck was later used by the British to support the supremacy of European medicine over local medicine. From the second half of the nineteenth century, lepers took on an identity that could be traced back to a specific disease, which also concerned the Indian middle classes and European settlers, and which needed to be addressed diagnostically, therapeutically and legally. From the Indian perspective, on the other hand, although the *dharmasāstra* traditionally placed restrictions on the right to inherit, they had the advantage of allowing lepers to reconcile family and work life, imposing segregation of the sick only in certain cases³⁷.

After a lengthy legislative process, the Lepers Act of 1898 imposed a choice of social control, through police action, on the colonies, as part of a wider system that imposed segregation and other coercive means. So-called poor, destitute and vagrant lepers, who publicly displayed their sores and deformities while begging, could be arrested without a warrant, but were then to be handed over to a leper inspector and ultimately tried by a magistrate for segregation. Lepers were forbidden from selling food and clothing and were forbidden from bathing or washing their clothes in public places. Fines were imposed on those who employed lepers in work or other similar occupations. The Lepers Act of 1898 had absorbed the debate on the subject of forced confinement since the

³⁵ S. Snelders-L. van Bergen-F. Huisman, *Leprosy and the Colonial Gaze: Comparing the Dutch West and East Indies, 1750-1950*, in «Social History of Medicine», vol. 34, no. 2 (2021), p. 613.

³⁶ S. Snelders, *Leprosy and colonialism. Suriname under Dutch Rule, 1750-1950*, Manchester 2017, p. 43 ss.; 78 ss.; 93 ss.

³⁷ J. Buckingham, *Leprosy in Colonial South India. Medicine and Confinement*, Basingstoke 2002, p. 7-10.

previous legislation on leprosy in 1889 and had highlighted the need for the British authorities to exert an action of control over those poorer classes which, because of their heterogeneity, ended up being included in the generic condition of vagrancy, which was almost always associated with begging. The conceptual background of public security directed the contents of the leprosy law solely towards the compulsory imprisonment of vagrant lepers, as a tool to contain the risk factors linked to urbanisation, which could concern not only the management of riots and disorders, but also that of diseases. The Lepers Act of 1898, lacking an overall regulation of the protection of public health and the prevention of contagion in the colonies, opened a front of confrontation between the British and Indian authorities on the subject of freedom of movement and economic initiative of non-vagrant lepers³⁸.

Since 1860, a front of contagion had also opened up in the Sandwich Islands, better known as Hawaii, which involved first the British and then the Americans, under a protectorate regime over the local monarchy. The British Colonial Office asked the Royal College of Physicians to carry out a survey in all the Empire's colonies. This was completed in 1863 but published on four years later. Adopting Danielssen and Boeck's thesis of heredity, the report excluded interventions in favour of segregationist logic. It was followed by a circular from the colonial office addressed to all governors, ordering them to repeal or suspend the implementation of regulations and practices restricting personal freedom. In the Sandwich Islands, however, an area of quarantine had been established in 1865 at Kalaupapa, north of the island of Molokai. Hawaii soon became a laboratory, in terms of the relationship between medicine, disease control, security, surveillance and racial design, exemplified in the 1880s by the story of the native Keanu, sentenced to be hanged for murder, the sentence being commuted to "consensual" submission to experimental vaccination. Having contracted leprosy in 1888, Keanu died in 1892 in the leper colony on Molokai, sparking a debate on the 'criminalisation' of disease and bodies, i.e., the legality of inoculation experiments conducted on prisoner-patients, within the colonial legislative framework of the Act to Prevent the Spread of Leprosy of 1865 and the Bayonet Constitution of 1887, prior to the archipelago's annexation to the United States in 1898³⁹.

³⁸ On this matter: S. Kakar, *Leprosy in British India, 1860-1940*, in «Medical History», vol. 40, no. 2 (1996), p. 215-230; J. Buckingham, *Leprosy in Colonial South India*, cit., p. 157-188; S. Gautam-K. Gautam, *The perception of incurability: leprosy, discrimination, and the medical truth*, in «Boston University International Law Journal», vol. 36, no. 2 (2018), p. 273 ss.

³⁹ In this regard see N. Turse, *Experimental dreams, ethical nightmares: leprosy, isolation, and human experimentation in nineteenth century Hawaii*, in S. Shukla-H. Tinsman (eds), *Imagining our Americas: towards a transnational frame*, Durham 2007, p. 138-187; C. Perreira, "Suppose for a moment, that

Following the dissemination of Hansen's theories, Danielssen's dominant thesis of the hereditary factor, adopted by the Royal College of Physicians, began to lose support. Besides setting up the National Leprosy Fund, the British Empire appointed a new committee, consisting of representatives from the Royal College of Physicians, the Royal College of Surgeons and the executive committee of the National Leprosy Fund, to investigate the sanitary conditions in the Empire's largest colony, India. The report was presented in 1891 and laid the foundations for overturning the earlier conclusions of the Royal College of Physicians in the 1860s. Hansen's theory on contagion was adopted and, in implementation of the health policies on isolation, the British authorities took on the task of applying compulsory segregation from a colonial perspective, internationally recognising the important role played by Norway in terms of the fight against leprosy. In addition to the Indian case mentioned above, other colonies also had special legislation, notably, New South Wales (1890), Cape Colony (1892), Ceylon (1901) and Canada (1906)⁴⁰.

Some of the practices employed by the British had been influenced by what was happening in Norway. In 1873, Henry Vandyke Carter had travelled to the Scandinavian country to learn more about health programmes in order to adapt them to the Indian situation⁴¹. The Prince of Wales visited Trondheim leper colony in 1885, when, following the influence of Hansen's theories, the innovative concept of isolation applied to an infectious disease was becoming popular, inevitably involving the control of the poorer population and the protection of the wealthy from contamination. Lastly, in 1890, Edward Charles Robson Roose presented the surveillance and isolation system applied in Norway to the British public in greater detail⁴².

Keanu had reasoned thus": *Contagious Debts and Prisoner – Patient Consent in Nineteenth-Century Hawaii*, in «Journal of Transnational American Studies», vol. 8, no. 1 (2017), p. 1-22.

⁴⁰ Z. Gussow-G.S. Tracy, *Stigma and the leprosy phenomenon: the social history of a disease in the Nineteenth and Twentieth centuries*, in «Bulletin of the History of Medicine», vol. 44 (1970), p. 432-437. For an investigation into leprosy in England and policy of isolation and segregation in the British Empire see R. Edmond, *Leprosy and Empire: a Medical and Cultural History*, Cambridge 2006, p. 61 ss.; 143 ss.

⁴¹ H.V. Carter, *Report on Leprosy and Leper-Asylums in Norway, with references to India, Presented to the Secretary of State for India in Council, November 1873*, London 1874.

⁴² «The condition of Norway, as regards leprosy, furnishes abundant evidence of the value of isolation, and it is to this subject that I wish to call special attention. [...] In 1845 a law was proposed, aiming to prevent the marriage of lepers, but was rejected by the Parliament. Previous to 1885 there was no effective law compelling the lepers to come into the hospitals; but the majority either came voluntarily or were driven to do so by their poverty, for the local authorities would not relieve them, whereas the hospitals supplied all necessaries. In 1885 a law was passed that all lepers (not in asylums) should be isolated in their homes, and

The Norwegian model also met with broad consensus in France. In 1884, Henri Camille Chrysostôme Leloir, who had studied the disease in France and Northern Italy, went to Norway, partly at the request of the Minister of Education, and, two years later, published a *Traité pratique et théorique de la lèpre*. According to the well-known dermatologist, except for Norway and some outbreaks on the Mediterranean coast, leprosy had to be studied in order to identify essential remedies to fight contagion in the European colonies, where the disease's racial discrimination was predominant, linked to the impure, infected and therefore dangerous bodies of the black, Chinese and half-caste population. The situation seemed especially dramatic in the British Indies and the Sandwich Islands, with 100,000 lepers in the former and 4,000 in the latter⁴³.

Until 1875, the Norwegian health organisation had been characterised by the voluntary confinement of lepers. In this way, the leper colonies housed only a third of the total number of patients from the poorest segments of the population. The rising star of leprosy studies, Gerhard Henrik Armauer Hansen, directed the public debate towards the need for the introduction of legislation on confinement as a decisive instrument to influence the curve of contagion. Initially, the 1877 Law on the Maintenance of the Poor Lepers imposed confinement on poor lepers. The subsequent Law on the Isolation of Lepers of 1885 regulated compulsory isolation, which could be carried out at home, in separate

that failure to comply with this regulation was to be followed by their compulsory removal to those institutions. Isolation of a leper in his own house means that he must remain in one room specially marked off for him; he may, however, walk about in the open air in the company of his friends or others, but he must not go into any other room than the one appointed to him. The adoption of these measures was entirely due to the indefatigable activity of the Norwegian physicians. They have convinced their fellow countrymen that leprosy is contagious, and that isolation of the patients is the only efficacious measure for stamping out the disease. At the same time they are far from ignoring the good effects of improved sanitation, diet, etc. There is every reason for expecting that leprosy will become extinct in Norway in the course of a few decades. [...] The lessons to be drawn from the facts thus briefly narrated are significant and unmistakable. To check the spread of leprosy two measures must be adopted – the sufferers must be isolated, and the sanitary condition of inhabitants of infected districts must be improved in every possible manner. With regard to isolation, we find that Norway is the only European country in which this method is carried out. [...] The leprosy question in India will have to be grappled with some day, and it will become more and more difficult as time goes on. Our knowledge of the disease is doubtless imperfect, but we are fully cognizant of its horrible character, and of the means by which alone its spread can be arrested. Compulsory isolation in suitable buildings and under proper care is urgently demanded in the interests not only of the general community, but of the sufferers themselves. If leprosy cannot be cured, some of the more distressing symptoms can certainly be alleviated» (R. Roose, *Leprosy and its prevention as illustrated by Norwegian experience*, London 1890, p. 88-90; 93; 96).

⁴³ H.C.C. Leloir, *Traité pratique et théorique de la lèpre*, Paris 1886, p. 6; 265 ss.

rooms, or in hospitals, under police supervision⁴⁴. During his visit to Bergen in 1884, the French doctor Henri Leloir noted that lepers had freedom of movement in the city's hospitals, both entering and leaving. They made toiletries and sweets and sold them in the marketplace, and repaired shoes⁴⁵. In that year, only a third of the registered lepers were in the hospitals of Bergen, Trondheim and Molde⁴⁶. With the forced isolation of 1885, severe restrictions on freedom of movement were introduced. An account by a visitor to Trondheim in 1889 revealed that the hospital was open during the day, with the possibility of leaving as long as the patient remained in the vicinity. Prohibitions concentrated on prohibiting entry to churches or private homes, visiting markets and close contact with the locals⁴⁷.

The positive effects of the new legislation were seen in areas where the rate of hospitalisation was highest. The impossibility of reaching the entire country and the persistence of pockets of resistance to the measures identified, which were considered useless compared to the real risks of infection, meant that the model of forced isolation, studied and exported worldwide, was applied "mildly" in Norway⁴⁸.

4. Conclusion

The success of Norway's fight against leprosy cannot be measured solely on the evidence of the implementation of isolation policies. The data available does not, in fact, allow a clear causal link between these policies and the decrease in the disease⁴⁹. Alongside internment measures, many legal, social and economic factors also played a fundamental role. The establishment of the national leprosy register in 1856 and the health reform of 1860 played a significant role⁵⁰.

⁴⁴ A. Meima-L.M. Irgens-G.J. van Oortmarssen-J.H. Richardus-J.D.F. Habbema, *Disappearance of leprosy from Norway: an exploration of critical factors using an epidemiological modelling approach*, in «International Journal of Epidemiology», vol. 31, no. 5 (2002), p. 992.

⁴⁵ H.C.C. Leloir, *Traité pratique et théorique de la lèpre*, cit., p. 271.

⁴⁶ *Ibid.*, p. 269; 271.

⁴⁷ P. Richards, *The medieval leper*, cit., p. 87.

⁴⁸ L.M. Irgens, *Leprosy in Norway*, cit., p. 195.

⁴⁹ A. Meima - L.M. Irgens - G.J. van Oortmarssen - J.H. Richardus - J.D.F. Habbema, *Disappearance of leprosy from Norway*, cit., p. 996-999.

⁵⁰ On this matter see L.M. Irgens-T. Bjerkedal, *Epidemiology of Leprosy in Norway: the History of The National Leprosy Registry of Norway from 1856 until today*, in «International Journal of Epidemiology», vol. 2, no. 1 (1973), p. 81-89; L.M. Irgens, *Leprosy in Norway. An epidemiological study based on a national patient registry*, in «Leprosy Review», vol. 51 (1980), p. 1-130.

The Chief Medical Officer for Leprosy, Ove Guldberg Høegh, developed a plan for a National Leprosy Registry of Norway, the first national medical registry for any disease in history, involving the District Health Officers assisted by the parish vicars and members of the local Board of Health. The data was fed annually into the central register, where complete records of each patient were kept. The post of Chief Medical Officer for Leprosy was established in 1854. The local Boards were established in 1856 in the districts where leprosy was found. The District Health Officers supervised the leprosy patients and decided the cases involving segregation⁵¹. According to the first survey, out of a population of approximately 1,500,000 inhabitants, 2,847 lepers were registered, with an average ratio of 19.1:10,000 inhabitants, with peaks between 26.9 and 113.6 in the worst affected areas of Bergenus, Nordland and the area north of Trondheim⁵². This was the first step towards scientific medicine, which operated on the basis of the observations recorded in relation to the disease, its manifestations and its treatment.

The 1860 reform ensured that Norway had a more efficient and uniform health organisation throughout the country, with cooperation between the central authority, with functions equivalent to a Ministry of Health, and the territorial authorities. Local Boards of Health were established for the first time in 1805, to govern quarantines during cholera outbreaks. In the 1830s, they were deployed in places affected by epidemics. In 1854, they abandoned their temporary nature to become permanent bodies in all districts affected by leprosy. In 1860, they were introduced into all the municipalities⁵³. The number of doctors, which was 334 in 1860, i.e., one for every 4,800 inhabitants, also increased progressively⁵⁴. The Health Act was mainly of benefit to the towns, which had the financial means and executive responsibilities to guarantee public health. Rural areas, on the other hand, struggled to adjust to a health system that shattered local independence and the traditional system of organised aid. Medieval community solidarity ended up being a risk factor for the spread of contagion, which was the subject of particular attention in the Leprosy Act of 1877. Placing

⁵¹ L.M. Irgens, *The roots of Norwegian epidemiology - Norwegian epidemiology in the 19th century*, in «Norsk Epidemiologi», vol. 25 (2015), p. 25.

⁵² A. Hirsch, *Handbuch der historisch-geographischen Pathologie*, vol. II, Stuttgart 1883, p. 18.

⁵³ L.M. Irgens, *The roots of Norwegian epidemiology*, cit., p. 23.

⁵⁴ A. Andresen-T. Ryymin, *Towards Equality? Rural Health and Health Acts in Norway, 1860-1912*, in J.L. Barona-S. Cherry (eds), *Health and Medicine in Rural Europe (1850-1945)*, València 2005, p. 107.

the poor in *legd*, a communal relief measure wherein the poor were moved from farm to farm, was prohibited⁵⁵.

Norwegian legislation was attentive to the developments of the most advanced healthcare systems, with which it shared, within the scope of what was still an articulated debate, an understanding of the transformation of the human and environmental landscape due to social, economic and nutritional factors, of the dimension of medicine in terms of the development of science and technology, and of the role of public health. The dualism between centre and suburbs remained a constant in the Norwegian system, which provided different electoral systems for access to parliament and different regimes for government, taxation, education and care. The Guidelines for Health Boards were employed in rural districts as a means of increasing knowledge and awareness against the scepticism and perplexity that still pervaded the local population with regard to public health measures, from epidemics to personal hygiene, childbirth and food safety. In industrialised urban environments, on the other hand, care was taken to control waste management, drinking water, burial grounds, accommodation and workers' housing, and sanitary conditions in the workplace. Public healthcare was entrusted to a Board of Health, consisting of a local government representative, a doctor and an engineer⁵⁶.

The leper hospital plan not only covered a population of a thousand patients but also opened up to the recognition of experimental science, overcoming the reservations of the permanent medical commission, which, being anchored to the concept of heredity of the disease, had only suggested the sexual isolation of the sick and their descendants and the sterilisation of male patients⁵⁷. Danielssen and Boeck were the first to investigate with the scientific research approach, laying the foundations for overcoming premodern medicine, built around the so-called *iudicium leprosorium*⁵⁸. Gerhard Henrich Armauer Hansen was influenced by Charles Darwin and, above all, by Drognat Landré, who, on the basis of a historical-epidemiological study carried out in Dutch Guiana or Surinam, had cast doubt on the previously dominant assumption of the heredity of leprosy⁵⁹. In 1873, Hansen discovered *mycobacterium leprae*, providing the scientific basis for the decline of Danielssen's theory of hereditary predisposition.

⁵⁵ V. Jay, *The Legacy of Armauer Hansen*, in «Archives of Pathology and Laboratory Medicine», vol. 124, no. 4 (2000), p. 497.

⁵⁶ A. Andresen-T. Ryymin, *Towards Equality?*, cit., p. 111-118.

⁵⁷ L.M. Irgens, *The fight against leprosy in Norway*, cit., p. 311.

⁵⁸ L. Demaitre, *Leprosy in Premodern Medicine. A Malady of the Whole Body*, Baltimore 2007, p. 34 ss.

⁵⁹ L.M. Irgens, *The roots of Norwegian*, cit., p. 26.

Together with Carl Looft⁶⁰, Hansen published a work that was decisive for the development of immunology and bacteriological medicine, partly due to the international recognition of his work at congresses in Berlin in 1897 and Bergen in 1909⁶¹.

It was Hansen who inspired the special legislation on leprosy in Norway, based on the confinement and treatment of the chronically ill with mycobacterial infections⁶². First, only poor lepers were confined, then isolation was extended to all lepers, but without the ban on marriage⁶³. The colonial empires adopted these measures and reinforced them. Reflection on the matter of prophylaxis was as important as it was difficult, with some resistance persisting in terms of the discovery of the etiological agent of leprosy and the use of segregationist logic. The Italian dermosyphilopath Pierleone Tommasoli, for example, believed that compulsory isolation guaranteed certain results in the presence of certain risk factors, such as those highlighted in Norway, where “it was

⁶⁰ See G.H.A. Hansen-C.Looft, *Die Lepra vom klinischen und pathologisch-anatomischen Standpunkte*, Frankfurt 1894; Id., *Leprosy in its clinical and pathological aspects*, Bristol 1895; Id., *Lepra (spedalskbed); klinisk og pathologisk-antomisk fremstillet*, Bergen 1897.

⁶¹ B. Getz, *Leprosy research in Norway*, cit., p. 66.

⁶² «I was much surprised while visiting Norway during the last summer, to find that among a population of less than two million people, there existed three special hospitals for the confinement and treatment of lepers, and that in these institutions were domiciled over one thousand unfortunates, afflicted with this terrible disease. By far the largest of these institutions is situated at Bergen, and while there I availed myself of the opportunity to visit it. The superintendent, Dr. Hansen, was away on a vacation, but his first assistant received me cordially, and answered all my queries in the politest manner possible. Naturally, where a fish diet forms so large a part of the food of the population of this country, one asks the question whether this may not act as a strong causative factor in the production of the disease. I was told that this was not the opinion held by those most competent to judge: but that it was probably on account of the small, unhealthy and crowded habitations that the people occupy during the long cold winters in this rigorous climate, that the disease had gotten such a foothold. Speaking to my host in a congratulatory tone of our almost entire exemption from the disease in the United States, he answered me warmly and decidedly, saying: You have plenty of lepers in your country, but your physicians do not recognize the disease, and allow the patients to run at large, while here in Norway we diagnose the malady in its early stages and isolate the patients. In a late visit of Dr. Hansen to the United States, he told me that the Doctor found three cases in the hospitals in Chicago, and twice as many in New York, as well as encountered several cases of true leprosy upon the streets of each city, all of whom were being treated for lupus, syphilis or some other form of skin disease. I asked why the disease did not spread if we allowed lepers to run at large. “Because” he replied, “where the hygienic conditions are favorable the disease is only very slightly contagious. None of the attendants in this hospital ever contracted the disease”» (W.S. Caldwell, *Leprosy in Norway*, in «The Journal of the American Medical Association», vol. 29 (1897), p. 1282).

⁶³ L.M. Irgens, *Leprosy in Norway*, cit., p. 192.

much easier to find some sick person already prepared, some sick person, that is, who had lived for some time in poverty, under the influence either of telluric-atmospheric conditions, or of that particular diet, consisting preferably of bad fish, which is common in leprosy regions”. In other contexts, more permissive methods were sometimes preferred, such as those practised in Vienna by Dr Moritz Kaposi, where “the danger of putting other patients susceptible to leprosy next to the lepers is so small as not to justify the expense of isolation”⁶⁴.

⁶⁴ P. Tommasoli, *Relazione di una visita alla Scuola Dermosifilopatica viennese (Continuazione)*, in «Bullettino delle Scienze Mediche», vol. 21 (1888), p. 108.