2. Architects as Experts of the Social: A new Type entering the European Scene

Most visitors to the Melnikov house in Moscow are probably surprised by what they see. Not only is the famous piece of architecture, erected between 1927 and 1929 by Russian architect Konstantin Melnikov, hard to spot behind fences but what remains visible is in a rather deplorable state. Further, visitors are confronted with another striking feature of this house known for its avant-garde architecture. It has, of course, long been common to note architects’ names on the buildings they have erected, or to refer to an architect’s workshop in some other visible way. Melnikov took things to the extreme: the inscription “Konstantin Melnikov architect” runs along the whole façade of his residence and workplace, atop the enormous window which takes up almost the entire front of the house.

Melnikov’s confident statement can be seen to reflect three important changes in the architectural profession:

First, the Melnikov house was one of the prime examples of ‘signature’ houses of the 1920s from the outset. Thanks to the mass media certain houses attained iconic status in the transnational framework of what came to be known as the modern movement or International Style. We may assume that such buildings were conceived with a view to their signature-character and even their ‘communicability’.

Second, such buildings represented their creators and in some cases also turned him or her into a trademark in a way that was unfamiliar to older architectural styles and only emerged in the 20th century. Similarly, each building testifies to the visibility of a single architect based on her or his outstanding creativity as demonstrated by breaking the rules of the art instead of applying them. Each building embodies the linking of a new vision of architecture with the zeitgeist and the promise that architecture could bring about radical social change. And, of course, it was no co-
idence that the radically modernist statement Melnikov made was possible in the country and city which was most affected by the social and political upheaval in Eastern and Central Europe which followed the First World War.

10. Melnikov house, Moscow, front façade

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To view the image, please refer to the print version of this book.
Third, the dramatic positioning of the word “architect” on the front of the building should, finally, also be read as signalling self-empowerment and an expression of the broadening spectrum of the architectural profession. Melnikov himself rethought the scope of architecture and embarked on new forms of buildings, including a number of remarkable large-scale garages. The same was true for many other modernist architects who aspired to use their expertise in newly emerging domains or those which had not been seen as pertaining to the architectural remit just a few decades earlier. This process soon went far beyond building in the narrower sense.

Tellingly, and confirming the above three points, Melnikov used his status as an outstandingly original and creative architect to exercise a degree of independence which, even in the more liberal Soviet Union of the 1920s, was highly unusual. Indeed, this was one of the reasons he was able to build his famous house in central Moscow where almost no one else was allowed to erect private houses.3 The architect Melnikov, who designed Lenin’s sarcophagus, fulfilled an important political function as expert of innovation in the built environment for the new regime. The example of Melnikov thus demonstrates a link which is central to this chapter and this book as a whole: the public dimension of architects and the connection between experts and political legitimacy. These need to be seen as two sides of the same coin.

This chapter will analyse this link by first asking how far architects should be seen as experts and how that characteristic enhances our understanding of the changes described. The chapter will then look at how architectural training reflected these architects’ new status as experts. Finally, the chapter will ask how the image of architects changed and what this tells us about the new scope of the profession, the way architects thought, and which topics they used to enter the wider cultural, social and political debates. In so doing this chapter will also establish the time-frame of this study, from before the First World War until just after the Second World War. Based on the assumption that modernist architects, in a narrower sense, emerged during this period, this chapter argues that this group lifted the profession to a new prominence in a number of fields not necessarily related with the building trade.

**New Tasks for Architects**

To understand the deep transformation of at least parts of the architectural profession it helps to see modernist architects not primarily as builders but as experts. At first glance architects might seem to be a less than obvious example of experts. They might rather be labelled as artists, belonging to the realm of style rather than to the
realm of social change and technology which is generally associated with experts. However, this assumption neglects the deep transformation that the architectural profession underwent over the last 150 years. Referring to architects as experts conveys the techno-scientific dimension which became so central to that profession in the 20th century. For large parts of the profession in Central Europe change was limited and reduced to the application of new building technologies and attempts to – also legally – secure one’s status as a profession. Yet, for a significant part of the group, the transformation not only involved professionalization, but also entailed inroads into a vast array of problems in the fields of hygiene, planning, efficiency and many others.4

The architectural profession has a pedigree stretching back centuries and some recent publications have highlighted its continuity throughout the ages.5 Yet, with good reason, the second part of the 19th century can be seen as a turning point for the profession. At that time two competing models of higher education had emerged: the beaux-arts tradition versus the architecture taught in the rapidly expanding technical universities. Town planning only emerged as a discipline in its own right, with a decisively scientific outlook, after 1900.

The changing position of the architect was already perceived as a critical point in the late 19th century. The new need to share work along with competition from engineers and other specialists now entering the building trade challenged the role of architects – as did the new definition of the relationship between architecture and art. After the First World War, the profession was confronted with a threefold challenge: reconstruction in the wider sense, a strongly felt need to make sense of the catastrophe of the war and the deep change it incurred, and, finally, the extreme effects of the world economic crisis which affected the profession both in its daily work and also on a very personal level. In Germany around 90 percent of architects were unemployed around 1930; in other countries, including those in East Central Europe, the situation did not differ greatly.6

Yet, the wider architectural framework had now changed, at least in Central Europe. In Germany and the new states of East Central Europe the post-monarchical state needed to prove its political legitimacy, not least through its technical and social efficiency, as has been shown in the previous chapter. For the new architects this resounded strongly. Architecture critic Adolf Behne remarked in the 1920s that “the architect is today easily more hygienic than the hygienist, more sociological than the sociologist, more statistical than the statistician and biological than the biologist”.7 Behne thus hinted at a tendency which could both be qualified as quests from an ever more complex society, looking for experts of the social in the
critical cross-section domain of housing and urban space, and equally as the successful self-empowerment of architects that was encountered in this period. Fritz Schumacher claimed in the 1930s that the architect was intervening into questions which *per se* are beyond his artistic sphere. The architect’s thinking, Schumacher concluded, was broadening and he was embracing the “territory of social problems, economic problems and technical problems”. Schumacher, one of a number of architects who became town-planners and shaped the urban outlook of Hamburg before and after the First World War, embodied this transformation himself.

This transformational link was most expressed in the new states of East Central Europe, not in terms of the number of houses built but in the manner in which the political, social and cultural impetus of modernization via architecture and urbanism were entwined. Poland, Hungary and Czechoslovakia were all confronted with a unique mix of challenged political legitimacy, the need to build new economies, and a serious housing crisis. These challenges converged in the old-new capitals of these new states, with Warsaw being the most telling example. Unsurprisingly, Polish experts on urban matters would constantly stress both the “impairments” of the Russian legacy of the city, as well as opportunities deriving from what was evoked as an almost *tabula-rasa* situation in order to gain support for their schemes and recommend themselves as nation-builders in the wider sense of the word.

The Swiss architect and temporary head of the *Bauhaus* Hannes Meyer summarized the complex mix of architects’ new ambitions and the new expectations as to what they could achieve: “The architect – formerly an artist, nowadays an organizer”. Of course, such claims do not necessarily describe a new reality, and the progressive interwar architects notoriously overrated the transformative social potential of new building technologies. Yet, it is equally clear – albeit largely because many politicians shared the architects’ optimistic assumptions that they were experts of social problems – that architects did come to play a critical role in newly emerging planning bodies. This was impressively embodied by Ernst May as *Stadtbaurat* of Frankfurt and his sweeping and encompassing *Neues Frankfurt* programme. With regard to the numbers of architects involved, other examples such as the Bureau of the London County Council or the planning body of the city of Warsaw, which employed several hundreds of architects and engineers, were even more remarkable and testify to the central role architects attained in planning in general.

Before taking a closer look at what the expert status of architects entailed, how architectural training changed and increasingly contributed to this status and how this led – at least for a certain group of architects – to a new type, a new *personae* of architects, two general characteristics of the profession need to be stressed:
First, there was the extraordinary dependence on sponsors, which set architects apart in comparison to other professions. With the exception of film-directors there is probably no other group equally dependent on sponsors to push through projects. Architects, who often envisaged themselves as demiurges capable of changing the world, constantly oscillated between high-flying plans and being condemned to inaction in practical terms. At the same time the chance to realize plans was highly dependent on being able to adapt oneself to the variable wishes of awarding authorities. Even when architects succeeded in winning a commission, larger projects were particularly reliant on a high degree of stability for a long period to see the project through to its conclusion. With industrialization and an increasingly complex economic, juridical, technical and social context as regards building, this became even more urgent. The period under question saw the rise of new collective bodies of the welfare state and a new degree of municipal activity in the housing sector, to which architects had not only to adapt but which also offered them important new opportunities. But this period also saw a complete change in many states in the nature of the public contractor as a result of the rise of authoritarian regimes. The latter offered huge new opportunities for architects as building became central to their legitimation strategy and as, at least in theory, these regimes offered possibilities to push through large-scale and long-term projects which would have been far harder to realize in democracies. Yet, unlike previously, these regimes demanded a degree of loyalty, even ideologically. This was another reason that the tension between precarious status and demiurge aspirations, always typical of the architectural profession, was much more pronounced after the First World War.

Further, while viewing architects as experts contributes towards a better understanding of the course which a significant part of the profession took, we cannot fully grasp architects and the new chances they seized without taking the aesthetic dimension of their plans and buildings into account. This aesthetic dimension always stood at odds with the technical and engineering side of the profession. As the technological side of the profession increasingly gained importance in the interwar period, this tension became more clearly felt. The progressivist constructivist painter Franz Wilhelm Seiwert remarked in 1931 that the architect had “turned into an emblem of planning thought (planerisches Denken) aimed at building and thus into a symbol of progress through modern technology.”
This illustration has intentionally been removed for copyright reasons. To view the image, please refer to the print version of this book.

11. Franz Wilhelm Seiwert, *Der Architekt*
Seiwert’s observation points to three important changes.

First, the new cultural significance awarded to architects caused by changes in mass media, in particular the rise of photography and film, perfectly illustrated the new actual or expected possibilities of modernist building and housing. Some important and influential architects responded to this change by developing a new habitus and even turning themselves into a brand, personifying the projected social expectations.

Second, an accelerated professionalization and specialization emerged which went hand in hand with a massive broadening of the scope of architects who were increasingly becoming experts of comprehensive social tasks. Architects connected successfully to the thriving hygiene movement and the wider concept which approached urban space under newly conceived scientific auspices. Architecture became more than ever, as Dutch architect Heinrich Petrus Berlage had it, “the social art par excellence”.16 This also implied that architecture supported and profited from the profound social mobilization of the time as well as the social differentiation of modern societies. Modernist architects planned both new forms of individualism and – this does not need to be a contradiction – new forms of collectivity.

Third, architects underwent what could be labelled a double technification, both directly and indirectly. It was direct through the new technologies at their disposal, such as large glass surfaces and reinforced concrete, both spectacularly used in skyscrapers. Indirectly technification occurred in the wider sense of social engineering, inspired by new technical possibilities and the imagined and real new opportunities to solve the housing problem with all its social implications. Here statistics and new sociological approaches to understand urban society also played an important role.

The new discipline of urbanism, only developed around 1900, became an expression of these new opportunities offered by the rise of statistics, sociology, planning and technology and new societal demands for improved urban space.17 Yet, this discipline had partially evolved in response to the forceful self-empowerment of architects who successfully threw themselves into the thriving discourse of planning, defined the problems which were to be solved, and marketed themselves as experts for all matters urban. With all the caution needed in treating such generic results, this trend is very clearly reflected when looking at how often the term architect or architects was used in publications in the 19th and 20th centuries. Between the end of the First World War and the mid-1920s the term was more than 60 percent more likely to show up in publications than before the war. The term urbanism, which was hardly used before the First World War, had gradually become more common after 1918 but, between 1927 and 1933, it became five times more used.
than before the war. The first town planners, albeit frequently lacking a clear job specification, were often architects, confirming their claims to be extending beyond building proper. Berlage worked on an extension plan for Amsterdam, Le Corbusier made his name with his radical urban design for Paris, and Fritz Schumacher’s track record in Hamburg made him a role model for the new job profile.

The most important reason for the new social clout of architects was the serious nature and also more urgent discussion of the problem of housing after the First World War. As explained in chapter 1, the housing question had turned into a field of action for the post-monarchic state. Housing was now much more clearly framed as a social problem which would have immense negative consequences if left unresolved and, at the same time, was a task for a new kind of expert. Meanwhile, the housing problem was clearly connected to the architects’ uncontested expertise in building. The theme allowed architects to profile themselves as engineers of social problems while still clearly distinguishing themselves from engineers or social scientists, such as statisticians who were able to analyse problems but rarely had the skills and tools required to solve them.

Architects and the Rise of the Modern Expert

The transformation of architects into broad-ranging experts was part of a much wider process, namely the rise of technical experts dating from around 1850. Tellingly, the term expert only became widespread in the nineteenth century, reflecting a new reality. At that point gaining formal qualifications became a pervasive phenomenon. Indeed, the availability of increasingly complex technical and scientific knowledge gave rise to a discernible group which could bargain with the state and society, whilst international exchange became a ubiquitous phenomenon throughout Europe and beyond.

Moreover, the term expert came to reflect the performative aspects so central to architects. They relied on communicative processes and symbolic acts, and the interchange between actively striving for a new position and expectations of the state or society, to a greater degree than other professions. Experts act within a triangle comprising academic qualifications, the mediated public sphere, and the state (that is, government and administration). Formal qualifications do not suffice, particularly for the public acceptance of experts. Public standing played a key role in one’s own professional authority, particularly with regard to architects. Further, linking up with the dynamics described in chapter 1, experts not only enabled state expansion but also depended on state expansion. Experts often framed the prob-
lems required to be solved by politics and administration. The relationship between experts and the nation, that is, the question of loyalty and the identification of experts and national progress, was not always congruent with state activity. The more the state relied on experts, and thus enhanced its position, the stronger the political imperative to control experts.26

As regards the architects in East Central Europe, and Poland in particular, it is essential to recall that the territories within which they acted had, until 1918, been part of the landed empires dominating the region. To the new experts these empires were also empires of opportunities. The infrastructures that held the empires together, along with large new technological projects, dams and traffic arteries that formed their new power resources, significantly increased the autonomy of experts as the empires’ dependence on these experts grew. This created surprising degrees of mobility for those committed to solving the empires’ technological challenges.27 The empires also offered extensive structures for professional training in exchange for loyalty.28

This is why the rupture of 1918, the fading of empires, and the emergence of new nation states had such an impact on experts in East Central Europe.29 Experts in the region underwent the process described as territorialisation, that is, the process of new forms of political control facilitated by technological progress, which, as historian Charles Maier argues, started around 1850, in a two-pronged manner:30 first, they became attuned to the needs of the empires which were all undergoing, with more or less success, a rapid and often forced modernization in the decennia before the First World War. Thereafter, they became key players in the building of new nation states after 1918. This rupture, along with many other necessary adaptations, forced experts, if they had not already done so in the preceding years, to realign their loyalties. They had to turn into experts of the post-imperial and post-monarchical state.31

When Baltazar Brukalski, son of the famous and influential architect couple Stanislaw and Barbara Brukalski, looked back on his parents’ lives he stressed that they saw their architectural profession as an expression of their social mission and culmination of Poland’s newly acquired independence.32 ‘National engineering’ offered enormous opportunities, but the experts also had to realize that it became more and more necessary to decide where their loyalties lay, beyond their mere professional identity. The flipside of this process entailed increasing constraints and coercion for technical experts who aligned themselves more closely than before with certain political regimes.33
With the establishment of new states, or at least new political systems like those in Germany and Austria, technical experts were clearly in a critical position in those fields where those states needed to prove their ability to solve post-war problems. This was even more the case where military defeat and social crisis coincided or where the war, even where the results were perceived to be positive, had changed the political regime and brought about completely new political entities. In an extreme way, the rupture of 1918 in Central Europe highlights the engagement of experts in the nation-building process. We find this link in the self-empowerment of experts in Hungary’s “engineer utopia” as in the general claims by technical elites that, after the planning and technological advances made during the First World War, it was incumbent upon them to take over power.34

Such notions involved professional protectionism, for example, in demanding that no foreign specialists should take qualified positions in the administration that could be filled by native experts, or trying to prevent state intervention in what was perceived as the deserved rights of one’s group. However, such technical experts were scarce. In Poland they were mainly to be found in the formerly Austrian territory, where the relevant training had been easier to secure for Poles. In 1931 it was estimated that there were only 25,000 technicians and engineers in a country of some 32 million inhabitants, as a result of the restrictive policy of the partition powers that lasted until the end of the First World War. Only about 10,000 of these had graduated.35 Having spent almost the entire second industrial revolution, that is the rise of science and new production methods in the decades before the First World War, lacking important training facilities, the new Polish state relied mainly on two sources, along with the small technical elite trained before 1918. The government’s attempt to encourage the return of Polish experts from Western Europe and the USA had only limited success.36

Thus the newly-trained experts in East Central Europe had to fill a vacuum in a double sense. They had to fill positions now vacated by people who had more or less been forced to retreat to Russia, Germany and Austria. Further, these experts also had to fill the vacuum of political legitimacy left by the collapsing empires and confronting the new nation states. In this sense we should also treat these experts as an elite whose narrower professional identity often – not always – entailed a certain social and even political function.

Building, in all its facets, was of key importance to the new state – from representing the new nation to constructing houses for the many who were now symbolically enshrined in the new nation and deserving of its care – and architects became textbook examples of this new elite. In Poland architects also had to fill a vacuum
left by constraints imposed on professional upward mobility, in particular in the Russian partition territories. The striking example of the newly built city of Gdynia, where there were only eight architects to oversee the construction of 600 buildings, is a telling case in point. At least equally important was the second vacuum, these new states’ lack of legitimacy. The moment a new Polish state became potentially viable in 1916, architects projected themselves as new experts of state building. Already in 1915 architect Tadeusz Zielinski termed reconstruction as the mission of the nation yet to come into being. Both architects and society, Zielinski demanded, had to understand the role of art in shaping the nation. No other art carried a responsibility comparable to architecture, he argued. Of course, every professional group wanted to shape this situation of historical rupture in their favour. But against the background of the development which has been explained in chapter 1, architects now had a much higher chance of being accepted in such a prominent position or even of being sought after and finally pushed into such a position – or of profiting from positions which only gradually became available. The rapid career rise of Roman Feliński, who was born in 1886 and trained at the architecture department of the Polytechnic School of Lviv, demonstrates this link between demand and supply. Feliński, who very early on proposed all-inclusive solutions to tackle the notorious backwardness of towns and villages in Eastern Poland, quickly secured a leading role in the Ministry of Public Works after Polish independence. His new style of planning was directly linked to the war-time destruction of some 150 small towns and 1500 villages in Galicia as much as the newly-built town of Gdynia.

Training Modern Architects

It is, however, not sufficient to study the demand of newly emerging nation states and the challenges they faced in their new capital cities. We also need to look at the supply side, at how the architectural profession changed, how this was reflected in their training, and just how far the underlying process prepared architects to fill in the role of experts sketched above. In this respect, Feliński was rather the exception to the rule, or formulated differently, an intermediary figure between those architects trained in the traditional way and a younger generation whose training directly reflected the needs of the new nation state.

In 1907 Karl Scheffler, one of the most influential critics of architecture of the early 20th century, published his study Der Architect as a series of “socio-psychological monographs”, edited by the philosopher Martin Buber. Scheffler grasped
how, in the years before the First World War, different lines in the development of the profession had crossed and arrived at a junction. At this critical moment in the profession’s history architects were entering into manifold new domains just as the very fundamentals of their profession were being threatened. According to Scheffler, the many new needs arising from the emergence of big cities and industry were decisive in terms of the profession’s development. During an extremely brief period architects had been confronted with new demands to solve problems of planning, mobility and housing the masses. It was no longer the traditional private sponsor who determined progress, instead it was “the impersonal economic idea”. Another new element was that architects had to anticipate the future in everything they did.41 Two seminal changes were at the bottom of the development which Scheffler sketched – the rapidly expanding role of technology and, partially connected, the emergence of the field of urbanism.

These developments went much further and deeper than what could more narrowly be described as professionalization and which also characterized other professions.42 Architects also tried to standardize diplomas and to set up professional organizations, ideally with internal legislation. They further tried to limit access to the profession and to protect the professional title of architect. Like other professions, architects strove to gain autonomy vis-à-vis the state and society.43 However, the focus on professionalization should not obscure that various and partially competing models remained in place for a long time. As regards education, training with an exceptional personality stayed characteristically important for architects, reflecting the artistic aspect of the profession.44 It was not coincidence that the three leading figures of the modernist movement, Le Corbusier, Walter Gropius and Mies van der Rohe, had all trained with the same architect and designer – Peter Behrens.45

As in the engineering disciplines, in general, the drafting cultures in architecture began to change and became more distinct – including along national lines – and increasingly began to take new technological opportunities into account. An ever more standardized and academically taught drafting technique served the intention of keeping vocationally trained draftsmen out of the profession.46 Technology began to play an ever bigger role in the education of architects.47 As part of this process architectural education – while taking on board new engineering techniques – also split from construction engineering, which turned into an academic discipline in its own right.48 The two academic professions of architect and construction engineer became the formal expression of the long-standing “sibling rivalry” between architects and engineers in the 20th century.49 While this trend suggested that architects would, in the long run, rather work in bigger units, the ideal of the free-
lance architect remained intact and remained the predominant model in Central Europe.

When emphasizing the effect of professionalization one should not forget, however, that until well into the 20th century a variety of educational paths, including vocational schools, led into the profession. The educational record of even the best known modernist architects, who were so proud of their technical versatility, was strikingly poor. Walter Gropius withdrew from his studies without a degree. Le Corbusier only attended a vocational school for watch-engraving. The Dutch pioneer of modernist architecture J.J.P. Oud studied at a range of vocational handicraft schools. Ludwig Mies van der Rohe made his way into the profession as the son of a building contractor without special training. Some have judged Mies to be the architect of the century, yet he never studied architecture and, aged 72, he was asked by the U.S. authorities to amend his lack of proper qualifications when finishing the famous Seagram Building in New York.\(^5^0\) Gerrit Rietveld’s schooling consisted of furniture-making lessons from his father, while Theo van Doesburg’s education entailed theatre classes.\(^5^1\) These examples highlight that, well into the 20th century, informal education and practical experience still remained important resources. Moreover, these examples show how other factors such as symbolic capital or vision helped in attaining expert status.

In comparison with other liberal professions like doctors or lawyers, the emergence of architects working independently occurred very late. It was only by the end of the 19th century that a group, distinct from the architects working for the government, and those busy in the building trade as craftsmen or entrepreneurs, appeared in Central Europe and quickly took the lead in new trends in the profession. Competition with architects employed by the state, whilst dominating the private sector, remained a key issue throughout the first half of the 20th century.\(^5^2\) Free architects did of course profit from the growth of the building sector from the late-19th century onwards, and could thus increasingly give self-assured voice to their demands and visions.\(^5^3\)

The new context of the profession which Scheffler had sketched out only ushered in new training institutions after the First World War. The most famous were the Bauhaus, established in Weimar in 1919 and the VKhUTEMAS in the young Soviet Union, both of which conceived the training of architects as part of the social experiment of the Weimar Republic and the Soviet Union respectively.\(^5^4\)

For the questions asked here, and for the specific group of modernist architects central to this study, the classic aspects of professionalization are less enlightening. The emergence of this particular formation is more convincingly to be grasped in
terms of technification – and the respective changes in education. The new importance of the engineering side of architecture went much further than the command of new techniques, such as reinforced concrete. The need to command technical knowledge stressed the scientific aspect of architecture at the expense of the architect’s identity as artist. With this changing self-perception the modernist architects’ pretence to offer solutions to problems exceeding building in the narrower sense also grew.55

This trend also informed the development of the profession in East Central Europe, as the Polish example clearly shows. However, there were some noteworthy specifics which help to explain why the promise of technology attained such a prominence here. The transformation of architects went hand in hand with the regulating effort first of the empires in East Central Europe and then of the newly emerging nation states. To a greater degree than in Western Europe this process was intertwined with a reconfiguration of elites. It was in part due to a traditionally weak bourgeoisie that architects, just like other free professions, were quick – and somewhat successful – to declare that their own struggle for autonomy lay in the national interest of the newly emerging states, of which they aspired to become elites.56

Both the pronounced elite function of architects in Poland and the specifics of their training vis-à-vis Western European countries are reflected in what became the foremost institution of training architects in Poland in the 20th century, Warsaw University of Technology (WUT). The setting up of the WUT in 1915, and its department of architecture, as well as its pre-history, all form cases in point. The institution opened in November 1915, shortly after German troops had conquered Warsaw from Russia, the former imperial power. The WUT was not a completely new institution, but the German occupants went to some length to mark the caesura. They celebrated the opening with – given the wartime situation – remarkable ado and ceremony.57 The fact that a film was produced specifically for the occasion, to project the event’s significance to a broader public, underlines that this was more than just a measure to get the urban infrastructure running again.58

The German occupants obviously hoped to win the hearts of the Polish population by presenting a highly attractive, though somewhat tainted gift. They offered university training in Polish language, which the Russians had not been willing to grant before 1915. Moreover, they provided – albeit because they regarded this as a function of their military goals – the Poles with a substantial say in the new institution. For the Polish elite, the WUT, and its department for architecture, mattered a lot, even under less than ideal circumstances. The new institution provided the chance to make up for a development which had been derailed long before.59
The construction of the building in which the WUT was housed is characteristic of its transnational conception. Trying to merge the best traditions available, two Polish architects had visited the predominant sites of technical education in Europe, and merged the architecture of these schools into their own, original contribution. A similar synthesis governed the setting-up of the WUT’s faculty of architecture. Its professors had been mostly educated abroad given the lack of any suitable Polish institution. For this reason the architecture curriculum was marked by a blend of various European traditions. The Department of Architecture was one of the first in Europe to feature a chair of urban planning and to include the social dimension of architecture that was so important for the profession’s role in the envisaged new state. The fact that there were few traditions standing in the way of establishing – also in European terms – a state-of-the art approach quite obviously helped to bring this about.

With all impediments that the war and the occupation incurred, the three years between 1915 and 1918 still offered a window of opportunity. Networks were established during the war, for example, when German advisers evaluated an urban master plan for Warsaw conceived by the WUT professor Tadeusz Tółwiński. The political undertones of the WUT’s architecture department naturally did not remain uncontested. From the day the WUT opened, its professors were accused of collaborating with the German occupiers. Nevertheless, founding professors of the department of architecture, like the painter Zygmunt Kamiński who was dean in the 1930s, believed that there was no alternative that would enable Polish technical students to stay and form the elite that the country so desperately needed. Indeed, when Poland gained independence in November 1918, the graduates of the WUT formed the basis for a new elite with immense professional success and influence in the newly established state.

With the end of the First World War and its reverberations – which did not come to Poland until 1920 – the department of architecture of the WUT finally stabilized and began a more routine teaching pattern. However, its hallmarks of all-inclusive training and a modern approach, particularly with regard to the social dimension of architecture, remained in place. Therefore, and given the high number of graduates, the institution became and remained influential on a national level. The Polytechnic School at Lviv, which had already been established in the 19th century and initially competed with Warsaw, had a less clear-cut modernist outlook and in terms of numbers only attracted about a third of those inscribed at the WUT faculty of architecture. The department of Fine Arts of the university in Wilno and the department of architecture of the Academy of Fine Arts in Cracow, both es-
established shortly after the First World War, which were the other institutions for training architects within the territory of the Second Polish Republic, followed a different, far more classic, training trajectory.\textsuperscript{64}

While those who had been born before 1895, like Feliński, had studied at the polytechnics of the partition powers, the younger generation of Polish architects was predominantly educated at the WUT.\textsuperscript{65} Their training, however, was not necessarily less European. On the contrary, the faculty was almost by nature internationally oriented as it had received its training abroad.\textsuperscript{66} Consequently, the curriculum was hybrid, influenced by French, German and Russian traditions. Because the institution had so recently been founded the curriculum was also practically oriented, being one of the first departments in Europe to include urban planning in its courses.\textsuperscript{67} Urban planning was taught using concrete examples, including at international comparative level, and approaches which included much more than just the built environment became a hallmark of the WUT’s faculty of architecture.\textsuperscript{68}

By 1922 the faculty had seen its first batch of diplomas awarded to students. In March 1922 the Polish government had also set regulations governing the working of a newly established chair for Polish architecture, stressing the need to link architecture and nation building.\textsuperscript{69} With its strong engineering bias and alertness to the social challenges of the new republic, the faculty of architecture was and remained in a strong position to keep its ties with the expanding and ‘planning’ state.\textsuperscript{70} In
1934 the faculty reacted to growing social demands and introduced a specialization in urbanism. This programme brought together civil engineers, and experts specialized in urban development and taught the latest relevant knowledge in economy, sociology and technology in order to train experts for the increasingly complex urban space. This blend was the basis for what came to be known as the Warsaw School of Architecture, typifying a specific, modern and socially aware strand of architects. By the 1930s being a student at the WUT’s faculty of architecture had become a “status symbol” and a signifier of being modern. The faculty’s balls became a fashionable social event.

In Poland, architects, as well as other technical experts, depended heavily on the state. Nearly half of the Polish engineers in the interwar period served the state or state-dependent institutions. The qualifications of the graduates of the WUT architecture faculty, as well as their career patterns, reflected the needs of the new state and the imminent opportunities for the much-needed experts. Due to the extreme lack of established experts, the ‘fresh’ graduates progressed quickly, that is at a young age, onto high-ranking positions and duties as the new Polish state embarked
on an ambitious series of urban improvement projects following an initial phase of political and economic consolidation. Architects were assigned new tasks in the fields of hygiene, health and education in particular, all of which were emphasized by the government as being of central importance.

While it is hardly surprising that younger architects were generally more receptive to modernist architecture, the swift advance of the young generation, born between 1891 and 1905, in post-First World War Poland is still striking. Obviously, the fact that this generation did not need to crowd out a strong existing traditional elite contributed to their impressive inroads in the developing building programme. But at least equally important was that they were in command of the latest knowledge and combined state of the art housing technology with a social edge.

The emancipation of women was part of the modernizing agenda of the new states. Although the profession remained largely male-dominated, there was a striking number of female architects, in addition to the well-known Helena Syrkus and Barbarba Brukalska, who enjoyed impressive careers.

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14. Birth years of architects awarded building commissions in Poland between 1919 and 1939, showing (1) projected plans and (2) completed projects. A: born before 1875, B: 1876-90, C: 1891-1905, D: after 1906.

The strikingly high number of women among the graduates of the architecture faculty can be seen as reflecting the specifics of the Polish situation, namely the absence of an established elite and the general openness of the new architectural education.
Of the 813 graduates of the WUT’s architecture department in the interwar period, 96 (twelve percent) were women. This compares to only some 300 female students (not graduates), many of whom were from East Central Europe, matriculated at the eight (later nine) Technische Hochschulen of the progressive Weimar Republic. These were only four percent of Germany’s 7000 students of architecture. When solely considering the graduated architects, the faculty in Warsaw alone brought forward as many female architects as the whole Weimar Republic.\textsuperscript{79}

The extraordinary increase in supply and demand of architects in general is reflected in the actual number of architects who became members of the official professional organization of architects in the Second Polish Republic, the Stowarzyszenie Architektów Rzeczypospolitej Polskiej (Association of Architects of the Republic of Poland, SARP). The SARP, dealt with in the following chapter, grew six fold between 1918 and 1939. Unsurprisingly in contrast to what has been said earlier, but still noteworthy, the architects practicing in Poland in the 1920s had been trained by more than 40 different, mostly foreign educational intuitions.\textsuperscript{80}
The example of Polish architect Szymon Syrkus (1893–1964), “perhaps the foremost exponent of Functionalism anywhere in Eastern Europe” illustrates this well.\textsuperscript{81} Like most of his colleagues, Syrkus was internationally educated. Between 1912 and 1917 Syrkus studied at the technical universities of Vienna, Graz and Riga, as well as the Academy of Fine Arts at Cracow and finally the newly established WUT, from which he graduated in 1922.\textsuperscript{82} Between 1922 and 1924 Syrkus spent periods in Paris and Berlin, with excursions to the German Bauhaus and De Stijl representatives in The Netherlands. He only returned permanently to Poland in 1924, at which point he became crucial to the formation of an avant-garde strand in Polish architecture and played a fundamental role for architects in society.

As a result of the partition of Poland and the strict regimes of Russia (and later also Germany), this kind of ‘forced internationalism’ was particularly pronounced in Poland, but similar examples can also be found in Czechoslovakia. A most telling case is Czech architect Jan Kotěra. Kotěra is generally seen as one of the defining figures of Czech modernism. He was one of the most gifted students of Otto Wagner in Vienna. His wide-ranging influence was based on a number of factors. First, he was able to translate the more radical aspects of the architectural discussion into solutions attractive to the Czech national movement – opening up a space which had not existed in the more established Viennese setting. Second, Kotěra embodied a broad approach to architecture, in particular with a view to its social dimension.
This, thirdly, made him a deeply influential teacher as professor at the school of
Applied Art in Prague – in which he fittingly succeeded Friedrich Ohmann, a mem-
der of the German-speaking Austrian elite. For the likes of Bohuslav Fuchs, Jaromír
Krejcar, and Adolf Benš, all key figures of Czech modernism, Kotěra was an influ-
ential teacher who transmitted both a transnational vision of architecture as well as
the notion of architecture as an engine of social reform in his teachings.83

An even more impressive breakthrough of young architects – compared to that
of Prague – occurred in the industrial city of Brno. Here, in a city hotly contest-
ed between Czech and German speakers until and through the First World War,
etnicity and language had a significant influence on expert-elites. When a Czech
town council supplanted its German predecessor in 1918, this opened up numerous
opportunities for young Czech architects.84 The first graduates of the Architecture
and Civil Engineering course at the Czech Technical University in Brno, most im-
portantly Jindřich Kumpošt, had already gained recognition and started to play a
key role in making Brno a landmark on the European map of modernism by the
mid-1920s. Employing the framework of international modernism played as much
of a definitive role for the quick advance of these young architects as their focus on
social architecture and hygiene-related buildings did.85 These new architects could
thus also profit from the mechanisms described for Brno in the previous chapter,
namely the official attempt to shape an exemplary modern and international city.

The Rise of Scientific Urbanism and the Self-Empowerment
of Architects

Choosing a particular method to train architects had implications which were not
restricted to the universities or academies of art where architecture was taught.
Moreover, the fact that certain models prospered in certain regions was far from
coincidental. Guillén has argued, predominantly on the basis of South- and Central
American examples, that an engineering type of training did well in countries where
the state – in absence of a strong civil society – was the main engine of socio-pol-
itical change. Guillén was also not the first to stress that the engineering model, as
opposed to the beaux-arts model, favoured the rise of modernist architects. The lat-
ter fostered an encompassing view on matters social and provided future architects
with a tool-kit in technology, statistical methods and the like, which supported
their claim to have a say beyond the construction-site. One could even argue that
this new form of education provided for a mental framework of social empower-
ment, not unlike what could be found in other strands of engineering.86
For similar reasons to those Guillén stipulated for South America, the engineering model for training architects flourished in East Central Europe. This model served the needs of the catch-up modernization the newly erected states were confronted with in a far more convincing way than the classic architectural education which focused on the artistic aspect of architecture. What was true for engineering-centred architecture was at least equally true for the rise of urbanism, namely a much more scientific and holistic approach than classical architecture, where architects were conceived not so much as artists, but rather as technicians and social engineers. The emergence of urbanism followed both new supplies—of planning knowledge—and new demands from the state to organize urban space. Yet, the rise of urbanism was also a result of the ability of a new class of experts to widen the frame of what needed and could be solved, as well as those potentially able to solve these problems. In this process specialization and generalization were not necessarily contradictions.

Few other fields embodied a new kind of expertise with a cause in the way that urbanism did. This rather young discipline obtained its legitimacy by incorporating ‘scientific methods’ which rested on the extreme credibility that science and technology had acquired in the previous decades. Since 1900, methods like statistical comparison and the use of newly available visual material like aerial photography, surveys, and sociological analyses contributed to the idea that planned development of all aspects of the city—if not of society as a whole—was not only desirable, but also achievable. Moreover, basing one’s arguments on numbers and formulas also promised to deflect political conflict and even international tension.

Of course, more often than not the scientific approach architects and urbanists claimed to employ was less objective than they thought. Often ‘scientific’ served a discursive strategy rather than reflecting methodologically sound new approaches. But David Kuchenbuch is correct in stressing that the scientific claim deeply transformed the profession of the architect. In embracing and problematizing the social on a scientific basis the architect as “objective expert”, in place of the “philanthropic bourgeoisie”, came to control the commanding heights in the battle for better housing and town planning.

Urban planning, particularly on the European continent, was expected to deliver more than simply improving the organization of a city. In tackling the ills of the modern city, it strove to tackle the ills of modernity itself by using modern means. Radical urban planners envisioned a new society and the rise of “New Men.” This surplus of expectations was also a reaction to new technological possibilities, whether real or imagined. Almost necessarily, urban planners became techno-
scientific experts closely related to the state and society. They were strongly tied to the political, social and cultural developments and debates of their time.

Most of the first urbanists in a modern sense were architects by training. Though self-taught urbanists, architects had few qualms in making bold claims about what could be achieved in applying new urbanistic insights. The discussions of the CIAM provide ample evidence of the continuous conflict over how far architects should make inroads into the urban framework planning, and where they were to be confined by the expert knowledge of specialists. Architects like Walter Gropius or Le Corbusier very actively contributed to shaping the imagination as to what modern urbanism might achieve. One may think of the surprising scope of action Bauhaus radicals had in building, social transformation, and education or the impressive Red Vienna projects, equally inspired by the promises of scientific urbanism and the political dividends it was hoped to yield. Urbanism became so attractive because, on the one hand, it radically widened the field of what architecture (and architects) could achieve and improve and, on the other hand, offered a rather concrete application of the general, often lofty, trend for planning.

While these phenomena are in themselves significant and had a deep historical impact, in this context they help to explain why architects could successfully claim new domains of competence and activity. What was long regarded as a disadvantage of education, namely that architects would not be real engineers as they lacked depth and technological rigour, was in the 1920s remodelled to the advantage of the planning generalist. Cornelis van Eesteren, long-time head of the CIAM, noted “the achievements of the art of urban design were situated in a wider perspective in the 1920s”. Urban design became “a synthesis of organized life and technology” that had supra-local dimensions and called for a strong management of all experts involved. The new discipline of urbanism was potentially open ended and had many contact areas with other disciplines, many of them, like sociology and statistics, becoming fashionable in this very period. In a nutshell this ambition comes to the fore in the CIAM’s declaration of La Sarraz, and its claim to regulate all areas of life: “Urbanism is the organization of all the functions of collective life; it extends over both urban agglomerations and over the countryside.”

In many ways the impact of urbanism was more pronounced in East Central Europe against the backdrop of a severe urban crisis and the development of new capital cities. For this reason the link with planning in a wider sense, as well as regional and national planning, was also strong here. While the precise implications will be discussed in chapter 5, it is important to note here that this link also reflected the standing of architects in East Central Europe. We may assume that they were more
likely to take on the role of ‘national modernizer’. Urban planning became a mode of self-empowerment everywhere. Yet, in East Central Europe the stark contrast between the failed towns of the 19th century, with their slums, unhygienic living conditions and the promises of the modern city, was particularly salient.

As urbanism mostly concerned transforming already existing cities, their structures subsequently became the main obstacles and impediments. Far-reaching concepts could only succeed if massive funds were provided to master deep-cutting change. Further, ideally juridical carte-blanche was required, to change the existing ‘irrational’ structure of property division. The Soviet Union had, since the 1920s, provided a closely followed example of how this aspiration could be put into practice. As Heather DeHaan has shown in her case study of Nizhnii Novgorod (Gorky) this entailed a deep transformation of the architectural profession. In a convincing metaphor, inspired by the fact that the planners ascribed needs to citizens, DeHaan compares the first generation of urban planners in the Soviet Union to “omniscient narrators of a novel”. To these planners a scientific approach was the key to both solving concrete urban problems and mediating potential conflicts with political decision makers.

It is unsurprising that the Soviet Union briefly turned into a Sehnsuchtsort of architects and urban planners from the whole of Europe, and hundreds joined its planning bodies in the early 1930s. Also, many architects who did not participate in building new cities east of the Ural shared a fascination for the role their profession attained in the Soviet Union. Of course, the political conditions in Poland, Czechoslovakia and Hungary differed very significantly from those further east. Most importantly, the regime of private property largely remained intact in East Central Europe with immense consequences for large-scale urban transformation projects. But also here, the state and organizations close to the state became the main agent of modernization and a decisive sponsor for architects. Indeed, the state combined the fields of urban planning and general planning, thus giving urbanism the significance of a national task.

Modernist architects in East Central Europe clearly reflected the imminent change incurred by the rise of urbanism. In 1935 Stanisław Brukalski (1894-1967), one of the foremost modernist architects in Poland, insisted that visionary planners and architects were no “learned maniacs” but that the “achieved level of urbanist knowledge and a superb progress in construction techniques and the new architectural forms based on these fundaments offered creative forces which would be sufficient” to realize the new goals. What makes the notion behind this so telling is the idea, to put it in simple words, of solving the problems of the 19th century using
20th century knowledge. Knowledge first and foremost meant urban knowledge in this instance. Roman Feliński provides a good example of how in Poland the clout of urbanism translated into architectural opportunities. Even though he was driven out of his leading position in the state administration in 1926, due to his leftist convictions, he was able to exert considerable influence with his urban plans for the state’s two most critical large-scale projects – Gdynia and the Centralny Okręg Przemysłowy (COP).

Generally speaking, modernist architects in Poland expressed the social mission of architecture in a clearer way than their counterparts in the West did. This also reflected the aspirations of architects. Szymon Syrkus, who had studied in Riga during the First World War and was fluent in Russian, referred to the fierce debates in Russia around 1930 and argued that many of the more radical solutions, such as communal kitchens, would also be relevant in the Polish context. Syrkus refrained from imitating the communist programme and from closely copying Soviet examples. Yet, the radicalism of the approaches taken in the East served as a reference for him: “Architecture” he demanded, had to “exert a direct force targeted at the transformation of the ways of life”. Herein architecture would need to express what Syrkus called “zungungsfähigkeit” (ability to enforce).

These statements, which Syrkus made in 1930 during the preparation of what came to be known as CIAM IV, a congress on the so-called functional city, could easily be complemented by other statements by Syrkus and other likeminded Polish architects. Syrkus used the term “architectonisation” to stress the dynamics of architecture and the inroads it ought to make into the realm of the social. For this process he used the formula A=f(S,T,P) describing architecture as a function of social, technical and spatial factors. Roman Piotrowski, an architect thinking along the same lines as Syrkus, called on the state to enable architects to fulfil their social mission. The pronounced tendency to stress the social role of architects was also informed by the fact that the state and social organizations as sponsors played such a strong role for architects in the region. This link became even more pronounced due to the global economic crisis of 1929, which led to the almost complete disappearance of private sponsors.

Architects, through their close relations with the modernizing state and related organizations, did act as implementers of modernity. Their radical claims were partially founded on the enormous challenges urbanism faced in Poland and the other countries of East Central Europe – as described in the previous chapter. But the aspirations and factual role of architects also stemmed from the tension inflicted by the economic shortcomings which more often than not constrained architects in the region to planning for the future instead of building in the present.
Guillén has apodictically formulated that “modernist architecture is the child of industry and engineering”. According to him, modernist architecture rose alongside scientific management. Method, standardization, and planning thus lay at the heart of modernist architecture’s success story, with architects turning into “technicians, organizers, and social reformers”. Against this background, Guillén makes a second point of even higher relevance for this study. He argues that modernist architecture developed in Europe in a “much more unconstrained way” than in the US, “shaping life at the factory, the home, and the public building”. While in the US technological progress and architecture went hand-in-hand, in continental Europe, where industry lagged behind, architects embarked on a process of modernization from above. This, according to Guillén, caused modernist architects in the “relatively backward and politically troubled Continental European countries” to be in a “position to lead” and exerting a “tremendous influence over social and industrial organization as the designer and planner of dwellings, cities, and workplaces”. Continental European architects, much more so than in the UK and the US, “actively advocated and planned for a transformation of society”. It was a given to Karel Teige, the most imaginative architectural thinker in East Central Europe, that a real avant-garde would not only “build modern”, but also “struggle for a new thinking”, that is, a turnover of the existing social order.

If we accept this quite general interpretation we should assume that in the particularly politically troubled and economically backward countries of East Central Europe the link analysed by Guillén was even more expressed. Stressing an engineering bias in architectural education as the key to the breakthrough of modernist architecture is an important explanation for the role modernist architecture attained in East Central Europe. Moreover, Guillén’s insistence on the importance of the state as a sponsor not only helps to explain the rise of modernist architects in East Central Europe to political and social influence, it also turns this region into a highly relevant case for the general understanding of modernism.

The Lure of the Machine

The promises of modernism, efficiency via planning and staunch anti-traditionalism, was necessarily most convincing in a region which, particularly as regards Poland, was afflicted with enormous impediments to economic development and a social structure characterized by dysfunctional remnants of tradition. The Czech and Polish avant-garde in general, and their architectural avant-garde specifically, provide ample evidence of how the “machine became an ideological, technical, and
aesthetic frame of reference” – not just for the design and production of buildings, but for bringing about a new, more efficient social order.¹¹⁴

The Polish constructivist poet Tadeusz Peiper’s 1922 battle-cry poem *Miasto, Masa, Maszyna* (City, Mass and Machine), inspired by Italian futurism, had an extensive impact well beyond the Polish avant-garde. The ‘3 x M’ slogan evoked the allure of the modern. As in other contributions to Peiper’s avant-garde journal *Zwrotnica* (Junction), and various further contributions to the early Polish avant-garde, emphasis was placed on the revolutionary and all-changing aspect of technology.¹¹⁵

Peiper’s poetry related to and added to a frame of reference which, as a consequence of extremely rapid general technological progress and the secular experience of engineered warfare in the First World War, became broadly established and accepted.¹¹⁶ Le Corbusier, in his manifesto *Vers une architecture*, invoked the automobile, along with ocean liners and airplanes, as a two-pronged promise of new aesthetics and standardization.¹¹⁷ The automobile, by adapting architecture to the experiences of modern life, turned into the most potent symbol of transition. Even
though mass production, unlike in the US, hardly existed in Central Europe in the 1920s the social promise it offered was highly convincing.\textsuperscript{118}

One could even argue that technology attained particular clout in the catch-up context of Polish situation in the 1920s.\textsuperscript{119} The first edition of the Polish avant-garde journal \textit{BLOK} not only displayed pieces of modernist architecture, but also tanks and automobiles.\textsuperscript{120} The journal’s fifth edition prominently displayed the artist Mieczysław Szczukaź’s statement that “changes in construction materials, as well as changes to the system and state of construction technology determine the changes to the external appearance of the items constructed, as can be seen in airplanes, airships, cruisers and transatlantic steamboats”.\textsuperscript{121} The following editions of \textit{BLOK} continued to promote the appeal of the machine. Unsurprisingly the first demonstration of the group which ran \textit{BLOK} was held in March 1924 at the Warsaw premises of Laurin & Klement, a car manufacturer. Simultaneously, a member of the group, Henryk Berlewi, put on a show called \textit{Mechanofaktur} at the Austro-Daimler Salon.\textsuperscript{122}
What may seem to be an almost exclusively artistic expression was in fact far more. The avant-garde’s obsession with technology, the machine, and the city, was a shared international trend and created many bridges throughout Europe using different frameworks, such as the Constructivists, as the following chapter will show. Bringing to mind the allure of technology, as Le Corbusier most famously did with his notion of houses as “machines for living”, provided new lines of argumentation. But the theme of technology also built bridges within Poland, Czechoslovakia and Hungary, and between different artists and architects, allowing modernist architects to voice their demands in an ever-increasing crescendo.

Karel Teige was no less radical than the aforementioned Polish artists. The works of Teige offer the best example of the game-changing effect the rise of technology had on the scope of architecture in the region. Teige was fascinated by American culture and he subscribed to the cult of the modern engineer. He admired Le Corbusier as an engineer who based his architecture on modern industrial production. Certainly in the early 1920s he regarded Le Corbusier as the personification of architecture, being the one art form that suited his new criterion of seeing science and rationalism as the true basis of modern life. Rationalism was best expressed in Gustave Flaubert’s motto “L’art de demain sera impersonelle et scientifique”, which Teige repeatedly cited. In his 1925 article *Constructivism and the Liquidation of Art* new architecture was conceived of as a science, “a logical and rational blueprint for modern life”. Teige subscribed to the idea, popular among Soviet architects, “that there is no art of construction, no architecture per se, only a unified, strictly scientific process of building”. For him it was even necessary to liquidate all artistic aspects of architecture.

Of course, similar ideas also emerged in other countries, particularly the Netherlands and Germany. But it was also no coincidence that Teige, a Czech thinker, came to such radical conclusions. And it was no less a coincidence that the idea that architecture should be stripped of its artistic content grew popular with influential architects in East Central Europe. The notion that one lived in a “machine age”, as presented in the eponymous 1927 exhibition in New York, went without saying. Fittingly, Szymon Syrkus contributed to the exhibition catalogue, which also reproduced several of the finest examples of Polish modernist architecture from the mid-1920s. Sykus’ catalogue essay established, even more so than other contributors, technology as the key and pacemaker for a new architecture and a new notion of space.
This illustration has intentionally been removed for copyright reasons. To view the image, please refer to the print version of this book.
Hungarian László Moholy-Nagy concluded: “This is our century: technology – machine – socialism. Come to terms with it, and shoulder the tasks of the century”.

Indeed, most famously at Moholy-Nagy’s institutional base, the Bauhaus at Weimar and Dessau, a new tool-kit of applied technology was productively translated into new spatial and architectural solutions. Motion analysis informed the Bauhaus-inspired, efficient Frankfurt kitchen and numerous new floor designs in just two examples of this. New technical possibilities of using huge glass-surfaces and terraces merged with hygienic insights to produce – allegedly – healthier buildings.
As will be shown in the following two chapters, these tropes unfolded their potential in an even more convincing way in East Central Europe, where they provided modernist architects in the region with the muscle to tackle the very ills at the heart of the national crisis.

**Themes of Change – Architecture as Technology: Rationalization, Planning, and Technocracy**

In an early article defining his mission, Szymon Syrkus declared that “architecture changes the social pattern, as the social pattern changes architecture”. In accordance with his companions within the avant-gardist *Præsens* group, Syrkus explained that “all forms of artistic creation should be subjected to the supreme social role of architecture”. In so doing Syrkus was following a trend that was also current in the Netherlands and Germany. Architecture was seen as the art most oriented to the new technological opportunities, and in its combination of space, sculptural elements and the use of colours architecture promised to merge the different artistic strands of the avant-gardes. Why did architects find it so easy to appoint themselves to positions of agents of modernization and why were they so successful in convincing wider circles of their point? As has been demonstrated, modernist architects acted in a frame of reference which stretched far beyond their profession but which was also heavily influenced by architects and architecture. The topics to which architects related their discipline were anything but marginal. Considerations on the impact of rationalization on society, on implementing a new healthy lifestyle via housing, or on new and efficient forms of constructing the city all formed the very essence of thinking about social change. Themes like the ‘new woman’, the liberating role of sport and leisure, or new ways of bringing up children appeared to be not only the natural domain of architects, they could also easily be connected with each other and to the great questions of the time.

Three terms, overlapping but certainly not identical, mark and structure the respective imaginary: rationalization, which included its powerful subcategory Fordism as detailed below and standardization, planning as a second term and, finally, technocracy. All three terms lead far beyond what is our topic here. But we need to sketch which aspects were critical to modernist architects, particularly those in East Central Europe. While doing so it is important to realize that these concepts, as will be shown in the next chapter, enabled communication beyond borders, crossing the Atlantic and the mental distance between West and East Europe. Moreover,
in embarking on these concepts, they allowed modernist architects inroads in debates of more general societal relevance:

While the attraction of rationalization and standardization to architects is initially obvious, given the dramatic housing crisis, it is still surprising how high expectations went. These were fired by mechanization and standardization, as in Ernst Neufert’s visions of industrialized housing and the Weimar Republic’s *Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnungswesen*. Such visions rested on an – often overestimated – impact of new building materials such as glass and concrete. The 1930s saw concrete “as heroic both in formal and in social terms”, allowing for a “social betterment through public works”. In Europe Fordism turned into a wide-ranging concept that was seen as making use of the new technological opportunities and potentially capable of overcoming deep social, economic, and political crisis. Fordism, fundamentally an organizational concept, catalysed in Europe what could be called expertise with a cause, that is, the systematic use of technology in the aim of improving society. The heavy expectations that came with it far exceeded a more effective organization of production. In this, Fordism also promised the potential of offering an alternative path of development beyond the old liberal systems and the threat of right- or left-wing authoritarianism.

Eventually, it was not so much the streamlined aesthetics of the automobile or its symbolizing technological progress but in fact standardization which Ford came to epitomize to European modernist architects. Somewhat ironically Oud referred to the envisaged minimum flats as “Wohn-Ford”. If many of the *Bauhaus* architects, particularly Walter Gropius, regarded standardization as the key to solving not only the post-war housing crisis but also easing social tension in general and reconciling society with modernity, this promise was even more convincing in the framework of East Central Europe and especially Poland with its disastrous housing situation. Indeed, architects like Barbara and Stanisław Brukalski and Helena and Szymon Syrkus were fascinated by what standardization and an industrialized building process seemed to make possible. Syrkus hailed the opportunities offered by completing flats in a manner that resembled the methods Ford used to manufacture cars. Together with his wife Helena he developed a programme, using the capacities of the Polish steel industry, to build 100,000 standardized flats thus effectively adopting earlier similar plans by Le Corbusier.
These plans, although they never came to fruition, took their persuasive power from the very notion of planning as an advancement on future progress. Building on huge efforts to co-ordinate the economy during the First World War in practically all belligerent countries, and on the notion that modern industry and communication both asked for and allowed for completely new levels of streamlining the economy, planning became one of the hot political topics of the 1920s in general.
In the catch-up logic and rhetoric of the states of East Central Europe the political identification of critical economic domains, taking into account security issues and political legitimacy, made perfect sense. The COP in Poland, discussed in chapter 1, is a prime example of this tendency and so are the advances into regional planning and then national planning in Poland connected with the name of Eugeniusz Kwiatkowski.
Planning fulfilled a function for architects as it both provided them with the chance to place their projects in a wider framework and, in drawing on a wider framework, gain the very stability, predictability and provision of funds necessary for building beyond the private house.

Yet, planning, in its technocratic character, was also an attractive idea to architects as it assigned them a prominent role. In their respective visions techno-scientific experts would employ technological progress as a neutral medium for bringing about improvement without necessarily transforming politics or society. Equally, unsurprisingly, technocratic thought was in practice far less neutral. This was not only so for leftist ideas inscribed into the language of planning. The manifold technocratic approaches could easily be merged with the rising authoritarian ideas in most states in East Central Europe. In a certain sense authoritarianism was even inscribed in technocracy as technocratic solutions could only be effectively introduced and rolled out within a stable political environment that was highly assertive.

All three themes, rationalization, planning and technocracy were themes of social change evoking a radical dynamic towards a better future and all these themes allowed modernist architects to place themselves in the driver’s seat. All three themes added to the fact that, in comparison to previously, architects attained the role of a national elite, as has been explained in concrete examples for Poland above. For the leading CIAM-architects Josep Lluis Sert and Le Corbusier, referring to José Ortega y Gasset’s notion of elites, the CIAM also aimed to provide an elite function. After all, modernist architects had command of the seemingly revolutionary new building technologies, in particular reinforced concrete, and at least pretended to combine these forcefully with the new possibilities of standardization. Szymon Syrkus, in addition to his many other accolades, made his name as an innovator of new building techniques.

Given their thorough training and the complexity of their trade architects appeared as the natural protagonists of large-scale planning. Unsurprisingly, such modes of self-empowerment also had a flipside. As euphoric as both modernist architects and many in an audience of the convinced were about the allure of technocracy, there was clearly also a darker side to such visions. Both the dynamic and potentially pervasive impact of rationalization and planning and their potentially negative results are expressed in the later, more analytical term of social engineering. Thomas Etzemüller has placed ‘Social Engineering’ in a long tradition of utopias of human improvement. Yet, he has shown at the same time how such ideas only acquired a new power after the First World War. The experience of having dealt successfully with complex technological problems suggested it was also possible to
solve social problems through neutral, scientifically grounded expertise. Social engineering emerged as a "specific mode of problematizing modernity." Modernist architects, who envisioned themselves as experts of the social with their "rhetoric of crisis and self-empowerment" played a critical role in this process. The ensuing tension has been often connected with the figure of Le Corbusier and discussed more controversially in recent years. It was typical of social engineering that planning ambitions did not stop at the level of individuals’ daily lives. This was of obvious relevance for architects. Attempts to reorganise modernity mainly targeted the family as the link between society and the individual, as David Kuchenbuch has demonstrated with regard to Sweden. Therefore, housing and urbanism turned into the most important fields of action of social engineering. What made architecture so topical in the hyped discussions on applying Fordist models, or achieving an efficient technocracy via rationalization, was not only and not even in the first place the technological dimension which characterized modernist architecture, but rather the very fact that architecture represented a most suggestive interface between new technologies and human beings. While the actual technification of architecture notoriously fell short of what its protagonists hoped for, the conception of new forms of housing offered an opportunity to transform society at its basic level. One of the red threads in Helena Syrkus’ memoirs is her pride in co-operating with sociologists, economists, statisticians, and other experts of social change.

When modernist architects discussed, as they did in 1929 at the second CIAM congress in Frankfurt, the requirements of the minimum dwelling their judgements were based on far more than structural analysis or building materials. In fact they had to design the conditions for ‘standard’ lifestyles. Technology played both a symbolic and a more practical role in this form of intervention in the very lives of individuals. Applying concrete technological innovations beyond the laboratory or the factory also seemed more and more attractive in areas such as housing and hygiene. As Fritz Schumacher exclaimed, this was self-evident: “The urban doctor does not only need to check a patient’s hot forehead. He must assess the fever in terms of numbers. He must not only check the patient’s body externally but must also be able to examine x-ray images of the interior.”

The Frankfurt congress was of utmost importance for the CIAM groups from East Central Europe and initiated them into this new organization. Farkas Molnár from Hungary and Szymon Syrkus and Józef Szanajca from Poland presented examples from their respective countries, stressing the social dimension of the minimal housing designed in Warsaw, for example. Examples from Łódź were repro-
duced in the book published after the congress. The theme remained central to the CIAM but also highlighted ideological and geographic differences. Karel Teige argued in his contribution to the publication of the CIAM III congress in Brussels that the problem was rather about defining what the “existential minimum” subsistence level of human was. Providing more flats, Teige argued, was not sufficient to solve the problem of capitalism’s chronic housing crisis.

In an exemplary way, Teige turned housing into a problem and placed the issue on the public agenda. It was no coincidence that Teige engaged himself in this discussion and became one of its leading voices. The minimum dwelling as an expression of social housing was particularly relevant for East Central Europe. The CIAM’s third congress in Frankfurt, in 1929, triggered greater interest from the region’s architects than the ensuing congress held in Brussels in 1930. The Frankfurt congress was also definitive for the formation of a Polish CIAM group and a number of relevant contributions on the theme from this country, as the next chapter will show. In this, the problem of the minimum dwelling offers a telling example of how social engineering became a particular mode of problematizing modernity. The topic of the minimum dwelling served to frame a problem that otherwise would have remained diffuse, and it carried the promise of solving such problems once and forever.

In a similar manner the problem of public health also appeared on the architects’ horizon. They embarked on a more general trend of applying concepts of efficiency to humans and the human body, and governments began to dedicate a lot of time and resources to public health projects. As explained in chapter 1, health and hygiene gained a primordial importance for the legitimacy of new states fighting sanitary problems on a dramatic scale. Similarly to the Weimar republic, though in proportion (and given the financial constraints of a state like Poland even more impressively), these new states invested in sanatoria, hospitals and other related projects. Most of the prime examples of this trend carry a strikingly modern character. Yet, also in Czech Brno, to quote just one example, we find an outstanding number of functionalist health-related buildings erected in the short period between the mid-1920s and the Second World War.
The architecture of social reform was, of course, not specific to East Central Europe and this strand of architecture was not solely a phenomenon of the interwar period. The growth of organized social movements also led to a growth in social architecture. Moreover, the promise of this new architecture’s potentially positive effects on hygiene and general well-being went much further than erecting clean houses, hospitals or sanatoria.

**Conclusion**

What Sigfried Giedion, the great enunciator of the promise of the modern movement, called “befreites Wohnen” (liberated housing) in a manifesto of 1929 successfully encapsulates the idealistic spill-over so typical of housing reform. As in the literary image of glass houses, one of the most potent ‘reach-out’ terms, such terms carried a double dynamic. They pointed to the future and they created inroads into domains which had not previously been central to architects.

Many of the more radical visions never even came close to realisation. Yet, this does not imply that they had no, or only limited, impact, as the following chapters will show. It is important to realize, however, that the self-empowerment described above could only work against the background of general technological and economic modernization and the emergence of new discourses reflecting this change. The following two chapters will thus address the communication of modernist architects in the region in question and will look at the structures in which these architects organised to push through their ideas and gain a new standing for themselves.