The New Railways—A Complex Design Task

Prologue

A new era in the history of German railways was launched with the creation of the company Deutsche Bahn AG (DB). This article explains how DB can turn into the symbol of an efficient, convenient, ecological and comfortable means of transport, by applying brand marketing and corporate design concepts. In the end, the purpose of all entrepreneurial railway activities is to transfer more traffic onto rails.

Corporate Design: The Brief

Shortly after the economic reform of the railways through privatization, DB faced a fundamental internal reform and revised its corporate organization in a process of critical self-examination. Its corporate identity was reformulated. The former insular approach to the various railway brands, trying to put an individual face on each product, was replaced by a harmonized design for all railway sections (passenger stations, long-distance and suburban/short-distance lines, goods transport and haulage). This facilitates clearer and simpler handling of the DB brand.

But the clear self-definition of DB is only the first step in establishing the railway product as a reliable brand. The new corporate identity of a future-oriented, but tried-and-tested business, must be put across adequately by means of a new corporate design among other things. This concept entails coordinating all strategic and operative activities. In the future, the conceptual work, planning and implementation of advertising, product design, interior design and architecture will be coordinated and harmonized, because corporate design is the essential interface with customers. Only when corporate design is well thought out, is there a chance of merging the identity and image of a company.

The individual elements from all areas (technical apparatus, marketing, etc.) of DB, which make up its image, must be combined purposefully to form an overall picture conveying an unmistakable corporate image through corporate design.

Corporate design is the visible outer skin and structure creating a corporate inter-relatedness. The 'Deutsche Bahn' brand name functions as a kind of bracket encompassing all company divisions that differ in appearance, depending on the nature of their activities, and can develop divisional sub-identities. Within this kind of organization, the passenger traffic business is of special significance. The new passenger stations division was therefore constituted in addition to the long-distance services and suburban/short-distance services divisions because the railway station is essential to shaping the image of the overall railways product. In outward appearance, the railway station should articulate the promise of a product that the customer can rely on. Railway travel is a non-material product consisting of the actual transport plus a large number of services, some already operating, others still to be created by customer demand.

Additionally, the importance of offering the customer an aesthetic experience has either been underestimated, or simply disregarded so far, although it is a fundamental requirement if customers are to gain confidence. The overall design, the interior appointment and, of course, the architecture of station buildings as aesthetic space to be experienced, are just as essential as the design and interior furnishings of railway carriages. The reconstruction or new construction of the majority of the 6,500 German railway stations represents a highly complex task, requiring extensive and detailed planning.

Counter in Aschaffenburg Travel Centre Designed by Studio De Lucchi, Commended at 1996 Brunel Awards
taking into account many individual factors. In terms of function, the railway station should be an ultra-modern service and communications centre. Achieving such a transformation is only possible by implementing stringent design concepts signifying both the aim of renewal and the new DB concept.

The launch of an innovative corporate design for Germany’s railway network requires an unusual measure of creativity. Deutsche Bahn gives proof of its openness and progressive thinking in choosing competent partners, architects and designers. Many experts are being consulted for the conceptual work, especially through workshops where basic ideas are drawn up.

Corporate Design: The Aim

Deutsche Bahn sells a non-material product—travel by rail. That has always been the case, but the things people associate with a train journey were subject to constant change. For a long time, despite excellent preconditions such as long tradition, low prices and continual technical renewal, rail travel had an aura that did not make it seem high quality. This is still true today.

In the long-term, the Deutsche Bahn brand name should be associated with an improvement in the living standards of every citizen. Corporate culture and personality as well as sophisticated customer demands should lead to a new culture of railway travel. No other mode of travel offers the same opportunity for relaxation as well as time for communication or business. The convenient and fast interconnected schedules of high-speed trains must therefore be coordinated with all other services. The product must work on several levels and generally keep its promise to the market with regard to both technical standards and customers’ needs. Fulfilling the latter requires more than just functionality.

The new concept DB has of itself as a modern and dynamic service supplier has to be demonstrated in progressive technical facilities and in the ensemble of its configurations presenting a visibly unified whole.

To succeed in competition with other means of transport (car and aeroplane), the point has to be reached where people associate abstract, railway-specific values with a main journey. And to successfully compete with private rail operators, these values must be associated exclusively with DB. Taking a DB train must become a clearly recognizable brand item.

Even before the journey, at the start of the so-called travel chain, and in any case on entering the station, the traveller must be tuned in to the coming trip—no matter whether they are travelling on business, or as a tourist. Leaving the station at the destination should not be an escape; arriving should be the pleasant last stage of a smooth and pleasant trip, ensured by a clear sequence of events. The nodes—break points in a train journey—are of particular importance to the traveller, because this is where they make decisions; this is where travellers are especially observant and perceive the various elements of their surroundings with more than usual attentiveness.

The user-friendliness of the station is considerably enhanced by clearly organized design elements turning the concourse into a space that makes travelling easier. Functionality is important for the station’s usability and public acceptance. If the aesthetic features and atmosphere of the railway station are to be points of attraction, then the normal transport operations must be inconspicuous. The station should function without travellers constantly coming face-to-face with the mere functioning of railway transport. The railway station can also be an architectural treasure, but this seems to have been forgotten.

DB can take recourse to a valuable store of established architecture and should use this actively for its trademark image. The long tradition of the railways can be used for promotion, and the accentuation of historic railway buildings can be interwoven in a meaningful and aesthetically harmonious way with the new corporate design and with modern contemporary architecture.
Actually, for a long time, railways neglected the emotional side—the rail-affine components of train travel—from the ticket machines and the design of vehicles down to the use and architecture of station buildings, especially with regard to aesthetics.

Aspects of perceptual psychology as well as customer habits and trends must be integrated into the overall design so the customer can identify with the product. Form is shaped by a complex environment bearing functional, structural, technical, social, historical and many other characteristics. Even in this maze of conditions, desires, habits, and fashions, one cannot maintain form that ‘follows’. Form does not follow anything. It evolves in a way about which we know very little. The DB design strategy addresses the largest possible range of customer acceptance and reactions. Of course, railway stations must be functional, but they should be more than a mere instrument for satisfying a basic need. They also have to address aesthetic and emotional demands. Deutsche Bahn must use its chance of meeting such demands.

The aim is a combination of functional efficiency and abstract meaning. On one side, there is the building engineering, but on the other side, there is the whole sphere of expression; the attempt to use the structural forms in such a way as to convey the meaning of the building to the spectator and user, and enable them, with a fuller response on their side, to participate in its functions—feeling more courtly when entering a palace, more studious in a university, more citizenlike, more cooperative and responsible, more proudly conscious of the community, when going about the city and participating in its life.

The DB customer should feel more inclined to travel by rail. At present, the image of the railway station considerably impairs the image of the product called train journey. We must aim to achieve the opposite.

Revision

To answer the question whether and how DB can convey its identity and product to potential customers, it is useful to take a short excursion into the history of the railway station and its public reception.

Architecture

The railway station as a permanent architectural manifestation has not just been important for customers entering it; it has also been the centre of urban life. In most cases, the railway station occupies an unrivalled prime location in the heart of the city or in another convenient central position, connected to other transport networks. Persons on business or tourists almost always pass through a town's railway station. The railway station of the future must be an attractive place that does not have to be avoided at all costs. It should be given another chance of becoming a vibrant part of a polycentric urban layout, integrated in its socio-cultural and economic infrastructure.

The Bahnhof 21 project, among others at Stuttgart Hauptbahnhof, offers such opportunities. An underground railway station is to be built in the next 15 years. The station building by Bonatz and Schoeler will be largely preserved with the access to the underground platform hall covered by a glazed roof. The most dramatic change will be the relocation of the tracks in an underground tunnel through the city to the terminus, freeing large areas for housing or business parks. The station neighbourhood will be improved because it will be less noisy and polluted, improving the image of train travel as a result.

In addition, shops and offices, etc., will be integrated into the railway station buildings, creating a pleasant space where people will want to go and replacing the present dingy snack bars and cinemas which repel everybody including passengers. Letting shops and offices at a railway station requires an appropriate neighbourhood ambience.

The Lehrter Bahnhof project in Berlin is an excellent example of how business uses and railway operations are combined in one complex through which 30
million passengers are expected to pass every year. The station will no longer be regarded as an isolated building, but as an element within an overall urban architectural ensemble. Perfect integration with local infrastructure becomes self-evident, and the flows of regional and inter-regional traffic will mesh smoothly. The new railway stations will be modern service and communication centres, with rail travel as the main service. Their architectural configuration and design will convey the DB image to potential customers, local inhabitants and visitors. An up-to-date transport architecture creates a balance between the progressive and the timeless.

Mumford speaks of buildings, ‘...designed with utmost rigour for effective operation...’ and says, ‘But these buildings have at least the quality of all organic creations; they identify themselves and so symbolize the function they serve. When a steam locomotive is fully developed, for example, so that all its excrescences and technological left-overs are absorbed in a slick overall design, “streamlined”..., that locomotive not merely is more speedy than the primitive form, but it says speed, too’.

The Station’s Public Appeal

In the 19th century, railway stations were seen as the cathedrals of transport and the new city gates. To travel by train was a fascinating experience, even though this mode of transport was very uncomfortable for most. The architecture of station buildings reflected the fact that rail travel was held in high esteem. Almost no other historic edifice was built to such grand architectural designs. There was an air of luxury surrounding rail travel, and the station was a grand and lively place radiating a noble atmosphere.

However, basic structural changes in the early 20th century led to the decline of railway stations—their aura and outer and inner appearance—and this had a devastating effect on the value attributed to train journeys. After the emergence of mechanized and industrial mass production during the second half of 19th century, mechanization also entered the people's private lives at the beginning of the 20th century. As technology produced a constant stream of new products, people in cities had less money to spend. Most people working in cities also lived there and used local transport. The development came full circle with the means of transport entering people’s daily lives in the 1920s as the car, which was increasingly seen as a mobile household object and which is the last part of an American’s belongings that he or she would part with. The American’s affinity to the car as personal property applies to Germans to an even larger degree. The Volkswagen, or ‘people’s car’, became every German’s dream. Conversely, the railways and their stations, were de-personalized. The railways no longer provide great technical fascination. People have lost their emotional ties to railways and are now emotionally attached to their own private property. No more money is spent on the architecture of railway stations, instead traffic planners press ahead with road networks. The railway station is reduced to a mere stop where one spends the shortest possible time—a mere necessity. After World War II, destroyed railway stations were reconstructed to post-war functionalist designs. Miaschift annexes were added to historic buildings and gradually fell into decline.

The economic boom of the 1950s was accompanied by far-reaching changes in lifestyles and living standards. The various crazes—like the eating craze, the travel craze, the car craze—held enormous fascination and conquered new consumer groups, capturing both the individual and collective imagination. By contrast, railways appeared old-fashioned and became the transport of senior citizens and people without a car. The outer appearance of station buildings corresponded to this attitude. Already in 1967, one observer remarked, ‘Uneasiness befalls me when I face the style of German reconstruction, and many of you who are confronted with such buildings, just as much as any professional expert, will share this feeling’.

The car seemed indispensable due to its apparent independence, and consequently the railway stations lost the significance and architectural quality of the 19th century. Stations joined Sleeping Beauty in a kind of aesthetic slumber from the 1950s to 1990s followed by an unpleasant awakening with regard to their architectural design and slump in passenger market share from 36% to just under 6%.

Status quo

Today the cities with their high property values and cost-of-living are no longer the centres of manufacturing industry which long since migrated to the urban periphery, increasingly making itself dependent on motorway infrastructure. Formerly, railway networks were prerequisites for the establishment and development of industrial ventures, but they have experienced a change in function; both the cities of the late 20th century and those of the next century will be centres of services and communication technology. The products of these economic sectors are non-material, meaning fewer goods to transport, so the urban railway stations will primarily serve passenger transport. This facilitates restructuring and reconstruction of railway stations as suggested. Interconnection with urban freight stations becomes obsolete since any business or industry near a railway station will not necessarily rely on rail haulage.
sequently, the design of railway stations can be based for the most part on the requirements of passengers—goods haulage should be served elsewhere. The railway stations must adapt to a society that is largely affluent middle class. Railway customers have changed. For a long time, the railways were considered relief transport for the poorer classes; today, the middle class and business travellers are its customers.

There are numerous reasons for not taking the car. The stronger awareness of ecological considerations has permanently injured the car’s image. Driving along congested roads is frustrating, and large cities experience regular traffic jams. Car theft, lack of parking spaces and dark multi-storey car parks dampen the car enthusiast’s spirits. By contrast, the railways are again evoking positive associations of an increased ecological compatibility.

Two key constituent parts of the railways—transport and service—must be brought together. The big gap between the technically highly-refined transport in high-speed trains, and neglected services, must be filled in terms of design. Deutsche Bahn now has the chance of giving shape to the idea of a sophisticated, cultured way of rail travel.

How can DB react to the changes in social conditions? Deutsche Bahn, with its corporate design strategy, has set out on the right track to meeting the largest possible range of customer needs. It offers new products and services which customers accept as convenient, practical, pleasant, or simply as a good brand item.

**Corporate Design: The Concept**

The acceptance of the rail travel product and of the stations must be taken into account much more in the conceptual work on an overall design. The main theme of the railway station should be travel and all activities pertaining to that. Every building performs work, if it is only to keep off the rain or to remain upright against the wind. The emotional attachment of the customer to the product of rail travel, and the identification of this product with DB, must turn into an awareness of a brand item. Reliance will be created by visualizing a clear and enduring corporate structure. Aesthetic features can permanently influence the impression an observer has of a corporation. So a person entering a station again feels close to the train journey. The unified overall appearance of the corporation through corporate design is defined by innovation and confidence. Unified aesthetic standards complement and emphasize the individuality of the station. An architecture worthy of preservation, as well as local colour, gives a distinct personality to each railway station.

The corporate design is based on the principles of overall unity and diversity of individual elements. The new railway station is designed as a consistently unified space to be experienced, satisfying every customer’s demand of it. The new concept of passenger stations is essentially determined by three factors: quality, economy and customer as focus. This will be achieved by a unified brand image with permanent features and structures in keeping with the corporate identity.

Immediate measures are included in the three-step programme: safety, cleanliness, and service, are the values customers should associate with the railways. Safety could be ensured by increased employment of security guards at railway stations, but this can lead to high costs and also creates an unfriendly controlled atmosphere. So the feeling of safety should rather be conveyed by architectural design and appointment of interior spaces. Transparency and a friendly ambience are key words. Equally, cleanliness must be created not only by cleaning, but also by use of bright, easy-to-keep materials, and an architecture without any slummy corners. Of course, service is an essential basic prerequisite for the new concept of passenger stations. Following the various improved, personalized services, the emphasis is on service through design. Findings from qualitative market analyses and customer interviews by experts form the basis of the design process. Forward-looking solutions must be found which do not just rely on the status quo of present customer structures.

The basic demand required of comprehensive strategic measures is longevity, requiring a basic agreement on the design fundamentals and aims. Today’s development must remain innovative and contemporary for a long time. Different elements may be altered in time within the basic corporate design structures. In practical matters (e.g. choice of materials), the value of longevity must also be ensured, if only in view of future renovation cycles. In the long-term, design and technical quality are worth the cost. In addition to conceptual work, all strategic activities are managed by the Design Management Division. Project models are subjected to intensive acceptance tests and findings are integrated into prototypes, some elements of which are installed at just a few larger stations.

Like the new outward appearance, the function of the railway station must be re-defined, too, requiring dynamic reform, because its original function has changed. The fact that this activity is occurring in so many diverse places (at least in countries where conservation is an issue) is proof of the essential place of the railway station in the history, social life, arts, and affections of so many large and small communities. The station was not only a vital link for each town and village to its wider locality, region, and state, it was also a meeting place, com-
munity centre, and shopping area. It was the telegraph office, post office, newsagent, and vital news and intelligence-gathering centre in countless towns around the world. With the fragmentation of transport facilities and opportunities, the containerization of freight, and the rise of the mass media, no other building will ever have the same all-embracing role. In that sense, the original significance of railway stations can never be resurrected (11).

By combining various infrastructural services, the railway station can fulfil the needs of travellers in the best possible way, and work as a vital centre of activities at the same time. The railway station should be a service and communications forum.

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**Corporate Design: The Implementation**

The new concept of the public presentation of DB is being implemented in a number of ways, by means of a quantitative increase in and qualitative improvement of its products (variable tariffs, more flexible schedules, etc.) among others. Deutsche Bahn is now setting new standards for a top-level, all-encompassing design.

**Basic criteria**
The criteria for all development steps described on the following pages are: longevity, safety, flexibility and authenticity. Fundamentals for the choice of form, colour and materials are the basis of further activities. All constituent parts of the corporate design should be simple, timeless, functional, yet innovative in detail. Like other firms with an unmistakable trademark colour (red for Coca-Cola, yellow for Lufthansa, etc.), as a first step, DB decided on corporate colours of red, grey (two shades), dark-blue, and light-blue. The colour range was restricted in favour of a clear, easily-recognizable catchy design.

The entire range of possible materials was combed; durable and authentic material standards, complementing the corporate colours, were chosen. Natural materials like wood, stainless steel, aluminium, natural fabrics and leather were chosen replacing interior materials differentiated by veneers or coatings.

**Graphics**
Professor Kurt Weidemann designed the new graphics in cooperation with DB, giving evidence of the corporation’s innovative intention. The old DB logo was revised with care taken not to impair its recognizability. However, compared to the old logo, it appears simpler, more succinct and up-to-date.

**Trains**
Deutsche Bahn trains now appear as a uniform group; the different colours of local/suburban and long-distance trains were replaced by a uniform colour scheme in the corporate colours red and white. Various elements create a differentiation; horizontal colour strips for long-distance trains, and vertical articulation (emphasis of doors) for local/suburban trains. The formal design vocabulary applied to railway trains denotes their belonging to a family. All DB trains have the same basic form, with the head designs varying according to the train type.

The interior appointments follow the basic principles of the corporation’s design: leather, wood, and woven wool carpets in 1st class compartments, natural fabrics and wood in 2nd class.

**Train platforms**
The design of the platform furniture is geared to creating a cool and calm appearance, apt to help travellers find their bearings immediately before departure or after alighting. Platforms are divided into circulation and waiting areas. Just a few basic high-quality materials are used; stainless steel, mild steel, glass and uniformly-coated surfaces, in a clear arrangement. Individual seats, benches and props are of laminated wood and aluminium.

At the same time, all service amenities on the platforms have been redecorated to present a uniform picture—advertising boards, drinks machines, phone booths, waste bins with separate containers for different kinds of rubbish, and important information carriers made conspicuous by their design. Ticket ma-
chines, carriage displays, clocks and emergency call boxes are clearly marked as basic pieces of platform furniture and elements of the train journey, helping passengers find their way or pass the waiting time pleasantly.

A new lighting system creates subtle ambience. The present space lighting will be replaced by systems providing spot lighting for certain areas and variation of light intensities for others. Lighting systems will be integrated into platform roofs. The prevailing dreary roofs of the Essen and Frankfurt type will be replaced by roofs designed by von Gerkan of Marg and Partners and by the civil engineering consultancy Schlaich und Schuck.

Service areas
Special attention has been paid to the design of service facilities. The results of various workshops and analyses were used for a customer-oriented design. Interior and product design have played a big role.
Under the heading of a friendly railway station, concourses are equipped with dumbwaiters and service points, lending them character and enlivening them. These elements are just the beginning of a long-term overall design concept for renewing railway stations.

Travel Centres
The newly-installed Travel Centres have meant a comprehensive refurbishment of an essential part of railway stations. They occupy a prime position in the customer contact and are symbols of transport performance and competence. Professional, well-designed workspaces also contribute to motivating employees. Professional competence, reliability and, above all, friendliness make up the Travel Centre's personality. Speedy and reliable information and advice in a peaceful atmosphere should be the norm.
Four basic services—self-service, information, sales and advice/consulting—allow flexible use and even distribution of customer streams in the Travel Centres. In particular, customers can browse at leisure, advised by competent railway staff. More express-ticket counters will be installed for business travellers, especially during peak times. Since new counters are designed for flexible use, they can react quickly to changing situations. Information on LCD panels can be updated instantly. The information counter offering specials for leisure travellers can be transformed within seconds into an express-ticket counter giving current information on a change of platform for departing trains, or on connections. Furthermore, the Travel Centre is a competent travel partner due to its connections with local transport systems, car-hire firms and airlines. By serving customers at stand-up counters, and advising them at sit-down desks, the Centres offer a balance between quick information and the services of a travel agent.
The Travel Centre is the heart of the railway station; everything here is focused on travel. The main design elements are open and inviting backlit counters. The simple language of the individual units, in combination with a restrained colour scheme and high-quality materials (wood, glass, stainless steel) creates a matter-of-fact but attractive ambience, enhanced by appropriate lighting. The overall space is perfectly appointed with composite stone flooring, sound-absorbing ceilings, and blinds of natural wood. With regard to the technical side, the variable system fits in with the existing building structures of the railway station. The restrained aesthetics of the Centres inserts itself harmoniously into the station architecture.
The prototype for all Travel Centres, in Aschaffenburg, is framed by glass walls, giving a view of the tracks and platforms. The 1950s architecture is supplemented, matched in style, and, at the same time, contrasted with transparency. Subsequent Travel Centres are to be characterized by transparency as well. Glazed enclosing walls and glass lighting masts will point the way.

Travel Stopover
The comfort of the traveller before, during and after a train journey is determined
by adequate waiting and resting spaces. The railway is not meant to be an interface for transport connections, quickly traversed, but an inviting place to stop and rest. The new spaces called ‘Reisepause’ (Travel Stopover) fill a vacuum created by the elimination of the old waiting halls. The customer is no longer forced to spend stopovers in a drafty corridor, fast and direct transport connections, is supplemented by space and comfort. The main product of the railway is freedom of movement and basic needs for warmth, human scale, well-being, freedom of movement and comfort. The customer is no longer forced to spend stopovers in a drafty corridor; instead, customers can spend time in various waiting spaces designed for different groups; business travellers, families, youths and senior citizens—each can find a space suited to their needs. The ‘Relax Tunnel’ offers rest and concentration, the waiting room offers amenities for children to play, the conference room has the necessary communications technology. The Travel Stopover hall also comprises a restaurant and left luggage deposit. The basic organizational element of the waiting zone is a space grid allowing the greatest possible degree of flexibility. It can be fitted into any railway station without major reconstruction, and the various spaces can be enlarged or made smaller using movable partitions. The interior decor of Travel Stopover areas is different. Standard elements, designating function, are the same at every station. Reception is symbolized by a big green apple in front of a wall in signal-lamp red. The children’s play barrel is a fresh light-green, and the rest area is quiet blue. These colours supplement the simplicity of solid materials like wood, natural stone, leather and stainless steel. The Travel Stopover serves customers’ basic needs for warmth, human scale, well-being, freedom of movement and comfort. The main product of the railway station, fast and direct transport connections, is supplemented by space and time for relaxation.

**Travel Fresh**

The toilets of railway stations are presently in a desolate state; many travellers avoid them entirely, considering them dangerous and dirty, and only using them in an emergency and hastily leaving. The new Travel Fresh spaces have toilets as well as rooms for body care and make-up. All these new amenities are inserted into existing station buildings based on each station’s local situation and context. In rebuilding or restructuring a railway station, the architecture retains the individual character which is integrated into a new overall concept. Preservation and enhancement of valuable historic buildings is a major goal. The timeless design of new elements and their careful integration into the existing structures will neither outshine nor destroy historic architectural aesthetics.

**Epilogue**

First reactions to measures such as the pilot Travel Centre in Aschaffenburg, have been very positive. Both users and the media are impressed. The corporation now has to ensure that this positive impression, still mingled with appreciative astonishment is confirmed. The new service facilities at railway stations and the completely new emphasis of the aesthetic side of their appearance set widely-noted high-quality standards that DB must maintain and improve. In future, such continuous improvements and innovations will be integrated into the present design concept. Like every other corporate design, the overall design of DB must give proof of a permanently high level of innovative imagination, creativity and, above all, sensitivity. Corporate design is the ideal instrument for processing the constantly-changing needs of customers and thus shaping the DB service enterprise. In this way, the corporation will maintain its up-to-date development level.

**Christian Steguweit**

Christian Steguweit is the head of the Concept and Planning Department of Deutsche Bahn AG and is managing director of DEKOH. Before joining DBAG, he worked as the Head of Central Marketing Luthansa. Mr Steguweit also contributed the article ‘Tomorrow’s Railway Stations’ in *JRTR 6.*