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Chapter 1 : Elsewhere: The World of Contemporary Architecture by Francisco Asencio Cerver

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architecture, are not, or at least not at any length, discussed. The book does not contain detailed case studies but it lists a great number of realizations with examples of the various ways technology impacts on new architecture. The Bibliography primarily covers the publications consulted by the author during his work on the book and, even so, have usually been restricted to the most recent publi- cations. The Bibliography may be considered not only as the source of References but also as recommended further reading material. The author had to limit the number of illustra- tions. For many of the captions a particular method has been employed. The main text of the captions defines the illustration and following this are the technical details and features to which the author specifically wishes to draw the attention of readers. The illustrations are positioned within the framework of the corresponding subject matter as the illustrations within that chapter or section, but their number is not generally indicated in the text because in most cases there is no reference specific to an illustration; it is only the common subject area that links them to each other. Preface The author wishes to express his appreciation to all those who contributed in their different ways to the preparation of the book by infor- mation, illustrations or other means. The author records his gratitude to Julius Rudnay who was kind enough to read the first draft of Chapter 1 and to make a number of useful suggestions. The author wishes to thank Christopher Polling- ton for his exhaustive revision of the draft manuscript and for his substantial assistance in final editing. His notable contributions to Chapters 5, 6 and 8 are also gratefully acknowl- edged. Much of the final wording is attributable to him. Highly valued editorial contributions were also received from Agnes Sebestyen, Judit Adorian and the team at Architectural Press. Naturally, the author accepts sole responsibility for any remaining errors or other deficiencies. This Page Intentionally Left Blank 1. The objective of this chapter is to build on this tradition by describing these trends while placing particular emphasis on the second half of the twentieth cen- tury. Whilst other chapters will be dealing with the technological aspects and diverse specific areas of architecture, this one will focus on the changes in architectural styles, but not at the expense of ignor- ing the corresponding technical, aesthetic, social and other influences. The intention is not to com- pile a comprehensive history of architecture, and the chapter is restricted to aspects relevant to the subject of the book: For expediency, the discussion is divided into three year periods: As the subject of this book is contemporary archi- tecture, the first period will be discussed only in perfunctory terms. More emphasis will be given to the second one, and still greater detail to the final and most recent period. Whilst this book is devoted to the contacts between architecture and technology, one should not forget the other aspect of architecture as being also an art, indeed one of the fine arts. It has in par- ticular a close affinity with sculpture. In some styl- istic trends for instance in the Baroque and in the Rococo the division between these two branches of art was scarcely perceivable. In modern times architecture was more inclined to separate itself from sculpture although certain e. Later, during post-modern trends, sculpture again came close to architecture so that some architectural designs were conceived as a sculpture Schulz-Dornburg, However, in all that fol- lows in this book we focus attention on the inter- relationship of new architecture and technology. On the other hand, up-to-date high-tech technol- ogy may be directly used for new forms of archi- tectural art. Such forms, as for example the application of computer-controlled contemporary illumination techniques, are part of the subject mat- ter of this book and will be discussed at the appro- priate place. Independence was achieved by what were former colonies as, for example, in Latin America. The ben- efits of scientific revolution and industrial develop- ment were reaped mostly by the leading powers of the day: Their conflict resulted in the First World War of â€” During this year period the construction industry progressed enormously. Even earlier in the s, railway construction was expanding at first in the industrialized countries, later extending to other parts of the world. The growing steel industry pro- vided the new structural building material. A few decades later, the use of reinforced concrete began to compete with steel in this field. The progress in construction during this period was perhaps best symbolized by the Eiffel Tower, designed by Gustave Eiffel â€” Figure 1. Originally metres high, it was taller than any previous man-made structure. More than a century later, dur- ing which it has become one of the best-loved buildings in the world, it is still standing intact. A subsequent engineering feat was the Jahrhun- derthalle in

Breslau now Wroclaw , designed by Max Berg â€" Figure 1. In this heroic period, such technical novel- ties as central heating, lifts, water and drainage ser- vices for buildings became extensively used. In architecture and the applied arts, there were attempts to revive historical styles, such as the neo- Gothic and neo-Renaissance. Gustave Eiffel, m high. One of the first spectacular results of technical progress in construction. The first ribbed reinforced concrete dome whose span 65 m exceeds all earlier masonry domes. A similar style was propagated in Britain by the designer William Morris â€"96 , and in America by his fol- lowers, in the Arts and Crafts movement, whose aim was to recapture the spirit of earlier craftsman- ship, perhaps as a reaction to the banality of mass production engendered by the Industrial Revolu- tion. Using exaggerated plasticity and extravagant shapes, the German Erich Mendelsohn â€" and Hans Poelzig â€" were important figures in the lead into modern architec- ture. With the end of the First World War in , the tra- ditional authority and power of the ruling classes in Europe diminished considerably, and, indeed, in some cases was completely eliminated through revolutions. Even in the victorious nations, such as France and Britain, the loss of life and sacrifice on a vast scale amongst ordinary people fuelled resentment against the establishment. Germany, having lost the war, was in turmoil and the Austro-Hungarian monarchy ceased to exist altogether. In consequence, the political and eco- nomic realities of the time in Europe and elsewhere were most conducive to breaking with tradition, and in this, architecture was no exception. In Europe, the first focal point of the new aesthet- ics, modernism, was the school of design, archi- tecture and applied art, known as the Bauhaus, founded by Walter Gropius â€" in in Weimar, Germany. The early Bauhaus style is perhaps best epitomized by its own school building at Dessau, designed by Walter Gropius in , a building of a somewhat impersonal and machined appearance. Gropius was succeeded as Director by Ludwig Mies van der Rohe â€" in Perhaps his best works of the period were the German Pavilion for the International Exhibition at Barcelona and the Tugendhat House at Brno, Czech Republic in and respectively. Mies van der Rohe can be counted as one of those architects who genuinely exercised a tremendous influence on the develop- ment of architecture. His Tugendhat House influ- enced several glass houses Whitney and Kipnis, We can also see his influence on the archi- tecture of skyscrapers and other multi-storey build- ings. In France the most influential practitioner of mod- ernism was the Swiss-French architect Charles Edouard Jeanneret, universally known as Le Cor- busier â€" His early style can best be seen in the two villas:

Chapter 2 : Paul Andreu | AÃ©roport Charles de Gaulle - AÃ©rogare 2 - Gare TGV

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General Secretary of Europan and coordinator of the Scientific Council. For the urban players, the 13th session. A theme and three sub-themes to the actors and competitors: This session continued the theme of the the project develop around value as sharing While the objective of the municipal players Europan 12 competition, The Adaptable City, and solidarity? Urban projects need to be a greater role to a bottom-up approach? The trick is to be on the production processes over time than on for a transitional period, until conditions are able to combine the long term â€" a vision for the ready-to-build objects? And when a more long-term moving, changing, dynamic. It perspective is possible, it is still expected How can we escape from the still prevalent is noteworthy that despite a severe crisis in the that the projects should, over time, be able to attract potential investors. Experimental projects proposing a mix of realism and innovation For the competitors, therefore, the task was to carry out the complex exercise of conceiving projects that combine a vision for the future, innovation in the project design process and pragmatism in implementation. Naturally, different interpretations emerge in the responses, but the juries were keen to choose winning teams that were proposing innovative project practices around one main question: The winning proposals that this article wishes to explore are those that propose changes in professional practices and challenge the traditional role of the architect. However, these big architectures are public spaces will be created. However, this designed to be flexible and to accommodate intervention leaves open the integration â€"in the to changing uses. For example, the floors can long termâ€" of future uses, which will need to host different functions and the programs can be agreed with residents. The This same standpoint is found in teams lasting object-project cannot be separated that are not working on an existing fabric, from the process whereby it is reused. For them, the challenge is to reuse stable places. It is a complex structure, multilayered, It compacts lines of buildings that resonate typologies that can adapt to new uses. The challenges are to reclaim built-up plots in a historical fabric and to introduce a new program into a former museum site. For the team, this means reconciling respect for the existing qualities and adaptability, i. The team proposes to reinforce the public spaces in the block through smallscale micro-interventions that will render it adaptable without fundamental alteration. And this assumes certain specific spatial arrangements to allow changes of use. This position is a renewed version of a fairly traditional attitude in the culture of the European city: For them, the public dimension of the city is what can be defined and controlled over time, whereas buildings â€" which relate more to the private sphere â€" are less easy to program and are more arbitrarily embedded in time. Their idea is that public policies and structures should implement and manage such a program. To this end, the team proposes a series of 5 strategies and 25 initiatives to form the framework for a clearly planned decisionmaking timetable. From urban-scale parks to interior courtyards, this is a global strategy on public space entailing a non-linear implementation process. This raises the team with its Creative City fig. The team conducts a close analysis in their use public space as a fairly rapid way of possible programs to develop new ways of life through specific building interventions housing, boarding houses, social centres, cultural foundations. However, all these programs will be linked by a participatory public space with citizen involvement, which allows implementation to be spread across different sites and over the long term. In Molfetta IT , a city seeking to rehabilitate its seafront, the runner-up team, Molfetta, terra e mare fig. In any case, after should include the long term of the territory: Nothing Europan 9 it had already introduced with the slow evolution of the Allier River, bridge lines, reprehensible in that! Still, faster urban form and guarantee its implementation housing in the town. The of expertises in terms of project: However, since the concept is based on the idea of developing topography of which allowed the preservation project cannot be implemented in one go, this district sector by sector, in constant of the urban development.

Just like in Moulins, the team proposes a double scale: They will occupy the space until more substantial consider that these sites have a history, both in programs can be implemented. It is a tribute physical space, but also in practices. For some, therefore, the outline of Between two project strategies that operate the project emerges from a meticulous analysis in similar contexts and in the vacancy of the of this existing state. This diagnosis, which brings of the diversity of ways in which the winning familiarity with the minute details of both spaces teams seek to manage adaptability. For the team, the principles of adaptability and self-organization relate to the idea of revealing the values of the place and drawing on them to define a new future. To achieve this, it emphasises the importance of the place, of morphology, of perception and evolution, involving human beings as both inhabitants and makers of their environment. The goal, as Cedric Price called for in architecture, is prevention rather than cure. Their goal is to introduce into the existing fabric production spaces and activities that are compatible with housing. They devise typologies capable of accommodating such a mix: On an industrial site project is not a finished form, but a strategy slated for conversion, they see the priority as based around principles and that must be being able to accommodate to movement capable of adapting to real needs at any time. The architecture itself must be able these forms can no longer accommodate to to adjust rapidly to keep pace with changing changes in the city. They prefer to propose a uses. Their approach is to implement a project mechanism that allows precise outcome of the process necessarily a set of negotiations in which, in the long term, changes and adaptations. This site, well positioned along dynamism. To inclusive process-project, which will benefit interactions and negotiated uses. It proposes testing future no doubt less defined, but the project is economic players, so that new uses can be functions with the participation of the users permanently negotiated around responses to introduced while still improving the commercial and conceiving a process that adapts over change and precise urban goals, without the dynamic. For them, the theme of adaptability reflects the needs of the site: Where should we therefore search for elements to fill the emptiness up and when can we consider it as a value? How can we give sense to vacancy and integrate it in new ways of making the city? Founder of plattformberlin office DE. Guest professor at the Frankfurt UAS. The decision it is an absurdity to maintain the existence of discontinuities, sudden shifts of spatial to recover the place was driven by economic of Nothing. Thinking of vacancy in an urban them, there are three recent case-studies exception of some moderate towers. There context, it is my city that first comes to my as archetypes of voids. Their nature has was no public debate, the pressure was too mind. Berlin has been the capital of voids, been transformed in the last 25 years, due to high. The result is well known, the former void at least for the last fifty years, if we consider changes in economy, governance or society. Someone shot nostalgia almost all sorts of voids could be found, upheavals. Their fate could also be seen as in the back. A former railyard right in the Berlin are, due to its polycentric structure, exhausting youth by the unified cardboard-like South of Potsdamer Platz, it was abandoned forming gaps or areas reserved for particular scenery, turning an uncertain yet identifiable for many years, pioneer plants took over the purposes between them. World War II changed smile into a hollow grin, or, as an opposite site making it almost inaccessible. The shift the face of the city, causing multiple scratches posture, exposing the cracks and wrinkles in of the ownership from the railway company and broken teeth, wounds and missing links. Nostalgia burns in the hearts of to the city of Berlin and the development of From the numerous open plots that have not the strongest. Potsdamer Platz made it possible to realise a new park on the site. The constructions needed an ecological compensation in terms of unsealed surfaces, and there was a large public demand for green spaces. The discussions between the developers and the inhabitants were tough, finally a compromise was found and it was decided to redefine the borders by new constructions, also meant to balance the costs for the park. The third, most recent and probably trendsetting vacant site is the former airport Tempelhof fig. Blind spots, wastelands, never managed to convince the public opinion. After the never- surrounding fabric or filled up with known ending story of the construction of the new structures. With reference to authorship, Michel Berlin airport, the posters with the bored face Foucault has shown which conclusions can of the mayor and the question: Now, the situation reveals itself as a mirror of current debates on a dramatic setting and immediate

access to a is blocked, in times when there is a need for urbanity. A disaster Reconnections in communication, a Waterloo for urban Some of the vacant sites basically need unique occasion to promote a new centrality, planning and a cautionary tale for the power a reconnection with their surroundings, combining elements of the built heritage and of BANANA â€" Built Absolutely Nothing Near tightening the loose fabric and redefining a landscape features with additional activities. Three examples, in is especially the case of the sites connected setting close to a lake and a river at the edge the course of a few years, which show an to water, whether lake or river, as the city offers of the city centre fig. In was inaccessible for more than 50 years, property and the appropriate governance. The having a close look at the sites, although due to its occupation with oil cisterns fig. This gives the city the river Sava, with four specific sites for possible scenarios inside this large perimeter fig. A very contemporary situation familiar to many European cities, a sort of waiting time until further decisions, filled with temporary public occupations. Here, the task was to attract new users, intensify urbanity and find out what kind of infill could give sense to these current urban 8 - BERGEN NO voids. More and more military airbase, has a mind-blowing scale; it retail outlets are going out of business, leading needs to be gradually converted by a long-term to vacancies and deterioration. The city needs a process, incorporating multiple uses fig. Recent densification processes led to 13 - FELDAFING DE a patchwork of small development projects, Toolkits and catalogues without any overall urban project or coordinated The proposals discuss contemporary questions land-use strategy. Therefore, the brief asked for of urban forms â€"light city Vs. Finally, it is about different situations. By deconstructing the A third group of sites comprises former projects, their proposed methodology and their military areas liberated by the Europe-wide visual presentation, a number of comparable reorganisation of military forces and their approaches appears, in terms of strategy, concentration on fewer and smaller sites, finally expression and proposed programmatic keys, a movement of economy. Its future is part of the mutation built as an elite school for the National Socialists around, occasionally named forum, agora, of the whole Garonne Eiffel sector, and the in an idyllic location next to a lake fig. Some of them appear as challenge is to deal with the tension between Today, several identical buildings in alpine pure demonstrations of ill-conceived lists of the heritage and additional new programs style still remain on the site as testimonials possible interventions, while others try not and to organise the subsequent realisation of the sinister past, and the main task was to only to establish toolkits and catalogues, but process. As in many other European towns and propose a reorganisation of the site in different also aim to create an intelligent overlapping cities, the city centre of Leeuwarden NL has zones, allowing for a flexible and differentiated of ubiquitous spatial arrangements and the undergone a transformation, both in terms of development. BA in Metz FR , a former local context. This rulebased concept is completed by a toolkit with proposals to upgrade and adapt the existing villas. The existing landscape typologies in the region are identified and set up as models for the structuration of the vast space, using archetypes as the prairie, the orchard or the agricultural greenhouse. In Leeuwarden, runner-up Urban Prescriptions fig. A clever and well-targeted adaptation of the omnipresent toolbox, applied at all scale levels, from the city in its entirety to the profile of a street, not without reminding Camillo Sitte or Christopher Alexander around the corner. It intensifies the existing by extension, space along the shoreline that connects the considerably augmented.

Chapter 3 : Engineering Timelines - TGV/RER Station roof, Charles de Gaulle Airport

Site officiel de Paul Andreu - L'aÃ©roport Charles de Gaulle - AÃ©rogare 2 - Gare TGV, France. Paul Andreu et Jean-Marie Duthilleul, Roissy Charles-de.

Along the mainline system, commuter and local lines, stations are developing into railway transport crossroads, and service and living centres. In the future, their design will fit closely into huge city-planning schemes. The change has taken place through dialogue and consultation between the various parties and partners inside and outside the SNCF. By reappropriating some of the architectural archetypes of the past, the modern station is starting over as a symbol of travel and a pleasant place for the customer. The railway station runs the danger of being a non-spot, a mere transit point. However, in France, the stationâ€"new or years oldâ€"remains a place that is thoroughly accessible to its users and the areas it serves. The expansion of the TGV system South-East, Atlantic, North now serving Europe has generated a network of new stations presenting a powerful image, like older stations did, sharing a common identity. In fact, the old stations, built formerly at the city outskirts functioned very simply on a single level. However, the city has since developed around the station and diversified into underground and overhead transportation systems, etc. One hundred-and-fifty years later, the station is far more elaborate, functioning in three dimensions on several levels. In Lille, for example, the train is connected in a most practical way to all the transportation modes of our modern age. Subway, bus, trams, bypass, taxis and parking spaces are as near as possible to the platforms. This can multiply functional constraints and contradictions, but it is in the resolution of such contradictions within a more compact space, that the heart of any railway station project lays. Functional intricacies must be taken into account while properly positioning the principles for identifying the place and the visual relationship to the city landmarks that are the very source of the simplicity of use. It is this kind of balance that creates the modern railway station. Denanci Functional modern stations reviving their heritage The modern railway station propagates the past and maintains its links with history. It could have been severed from our inherited architectural archetypes. Its immutable features being a colossal main hall, subdued light, and stone soaring to the sky to meet the metal framework of the immense ceiling: During the s and s, the automobile and plane, more flexible and faster, almost obliterated the enchanting image of transport by rail. The few stations built in that period are bogged down in the surrounding cityscape deprived of the status of noble edifice. City and station were at best simply juxtaposed. However, in the last 15 years or so, society seems to have re-discovered the railway once again, because it is the fastest and cheapest land transport mode linking the hearts of cities. The new and renovated railway stations propagate the system without breaking the heritage of the past, and also cast the past into the future. To marshal this cluster of functions, the SDO had to reinvent some space arrangement and handling principles incorporated in all stages of the project. These principles can be summed up in a single phrase: For the user, comfort and fluidity are achieved by easy access and simultaneous perception of the various levels. Consistent materials contribute to system identity The main principles of functionality have been formalized in an architectural charter. Without making any judgment on the shape to be built, the charter gives guidance to designers on matters of interior appointments, threshold arrangements, vertical planes and expansive spaces. It stresses the instrumental importance of the linear roofing, horizontal expansion on a huge scale, toward the railway tracks. The way this roofing shapes the space, curbing and subduing the light is instrumental to the role of creating the architecture of the railway station. Behind these spatial and sensorial recommendations, it is possible to feel the presence of some of the earlier archetypes, entirely regenerated and adapted to modern requirements. With regard to the selection and use of materials, the specifications are more precise. Extensive use is made of concrete, metal, wood and glass for their surface appearance and pristine identity. These materials answer the structural quest for image. They all constitute signs marking space, and their consistency effectively contributes identity to the system. This new paradox gives rise to the notion of consistent railway station projects, all of kindred character as they

form the network, and, at the same time all different, heralding the image of the city they serve. Natural or artificial light allows control of the perception of space and dramatically contributes to passenger comfort. The SDO has also furthered its concern for consistency to the field of design, especially for movables, either technical furniture to be used by railway workers, interfaces used for communicating with SNCF users or even furniture for their comfort. The design is always used as an image vector, and as a space management tool. Evolutionary analysis led the team to design a kit adaptable to any situation, and consisting of a pole supporting three types of furniture capable of supporting a great variety of elements such as screens, light fittings, column speakers, enclosures, signboards, etc. This furniture kit is positioned with care by associating all the applications signals, distributors, seats, advertising, telephone, etc. An Architectural Charter for the Atlantic Intermodal railway stations and services centers The station is a place were crowds meet, and it must, at the same time, foresee and manage a great many individual situations. Each passenger should enjoy the maximum freedom of choise. The requirements of our time also involve consumption amenities, services for customers as well as reception and inquiry installations. The customer has various observation points in space and on the platforms to watch and should also be able to understand the various services. Railway transport is usually only a link in an entire journey, hence the necessity to plan and organize the prerequisites for intermodality. Long-distance passengers do not have the same expectations as commuters. The latter, in their daily migrations, become used to ticket vending machines. The long-distance passenger expects more care with regard to reception, inquiries, and sales. Their demand for quality extends to food services, be it fast, or more convivial. Furthermore, many city dwellers frequently visit a railway station without using the services linked directly to a journey; pharmacies and quick services are attracting a new public. Thus, the railway station should be conceived as a centre providing services, as well as a market place, but without turning the station into a bazaar and without hampering the progress of passengers. Finally, in terms of image, the station should impose itself as comfortable and modern. The architectural and functional concept is to create positions of balance between all these logistics. The station, reaffirmed as city antechamber contributes to the quality of urban life and may become a factor of attraction for the whole city. As gate to the city, the railway station is also the gate to the national or regional system. Heym New relationships woven between rail and territory The railway station could be simply left to architects and transportations specialists. New design methods have been developed at SNCF to encompass, within a global approach, the architectural project, the programming and legal and financial settings. This non-linear process takes place through permanent ongoing discussion between specialists. New relationships are woven between the railways and the territory. And, last but not least, the SNCF no longer behaves as a haulier or a landlord, but as a propounding and reactive force in planning matters. The difficulties in these areas arose from the fact that the analysis factors differ in the course of every design process. So, each new analysis project requires not adaption but redesign of the whole. Discussion helps cross-fertilize ideas, and the points of no return budgets, deadlines can be shared by all. The SDO is a laboratory of permanent research thriving on cooperation with external advisers or research departments civil engineering, structures and fluids, coverings, lighting, acoustics, concrete, etc. The charters and rules of the SDO have shown their effectiveness. The SDO capitalizes on its know-how, acting as an interface between a company dedicated to transport and the heterogeneous factors of the city. It does not negate the contradictions, but stimulates them for the greatest benefit while remaining open in its processes so as to assimilate extremely different situations and produce diversity. In that spirit, it has been developing works abroad in Europe, Asia, and the USA for more than 2 years. This meeting with other cultures on specified subjects is a source of mutual enrichment. In fact, Lille really wanted the new railway to cross the urban area of Lille and the new TGV station to be established in an empty area just next to Lille-Flanders Station. This choice was based on the local ambition to create a new district called Euralille between both stations to maximize profits from its geographic position in the centre of the London-Paris-Brussels triangle. After 2 hectic years of talks between the SDO, the local authorities and the team of Rem Koolhaas, the architect commissioned to handle the overall scheme, a substantial programme was finalized. It required

shifting the ring road and tramway, extending the subway system and cleaning up a hectare district. Such a program is on a par with a real-estate project developing a shopping mall, hotel, offices, cultural facilities and an urban park. Originally, the new station had been designed like a m long concrete tube accommodating four tracks and two platforms underground. Discussions and studies resulted in modifying the initial project so the train appeared on the scene and could take part in the city life. The station thus became a genuine urban space. It is composed of a m pedestrian street, where the passenger can find any transport service he may need: This street also gives access to the entrance halls of the three tower-blocks overhanging the station. Terraced on three storeys, the station hinges around this extensive ambulatory that drains all the transportation modes on the site, gives access to the trains and regroups all the services dealing with travelling, as well as business. This heart of the city is an authentic gallery opening on the city and the trains. Subdued light, structure repeating to infinity, motion of trains and crowds, Lille-Europe Station is truly within the scope of the eternal station. Its glass roof, shaped into a wave, designed in collaboration with the British engineer, Peter Rice, is suspended by a web of cables from huge metallic arcatures. Thanks to the effects of perforated sheet metal, this glass roof subdues with infinite softness the exquisite light so particular to northern France. By night, indirect illumination seems to make the roof float and creates the illusion of the whole building being suffused with a halo of light. The circulating vectors of the station play the role of a roofed public passageway between park, shopping mall, tower-blocks, Europe square and urban transport, providing a place for meetings, exchanges and services intermingled with the gossip of the city and the expectations of travel. The spacious arcatures offer the TGV passengers a view of the city. This is how the TGV scene is set. In this fashion the loop is closed making Lille-Europe Station the archetype of the new relationship between rail and surroundings Photo: The fruit of exemplary cooperation between two public corporations Paris Airports and French National Railways , it made Paris the first city in the world to offer passengers such an extensive choice in terms of connection between plane, high-speed train, local express train and highway. Long discussion led to a complete reformation of the point-to-point service to the airport. The TGV station, which also serves as a new terminus for the regional express line is between Airport Terminal 2 and future Terminal 3. This is the point that concentrates all the transportation systems serving the airport. To finalize such a project, whose qualities lie in the deep interdependence of the spaces dedicated to the various modes, a joint team was set up by regrouping the architects of both corporations Paul Andreu and Jean-Marie Duthilleul of the Station Design Office and Peter Rice of the RFR team. The first requirement was to build a legible, easy-to-understand pole allowing passengers to keep a permanent whole vision of their itinerary for each available transportation mode. The whole project falls into place on five levels under two immense m long glass roofs rising to the centre of the station topped by a hotel. By bringing out the different structural levels, the architectural expression has succeeded in turning this apriori complex interchange into a very simple space understood by all. Legibility, understandability and functionality are all here; the mineral structure of the trench accommodating the trains, light structures of the stairs and escalators connecting the various levels, and finally, the glass roof topping all the areas offered to the travellers.

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Chapter 4 : New! Architecture and Technology - [PDF Document]

Interchange Module at Charles de Gaulle Airport in Roissy, France, completed in , by Paul Andreu and J. M. Duthilleul, a high-tech marvel, shown above, with a great curved slylight trusses. Photography by Paul Maurer.

Cabling expertise; Lot 2: Development and maintenance of dissemination information systems; Lot 3: Development and maintenance of production information systems; Lot 4: Test of developments; Lot 5: Product evaluation, testing, customization and systems integration; Lot 6: Enterprise architecture, methodology, quality assurance and audit; Lot 7: Expertise in ICT infrastructures; Lot 8: Economic and monetary affairs, budgets and audit; Lot 2: Internal market and consumer protection; Lot 3: Environment, public health, food safety, employment and social affairs; Lot 4: Industry, research and energy; Lot 5: Institutional and legal affairs; Lot 6: Regional development, transport and tourism; Lot 8: Agriculture and fisheries; Lot 9: Development and international trade and economics; Lot Culture, education, youth and sports; Lot Methodological and horizontal issues 6 , Formations linguistiques en allemand; Lot 3: Formations linguistiques en espagnol; Lot 4: Formations linguistiques en italien; Lot 6: Formations linguistiques en anglais; Lot 7: Formations linguistiques en arabe, mandarin, russe, langues des pays candidats et autres langues hors U. E ; Lot Finitions peintures sols et plafonds ; Lot 7: Provision of external expertise on regulatory and policy issues in the field of environmental policies Lot1 ; Lot 2: Provision of external expertise on regulatory and policy issues in the field of climate change Lot 2 ; Lot 3: Provision of external expertise on regulatory and policy issues in the field of sustainable development Lot 3 ; Lot 4: Provision of external expertise on regulatory and policy issues in the field of public health Lot 4 ; Lot 5: Provision of external expertise on regulatory and policy issues in the field of food safety Lot 5 ,00 EUR Open 17 , Aspects of the administration and staffing of EU institutions, bodies, offices and agencies; Lot 4: Multiannual Financial Framework and other horizontal issues; Lot 5: Gros oeuvre; Lot 2:

Chapter 5 : Paul Andreu: Architect - Philip Jodidio, Paul Andreu - Google Books

Charles-de-Gaulle airport: the exchange module: architects, Paul Andreu, Jean-Marie Duthilleul, Peter Rice by Paul Andreu (Book) Jean-Marie Duthilleul and Etienne Tricaud (Book).

Photograph by Grant Smith. Horsley This fabulous, small but thick volume describes about intriguing architectural projects from around the world and has about 2, superb color photographs. It is, without question, the best architecture book of the Millennium so far and a splendid introduction to the spectacular works that have been created over the past decade or so, one of the most dramatic and sensational periods in architectural history. Despite its robust size, this volume has some important omissions. Such important designers Arquitectonica and S. Nevertheless, this is a stupendous book not only for reference, but inspiration. One of its great features is that it covers not only skyscrapers, but airports, train stations, bridges, museums, urban parks, land art, educational and athletic structures, theme parks, religious buildings, hotels libraries, theaters, retail buildings, restaurants, convention facilities, homes, and industrial properties. Although the book is nicely divided by building type, one cannot discern the emergence of any particular style for the period covered by this book. Post-modernism would appear to be rather moribund and Deconstructivism seems to have lost some of its energy. High-tech, however, seems to have flourished well and what could perhaps be described as Poetic Eclectic Classicism - grand, gestural forms and flourishes - is abundantly evident. Not surprisingly, Europe and Asia have more interesting projects than the United States. Among the eye-openers are the following: Photograph by Paul Maurer. Duthilleul, a high-tech marvel, shown above, with a great curved slylight trusses. Photography by Paul Maurer. Photograph by Luis Casals. Photograph by Thomas Deutschmann. The Kurt-Schumacher Strasse tram station in Hanover, Germany, completed in , by Alessandro Mendini, a yellow-and-black checkered urban folly of simple boldness. Arenas and Marcos J. Photographs by Osamu Murai, Shinkenchiku Shashiubu. The Place des Terraux in Lyons, France, completed in and designed by Christian Drevet, moved a large Bartholdi fountain slightly and created a mini-forest of 69 fountains in front of the Palais St. Photograph by Eric Saillet. Photographs by Sinkenchiku-sha, Tomio. Photograph by Robert Canfield. The San Francisco Museum of Modern Art, completed in and designed by Mario Botta, is a very elegant and monumental structure of rectilinear setbacks covered in red masonry and punctuated by a gray and white, angled, circular atrium skylight that abstractly conjures the Duomo in Florence. The Cartier Foundation in Paris, completed in and designed by Jean Nouvel, shileds a Chateaubriand cedar tree beween two glass screens and the author notes that part of the building "creates the impression of the Carter Foundation as an ephermal building on the verge of fading away," adding that "It belongs to an unspecified school of modern architecture. The High School of the Future in Jauney-Clan, France, completed in and designed by Architecture-Studio, is a boarding school for musicians and is rakisly angled, tiling outwards with a sliding roof that is a powerful expression of technology. An extension to the Denver Central Library, completed in and designed by Michael Graves, has an extraordinary square top with three-story angled supports over a cylindrical form. Photograph by Timothy Hursley. The Phoenix AZ Central Library, completed in and designed by William Bruder, has enormous glass walls on its north and south facades and tall, vertical fabric sunscreens on its east and west faces, and portrays a great sense of strength, detail and transparency. Photography by Bill Timmerman. Photography by Lourdes Legoretta. A rectilinear structure of different facade material is visible inside the cylinder form only from where the buttresses are angled. It has a cylindrical light mast, a metal screen and a parallelepiped. Each of these successive skins creates a scenic plane. The spectacularly inclined camera obscura interprets the heights of the various areas: The Stop Line entertainment center in Curno, Bergamo, Italy, during the day, top, and at early evening, bottom, designed by Studio Archea. The Stop Line entertainment center in Curno, Bergamo, Italy, completed in and designed by Studio Archea, is a long, low building that was originally a warehouse and has been reclad in performated Corten steel and surrounded by a narrow moat. It is very beautiful and houses a huge, single interior space.

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The Triangle des Gares, Euralille, in Lille, France, completed in and designed by Jean Nouvel, is a shopping mall crowned with a row of small office towers. The project also has a hotel and apartments. It is distinguished by its vibrant use of bold colors. Photography by Phillipe Rualjt and Ralph Richter. Photography by Paco Asensio. This work has quite a Japanese flavor. Photography by Dennis Gilbert and Nigel Young. The interior of the dome has a marvelous reflective inverted cone and is very dramatic. Photography by Roderick Coyne. Photography by Dennis Gilbert. Photography by Matteo Piazza. Jacques Herzog and Pierre de Meuron designed an interesting apartment building in Basle, Switzerland in with cast-iron slat facade. Photography by Margherita Spiluttini. Jacques Herzog and Pierre de Meuron designed an interesting apartment building in Basle, Switzerland in , shown above, that has its street facade covered with cast-iron slats that full the full width and height of each floor in a very elegant design. Photography by Marco Lorenzetti and G. It bears a resemblance with the Dulles Airport but is quite strong in its own right. Photography by Tomio Ohashi. The Millennium Experience in London, shown at the top of this article, was designed by the Richard Rogers Partnership and completed in It measures one kilometer in circumference and is feet high with a diameter of 1, feet. The steel masts from which the Teflon fiberglass roof is suspended at feet high. Photography by Grant Smith.

Chapter 6 : Peter Rice () - Author - Resources from the BnF

Charles-de-Gaulle airport: the exchange module: architects, Paul Andreu, Jean-Marie Duthilleul, Peter Rice / Paul Andreu, Le Verre structurel / Peter Rice, H. Dutton, Information trouvÃ©e: IngÃ©nieur.

Print Socrates Almanac Publisher: Reproduction in whole or in part of any content contained in this publication without prior permission is strictly prohibited. Print The information contained in this publication has been published in good faith and the opinions expressed here are those of the authors and not of Europe Business Assembly. Europe Business Assembly cannot take responsibility for any error or misinterpretation based on this information and neither endorses any products advertised herein. References to materials used in creating this publication are included. In the least developed countries, this proportion was as low as five per cent, as the overwhelming majority was living in rural areas. The world has been rapidly urbanizing since then and, in some countries and regions, at an unprecedented pace. It was only two years ago that humankind took a landmark step when, for the first time in history, urban outnumbered rural populations. Interestingly, only 60 years ago or so , the number of people living in urban centres was slightly higher in developed 54 per cent, or million as compared with developing countries. Today, of every 10 urban residents in the world more than seven are found in developing countries, which are also hosts to an overwhelming 82 per cent proportion of humankind. Worth noting is that 91 per cent of this daily increase or , is expected to take place in developing countries. In the last quarter of , the world population reached the seven billion mark. This historic event took place 12 years after the six billion mark. Although demographic growth is slowing down across the world as a whole, it remains that the ever-shorter time it has taken to add one extra billion signals a major shift in both the pace and scale of global demographics. It is almost certain that at some point in late , the seven-billionth human was born in a developing country. Moreover, all future population growth is expected to take place in urban areas, and again nearly all of it in Africa, Asia and Latin America. Therefore, it is highly probable that the seven-billionth human was born in a city in any of these three regions. These numbers highlight the extent to which the world population has increasingly come to live in urban areas. For all the clarity of these trends and the benefits that come with urbanization, too many governments still maintain ambivalent if not hostile attitudes to this process. In , slightly over two-thirds 67 per cent of countries in the world reported that they had implemented policies to reduce or even reverse migrant flows from rural areas to cities. Of an average 10 African governments, slightly over eight were found trying to stem rural migration. However, contrary to common perception, migration from rural to urban areas is no longer the dominant determinant of urban population growth in developing countries. Understanding current and prospective trends in urban demographic growth is fundamental if appropriate policies and strategies are to be designed and deployed to maximize the benefits of urbanization. This includes taking advantage of opportunities, devising better regional and urban policies, and planning for the future. In this chapter, every major region of the world is shown to feature unique development patterns that are analysed against the background of current trends and projections. In Europe, the annual increase is only two million. Population in North American cities was the least slow of all those in the developed world between and , particularly in the United States one per cent on average. The growth, decline and prosperity of cities: There is no clear association between the demographic growth or decline of cities and their degrees of prosperity. Although population numbers have declined in a number of cities in Western Europe, Canada and New Zealand, this did not affect living standards, which in some cases even improved. On the other hand, and as might be expected, population declines in a number of cities in Eastern Europe and the United States of America are strongly associated with economic decay. Likewise in the United States of America, there has been a continuous decline minus 8. Louis, while neighbouring cities such as St. Charles and Jefferson increased their populations by Growing cities are located in growing regions: Cities and the surrounding regions are typically interdependent economically and tend to share similar socioeconomic and demographic trends. In most North American cities, growing cities

correspond to the most dynamic regions and those experiencing population losses are located in less dynamic regions. Canada is a case in point. Research found that between and , two-thirds of smaller cities and towns with declining populations were located within declining regions, and 77 per cent of cities on a positive demographic trend were to be found in growing regions. In contrast, in Western Europe the prosperity of entire regions is largely dependent on a primate conurbation and the concentration of services and manufacturing that comes with it. With their relatively unchanged, well-educated and well-nigh fully employed populations, these cities base their economic momentum on a combination of factors: Cities in the north will continue to attract migrants: European urban areas, in particular, will continue to feature low fertility rates and rapidly aging populations. These demographic trends are unmistakable and point to overall demographic decline. Between and , net international migration counterbalanced the excess of deaths over births in 11 developed countries, while contributing twice as much to population growth in another nine countries. With the ongoing economic crisis, the aggregate flow of immigrants to developed countries has slowed down from an annual 2. In Italy, the dynamic, affluent northern industrial cities of Brescia and Reggio Emilia saw the share of immigrants in their populations increase from five and six per cent respectively in to Cities can be prime driving forces of development and innovation. Yet the prosperity generated by cities has not been equitably shared, and a sizeable proportion of the urban population remains without access to the benefits that cities produce. Prosperity of Cities It examines how cities can generate and equitably distribute the benefits and opportunities associated with prosperity, ensuring economic well being, social cohesion, environmental sustainability and a better quality of life in general. As the world continues to grapple with the impact of an economic crisis, which has triggered a series of other crises, we are also witnessing valiant and creative attempts at different levels, by different actors, to seek solutions. Despite the challenges they face and, indeed, the dysfunction that prevails in many urban areas, cities have a central role to play in contributing to national and global recovery. And as the world seeks a more people-centred, sustainable approach to development, cities can lead the way with local solutions to global problems. I commend the findings of this timely report to scholars, policy makers, development planners and all others interested in promoting prosperous towns and cities. This is also a time for solutions. Indeed, the world is currently engulfed in waves of financial, economic, environmental, social and political crises. Amidst the turmoil, however, we are also witnessing valiant and creative attempts at different levels and by different actors to seek for solutions. The Report proposes a fresh approach to prosperity, one that is holistic and integrated and which is essential for the promotion of a collective well-being and fulfilment of all. This new approach does not only respond to the crises by providing safeguards against new risks, but it also helps cities to steer the world towards economically, socially, politically and environmentally prosperous urban futures. To varying degrees of intensity, cities have been hit by different crises. However, this Report tells us that cities can also be a remedy to the regional and global crises. When supported by different tiers of government, and in the quest to generate holistic prosperity, cities can become flexible and creative platforms to address these crises in a pragmatic and efficient manner. As per this ancient Greek construct, when used properly, it can help decision-makers to steer cities towards well-balanced and harmonious development. By doing this, UN-Habitat plays a pivotal role in ensuring that urban planning, legal, regulatory and institutional frameworks become an instrument of prosperity and well-being. This Report provides some of these crucial ingredients. I am confident that it will serve as a useful tool in the necessary redefinition of the urban policy agenda at local, national and regional levels. The Report is a bridge between research and policy, with inputs from more than 50 cities, individual scientists and institutions, particularly the Directorate-General for Regional Policy from the European Commission, and other partner institutions around the world that participated actively in the preparation of this study. I would like to thank them for their immense contribution. I would also like to thank the Government of Norway for its financial support. The partnerships that have evolved during the preparation of this report are part and parcel of, as well as critically essential in, creating the building blocks of a more sustainable prosperity, one that is shared by all. UN-Habitat is determined to sustain and consolidate such partnerships as

we collectively chart a better future. This is a time of crises. I do believe also that it will provide valuable insights in the search for urban prosperity and related policy changes in the years ahead. The Report is a bridge between research and policy, with inputs from more than 50 cities, individual scientists and institutions, particularly the DirectorateGeneral for Regional Policy from the European Commission, and other partner institutions around the world that participated actively in the preparation of this study. City Management Globalization and urbanization continue to fundamentally alter the way cities work. Growth means wider and more complex challenges to meet the needs of residents and businesses. This is as true for the mayor of a large urban metropolis as it is for a small town mayor suddenly attracting more people from rural areas. A city must be attractive to keep its citizens. In a world where people, capital, and information are increasingly mobile, circulating freely and easily across borders, the traditional ties that bind are all but gone. When conditions seem better elsewhere, they relocate. Urban management Urban management "People need to be able to get to work, school, hospitals and places of recreation safely and quickly. To be the united voice and world advocate of democratic local selfgovernment, promoting its values, objectives and interests, through cooperation between local governments, and within the wider international community. United Cities and Local Governments supports international cooperation between cities and their associations, and facilitates programmes, networks and partnerships to build the capacity of local governments. It promotes the role of women in local decision-making, and is a gateway to relevant information on local government across the world. Over cities across 95 countries are direct members of UCLG. It is an institution that gathers 40 national associations of local governments from all regions of Africa as well as the cities that have more than FMDV meets the need expressed by local governments to have their own instrument that is: This dual approach, based on technical assistance to re-think urban planning and appropriate financial engineering so that it can be sustainably financed, allows local authorities, elected officials and technical teams to design, develop and appraise their own development projects, in line with the coherence and potential of the territory and in consultation with local stakeholders. Its members share more than just a common language. They also share the humanist values promoted by the French language. The French language and its humanist values represent the two cornerstones on which the International Organisation of La Francophonie is based. The International Organisation of La Francophonie was created in Its actions respect cultural and linguistic diversity and serve to promote the French language, peace and sustainable development. The organisation is the key knowledge management hub on local government issues in the region. UCLG is a worldwide association of local government organisations that dates back to It represents well over 3. Working with national and local governments to support the development of democratic values and good local governance. As a Commonwealth organisation, CLGF draws on the influential network of the Commonwealth that provides a solid basis for its programmes and activities. As an associated organisation officially recognised by Commonwealth Heads of Government, CLGF is well-placed to influence policy development and lead on democracy and good governance at local level.

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Chapter 7 : www.nxgvision.com: Sitemap

Sources de la notice. Documents de cet auteur: Le Verre structurel / Peter Rice, H. Dutton, ; Ouvrages de reference: Charles-de-Gaulle airport: the exchange module: architects, Paul Andreu, Jean-Marie Duthilleul, Peter Rice / Paul Andreu,

The trains run in concrete tunnels below the runway and local roads, into a railway cutting at the station. RFR was appointed to design a glazed roof and side walls to enclose the platforms. By the late s, Rice had gained a reputation in France for distinctive glass and steel structures. To achieve the first idea, the station is primarily clad in glass, 28, sq m of it. And the myriad of steel members are all painted white. To achieve the second idea, the huge roof is supported independently of the surrounding cutting and appears to float above the station. Non-loadbearing glass walls infill the area between ground and the roof. Among the other techniques employed is the reduction in size of the steel members the higher they are from the ground. Their top chords are supported by a series of groups of splayed hollow steel columns that fan out from giant cast steel connectors, like the fingers on a hand, each column supporting a different beam. The glasswork appears to float above the steel skeleton. Steel plates and a silicon gasket extrusion mesh have been used to fix the panels to their grid. The glass is fritted patterned , which softens the natural daylight. At night the fritting diffuses the reflected artificial lighting from the station below, giving the roof a luminous quality. The walls of the station are composed of sections almost m long of transparent glass panels, maximising the view of the airport. The walls are supported independent of the roof by a series of vertical steel cantilevered columns, up to 17m high and set 4. The separation of walls and roof is emphasised by the different set-outs for the two types of columns. The vertical columns are braced against torsion by pre-stressed cables that run close to the toughened glass walls. Steel rods extend from the columns to support groups of panes using spreaders. The project was completed in , three years after the untimely death of its engineer, Peter Rice. CEP Ventas Contractor and steelwork construction: Watson Steel Ltd Steelwork construction: Helmut Fischer GmbH Steelwork construction:

Chapter 8 : Reinventing the Railway Station

To finalize such a project, whose qualities lie in the deep interdependence of the spaces dedicated to the various modes, a joint team was set up by regrouping the architects of both corporations (Paul Andreu and Jean-Marie Duthilleul of the Station Design Office and Peter Rice of the RFR team).

Chapter 9 : | Travel + Leisure

Andreu and the architect in charge of French Railways, Jean-Marie Duthilleul, have responded to the challenge with courage and verve. They realised that the RER (Reseau Express Regional - local Paris rail network) must be part of what they call the 'exchange module', and that there was a possibility of creating a local distributor underground.