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Technical nation building: German professional organisations and their journals in the nineteenth century

During the long nineteenth century, the German States saw an exceptionally large number of technical journals published by equally numerous professional organisations as a means of supporting the scientific interaction among their respective members. As the political fragmentation of the German Federation into thirty-nine states hindered the exchange of technical knowledge, these journals promoted the communication between practitioners all over the German States. They aimed to unite the increasingly specialised professionals on a scientific and technical level. This article discusses these associations and their journals in a cultural and technical context, considering the following processes: the professionalisation of the building industry in the nineteenth century; the evolution of an independent technical educational system in the German-speaking countries; and the increasing specialisation of engineering disciplines in the course of industrialisation. These coincided with the shift of interest within the associations from the polytechnical publication to specialised magazine for an increasingly diverse readership. On a political level, the article compares the different publication strategies of architects’ and engineers’ professional organisations, and their professional policies to construct a national sensibility in the fragmented German States before their unification in 1871.

Introduction

Following the federal system, the number of architectural journals in the German States in the nineteenth century is almost unmanageable. Existing research has suggested that they comprised up to 280 titles.1 When the importance of these journals as sources for the history of architecture and construction was recognised in the 1970s, Verena Haas and Stephan Waetzold edited an eight-volume bibliography which indexes all architectural journals from 1789 to World War I.2 But this extremely helpful edition is an index of architectural journals that does not include those with a focus on civil engineering. The same is the case with the only summative study that deals with building
technology magazines from the vantage of scientific bibliography, Rolf Fuhlrott’s doctoral thesis at the Institut für Baugeschichte at Karlsruhe University. Supervised by Wulf Schirmer, the thesis was written between 1972 and 1974, and published in 1975. Over the past two decades, and especially in the French-speaking parts of the world, construction journals have increasingly been attracting scholarly interest. Related scholarship in German includes several books on specific individual journals. Aspects of media science have recently informed related scholarship. But none of these studies considers engineering journals. This is especially regrettable for the discipline of construction history, which numbers only a few related historical studies. Published in 1981, the commemorative publication of the Verein Deutscher Ingenieure [VDI, the Association of German Engineers] includes only a few pages on the history of its publishing.

For this article, I have scrutinised the annual reports of the associations, and the contents and directories of individual journal volumes to reconstruct the role of the professional associations and their journals in the nineteenth century. A comprehensive presentation of nineteenth-century architectural and engineering journals from the combined vantage of media science and construction history can only be undertaken on a grand scale by a larger research association. This article has instead focused on the corpus of journals published by professional associations to provide an overview of the development of journals in the German States from the vantage of cultural studies. Before the appearance of publishing houses specialising in technical and architectural subjects, these associations are the most important publishers in the field.

The working hypothesis is that these journals developed from polytechnical publications to specialised magazines for an increasingly diversified membership and readership. Periodised by Fuhlrott in five phases during the long nineteenth century, this evolution can be identified with specific associations and journals that showcase these differing cultural and technical conditions. Fuhlrott has suggested that the first phase coincides with a ‘search for the exact task and circle of readers’. Two examples illustrate this: the Polytechnischer Verein in Bavaria and its technical journal, Kunst- und Gewerbeblatt des Polytechnischen Vereins für das Königreich Bayern [Art and Trade Magazine for the Polytechnical Association of the Kingdom of Bavaria]; and the Verein zur Beförderung des Gewerbfleißes in Preußen and its journal, Verhandlungen des Vereins zur Beförderung des Gewerbfleißes in Preußen [Transactions of the Association for the Promotion of Commercial Industriousness in Prussia]. In Fuhlrott’s second phase, these journals address the technically educated specialist. At the beginning of the nineteenth century, this expert was usually a civil servant. In this phase, I consider the new disciplinary identity of these technicians, who organised themselves into architectural associations such as the Berliner Architektenverein in 1824. The development of an independent technical educational system in the German-speaking countries provided the basis for this development.

In the third phase, Fuhlrott has identified an ‘independent periodical press’ that was mainly read by technical experts. My key questions here include: what approaches of professional policy were pursued by the different disciplines of architects and engineering associations? Did their journals aim
to construct a national sensibility, and if so, when? Finally, Fuhlrott’s fourth and fifth phases follow after the political unification of the German States in 1871. To ensure consistency with the previous sections, I present the communication strategies of one regional professional association as an example for these last two phases. The publications of professional associations did not address politico-economic issues before the early twentieth century. Yet, the supra-regional distribution of the journals was a means to technological and knowledge transfer beyond the borders of the various German States. To investigate the role of the journal as a medium of nation building, I examine the publications of the Architects and Engineers Association Strasbourg in the annexed Reichsland Alsace-Lorraine in 1871.

In ‘search of the exact task and circle of readers’: polytechnical associations at the beginning of the nineteenth century

After the French Revolutionary Wars, the new kingdoms that were founded under Napoleon, such as Bavaria or Württemberg, faced the challenge of reorganising their political system. The bourgeoisie assumed a new and important role in this process. Among others, its new political self-confidence is reflected in the establishment of associations founded by amateurs with special interests. Founded in 1815, the Bavarian Polytechnischer Verein is one of the first associations of its kind. It edited the technical journal Kunst- und Gewerbeblatt des Polytechnischen Vereins für das Königreich Bayern, a weekly publication that explicitly aimed to instruct the public. The second annual report of 1818 documents the increasing number of readers who were attracted by the journal. Even if its subscribers are not known, the association’s membership structure indicates the journals’ readership. In 1818, 177 members were registered in its directory. Most of them were amateurs, including clerics, judges, schoolmasters, and all kinds of civil servants and tradesmen. Only the bourgeois elite could read the journal at the time, since a large part of the working classes was either illiterate or lacked the resources to afford these magazines. Only a few members of the Polytechnischer Verein were construction specialists, or professionally familiar with the technical content of the new journal. Some articles on particular technical inventions, such as the dandy horse or steam engines, were copied and translated from foreign journals. While this was common practice at the time, the editors did raise the question of plagiarism. The journal focused mainly on technological content, and especially metallurgy. Chemical processes, including beer brewing, and mechanics, including all kinds of mills, were also discussed. Architecture, or rather construction, was covered in texts on material technology, such as a paper on cast iron, or the restoration of old buildings. Only one architectural project, the master plan for a cemetery in Munich, was mentioned in the first two years of the journal’s publication. Bridge building featured more frequently in several articles in the same period.

In addition to the journal, the Polytechnischer Verein arranged numerous lectures to further disseminate technical knowledge among the bourgeoisie. It also organised an exhibition parallel to the Munich Oktoberfest.
association’s own library was established through donations by two members: the building inspector Vorherr (author of the plan for cemeteries included in the journal), and the Augsburg manufacturer Dingler. Owing to the Polytechnischer Verein and its journal, early nineteenth-century Bavaria became the leading state in advancing trade and technical science on German territory. This was further promoted by its modern administration, under the French influence, by Maximilian von Montgelas (1759–1838).

After the German Campaign of 1813, an ambitious Prussia was in the process of building a modern administrative system that later became known as Stein-Hardenberg’s reforms. This development was decisively influenced by the jurist Christian Peter Wilhelm Beuth (1781–1853), who was ‘among the closest circle of reformers around Hardenberg’.

Beuth, who had attended the Bauakademie, endeavoured to ‘adapt Prussia technologically and industrially to the leading developments in Great Britain’. For this, he relied on knowledge transfer by installing technical schools such as the later Gewerbeinstitut, organising trade exhibitions, and reforming the patent system. In this context, as in Bavaria, an association was founded to promote economic-technical goals, the Verein zur Förderung des Gewerbefleißes in Preußen in 1821. The association comprised departments of chemistry and physics; mathematics and mechanics; manufactures and commerce; and architecture and the fine arts, which was directed by Karl Friedrich Schinkel (1781–1841).

Field trips were part of the programme to advance Prussian industrial development. The most significant was Beuth’s second trip to England, accompanied by Schinkel, in 1826. In 1822, the association began to publish the journal Verhandlungen des Vereins zur Beförderung des Gewerbefleißes in Preußen. The periodical presented the activities of the association, including reports from the departments of chemistry and physics, mathematics, mechanics and architecture, and manufactures and trade. Again, architecture in the sense of modern building construction was an issue of only peripheral interest. On his trip to Holland in 1790, the member of the Prussian Oberbaudepartement [building administration] Heinrich August Riedel (1748–1810) took the architect Friedrich Gilly (1772–1800) with him to be responsible for all kinds of drawings, including those of hydro-technical plants. Reports from individual members of the association, notes on recent foreign discoveries, and the minutes of the association’s meetings also demonstrate the commitment of figures such as Werner Siemens (1816–1892). Technical drawings that accompanied specific articles were included in an appendix. The journal intended to inform a ‘public interested in technic and trade’.

In the first phase of the nineteenth-century technical press, these journals published on numerous topics of wide-ranging ‘polytechnical’ interest. This seems to be owing to the only partially established disciplinary identity of the construction sector at the time. Until the second half of the eighteenth century, construction incorporates all technological disciplines, from mechanics to architecture. Similar to technical education at the time, these associations and their journals were not yet differentiated in specific technical professionals disciplines. This process was initiated later in the same century,
and it was not completed until the late nineteenth century. As a result, the journals reflect the heterogeneous membership of the polytechnical associations. In addition to amateurs, they include a wide variety of technical and scientific representatives, from chemical and mechanical sciences to the fine arts.

**Developing architects’ disciplinary identity: the Berliner Architektenverein**

In the first half of the nineteenth century, the German States lagged significantly behind Britain and even France, in terms of their industrialisation. Centralised nation states were able to systematise their trade or industrial development in a way that the federal German States could not. Each individual state strived to improve its own competitive position, mainly through the establishment of polytechnic schools, which became technical universities in the second half of the nineteenth century. It was no coincidence that the Karlsruhe Polytechnic was established as the first German institution of its kind in 1825, near the French border in the west of the Grand Duchy of Baden, which was subject to strong French influence during the Napoleonic wars was not coincidental. The model for the Karlsruhe Polytechnic, the French École Polytechnique, followed military organisation to train professionals exclusively for civil service. But in Karlsruhe students were trained both for civil service and the industry, which was called ‘Gewerbe’ [trade] at the time. Similar schools had already been established in Prague and Vienna respectively in 1806 and 1815, when Austria-Hungary took a leading role in the German-speaking countries. Decades later they also arrived in Switzerland, where the Federal Polytechnic in Zurich was established in 1855. But this type of polytechnic school had already been established in most German States in the first three decades of the nineteenth century, including Baden, Stuttgart (for the Kingdom of Württemberg), Munich (for the Bavarian Kingdom), Braunschweig, Dresden, Darmstadt, and Hannover. In Prussia, civil engineers and architects trained for civil service, as in the École Polytechnique, had already been studying at the Bauakademie since 1799. But in 1821, Beuth established another type of business school. Renamed Gewerbeinstitut, this school no longer educated students for civil service only. It rather explicitly aimed to prepare them for ‘economic independence, and to replace the old state protectionism by training entrepreneurial qualities and so guarantee economic success’. In the first half of the nineteenth century, the curriculum at one of these polytechnic schools included all ‘engineering sciences’. At the time, this meant both architecture and civil engineering. As ‘all-round’ engineers, most graduates of these educational institutions became civil servants. They were responsible for the sum of technical facilities and infrastructure in the country, including land improvement, road construction, hydraulic engineering, and the construction of industrial buildings, from bricks and mortar to machinery. But the titles of ‘engineer’ or ‘architect’ were not yet normalised, or even institutionally protected in the nineteenth century. Anyone involved in the construction industry, including craftsmen, contractors, engineers, or artisanal mechanics, could then call themselves architect or engineer.
The establishment of the technical education system in the second quarter of the nineteenth century significantly distinguished the academically trained technician from the craftsman, or the contractor. In the course of this professionalisation of technical disciplines, new associations were established. These no longer addressed amateurs and technicians. The Berufsverbände [Professional Associations] of Architects and Engineers were founded for a specific group that was educated at the polytechnic schools and specifically trained in the technical sciences. Scientific communication was the declared aim of all these professional associations. The federal German States lacked an intellectual and economic centre, such as Paris in France and London in the British Empire. Hence, knowledge exchange through technical journals became the highest priority. Fourteen out of the thirty-five professional organisations that were founded by 1910 published one or more periodicals.

That Prussia acquired a leading role among the German States is underlined by the establishment of the first professional, rather than amateur, association for the building industry. In 1824, Berlin architects founded the Berliner Architektenverein [Berlin Association of Architects], aiming to ‘promote scientific education’ and ‘work together to advance their profession’. This was the first time that only technically trained professionals came together in a regional association. Following similar organisations such as the Landwirtschaftlicher Verein [Agricultural Association], the club activities were aimed especially at the dissemination and exchange of technical expertise. They organised similar events, such as lectures and field trips; they set up their own library; and they discussed technical-scientific issues, but also members’ architectural designs. The periodical of the Berliner Architektenverein and one of the first journals of this kind was the Notizblatt des Architekten-Vereins zu Berlin, which was published twice a year from 1833 onwards. Self-published as it was originally intended to inform the members of the association, the periodical was printed by the publishing house Riegel in Potsdam from 1837 onwards. Riegel was also responsible for the distribution of the magazine, so that the association could concentrate on editorial matters. The Notizblatt included reports of the association’s activities, lists of newly admitted members, lectures, and new acquisitions in the library. The journal carried on the tradition of the Sammlung nützlicher Aufsätze und Nachrichten die Baukunst betreffend [Collection of Useful Essays on Architecture]. Published by members of the Prussian building administration as early as 1797, this collection is generally regarded as the first German construction journal. Similar to the Sammlung, whose readership included up to two thirds of civil servants of the Prussian State building administration, the addressees of the Notizblatt were civil servants academically educated in the abovementioned polytechnic schools. For this audience, the register of the civil servants of the Prussian building administration, placed at the end of each issue, was of special interest.

After the 1848 revolution, the Berliner Architektenverein was principally engaged in the reorganisation of the Prussian building administration. This documents the disciplinary identity that had by then been established. Ministerialabteilung Bauwesen, a ministerial department specifically for the
construction industry was also founded then. As a result, the association’s journal was effectively controlled by the government in 1851. The Architektenverein then published the journal together with the Königlich-Technische Bau-Deputation [Royal Technical Building Administration]. Renamed Zeitschrift für Bauwesen, the journal was now edited by Georg Gustav Erbkam (1811–1876), and published by Ernst und Korn as a double issue on a bimonthly basis. The identification of construction as a distinct discipline is also documented by the absence of content on different kinds of technical sciences. The journal covered specifically topics on construction, which touched on civil engineering, architecture, art history, and archaeology. The remit of the journal became tighter and more specialised to directly address the needs of the experts of the Technical Building Administration. The transition from Notizblatt to Zeitschrift für Bauwesen is also marked by a shift in its contents. The featured designs and debates reflect the reorientation of the journal towards the architectural/artistic side. This was already evident in Schinkel’s efforts to exclude the mechanical engineering papers in favour of architecture, with a special emphasis on representative buildings for the Prussian state. This specification corresponded to the readership of the journal that followed the membership structure of the associations of academically educated civil servants. From 1881 onwards, the Zeitschrift für Bauwesen was published exclusively by the Prussian Ministry for Civil Engineering. As such, it focused on Prussia and Berlin in particular then. In the first fifty years, over 200 exclusive reports on buildings in Berlin had featured in the journal. The two professions were finally distinguished in 1924, when the contents were divided in architecture and civil engineering.

As printing technologies advanced, from eighteenth-century lithography to the rotary printing press and collotyping by the mid nineteenth century, printed works were increasingly produced. By then, they also included more images and drawings than before (Fig. 1). The Notizblatt was produced as folio format (approximately 30 x 40 cm). An additional annually published large-format volume was illustrated with engravings, lithographs, and collotype prints to showcase views, sections, and structural details. This development was also aligned with the professionalisation of the readership, who now knew how to read these drawings and were increasingly interested in detail drawings and normalised examples for actual construction tasks.

Establishing a transregional communication: the different strategies of engineers and architects

In 1856, engineers who had graduated from the Berlin Gewerbeinstitut founded the influential VDI. Although this was primarily organised by mechanical and metallurgical engineers, it also included civil engineers. Such developments signal the increasing specialisation and differentiation between architects and engineers in the mid nineteenth century. It seems that engineers reacted to architects’ increasing focus on an artistic profile. Engineers also begged to differ in their organisational strategies from the architects’
associations. Architectural associations which had been established on the model of the *Berliner Architektenverein* were organised on a regional level, in numerous Prussian provinces and German States.\(^{57}\) They all published their own journals in the nineteenth century.\(^{58}\) In contrast to these regional structures, the member and communication media policy of the VDI was organised transregionally (Fig. 2). It aimed at a 'profound cooperation of the intellectual strength of the German technology to join encouragement and further education in the interest of the entire industry of Germany'.\(^{59}\) Eight years after the failed revolution of 1848, when the German States had not been able to unite politically, the foundation of the VDI could also serve as a means of nation building on the scientific and technical sectors. Civil engineers, tradesmen, and manufacturers were a very mobile and well-informed group of specialists. They were well aware of the advantages of the more centralised technical and economic systems in France and Great Britain. They also witnessed the disadvantages of the federal system for trade. To cite just one example, the customs system obstructed free trade on the Rhine river and delayed railway construction for years. For these professionals, the foundation
of the VDI was a step towards the long-desired unification of the German Empire. The VDI developed rapidly. By 1910, forty-seven regional branches were founded in all German States. Most of them were located at the centres of industrialisation (Fig. 3). After the foundation of the German Empire and the annexation of Alsace-Lorraine in 1871, a local branch was also inaugurated in Alsace-Lorraine in 1895.60

In contrast to the architects’ associations, whose members were mostly academically educated, the VDI was open for non-engineers. It included technically trained mechanics who were employed in the industry or trade. This member policy, which was less restrictive than that of the architectural associations, rendered the VDI as highly attractive for a larger number of members.61 Hence, shortly before the outbreak of World War I, the VDI numbered nearly 25,000 members. This rapid development of the VDI in its first fifty years coincided with the age of the so-called high industrialisation. During this phase, the German Empire transformed itself from a country still dominated by agriculture into a modern industrial state.62
To support scientific and technological exchange among members, the VDI started its own publication, the Zeitschrift des Vereines Deutscher Ingenieure, in 1857. Centrally published in Berlin, this journal aimed to inform VDI members in different German States. By contrast, the specialised journals of various architectural associations were published at each regional association’s own initiative. The editorial office for the VDI Zeitschrift was located in the main agency in Berlin. The same building also included a drawing studio, where the manuscripts’ drawings were engraved for printing. Until 1876, the journal was published on a monthly basis. It focused on scientific publications of all kinds of engineering sciences. Meeting reports of the local branches and patent applications were published separately every week from 1877 to 1883. The weekly magazine of the Association of German Engineers was free of charge for VDI members. Hence, it was addressed to both academically educated
engineers and trained technicians. Non-members could jointly subscribe to it and the Zeitschrift. From 1884 onwards, the two publications were combined in a weekly periodical. Its content covered all technological fields, with a special emphasis on mechanical engineering. As in the architectural associations’ periodicals, magazine and book reviews were regarded as important. Reviews of numerous English and French books showcase the international orientation and multilingualism of nineteenth-century civil engineers.

In contrast to the regional and locally organised architects’ associations, the VDI pursued professional politics from the outset. They demanded the recognition of polytechnic schools as institutions of higher education, with equal status to the humanistic university. Their ultimate objective was to remove the lawyers’ monopoly of management positions in construction administration. The initiative was led by Franz Grashof (1826–1893), a graduate of the Berlin Gewerbeinstitut and later professor of mechanical engineering at the Karlsruhe polytechnical school. Grashof, who had a major influence on the VDI as its director, gave several pioneering lectures at the Annual General Meetings which took place in different German cities in the 1860s. The discussion, which mainly addressed the question of technical education, was disseminated by a series of reports in the VDI journal, as it was of particular interest to the scientific technical community.

With the VDI, technicians, and mechanical engineers in particular, succeeded in creating a transregional association similar to those that were later founded in the German Empire. But in the same period, regionally organised engineering and architects’ associations also attempted to further develop scientific communication within the whole German-speaking territory. From 1842 onwards, they met regularly in the context of the so-called biannual ‘Wanderversammlungen’, which were similar to the VDI’s annual General Meetings. These meetings were organised in different German States by the related local associations. They first met in Leipzig in 1842. In 1894, the meeting took place in Strasbourg, the capital city of the Reichsland Alsace-Lorraine which was now part of the German Empire. On the occasion of these meetings, lectures and excursions on architecture and structural engineering were also organised in the host city. In addition, notable books on the construction history and civil engineering of the respective venue were regularly published in a loose series from 1870 onwards. After the first volume on Karlsruhe, the Berlin volume set the standard for later publications in 1877. The volumes Köln und seine Bauten (1888) or Hamburg und seine Bauten (1890) still look exceptional today (Fig. 4).

After the Franco-Prussian War and the foundation of the German Empire in 1871, a united Germany became a political reality. This enabled the professional associations of architects to establish a national merger of the associations related with the building industry. Numerous architectural associations which had been founded in the German States throughout the nineteenth century could now gather under an umbrella organisation, the Verband deutscher Architekten- und Ingenieurvereine [VDAI; Union of the German Architects and Engineers Associations]. But the VDI did not join the new
union. The dominant, academically oriented Berliner Architektenverein rejected the union with the VDI on the basis of its heterogeneous member structure, which was also open to non-academic technicians.

With the foundation of the VDAI, the Deutsche Bauzeitung became the journal of the new union in 1872. Founded in 1867, the Deutsche Bauzeitung had been the attempt of the Berliner Architektenverein to edit a transregional journal, after the Zeitschrift für Bauwesen had effectively been taken over by the Prussian state. It explicitly aimed to connect geographically separated experts. In 1867, its circulation had reached 3000 an exceptional number for a specialist journal. Its readers were based ‘in all parts of the German fatherland’ and abroad. It was distributed to all members of the association, but external readers could also subscribe to it. In contrast with the increasing specialisation of the construction disciplines, the journal aimed to embrace the differentiated disciplines. It included essays on building science, new inventions in the field of building technology, and news related to construction and building projects in German cities, architectural design competitions, job offers, and literature reviews. Similar to the VDI magazine, the journal also pursued professional politics. The first three volumes already feature two articles on issues of technical education in construction. This topic became increasingly relevant, especially in the second half of the nineteenth century when the technical education system became differentiated in technical universities and Baugewerkschulen [building trade schools], which published their own journals. To distinguish themselves from these technical schools for craftsmen, universities began to regulate admissions to their institutions. In 1901, after disagreements over the technical education system, the VDAI decided to found its own journal. Renamed as Zeitschrift des VDAI in 1912, the journal widened its focus. In addition to new legislation and questions concerning the social status of the architect’s profession, it published architectural and civil engineering projects. Reinhard Baumeister (1833–1917), Josef Stübben (1845–1936), and Josef Durm (1837–1919), among others of the most renowned representatives of their field, also commented on published designs. Baumeister’s essays on urban development of Strasbourg, which became part of the German Empire after 1871, exemplify the journal’s aim to cover the entire spectrum of construction disciplines, including urbanism. Der Städtebau, a specialised journal on urban planning, was edited by Ernst Wasmuth in Berlin only from 1902 onwards.

Transferring scientific knowledge: the publications of the Architects and Engineers Association Strasbourg

The last two periods in Fuhlrott’s five-phase model span from the unification of the German Empire in 1871 to the beginning of World War I in 1914. During the previous three decades, the range of publications had become increasingly broad and extensive. As such, this section will focus on Alsace as its main case study. The Reichsland and the city of Strasbourg, annexed by the German Empire after the Franco-Prussian War in 1871, serve to illustrate the appropriation
strategies of professional associations after the Unification. This is when professional organisations and their journals also served as a means of knowledge transfer and nation building on a scientific level. This case study demonstrates how the associations established under the German administration became bearers of technical knowledge of German-speaking provenance. Works such as the volume *Strassburg und seine Bauten*, which was published by the *Architekten- und Ingenieurverein Straßburg* in 1894, are highly informative sources. They reveal the appropriation strategy of the German Empire via architecture and civil engineering. The volume is one of these elaborately decorated books which were published on the occasion of the VDAI meetings. Its detailed historical introduction tries to construct the history of Strasbourg as a German *Reichsstadt*. The famous local professor of art history Georg Dehio (1850–1932) wrote the chapter on the Strasbourg cathedral, the highly symbolic gothic masterwork presented by Goethe in his seminal essay *Von deutscher Baukunst*. Embracing all construction disciplines, the volume *Straßburg und seine Bauten* presents a cross section of Strasbourg’s engineering, artistic, and architectural production in the first decades after the establishment of the Reichsland (Fig. 5).

The *Architekten- und Ingenieurverein Straßburg* also published a transregional periodical. In 1878, seven years after joining the German Empire, the first volume of the *Zeitschrift für Baukunde* was released. On its front page, it was explicitly subtitled as the ‘Organ der Architekten- und Ingenieur-Vereine von Bayern, Württemberg, Baden, Straßburg, Frankfurt a.M., Mittelrhein, Niederrhein-Westpfalen und Oldenburg’ (Fig. 6). The magazine was produced by the publishing house of Theodor Ackermann on a quarterly basis in Munich. It was edited by W. Wittmann, then associate lecturer at the Royal Technical University in Munich. In addition to experts from Cologne, Oldenburg, Munich, and Stuttgart, the editorial committee included Reinhard Bau- meister from the Technical University in Karlsruhe as a prominent member and ‘Abtheilungs-Baumeister Caspar, Strassburg’ as local member. The magazine *Zeitschrift für Baukunde* was an attempt to present a Southwestern German alternative to the Berlin-focused reporting of the *Deutsche Bauzeitung*. The second volume of 1879 features two reviews related to Alsace-Lorraine: the *Elsass-Lothringisches Baurecht* (Alsace-Lorraine building law) by Förtsch and Caspar, the abovementioned member of the editorial committee. The journal also published the minutes of the commission for the expansion of Strasbourg, including a jury member’s comments on the development plan, as noted in the *Deutsche Bauzeitung*. But overall, the journal focused more on civil engineering than architecture. Although the two abovementioned reviews were published in the first seven years, the journal did not feature an essay on the city of Strasbourg. Only a few contributions on the art history of Alsace were included. Two reports are especially significant for building technology transfer: an article on river and canal constructions in France, and one on French bridge building. From 1885 onwards, the *Zeitschrift für Baukunde* merged into the *Wochenblatt für Baukunde*. This appeared weekly as a special edition of the *Deutsche Bauzeitung* from 1888 to 1890. When it finally merged with the *Deutsche Bauzeitung* in 1891, the attempt
STRASSENBURG
UND
SEINE BAUTEN.
HERAUSGEGEBEN
VOM
ARCHITEKTEN- UND INGENIEUR-VEREIN
FÜR ELSASS-LOTHRINGEN.

MIT 655 ABBILDUNGEN IM TEXT, 11 TAFELN UND EINEM PLAN DER STADT STRASSBURG.

STRASSENBURG
VERLAG VON KARL J. TRÜBNER
1894.
to establish a regional journal for southern Germany had come to its end. Nevertheless, the *Wochenblatt für Baukunde* is relevant, because it featured construction projects which were important for the city of Strasbourg, alongside the discussions of the local association *Architekten- und Ingenieurverein Elsass-Lothringen*, such as the winter reception of 1886. The competitions for the *Landesausschußgebäude*, or for the *Kaiserpalast* (1890), were also presented in several essays (Fig. 7). There was also a report on new construction of the church Jung St Peter. The renovation of the Strasbourg cathedral and the staffing of the cathedral master builder was a recurrent issue. Engineering reports included an essay on the port and regulation of the Upper Rhine.

In the magazines of these professional associations, Alsatian construction projects, especially in Strasbourg, are underrepresented in comparison to Stuttgart or Munich. That the technical associations founded before the unification of the Empire, such as the VDI, were foregrounding supra-regional issues could explain this. For architectural journalism, the building industry in the new Reichsland Alsace-Lorraine seems to play a marginal role. It was only considered by magazines limited to southwestern Germany. This indicates that Berlin was the main focus of architectural journalism at the time, which in turn documents the increasing dominance of the capital of the empire. Knowledge transfer between the capital and the other states of the German Empire was guaranteed by the publications of the professional organisations. The Alsatian members received the associations’ magazines regularly. This could have also served as an appropriation strategy that reinforced the ties of the newly annexed Reichsland to the Empire. The professional association’s supra-regional structures further encouraged the mobility of technical staff, especially in building administration. Civil servants in architecture and engineering who emigrated from the German States to Alsace-Lorraine were highly mobile during the nineteenth century. As a result, they were also up to date with the latest technical and architectural developments in various locations through the regional associations and their magazines.

**Conclusion**

Technical professional associations and their publishing strategies offer a representative overview of the development of architectural and engineering journals in the nineteenth century from the vantage of cultural studies. The journals developed from initially amateur polytechnical ventures on a regional level to media of supra-regional knowledge transfer. This development coincides with the gradual professionalisation of the technical construction industry. This is especially relevant for the professional group of civil servants in building administration of the German States.

In the mid nineteenth century, the differentiation and specialisation of technical disciplines, architecture and engineering, develop rapidly as the German States are increasingly industrialised. In this phase, associations of engineers and architects pursued different professional policies and communication...
Der Kaiserpalast zu Straßburg im Elsass.


strategies. The VDI membership policy followed an integrating structure inclusive to all kinds of technical staff. The architect’s association foregrounded their academic and artistic profession, as is evident in their respective journals which focused on architecture.

With the founding of the VDI in 1856, engineers shaped the national scientific community, while shifting the centre of activity to Berlin. By contrast, the architectural associations of individual German States published their own magazines. Some tried to join forces to promote an emphasis on the German south and west, with the Zeitschrift für Baukunde. Nevertheless, the general trend developed unobstructed, as is evident by the merging of the Zeitschrift für Baukunde with the Deutsche Bauzeitung in 1891. As the parallel political process of unifying the German States in a nation structure centred in Berlin unfolded, architectural associations followed the engineers’ model to establish the VDAI. In conclusion, in the nineteenth-century German States, professional associations and their journals contributed significantly to the process of nation building on a scientific level that was also specific to each technical discipline.

Notes and references


9. Ibid., p. 44.

10. Ibid., p. 27; Fuhlrott, Deutschsprachige Architekturzeitschriften, pp. 262–65.

11. Fuhlrott, Deutschsprachige Architekturzeitschriften, p. 262.

12. Ibid., p. 263.


16. Fuhlrott, Deutschsprachige Architekturzeitschriften, p. 262.


19. At the time, this was more of an agricultural fair rather than the beer festival of today. See Buchner, Zweyter Jahres-Bericht, p. 7.


25. The magazine was published until 1929. It was succeeded by Beuth-Tisch from 1939 to about 1944. See Berlin-Brandenburgisches Wirtschaftsarchiv <https://www.bb-wa.de/leistungen/bibliothek/44-bibliothek/2/522-beuth.html> [accessed 3 September 2020]


28. The term ‘Technologie’ was invented by Johann Beckmann in 1777. For a definition, see Strecke, Anfänge und Innovation der preußischen Bauverwaltung, p. 19.

29. For the technical education system, see Vom Baumeister zum Master: Formen der Architekturlehre vom 19. bis ins 21. Jahrhundert, ed. by Carola Ebert, Eva-Maria Froschauer and Christiane Salge (Berlin: Universitätsverlag der TU, 2018); Architekturschulen:


32. Picon, L’invention de l’ingénieur moderne.


37. Berlin had two technical educational institutions. They were both subordinated to Beuth in 1824. See Rottau, ‘Schinkel der Moderne’, p. 227.


41. Bolenz, Vom Baubeamt zum freiberuflichen Architekten, p. 133.

42. Ibid., p. 133.

43. Ibid., p. 134.


45. Strecke has challenged this view. He has noted that questions of architecture were already addressed in mid eighteenth-century art journals. See Strecke, Anfänge und Innovation der preußischen Bauverwaltung, p. 92 (note 23).


47. Fuhlrott, Deutschsprachige Architekturzeitschriften, p. 43.

48. Ibid., p. 39.


50. It later became the Ministerium für öffentliche Arbeiten [Ministry for Civil Works].
51. This Berlin architect had friendly ties with Friedrich August Stüler (1800–1865). A pupil of Schinkel, Stüler served as the Prussian building inspector. He was also the architect of the Neues Museum in Berlin.


55. The rotating printing press was invented by August Applegath in 1846. See Fuhlrott 1975, *Deutschsprachige Architekturzeitschriften*, p. 13 (note 2).


57. Among others, these included the Württembergischer Verein für Baukunde in Stuttgart (1842); the Sächsischer Ingenieur- und Architektenverein in Dresden (1846); the Architekten- und Ingenieurverein im Königreich Hannover (1851); and the Bayrischer Architekten- und Ingenieurverein in Munich (1867). See the diagram of the foundations of associations of architects and engineers (1824–1912) in Bolenz, *Vom Baubeamten zum freiberuflichen Architekten*, p. 401. After the ‘start-up boom’, the industry continued to grow until the end of the century. Additional associations were formed in numerous German States in individual industrial cities, twenty of which lay on Prussian territory. See the directory of Architekten und Ingenieurvereine and their periodical publications in Fuhlrott, *Deutschsprachige Architekturzeitschriften*, p. 351.

58. Among others, see the Zeitschrift des Österreichischen Ingenieur-Vereins which was published by the Austrian engineers’ association since 1849; the Notizblatt des Architekten-und Ingenieurvereins für das Königreich Hannover which was published by the association of the Kingdom of Hanover (that remained independent until the annexation of Hanover by Prussia) since 1851. After 1896, this was published together with the association of Saxonia. This confusing mass of publications was covered in the multi-volume *Bibliographie zur Architektur im 19. Jahrhundert 1789–1918* by Stephan Waetzoldt. The development project of the Berlin State Library was carried out by Verena Haas in the 1970s. Unfortunately, the VDI-Zeitschrift was not included therein.


60. For the foundation of the local branch in Strasbourg (1895), to be later renamed in Alsace-Lorraine (1896) and a first list of members, see Christiane Weber and Peter Liptau, ‘Zeugen des Aufschwunges: Elsässische Bauschaffende und die deutschen technischen Berufsvereine’, *METACULT*, 4 (2015), p. 56.

61. Member lists were published in the Zeitschrift des Vereines Deutscher Ingenieure. The lists from 1890 to 1965 are sorted as individual books for regional associations (KIT-Bibliothek: ZA 750).


63. The contributions of the Zeitschrift des Vereines Deutscher Ingenieure are not included in Waetzoldt’s work. Journal volumes are accessible via table of contents volumes.


67. Ibid.

68. *See Berlin und seine Bauten*, ed. by Architektenverein Berlin (Berlin: Ernst und Korn, 1877).


70. Bolenz, *Vom Baubeamten zum freiberuflichen Architekten*, p. 140.

71. Ibid., p. 141.

72. After 1868, this was the successor of the *Wochenblatts des Architektenvereins zu Berlin*. See Fuhlrott, *Deutschsprachige Architekturzeitschriften*, pp. 81–82.

73. The journal was established as *Wochenblatt*. After just one year, its name was changed to *Deutsche Bauzeitung*. See Fuhlrott, *Deutschsprachige Architekturzeitschriften*, p. 81.


75. Ibid.

76. See Fuhlrott, *Deutschsprachige Architekturzeitschriften*, p. 81. In collaboration with the University of Montréal (École de bibliothéconomie et des sciences de l’information), a project on the bibliometric exploitation of this journal is currently underway. Since the journal was published on a weekly basis, the time required for processing the material is significant.


79. Fuhlrott, *Deutschsprachige Architekturzeitschriften*, p. 82.

80. Reinhard Baumeister studied at the polytechnics in Hanover and Karlsruhe, where he became professor. After Josef Stübben, he is the most influential urban planner of the period. His work developed urban planning as a scientific discipline to be taught at technical universities thenceforth.


82. Froschauer, *“An die Leser!”*, pp. 28–29.

83. The period from 1900 onwards is already well studied. See Froschauer, *“An die Leser!”*; Mittmann, *Der Industriebau*; Ciré and Ochs, *Die Zeitschrift als Manifest*.


The local branch of Strasbourg was founded in 1895. It was renamed in Alsace-Lorraine in 1896, when the first list of members was also compiled.

According to this professional title, he must have been a member of the building administration. See the front page of the *Zeitschrift für Baukunde*, 4 (1880).


