Multiplying the origins of mass schooling: an analysis of the preconditions common to schooling and the school building process in Sweden, 1840–1900

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The emergence of mass schooling is undoubtedly one of the most significant transformations that took place during the eighteenth and nineteenth centuries. This article takes a new approach to this fundamental issue by analysing the historical conditions required for the construction of school buildings and the advent of mass schooling, in the 1840–1900 period. Using the school building process as a point of departure, the growth of schooling is tied not only to well-known factors such as industrialisation, state formation processes and the decentralisation of school systems, but also to the expansion of the market economy, modernisation of the credit market, liberalisation of the real property market, changes in local tax systems, and the expansion of the building materials market. Thus, a broader and largely novel explanation of the emergence of mass schooling is accomplished.

Keywords: educational reform; school boards; history; popular education; school

Introduction

The eighteenth and nineteenth centuries were marked by a series of fundamental social, economic, technical and cultural changes that can be summarised in terms of the agrarian and industrial revolutions. The pattern is familiar: a surge in population growth coincided with dramatic increases in agricultural and later industrial production, resulting in a surplus that was distributed among a population characterised by growing social and economic differences. ¹

Among the most important changes in this period was the emergence and expansion of mass schooling. School enrolments rose, the number of teachers increased, and schools were built in village after village. From being an extraordinary practice, it became common for parents to send their children to school. This trend was the strongest in Northern Europe and North America. By the turn of the twentieth century, more than 70% of all children aged 5–14 attended schools in the US, Canada, Prussia, Scotland and Denmark. ²

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¹Regarding these developments in Sweden, see Lars Magnusson, An Economic History of Sweden (London: Routledge, 2000), chaps 1–5.

²Peter Lindert, Growing Public: Social Spending and Economic Growth since the Eighteenth Century, Vol. 1: The Story (Cambridge: Cambridge University Press, 2004), 91–3.
The historical significance of the emergence and expansion of mass schooling has made it the topic of extensive and ever-growing research. In its most general form, the research question has been formulated as ‘Why mass schooling?’ and numerous studies have consequently dealt with issues such as the motives behind the formation of school systems, the societal functions of schooling, and national and international patterns in the spread of mass schooling.\(^3\)

Even though this wealth of scholarship has offered fundamental insights into the history of schooling, further research is called for. There are still questions to be answered regarding the way schooling can be related to general societal changes, such as industrialisation and urbanisation. The causal connections between schooling and the levels of industrialisation, for example, have been questioned by studies that have shown how education developed more rapidly in agrarian than in industrialised areas.\(^4\) There is also evident paucity of detailed explanations connecting the expansion of mass schooling to the social and economic changes that took place during the eighteenth and nineteenth century.\(^5\) Many facets of the agrarian and industrial revolutions have therefore still not been included in the analysis.

Using the school building process as a point of departure, the purpose of this study is to shed new light on the complex relationships between the expansion of mass schooling and the agrarian and industrial revolutions in Sweden, in the 1840–1900 period. In other words, the focus of this investigation is on the preconditions common to mass schooling and the process of building schools and, more precisely, on issues involving the organisation, labour supply and financing of school construction.

When exploring the expansion of mass schooling, Sweden is a suitable case. As in other countries, such as Denmark (1814), France (1833), Ontario, Canada (1841), and Norway (1848), Sweden’s first elementary school act was introduced in the first half of the nineteenth century (1842).\(^6\) With an estimated 73% of school-aged children enrolled in 1890, Sweden was one of the countries that had attained a well-established school system by the turn of the twentieth century.\(^7\) In terms of the

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\(^3\)For examples of the different ways of posing the question “Why schooling?”, see, e.g., John Boli, *New Citizens for a New Society: The Institutional Origins of Mass Schooling in Sweden* (Oxford: Pergamon, 1989), 6–7; Lindert, *Growing Public*, 9–11, 19; Michael B. Katz, ‘The Origins of Public Education: A Reassessment’, *History of Education Quarterly* 16, no. 4 (1976): 382–3; Yasemin Nuhoglu Soysal and David Strang, ‘Construction of the First Mass Education Systems in Nineteenth-Century Europe’, *Sociology of Education* 62, no. 4 (1989): 227; Pavla Miller, ‘Historiography of Compulsory Schooling: What is the Problem?’, in *History of Education: Major Themes*, Vol. 2: *Education in its Social Context*, ed. Roy Lowe (London and New York: Routledge Falmer, 2000), 156–80.

\(^4\)For examples of the shortcomings of such explanations, see in particular Boli, *New Citizens for a New Society*, 27–30; Andy Green, ‘Education and State Formation Revisited’, in *History of Education: Major Themes*, Vol. 2, 309; Miller, ‘Historiography of Compulsory Schooling’, 161 and the literature cited therein.

\(^5\)For examples of the critique targeting how ‘society’ has been used to explain developments within mass education, see in particular Carl F. Kaestle and Maris A. Vinovskis, *Education and Social Change in Nineteenth-century Massachusetts* (Cambridge: Cambridge University Press, 1980), 1; Konrad Jarausch, ‘The Old “New History of Education”: A German Reconsideration’, *History of Education Quarterly* 26, no. 2 (1986): 235; William E. Marsden, *Unequal Educational Provision in England and Wales: The Nineteenth-century Roots* (London: Woburn Press, 1987), xiv–xx.

\(^6\)Soysal and Strang, ‘Construction of the First Mass Education Systems’, 278.

\(^7\)Jonas Ljungberg and Anders Nilsson, ‘Human Capital and Economic Growth: Sweden 1870–2000’, * Cliometrica* 3, no. 1 (2009): 80.
historiography of schooling, the Swedish development also occupies a relatively central position in a field of research that has paid special attention to schooling in Northern and Central Europe.\(^8\)

**Why schooling?**

Relating the development of schooling to the agrarian and industrial revolutions is, of course, hardly novel: this connection rests on a long tradition in the humanities and social sciences.\(^9\) The well-known theories of school and society include the, often functionalist, consensus and conflict perspectives. Adopting a consensus theory, in the tradition of Émile Durkheim and Talcott Parsons, schooling has been depicted as a response to modern society’s needs during the industrialisation and urbanisation process, which rendered society increasingly complex. In contrast, historians such as Marvin Lazerson, E. P. Thompson and Lawrence Stone adopted a conflict-oriented point of view, focusing on the needs of the elite, and thus explaining the emergence of school systems in terms of social control or discipline.\(^10\)

Opposing, and sometimes critiquing such studies, researchers have conducted analyses that addressed the issue of mass schooling in terms of status group competition and fundamental political conflicts, highlighting for example the struggle between the bourgeoisie and the Catholic Church in France.\(^11\) Robust studies have also paid attention to the role played by the emerging nation-states in the evolution of mass schooling.\(^12\) Investigations have highlighted the need of nation-states to establish a shared culture and analysed, as Eric Hobsbawm put it, the work that

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\(^8\)Aaron Benavot and Phyllis Riddle, ‘The Expansion of Primary Education, 1870–1940: Trends and Issues’, *Sociology of Education* 61 (1988): 191. For studies where Sweden is used as an example in discussions of international developments in mass schooling, see, e.g., John Coolahan, *Irish Education: Its History and Structure* (Dublin: Institute of Public Administration, 1981), 3; John Meyer, Francisco Ramirez and Yasemin Soysal, ‘World Expansion of Mass Education, 1870–1980’, *Sociology of Education* 65, no. 2 (1992): 130; Green, ‘Education and State Formation Revisited’, 308–9.

\(^9\)The following survey is the result of the author’s own literature review, but it has also benefited mainly from the surveys in Boli, *New Citizens for a New Society*, 11–33; Andy Green, *Education and State Formation: The Rise of Education Systems in England, France and the USA* (London: Macmillan, 1990), 26–75; Lars Petterson, *Frihet, jämlikhet, egendom och Bentham: Utvecklingslinjer i svensk folkundervisning mellan feudalism och kapitalism, 1809–1860* (Uppsala: Almqvist & Wiksell International, 1992), 48–75.

\(^10\)These perspectives have been described concisely in several literature surveys, see, e.g., Boli, *New Citizens for a New Society*, 11–16; Meyer, Ramirez and Soysal, ‘World Expansion of Mass Education’, 129–30. For paradigmatic formulations of the latter conflict theory of schooling, see, e.g., E. P. Thompson, ‘Time, Work-discipline, and Industrial Capitalism’, *Past and Present* 38, no. 1 (1967): 84; Samuel Bowles and Herbert Gintis, *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life* (Chicago: Haymarket Books, 2011), 230–1, and the literature sources cited therein.

\(^11\)See, for example, Margaret Scotford Archer, *Social Origins of Educational Systems* (London: Sage, 1979). This interpretation of Archer is based on Boli, *New Citizens for a New Society*, 20. For a similar approach, see also Soysal and Strang, ‘Construction of the First Mass Education Systems’, 277–88.

\(^12\)Petterson, *Frihet, jämlikhet, egendom och Bentham*, 51 and literature cited therein. The role of the nation-state in the historiography of schooling is discussed in Raymond Grew, Patrick J. Harrigan and James Whitney, ‘The Availability of Schooling in Nineteenth-century France’, *Journal of Interdisciplinary History* 14, no. 1 (1983): 25–6.
schools did in order to ‘spread the image and heritage of the “nation” and to inculcate attachment to it and to attach all to country and flag’.\textsuperscript{13}

Fundamental contributions have also been made by Andy Green, who has proposed that the expansion of mass schooling corresponded to the varying processes of state formation, and John Meyer, who linked the expansion of schooling to the dissemination of the national-state model across the world.\textsuperscript{14} In contrast to such perspectives, local case studies and international comparative studies have emphasised the influence of local communities over national school systems. Peter Lindert has, for example, performed studies that have indicated that, rather than state action, the educational revolution of the nineteenth century was enabled by local school districts and the decentralisation of school systems.\textsuperscript{15}

In order to present an explanation that is in many respects new, I have made three basic but significant methodological choices. First, the object under investigation is, as evident from the foregoing, slightly different. Instead of starting from the perspective of schooling and its effects on pupils and various actors in the broader society, this study focuses on the school buildings and more specifically on the school building process. In studying mass schooling, school buildings are a suitable focal point, since they were fundamental to the expansion of education, both as a substantial investment and as a symbol for the school system as such.\textsuperscript{16} The focus on school buildings is also one of the main reasons that this study can offer a new viewpoint on the issue, as previous explanations often have been based on the content and form of school instruction.

Second, I have applied a different explanatory method. The majority of explanations given for the emergence of mass schooling have been monocausal. In other words, they have been devoted to the origin, the root cause of, or the main factors underlying, mass schooling. Such explanations include both basic historical

\textsuperscript{13}Eric J. Hobsbawm, Nations and Nationalism since 1780: Programme, Myth, Reality (Cambridge: Cambridge University Press, 1992), 91.

\textsuperscript{14}See, for example, Green, Education and State Formation; Green, ‘Education and State Formation Revisited’, and on the world institutionalisation of schooling, see Meyer, Ramirez and Soysal, ‘World Expansion of Mass Education’, 128–49.

\textsuperscript{15}Lindert, Growing Public, ch. 5. The importance of a decentralised organisation has subsequently been advocated by, e.g., Claudia Goldin and Lawrence Katz, The Race between Education and Technology (Cambridge, MA: Harvard University Press, 2008), chap. 4; Nancy Beadie, ‘Education, Social Capital and State Formation in Comparative Historical Perspective: Preliminary Investigations’, Paedagogica Historica 46, no. 1–2 (2010): 15–32. For examples of studies that have stressed the importance of the local community, see William A. Link, A Hard Country and a Lonely Place: Schooling, Society, and Reform in Rural Virginia, 1870–1920 (Chapel Hill: University of North Carolina, 1986) and Ben Eklof, ‘The Myth of the Zemstvo School: The Sources of the Expansion of Rural Education in Imperial Russia: 1864–1914’, History of Education Quarterly 24, no. 4 (1984): 561–84.

\textsuperscript{16}The symbolic value of the schoolhouse has been dealt with in Catherine Burke and Ian Grosvenor, School (London: Reaktion Books, 2008), 26–27; Jonathan Zimmerman, Small Wonder: The Little Red Schoolhouse in History and Memory (New Haven and London: Yale University Press, 2009), 1–10. The investments in schoolhouses are analysed in Johannes Westberg, ‘How Much did a Swedish Schoolhouse Cost to Build? Rewriting the History of Nineteenth Century Rural Schoolhouses’, Scandinavian Journal of History 39, no. 4 (2014): 448–71.
reasoning and hypothesis-testing, and statistical techniques that enable the researcher to winnow down the common factor behind the rise of elementary schooling.\(^{17}\)

In contrast to such explanations – and with the aid of the concept of ‘contingency’, which has been applied increasingly in social and cultural history – I will carry out a broad study of the multiple conditions for the emergence of the school system. Thus, the establishment of mass schooling will not be analysed in terms of cause and effect, but rather ‘fatefulness, contingency, complexity, eventfulness, and causal heterogeneity’.\(^{18}\) What I am aiming for, in other words, is an analysis that accounts for the complexity of the matter at hand, and approaches it in accordance with its multiple constituent processes.\(^{19}\)

Finally, the issue of mass schooling will be addressed in an in-depth case study of 66 school building projects in the 12 rural parishes of the Sundsvall region, Västernorrland county, located in the north of Sweden (see Figure 1). When studying the Swedish school system, focusing on rural parishes is a suitable choice. In 1900, rural school districts still owned 8,591 of the Swedish school districts’ 8,910 school buildings.\(^{20}\) It was also a region that underwent a rapid industrialisation process, due to the expansion of the sawmill industry in the area, which makes it an excellent starting point for those wishing to contribute to a research field where many studies have linked mass schooling to the societal transformations of the nineteenth century.\(^{21}\)

If the aim is to identify individual explanatory factors, a large amount of, and preferably international, quantitative source material provides the researcher with great opportunities to test various explanatory models. On the other hand, if the intention is to attain a thorough depiction of how a historical process took place, a quantitative study does not provide sufficient empirical depth as, by necessity, the majority of all historical facts must be excluded from such a study. In contrast, a case study of a small region enables the researcher to delve deeper into the entire social, economic and cultural contexts that made schooling possible.\(^{22}\)

\(^{17}\)For a variety of approaches, see Soysal and Strang, ‘Construction of the First Mass Education Systems’; Boli, New Citizens for a New Society; Green, Education and State Formation; Stephen Kosack, The Education Of Nations: How the Political Organization of the Poor, not Democracy, Led Governments to Invest in Mass Education (Oxford: Oxford University Press, 2012). For a categorisation of historical explanations, ranging from randomised natural experiments to analyses of non-quantitative historical data, see Peter Lindert, Revealing Failures in the History of School Finance. NBER Working Paper 15491 (Cambridge, MA: National Bureau of Economic Research, 2009), 3–4.

\(^{18}\)William Hamilton Sewell, Logics of History: Social Theory and Social Transformation (Chicago: University of Chicago Press, 2005), 280.

\(^{19}\)For lucid descriptions of this kind of explanations, see Sheilagh C. Ogilvie, A Bitter Living: Women, Markets, and Social Capital in Early Modern Germany (Oxford: Oxford University Press, 2003), chap. 1; Jonas Lindström, Distribution and Differences: Stratification and the System of Reproduction in a Swedish Peasant Community 1620–1820 (Uppsala: Acta Universitatis Upsaliensis, 2008), 19–21. The title of this article alludes to the phrase ‘multiplication or pluralization of causes’, which lucidly sums up this kind of approach in Michel Foucault, ‘Questions of Method’, in The Foucault effect: Studies in governmentality. With two lectures by and an interview with Michel Foucault, ed. Colin Gordon, Peter Miller and Graham Burchell (London: Harvester Wheatsheaf, 1991), 226–9.

\(^{20}\)BiSOS [Contributions to the Official Statistics of Sweden] P (1900), tab. 3.

\(^{21}\)On the industrialization of the Sundsvall region, see Magnusson, An Economic History of Sweden, 119–21.

\(^{22}\)See Lindert, Revealing Failures, 3–4; Ogilvie, A Bitter Living, 6–7.
As this study focuses on the construction of school buildings, its theoretical point of departure is the historical study of building activities in early modern and modern times. Together with the work of Richard Wilson, Alan Mackley and Christopher Chalklin, Christopher Powell’s study of the British construction industry has provided valuable guidance. By his own definition, Powell treats the building industry from both an external and an internal perspective. The former perspective addresses the society’s needs for buildings and the manner in which these were met by the industry. The internal perspective explores what he describes as the industry’s means of production, that is, its structure, organisation and operations. In Powell’s investigation this means that, on one hand, he examines societal changes and their effect on the need for various types of buildings and their costs. On the other hand, he

Figure 1. The 12 rural parishes of the Sundsvall region.
deals with the vocational categories, working conditions, building materials, financ-
ing and various forms of procurement in the construction industry.\textsuperscript{23}

Guided by the works already cited, I have chosen to focus on the following condi-
tions for school buildings: (1) rationale, (2) organisation, (3) land, (4) labour, (5) building materials and (6) financing. To ensure that the study has sufficient depth and breadth, I have conducted an extensive analysis of numerous printed and unprinted materials. The investigation is based on a complete review of the school districts’ minutes, accounts and other school-related documents at the parishes’ church archives. This source material has thereafter been supplemented with the materials from more than 20 record creators, which has been necessary to shed light on the issues that the study explores. These materials included primary statistical data from the Ministry of Education and Ecclesiastical Affairs, information from the Demographic Data Base (Umeå University), fire insurance documents from the former National Fire Insurance Agency, maps from the Land Survey Office and documents from rural courts. Alongside a complete examination of the primary source materials at the church archives, the main principle guiding the review of the aforementioned source materials is what has been termed source pluralism.\textsuperscript{24} A full document-
tation of the research process and its results has recently been published in a monograph on mass schooling and the school building process.\textsuperscript{25}

\textbf{Several reasons for erecting a school building}

Previous studies of the emergence and expansion of mass schooling, based on the national political debate, have depicted a rather univocal picture of the motives behind the introduction of mass schooling. Before 1930, mass schooling was largely designed to provide the children of the broad population strata with elementary edu-
cation to set right deficiencies in their upbringing by their parents and the moral decline of society. The elementary school was put forward as a bulwark against social instability, poverty and crime, and as a means to provide the population with basic civic knowledge and moral fibre.\textsuperscript{26}

A study of the local debate in the school districts of the Sundsvall region broadens this narrative of the rationale behind mass schooling. It is worth noting that the discussions at parish meetings and school boards generally lacked the ideological colourings found in the national public debate. The fear of a growing underclass and the need for social disciplining were also rarely discussed. Instead, in the context of

\textsuperscript{23}C. G. Powell, \textit{The British Building Industry since 1800: An Economic History} (London: E. & F. N. Spon, 1996); Richard George Wilson and Alan Mackley, \textit{Creating Paradise: The Building of the English Country House 1660–1880} (London: Hambledon Continuum, 2000); Christopher W. Chalklin, \textit{English Counties and Public Building, 1650–1830} (London: Hambledon Press, 1998).

\textsuperscript{24}Regarding this term, see Janken Myrdal, ‘Source Pluralism as a Method of Historical Research’, in \textit{Historical Knowledge: In Quest of Theory, Method and Evidence}, ed. Susanna Hellman and Marjatta Rahikainen (Newcastle upon Tyne: Cambridge Scholars Publishing, 2012), 155–89.

\textsuperscript{25}Johannes Westberg, \textit{Att bygga ett skolväsende: Folkskolans förutsättningar och framväxt 1840–1900} (Lund: Nordic Academic Press, 2014).

\textsuperscript{26}See, for example, Mary Jo Maynes, \textit{Schooling for the People: Comparative Local Studies of Schooling History in France and Germany, 1750–1850} (New York & London: Holmes & Meier, 1985), 8; Laurence Brockliss and Nicola Sheldon, ‘General Introduction’, in \textit{Mass Education and the Limits of State Building, c. 1870–1930}, ed. Laurence Brockliss and Nicola Sheldon (New York: Palgrave Macmillan, 2012), 2–5.
local school districts, the arguments for expanding the school system and building new school buildings primarily focused on the elementary school act of 1842, the demands put forward by state school inspectors, the needs of the local community and various economic and status-related concerns.

In the Sundsvall region, the elementary school act of 1842 and the state school inspectors, introduced in 1861, promoted school building. The school act was especially important when the first school buildings were to be established in the 1840s. However, neither the meaning of the school act nor its consequences were obvious; indeed, they were to a great extent dependent on the school districts’ interpretations. The school act’s formulation that each school district must establish ‘at least one, preferably permanent, school’ was interpreted to mean that a permanent school must be built and, in some cases, the districts maintained that the school act also required the construction of a brew house, a cow house and a cellar. As the districts’ decision-makers read the school act, special emphasis was placed on the formulation that schools must be set up within five years, which is why the majority of the first school buildings were completed in 1847 and 1848.

Along with the elementary school act, the state school inspectors mattered. Sometimes the inspector’s job consisted of identifying a need for a school building in an area that previously had none, while on other occasions the inspector deemed that the existing school buildings were inadequate for the intended purpose. Even though their decrees rarely had a direct impact, their proposals often had an influence in the long term.

Alongside state requirements, the needs of the local community contributed to the establishment of new schools. Population growth, burgeoning cohorts of school-aged children and the insufficiencies of existing schools were often put forward as arguments for building new schools. The arguments based on the growing population of the region should be viewed against the backdrop of the dramatic population increase that Sundsvall witnessed as a result of the expansion of the sawmill industry. Discussions concerning the deficiencies of school buildings can partly be explained by the heightened expectations regarding the furnishings and comforts of school buildings created by the National Building Plans (normalritningar) of 1865 and 1878, and the improved housing standards in rural areas in the second half of the nineteenth century.

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27For an introduction to the Swedish school act of 1842 and the Swedish state school inspectors, see Jakob Evertsson, ‘History, nation and school inspections: the introduction of citizenship education in elementary schools in late nineteenth-century Sweden’, History of Education 44:3 (2015), 259–262.

28Swedish Code of Statutes (SFS) 1842:19. See, e.g., Parish meeting minutes, September 12, 1847, K1:3, Ljustorp’s church archives (ka). The regional state archive in Härnösand (HLA); Parish meeting minutes, May 17, 1860, K1:3, Timrå ka; Parish meeting minutes, September 12, 1858, K1:1, Tynderö ka. All church archives listed below may be found at the HLA.

29See, for example, School board minutes, February 18, 1872, K1:3, Ljustorp’s ka; School board minutes, December 20, 1896, K2:4, Tuna ka; School board minutes, October 10, 1888, K3a:1, Alnö ka; School district account book 1898, L2a:4, Alnö ka.

30Sven B. Ek, ‘Nybildning och tradition: Förändringar inom allmogens bostadsskick i norra Ångermanland’, in Arkiv för norrländsk hembygdsforskning 1959–60, vol. XVI, ed. Bo Hellman (Härnösand: Kulturarvsvårdsföreningen Murberget, 1959), 54–97. Regarding the National Building Plans, see Johannes Westberg, ‘Referring to International Examples, Adjusting to Local Realities: Swedish Nineteenth Century Rural Schoolhouses’, Bildungsgeschichte. International Journal for the Historiography for Education 5, no. 1 (forthcoming, 2015).
The remoteness of rural communities and the difficulty in renting good school premises were also given as reasons when new school buildings were to be built. From an international perspective, the distances to schools in the region were not remarkably long. Public statistics show that 14% of pupils in the diocese of Härnösand, which included the Sundsvall region, lived more than five kilometres away from their school in 1865. The school districts’ minutes highlight some of the problems that such long distances meant. Among other issues, the long distances entailed a need for packed meals and night lodgings, and the minutes also provide a glimpse of the problems posed by the waterways of the region, which children needed to navigate as they made their way to school.

Finally, this diversity of reasons included social and economic considerations. Special circumstances that made it possible to build a school at low cost were among the more crass economic arguments, together with the possibility of exploiting the falling prices caused by the great depression of 1873–1896 in Western Europe. School buildings were, however, not only economic but also social investments, as has been shown in previous research. School buildings could be perceived as a matter of a school district’s honour, and the desire to construct school buildings in the same way and to the same extent as other districts seems to have been deeply rooted.

A requisite organisation

The construction of a school building required more than the desire to do so. First, an organisation was necessary, that is some degree of conscious cooperation that enables people to accomplish what an individual cannot do alone. As previous research has shown, there were various ways for rural populations to leverage their

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31 Cf. Eugen Weber, *Peasants into Frenchmen: The Modernization of Rural France, 1870–1914* (Stanford, CA: Stanford University Press, 1976), 319–20; Paul Theobald, *Call School: Rural Education in the Midwest to 1918* (Carbondale, IL: Southern Illinois University Press, 1995), 71–3; R. D. Gidney and W. P. J. Millar, *How Schools Worked: Public Education in English Canada, 1900–1940* (Montreal & Kingston: McGill-Queen’s University Press, 2012), 95–6.

32 BiSOS P (1868), xi–xii.

33 See, for example, Letter to the cathedral chapter, September 11, 1874, L2b:1, Timrå ka; School board minutes, March 24, 1889, K4a:2, Indal’s ka.

34 See, for example, Parish meeting minutes, March 14, 1897, K2:1, Indal’s ka; School board minutes, October 19, 1900, K3a:2, Hässjö ka. For a more general complaint about the declining value of money, see School board minutes, July 5, 1874, K4a:1, Njurunda ka. Regarding these business cycles, see Magnusson, *An Economic History of Sweden*, 155–6.

35 See, e.g., Raymond Grew and Patrick J. Harrigan, *School, State and Society: The Growth of Elementary Schooling in Nineteenth-century France – A Quantitative Analysis* (Ann Arbor: University of Michigan Press, 1991), 216–17; Wayne E. Fuller, *The Old Country School: The Story of Rural Education in the Middle West* (Chicago & London: University of Chicago Press, 1982), 64.

36 See, for example, School board minutes, February 5, 1899, K3a:2, Hässjö ka; School board minutes, May 11, 1890, K4a:2, Njurunda ka.

37 For an introduction to the concept of organisation, see, e.g., Richard W. Scott, *Organizations: Rational, Natural and Open Systems* (Englewood Cliffs, NJ: Prentice-Hall, 1992), 3–26.
ability to take action during the eighteenth and nineteenth centuries. The responsibility for the local school system was given to Schulsozietäten in eastern Germany, communes in France, school sections in rural Ontario, Canada and school districts in the US.\textsuperscript{38}

In Sweden, the parish administration, with its origins in the medieval Christian church’s need to organise and finance church construction and pastors’ salaries, provided the requisite organisation.\textsuperscript{39} Over time, the competences of the parish and its administration grew and eventually encompassed a number of economic matters of concern to parish farmers, such as parish granaries (sockenmagasin), poor relief and schools.\textsuperscript{40} Consequently, these parishes were required by the 1842 elementary school act to establish at least one school and to form a school district, either alone or in cooperation with another parish.\textsuperscript{41}

Within the organisation of these parishes, the final decision regarding school buildings was made in the parish meeting (sockenstämma) and later the church meeting (kyrkostämma), while detailed plans in general were decided upon in school boards and building committees. Building committees, which played various roles in the construction process, seem to have been set up in a variety of ways, either as a panel of experts, as representatives of various interests, or as representatives of the most influential men in the area.\textsuperscript{42}

It should thus be emphasised that this organisation was not characterised by a rational purposefulness. Mistakes were made, for instance, when Indal decided to build a more expensive school instead of undertaking a less expensive redevelopment of an existing building, and conflicts arose between different individuals or groups. These could be based on the different interests of social groups, villages or just bad personal chemistry. While unanimity and consensus may still have been basic features of the political culture of Swedish parish meetings in the latter half of the nineteenth century, differing and rather irate viewpoints were indeed openly voiced at church meetings and school boards.\textsuperscript{43}

One consequence of the local organisation of the Swedish school system was that the decision-making process could be drawn out. Based on the 28 cases where the time required for a decision to be reached can be established, it took an average of about four and a half years between the first time a school building project was

\textsuperscript{38}See, for example, Fuller, The Old Country School, ch. 3; Laura Strumingher, What were Little Girls and Boys Made of? Primary Education in Rural France 1830–1880 (Albany: State University of New York Press, 1983), 7; Marjorie Lamberti, State, Society, and the Elementary School in Imperial Germany (New York: Oxford University Press, 1989), 18; Gidney and Millar, How Schools Worked, xxiii.

\textsuperscript{39}Erik Nydahl, I fyrkens tid: Politisk kultur i två ångermanländska landskommuner 1860–1930 (Sundsvall: Mittuniversitetet, 2010), 16; Alberto Tiscornia, Statens, godSENS eller böndernAS socknar? Den sockenkommunala självstyrelsens utveckling i Västerfärnebo, Stora Malm och Jäder 1800–1880 (Uppsala: Almqvist & Wiksell, 1992), 20–1.

\textsuperscript{40}Nydahl, I fyrkens tid, 16; Tiscornia, Statens, godSENS eller böndernAS socknar?, 20–5.

\textsuperscript{41}SFS 1842:19.

\textsuperscript{42}See, e.g., Church meeting minutes, August 18, 1867, K2:2, Skön’s ka.

\textsuperscript{43}See, e.g., Church meeting minutes, December 26, 1876, K2a:1, Tynderö ka. Regarding the political culture of parish meetings, see, for example, Harald Gustafsson, Sockenstugans politiska kultur: Lokal självstyrelse på 1800-talets landsbygd (Stockholm: Stadshistoriska institutet, 1989), 96.
mentioned in minutes and documents, and the point when the decision to build a school was finally reached. The longest period was 18 years, partly owing to conflicts between villages.  

Besides the dependence of school building projects on the organisation of school districts, the actual construction process was organised in the form of day work (dagsverke), piecework (beting) and contract work (entreprenad). In this context, the term ‘day work’ applied to labour organised in terms of the number of days worked, while ‘piecework’ referred to the task to be carried out. If the job was contracted out, the responsibility for a larger undertaking fell to an individual, who in turn had to employ the labour needed to perform the work.  

These forms of organisation had both advantages and disadvantages. If the work was organised mainly through direct contracts with individual workers (day work or piecework), this was naturally highly time consuming for school boards and building committees, but the organisation was relatively flexible. If the work was contracted out to several entrepreneurs, the workload was lightened for the school board and the separate contracts could probably keep prices down for labour and building materials. On the other hand, the work could be delayed, as in cases where one of the contractors did not finish his work on time so the next contractor was not able to start his work. While these issues could be avoided by employing a general contractor, this left the school district overly dependent on that contractor. Thus, if he did not do his work well, the school district could be left with either a poorly constructed building or an excessively costly invoice.  

In contrast to oft-romanticised narratives of the origins of mass schooling, the organisation of the school building process is an excellent example of what Friedrich Nietzsche termed pudenda origo (lowly or shameful origins). School building construction was not always organised in the optimal way. Apart from drawn-out decision-making processes, the construction of schools was accompanied by misjudgements, setbacks, poor construction skills and greedy contractors. Unfinished school buildings, buildings with an additional and unwanted storey, improperly laid foundations and fraudulent behaviour are examples of issues that school districts faced.

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44Church meeting minutes, February 23, 1879, June 6 1897, K2:1, Indal’s ka.
45Regarding the concepts of day work, piecework and contract work, see, e.g., Gunnar Myrdal, The Cost of Living in Sweden 1830–1930 (London: P. S. King, 1933), 33–7; Erik Lindahl, Einar Dahlgren and Karin Koch, Wages, Cost of Living and National Income in Sweden 1860–1930: Part two (London & Stockholm: P. S. King & Norstedt, 1937), 14–16, 109–11; Janken Myrdal, ‘Betingsläror och arbetsåtgång i lantbruket’, in Landbon, ladan och lagen och hägnaderna, arbetstiden och bygdelaget samt ytterligare 20 agrarhistoriska artiklar, ed. Anders Perlinge (Stockholm: Kungl. Skogs- och lantbruksakademien, 1996), 149, 151.
46See, e.g., Church meeting minutes, January 24, 1897, L2:1, Indal’s ka; School district account books 1891, L2:1, Tuna ka. The disadvantages of turning to either one or several contractors are also pointed out by Chalklin, English Counties and Public Building, 83–4.
47For this interpretation of Nietzsche, see Michel Foucault, ‘Nietzsche, Genealogy, History’, in The Foucault Reader, ed. Paul Rabinow (London: Penguin Books, 1991), 76–100.
48Regarding problems with the contractors, see also Fr[edrik] Laurell, ‘Upsala stift: Domprostteriet, Vaksala, Närthinghundra m.fl. kontrakt’, in Berättelse om folkskolorna i riket för åren 1893–1898, (Stockholm: P. A. Nordstedt och söner, 1900), 17.
Despite such imperfections, the building process organisation was nevertheless functional. Although the decision-making process could be protracted and the finished school building might have cost more, while being of poorer quality, than expected, owing to the decisions made and the work performed through school district meetings, school boards, committees, day work, piecework and contract work, 66 school building projects were completed in the Sundsvall region during the investigated period.

School sites, ownership structure and real estate legislation

Alongside motives and organisation, school buildings require a physical place. Previous research has shown that schools were often erected on simple plots where not much else could be done. In general, the school sites of the Sundsvall region consisted of very modest pieces of land, with no gardens, provided with a few outbuildings such as cellars, cow houses and barns for the needs of the teacher. The average school site was 0.34 hectares, corresponding to nearly half of a football pitch. The smallest school site, donated by Röde Village in Alnö, covered only 0.08 hectares, which roughly corresponds to an area of 28.3 × 28.3 metres. In 1886, Ahlafors saw-mill company donated the largest site, 1.05 hectares, for the construction of a school building, as well as the creation of a gardening area and a playground.

Just as with other buildings, schools could not be placed just anywhere and built in just any manner. School districts were constrained by available properties, ownership circumstances and the real-estate legislation that enabled a piece of land to be partitioned for school use. In Sweden, the possibility of dividing real estate into one or more parts had previously been restricted. However, in the eighteenth and nineteenth centuries, these limitations were relaxed, partly in response to population growth and the rationalisation of agriculture. This liberalisation of real-estate legislation was accompanied by increasingly lax land trading, which seldom observed the limitations mandated by legislation.

The ownership structure also affected the land acquisition of school districts in the Sundsvall region. The fact that the sawmills, landowning farmers and the church owned large tracts of land in the Sundsvall region enabled donations from the former, purchases from farmers and partitioning from the latter. Eleven of the 49 school sites that it has been possible to analyse in this respect were partitioned off from parish or glebe land, which is understandable considering the church’s close ties to schools and the fact that the church owned huge tracts of land. On average, the glebe lands of the Sundsvall region amounted to 207 hectares. In turn, the large

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49 See, for example, Zimmerman, Small Wonder, 44; Fuller, The Old Country School, 60–2.
50 The size of football pitches is normally allowed to vary. However, according to the standard defined by FIFA ahead of the 2010 World Cup in South Africa, a football pitch covers an area of 105 × 68 metres, i.e. 0.71 hectares. Regulations 2010 FIFA World Cup South Africa (2010), 34.
51 22-ALN-2400, Lantmäteriet’s regional archive (LMa); 22-HÄS-1284, LMa.
52 Magnusson, An Economic History of Sweden, 19–20; Göran Inger, Svensk rättshistoria (Malmö: Liber ekonomi, 1997), 210. An overview of the debate surrounding the partitioning of land and the division of homesteads is provided by Birgit Petersson, ‘Den farliga underklassen’: Studier i fattigdom och brottslighet i 1800-talets Sverige (Umeå: Almqvist & Wiksell International, 1983), 23–30.
53 See Petersson, ‘Den farliga underklassen’, 7–8 and the literature sources cited therein.
54 Gabriel Thulin, Redogörelse för de ecklesiastika boställena: Del 2. Västernorrlands län (Stockholm: s.n., 1906), Tab. 1.
swathes of land purchased by sawmills 1846–1900 explain the eight school sites donated or sold by sawmills and their owners. The remaining sites were sold or donated mainly by farmers and villagers who, at the turn of the twentieth century, still constituted the largest landowners in the county of Västernorrland. An example of such a school site is the grounds of Åsäng school building (0.22 hectares), donated by the farmer Anders Ålander in 1898 (see Figure 2).

Figure 2. The school site at Åsäng, a simple plot of land along a country road. Source: 22-LJU-1297, Lantmäterimyndigheternas arkiv. © Lantmäteriet.

Lars-Göran Tedebrand, *Västernorrland och Nordamerika 1875–1913: Utvandring och återinvandring* (Stockholm: Läromedelsförlaget, 1972), 15–16, 29, 42–3; Norrlandskomiten, *Underrådigt betänkande afgifvet af komiten för utredande af frågan ’huruledes den sjelfegnade jordbrukande befolkningens ställning i Norrland och Dalarne må kunna vidnakhållas och stärkas och jordbrukets utveckling i nämnda landsdelar befrämjas’* (Stockholm: s.n., 1904), Tab. 1.

22-LJU-1297, Lantmäterimyndigheternas arkiv.
The acquisition of school sites was, finally, also affected by state guidelines and the local circumstances of the school system. The school acts and the instructions accompanying the National Building Plans stipulated a well-drained, central, but also secluded site. However, at a safe distance from the instructions of these building plans, various local political, aesthetic and legal considerations played crucial roles. Everything from ensuring that the school building would not block the view of Alnö strait to property law considerations or conflicts between villages affected the decisions pertaining to the school site. There were also moral concerns and economic considerations. Tranquil land plots were preferred, rather than sites where the children would risk facing ‘unpleasant visitors’ and learn about obscene things.

Similarly, if the new school site meant that the old one could serve some useful purpose, or if the plot of land could be obtained free of charge, this was naturally a valid reason for choosing a site, whereas the risk of elevated cost was a deterrent.

The labour of craftsmen, farmers and the landless proletariat

Once the school sites had been acquired, the school buildings had to be built. The construction of school buildings in the Sundsvall region, which were mostly timber buildings, started with gathering building materials on the worksite and laying the foundation for the school building. Thereafter, the wooden building was erected and provided with a roof and floor, before being furnished and painted.

Just how this construction work was distributed among various social groups is far from clear. Although no detailed quantitative studies on this issue have been carried out, it has been claimed that school buildings in rural England were built by local craftsmen. In the American Midwest, a change seems to have taken place around the time of the Civil War, 1861–1865, whereby antebellum school buildings were constructed by the school district’s own farmers. After the war, the job was given to the lowest bidder.

A study based on three building accounts from the Sundsvall region building projects, in which it is possible to identify 121 construction workers and the tasks they performed, provides a glimpse of these workers’ gender, social class, age and place of residence. According to these records, the labourers were male, with only two exceptions, and indeed local. About three-quarters of the workers resided in villages within a radius of five kilometres from the school building, and a similar proportion lived in the school district in question.

Most of these workmen (see Figure 3) were middle-aged – with half of the labour force aged 40 to 60 years old – and represented all strata of society. Everyone

57 Öfverintendentsembetet, Normalritningar till folkskolebyggnader jemte beskrifning (Stockholm: s.n., 1865), 3; Öfverintendentsembetet, Normalritningar till folkskolebyggnader jemte beskrifning: Andra omarbetade upplagan. (Stockholm: s.n., 1878), 5; SFS 1882:8 § 54. See, e.g., Church meeting minutes January 29 1865, K1:2, Alnö ka; Church meeting minutes, October 18, 1874, K1:5, Ljustorp’s ka.
58 School board minutes, October 12, 1893, October 19, 1895, K3a:1, Njurunda ka.
59 See, for example, Cabinet Act no 4, March 8, 1867, Ministry of Education and Ecclesiastical Affairs (ED), The National Archives (RA).
60 Regarding the design of schoolhouses, see Westberg, ‘Referring to International Examples’.
61 Pamela Horn, Education in Rural England, 1800–1914 (Dublin: Gill and Macmillan, 1978), 122; Fuller, The Old Country School, 71.
62 See Building accounts 1846–1848, L2:1, Tuna ka; Building accounts 1865–1869, L2a:1, Alnö ka; Building accounts 1876–1879, L2a:2, Tynderö ka.
from sawmill owners and municipal master builders, to farmers, glassblowers, smithies, crofters, rag-and-bone men and lodgers helped to build school buildings. However, the various social strata played roles of varying importance in this construction. In the Sundsvall region, neither craftsmen nor farmers provided the largest work contribution, but rather the agrarian proletariat, that is, crofters (torpare), cottagers (backstugusittare), lodgers (inhysehjon) and other landless individuals. This group accounted for half of the labour force (51%), along with farmers (27%), craftsmen (17%), and officials and industrialists (5%).

The aforementioned social groups were assigned varying tasks. The small group consisting of pastors, mill owners and municipal master builders, who have been grouped into a category of officials and industrialists, were for example primarily responsible for creating the school buildings’ blueprints. The craftsmen (such as painters, stove builders and glaziers) mostly worked within the framework of their specific skills, while farmers took on a larger proportion of unspecified work. With their access to draught animals, they also participated in transporting building materials. Crofters and other landless people, who were the largest group in the labour force examined here, had extremely diverse tasks – everything from stonework and timbering to caulking and rag picking.

The large proportion of the landless proletariat in the workforce on school building projects is partly due to the living circumstances of this group. As the land could not support them, livelihood diversification, providing multiple incomes from more
or less temporary employments, was important for the subsistence of the agrarian proletariat.\textsuperscript{63} The landless were also a growing labour force. The growth of the landless proletariat was an important component of the increase in population during the agrarian revolution of the eighteenth and nineteenth centuries, and the landless constituted a substantial segment of the population of the Sundsvall region in the middle of the 1800s. In Alnö parish, for example, 24% of the inhabitants were crofters, and 10% of the population were lodgers or paupers.\textsuperscript{64} The labour of the agrarian proletariat on school building sites is thus yet another example of how major societal transformations impinge upon the history of elementary schooling.

The fact that the landless proletariat made such a significant contribution to school construction helps to expand our understanding of the relation between schooling and the social upheavals of the nineteenth century. While previous research regarded the need to foster and discipline the growing proletariat as key arguments for establishing elementary schools, this study shows how the major investments in school buildings were dependent on the labour that these groups of landless people could offer.\textsuperscript{65}

The study of the labour force deployed for school construction also helps shed new light on the significance of the population increase. The rising number of school-aged children was, as noted earlier, an important reason to create new elementary schools. Nevertheless, as this study has demonstrated, other age categories were also of great importance for the expansion of elementary schooling. The schoolchildren may have been the reason for building new schools, but it was the labour of middle-aged men, such as those depicted in Figure 3, that made the construction of these buildings possible.

Building materials supplied by farmers, industries and tradesmen

School buildings require building materials. From an international perspective, the schools of the Sundsvall region seem to have been relatively well built. They were typically made of wood, often with a timber frame dressed with boards, placed on stone foundations, with roofs covered by wooden shingles, roof tiles, roofing felt or roofing sheets (see Figure 4). In addition, school-building entailed costs for windows and doors, along with interior decoration and the installation of Swedish ceramic stoves or iron stoves.\textsuperscript{66}

The production and distribution of building materials in Sweden underwent a comprehensive change during the nineteenth century. This transformation is generally described as a shift from a widespread barter and natural economy to an

\textsuperscript{63}Jonas Lindström and Jan Mispelaere, ‘Genus, arbete och hushåll bland jordfattiga på landsbygden’, in Levebröd: Vad vet vi om tidigmodern könsarbetsdelning? ed. Benny Jacobsson and Maria Ågren (Uppsala: Historiska institutionen, 2011), 135–40.

\textsuperscript{64}Filip Hjulström, ‘Sundsvallsdistriktet vid 1800-talets mitt’, in Sundsvallsdistriktet 1850–1950, ed. Filip Hjulström, Gunnar Arpi and Esse Lövgren (Uppsala: Almqvist and Wiksell, 1955), 52; Carl-Johan Gadd, ‘The Agricultural Revolution in Sweden, ca 1700–1900’, in Different Paths to Modernity: A Nordic and Spanish Perspective, ed. Magnus Jerneck, Magnus Mörner, Gabriel Tortella and Sune Åkerman (Lund: Nordic Academic Press, 2005), 50–2.

\textsuperscript{65}For this established description of the motives behind the Swedish elementary school, see, e.g., the back-page blurb in Bengt Sandin, Hemmet, gatan, fabriken eller skolan: Folkundervisning och barnuppföstran i svenska städer 1600–1850 (Lund: Arkiv, 1986); Petterson, Frihet, jämlighet, egendom och Bentham, 313.

\textsuperscript{66}Westberg, ‘Referring to International Examples’. 
increased dependence on a market economy and the goods offered therein. The building of farmers’ houses relied increasingly on market-traded products, such as bricks and tiles, iron goods, paint and sawn timber. The production of red ochre paint consequently increased tenfold from 1820 to 1880, and the production of bricks, roofing tiles, nails and carpentry products expanded dramatically during this period.  

Notwithstanding this increased reliance on the market and the products of industrialisation, available data from preserved building accounts indicate that farmers in the second half of the nineteenth century continued to play an important role as suppliers, primarily of timber, to school building projects. Their deliveries accounted for 70% of costs for building materials (including in-kind supplies) required for building the school in Alnö (1865–1869), for example, and 42% in Tynderö (1876–1879).

These extensive deliveries can be understood against the background of farmers’ position in nineteenth-century society. Under the law-book of 1734, farmers were obligated to supply timber for construction of public buildings, which later came to include school buildings. One may also note that farmers in the region mostly had only smallholdings and needed the extra income that timber sales could yield. The

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67 Ulväng, Hus och gård i förändring, 46; Finn Werne, Böndernas bygge: Traditionellt byggnadsskick på landsbygden i Sverige (Höganäs: Wiken, 1993), 338–9.
68 The data pertaining to the building materials is preserved in Building accounts 1865–1869, L2a:1, Alnö ka; Building accounts 1876–1879, L2a:2, Tynderö ka; Building accounts 1898–1899, L2a:1, Ljustorp’s ka.
farmers of the Sundsvall region also owned the forests necessary to provide timber.\(^6^9\)

In addition to the farmers, sawmills and other industries were important suppliers of building materials. In the middle of the nineteenth century, iron mills, shipbuilding operations and sawmills were the most important industries in the Sundsvall region. Following the establishment of the first steam-powered sawmills during the 1850s, however, the sawmill industry soon became dominant in what would become one of the world’s largest sawmill districts.\(^7^0\)

Consequently, some of the school districts’ largest and most important purchases were made from the sawmills, including orders from the companies of Ahlafors, Eriksdal, Fagervik, Johannesvik, Tunadal and Wivsta. Precisely what goods were purchased from these companies remains unclear, but their deliveries could be comprehensive, and they represented 17% of the building material costs in Tynderö (1876–1879) and 27% of the costs in Ljustorp (1898–1899).

Finally, the necessary building materials were also provided by the town and country tradesmen in the Sundsvall region, the number of which increased dramatically in the second half of the nineteenth century due to the expanding sawmill industry.\(^7^1\) In sum, these tradesmen supplied the school districts with building materials corresponding to 8–39% of the total costs for materials.

Among the tradesmen and shops in Sundsvall that the school districts turned to, there were several ironmongers, such as A. J. Lindgren, Näslund & Wiklund, and Anders Rothman. Rothman’s New Iron Shop, for example, supplied Tynderö elementary school with a so-called Gurney stove, alongside hinges and diverse smith work. Rothman’s New Iron Shop also delivered to the Alnö school building an iron stove, and 900 three-, four- and five-inch nails, along with five valves, three draught valves, four pairs of cupboard doors, three draught valve conductors and some iron wire.\(^7^2\)

While the school districts’ purchases from the mills, sawmills and tradesmen of the Sundsvall region indicate the school building projects’ dependence on the expanding market of building materials and the commodity distribution system that town and country tradesmen were part of, they also illustrate how the school system was literally built on products introduced by the industrial development. Thus the expansion of the school system directly benefited from the advances in the iron and steel, mechanical, paper, and brick and tile industries, among others.\(^7^3\) Besides the iron goods already mentioned, industrial advances found expression in the wallpaper from Munksjö Papermill that covered the walls of school buildings, the tiled stoves

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\(^{69}\) Johan Wallner, *Folkskolans organisation och förvaltning i Sverige under perioden 1842–1861* (Lund s.n., 1938), 131; Lennart Schön, ‘Västernorrland in the Middle of the Nineteenth Century: A Study in the Transition from Small-scale to Capitalistic Production’, *Economy and History* 15 (1972): 87–9.

\(^{70}\) Lars-Göran Tedebrand, ‘Introduction’, in *Health and Social Change: Disease, Health and Public Care in the Sundsvall District 1750–1950*, ed. Anders Brändström and Lars-Göran Tedebrand (Umeå: Umeå University, 1993), 8–9; Magnusson, *An Economic History of Sweden*, 117–21.

\(^{71}\) Maurits Nyström, ‘I väntan på sin stora roll: Näringer och handelskapitalism 1624–1865’, in *Sundsvalls historia Del I*, ed. Lars-Göran Tedebrand (Sundsvall: Stadshistoriska Kommittén, 1996), 17.

\(^{72}\) Building accounts 1876–79, L2a:2, Tynderö ka; Receipt no. 55, 80–82, H1:1, Alnö ka.

\(^{73}\) Regarding the overall features of these developments, see Magnusson, *An Economic History of Sweden*, 117–37.
that were ordered from the merchant G. O. Stadin and the paint that was purchased from the merchant G. Strömberg.\textsuperscript{74}

**Funding school building through taxation and loans**

Finally, it should be noted that all of the aforementioned activities that enabled construction of school buildings, and thus the expansion of the school system, required funding. The 66 school buildings in the Sundsvall region did not come free of charge: they were built at a cost that rose from an estimated total of 18,900 SEK for eight of the 11 schools built in 1840–1849, to a total of 199,000 SEK for the 26 schools built in 1890–1899.\textsuperscript{75}

During the first half of the investigated period, school buildings were mainly financed by taxation in money and in kind. Of the 16 newly built or remodelled school buildings completed in this period, there is evidence that in-kind taxation occurred in 14. This might involve being taxed in the form of number of days worked, or building materials such as timber or tiles being provided. For instance, a school district could tax its population for 252 logs, 50 logs of a thinner dimension and a requisite number of floor planks.\textsuperscript{76} In the second half of the period under study, in-kind taxation was imposed on rare occasions. According to the evidence available, this occurred in six of the 48 school building projects in 1870–1900.

In most cases, the exact proportion of the total building costs covered by in-kind taxation cannot be ascertained. Still, it is likely that nearly all costs for the 1850 remodelling of the Tynderö parish house (sockenstuga) were based on such taxation in kind. Using the information pertaining to five projects, a detailed analysis indicates that between 16% and 43% of the total building cost was covered by in-kind deliveries.\textsuperscript{77}

In-kind taxation should be understood in its context. In a society that was still characterised by widespread barter economy and household self-sufficiency, this was a practical and simple way to erect a few school buildings without having to involve money. The farmers’ forests provided them with the wherewithal to deliver timber for the school building projects, and the extensive livelihood diversification noted earlier entailed the population having acquired a diverse range of skills that could be applied in construction work, thus enabling taxation in the form of day labour.

When a larger number of more expensive schools were to be built during the second half of the investigated period, the methods for funding the building costs changed. Instead of taxation in money and in kind, school building was mainly funded by monetary taxation and by loans. In the Sundsvall region, 52% of school building project costs were covered by loans from individuals, church funds, parish

\textsuperscript{74} Building accounts 1876–79, L2a:2, Tynderö ka; School board minutes, October 17, 1880, K2:2, Tuna ka.

\textsuperscript{75} Westberg, ‘How Much did a Swedish Schoolhouse Cost to Build?’, 455. In current prices.

\textsuperscript{76} School building cost estimate 1875, K2a:1, Tynderö ka.

\textsuperscript{77} Building accounts 1847–1850, L2a:1, Timrå ka; Parish meeting minutes, May 24, 1847, K1:3, Timrå ka; Parish meeting minutes, August 2, 1846, December 4, 1847, October 29, 1848, K1:3, Njurunda ka; Parish meeting minutes, November 1, 1845, January 25, 1846, March 24, 1847, K1:5, Tuna ka; School district account book 1854, L2a:1, Indals ka; Parish meeting minutes, February 26, 1854, K1:4, Indals ka; Building accounts 1865–1869, L2a:1, Alnö ka, Parish meeting minutes, September 19, 1865, K1:2, Alnö ka.
granaries and banks. Nearly three-quarters of these loans were obtained from banks such as Kredit Aktiebolaget Sundsvall and Sundsvall’s Enskilda bank, which had been formed in the latter half of the nineteenth century to supply agriculture and burgeoning industries with much-needed credit. This modernisation of the credit market was thus not only a precondition for financing the expansion of Swedish industry, which has previously been established, but was also a crucial prerequisite for the development of Swedish elementary schools.\textsuperscript{78}

In comparison with monetary and in-kind taxation, the combination of monetary taxes and loans offered school districts a number of advantages. Loan financing made it possible to build schools quickly, and monetary taxation meant that school districts could avoid the practical problems that in-kind taxation entailed. Thus, the previous issues with deliveries of inferior-quality timber and taxation of a labour force that unfortunately lacked the necessary building skills (so-called ‘worthless day labourers’) could be avoided.\textsuperscript{79} The shift to the financing of school building in ready cash can also be understood against a broader societal perspective and be related to the expansion of the market and monetary economy in Sweden. It can also be linked to the changes in the tax system that entailed a general marginalisation of in-kind taxation.\textsuperscript{80}

**In conclusion**

As stated in the introduction, research into the history of education has produced a large number of important contributions to our understanding of the emergence and expansion of mass schooling. Many of these investigations have focused on the importance of the processes of industrialisation and urbanisation, relating mass schooling to the need of the elite to control and discipline an expanding underclass. Researchers have also looked elsewhere and identified the driving forces behind the school system in state-formation processes, in the decentralised organisation of school systems and in the relationship between various social groups and actors.

Using the school building process as a point of departure, this article has provided a broader and largely novel explanation for the rise of mass schooling. In this article, I have argued that new school buildings were built due to state requirements, local needs and economic and status-related issues. Organising, in the form of parish meetings, school boards and building committees, was necessary for the coordination of the building project, and school sites were provided through the framework of current property legislation and available real estates. Moreover, the labour that farmers, craftsmen and above all the landless could offer, and the building materials that the area’s farmers, sawmills and tradesmen supplied, were also essential for the rising number of schools. Finally, building schools required the means of financing provided by in-kind and monetary taxation, together with loans from the region’s credit market.

Expressed at a more general level, this study has tied the expansion of mass schooling not only to well-known factors such as population growth, proletarianisation and government intervention, but also to general processes such as the

\textsuperscript{78}Magnusson, *An Economic History of Sweden*, 115–17 and the literature sources cited therein.

\textsuperscript{79}The quote is from Church meeting minutes, August 5, 1855, K1:2, Alnö ka.

\textsuperscript{80}Magnusson, *An Economic History of Sweden*, 26–7; Peter Gärestad, ‘Jordskatteförändringar under industrialiseringsperioden 1861–1914’, Historisk tidskrift no. 4 (1982): 525–6.
expansion of the monetary economy, the development of the credit market, the liberalisation of the real estate market, changes in the municipal tax system and the growth of the building materials market. These aspects of the agrarian and the industrial revolutions have rarely, if ever, been posited as preconditions for mass schooling. This also holds true for the great depression of 1873–1896, improved housing standards, the extensive glebe lands of the Swedish parishes, bank loans, the organisation of labour into day work and piecework, and the multiple employments of the agrarian proletariat, all of which have been included in this study of the history of mass schooling in Sweden.

As a result, some of the underlying factors in previous explanatory models have been reinterpreted. In the light of the school building process, the role of the state diminishes. While the central government did promote the rise of schooling, school acts and state inspectors only formed a fraction of the preconditions necessary for the establishment of mass schooling. Instead, the Swedish elementary schools appear mainly as a project run by the parishes. The school building process was organised by the parish and church meetings, school boards and building committees, and the parishes also provided building sites, and established forms of taxation and loans from church funds. Rather than the more recent state-formation processes, the rise of mass schooling in the Sundsvall region required the political and organisational formation of the local community, which in the case of the Swedish parishes had already been initiated during the Middle Ages.

Apart from demonstrating how firmly rooted the Swedish school system was in an agrarian society, this study also sheds new light upon the multiple roles played by the industrialisation process in the expansion of schooling. In the Sundsvall region, the sawmill industry prompted a dramatic increase in population that was an important reason for building schools, primarily during the 1880s and 1890s. The sawmill companies sold and donated building sites to the school districts, and the banks of Sundsvall, which to a large degree had been established to provide the expanding industry with credit, provided school districts with a large proportion of the loans needed to finance the construction of school buildings during the last three decades of the nineteenth century. The school buildings were also equipped with the hardware, boards, planks, wallpaper, asphalt, cardboard, brick and tile stoves that the expanding sawmill industry, iron and steel industry and brick industry produced.

Furthermore, in the light of school building construction, the origins of mass schooling seem less grand. Instead of an idealised narrative, or a theory that elevates schooling to a matter of the great social conflicts, the fundamental ideological divergences or all-encompassing societal transformations, such as industrialisation or the emergence of nation-states, this analysis has highlighted the lowly origins of this educational revolution. Schooling is portrayed as the result of an all too human process that, among other elements, comprises delays, petty disputes, miscalculations, greediness and so-called worthless day labourers.

This broad description of the historical conditions for the emergence of schooling also clearly demonstrates the limitations of the earlier explanatory models. In light of the present study, former explanations that fasten on a few causal factors appear misleading, since mass schooling was contingent on a long series of societal processes. Explanations in terms of decentralisation and state formation might, for instance, tell us something about a common denominator for the advent of schooling, but less about the totality of intertwined processes that was necessary for mass schooling to be established.
Although the present case study has shed new light upon the origins of mass schooling, further empirical investigations are needed into the factors and processes highlighted in this analysis. There is, for example, a need for further studies of how the expansion of the school system was influenced by the evolution of the credit market, the local tax system and the market for building material. As noted in earlier research, the credit market was a factor in the development of school systems in the US and Canada; however, the role played by bonds and bank loans in these areas remains unclear.\textsuperscript{81} Was perhaps a modernised credit market, where personal relationships and informal personal loans were replaced by banks and formal credit contracts, just as important for mass schooling as for the industrial revolution? Similar questions arise regarding the importance of taxation in kind and the expansion of rural and town trade. Fundamental issues also need to be addressed regarding the location of school buildings, as well as the manner in which schools and school construction were organised and who actually built the schools. Such questions need to be answered if we are to achieve a more comprehensive explanation of the expansion of schooling in the nineteenth century.

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\textsuperscript{81}Fuller, \textit{The Old Country School}, 65; Gidney and Millar, \textit{How Schools Worked}, 153.