

URBAN LAYERS

Interactive architecture for interactive city



UNIVERSIDAD
NEBRIJA



**INTERNATIONAL WORKSHOP,
"Urban Layers, interactive architecture for interactive city"**
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Carlos Rubio Carvajal, chief architect at Rubio arquitectura
Emilio Martínez Vidal, Architect, Master in urban planning, Chief Department Madrid City Council
Héctor Fernández Elorza, Ph. D. Architect, Associate Professor. Nebrija University
Juan Antonio Rodríguez, Architect, Ph. D. Candidate, Associate Professor. Nebrija University
Eduardo Prieto, Ph. D. Architect and Philosopher. Associate Professor. Nebrija University
Ángela García de Paredes – Ignacio García Pedrosa, principals at Paredes Pedrosa Architects
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Alejandro Valdivieso, Architect, Ph.D. Candidate ETSAM-UPM, MDesS Candidate GSD-HARVARD
José Ángel Ferrer, Architect, Ph.D. Candidate. Associate Professor. Nebrija University
Rodrigo Martínez Rodríguez, Ph. D. Industrial Design Degree Coordinator. Nebrija University
Juan Tur, Architect. WEST 8
José Manuel Fernández, Deputy Director General of Urban Planning Department. Madrid City Council

Who we are?

Jordi Viñolas Prat, Ph. D., Dean School of Engineering and Architecture. Nebrija University

At present Dean and professor of the School of Engineering and Architecture at Universidad Antonio de Nebrija. Previously Head of European Projects at Bantec, a consulting pioneer in the integrated R&D management, for companies, scientific-technological agents and government. Head of the Mechanical Engineering Department at the TECNUN School of Engineering of the University of Navarra in Spain from October 2005 to July 2012, as well as the Head of the Applied Mechanics Department at CEIT Research Institute until November 2012. His scientific interests have focused on the fields of machine dynamics, noise and vibration, railway dynamics and road infrastructure. He has published around 50 indexed (JCR) scientific papers and 40 communications in International/National Conferences. Professor Vinolas has directly supervised or co-supervised 15 PhD theses (2 to be presented in 2013) and more than 50 MSc theses. He taught Machine Elements Design (Graduate) and Noise and Vibration (postgraduate), and also Mechanical Fatigue Analysis. He obtained the accreditation as full professor (catedrático) from the Spanish Accreditation Organisation, ANECA in September 2010.

Dr Vinolas has worked as an evaluator for the European Commission (FP6 and FP7) and was one of the promoters of EURNEX (European Rail Research Network of Excellence). He is a key participant and member of the scientific committee at the ISMA (Leuven-Belgium), Member of the Editorial Board of the IMech Journal of Rail and Rapid Transit, and the International Journal of Rail Transportation (IJRT).

He was the promoter of LANDER Simulation and Training Solutions a successful spin-off which was created in 2002 (<http://www.iesep.com/es/jordi-vi-olas-recruitment-for-new-spin-off-a-10638.html>)

Mentoring students, young researchers and PhD has always been one of his core activities: Time Management for PhD students, Time Management for Researchers, Writing a PhD, Supervising a PhD, etc... Most of the published work can be found in: https://www.researchgate.net/profile/Jordi_Vinolas

Fernando Moral Andrés, Ph. D. Architect, Academic Coordinator Master in Architecture. Nebrija University

Fernando Moral Andrés has a PhD in Architectural Design from the Polytechnic University of Cataluña and he has obtained a Master's Degree (Architecture: Critique and Design) at the Barcelona School of Architecture (ETSAB - BarcelonaTech). He was awarded the "Jorge Oteiza" International Research Grant for 2005-2007, by the institution of the same name at the Public University of Navarra. He has participated in various courses, conferences and workshops organized by the Complutense University of Madrid, ETSAB-UPC, IE Business School, IIT, March-Moscow School of Architecture and Architectural Association, among others. He has been teacher and advisor at IE University -IE school of architecture and design. At present, he is teacher and Academic Coordinator of Master in Architecture / Nebrija University. He has curated exhibitions like "MECANOO architecten: the Dutch mountains", "ÁBALOS + SENTKIEWICZ: 6 verticalscapes" and a retrospective of the Portuguese architect Eduardo Souto de Moura, "Projects and Competitions" (COAM). In the public works sector, he has developed infrastructure projects, as well as projects for various facilities buildings, participating in a substantial number of competitions. He was awarded first place in the tender for the San Isidro (León) Winter Resort Sports Centre. The press and specialized publications such as Domus, Detail, On Diseño, dí, a+a, Arquitectura Viva or El Croquis have covered his work, which has spanned a variety of fields. His work has been recognized with several awards as finalist in the "Architecture Plus 2013", selected by the XII BEAU (Spanish architecture and urbanism biennial) or have been elected by the Virserum Art

Museum (Sweden) to be part of "Architecture of necessity" - Triennial exhibition. He collaborates with the Museo Nacional Centro de Arte REINA SOFÍA (Madrid).

Alexandra Delgado Jiménez, Associate Professor, Nebrija University

Alexandra Delgado Jiménez (Madrid, 1980) holds a PhD, Town Planning and Urban Studies, Universidad Politécnica de Madrid (2012) and BA + MArch, Universidad Politécnica de Madrid (2005) and Technische Universität Berlin (Erasmus Grant, 2002). She manages AD ARQUITECTURA URBANA, office of urban architecture, committed to the urban and territorial sustainability, and she has coordinated Territorial Guidelines for urban and territorial planning, as the PARTIAL REVIEW OF MASTER PLAN OF MADRID OF 1985 (PGOUM 1985) AND MODIFICATION OF MASTER PLAN OF MADRID OF 1997 (PGOUM 1997) IN THE AREAS AFFECTED BY THE SENTENCE OF TSJ OF 27/02/2003 AND SENTENCE OF TS OF 3/07/2007, and master plans, highlighting Review of Masterplan DISTRITO CASTELLANA NORTE OF MADRID. She is associate professor at the Escuela Politécnica Superior y Escuela de Arquitectura, with special attention to urban planning, at Universidad Nebrija since 2013 and several masters since 2007 as "Environmental management and administration" of the Biodiversity Foundation, or "Sustainability and Energy Refurbishment" and "Pathology, Specialist and Sustainable Refurbishment of Heritage" at the Universidad Europea de Madrid. As a result of her researchs, she has published Evolution and crisis of Madrid: a critical review of urban planning (2013), and Cultural and landscape natural heritage: key territorial sustainability, as coordinator and lead author (OSE, 2009), and numerous chapters and articles in national and international journals.

Elena Merino, Ph.D. Architect, Academic Coordinator. Nebrija University

Elena Merino Gómez (Barcelona, 1972), PhD in Architecture, Medieval Towers and Graphical Survey, Universidad de Valladolid (2012). She works in an interdisciplinary team since 2009 which belongs to the Escuela Técnica Superior de Arquitectura de Valladolid (Spain) and the Università degli Studi di Salerno (Italia), devoted to the documentation of historical heritage. She is a staff member of the Universidad Nebrija (Madrid), Academic Coordinator of the Degrees in Architecture and Interior Design and teacher of the subjects of History of Architecture and Materials and Building Technology. Her research has been published under the title of Torres medievales en la Baja Moraña, Ávila: análisis constructivo, histórico y artístico a partir de su documentación gráfica, and has spread the results of her research in international conferences.

Emilio Tuñón Álvarez, principal at Emilio Tuñón Álvarez architects

Luis M. Mansilla (1959-2012) and Emilio Tuñón Álvarez (1959) founded Mansilla + Tuñón Architects in 1992. Mansilla + Tuñón Architects is a Madrid based office, dedicated to the confrontation of theory, and academic practice, with design and building activity. They have received the Mies van der Rohe Award and the Spanish Architecture Award. Emilio Tuñón and Luis Mansilla have developed most of their academic career at the Architectural Design Department of the Architecture School of Madrid, as full professors. Additionally, they have taught as visiting faculty at Princeton University School of Architecture (springs 2008, 2009 and 2010), Harvard Graduate School of Design (spring 2006), Ecole Polytechnique Federale de Lausanne (spring 2005), Barcelona International Architecture School (2001-2002), Frankfurt Städelschule (1997-1998), Architecture San Pablo CEU Foundation (2000-2001), Barcelona Architecture School (1999-2000), New Puerto Rico Architecture School (summer 2000) and Navarra Architecture School (springs 1999 and 2011). In 1993 they created the thought exchange cooperative CIRCO, for which they publish a bulletin of the

same name. This bulletin has been awarded the following awards: FAD Award (2007), 3rd. Iberoamerican Architecture and Engineering Biennial Publication Prize (2002) and COAM Annual Prize for Cultural Initiatives Award (1995). Mansilla + Tuñón have won the following architecture competitions: International Center of Visigothic Culture in Toledo(2010), Energy Dome in the Environmental City in Soria (2008), C.I.C.C.M. International Congress Center of Madrid (2007), Museum of Migrations in Algeciras (2007), Helga de Alvear Foundation in Cáceres (2005), Urban Planning for Valbuena in Logroño (2004), Public Library in Calle de los Artistas in Madrid (2003), Museum of Cantabria in Santander (2002), Spanish Royal Collections Museum in Madrid (2002), Sanfermines Museum in Pamplona (2001), Cultural Center in Brescia (2000), Castellón Fine Arts Museum (1998), Leon's Concert Hall (1996), Madrid's Regional Cultural Center (1995). Their projects include Lalin Town Hall (2011), Atrio Hotel in Caceres (2010), Helga de Alvear Foundation in Cáceres (2010), Twin Houses in Tarifa (2009), Pedro Barrié de la Maza Foundation in Vigo (2005), MUSAC in León (2004), León Auditorium (2003), Madrid Regional Documentary Center (2002), Castellón Fine Arts Museum (2000), Indoor Swimming-Pool in San Fernando de Henares (1998) and Zamora Museum (1996). Their work has been awarded the following prizes: FAD Award 2011, Aplus Award 2011, AD Architectural Digest Award (2009), Mies van der Rohe Award (2007), FAD award (2007), Saloni Award (2007), VIA award (2006), Spanish Architecture Award (2003), FAD Award (2001), COACV Award (2000), Excellent Work Award (2000), First Iberoamerican Architecture and Engineering Bienal (1998), Foundation CEOE Award (1997) and Arquitecto Award (1996). Luis M. Mansilla passed away in Barcelona on February 22nd 2012.

Carlos Rubio Carvajal, chief architect at Rubio arquitectura

Carlos Rubio is an architect based in Madrid with more than 30 years of experience. In its origins he was partner with prestigious architects like Ignacio Vicens or César Ruiz-Larrea, and ended up founding his own company "R&AS" with Enrique Álvarez-Sala. They projected large scale projects such as the SyV Tower (PwC Tower nowadays) at the Real Madrid's Antigua Ciudad Deportiva, the urban planning projects for the banks of the Manzanares River (Madrid Rio) after the underground redirection of the M30 Motorway, in collaboration with MRIO Architects or the Mahou - Vicente Calderón (stadium) Master Plan. In 2014 decided to set up "Rubio Arquitectura". They are currently developing a Skyscraper of 400 meters high in Saudi Arabia, the new Market and Sports Complex in the Plaza de la Cebada in Madrid, Ventas Master Plan for Metro Madrid, among others. Carlos has obtained the following awards: a 2009 and 2011 COAM Distinction for architectural work, a 1989 COAM Architecture Award, the Obra Nueva (New building) Award from the Madrid City Hall in 1992 and 2006, the Basque-Navarra Architects' Guild Award in 1999, the City of Alcalá de Henares Award for Architecture in 2003, Asprima Awards 2006, 2009 and 2010, and the 2006 Anthology award for Contemporary Architecture in Castilla-La Mancha. Additionally, they were selected for the 2004 Venice Architecture Biennial. They have also been selected for numerous national and international exhibitions, such as the Venice Architecture Biennale 2004 or the traveling exhibition "35 + Building Democracy: Social Spanish Architecture ". Their work has been published in the most prestigious national and international publications, such as (Domus, Casabella, Baumeister, The Architectural Review, The Sketch, Arquitectura Viva, On Design, Detail ...).

Emilio Martínez Vidal, Architect, Master in urban planning, Chief Department Madrid City Council

Born in 1951, architect since 1978, and Master in urban planning since 1981. He joined as a civil servant in the Urban Management Office of the City Hall of Madrid in October 1982. Since then he has played different tasks of planning, management and information in various areas of the municipal office of urban management, among which can be highlighted as follows: Head of the Planning Area in the Technical Office for the Revision of the General Plan, between 1992 and 1997, coordinating the

planning proposal of the new General Plan of Madrid. Head of the Department of Urban Planning between 1997 and 2004, directing the developments of the General Plan and its amendments. Vice-Manager of Town Planning from 2004 to January 2006, moment in which the Urban Management Office is replaced by a new structure, in which is appointed Deputy Director General of Public Management, charge that plays between January 2006 and October 2007. Between 2007 and 2011 (October) Deputy Director General for Information and Participation of Singular Projects in the City, where directs the work of information, diffusion and citizen participation of the Madrid River project, Prado Recoletos project, and others. From 2000 to 2003 he was the Coordinator in Madrid of the European Project LASDO, in collaboration with the municipalities of Paris and Colombo (Sri Lanka), for the creation of a Local Area Sustainable Development Observatory in the city of Colombo. For more than 15 years has given innumerable lectures explaining the urban development of Madrid and has participated in various conferences and congress in Spain and abroad. He has taught as a visiting professor at the schools of Architecture and Civil Engineers, in public and private Universities. He has written articles and has spoken in collective books edited by the City Council and other institutions.

Héctor Fernández Elorza, Ph. D. Architect, Associate Professor. Nebrija University

Héctor Fernández Elorza Architect degree at Escuela Técnica Superior de Arquitectura de Madrid, ETSAM, in 1998 where he, since 2001, is Lecturing Professor in Architectural Projects. His work "Architectural Documentation Centre in Madrid" was awarded: First Prize in the AR+D PRIZE from the British Architecture Association, RIBA, Finalist in the ENOR PRIZE 2005, Finalist in the COSENZA PRIZE 2005, First Prize in SALONI PRIZE 2005 and Finalist in BIENAL DE ARQUITECTURA ESPAÑOLA 2005. Finalist in the GARCIA MERCADAL PRIZES 2007, 2011 and 2012 with the Urban Project "Zuera Sur", "Valdefierro's Park" and "Twin squares" in Zaragoza; Second Prize in the Competition "The old town of Belchite", 2009. His work Chemical Laboratory Building in Alcalá University was awarded First Prize in the ATEG-PRIZE 2010, Second Prize in the BIGMAT PRIZE 2011 and First Prize in the ENOR-MADRID AWARD 2012. In 2000 and 2012 he participated at the Biennale di Architecture di Venezia. During 2009 y 2010 he has been awarded the ROMA PRIZE in the Spanish Academy in Rome.

Juan Antonio Rodríguez, Architect, Ph. D. Candidate, Associate Professor. Nebrija University

(Madrid, 1968) Architect by the ETSAM in 1995. Since 2002, Associate professor of CAD, BIM, Construction and Projects at various important schools of Architecture in Madrid and Segovia (as SEK, IE University, CJC, Antonio de Nebrija). In 1997 begins the development of an idea that explores the relations behind architecture and anatomy: Arqtopsia (Archtopsy) Most of his works has been selected to be exhibited nationally and internationally. He also develops an intense activity by participating in several lectures, workshops and research forums.

Eduardo Prieto, Ph. D. Architect and Philosopher. Associate Professor. Nebrija University

Eduardo Prieto, Ph. D Architect (2014), has a Degree in Philosophy (2005) and a Master in Moral and Political Philosophy and in Aesthetics and Art Theory (2007). Currently is professor of Architectural Projects at the School of Architecture of the Nebrija Universidad, and of History of Architecture and Art at the ETSAM of the Universidad Politécnica de Madrid. He has published a number of scientific articles and books, such as Hemiciclo solar: la energía como material de proyecto (Solar Hemicycle: Energy as Project Matter) and La arquitectura de la ciudad global (The Architecture of the Global City),

and he is preparing two new books, which will be published in 2015, *La ley del reloj: arquitectura, máquinas y cultura moderna* (The Law of the Clock: Architecture, Machines, and Modern Culture) and *El complejo de Novalis: Arquitectura, Energy, and Modern Culture* (The Novalis Complex: Architecture, Energy, and Modern Culture), in which he develops the ideas presented in his doctoral thesis, titled 'Machines or Atmospheres: The Aesthetics of Energy in Architecture, 1750–2000'. As a practicing architect, he has built a number of large buildings in which thermodynamic parameters are considered from the beginning of the design process, and which are references in innovation in the management of thermal parameters in architecture. Obtained mostly by competition, these projects have been much published and have earned national and international awards.

Ángela García de Paredes – Ignacio García Pedrosa, principals at Paredes Pedrosa architects

Ángela García de Paredes (1958) and Ignacio Pedrosa (Madrid 1957) graduated at the ETSAM in 1982 where they are architectural design professors. They establish PAREDES PEDROSA in 1990. They have been visiting professors at several universities as the IUAV in Venice and critics at GSD Harvard, ETH Zurich, Accademia di Architettura di Mendrisio and EPFL Lausanne. Paredes Pedrosa built work after competitions include: Town Hall in Valdemqueda, Valle Inclán Theatre in Madrid, Almería Archaeology Museum, Peñiscola Congress Centre, Torner Museum in Cuenca, Olmeda Roman Villa, UPI School in Gandía, Public Library in Ceuta, Lugo Auditorium and Córdoba Public Library, being the last two works under construction. Awarded with the Spain Fine Arts Gold Medal 2014 and Spain Architecture Award 2007. Other awards: EUROPLAN II and IV, ar+d Award, Europa Nostra Award, Madrid Architecture Award, Mansilla Award, Gold Medal International Prize for Sustainable Architecture, Cemex Award y Eduardo Torroja Award, finalist Mies Van der Rohe Award. Honourable Mention Piranesi Prix de Rome. They have participated in several Spain, Venice and Iberoamerican Biennales. Curators of the X BIAU 2016 in Sao Paulo, Brasil.

Ángel Martínez García-Posada, Ph. D. Architect. Associate Professor. Nebrija University

Researcher and professor of Projects at Universidad de Sevilla since 2005 and Nebrija in Madrid since 2011. Member of research groups "Proyecto y Patrimonio" and "Teaching Resources Lab". As teacher, writer and lecturer he has published articles in architectural medias as Circo, Formas or Arquitectura Viva, and he has developed books and essays about architecture, city, landscape and contemporary art, like "Sueños y polvo. Cuentos de tiempo sobre arte y arquitectura" (Lampreave, 2009), "La palabra y el dibujo" (Lampreave, 2011) or "Paseos en espiral" (Lugadero, 2014), from his transversal understanding of culture and the continuity among ideas and actions.

Juan Manuel Fernández, Deputy Director General of Urban Planning Department. Madrid City Council

Madrid, 1963 Architect by Escuela Técnica Superior de Arquitectura de Madrid (ETSAM) in 1988. He developed his professional career in urban planning departments of the municipality of Madrid from 1990, holding the position of Deputy Director General, Urban Planning Department ever since 2005. Belonging to municipal technical teams, has prepared and supervised plans focused in urban renewal and extension plans. Involved in relevant operations in Madrid such as: Paseo de la Castellana extension; Méndez Álvaro-Embajadores renewal; South Manzanares Park; Campamento military headquarters transformation and railway integration at Villaverde district; Olympic Village and the 2012, 2016, 2020 Olympic Games Bids. Also collaborated in projects for parks, facilities and urban infrastructures, and participated in the implementation of a system of urban indicators for the city

planning observatory. He has collaborated for seminars and masters with urban planning and architectural departments in different universities. Previously to this stage he worked in the architectural offices of Ábalos & Herreros, Aroca Arquitectos and Guillermo Vázquez Consuegra. He has published several articles, written during the preparation of his Doctoral Thesis: "La producción contemporánea del paisaje" Revista de Occidente nº 189, febrero 1997; "Arquitectura y urbanismo para el territorio contemporáneo" BAU nº 14, 1996; "¿Podemos proyectar los nuevos paisajes?" 10 Años European 5 España, 2000; "Arquitectura y paisaje para otra naturaleza" Arquitectos, Paraísos Artificiales nº 155, 2000; "Voz para el Verde" en Arquitectura Viva 89-90, 2003 under pseudonym with Iñaki Ábalos; and "A Brief Chronicle of Recent Urban Planning in Madrid" Madrid, The Kent State Forum on the City. Florence. 2013; and "Las candidaturas de Madrid a los Juegos Olímpicos", en Planur-e, 03 summer 2014.

Alejandro Valdivieso, Architect, Ph.D. Candidate ETSAM-UPM, MDesS Candidate GSD-HARVARD

Alejandro Valdivieso is a registered practicing architect. Ph.D. candidate at Universidad Politécnica de Madrid (ETSAM). Since fall 2014 he is Master in Design Studies candidate (History and Philosophy of Design) at Harvard University, where he is a Fulbright Scholar and Real Colegio Complutense Fellow. Valdivieso holds a Professional Master's Degree in Architecture from Universidad de Alcalá in Madrid. He develops his work through different formats and media: as an active architect; as editor, writer and curator for several platforms; and as an educator. Founder and principal of Madrid based Valdivieso Arquitectos, editor of the magazine La Ciudad Viva (Sevilla) and text reviewer for Madrid based publishing house Lampreave Editorial. He has recently curated a retrospective of the Portuguese architect Eduardo Souto de Moura (COAM Madrid). His most recent work includes contributions to the book *Modernidades ignoradas. Indagaciones sobre arquitectos y obras (casi) desconocidas de la arquitectura moderna* (Red de Investigación Urbana A.C. of México and Universidad de Alcalá, 2015). Professor and Academic Coordinator of the Architectural Interior Design Degree at Camilo José Cela University in Madrid (2008-14). Teaching Fellow at Università degli Studi di Sassari (2010-11) and Universidad Politécnica in Madrid (2009-2010). Guest lecturer at several universities in Spain (Nebrija Universidad, 2014-2015; Universidad Europea, 2010-11) and Italy (Università degli studi di Firenze, 2010). Valdivieso's dissertation research, developed between Madrid (UPM) and Cambridge (Harvard), focuses on History, Theory and Criticism of Architecture, specifically on late modern architecture, culture and media; and the way in which an 'after-modern' historiographic self-consciousness was built up within the framework of several North American and European magazines during the mid-70's and 80's.

José Ángel Ferrer, Architect, Ph.D. Candidate. Associate Professor. Nebrija University

José Angel Ferrer (Almería, Spain, 1966), graduated from the University of Sevilla School of Architecture in 1993. Having graduated as an architect, he opened his own studio (FERRER ARQUITECTOS) to carry out numerous projects for housing and other facilities. Mr. Ferrer's most recent works are in Almería, standing out: the Sports Hall for the XV Mediterranean Games in 2005; the buildings for Andalusian Radio and Television (RTVA) in the cities of Almería, Granada and Cádiz; the restoration of "the largest Spanish Civil War Shelters"; secondary school buildings; social centres and, most recently of all, the restoration of an important part of Almería's cultural heritage – the mineral loading pier, or so-called "Cable Inglés", 20.000 m² buildings, PITA and TECNOVA Headquarters, EGO Sport Center and eighty Housing Construction in Madrid. All of the aforementioned projects were first prize winners in national and international competitions. Magazines and books in Spain and other countries such as China, USA, UK, Germany, Angola, Portugal, Italy, etc have published his projects. Furthermore, Mr. Ferrer has received numerous prizes and mentions. Present day, FERRER ARQUITECTOS has its headquarters in Madrid and Almería. Mr. Ferrer combines his professional

activity with his work as a college lecturer in the subject of Architectural Projects at Nebrija's University of Architecture in Madrid.

Rodrigo Martínez Rodríguez, Ph. D. Industrial Design Degree Coordinator. Nebrija University

PhD in Industrial Design by Nebrija University with Cumlaude Honors. Master in Design Engineering by Polytechnic University of Valencia and Technical Engineer in Industrial Design by University of A Coruña. He coordinates and teaches in the Degree in Industrial Design and Product Development and teaches at the Master in Industrial Design. Also teaches seminars related to the presentation and implementation of projects. In recent years he has coordinated and implemented projects with organizations and companies such as Lékué, Street Food Madrid, Retecork, Finsa, Enganches Aragón, ABC Rotomoldeo or Regal Cerámicas, conceptualizing new solutions based on their production needs. He combines his teaching with the implementation of projects with companies and design research, centered around the study of the influence of identity in industrial design, applying the findings to the Spanish case; as well as in the field of emotional design and identity, verifying the importance of design in the new consumer habits.

Juan Tur, Architect. WEST 8

Juan Tur is Architect and Project Leader at West 8 with ten years of experience in the design and execution of big scale urban transformations. During this time, and collaborating with West 8 since 2006, he has actively participated like main designer and project leader in the the design of the most relevant projects of urban transformation that have happened in Spain in the last decade like the Madrid RIO Linear Park (150 ha), the Masterplan for the Regeneration of Playa de Palma (1400Ha), and the Linear Park of La Sagrera-Sant Andreu in Barcelona. (40Ha). Juan has been awarded with prizes in several international competitions, like the First Prize in the Europan 09 in Gyor ,Hungary, in 2008, or the Artists Residence and Creative Community in Nikola Lenivets in 2013 and his projects have been exposed and published in different international and national media. He combines his professional practice with the academic activity, where he has been guest professor at the Lanscape Workshop , for the Master in Collective Housing (Madrid), during 2010-2012, and currently is Guest Professor and Coordinator of the Advanced Urban Design Workshop at the Anotnio Nebrija University ,2014-15. He is a PhD researcher on public space and Landscape Architecture in the ETSAM, where he is develepping his thesis, "The Walk in the landscape and architecure Design Project"

URBAN LAYERS: interactive architecture for interactive city. In brief

The XXI st century will be the time of cities, or it will not be. Since 2007 most of the world's population already lives in cities, with different urban structures of varying density, of varying complexity. And it is predicted that by 2050 two-thirds of the world population is living in cities. This phenomenon will happen regardless of culture or geography, and will affect the entire world population and will determine beyond doubt the evolution of it. Urban development is extremely humane and highly sophisticated in terms of its constituent approaches. Regardless of being a conglomerate of religious reasons, political, economic, etc. the reality is that they involve the accumulation of large populations and everything that they carry with them: their lives. Western History has structured the growth and evolution of the same, with relative clarity over time. There is no doubt that the theories and research about the city have been multiple and contrasting and reviewing them can surely only have a rough reading of what we now recognize in our places of origin and settlement.

The city of Madrid, by population, is the third largest, after London and Berlin, across the European Union, ahead of cities like Rome or Paris. This quantitative data also means structuring a reality of metropolitan scale as reference standards in our immediate context. Its historical evolution is perfectly recognizable in its physical structure, from its historical grounds to the latest developments in periphery occurred at the beginning of this century and which represented one of the last before the severe economic crisis that has hit our country and European and Western environment. This fact, this serious problem, global significance, but especially pronounced in our borders is crucial when it comes to position ourselves for the challenges of the future of Madrid and, in a sense, it will be addressed in this workshop. Similarly, the loss of the external impulse Olympic assumed that the city must rethink profoundly its transformation and growth parameters to be put into operation over the next decades. Clearly accurate reflection that the city must begin with your values and most crucial problems, but also of its great potential, in need, in large part thereof, by a suitable location, analysis and stimulation leading to the rigorous construction and ambitious of the future city. Madrid City Council together with the set of public-private agents that determine the conditions of development of the city, they have developed and develop different documents that review the conditions of urban development of the city and set a promising 2020 achieving some of the key challenges for the city.

The immediate questions that arise are simple, *how can we turn all the springs that are able to effectively materialize the implementation of new tissues and recovery of tissues that no longer serve its function ?, is the economic and financial issue the only possible motivation for the implementation of the same ?, what role should society to this challenge ?, what resources and responsibilities that new architects have to offer in this situation is?*

Furthermore, it is understood that the city of Madrid works in direct relation to the Metropolitan Region to which it belongs, which includes up to 52 municipalities of the Community of Madrid (Madrid political region). It is the fourth most populated of Europe after Greater London, the Paris metropolitan area and metropolitan area of Ruhr (Essen-Bochum-Dortmund) in Germany, and it has got more than seven million inhabitants.

Madrid's Metropolitan Region (RMM) has undergone a major urban transformation in the period 1985-2007, where the population has grown up, the built environment has grown strongly, but mostly its cost and consumption have grown, which means that it has become unsustainable.

Madrid`s Metropolitan Region`s growth is made up of urban sprawl, with higher energy requirements than the traditional compact and complex one, which together with the scale of processes, is increasingly an inefficient urban system. This is the legacy with which we have to work today architects.

The analysis of this period is the basis for targeting prospects that translate urban governance towards a more desirable urban model, or better yet, other possible futures, which are part of the main alternative that is sustainability. It is for this reason that any intervention in the city of Madrid, which provides half of the population of the Madrid's Metropolitan Region (RMM), is an intervention turn in the metropolitan context.

Rethinking Madrid is to rethink "Gran Madrid" (Great Madrid) and learn from the existing city to project the future city.

Therefore the objective of this workshop is to think / *propose building the future Madrid* through an intervention of interactive architecture for an interactive city.

We will be positioned in one of the places that are in the throes of definition and discussion, but they have a path followed for over 20 years: Area Railway Station Madrid - Chamartin. This infrastructure, along with Madrid - Puerta de Atocha, are the two main focuses of the railway network operating between the capital and other national and international destinations. They have absorbed the reality that in past periods were operated by knots or Delicias Station Principe Pio, both with respect to passenger traffic and the movement of goods. Likewise, the explosion of high-speed rail network in Spain, second in the world, after China, with more kilometers of plotting high-speed rail, has led to the need to rethink the operation of both points. We must add to this small point, the traditional problem of their position in the whole city, now in central locations often the same, which means thinking about how to talk / include / absorb an infrastructure of this scale in the whole plot consolidated city and take a new step in the evolution of it.

We propose that a new piece for the city able to promote it in their immediate future is *built*. It is not a *simple reform* of the railway area, but to rethink how it can be regenerated and what space can bring to the city as a future construction. What new uses can hold, what new utilities can develop, what new city can create and how you can *create city* bringing added value to the surrounding neighbourhoods by linking urban fabric disconnected by urban rail infrastructure gap.

There are numerous examples in Europe of this type of interventions that are ultimately aimed at solving a new need for the city as well as act as a lever for economic activation of the same time. The Euralille operation, by Rem Koolhaas, in the French city of Lille, with the introduction of high speed alongside the traditional station, is a clear example of intervention that combines the rail and urban point of view.

Also the new central station of Berlin (Berlin Hauptbahnhof) which has sought to be a knot of joint central European rail system and an essential link both functionally and conceptually as a new center of the German capital. The most recent example Vienna Central Station, which replaces the former Vienna South Station, and has been developed as a node on European scale with complete intermodal transport and rail medium and long distance, and has resulted is the activation of the neighbourhood next to the station with the creation of public facilities among which an urban park of 7 ha.

The Area Railway station Madrid - Chamartin is a window of opportunity in this regard and understood as a communications hub of the city and the metropolitan region, presents a major urban complexity and a plot of particularly intense conditions of different orders: mobility, residential, office, leisure, sports, etc.

This is a key area for the recovery of the existing city that is divided into a set of *layers, coatings, reflecting the different streams and currents and the relationship of the parts of the city and the metropolitan region with special emphasis on the North Zone*. Therefore they have important singularities that accumulate intense study and exploit capabilities by the metropolis. It is a challenge that we go hand in hand with your ambitious proposals.