Construction and Design Manual
Accessibility and Wayfinding
建造设计手册
无障碍及导向系统设计

By Philipp Meuser (菲利普 · 莫伊泽) & Chen Wu (吴晨)
Contributions by Daniela Pogade
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Only they who walk quite slowly
yet always follow the right path
will be able to come much further
than those who run and find
themselves on byways.

René Descartes (1596–1650)
Philosopher and scientist

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TEXT 01
——SPATIAL SIGNS ON THE RELATIONSHIP BETWEEN ARCHITECTURE AND THE DESIGN OF COMMUNICATION MEDIA

Philipp Meuser, Chen Wu

Every day, we all have to find our way around and get where we want to go – in life or among the objects in our immediate surroundings. Inside our own four walls. In the built environment. In the natural world. Since the dawn of time, we have had this in common with every creature on earth. It even used to be essential to stay alive. The hunter-gatherer followed animal tracks and smells and was guided by conspicuous features in the natural landscape to keep his bearings. There was always the position of the sun to fall back on, on the principle of "ex oriente lux" – from the East comes light. The sun and moon, and later the stars too, were unmistakable points of reference offering certainty about time and space. Time was measured by sun dials. There is unequivocal evidence of their existence since antiquity at least, as an early means of making the natural phenomenon of light readable in terms of a measurable value defining time. Once mankind began to switch to a settled existence in around 6000 BC, both buildings and settlements began to make their mark in the landscape all over Central Europe **[III. 01]**. Wayfinding was no longer solely dependent on the natural world. Man-made wayfinding aids were added to natural tracks and waymarkers **[III. 02, 03]**. People began to refine their senses with navigational aids of their own devising. Even now, hardly anything has changed in this control of our surroundings. When we try to find our way around in the man-made urban environment, we still use ancient navigational aids. We may use our senses or we may use built resources.——And yet our modern buildings often conceal their true identity from us. At the very worst, they lead us up a metaphorical garden path because the entrance is nowhere to be seen or because the architect insisted on creating a work of art. There is no longer any question of wayfinding here. In any case, our towns have become impossible to take in. With populations equalling those of states in the past, today's towns have in fact become city states. It is quite a business to feel at home in them. It is still relatively easy to go by rail because the railway takes its passengers to their destination, at least to a railway station. The car driver is left to his own devices. At certain junctures, the paths of rail users and car drivers cross in a thicket of signs, indicator boards, tram and bus numbers or in an intricate network of urban motorways and access and ring roads. Without navigation systems – either conventional metal signs or digital satellite signals – it's likely that the modern urbanite would hardly ever get anywhere at all. Complex information and guidance systems are now a symptom of the modern age.——It is fitting that it took a philosopher and sociologist, the Viennese Otto Neurath, to develop the first image-based system for public spaces in the 1920s, a system developed for streets, railways stations, airports, hotels, department stores and hospitals and also for major commercial and sporting events **[III. 04]**. The sole reason for this was the human need to be able to find one's way around unaided in unfamiliar locations without having to speak to anyone. To this, we can add finding your way

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towers, and occasionally by a castle, a stronghold or a monastery occupying the higher ground. The towers representing the spiritual or temporal powers competed with the structures in other towns or sovereign territories. Whatever fulfilled the role of "city crown" reflected the character of the urban polity, namely, the political and economic circumstances. Castles were more or less self-explanatory. Their structure indicated what belonged where – "where the servants and the lord lived, where court was held, where the enemy was expected. Whatever style the building was couched in, the language of the towers, walls, battlements, oriels, hearths, windows and roofs reveals more than the decorative elements of contemporary taste"[4] noted Otl Aicher. Just like a separate building, the town expressed itself in its architecture as a cohesive polity in every respect. ——— The size of a town does not negate the essence of the architecture and its effect. On the contrary – Italian towns, which have evolved out of an ancient tradition and have developed on this model to become urban republics, were not more confusing or difficult to grasp architecturally than their counterparts north of the Alps simply because of their size. In the mid 14th century, the population of Florence was already approximately 100,000. The urban archipelago of Venice had its origins in numerous communities: by 1200 there were approximately 60 settlements with their own marketplaces, just like Berlin at the end of the 19th century. Settlements such as Cologne for example, with its population of around 40,000, plus a few other famous trading centres north of the Alps, could call themselves cities by the 14th century. But even in these major settlements, their social centres of gravity were visible from afar. This was all the more apparent in Italy, where the campanili of urban palazzi vied with the church towers and clearly marked the location of the prominent squares in the towns. These historic skylines are still visible, even in large European cities like Munich with its Frauenkirche **[Ill. 09]**, Nürnberg with its castle **[Ill. 10]** or Prague with the Hradchin Palace **[Ill. 11]**. Here, architecture was its own information, guidance and wayfinding system because of the hierarchy of the buildings and their relationship with each other. They created an overriding texture for the city, the essence and content of which are discernible to this day. These buildings and their squares have left their indelible mark on the urban layout, as if burnt into a hard disk. They are the architectural memory of the city. ——— It was relatively easy for a stranger to find his bearings within a city, right up to the 19th century era of industrialisation. The physical structure of a city made it possible to detect with precision the high points and marginal areas of life because the city's physical structure reflected its social order. Unlike today, prosperous families dwelt in the heart of the city – the richer and more respected they were, the closer they were to the market place. The law governing life's hierarchies was the reverse of today's in that the further away one moved from the city centre the poorer were the living conditions. Art historian Wolfgang Braunfels[5] noted that

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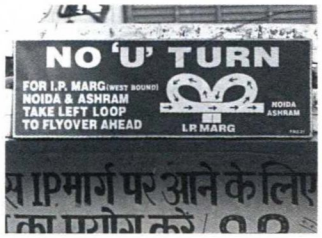
around in familiar locations. Although modified and refined by subsequent generations, Neurath's visualisation system has now become an indispensable part of everyday media-ridden life.[1] And one thing leads to another – confusion amidst an abundance of information, communication coldness induced by alienation, the dulling of the senses due to excessive hygiene concerns. Even when we are shopping – today's civilised replacement for hunting – the natural environment eludes us because food is vacuum-packed, free of odours and neutral in taste and thus remote from human senses. It's all just window dressing. The same applies to architecture, which began the 20th century with the desire to return to functionality and to create a clear relationship between form and purpose. Yet the opposite is frequently the case. Architecture, once the direction finder to and within towns, now has hardly anything to say for itself. At worst, it is an illuminated advertisement serving as a trademark, an indicator sign or a label. This has happened because "today's architecture no longer has the will to solve problems". Instead, it "only wants to create appearances. Just like programme music, architecture now wants to express something, to convey semantic content. These are all types of indications but not those that concern the structure itself, its content, its inception or its style". So said Otl Aicher[2], an outstanding leading proponent of modern design, who left his unmistakable mark on the image of socially cutting-edge brands and events in the German Federal Republic from the 1950s on. Well-known examples are the logos of Braun **[III. 05]** and Lufthansa **[III. 06]**, but also the pictograms created for the 1972 Olympics in Munich **[III. 07]** and the visual branding for the town of Isny in Allgau **[III. 08]**. Founded in 1946, the Aicher practice was one of the first in Germany to address visual communication in the sense of a totally coherent image, in other words, to deal with identity.

The town as a milestone in the landscape

Classification and recognition used to be simpler. Churches, town halls and marketplaces were clearly identifiable places and their forms and designs unambiguously expressed their purpose. The Stadtkrone or "city crown", a feature visible from afar, illuminated the political hierarchies and the most prominent addresses in the city's social life. The engravings and etchings of Matthäus Merian the Elder and his son Merian the Younger and the perspective engravings of Samuel, Count von Schmettau are just some of the ground-breaking examples of urban views common from the 16th to 18th centuries and which, in their time, enjoyed wide public acclaim. In his magisterial Utopia published in 1516, the politician and humanist Sir Thomas More wrote of the outward appearance of towns that "he that knows one of their towns knows them all – they are so like one another"[3]. This tells us a great deal about the value of recognition and identity inherent in the urban polity of his time. The only touches of individuality visible in a town's outline would be provided by the town hall and the church



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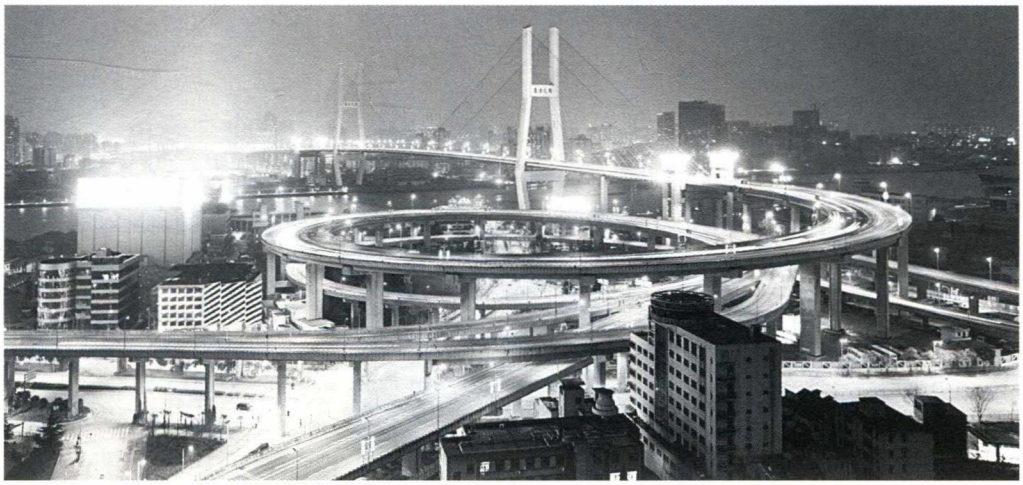

has become home to vehicles, altering our relationship with the town, our mode of perception and consequently the role of architecture as well. Since motorised mobility with its own inherent dynamics now takes us well beyond our own powers of movement, the face of towns has changed fundamentally. It is still doubtless true today that good architecture dispenses with the need for a graphic wayfinding system, but this hypothesis only makes complete sense if the rest is carefully thought through. Non-verbal guidance systems only became necessary if towns became more anonymous due to their explosion in size. The motorisation of urban traffic and its rhythms imposed anonymity on society, and architecture restricted itself to embodying this coldness. Consequently, wayfinding systems are the product of a society whose members have mutually agreed to keep out of each other's way as far as possible and who, in the way they live, can afford to do so.

Architecture and communication

The transition from the 19th to the 20th century was marked by a completely new mode of communication, a completely innovative type of architecture and an altered relationship to the town. Architecture adopted the dynamic currents in society and then, particularly during the 1920s, the task of symbolising its environment. At least, that is how its creators, the exponents of the Neues Bauen (New Building) movement, saw it. According to a widely held belief, a new society needed new buildings and consequently cities tailored to its new modes of movement and communication. After decades of adhering to historical precedents, conjuring up in our minds urban districts that blended the romanesque with the baroque to create a quasi-theatrical backdrop while the machine age continued to beat out its own throbbing drum roll, building façades began to mimic the formal language of that symbol of progress, the automobile, and thus began to stand out as beacons of a new architecture. Such façades proclaimed that architecture had not only arrived in the here and now in terms of functionality but also served to express a new feeling for life, as Erich Kästner so pithily put it in one simple sentence, "time drives a car."[7] And architects went along for the ride. Erich Mendelsohn inserted his trademark buildings into the urban landscapes of those towns that were still faced with addressing the machine-induced impact of the industrial modern age. After all, most European towns had preserved their traditional layouts more or less completely unaltered until the mid-19th century. Mendelsohn was an architect who integrated new advertising techniques into his structures and actually produced advertising machines. His architecture exploited light to underscore its own effect, to attract attention, to identify the role of a building and make it stand out from the mass. Serving as models for the new era were those department stores imbued with expressionism that emerged as the first statements of a cultural countermovement and that turned away from their role as theatrical décor ransacked from the annals of history to serve the

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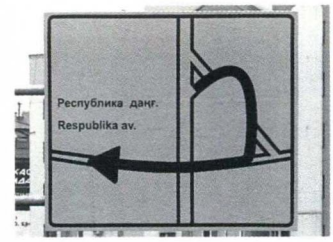

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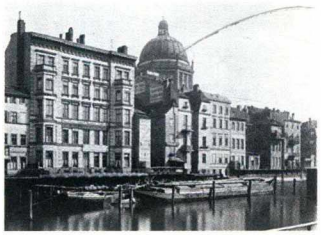
structures generally reflected a political order and that architecture in particular was a symbolic expression of power that was already visible from great distances in the shape of churches, town halls and trading houses as well as strongholds and the like. These structures of the urban polity shaped the symbolic statement that the city made as a total work of art, something which also applies to places that cannot boast a single architectural identifying feature in the urban landscape – like Aigues-Mortes **[III. 12]** in the French Camargue. Even so, the town, once a point of embarkation for Crusaders, with its strictly square, chessboard design and walls fortified with towers, is visible from afar as a rocky platform set in a gentle landscape. A compound of urban form, social order and a hierarchical arrangement of streets and squares, the architecture reflects the power dynamics of a former medieval metropolis.

Architecture as information carrier

In this sense, the pre-modern town resembled a theatrical stage, its silhouette taking on the role of scenery against which the play was performed. Just as the distant view of the town gave an initial visual impression of the layout, finding one's bearings among the streets themselves proved to be no problem either. Shoppers literally followed their noses to find the baker, the butcher or the spice seller. Wood market, fish market, hay market – the names of the squares and early shops did not need to be posted up on signs or notices because the richly ornamented architecture proclaimed the significance and role of buildings as a sort of incidental effect. The roads did not need to be identified by name either. If in doubt, one simply asked the locals. Everything leading up to the actual act of purchasing was coordinated with people's innate and everyday senses of direction and wayfinding. Apart from the aseptic packaging characteristic of supermarkets, not much of this has changed. "People buy or not primarily because of the sight and smell of the actual cake perceived through the display window and the open door of the bakery", Robert Venturi once said succinctly in his analysis of Las Vegas in the US **[III. 13]** as the model of modern consumer society. [6] The constrictions and immediacy of the medieval town facilitated rapid, personal communication, especially since the streets functioned as a stage that people had to negotiate as they enacted their lives. The street was more or less an extension of each individual's private living space. The street was where life at home, in the private dwelling, blended with the tumultuous life of the community. The street was the space where people met to exchange news, to consult and also to argue and trade. But such closeness to people and events are now gone from our urban areas apart, perhaps, from at the weekly street market. Nothing has altered towns and their natural characteristics more than the disruptions inflicted on networks of urban pathways **[III. 14–16]**, effectively reinterpreting their roles and functions. The street no longer belongs to people. Instead, since the advent of mechanised transport, it



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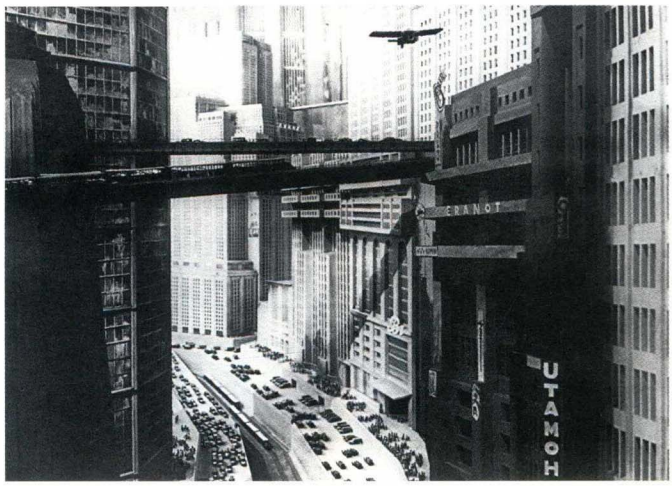
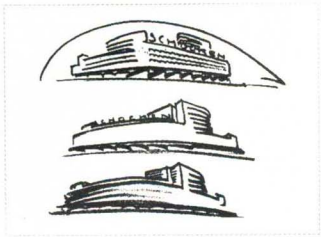


century, towns started to spill out beyond their walls, architects tried to create striking buildings that stood out visibly from the surrounding sea of masonry, of proliferating industrial estates, by tearing down houses in the immediate vicinity. Amongst these were structures integral to the centuries-old social and legal fabric, commonly known as the "closes" adjacent to the cathedral, castle or palace. Wayfinding within the town was simplified because significant buildings were "cleared" of neighbouring buildings that were felt to be detrimental. For example, the demolition of the Schlossfreiheit in 1892 created a whole new setting for the Hohenzollern Palace in Berlin **[III. 21, 22]** and a completely new way of appreciating the space of the city centre as well. Architecture once again became the reference point for direction and wayfinding in the city – by the removal of something instead of the addition of a structure of some sort.——————It was not until the eve of the 20th century and the advent of motorised traffic in towns that street lighting on a large scale became vital. Light gained in importance and became an essential part of the scene as well as navigational aid for getting about in the motorised urban environment. Electric light altered perception, which then altered architecture, too. Still quite young as an entertainment medium, film, and in particular Fritz Lang's celluloid presentation of the city in *Metropolis* (1926) **[III. 23]** in all its ornate monumentality, anticipated the major conurbations of the turn of the 21st century and provided food for thought on contemporary urban utopias, social developments and perceptions of the environment. Cinema and film defined everyday life just as much as other subjects in the cultural arena. During this era, the town was part of a great theatrical spectacle intended to express in its design the spirit of what was the first democratic society. Cinema, cabaret and theatre acted as the display windows for great events. Whole boulevards and prominent locations in the life of society – Potsdamer Platz in Berlin, for example – suddenly seemed to be bathed in light. "Probably the most tyrannical element of our modern architecture is space. Just as the obsession with clearly delineated forms in expressionist architecture is an inheritance of ornamentation, space has suppressed the symbolism of forms," wrote Robert Venturi. The demand is always to feed "our pleasure in radical spaces with a strong expressive content"[9]. The focus here is on space and light, first tried out in the imperious emotionalism of the national socialists and long ago converted into reality in the town as the Roman *Circus Maximus*. While still retaining its own unique individuality, Las Vegas is the model for this. Venturi regards the "strip" as a completely new type of street because its architecture is designed to create a perception of the town as viewed from the car. Taking the town as a whole, the wasteful use of space in the inner urban area is matched by a similarly wasteful use of space at its periphery, all at the expense of the surrounding countryside into which the towns relentlessly encroach. "We should therefore deploy an aestheticism," pleads Venturi, "which draws its effect from sources other



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interests of the state. They were the cathedrals dedicated to consumption with which Alfred Messel and his contemporary colleagues ushered in the era of large-scale department store architecture, to be continued by Mendelsohn (department store shocks) **[III. 17]** and the Neues Bauen architects. The crowning glory was the Berlin Karstadt building (Philipp Schaefer) on the Hermannplatz, at the time the largest and most opulent department store in the Weimar Republic. These were accompanied by the first modern high-rise buildings in German towns – or at least the twelve-storey buildings that counted at the time as high-rises in Central Europe – the Kathreiner in Berlin and the Tagblatt Tower in Stuttgart **[III. 18].** In the move away from the enormous gothic or renaissance-style town halls of the past, for example in Berlin or Hamburg, light was now the new architectural design feature, putting architecture centre stage. It was a building innovation that reflected the circumstances of everyday life, where neither the church nor the urban bourgeoisie nor even the state itself constituted the driving political imperative, which was, instead, the economy. There was now no stopping the paradigm shift away from the self-declaratory town of the Middle Ages and the baroque to the modernistic town, with the eloquence of the past now stifled and smothered under a sea of advertising hoardings. "After 700 years of history, we have finally replaced the gothic cathedral with the office block and so given visible expression to a transformation in society's understanding of itself"[8], said political scientist Ulrich Matz, with penetrating accuracy. The town had altered its symbolic character in that from then on it expressed a pluralistic society in which there are no longer any clear authorities – just elements in competition with each other. Yet it would be an exaggeration to speak of a seismic shift – after all, we need only to visualise San Gimignano **[III. 19]** with its skyline dominated since the 13th century by its trademark residential towers of the Tuscan urban nobility. There is a continuous process of transition in the skyline of concrete campanili in central Frankfurt **[III. 20]**. At any rate, this process has been more consistent because the high-rise buildings which today overshadow the churches also mark a basic change in the social order. It was not different in the Middle Ages – religious urban buildings were always also an expression of the political power of the church or citizenry, depending on the builder. They functioned as symbols of economic power and were features stamped into the image of the town in a social fabric in which the spiritual and temporal worlds were inseparable and constituted one and the same reality at least until the late-17th century. Today we can scarcely imagine the power exerted by these structures, which the observer could not see with any proper perspective because of the cramped nature of the towns and their encircling walls. Yet some notion of the massive predominance of these structures can be gained even today from the outlines of the Danzig Marienkirche, the Church of St. Mary or the Cologne Cathedral. When, in the 19th

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on his spoons, knives and forks. This was a clear indication that the designer's real concern was not the utility value of the objects but the stark formal language of their design. The less functional a chair is, one that "has to look like a work of art" without being actually useful, the less functional its design will be. Since the architects of the 1920s had made it their objective to "overcome every style and get to the heart of the matter" and had condemned ornamentation, replacing it with morphology – whereby the basic aesthetic principle of construction was for ornamentation to be purely structural – post-modernism has turned formal technicalities into ornamentation. Aicher goes on to say that, according to the philosophy of post-modernism, we now live in a world of sign language – hence the exhortation "let's simply build signs"[12]. This entails the tiresome and idiosyncratic requirement that art as part of a building as well as art in the public sphere needs to show that this or that building is something special. Exaggerated pomp and kitschy wedding-cake style structures plus dramatising and sober monumentality, in which buildings with different functions and purposes vie with one another, have ultimately led not only to the aesthetic collapse of architecture. Buildings literally get lost in the urban environment——————

So it is vital to have architecture that is both functional and able to convey a powerful statement, architecture that can distinguish between the simply beautiful (its strength lying in the overall visual effect) and the outstanding individual structure, which is significant for the face of a particular town and universally as well. When this occurs, architecture once again becomes its own guidance system **[III. 31]**, rendering everything else unnecessary. The more symbols and pictograms there are to clutter the visual effect, the more obvious are the building's weaknesses. Viewed like that, it is farcical that the New Objectivity movement has only served to generate more confusion aesthetically, although it originally emerged under the banner of a war waged on stucco and cherubs for the purpose of simplifying wayfinding via functional clarity.——————However, we first need to agree on what sorts of towns we want. We are still building so-called modern towns, apart from some spruced up renovations that just look new, instead of the type of town that the ecological and economic conditions have long been crying out for. This fact is an acknowledgement of cultural bankruptcy on the part of those avant-garde forces that emerged 100 years ago and who, even today, determine the cultural canon of the professional architecture association. If we cannot agree, every well thought-out return to tried and tested ways will be unmasked as mere window dressing. Within the walls of towns, living is pluralistic but this is scarcely reflected in their context and architectures. Probably the difference here is between the ornamentation of earlier periods and what today is sold as "Kunst am Bau" or "public art". The fire-breathing dragon on the gothic cathedral **[III. 32]** made a statement just like the figures of saints or founders with a church in their hands. For over 150 years, mechanised society has been trying – in

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