

WSDDG

ARCHITECTURAL ACOUSTIC CONSULTING

MEDIA SYSTEMS ENGINEERING

# Company Profile Corporate / Government / Hospitality

wsdg.com

# WSDG 2

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# **Company Background and Structure**

### **Company Background**

**WSDG** - Walters-Storyk Design Group is a global architecture, acoustic, electro-acoustics and advanced audiovisual systems integration consulting and design firm. Pioneering architect/acoustician, John Storyk (AIA), founded the company in 1969 with the creation of Jimi Hendrix's Electric Lady Studios in New York.

WSDG was co-founded by Beth Walters and John Storyk. The firm's headquarters are located in Highland, New York, and it also has offices and representation in Latin America, Europe, Middle East and Asia as well as a global team that includes over 70 partners, associates and design professionals.

WSDG's history of innovative design achievement has produced over 4,000 diverse global projects, including acoustics and systems design for clients such as: Apple, Google, Spotify, Sony, Amazon, NY's Jazz At Lincoln Center, Alicia Keys, Jay-Z, Bob Marley, Bruce Springsteen, Celine Dion, Def-Jam Records, Epic Games, ESPN, KKL (Switzerland), MTV, TV Globo, WNET, UCLA, and Vienna Symphonic Library.

WSDG is a twelve-time winner of the international NAMM TEC Award for studio design creativity. Recent WSDG TEC winners include: Jungle City Studios, NY, the Berklee College of Music – 160 Mass. Ave. recording/teaching complex, Boston, The Church Studios, London, Boston Symphony Orchestra Control Room, Boston, MA, and Spotify at Mateo, Los Angeles. The firm's work has been published extensively and discussed in numerous professional audio, broadcast and systems design publications.



### **Company Structure**

WSDG maintains offices and representation around the world:

USA: Highland, New York Miami, Florida San Francisco, California Los Angeles, California

#### Europe:

Basel, Switzerland Berlin, Germany (ADA-AMC GmbH) Barcelona, Spain Porto, Portugal Vienna, Austria Latin America:

Buenos Aires, Argentina Belo Horizonte, Brazil Bogotá, Colombia México DF, México Punta del Este, Uruguay

Asia:

Beijing, China Guangzhou City, China Mumbai, India St. Petersburg, Russia

# Services | Architectural Acoustic Consulting

Acoustic Testing, Measurement and Assessment	WSDG employs sophisticated measurement equipment, the most up-to-date acoustical data-collection and analysis software and complex visualization tools to determine and optimize existing acoustical conditions in time and frequency domains, including RT60 Reverberation Times, Transmission Loss, STI Speech Intelligibility Assessments, SPL Sound Pressure Level distribution, Background Noise Levels and many other parameters. Our engineering team specializes in acquiring critical measurement data in-situ or laboratory-based for documentation. This work applies to both technical design and legal / forensic purposes and presents useful interpretations of measurement results and their consequences. All work complies to the latest international standards, industry benchmarks and professional compliance values.
Acoustic Simulation, Modeling, Auralization	WSDG uses complex prediction and analysis software, including some proprietary software that we developed ourselves, to model and study the behavior of sound in a three-dimensional virtual prototyping environment by means of an iterative process and has also pioneered the use of acoustical modeling tools and auralization by using the industry's most advanced acoustic prediction and modeling software. These software tools facilitate "auralization" - a complex calculated algorithm that allows for input of an original, non- processed audio file (such as a speech announcement or an acoustical instrument recording) and then renders an audible reproduction of the future acoustical situation in the virtual building environment. This allows all stakeholders to listen to music, speech or any audio content in the virtual design reality, thus providing an invaluable tool during design and planning.
Room Acoustics Analysis and Surface Treatments Design	Room Acoustics is the science of controlling a room's internal acoustic characteristics by creating geometry in combination with creative surface materialization using reflection, absorption and/or diffusion. Excessive reverberation time can lead to poor speech intelligibility, high ambient noise levels, poor ability to concentrate and limited comfort, specifically in workplace and privacy / confidentiality applications. Interior acoustical floor, wall, and ceiling surfaces can be created using a wide variety of materials and finishes, including perforated, slotted, fabric covered, foam based, plastic, wood, glass, metal or gypsum materialization. WSDG carefully studies and specifies appropriate materials and applications, always with a keen eye and respect for a project's underlying architecture.
Sound Isolation, Structural Acoustics Analysis and Design	Structural Acoustics analyzes noise transmission from building exterior envelope to interior and vice versa, as well as noise transmission from one room to another within the building environment. Inadequate acoustical isolation may lead to elevated sound levels within the space which reduces privacy, comfort level and concentration ability, severely limits speech intelligibility, and has implications for noise health effects. Primary noise paths often include through roofs, ceilings, walls, windows, doors, flanking around room partitions, as well as ducting and other penetrations. Sufficient noise containment control ensures space functionality and is often required by local municipal codes or by a project's technical requirements. WSDG specifications include construction details for wall and slab assemblies and special acoustical isolation conditions (including "room-within-room" construction).

#### Peer Review, Expert Reports, Studies and Surveys

Media Facility Site, Facility, Master Planning, Feasibility Studies

Broadcast and Recording Studio Design

Technical Interior Design, Product Development and Prototype Testing WSDG is a trusted partner for Peer Review, Expert Reports, Studies and Surveys within the context of Architectural Acoustics Consultation. Peer review is the evaluation of work and studies conducted by other parties. This work is often required to maintain standards of quality, assess solutions and designs, provide a second opinion or variations to a concept, create alternate solutions to improve performance and efficiency, provide credibility, and verify costing and time table analysis. WSDG's studies and surveys are often based on in-situ or laboratory measurements and assessments utilizing a wide range of international benchmarks and standards.

WSDG provides a wide portfolio of design and consulting services that support media facility conceptual planning, master planning, site selection and feasibility studies as well as timely, detailed, and cost-effective advice on highly sensitive and complex architectural construction and renovation projects. WSDG has extensive experience with sensitive architectural issues including historical renovations, additions, and new construction projects in media production, corporate, government, education, broadcasting and cultural / entertainment sectors.

WSDG brings over 50 years of experience in providing design and consulting services that support Broadcast and Recording Studio projects during all phases (master planning, schematic design, design development, construction documentation, bidding / pricing, construction administration, and final commissioning / close out). WSDG provides timely, detailed, and cost-effective advice on highly sensitive and complex architectural construction and renovation projects, from small but critical retrofits to challenging ground-up construction. WSDG brings extensive experience to sensitive architectural issues including historical renovations, additions, and new construction projects in media production, corporate, government, education, broadcasting and cultural / entertainment sectors.

WSDG provides technical interior design and integration services for media production, cultural, entertainment and corporate environments in close collaboration with all stakeholders with the goal of enhancing room design, achieving a healthier, more inspiring, more ergonomically, and more aesthetically pleasing environment. WSDG provides conceptual development, space planning, site inspection, programming, research, and construction management for technical AV and lighting design, lighting control, acoustical surfaces, and sightline considerations. Designs are illustrated by means of 3D visualizations, renderings, and VR simulations. WSDG's engineering team and laboratories are available for acoustical studies, assessments, and measurements as well as for supporting further optimization of acoustical parameters of a given product under development. Feasibility studies and virtual prototyping can be conducted to ascertain the product's acoustical performance level and market position.

# Services | Media Systems Engineering

Media Systems Design and Equipment Recommendations	WSDG gives guidance in an increasingly crowded world of technology devices, standards, and practices all claiming to be the best and the most futureproof. Corporate, cultural, educational, residential, and governmental sites alike are constantly striving to improve their media systems in an effort to stay on top of current presentation, communication, collaboration, conferencing, and entertainment techniques. WSDG provides highly integrated AV System Designs based on the highest industry standards, while working collaboratively with its clients in developing long term visions, outlooks, and strategies.
Media Network, Distribution, System Control, IT and Communication Systems	Telecollaboration, teleconferencing, and telecommuting significantly influence corporate culture and workflow. Substantial engineering and integration efforts are required to make these technological advances supportive to the workforce. WSDG designs individual office, boardroom, conference center, and site wide media networks, while providing AV infrastructure with solid privacy protection and high usability to satisfy even highest quality requirements in both sonic and visual aspects.
Audio / Electroacoustic Engineering, Simulation, Modeling and Auralization	The most visible part of the electroacoustical system is the loudspeaker. Loudspeakers are complex electromechanical devices so varied and rapidly shifting that the market is challenging to oversee even for professionals. WSDG specifications are based on 3D acoustical software simulations and virtual prototyping of the venue or room where the architectural conditions are overlaid with the technical, aesthetical, and budgetary criteria of the project at hand. WSDG often creates simulated audio playback demonstrations, called auralizations, to facilitate decisions based on auditory impact. Selecting the electroacoustic system most suitable for the space, after determining room acoustics and structural boundary conditions in what-if scenarios, enables WSDG to achieve and exceed target parameters such as loudness level, frequency range, coverage, directivity control, and speech intelligibility (STI). Electro acoustical systems may be used in voice alarm / emergency scenarios, where properties such as redundancy, certification, and reliability are highly critical. WSDG has extensive experience for such systems and is fully familiar with all current national and international regulation including e.g. FIFA, IOC, and UEFA.
Audio, Electroacoustic Systems Calibration, Tuning and Optimization	Audio System Calibration or Audio System Tuning is the science and art of bringing the entire sound system to operate at its peak performance. The commissioning process involves WSDG's highly experienced experts in audio measurement and sonic accuracy and is based on a sequence of tasks to obtain the maximum audio precision of the component ensemble installed in a space. Frequency and time-domain measurements as well as extensive listening tests are employed to carefully determine the correct placement, phase-alignments, crossover points, equalization, and gain control of a loudspeaker-room system. Full documentation concerning component settings is issued by WSDG for client's reference. For professional audio systems, WSDG recommends

recalibration every 12 to 24 months to increase system accuracy and to

maximize ROI.

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Video Systems Engineering, Content Capturing, Display, Visibility and Sightline Studies	No media experience is complete without a clear, bright, high resolution visual solution. WSDG provides comprehensive video system engineering services, including design of networks, hardware, software, and other related infrastructure to support video applications within production, broadcasting, educational, corporate, information and entertainment contexts. Camera and display / projection system positioning often require integration and placement studies that are based on 3D visualization and studies. Typical auxiliary WSDG engineering fields include heat management and noise mitigation.
Peer Review, Experts Reports, Studies and Surveys	WSDG is a trusted partner for Peer Review, Expert Reports, Studies and Surveys within the context of Media Systems Engineering. Peer review is the evaluation of work and studies done by other parties. This work is often required to maintain standards of quality, assess solutions and designs, provide a second opinion or variations to a concept, create alternate solutions to improve performance and efficiency, provide credibility, and to verify costing and time table analysis. WSDG's studies and surveys are often based on in-situ or laboratory measurements and assessments utilizing a wide range of international benchmarks and standards.
Broadcast and Recording Studio Systems Design	WSDG brings over 50 years of experience in providing design and consulting services that support Broadcast and Recording Studio projects during all phases (master planning, schematic design, design development, construction documentation, bidding / pricing, construction administration and final commissioning / close out). WSDG provides timely, detailed and cost-effective advice on highly sensitive and complex architectural construction and renovation projects, from small but critical retrofits to challenging ground-up construction. WSDG has extensive experience with sensitive architectural issues including historical renovations, additions and new construction projects in media production, corporate, government, education, broadcasting, and cultural / entertainment sectors, and can suggest and recommend AV solutions that work within the project design.
Theatrical Systems	Theatrical Systems Engineering refers to conceptualizing, designing, and implementing technical equipment and devices for the performance community, while integrating these designs into the architectural and acoustic fabric of projects. WSDG provides these services including networking infrastructure, theatrical audio-video systems, immersive 3D audio replay, theatrical lighting, wired and wireless communication devices, and stage machinery with the goal to give venue owners, producers, and artists the means to express their talents to the full extent of their creative imagination.

## **Key Personnel**



#### Beth Walters Founder Partner

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Beth Walters-Storyk is a graduate of the Fashion Institute of Technology (New York) with two degrees, A.A.S. in Textile Design and a B.F.A. in Product Design. Her construction experience comes with having been a senior installation designer for the Gallery's exhibition and installation staff at the Fashion Institute for over 10 years. From 1982-1988, Beth also was the display and merchandising director for such noted home furnishing fabric firms as Boris Kroll Fabrics, Greff Fabrics and Design Tex Fabrics. Beth is a founding partner and principal of Walters-Storyk Design Group and leads the interior design services division.



### John Storyk, R.A. Founder Partner

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John Storyk, registered architect and acoustician, is a founding partner of WSDG. He has provided facility planning, acoustical and systems design services for the professional audio-video production and performance community since the 1969 completion of Jimi Hendrix's Electric Lady Studios in New York City. John received his architectural studies from Princeton and Columbia Universities. As an independent designer, engineer and founding partner of WSDG, he has been responsible for over 3,500 world-class audiovideo production facilities, including studios, radio stations, video suites, entertainment clubs and theaters. He is a member of the American Institute of Architects (AIA), Audio Engineering Society (AES) and Acoustical Society of America (ASA) and is a frequent contributor to AES convention papers and professional industry periodicals. John is a frequent lecturer at schools throughout the nation and has established courses in acoustics at Full Sail (Orlando), Ex'Pression Center for the Media Arts (San Francisco), while maintaining adjunct professor status in Acoustics and Studio Design at Berklee College of Music (Boston).



## Sergio Molho

#### Partner / Director of Business Development

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Named Partner/Director of Business Development in 2016 for the global WSDG architecture/acoustic design firm, Sergio Molho was a founding partner of WSDG Latin America in 1994. He has provided technical, acoustical and architectural supervision as well as project management for all WSDG Latin projects. He now provides daily and long-term technical, marketing, social media and business management direction for the firm's multiple offices. Sergio Molho has been an audio/video and recording industry professional since 1982. An accomplished keyboard artist and vocalist, in the 1980's he led popular Argentine funk band CASH. His technical credits range from AV and Systems Integration/design to project management. Sergio is a frequent contributor to technical workshops and is committed to expanding the knowledge and education of acoustics and electro-acoustics in their relationship to architecture. Sergio also serves as Director of WSDG International Relations, and contributes to the promotion and acquisition of new business worldwide.



### Joshua Morris Partner / Chief Operating Officer

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Joshua Morris graduated from the University of North Carolina in Charlotte with two Degrees, a Bachelor of Arts in Architecture and a Bachelor of Architecture. A love of music has led him to seek a combination of architecture and acoustics, beginning with his thesis on acoustics. Additionally, Josh has been educated in the Suzuki method for violin since age three, making acoustic design a natural choice for a career path. Joshua joined the WSDG team in January of 2005, moving from North Carolina to New York, and quickly settled into a key role as a project manager, designer, to his current status as a partner and COO. He has managed dozens of projects from China to the United States to Germany, and continues to add more skills to his design vocabulary each day, while refining his already well developed practice as a luthier.



## **Dirk Noy**

# Partner / Director of Applied Science and Engineering

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Dirk Noy, M.Sc. Physics, has a Diploma in Experimental Solid State Physics from the University of Basel, Switzerland and graduated from Full Sail Center for the Recording Arts, Orlando, USA, where he was one of John Storyk's students. After joining WSDG in early 1997 Dirk now heads the WSDG Europe office in Basel, Switzerland. Dirk has extensive experience in applied mathematics, acoustical measurement and calculation techniques, audio engineering, systems design and all facets of Information Technologies. His language abilities include German, Dutch, French and English. As a publishing member of the Audio Engineering Society (AES) and the Swiss Acoustical Society (SGA) he is a frequent lecturer at trade conventions, recording colleges, as well as architectural education institutions.





### Silvia Campos Ulloa Molho

#### Partner / Art Director

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An audio/video industry professional since 1987, Silvia Molho has developed striking interior designs for an international client base ranging from luxury homes to high-end recording studios and state-of-the-art educational complexes. A graduate of the Bellas Artes University in Lima, Peru and Visual Anthropology in UBA, Buenos Aires. Silvia has served as a producer on several video and film productions and documentaries in Peru, Paraguay and Argentina. Her areas of expertise include graphic design and art direction. As a long-time partner in WSDG, she is a leader (with founding partner Beth Walters) of the firm's global graphic design team. Since joining the firm in 1994 she has represented WSDG in Latin America and served as interior designer and supervisor for countless high-end design projects including world class facilities.



### Gabriel Hauser

Partner / Director of Acoustics

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Gabriel Hauser graduated with a degree in electrical engineering from the Swiss Federal Institute of Technology, Zurich, in 2000. Analog and digital signal processing and acoustics were his primary focus. His Thesis was titled "Reduction of Nonlinear Distortion of Loudspeakers employing Volterra Filters" (at Studer Professional AG, Switzerland). After joining the WSDG New York office, Gabriel returned to Switzerland to become a founding partner at WSDG Europe. His specialties include Acoustical Simulation and Measurement, complex Acoustical Analysis and Methodology as well as Architectural Acoustics. During his studies Gabriel was a founding member of Abbaxx Soundsystems Ltd., whose principal field of work is sound reinforcement and loudspeaker technology. While with Abbaxx, he designed and developed sound systems for concert use, churches and installations. He writes articles for audio magazines and continues to be a performing musician.



# Prof. Dr. Wolfgang Ahnert

### Partner / Director of ADA/AMC, a WSDG Company

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After studying Technical Acoustics at the Technical University of Dresden and passing one year at the Moscow State University (Lomonossov) for a complementary course, Dr. Ahnert wrote his doctoral thesis and attained a Ph.D. In 1990 he founded the Engineering Office ADA – Acoustic Design Ahnert with at first two colleagues at the site of the former governmental Institute. In January 1993 the Office moved to a new location at the Berliner 'Innovations-und Gründerzentrum' (Berlin Innovation and Founders' Center) – BIG – which was established in an abandoned industrial area, formerly used by AEG, in Berlin's Municipal District of Wedding. Dr. Ahnert is a sought-after author, contributor, educator and lecturer at professional conferences and tradeshows and has authored countless white papers on subject matters such as acoustical simulation processes, measurement technology, electro-acoustical theory and applications.



#### **Matthew Ballos**

#### Partner / Director of Architectural Technology

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Mid-Hudson Valley, New York native Matt Ballos earned dual degrees in Architecture and Construction Management. A background in civil engineering and a lifelong love of construction and design has enabled Matt to quickly become a valuable member of WSDG's design and production team, currently as a project designer and manager. Matt's love of design extends from his drawing skills to his personal workshop where he spends his free time building furniture and fabricating functional pieces of art. He believes his experiences at WSDG coupled with having grown up on construction sites provides him with a functional knowledge of what can and can't be built, and enables him to apply his design talents in creating uniquely useful, beautiful and acoustically accurate spaces. WSDG is proud of Matt's continued affiliation with the US Air Force Reserve as an engineering specialist.



### **Tobias Behrens**

#### **Electrical Engineer / Project Engineer**

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Tobias Behrens graduated in electrical engineering at the Technical University of Berlin in 1994 with a focus on technical acoustics and communications technologies. He then performed post graduate acoustic research on psychoacoustic topics at ITA/Technical University, Berlin and ISVR / Southampton University, UK. At ADA-AMC (A WSDG Company) Tobias Behrens is working as a Project Engineer on room acoustics, electro acoustics and architectural acoustics, as well as executing and analyzing room acoustical and electro acoustical measurements. He brings with him 20 years of experience in professional planning and consulting on national and international projects. Room acoustic simulation and analysis, laboratory and field measurements, sound absorber technologies and electronic enhancement systems are main components of his recent work. During the last 24 years he coauthored over 15 papers and contributions for DAGA, ASA and ICA.



## Jonathan Bickoff

Partner / Project Engineer

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Jonathan earned his B.S. in Music Technology and Business from Mercy College in 2009. He then went on to develop his skills in applied acoustics mixing front of house for live shows, AV for corporate functions, and mixing for commercials, TV, and film. Jonathan brings this real world experience and enthusiasm to the Highland, NY acoustics team. When not arguing about music and headphones, Jonathan is busy playing cello, road cycling, hiking, stand-up paddle boarding and practicing yoga.



## Will Brown Partner / Project Manager

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Will earned his B.S. in Mechanical Engineering from Columbia University and his B.S. in Applied Physics from Providence College. Once out of school, he spent 6 years in the manufacturing and construction industry designing and building highly specialized shielded door systems for applications in the aerospace, defense, energy, and entertainment industries. Will brings this design knowledge and expertise as well as a love for analog music production to the WSDG Highland NY team in the areas of Project Management and Engineering.



### Victor Cañellas (Weike)

## Representative

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Acousmatic Sinologist Víctor Cañellas (Weike) has been a successful acoustician/sound researcher in China since 2003. His expertise in developing acoustic interfaces for visual arts in performance venues has contributed to such demanding assignments as the Park19 and LOFT345 clubs in Guangzhou and for the popular 2007 La Fura dels Baus 'Imperium' premiere in Beijing. His expertise in acoustic treatments was enriched by serving as a representative for Jocavi Acoustic Panels and Soundbox Acoustic Tech fixed architectural acoustic systems. Victor studied Social Science at Universitat de Barcelona, Asian Studies at Universitat Autonoma de Barcelona Center of International and Intercultural Studies, and attended Chinese Language Studies in Sun Yat Sen University in Guangzhou. His wide-knowledge of 'Eastern thought and logics' provide a solid foundation for him in his new role as a WSDG representative.



# Michael Chollet

#### Partner / Director of Systems

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Michael Chollet's first activities in the professional audio field were the development of loudspeaker systems and electronics. After graduation from High School with a focus on engineering he started self education in the fields of acoustical measurements, DSP programming, computer and network technology. He augmented this know-how foundation with advanced training courses in acoustics and environmental noise protection. At WSDG Michael has been in charge of different studio construction projects and large scale Installations, as the Swiss national broadcaster TSR in Geneva. Additional specialties include system integration, DSP programming and research on advanced problem solving. His language skills include German, French and English.



#### Judy Elliot-Brown Senior Systems Designer Engineer

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Judy Elliott-Brown has been a professional audio engineer since 1977, with a background in live touring, remote recording, music recording, sound for television, studio maintenance and systems design. She has been responsible for the systems infrastructure design and installation of over 100 projects worldwide. Projects she has worked on include world class audio recording studios, media/broadcast production studios, educational facilities and multi-use performance spaces. Judy is a full-time systems design and installation on many WSDG projects for over 25 years. Judy is a member of the Audio Engineering Society (AES) and National Academy of Recording Arts and Sciences (NARAS). Additionally, she has worked on several Grammy nominated albums and was a sound engineer for a Sci-Fi cartoon show.



#### Enno Finder Project Engineer enno.finder@wsdg.com

Enno Finder studied Electrical Engineering at the Technical University Berlin, Germany, with a focus on Acoustics by Michael Möser. Having started 1995 as an intern at ADA Acoustic Design Ahnert, he was asked to join the company as an AV project consultant, starting at designing electro acoustical systems for major train stations, airports, working on large Houses of Worship such as the Berlin Cathedral, Parliament Buildings, up to large venue design (e.g. Berlin O2 World, Olympic Stadium). Enno Finder brings with him a rich musical experience in classical vocal music, having taken up singing as a little boy, he currently is an active member of several Berlin based vocal choirs and ensembles.



# Flavio Gallacchi

#### **Project Engineer**

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Flavio Gallacchi received his diploma as an audio engineer from the audio engineering course ffton in Zurich, Switzerland. His main focus lies on performing room-acoustical and electro-acoustical measurements, their analysis and the subsequent process of optimization, which involves room-acoustics software and programming audio DPS. He is also busy working on the technical design and integration of audio and video-systems in WSDG Projects. Before joining WSDG, Flavio has been working as a live mixing engineer and as a technician in a local Hi-Fi retail store where he trained his ears and specialized in calibrating turntables. He has been owner of a drum school where he also was an instructor after graduating from the Los Angeles Music Academy.



## Pietro Gennenzi

#### Project Manager / Project Engineer

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After studying electrical engineering at the Ecole Centrale d'Electronique in Paris, Pietro moved to the US to pursue his passion for music and graduate from Berklee College of Music with a degree in Contemporary Writing and Production. Being part of several musical projects as a bass player, he spent countless hours in recording studios and concert venues around the world. Inspired by the variety and uniqueness of the spaces and places he experienced, his growing interest for architecture and design led him to WSDG in 2019. Since then he has been involved in acoustic prediction and analysis, measurement and modelling, as well as room tuning and calibration.



## Leandro Kirjner

Project Manager leandro.kirjner@wsdg.com

Leandro Kirjner is a young professional from Argentina, graduated from Buenos Aires University (UBA) with Master of Architecture degree. In 2012 he joined to the WSDG Latin team, since that moment he has been involved in several projects around the world, being the project manager and in charge of the production for the construction documentation and part of the Audio / Video team. As one of the Architectural Team member, he decided to do a Lighting Design grade to improve his knowledge and let him to be in charge of the most of the lighting projects that the Latin Office had. Also, he did a BIM Manager grade to continue performing his skills in order to give an efficiencies approach on each project.



#### Romina Larregina Partner / Director of Production romina.larregina@wsdg.com

Romina Larregina graduated from the University of Palermo, Buenos Aires, with a degree in Architecture. Upon graduating, Romina took her skills to an engineering office, while teaching English and helping with the set up of trade shows. She apprenticed at WSDG – Latin for several years before moving to the United States in 1999, to become an integral member and now partner at WSDG (New York). Her multi-lingual skills in English, Spanish and Portuguese have been instrumental in leading numerous international projects. Romina is the Latin liaison, as well as project management and production coordinator for the New York office. She loves to travel and enjoys the day-to-day client interaction.



### Alan Machado Project Manager

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Alan graduated as an Architect and Urban Planner from FUMEC University, Belo Horizonte in 2013. Since then he has worked in many different areas of architecture, going from house and building modeling and executive project to markets and shopping malls. Alan has a deep connection with music, he is a passionate listener and has been playing the electric guitar as a hobby since the early 2000s. Working at WSDG since 2016, he discovered a new way to combine his passion for music and architecture and work with them for a common objective.



## Breno Magalhães

Architect / Project Manager

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Breno graduated as an Architect and Urban Planner from Federal University of Minas Gerais (UFMG) in 2010 and as a Product Designer from State University of Minas Gerais (UEMG) in 2006, both in Belo Horizonte. His interest in music and acoustics grew during his university period. Breno enjoys playing the guitar and he turned this hobby into his Product Design final graduation project, by developing an electric guitar with an innovative pickup swapping system for studio applications. The same thing happened in his Architect and Urban Planner graduation project when he designed a new music Arena for Belo Horizonte. At this point he was already a WSDG member. Also as a Product Design focused on manufacture optimization, ergonomics and sustainability. He was a partner in a design office with the same approach. Breno has worked as a Project Manager and Designer at WSDG Brazil office since 2008.



## **Robert Margouleff**

#### **Project Engineer**

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Grammy-winning engineer/producer/studio-owner Robert Margouleff brings 40+ years of hands on experience in his role with WSDG. Beyond his long-time collaboration with Stevie Wonder, capped by a Best Engineered Album Grammy for *Innervisions* (shared with Malcolm Cecil,) Margouleff's producer/ engineer credits include work with Devo, Billy Preston, Depeche Mode, Jeff Beck, The Doobie Brothers, Quincy Jones, and many other stellar artists. After building his Hollywood-based Mi Casa Multimedia Studios, Margouleff became a leader in surround audio for home theater, and provided 5.1 and 7.1 mixing and mastering for DVD and Blu-ray releases and restorations for such films as: *The Sound Of Music*, six *James Bond* features, *Rush Hour* and the complete *Lord Of The Rings* cycle. Margouleff will be involved in all aspects of WSDG's west coast projects. He will consult with new clients on details ranging from site selection to design, construction, technology, acoustic treatments and systems integration.





#### David Molho Project Engineer david.molho@wsdg.com

David graduated Magna Cum Laude as a Music Production & Engineering major from Berklee College of Music in 2011. Since then he has been working as an engineer, producer and composer for world renowned record labels in his Groovyland Studios in the city of Miami. After being involved with WSDG for several years, in 2018 he switched his role to become a Project Engineer in the area of acoustics, and a project manager for several projects ranging from recording studios to luxury buildings, performance venues, and corporate. Due to his ability in audio engineering, David is in charge of performing room calibration and commissioning services for projects around the globe.



### Adam Paiva

Project Manager, Acoustic Engineer

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Adam earned his B.S. in Architectural Engineering with a Structural Concentration from Drexel University in 2007. A love of audiophilia combined with a passion for architecture, design, and engineering led him to the field of acoustics. He developed his knowledge in the acoustics and isolation fields over 15 years, working on a variety of projects ranging from large corporate office fitouts to boutique fitness clubs to concert halls. He also spent several years working on the client side in the design team of an international high-end fitness brand. Adam brings his expertise in architectural acoustics, isolation, and mechanical systems design to all our projects. Adam is a member of both ASA and INCE.



## **Gustavo Perezlindo**

#### Systems Engineer

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Gustavo Perezlindo has ventured from a young age in the development of technical solutions for live shows, applying his capabilities of Electronic Engineering, Architecture and Production, allowing him to face the integral production of shows in a wide spectrum, ranging from theatrical and rigging systems design, production, and technical direction, from the initial concept to the final reality.



#### Esther Roger Project Manager

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Esther Roger is a South Florida native which graduated from FIU (Florida International University) with a Master of Architecture degree, and from FAMU (Florida A&M University) with a Bachelor of Science in Architectural Studies. As a young professional her career began with her love for humanitarian work as she began familiarizing herself with construction as an AmeriCorps worker at Habitat of Humanity in the construction division.

Esther joined the WSDG team in May of 2017 and works as a Project Manager and a 3 Dimensional Visual Creator in the Technical Interior Department.



# Bob Skye Project Engineer

Bob is a leader in electro/acoustic design, recording studio construction and, a Grammy-winning engineer with Gold and Platinum credits, has joined the Walters-Storyk Design Group. As WSDG's west coast representative and project engineer, Skye shoulders a host of responsibilities ranging from new client development and overall business management to hands-on project design and construction supervision. He is a member of Audio Engineering Society, American College of Forensic Examiners and American Board of Recorded Evidence.



# Laura Stillwell

Administration, Financial

laura.stillwell@wsdg.com

A skilled tactical and strategic planner, diplomatic problem solver and meticulous Bookkeeper, Laura Stillwell encapsulates all the prerequisites to meet the multitudinous requirements of WSDG's wide-ranging corporate family. After earning a Bachelor of Fine Arts, Photography Degree from Western Carolina University, Laura began a nine-year residence as Administrative/Executive Assistant for a privately owned regional utility company in Sylva, NC. Moving to Highland in 2017 she assumed Bookkeeper duties at Kimlin Energy Services in 2018. An intriguing Help Wanted ad from neighboring WSDG prompted her to interview and she was quickly hired. Laura easily adapted to WSDG's "Fast paced and frequently fascinating operation and celebrity client base."





## Mariana E. Varon

**Project Manager** 

mariana.varon@wsdg.com

Mariana studied architecture at the UBA (Universidad Nacional de Buenos Aires / University of Buenos Aires) and graduated in 1995. Along with her MBA in Architectural Design at FADU (UBA) she continued her architecture studies at Universidad Torcuato Di Tella. From 2004 to 2011 she worked for WSDG Latin, being the project manager of many projects and in charge of the production of the construction documentation. In 2011, she created her own Architectural Firm: Mvaron Arch. & Assoc., working on Steel Framing projects and dry-wall construction. Mariana has been involved as a project manager with several architectural firms, including Clorindo Testa, Roberto Frangella and Justo Solsona Arquitectos. Her work led her to win several awards and mentions during her career.



#### Marc Viadiu Project Engineer marc.viadiu@wsdg.com

Marc studied Technical Engineering in Sound and Image and Higher Engineering in Electronics at the University Ramon Llull in Barcelona, Spain. After graduation, Marc worked in an industrial acoustics company in Barcelona. Later he started his own company of acoustic engineering and distribution of acoustic and audio products. At the beginning of 2009, Marc undertook a six month internship at the WSDG New York office preparing drawings, taking acoustical measurements and performing room acoustical calculations. Upon returning to Spain in 2010, he started a new company of designing acoustical products and opening the new WSDG office in Spain.



## Nahuel Zaccagnino Senior Project Engineer

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Nahuel received his degree in Electronic Arts from UNTreF and has worked as a professional audio engineer and musician based out of Buenos Aires ever since. His keen sensibilities for the crossroads of music and technology have made him an in-demand audio integrator, consultant, and tech support professional for many recording studios, broadcast facilities, and live event venues. Nahuel is a systems engineer at WSDG and has utilized his broad experience in these areas to develop the AV System Design department across many challenging projects.

## **Professional References**

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Chuck Mongelli, Director Performance Capture Production Rockstar Games / Take Two Interactive (347) 721-4257 Chuck.Mongelli@rockstargames.com

Jack Antonoff, Grammy Award Winning Producer Taylor Swift, Lana Del Rey (Contact information on request)

## **Professional References**

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## **Relevant Experience**

WSDG (Walters-Storyk Design Group) and its principals have an extensive body of clients in the fields of architectural acoustic consulting, facility master planning, and media systems engineering. A list of projects that supports our company profile and credentials follows. For a more extensive client list, please see <u>www.wsdg.com</u>. Our experience spans over 50 years in architectural design, internal room acoustics, advanced noise isolation, and systems design required for acoustically sensitive projects of all sizes. Moreover, WSDG has the ability to work seamlessly within a team design environment.

#### We have assembled a list of projects that underscore our experience with multiple project types:

Doha Oasis Doha, Qatar

Hirslanden Group Zurich, Switzerland

Sumitomo Boardroom New York, USA

Jazz at Lincoln Center New York, USA

VSL Synchron Stage Vienna, Austria

ESPN - Digital Center 2 Bristol, USA

Morro de Chapeu Belo Horizonte, Brazil

Parliament Hall Landtag Düsseldof, Germany

Jakarta International Expo Jakarta, Indonesia

Zurich Firm Zurich, Switzerland

UCLA Herb Alpert – Lani Hall Los Angeles, USA

TSR – Télévision Suisse Romande Geneva, Switzerland

Rockwood Music Hall New York, USA Los Molinos - Faena Arts Center Buenos Aires, Argentina

Flughafenkopf – Zurich Airport Zurich, Switzerland

El Porteño Buenos Aires, Argentina

KKL Concert Hall Luzern, Switzerland

Berlin Brandenburg Airport (BER) Schönefeld, Germany

Rio 2016 – Barra Olympic Park Rio de Janeiro, Brazil

Electric Lady Studios New York, USA

Jungle City Studios New York, USA

PepsiCo Content Studio New York, USA

TV Globo São Paulo, Brazil

Magazzino Italian Art Gallery Cold Spring, USA

Pangu 7 Star Hotel Beijing, China

Spotify at Mateo Los Angeles, USA Shanghai State Grid Pavillion Shanghai, China

Swiss Parliament Bern, Switzerland

St. Gallen Train Station St. Gallen, Switzerland

Restaurant T Buenos Aires, Argentina

Aura Club Events Hall Zurich, Switzerland

1776 On The Green Morristown, USA

La Cigale Sky View & Piano Bar Doha, Qatar

Berklee College of Music Boston, USA

The Anthem Washington DC, USA

National Museum of Qatar Doha, Qatar

National Assembly of Turkey Ankara, Turkey

Hilton Garden Inn Montevideo, Uruguay

Quai Zurich Campus Zurich, Switzerland

## Doha Oasis - Doha, Qatar

One of the most ambitious, futuristic, and compelling 'destination' magnet projects ever built, The Doha Oasis is a "city-within-a-city" in the heart of Musheireb, State of Qatar. Totaling 4 million ft2/37,000 m2 of hotel suites and exclusive residences, the complex is comprised of two ultra-luxury, 20-story elliptical glass residence buildings, each with nine floors of duplex apartments; a 29-story, seven star hotel with 7 restaurants, and a business center. The "Jewel in the Crown," is a nearly 775,000ft2/72,000m2, "Themed Experience Center" (TEC) featuring twenty-six next generation, self-contained experiential attractions and the Doha Oasis Boutique, afour-level underground "Commercial Podium" housing the TEC, an exclusive spa, and extensive high-end shopping options.

Project's general contractor RedcoConstruction ALMANA retained WSDG to address a plethora of latent acoustic issues. To ensure complete sound isolation throughout the mammoth complex, the global WSDG acoustic team engaged its entire arsenal of acoustic measurement, testing and analysis protocols as well as critical isolation and design services to identify and eliminate all potential sound isolation issues.

The WSDG acoustic measurement team consisted of Miami-based Project Manager/Acoustic Engineer, David Molho and Middle East representative Marc Viadiu. They performed a full week of comprehensive acoustic analysis and modeling tests in Doha for a critical Peer Review Testing mission of the expansive complex using world-class BNK 2250 microphones and sophisticated DODEC Omni-directional speakers.

The Doha Oasis will open officially in 2022 in conjunction with that year's World Cup Games being held in Qatar. Describing the process David Molho reports, "We performed over 1000 individual area STC and reverb time measurements for this assignment, and our comprehensive analysis confirms the quality of ARUP Group work. The Doha Oasis complex is magnificent, and we look forward to our next round of testing in this extraordinary multifaceted environment."



# Doha Oasis - Doha, Qatar





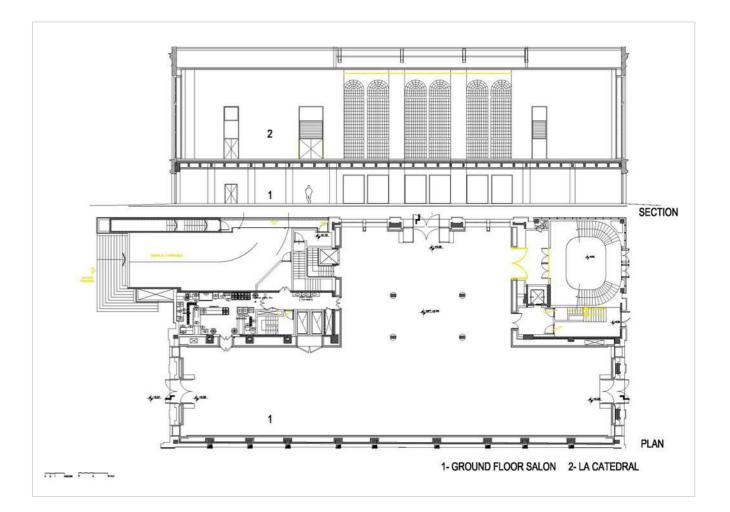
## Los Molinos - Faena Arts Center - Buenos Aires, Argentina

The Puerto Madero (old port) in Buenos Aires has for years been an area of rebirth and architectural revitalization. It is home to numerous new restaurants, media businesses, clubs and hotels. As a part of Alan Faena's real estate undertakings in Puerto Madero, the new Faena Arts Center includes the renewal of the historic building of Los Molinos Food Company.

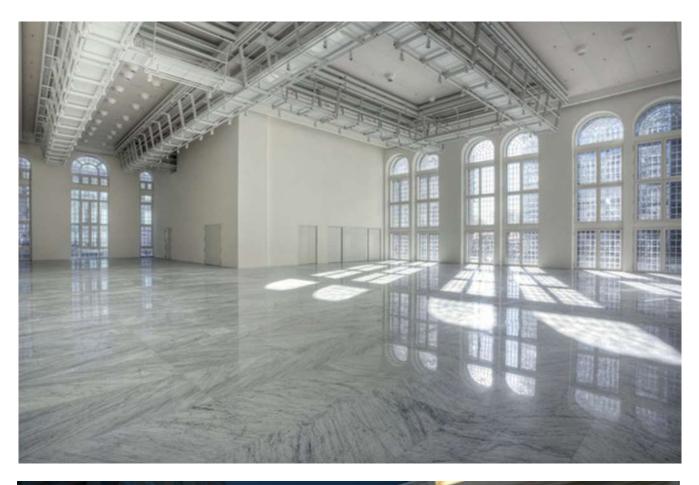
The most serious acoustic challenge was the creation of 100% isolation between the two event halls, each requiring high SPL levels and simultaneous 24/7 operations for trade shows, concerts, weddings, etc. Additionally, there exists the even more difficult issue of the adjacent luxury apartments located directly on top of these two halls. Alan Faena's directive was simple "... no matter what's going on at the Halls, we need ZERO impact on the apartments..."

With that directive in place, WSDG proposed and designed a fully decoupled and isolated "box in box" solution, similar to recording studio technology, except with the added challenge of scale.

s the space will be used primarily as Art Exhibition and Performance Venue, the curator requested an internal acoustic treatment solution that would allow a high degree of clean smooth wall surfacing. The final solution called for the majority of the room's acoustic absorption to be obtained form a stretched fabric ceiling with over 20 inches of concealed acoustic baffling. This was inserted above the room's technical catwalk, continuing the present the appearance of a room with smooth surfaces, while greatly reducing the reverb time – allowing for increased speech intelligibility.









# Shanghai State Grid Pavilion - Shanghai, China

In an effort to create a totally unique Pavilion exhibition, the State Grid Corporation of China (SGCC) commissioned ATELIER BRUECKNER of Stuttgart, Germany to design the Magic Box, a distinctive cube which appears to float within the State Grid Pavilion complex. Rated number three in China's top ten enterprises, and a global partner of EXPO 2010, SGCC is tasked with the country's transmission and distribution of electricity. The stunning Magic Box Pavilion consists of six giant LED walls – the six faces of the cube, each measuring approx. 15m x 15m (50 feet x 50 feet) – and features a glass bridge suspended three meters (10 feet) above the floor to facilitate downward viewing for 250 visitors to each presentation. Once inside visitors are rewarded with a unique, fully immersive, entirely computer-generated, three-dimensional surround audiovisual experience. Not surprisingly, the story focuses on energy: its origins, its transportation and how it is used to improve the quality of everyday life today and in the future.

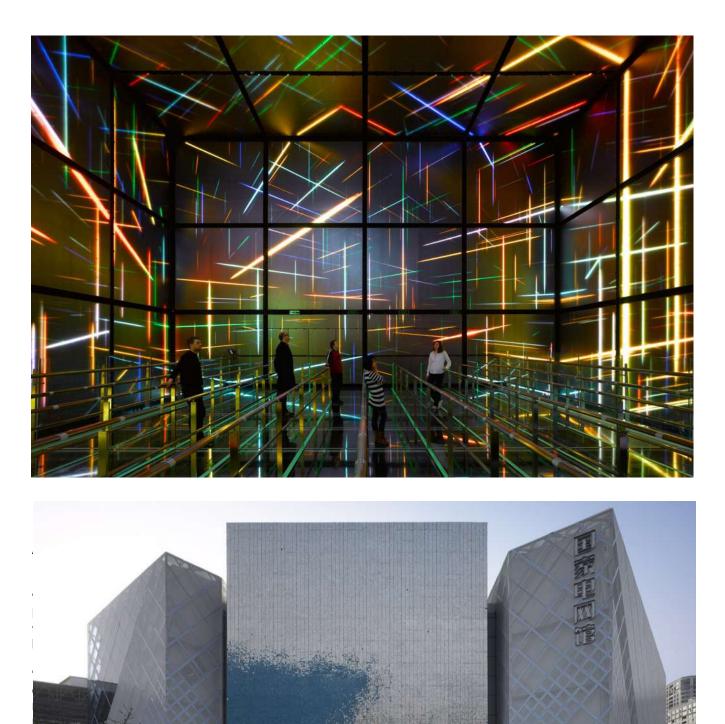
Creating the fully immersive illusion is possible only with proper triggering of the visual and auditory senses. To establish this holistic listening experience a totally innovative environment was developed and implemented by Switzerland-based IDEE UND KLANG, a full service audio specialist, simultaneously charged with composing, creating, editing and mixing the original show soundtrack, an audio program designed for playback on a 21.2 channel Acousmatic Room Orchestration System (AROS).

Due to the parallel assembly of the LED panels, WSDG had to accept a certain amount of flutter echo, so increased attention was devoted to reverberation control.

WSDG was responsible for evaluating if and how the selected digitally controlled line array loudspeaker system could deliver the best performance considering the unfavorable room acoustical conditions, and to suggest treatment if needed. The superiority of the line array system in terms of directivity was established by simulating the direct sound pressure coverage of the entire room through additional acoustical simulations.



# Shanghai State Grid Pavilion - Shanghai, China



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I PALLET PRALITY

WSDG 28

# Hirslanden Group - Zurich, Switzerland

With 14 hospitals in all of the greater Swiss cities, and a staff of over 1600 doctors – the Hirslanden Group is one of Switzerland's major privately-held health care providers. As one of the centerpieces of the Group's operations, the Hirslanden Cardiac Clinic in Zurich offers the entire spectrum of modern cardiac surgery through its team of international specialists.

Zurich-based Dost Architecture was retained to develop an interior design concept to provide the expanding Hirslanden Group clinic with uncompromised functionality while also reflecting the organization's intrinsic values. Their goals were to create a careful blend of minimalist design, surprising detailing and a remarkably continuous lighting scheme that would produce a welcome dialogue between clinical precision and interpersonal/environmental concerns. Acoustics are a particular and ongoing concern in Dost Architecture projects.

WSDG was engaged to study all aspects of the clinic's room and structural acoustics – the latter being critical due to doctor-to-patient conversation privacy issues. A range of eight acoustical room treatments was developed based on WSDG findings. The clinic's rooms were individually analyzed and a matrix was created to determine which application would most benefit each room. Cornerstones of the resulting program include: transparent, highly efficient acoustic curtains from the Silent Space Collection; Eyecatching Living Plant Wall Murals which require only natural or artificial light and milnimal watering. These treatments have an absorption value comparable to that of a standard acoustical wall panel. The third WSDG recommendation, acoustically absorbing Baswa ceiling treatments, were primarilly intended for the hallways and waiting areas, The completed expansion and acoustic design program meet all the client's requirements for effective, aestheticly pleasing and environmentally sound room tuning.



# Hirslanden Group - Zurich, Switzerland



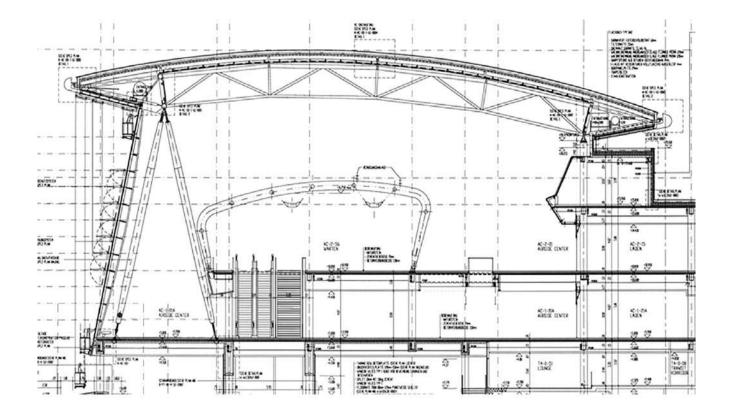


# Flughafenkopf – Zurich Airport - Zurich, Switzerland

The Airside Center (A500), located between the existing finger docks A and B, acts as a focal point for travellers at the airport. The project is comprised of the new Airside Center (housing new shops and restaurants), the Underground Skymetro Station which connects the Airside Center to the Dock Midfield, the Arrival Hall just above the Skymetro Station, and various renovations within the A and B terminals. The previously existing buildings are all connected and the Airside Center, with its prominent shape, reflects the new identity of the airport.

WSDG was awarded the full electro-acoustic design of both of these new facilities by the responsible electrical engineering firm, Ernst Basler + Partner AG. WSDG's project scope included creating the electro-acoustic project requirements (e.g. Speech Intelligibility, Sound Pressure Levels, Frequency Responses, Coverage, etc.) in line with the appropriate national and international standards - IEC 60849; electro-acoustic design and optimization with assistance of computer simulations and other means of calculation; specifications and supervision of all driver components to the electro-acoustic system.

The specified system for the large open spaces with high ceilings is based on Duran Audio's Intellivox loudspeakers (a total of 16 units). These line array loudspeakers offer full digital beam steering control and, due to their narrow form factor, can be installed in a nearly invisible manner, meeting the project's architectural requirements. Ancillary specified loudspeakers for support spaces and adjacent areas are highly directional units from Frazier and HK.



# Flughafenkopf - Zurich Airport - Zurich, Switzerland





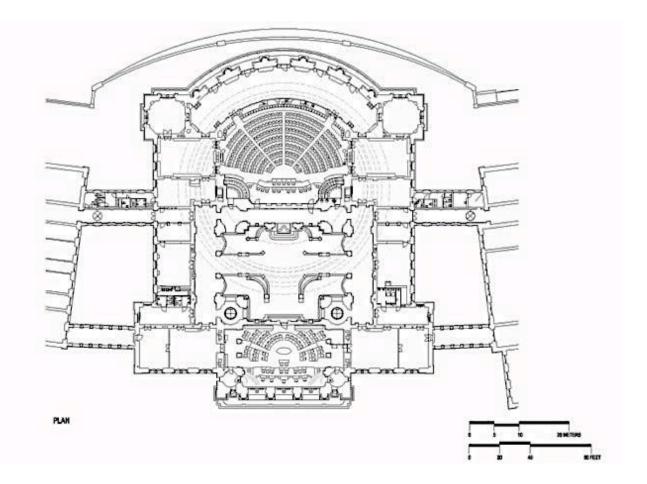
# Swiss Parliament - General Assembly - Bern, Switzerland

The Federal Palace in Bern is the building in which the Federal Assembly of Switzerland (federal parliament) and the Swiss Federal Council (executive) are housed. The Federal Palace has been designed by the architect Hans Wilhelm Auer and was constructed out of sandstone from 1894 to 1902. From 2006 to 2008–after over 100 years of service–the first major renovation took place with the goal to integrate modern technology within a faithful restoration of the original building structure.

The National Council Hall has three distinctive zones that require sound reinforcement: the main hall, the stage area (with a distinctive presenter position and seats for the Chairpersons and Clerks such as vote counters and recorders) and the balcony (for visitors and press). WSDG was commissioned to perform three tasks:

- Study and analyze the installed electro-acoustical systems.
- Make multiple recommendations and specifications regarding upgrading or replacing the installed electro-acoustical systems.
- Upon the installation of the chosen system, we were commissioned to do a system calibration and final measurements of the upgraded or replaced electro-acoustical systems.

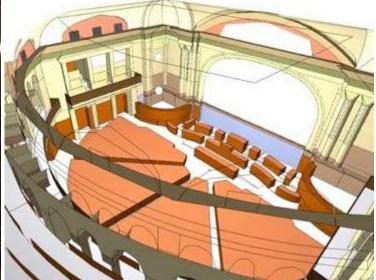
WSDG studied various upgrade options by using advanced acoustical computer simulation techniques.



# Swiss Parliament – General Assembly - Bern, Switzerland



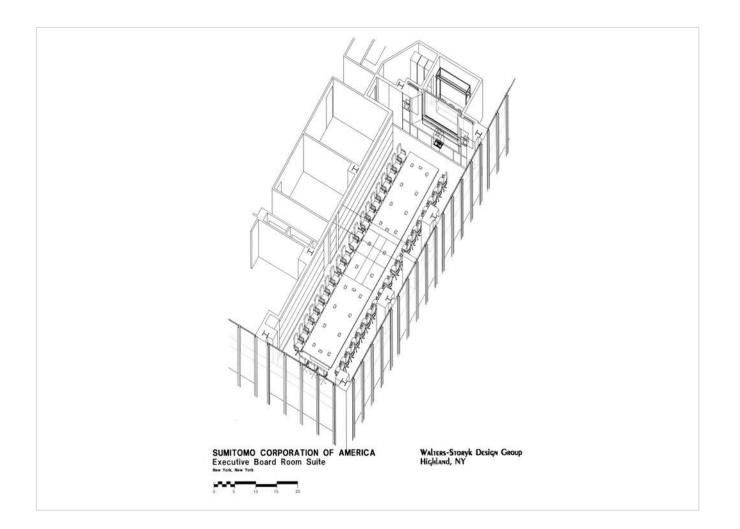




## Sumitomo Boardroom - New York, USA

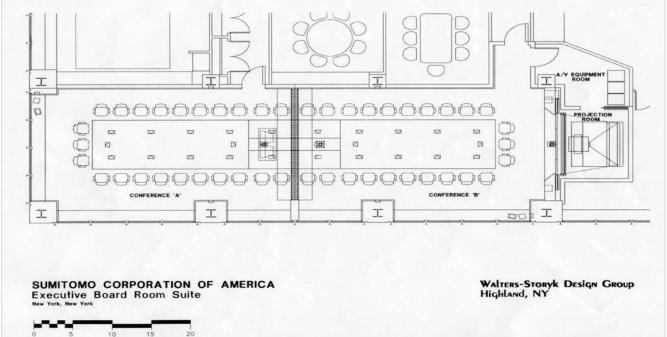
Our modern business environment has created multi-faceted companies with offices spread over wide areas; they can be within the United States, or around the world. People from these different locations must communicate on a regular basis, and also often need to meet in person to further company projects for both short and long-term goals. Today's technology allows the creation of multi-function facilities to facilitate that communication. Sumitomo Corporation of America (SCOA), the largest wholly owned subsidiary of the 300 year-old family run, Japan based Sumitomo Corporation, is one of the world's leading traders and distributors of goods and services. With hundreds of subsidiaries around the world–its largest is headquartered in New York City–this is one company that needs to take full advantage of available opportunities. When SCOA began the process of moving into a new headquarters facility at 600 Third Avenue, it called upon the Walters-Storyk Design Group to create a versatile state of the art multi-media executive boardroom that would carry them well into the 21st century; a space that would allow them to hold in-person managers' meetings, as well as communicate with other members of the company from offices throughout the US, and more than 100 countries worldwide.

SCOA's requirements for this space were extensive and ambitious. They required a space that was versatile enough to comfortably accommodate a full range of meeting sizes and types, and intelligently designed to seamlessly support the latest in A/V and communications technology. The room may be used one morning for a small in-person meeting with a handful of participants, and that afternoon for a 60-person audio/video teleconference. Other times, through the employment of a movable partition system, it will be required to handle two, small to moderate sized meetings, simultaneously. The room will be technologically outfitted to support almost any audio and video teleconferencing, presentation, or recording/playback scenario.



# Sumitomo Boardroom - New York, USA





#### El Porteño - Buenos Aires, Argentina

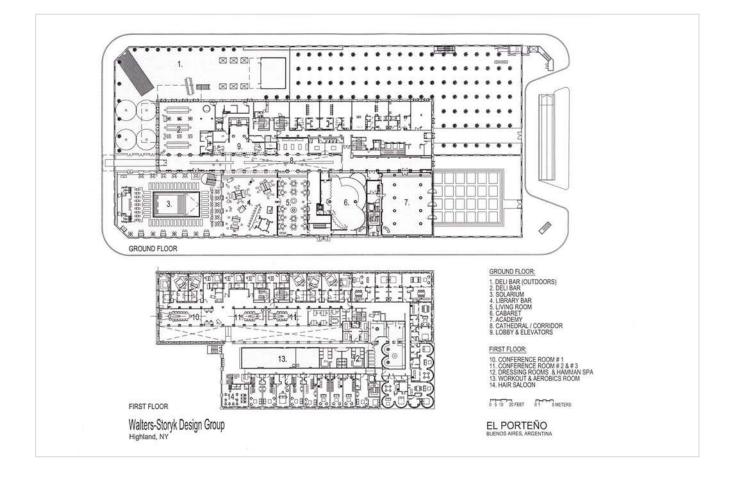
Alan Faena, an audacious argentine entrepreneur, summoned the well known designer Philippe Stark to remodel and redesign an antique building placed at the exclusive area of "Puerto Madero" in Buenos Aires City, Argentina.

Inside the hotel and the apartments building, more than 14 spaces for multiple uses can be found, among which we can appreciate the imposing Cathedral that is the entrance hall and hotel reception; the Living Room and the Cabaret.

The idea was to have an intelligent system of distributed music that could be capable of administrating different musical programs for each of the public spaces, turning the hotel into a gigantic radio station of 14 simultaneous channels, distinguished simultaneously. On the other hand, we specified to the kind of architecture of the project, all the acoustic details for the isolation of the critical sound spaces (Night Club) in relation with the hotel rooms and apartments.

The challenge was to integrate all the acoustic and system integration solutions to the wonderful design team leaded by Philippe Starck.

In order to achieve the acoustic isolation of the critical spaces, we need to use a system of walls, floating ceilings hanging through springs; details that enabled the total isolation and acoustic decouplement among very close spaces.



# El Porteño - Buenos Aires, Argentina





#### St. Gallen Train Station - St. Gallen, Switzerland

The St. Gallen train station hall is an architectural icon constructed in an impressive steel-glass structure which dates back to 1915. The visitor-related infrastructure – mainly lighting, signage and audio systems, have been upgraded intermittently since its original opening, most recently some 30 years ago. The systems therefore were in need of a substantial upgrade to 21st Century standards.

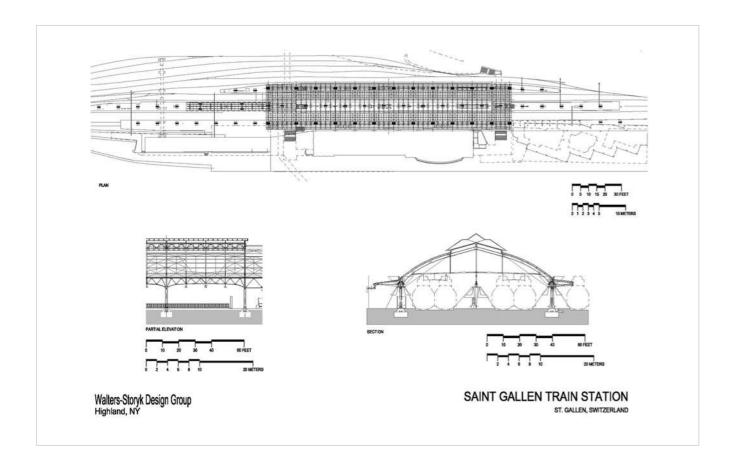
The goal of project architect Ernst Basler + Partner (www.ebp.ch), was to replace all the existing individual systems with one unified system, with the lighting, signage and audio needs integrated into the same joint mechanical structure. The Walters-Storyk Design Group (www.wsdg.com) was chosen as the acoustical consultant to work hand in hand with the architect to design and specify the new electroacoustical system. The electroacoustical installation provides travelers with scheduling information, track changes, updates and other vital announcements. High quality speech intelligibility is critical.

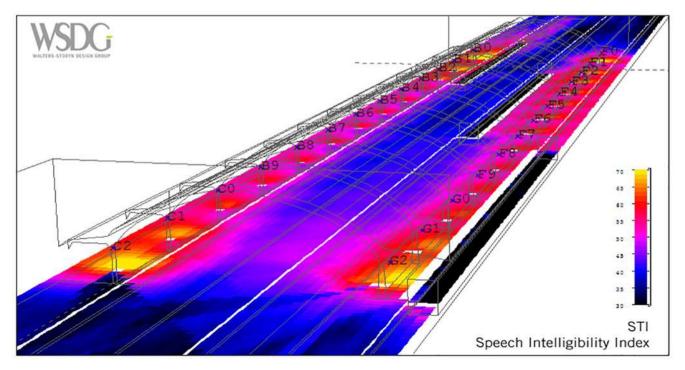
WSDG European GM Dirk Noy reports that because the St. Gallens station hall has a typical longitudinally stretched extrusion geometry, the use of a repetitive pattern for the technical installations presented the optimal installation configuration.

"The Train Station at St. Gallen was a challenging but ultimately gratifying project whichtook full advantage of the Walters-Storyk Design Group acoustic simulation, measurement and design skills," Dirk Noy concludes. "Concerns about environmental sound levels and clear speech intelligibility have grown in importance in recent years, and affordable, effective solutions are available. We are pleased to have made a meaningful, visually unobtrusive contribution to the improved functionality of this iconic hub of transportation."



St. Gallen Train Station - St. Gallen, Switzerland



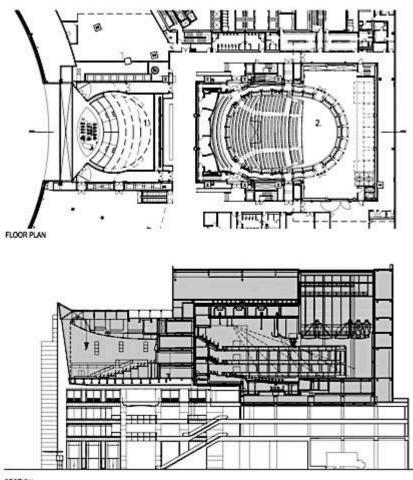


#### Jazz at Lincoln Center - New York, USA

Jazz at Lincoln Center is one of New York City's premier attractions, housing over 100,000 sq. ft. of performance venues, educational suites and recording/post production facilities.

The Frederick P. Rose Hall project consists of a 1,200-seat concert hall with movable seating towers. The hall can be configured for dance, opera, theater as well as provide an intimate jazz setting by surrounding the musicians with the audience seated on three levels in a stage surround setting. The Allen Room is a 300 - 600 seat performance space with tiered platforms ascending from the stage level to a dance floor with movable tables and chairs. The Irene Diamond Education Center is 3,500 sq. ft. and contains two state-of-the-art education/rehearsal studios.

WSDG, as partners in the Sound of Jazz Consulting Group, worked closely with the architects and Wynton Marsalis to acoustically design the education, rehearsal and recording spaces. The systems integration design for all performance, educational and listening spaces within this facility are linked together for recording and playback. This facility is the world's first performing arts center designed specially for the performance and recording of jazz.



SECTION

1. THE ALLEN ROOM 2. FREDERICK P. ROSE HALL

### Jazz at Lincoln Center - New York, USA





#### KKL Concert Hall - Luzern, Switzerland

From its opening performance by the Berlin Philharmonic in August 1998, the KKL Luzern Concert Hall was recognized as one of the world's great performance centers. An international landmark, both architecturally and culturally, the complex attracts music fans from around the world to its picturesque lakeside setting. More than a dozen years of constant use – with an impressive yearly booking rate of more than 90% – coupled with significant technological advances prompted the KKL Luzern management group to upgrade its retractable electro acoustical system. WSDG was brought in to accomplish this essential project.

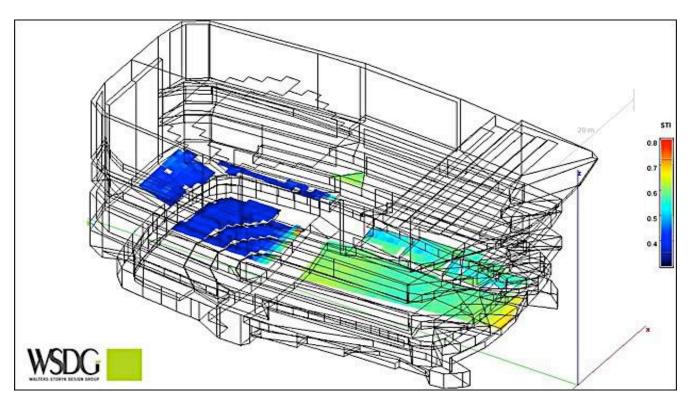
A major issue of this hall is the wide distribution of seats on five vertical levels surrounding three of the four walls, and consequently, the coverage requirements of the electro acoustical sound system. The core of the solution was the realization that the Hall is mainly designed for acoustical sources placed directly on stage. Consequently, the new main loudspeaker system was installed significantly lower and closer to the stage than the original system. The main system is supplemented by elements, which are permanently installed but retractable by motors. The project was divided into three phases: 1) Identification of the requirements, system planning and preparation of specifications; 2) On-site evaluation of a three loudspeaker system candidates; 3) The execution phase of installation planning, supervision and commissioning.

The new sound reinforcement system consists of the Left Right main system with two line arrays of eight d&b V12 units each, suspended above the stage front edge; two additional line arrays for covering each of the balconies with five d&b V12 units; a stage edge in-fill system consisting of two d&b V-Sub and two d&b V12 units each on the right and left and a stage mounted front-fill provided by six d&b E6 units. For events requiring a 360-degree speech reproduction, a retractable center cluster was provided with a front section (consisting of eleven d&b T10 units) and a rear section (consisting of three RCF VSA 2050 digitally controlled column loudspeakers).



### KKL Concert Hall - Luzern, Switzerland





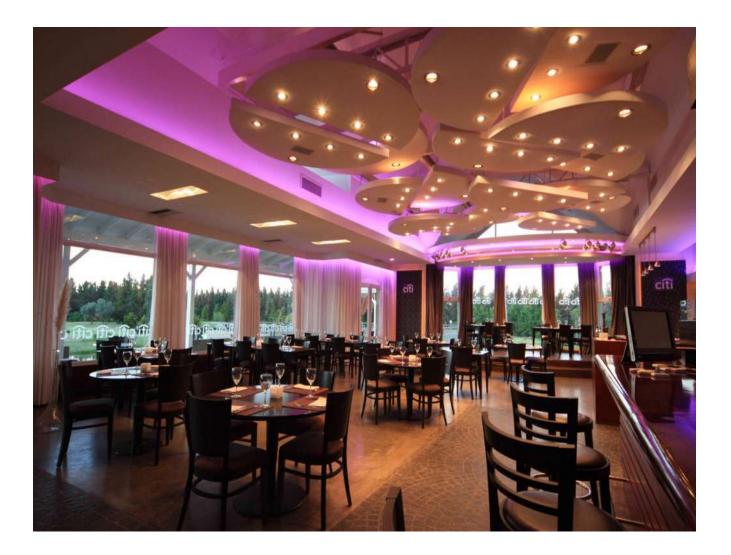
STI Speech Transmission Index

#### Restaurant T - Buenos Aires, Argentina

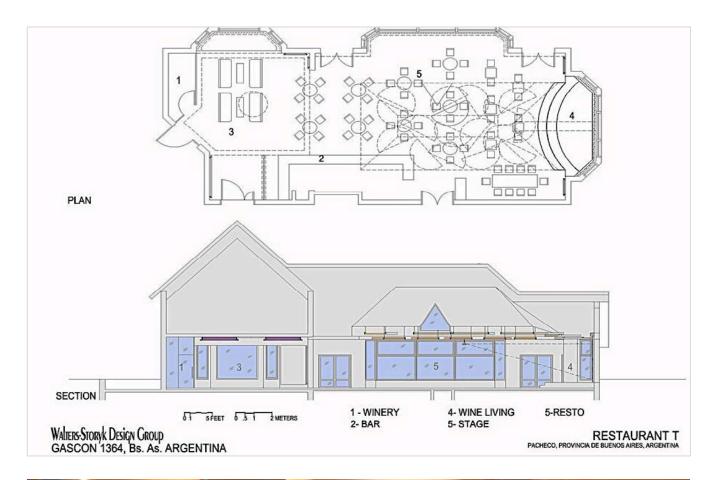
Restaurant T is an upscale gourmet restaurant, located in the Pacheco Golf Club, a gated community & country club in Nordelta, north of Buenos Aires. In addition to delicious food the elegant dining room offers two distinctive special attractions, special lighting capable of changing the entire atmosphere almost instantly and, a carefully tuned acoustic environment which comfortably enables diners to hear each other speak. The project marks the first restaurant completely designed by the Walters Storyk Design Group (WSDG) and included complete technical and acoustic conceptualization, and a unique set of aesthetic goals.

In April 2009, renowned Chef Hernán Taiana, a popular fixture in the celebrity-spiced world that summers in Punta del Este, Uruguay, approached Sergio Molho, founding partner of the WSDG Latin American office. Taiana's primary goal was to create a restaurant offering not only delectable food, but discernable acoustic comfort. When WSDG responded with a comprehensive proposal featuring aesthetic and technological recommendations, the firm was awarded the entire project.

In developing a unique look for the venue, the WSDG design team took advantage of recent developments in acoustic treatments such as clouds and panels to insure an environment which would promote conversation rather than drowning out conversations with the typical restaurant din. The design followed a very specific color palette of white, black, grey, and metallic colors over wooden diffusers to develop an elegant, modern look.



### Restaurant T - Buenos Aires, Argentina

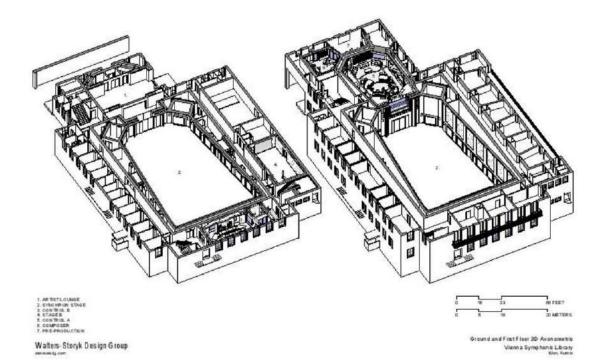




#### VSL Synchron Stage - Vienna, Austria

A leading developer of orchestral sample libraries and music production software, the VSL Synchron Stage enlisted WSDG to upgrade its historical (circa 1940) scoring stage into a cutting-edge recording facility. The reconfigured complex now provides enhanced acoustics and cutting edge technology for recording film music and, the full spectrum of orchestral and choral works. The 2,000 sq. m. / 21,000 sq. ft., VSL complex represents the World's only scoring stage capable of merging proprietary software innovations with traditional technologies and procedures.

The scope of the multi-year assignment required WSDG's wide-ranging facility planning services. Beginning with documentation of the overall state of the property, WSDG performed room and structural acoustical measurements and schematic conceptual planning. The Design Development Planning stage included interior design by company co-founder, Beth Walters. Construction Documentation was completed in collaboration with local architect, Schneider-Schumacher. The scope of work comprised: The VSL Synchron Stage A Control Room and large Recording Hall; VSL Synchron Stage B CR and Live Room; and the Studio C Edit Room, and Preproduction Suite. WSDG also performed the electro-acoustical system calibration for the audio monitoring system. The VSL Synchron State is distinguished by uniquely future-proof technology, making it a superb recording facility for film music and other orchestral and choral works. A large scale Dante Audio Network with input and output interface connection points at all relevant locations, serves as the facility's network backbone.



# VSL Synchron Stage - Vienna, Austria





### Berlin Brandenburg Airport (BER) – Schönefeld, Germany

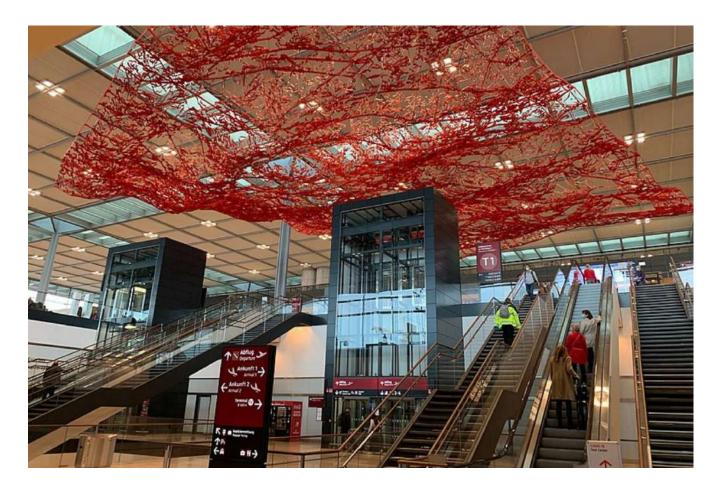
Berlin Brandenburg Airport (BER) is an international airport located in Schönefeld, Germany. It is the third busiest airport in Germany serving an area of over 6 million inhabitants. The airport currently consists of the passenger terminal at the center of two runway systems. It includes maintenance areas to the west and service and cargo areas to the east. All buildings take up the linearity and orientation of the overall system and form an architectural-functional unit. Future expansion is facilitated and already planned for 2035. Construction on the airport initially began in 2006, with design by gmp Architects.

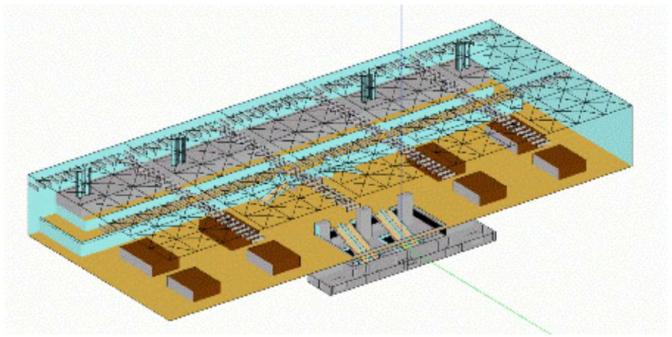
WSDG's services were retained for the electroacoustic engineering of the principal terminal buildings.

Electroacoustic computer simulation was employed to conceptualize the electroacoustic paging and emergency warning systems for the individual areas of the airport. One principal challenge was the sheer dimensions of some areas (e.g., the departure hall, with an average RT60 of 4.5 s) and other areas connected to the hall which causes a risk of echoing interference from the open adjacent areas. In addition to the type, location and orientation of the loudspeakers, the system parameters (delay, level, alignment) were carefully studied and optimized. During the realization phase, the installation firm was supported with additional simulations to achieve the required audio quality.



# Berlin Brandenburg Airport (BER) – Schönefeld, Germany





#### Aura Club Events Hall - Zurich, Switzerland

Built within the historic 21,000 sq. ft. (2,000 sq. meter) former "Alte Boerse" Zurich Stock Exchange Building, AURA encompasses four distinct settings, a 100 seat gourmet restaurant, an intimate bar, a chic, stylish smokers' lounge and, a 4,800 sq. ft. (450 sq. meter) Events Hall capable of accommodating up to 500 guests. Featuring groundbreaking 360° panoramic video projection and 3D audio systems, the Events Hall is designed to host galas ranging from awards and fashion shows to banquets, weddings and corporate gatherings.

AURA's uniquely flexible, multi-purpose strategy required the amalgamation of state of the art technology, within a highly sophisticated acoustic environment. The video presentation system engages eight, ceiling-mounted, high-performance projectors. Audio distribution employs a total of 80 loudspeakers, (70 of which are skillfully concealed by acoustically transparent, architectural construction). Deploying such a massive arsenal of cutting edge technology within this urbane, 21st Century atmosphere necessitated an extremely flexible and creative systems integration.

Aura's vision for 3D audio presentation required full integration with the venue's video imagery and innovative lighting, to establish a combined central focus for the Events Hall. All three elements were tasked with functioning interactively, to achieve a fully immersive environment capable of completely engaging guests within messaging and/or entertainment programs. WSDG's Basel office was retained to design and coordinate the massive sound isolation planning and construction project to fully adhere to Zurich's stringent city center legislations and limits. Various preset programs were developed to enable a myriad of speaker combinations (all together, or in an infinite range of individual or cluster groupings), depending on need, e.g. live performance, 3D surround sound, etc. Additionally, the 'sweet spot' can be expanded to encompass the entire room, providing a spatial sound experience for all guests.



### Aura Club Events Hall - Zurich, Switzerland





### ESPN Digital Center 2 - Bristol, USA

ESPN, the global leader in comprehensive sports coverage, has completed a five-year development and construction project for its new Digital Center 2 studio/media production center. An ambitious addition to ESPN's existing Digital Center 1 campus in Bristol, Connecticut, the 194,000 sq. ft. complex was envisioned as a "format-agnostic/future-proof" creative production facility with unlimited potential for trail-blazing content creation. A comprehensive green and employee comfort-focused environment were primary goals for the new facility.

With six new production control rooms, four audio control rooms and 16 edit suites, ESPN's Digital Center 2 technical capabilities are exemplified by a multi-dimensional monitor wall featuring 56 variably sized individual monitors designed to provide 3D-like graphic images. An arsenal of 40 state-of-the-art cameras is highlighted by a JITA cam capable of swooping up to a height of 22 ft. and following a circular track to deliver a sweeping 360° studio overview. The Center 2 routing system can accommodate as many as 60,000 simultaneous signals over 1,100 miles of fiber optic and 247 miles of copper cable deployed throughout the facility.

All these rooms are dedicated to producing flawless audio and video for programs, interviews, voiceover recording and the full spectrum of broadcast audio for video support. Overall quietness throughout the entire creative plant was an absolute priority. High performance broadcast acoustic specifications and recommendations were developed for all critical services including HVAC, fire protection and electrical systems. ESPN Digital Center 2 represents the apex of broadcast, cable, and Internet streaming production. The complex stands as a major accomplishment in next-generation audio/video production and delivery.



# ESPN Digital Center 2 - Bristol, USA



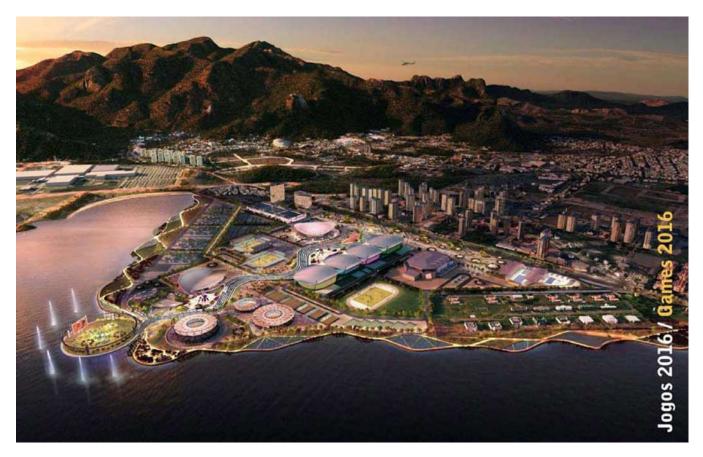


#### Rio 2016 - Barra Olympic Park - Rio de Janeiro, Brazil

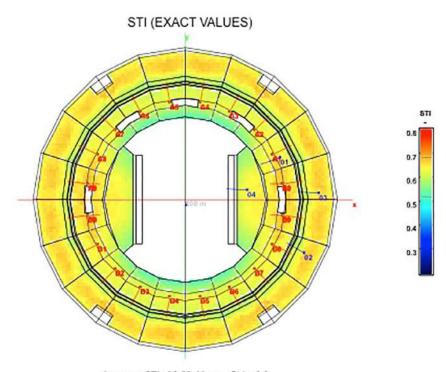
Barra Olympic Park was developed as Rio's primary 2016 Olympic and Paralympic Games competition center. Now it also serves as the city's largest sporting legacy. With an area of 1.18 million sq. m., Olympic Park includes nine sports venues. The Olympic Arena and Maria Lenk Aquatic Centre were built for the Rio 2007 Pan American Games. The seven new stadiums/sports venues are: The Olympic Tennis Centre, Aquatics Stadium and Rio Olympic Velodrome; plus: Olympic Hall 1 (basketball, wheelchair basketball and wheelchair rugby), Olympic Hall 2 (Olympic and Paralympic judo, plus wrestling and bocce), Olympic Hall 3 (taekwondo, fencing, sitting volleyball) and, Olympic Hall 4 (handball and goalball). Work on Olympic Halls 1, 2 and 3, plus the Tennis Centre began earlier.

The developers of this enormous Olympics complex retained WSDG to design the acoustics, sound and video systems for the 3 Tennis Arenas + practice fields (10,000, 5,000 and 3,000 seats); the 18,000 seat Aquatic Arena + Warm Up Pool; and, Audio and Video Systems for the COT Arenas (16,000 seat Basketball, 10,000 seat Judo and 10,000 Wrestling arenas).

All the systems were designed to meet international security standards and, Olympics Committee requirements. WSDG began the process by performing sophisticated electro-acoustic and modeling studies. The findings of these tests and procedures determined multiple solutions for each specific sound system. The primary goal was to insure the highest quality Speech Intelligibility and Sound Pressure levels. WSDG also designed large-scale Video Walls and Score Board screens, as well as Time Clock and Media Displays. Each unit was scaled to provide optimal visibility from every seat in the stands. Every Olympic Park stadium was created with 'future-proofing', for long post-competition service as Brazil's first Olympic Training Centre (OTC) and, South America's premium high performance athletic campus. The campus includes a research lab for nutrition, physiotherapy, sports and clinical medicine.



### Rio 2016 - Barra Olympic Park - Rio de Janeiro, Brazil



Averange STI of 0.63. Mean – Std = 0.6No seats in the simulated area are lower than STI 0.5



#### 1776 On The Green - Morristown, USA

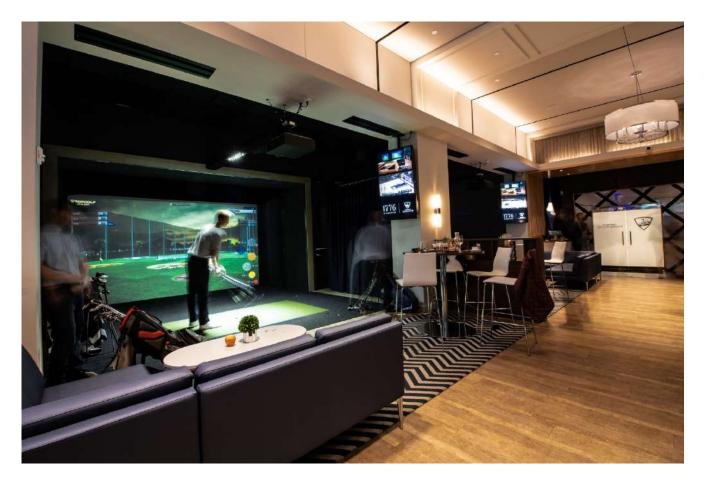
1776 On The Green Restaurant, sited near the Morristown Green Historical Park, is one of the largest, most unique and most ambitious "themed" restaurants on the East Coast. The restaurant is outfitted to host 232 interior diners and 219 outdoor guests and includes a tasting room. In addition to its dining accommodations, 1776 On the Green also features six Topgolf Swing Suite golf simulators designed to provide avid golfers with the opportunity to work up their appetites or "work off" their calories while practicing their swings. The project was created by Motown Restaurants, LLC celebrity chef David Burke, and Robert Blaser, AIA, principal architect with Michael Graves Architecture & Design.

WSDG was engaged to develop a program of acoustical treatments throughout the nearly 11,000 square foot dining/sports activity complex. With a 15' ceiling height and extensive window and interior glass walls, the priority was to eliminate noise reflection (echo/reverberation) by developing "invisible" wall and ceiling elements to enhance the aesthetic environment while providing a comfortably modulated atmosphere for quiet conversation and simultaneously softening the raucous excitement generated by the Topgolf Swing Suites.

Working closely with Michael Graves Architecture & Design principal, Robert Blaser, the WSDG acoustical design team recommendations included applying 1" thick K-13 Fireproofing Spray, across the exposed ceiling to reduce reverberation and increase sound comfort and speech intelligibility for patrons. Sound deadening materials including unobtrusive black theaterboard was installed in the Topgolf bays and nooks to reduce the cracking sound of "ball hits." Decoustic Panels were distributed above the bar to absorb revelry echoes. WSDG experience in designing recording studio control rooms and critical listening environments, prompted the installation of an especially quiet HVAC system to eliminate the hum of less noise-conscious restaurants.



### 1776 On The Green - Morristown, USA





#### Morro do Chapeu Residence - Belo Horizonte, Brazil

The architectural and acoustical design devised by WSDG for the villa's home theater and other living spaces leaned on solution suggested by the firms' professional recording studio expertise. Inhibiting sound from leaking into or out of sensitive listening areas such as recording studio live and control rooms is a WSDG specialty. The enclosed pool and spa area, however presented more troubling waters. Particularly challenging was the need for the acoustical treatments to unobtrusively compliment the custom finishes.

WSDG also designed a spacious (but cozy) home theater, which integrates the highest levels of audio and video technology. Recording studio-level, acoustical wall and ceiling treatments were engaged to provide superb frequency and time response. Bedrooms and a home office also benefitted from acoustical ceiling clouds, designed to control the reverberation time over a broad sound spectrum enabling each room's individual 5.1 surround sound and HD video system to deliver maximum performance quality.

The swimming pool and spa area, however, presented the project's primary acoustic challenge. The large area includes a gym, Jacuzzi and wet bar, surrounded by three walls of double height windows and a movable glass sealing system to maintain interior warmth in the cool, mountain region evenings. Again, professional recording studio design techniques provided solutions. Each window, including an expansive skylight grid of 20 individual panels was fitted with Acoustical Clearsorber Foil. Imported from Germany, the innovative translucent plastic sheets absorb medium and high frequency reverberation to resolve sonic reflection issues. Clearsorber also serves as a full room UV ray filtering system! Full transparency insures unimpeded views and, conversations free of traditional pool house reverberation.



# Morro do Chapeu Residence - Belo Horizonte, Brazil



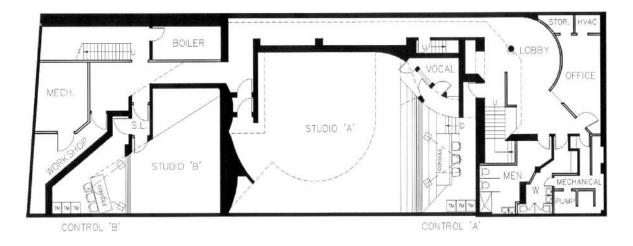




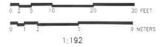
#### Electric Lady Studios - New York, USA

Electric Lady is one of the world's first artist owned recording studios and one of the oldest, most famous and most successful studios ever. WSDG co-founder John Storyk was a 22-year-old fledgling architect fresh out of Princeton University when he was hired to design a studio for Jimi Hendrix. One summer evening in 1968, Storyk was enjoying an ice cream cone and leafing through the Village Voice when a classified ad caught his eye: "Carpenters wanted to work for free on experimental nightclub." Dialing the number from a corner pay phone, he got the gig. That club, Cerebrum, made the cover of Life Magazine after 6 months. When Jimi Hendrix visited the club one night and decided to hire Storyk to design his club (which became ELS), well the rest is history.

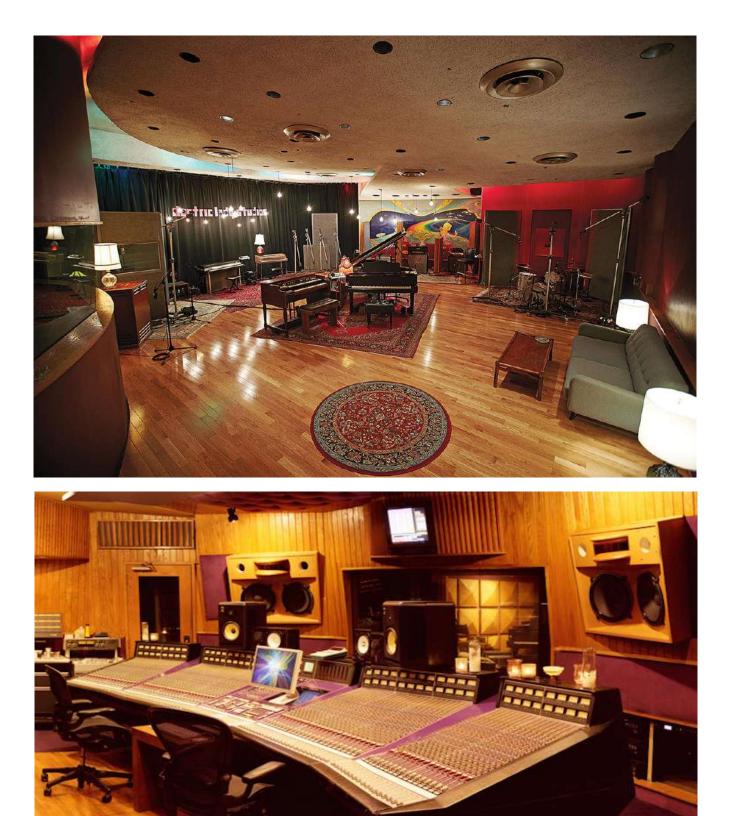
Eddie Kramer (Jimi's engineer) was adamant about Electric Lady having a tall, bright room similar to NY's legendary A&R Studios where Phil Spector did some of his greatest work. Kramer was also familiar with European studios like London's Olympic and Abbey Road. He believed drums required a big room. Storyk accommodated Kramer's need for high ceilings by excavating the basement, digging down to raise the height of the underground rooms. For the studios' interior, Jimi specified theatrical lighting, and his desire to have as many curved surfaces as possible (design elements which Storyk had originally incorporated in Cerebrum). Electric Lady's walls were painted white, so they could easily be turned into whatever color Hendrix was in the mood for with simple adjustments. One day Jimi arrived at the construction site and decided that he didn't like the square look of the expensive acoustic doors, which had just been installed. He asked Storyk if he could round off the tops, and when that proved impractical, he had them replaced by custom units with rounded, porthole-style windows.



ELECTRIC LADY STUDIOS



# Electric Lady Studios - New York, USA



#### La Cigale Sky View & Madison Piano Bar - Doha, Qatar

Adjacent to a large convention center, <u>La Cigale</u>, Doha's newest luxury hotel presents guests with a wealth of color, textures and creature comforts. And now, thanks to a full-blown acoustic makeover by <u>WSDG</u>, the hotel's sleek Piano Bar provides the ultimate listening (and speaking environment). With interiors graced by Murano chandeliers, and furnishings courtesy of Edra, <u>Philippe Starck</u> and <u>Carlos Cruz-Díez</u>, the 189 rooms, 36 suites, fitness center spa, indoor pool, restaurants and related accouterments in this one-of-a kind showplace have anticipated the needs of virtually every guest. Views, from the top floors of the nineteen-story building, sweep the cobalt day and nighttime star field sky above the desert surrounding this oil-rich city.

The hotel's only wrinkle was discovered in the sophisticated Madison Piano Bar and rooftop Sky View Terrace. Just prior to its formal opening, guests invited to a preview performance were rattled by a harsh acoustic anomaly. While no expense had been spared to insure the most tasteful and attractive surroundings, the contractor engaged to build the room was alarmingly lacking in acoustic expertise. As the performance began, the installed sound system immersed the room with music so abrasively loud that the walls began vibrating, and the guests were driven out by an intense dB tsunami. A similar problem was discovered at the Sky View venue. Because this club was set in an open-air rooftop environment, the reverberation issues were not as severe, but the inappropriate systems installation needed to be replaced, and additional acoustic treatments were required. This new "room-within-room" design stipulated 'recording studio-level' acoustic isolation treatments. The solutions included floating floor and de-coupled wall and ceiling construction, which effectively contain nightclub level loudness within the club and eliminate sound leakage to adjacent rooms. NC at the Apartments / VIP suites was above NC 55, with an average FSTC of 45, which was insufficient to contain the 110 dB of the sound system of the piano bar. WSDG achieved NC 28 (the number is also related to the HVAC noise), and most important eliminated low frequency leakage after the isolation solution. (FSTC +>70!) Similar isolation and electroacoustic levels were established for the Sky View.



### La Cigale Sky View & Madison Piano Bar - Doha, Qatar





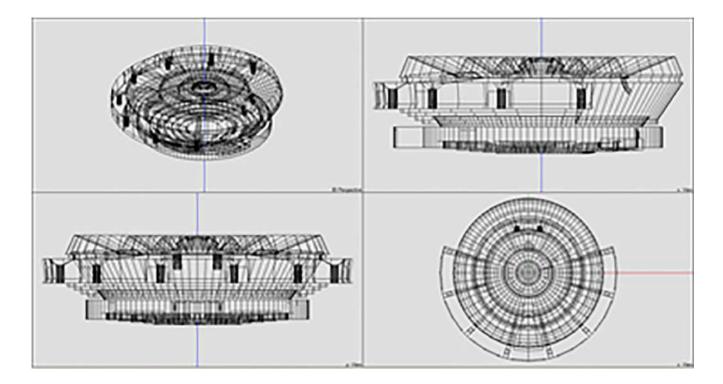
### Parliament Hall Landtag - Düsseldorf, Germany

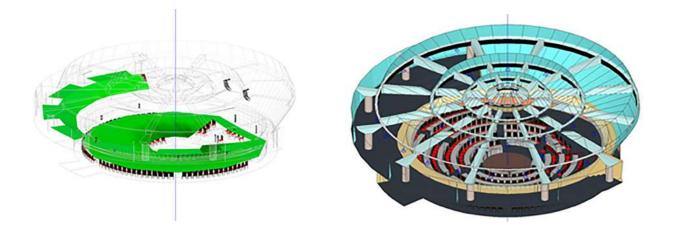
The Landtag of North Rhine-Westphalia is the state parliament (Landtag) of the German federal state of North Rhine-Westphalia that convenes in the state capital of Düsseldorf, in the eastern part of the district of Hafen. The parliament is the central legislative body in the political system of North Rhine-Westphalia. In addition to passing of laws, its most important tasks are the election of the Minister-President of the state and the administration of the government.

#### Fields of activities:

Basic and Technical Designs (all stages) for:

- Room Acoustics
- Electro Acoustical (Sound reinforcement)
- Media Systems Integration





# Parliament Hall Landtag - Düsseldorf, Germany





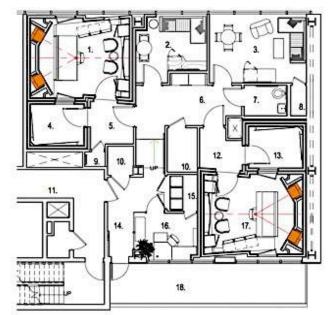
#### Jungle City Studios - New York, USA

Studio founder/Engineer Ann Mincieli has created Manhattan's first true destination studio, playing host to a wide range of artists such as Alicia Keys, Usher, Coldplay, Jay-Z, and more.

The challenge of creating the signature 11th floor live studio/control room directly above the two 10th floor production suites in a newly constructed lightweight, concrete building presented complex isolation challenges.

To maximize the impact of the studios' expansive North and South picture windows, WSDG decoupled the custom speakers in an outsized glass speaker baffle. This created a virtual "wall of sound" between the live and control rooms, which provides artists and engineers with the creative advantage of full visual connectivity. Additional isolation details allowed WSDG to install the expansive window wall to expose an impressive view of the Manhattan skyline and the new Highline Park, while maintaining strict isolation requirements for studio use. Test results show an NC rating of 15, which is nearly unparalleled for a studio glass wall application.

"Jungle City is one of the first major projects in our office to take advantage of the Revit 3D modeling program," reports Joshua Morris. "Revit enabled us to maximize the design by analyzing the relationships between the 10th and 11th floors. The program helped us to capitalize on adjacencies, particularly in terms of critical isolation. It also facilitated the elimination of an existing interior staircase which enabled us to capture a critical 120 square foot space which we transformed into a second 10th floor lounge to permit both suites to operate autonomously."



#### 10th FLOOR PLAN

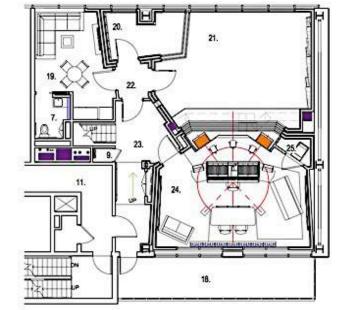
11. ELEVATO
12. SOUND LO
13, ISO SOUT
14. LOBBY/EN
15. CMR
16. OFFICE
17. PRODUCT
18. BALCONY
19. LOUNGE
20. ISO BOOT
0 5

11. ELEVATOR LOBBY 12. SOUND LOCK SOUTH 13. ISO SOUTH 14. LOBBY/ENTRY 15. CMR 16. OFFICE 17. PRODUCTION SOUTH 18. BALCONY 19. LOUNGE C 20. ISO BOOTH 0. 5. 1 2. METERS 11th FLOOR PLAN

21. LIVE ROOM

22. SOUND LOCK 23. CORRIDOR

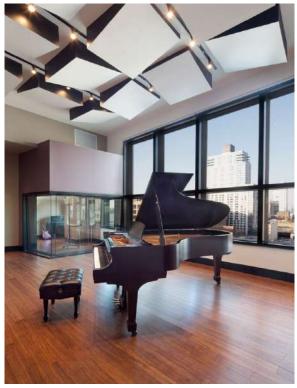
24. CONTROL ROOM 25. AMP CLOSET





# Jungle City Studios - New York, USA





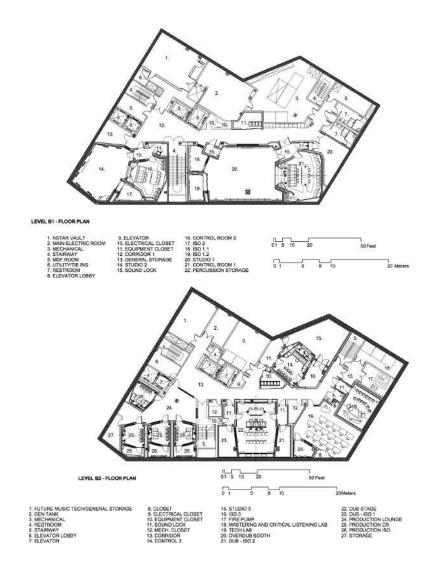


#### Berklee College of Music - 160 Mass Ave - Boston, USA

For one of its latest real estate acquisitions, Berklee College of Music created *160 Massachusetts Avenue*, a 16story, 170,000-square-foot mixed-use building. It houses dorm rooms with 350 beds, increasing Berklee's oncampus housing capacity to approximately 1,200 students, as well as a two-story dining hall that seats 400 and also includes a venue for student performances. Most importantly it is the new home for nine new audio production / teaching studios – housed in two levels below grade – all fully decoupled and capable of simultaneous use.

The music technology complex includes two professional-quality recording studios, a Dubbing Stage, a Mastering and Critical Listening lab, four production suites and a flexible performance venue / film scoring studio. WSDG designed and supervised construction of this facility in collaboration with chairs, deans, and technology lab staff from Berklee College of Music during a period of three years. Students can enjoy performance spaces that emulate professional environments, with state-of-the-art equipment and a wide variety of musical instruments.

In addition, WSDG worked on the two-story dining hall to address internal room acoustics, specifically with regard to the general intelligibility of the dining hall. The facility opened in 2014 and received a NAMM TEC award for Best Studio Design Project.



Berklee College of Music – 160 Mass Ave - Boston, USA





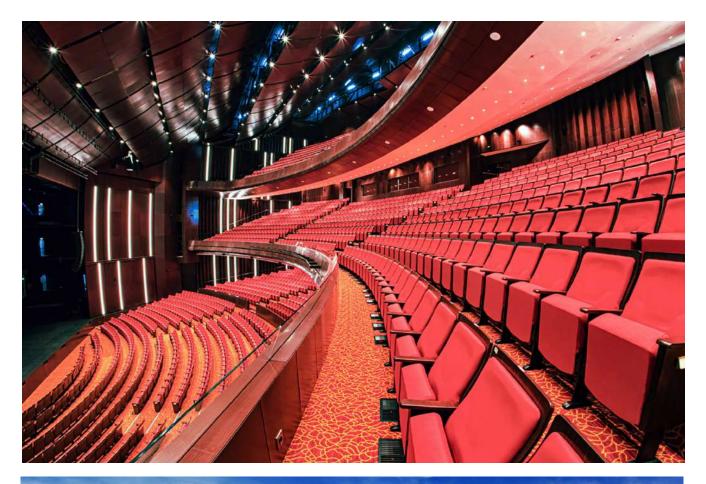
#### Jakarta International Expo - Jakarta, Indonesia

At 430,000 sq. ft. the new Convention Centre and Theatre at Jakarta International Expo (JIExpo) complex will be one of the largest and most forward thinking convention and entertainment centers ever built in Indonesia. When completed in late 2018, this unique venue will offer a wealth of business, entertainment and civic options to visitors from around the globe. In 2015 when CCM's JIExpo project received a green light <u>WSDG</u> (Walters-Storyk Design Group) was called in at the design stage to consult with <u>Aedas</u>, one of the world's leading architecture and design practices. The mandate was to create an acoustic environment conducive to world-class acoustical standards throughout the complex.

A bold and visionary concept, JIExpo was envisioned as a comprehensive multi-use facility. A vast 30,000 sq. ft. main ballroom has been designed with moving walls, which enable it to be sub-divided into three smaller configurations. A comprehensive business center features fourteen large multifunctional meeting / presentation / conference rooms and a junior ballroom (ranging in size from 970 sq. ft. to 9,000 sq. ft.) designed for conferences, conventions, special events, awards shows and high level exhibitions such as jewelry, wedding and real estate shows. Four luxurious private bridal suites were created to host bridal parties preparing for ballroom weddings. JIExpo's pièce de résistance is a next generation, 2,500-seat Broadway-style theater with three full balconies. An ingenious proscenium arch with moveable sidewalls can change the stage width from 60 ft. to a stunning 100 ft. with no space loss. And, a (12 ft. deep x 60 ft. wide) motorized platform set 11 ft. below floor level as an orchestra pit. Elevated to ground level it provides 39 additional priority seats. Raised to stage level it expands the performance area. The theater will set a new benchmark for live theatrical presentation. Collaborating with Aedas at the design stage enabled WSDG to develop a structural and room acoustic program capable of meeting the most stringent sonic quality and speech intelligibility criteria.



# Jakarta International Expo - Jakarta, Indonesia



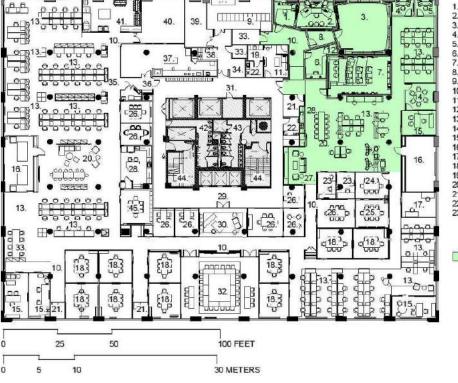


#### PepsiCo Content Studio - New York, USA

With the goal of initiating and nurturing synergistic relationships with new and established video, music, TV, digital and Internet content creators, PepsiCo commissioned a cutting edge 4,000 sg. ft. production/postproduction complex at the hub of NYC's pacesetting SoHo artistic community. WSDG's architectural/ acoustical expertise was engaged to collaborate with Granoff Architects to create a technically flawless, aesthetically invigorating environment for the ambitious venture.

Designed to house a team of six to ten technicians and engineers, PepsiCo's Content Studio features an 1,150 sq. ft. multi use recording studio, five editing and production bays, a 575 sq. ft. soundstage, a 515 sq. ft. multiformat screening room, an 1,800 sq. ft. 'loft-like' creative bullpen and a spacious, informal reception/dining area. The concept was to establish a high tech production facility to provide a community of creative thinkers, artists and producers with the technological resources to foster their vision.

A striking, flexible, highly functional environment, the PepsiCo Content Audio Recording Studio is centered on an SSL AWS 948 console, complimented by a pair of soffit-mounted ATC SCM150ASL stereo monitors. Genelec 8250A monitors provide 5.1 – surround playback. A variety of outboard gear and mic preamps offer a wide range of options. Video is captured on the 26' x 25' Soundstage/Performance Area in resolutions up to 4K, and can be routed live throughout the facility in 1080p through SDI tie lines. A broadcast grade production switcher (Newtek Tricaster 460) expedites video feeds for live editing and processing for webcast, or to be stored in the Promax storage array. The switcher offers a full selection of video post-production tools, including live Chroma keying, virtual sets and color correction. Post also boasts a full nonlinear editing station and a digital audio workstation for ADR. Green Screen and LED production lights are managed from the VCR.



L.)	Video Control
)	Audio Control
	Performance Edit 2 Edit 1
	Edit 2
i.	Edit 1
	Edit / Swing Screening SL / Iso
	Screening
I	SL/Iso
	IT Room
Ο.	Corridor
	Green Room
	Closet
	Open Office
	Conference
	Office
	Mech. Room
	Work Room
	Project Room
	Make Up
	Lounge
	Quiet Room
	Toilet
З.	Talk Room

20. Creator Group
26. Mtg. Room
27. Social Media
28. Pantry
29. Lobby
30. Reception
31. Back Lobby
32. Large Conference Room
33. Storage
34. Receiving And Staging
35. Syrup
36. Entry
37. 3D Lab
38. Mothers' Room
39. General Storage
40. White Box
41 Paste-up & Repro

24. Jet Pack Room

Creator Groun

- oro
- 42. Men's Room
- 43. Women's Room 44 Stair
- 45. Video Conference.

Content Studio

### PepsiCo Content Studio - New York, USA



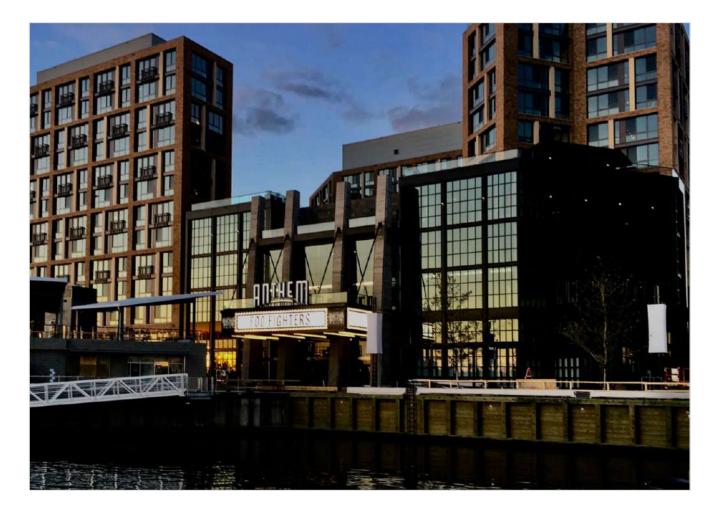


#### The Anthem - Washington DC, USA

An extraordinary new venue set on the shores of the Potomac, The Anthem, is a game-changing, multi-tiered concert hall created by impresario, Seth Hurwitz. While his iconic D.C. 9:30 Club featured intimate performances by legendary acts like Iggy Pop, Nirvana, and Dolly Parton, The Anthem is scaled to host up to 6,000 fans on its expansive dance floor and two tiers of balcony-seating. A key component of The Wharf, a \$2.5 billion waterfront development, The Anthem will provide an epic setting for extraordinary concert experiences featuring artists ranging from Foo Fighters and The Killers to LCD Soundsystem and Lorde.

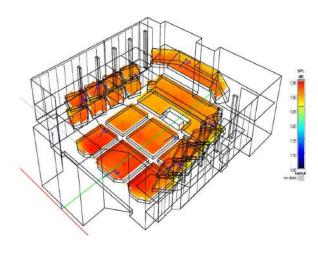
To support Hurwitz's commitment to providing fans with flawless acoustics, WSDG's U.S. and Swiss Architectural/Acoustical Design & Media Systems Engineering team employed extensive room modeling programs, and a variety of Acoustical measurements and instrumentation tests beginning in 2014 at the project's earliest design stage. Hurwitz has relied on WSDG acoustic expertise throughout his 35-year career, for both the 9:30 Club and his Frank Gehry-designed, Merriweather Post Pavilion. Experience taught Horowitz that creating an optimal listening environment required designing the acoustics prior to construction. Exhaustive WSDG research was also devoted to insuring sound isolation to maintain quietude throughout the complex's residential sector.

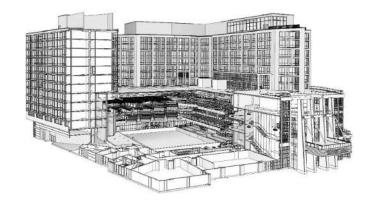
To fine tune the meticulously pre-planned hall, WSDG recommended the installation of strategically positioned Helmholtz absorbers, and a selection of medium density rear wall broadband absorbers calibrated to enhance a wide range of performance styles. The electroacoustic arsenal employed arrays of flown Left and Right arrays, with the option to use Center and Front Fill speakers and a directional subwoofer array for even low frequency distribution.



# The Anthem - Washington DC, USA









Electro Acoustics - L/R Array SPL Distribution The Anthem Washington, D.C.



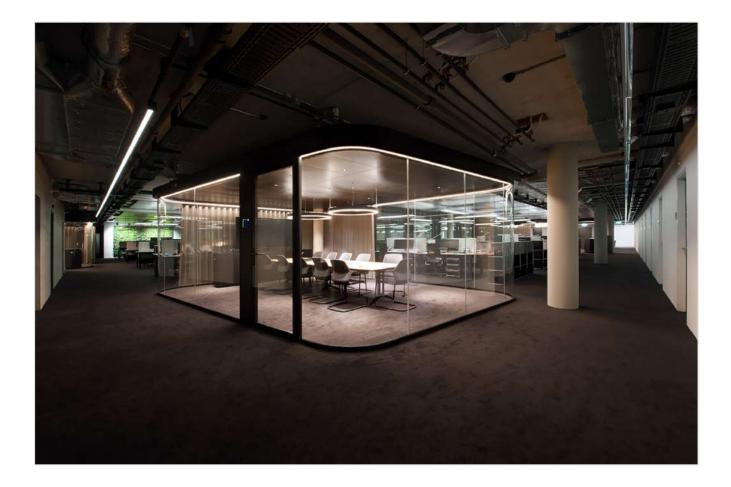
The Anthem Washington, D.C.



#### Zurich Firm - Zurich, Switzerland

Architect Nadja Zürcher designed a series of all-glass conference and huddle rooms for a top Zurich-based firm, and commissioned WSDG to do acoustic consulting, treatments and A/V integration for these spaces as well as in the surrounding office space to create rooms that were comfortable to hold meetings and video conferences in, as well as spaces where employees can work comfortably and quietly in the open office space. The office space is 27,000 square feet in total, with a large amount of open office space. The conference and huddle rooms were designed to be transparent to take advantage of natural light as well as be aesthetically pleasing. Two large conference areas were designed, as well as several smaller huddle rooms for video conferencing and more private meetings. It was also requested that WSDG treat the areas in the open office space to ensure a calm work environment outside of the conference/huddle spaces.

The two large conference rooms are 430 square feet apiece and feature very efficient sound-absorptive curtains and ceiling materials in order to achieve the desired acoustic environment and ensure superior speech intelligibility and a calm, echo-free conversational environment for video conferencing purposes. The walls were deliberately designed non-parallel in order to cut down on reverberation. The huddle rooms are 160 square feet apiece and benefit from the same treatment. All of the spaces also use a heavily absorptive 4-inch-thick metal cooling ceiling to ensure that the spaces are comfortable from a temperature standpoint as well as a sonic one. Finally, all of the rooms are full integrated with A/V equipment for presenting and video conferencing. The areas outside of the conference/huddle spaces also include acoustically treated ceilings to dissipate sound in order to ensure quiet open office areas.



### Zurich Firm - Zurich, Switzerland





#### TV Globo - São Paulo, Brazil

Founded in 1965 by the journalist Roberto Marinho, Rede Globo is the largest television network in Latin America, known around the world for its journalism crew, soap operas and television series productions. Everconscious of their place in the national and international broadcast market, TV Globo is constantly investing in infrastructure and equipment throughout the facility.

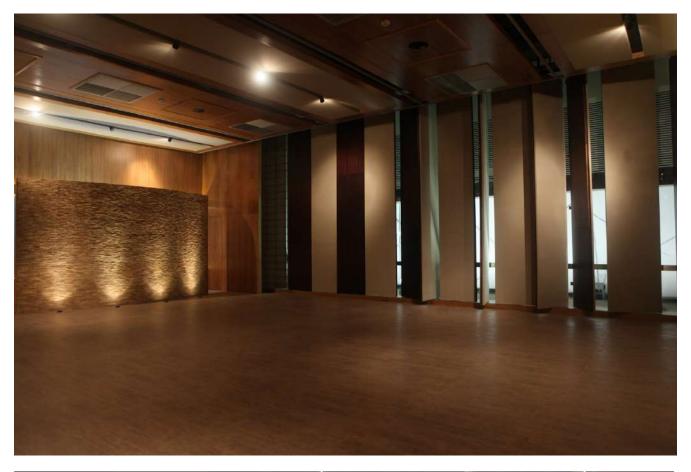
WSDG was invited to provide the architectural-acoustical design for the various types of production and postproduciton studios of the new CPP2 building, located at PROJAC in Rio de Janeiro, representing the largest television production center in Latin America.

As part of the renovation, WSDG also had the privilege to provide the acoustical construction services for all spaces involved in the design process for the last five years.

In the city of São Paulo, TV Globo has also been going through recent renovations in order to keep their technology up to date for the new demands of HD television. WSDG has been working on the design and construction of the Video Control Rooms as well as Audio HD and Surround Audio mixing rooms.



# TV Globo - São Paulo, Brazil



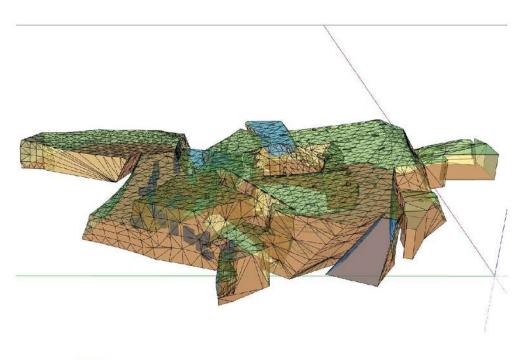


#### National Museum of Qatar - Doha, Qatar

The National Museum of Qatar was designed by architect Jean Nouvel. The 430,000 square foot building, which consists of a series of interlocking discs that resemble a desert rose, houses a collection of immersive multimedia exhibits that combine video projections, sound, and other sensory stimuli to expose visitors to Qatar's history and culture. The 3-D audio design for the exhibits was created by Swiss firm Idee und Klang.

Due to the unique construction of the building and the demanding sonic concerns of the exhibits, Idee und Klang contracted WSDG to create a 3-D acoustic model of the space and make recommendations regarding appropriate speaker usage and placement to maximize the effectiveness of the audio and minimizing the amount of spillover between exhibits without compromising the aesthetics of the museum.

The project took two years from conception to completion. WSDG Project Engineers Robi Hersberger and Christoph von Hollaky visited the space while it was under construction to measure its acoustic properties and determine its suitability for immersive audio. Due to the usage of acoustic plaster in the construction of the museum's ceilings and its irregular shape, WSDG determined that the rooms would be suitable for this and were able to recommend the best speaker implementation for the project. Von Hollaky then built the 3-D acoustical model allowing WSDG to create accurate acoustic simulations and begin to determine the type, number and positioning of speakers. WSDG recommended the use of Meyer UP-4slim, UPM-1P, Ashby 8C, and Amie Subs due to their effective compromise of size and power, and the speakers were installed in both the ceilings and around the projection areas to create an immersive sound field.





National Museum of Qatar Doha, Qatar

### National Museum of Qatar - Doha, Qatar



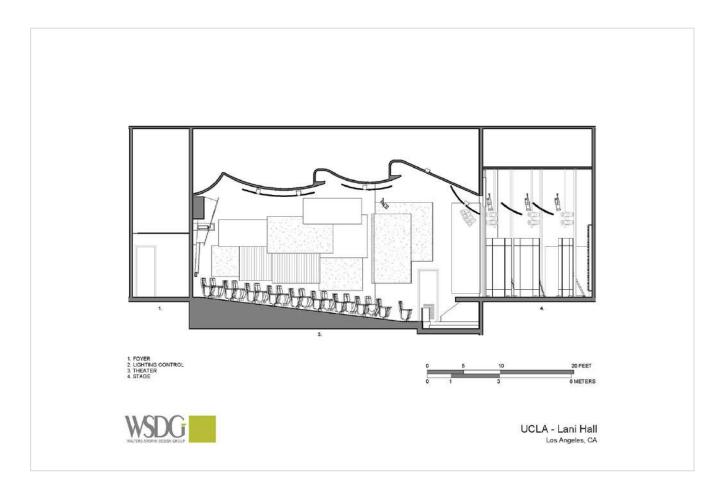


#### UCLA Herb Alpert School of Music - Lani Hall - Los Angeles, USA

Established by a grant from the Herb Alpert Foundation, The Herb Alpert School of Music on the UCLA campus is dedicated to providing students with academic opportunities that balance cutting-edge scholarship with sophisticated performance and composition mastery. Students are immersed in a multitude of learning and performing opportunities and have access to world-class archives and related study options. The missing link to this extraordinary musical education experience was a live performance venue with acoustic properties devised to provide artists with exceptional sound alternatives.

To meet this critical requirement, The Herb Alpert Foundation engaged WSDG to fully re-design the interior and acoustics for the small on-campus theater. The recently completed venue has been christened Lani Hall in honor of Grammy-winning vocalist (and co-founder with husband Herb Alpert of the foundation which bears his name) accommodates both musical and theatrical presentations. The 135 seat auditorium features a raised stage, innovative perforated wood rear and sidewall acoustic treatments and three innovative, full-width cylindrical ceiling treatments deployed above the stage. Outfitted with six multi-positional perforated gobos to provide the variable acoustics required by diverse performing artists and instrumentalists, the stage offers classic performance options.

Matthew Ballos, WSDG partner and co-designer of Lani Hall with founding partner John Storyk, reports that the tubular overhead wooden stage treatments, are complimented by twin 'rounded' wooden ceiling cloud/lighting fixtures, positioned over the audience seats, to further enhance listener audio quality. An elegant, cantilevered wooden rear wall diffuser fine-tunes the theater into an auditorium-size 'sweet spot.'



### UCLA Herb Alpert School of Music – Lani Hall - Los Angeles, USA



WSDG 84

#### Magazzino Italian Art Gallery - Cold Spring, USA

When American art-collector Nancy Olnick, and her Sardinia-born husband, Giorgio Spanu found their extensive collection of modern art had grown beyond the capacity of their two homes they considered options for sharing their collection with a wider audience. A search for a suitable repository for their 500+ assemblage led them to a 14,000 square-foot steel and concrete former industrial warehouse (circa 1964) nearby their Garrison, NY weekend home.

Olnick and Spanu acquired the building for \$12 million, and retained leading architect Miguel Quismondo to create a spacious, light filled gallery to appropriately exhibit their collection. Quismondo brought Alberto Campo Baeza, another noted Spanish architect on board as Construction Manager/Project Liaison. As Magazzino neared completion, its mandate was expanded to include a program of ambitious summertime International Art Film Screenings in the building's 3000 square foot courtyard. When the architectural team recognized the need to address challenging acoustic issues, they engaged prominent NY-based/global architectural/acoustical experts WSDG to recommend and integrate a comprehensive equipment package.

WSDG Project Manager Jonathan Bickoff reports that he and Founding Partner John Storyk performed several site visits and immediately recognized the primary acoustic issue. The rectangular courtyard was constructed of hard reflective surfaces. "We took extensive auditory measurements that guided us in developing a strategy for a diverse range of outdoor museum presentations. And, we worked closely with top Saugerties, NY-based pro audio-video supply firm, Markertek to customize the most efficient, reliable and cost-effective technical system, in a compact, easy to set up and breakdown configuration. The portability of the package was demonstrated when a surprise storm required it to be disassembled and moved indoors in under 10 minutes!" "We were privileged to have applied our expertise to Magazzino's program presentation needs," John Storyk concludes. "This gallery represents an important new asset to our Hudson Valley community," Nancy and Giorgio's extensive collection features works by many brilliant contemporary Italian artists. Their new gallery is a welcome addition to an extraordinary group of Hudson Valley Art Destinations that includes the Storm King Art Center and Dia: Beacon. We are extremely fortunate to have them as friends and neighbors."



# Magazzino Italian Art Gallery - Cold Spring, USA







#### National Assembly of Turkey - Ankara, Turkey

The National Assembly of Turkey is the house of parliament for the Turkish government. The hall was initially renovated in 1998. In 2010, WSDG was brought on for a renewal of its sound reinforcement systems.

The WSDG design team was tasked with electroacoustics planning and execution supervision.

The sound reinforcement system was completely replaced with a line array-based system that are acoustically supported for the large visitor's gallery with other smaller subsystems. A new localization system has been created over the deputies' seats, which can now be perceived from four zones according to their place. A new digital mixer console, and an accordingly large extended audio matrix with a new higher-level control system complete the installed system.



# National Assembly of Turkey - Ankara, Turkey





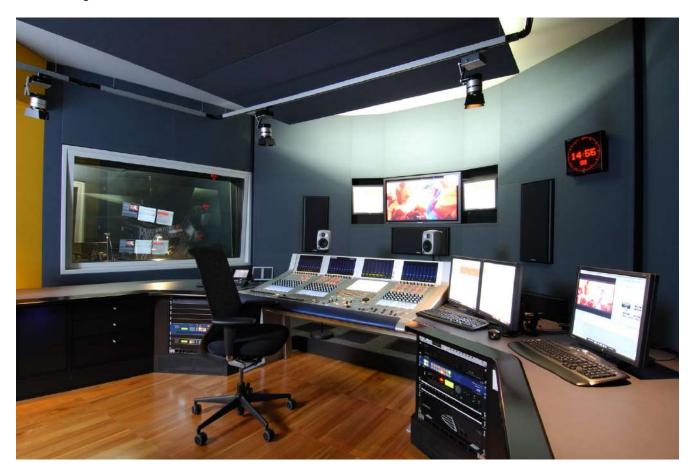
#### TSR - Télévision Suisse Romande - Geneva, Switzerland

Télévision Suisse Romande (TSR) is Switzerland's national broadcaster for the French speaking section of the country. This beautiful and peaceful area with cities and villages as renowned as Geneva, Gruyère or Montreux is home to a national and international mix of personalities, some of them well-known celebrities such as Phil Collins or Michael Schumacher.

The TSR tower, which happens to be the highest building in the city of Geneva and visible citywide, was originally built in the 70s and served as the original home for the audio rooms, a number of other technical facilities, as well as offices. The tower is scheduled for a complete overhaul over the next few years, and the technical facilities therefore needed to be re-located to other buildings on the TSR campus. In parallel with the new construction, the entire technological infrastructure was overhauled as well – in fact, the TSR facilities are now prepared to take the step towards completely tapeless operation.

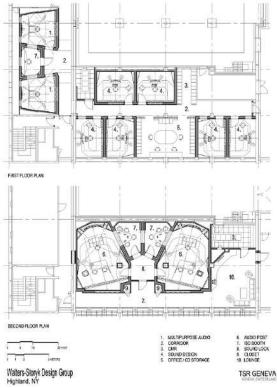
The audio production facilities consist of two large (40 square meters) 5.1 control rooms with an attached isolation booth each, used for TSR's in house productions (straight-to-air as well as pre- or post-produced audio content and a highly acclaimed DVD publishing arm) and external clients as well. In addition, two medium-sized (20 square meters) multi-purpose control rooms are available with one shared isolation booth and a total of six sound design suites. The sound design suites are accompanied by a large CD discography and an open office area for the respective library management and personnel.

The audio rooms are laid out on two adjacent floors that connect by stairways on both ends of the floors. Each floor has a dedicated Machine Room with independent climate control, a backup cooling system, fire repressing systems and emergency electrical power facilities. The first floor offers a leisurely lounge for TSR personnel, clients and guests.



### TSR - Télévision Suisse Romande - Geneva, Switzerland





#### Pangu 7 Star Hotel - Beijing, China

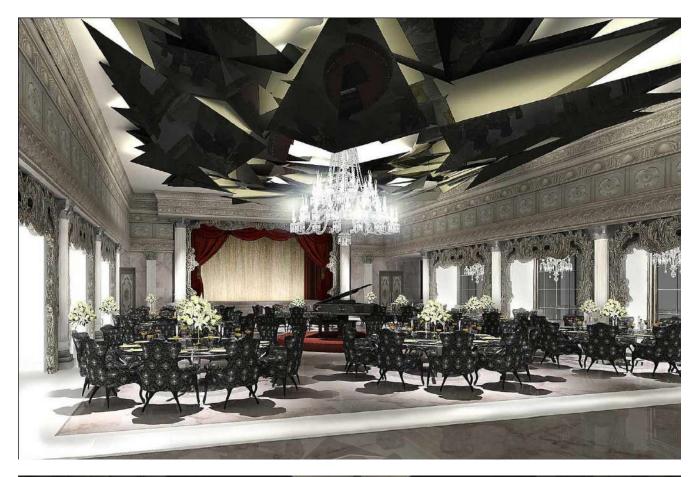
Beijing's Pangu 7 Star Hotel is the latest masterpiece by world-renowned architect C.Y. Lee, creator of the iconic Taipei 101 story World Financial Center. The five tower complex features lavish hotel suites and private residences, a world-class office building, deluxe restaurants, conference rooms, and breathtaking views of the 2008 Olympic Park and 680 ha/1680+ acre National Forest Preserve.

The Pangu 7 Star Hotel is distinguished by 140 elegant suites, including a palatial, one of a kind Presidential Suite and, 84 Grand Deluxe, Premium Deluxe and Premium luxury rooms. Two column-less ballrooms, Pangu (400 guests) and Grand (500 guests), and five meeting rooms, and a host of personal services, including TechnoGym fitness, spa and indoor pool, and 24-hour in-room butlers, further enhance the amenities. The 45-story office tower is furnished with a full complement of sophisticated meeting rooms, and equipped with state-of-the-art audio/video communication technology.

Mindful of the critical need to control sound pollution in this hyper-luxurious environment, the architects engaged WSDG at the earliest design stage to consult on acoustics. Plans and drawings were scrupulously diagnosed, by WSDG's international organization to provide expert counsel on avoiding sound leakage, reverberation, HVAC, elevator, generator, and related noise issues.



# Pangu 7 Star Hotel - Beijing, China





#### Hilton Garden Inn - Montevideo, Uruguay

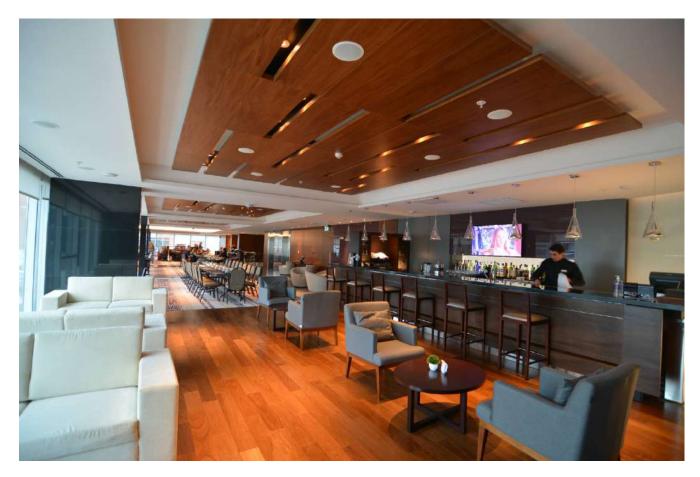
Uruguay recently welcomed its first Hilton Hotel. The elegant (and eye-catching) new Garden Inn was completed last year in Montevideo. Overlooking the world-famous Bay, the Hilton features 172 luxurious rooms, an excellent restaurant, bar, heated indoor pool, gym spectacular views from its sixteen floors and many other amenities, this distinctive "triangular-shaped" high-rise also benefits from an extraordinary location. Set in the heart of the city's business district, it is within walking distance of World Trade Center Montevideo, many outstanding restaurants, one of the city's most spectacular shopping centers, pristine beaches, and is a brief 20 minute drive to the Carrasco International Airport.

The triangular configuration of the Hilton Garden Inn represents a creative design choice influenced by the shape of the construction site. Architects Estudio Gómez Platero devised a dynamic contemporary image for the structure. A striking glass curtain wall fitted with horizontal bands distinguishes the facade. Committed to providing guests with every conceivable luxury and convenience, Estudio Gómez Platero retained the architectural/acoustic services of WSDG to develop the highest degree of Sound isolation, for optimal quietude in each guest suite, and superior speech intelligibility in all the public areas and meeting rooms.

WSDG recommends that acoustic planning be initiated at the design stage rather than after construction has been completed. The savings in reconstruction time and expense spent correcting acoustic errors can be substantial. By engaging proprietary mode calculation software, 3D acoustic modeling programs, auralization reports and other sophisticated tools design WSDG recommendations were developed to eliminate sound reflection in sensitive areas, and to prohibit sound leakage between guest rooms. These solutions ranged from applications of micro-perforated wooden diffusers, to such architectural design elements as fabric wrapped absorptive panels and customized flower-like acoustic ceiling "clouds." WSDG's recommended goal of establishing an NC 30 (Noise Criteria) level was established throughout the hotel. Reports from guests commenting on the peace and quiet they enjoy at the Hilton Garden Inn substantiate the success of that projection.



# Hilton Garden Inn - Montevideo, Uruguay

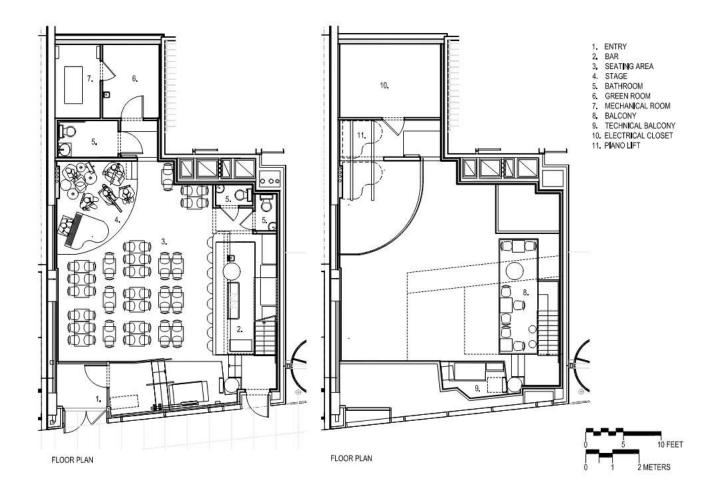




#### Rockwood Music Hall - New York, USA

Founded in 2005, owner Ken Rockwood hired WSDG to design Stage 3, the largest of the three Rockwood stages. Blessed with enough height for a balcony (and "hidden" front of house position), but challenged with a small footprint of less than 1,200 square feet, WSDG was able to develop a design that can accommodate both a 14x10 corner stage – complete with a lift for a baby grand piano to move it out of the way when not needed – and almost 70 patrons, perfect for an intimate NYC show, such as the likes of Lady Gaga and Mumford & Sons.

A perfectly tuned Meyer reinforcement system and 24-channel PA complete the jewel-like qualities of this venue, underscoring its position as "one of the 10 best venues in New York City".



### Rockwood Music Hall - New York, USA

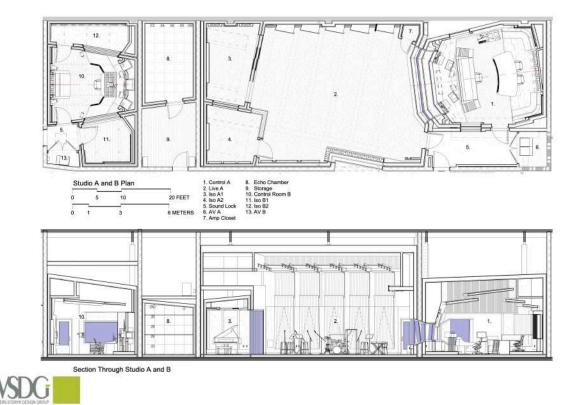


#### Spotify at Mateo - Los Angeles, USA

Spotify is the world's largest streaming music provider with over 485 million active monthly users and growing. After several years of design and construction, the company opened Spotify At Mateo in 2022. The 150,000 sq ft campus is located in the heart of LA's historic Arts District and serves as Spotify's flagship destination for their rapidly growing content creation division as well as a crucial artistic hub for LA's podcast and music professionals.

Designed to be an immersive, all-in-one experience with all aspects of music and podcast production, postproduction, and performance under one roof, Spotify At Mateo required a wide variety of recording and production spaces that would be utilized by both visiting artists and Spotify's in-house team of creators and producers. In addition to this, communal listening and performance spaces were also required. The campus was designed by LA design firm RIOS, with studio design, electroacoustics, A/V systems design, and production lighting by WSDG.

Building One has a pair of full-featured recording studios, A and B, and a podcast recording studio. Studio A features a 48-channel Rupert Neve Designs Shelford 5088 console. Studio B is equipped with an Avid S4 24-fader Control Surface with Dolby Atmos mix capability. Both studios share a purpose-designed echo chamber. Studios A and B also feature innovative sets of hinged acoustic panels which allow for variable acoustical conditions within the spaces as well as a purpose-designed echo chamber. WSDG also designed the acoustics of the onsite screening room, event hall, and three listening rooms in Building Two. Building Four's 'Pod City' is a honeycombed collection of spaces created specifically for podcasting. This includes Spotify's Flagship Podcast Studio D, as well as 15 additional podcast studios, two production rooms, and three artist lounges. All of the rooms have multiple windows for access to natural light and greenery and were created with ideal acoustic conditions and seamless system design in partnership with SPL. The exterior design of the rooms nicknamed 'The Craggle', give the space a sense of excitement and flow.



Spotify Los Angeles, CA

# Spotify at Mateo - Los Angeles, USA





#### Quai Zurich Campus - Zurich, Switzerland

Zurich Insurance is a global insurance company initially founded in 1872. The Quai Zurich Campus is located in Zurich, Switzerland and serves as the company's global headquarters. The campus consists of a pair of historic buildings dating back over a century, as well as three new ones targeted for Leed Platinum Certification and designed by Krischanitz Architects to encompass a variety of professional needs. When the brand sought a refresh of its offices in 2015, it retained the services of WSDG for AV system design and integration.

The WSDG design team was tasked with creating the A/V 'vision' of the new campus, one that would utilize the latest audio, video, collaboration and networking technology to seamlessly encompass every AV infrastructural requirement of the organization from its public-facing areas to its private office spaces and group conference areas without any compromises to quality or effectiveness.

The principal new building includes an auditorium for 400 people and the slightly smaller Lakeview Lounge on the top floor. Over 100 conference and project rooms of various sizes are arranged on all floors, outfitted for video conferencing within the complex. Depending on use cases and architecture Shure ceiling microphones, wireless microphones from the Axient series and Microflex Wireless Systems are utilized as well as NEC and Avocor touch screens and Microsoft surface hubs. Custom built loudspeakers that fit the adjacent display's dimensions were designed and manufactured by Stoll Audio.



### Quai Zurich Campus - Zurich, Switzerland





#### **Representative Client List**

26 Sushi & Tapas (Morris J. Kaplan) Surfside, FL 3:3:2 Buenos Aires, Argentina 54 Below New York, NY 55TEC Studios Beijing, China Adverse Residence Belo Horizonte, Brazil Alan May Listening Room Home Theater Dallas, TX Albano Residence Monte Claros, Brazil Alejandro Lerner Buenos Aires, Argentina Alicia Keys (Oven Studios) Long Island, NY Allaire Studios, Woodstock, NY American University Washington, DC Anel Paz - Supercharango Buenos Aires, Argentina Appalachian State University Boone, NC Art Institutes United States AR Studios Rio de Janeiro, Brazil Atlantic Recording New York, NY Atomica Santiago, Chile audioEngine New York, NY Aura Club Events Hall Zurich, Switzerland Bamyasi Studio Miami, FL BBC Mundo, Coral Gables, FL Bearsville Recording Bearsville, NY Berklee College of Music - 160 Mass Ave Boston, MA Berklee College of Music - Valencia Valencia, Spain Big Mo Mobile Recording Kensington, MD Blue Table Post Brooklyn, NY Bob Margouleff (Mi Casa Studios) Hollywood, CA Bob Marley Kingston, Jamaica Boston Symphony Orchestra Control Room Boston, MA Bruce Springsteen (Thrill Hill Studios) United States Camden Yard / Baltimore Orioles Baltimore, MD Carter Burwell New York, NY Casa Cor Belo Horizonte. Brazil Casa Ezeiza Buenos Aires, Argentina Celine Dion United States Central Synagogue New York, NY Church Le Noirmont Le Noirmont, Jura, Switzerland Citicorp Credit Services Huntington, NY Clap Studios Medellin, Colombia Club NEO Zurich, Switzerland

Comunidad de Fe Quito, Ecuador Credit Suisse Zurich, Switzerland Crossroads Tabernacle - Studio on the Hill Bronx, NY Cuyahoga Community College - Center for Innovation in the Arts Cleveland, OH Daniel Studio São Paulo, Brazil Damian Marley Miami, FL Diante do Trono Belo Horizonte, Brazil Diego Torres Private Studio Buenos Aires, Argentina Di Tella University Buenos Aires, Argentina Different Fur Music San Francisco, CA Dream Asylum - Danja & Marcella Araica Miami, FL Duke Ellington High School Washington, DC Eddie Kramer Rhinebeck, NY EFE-X Bogota, Columbia El Aleph Building – Norman Foster Buenos Aires, Arg El Porteño Buenos Aires, Argentina Electric Lady Studios New York, NY Electronic Arts Vancouver, Canada Elektra Entertainment New York, NY Ellis Marsalis Center for Music (EMCM) - NOLA, LA EMI - Escola de Marketing Industrial São Paulo, Brazil Equiscosa Mexico City, Mexico EUE Screen Gems (Rachel Ray) New York, NY ESPN Bristol, CT ESPM Broadcast Teaching Center São Paulo, Brazil Estudio 13 Mexico City, NY Ex'Pression College for Digital Arts San Jose, CA Fito Paez (Circo Beat Studios) Buenos Aires, Argentina Flughafenkopf - Zurich Airport Zurich, Switzerland Fenix Club San Rafael, CA Fontela Residence Buenos Aires, Argentina Food Network New York, NY Full Sail Center for the Recording Arts Orlando, FL Goesgen Nuclear Plant Däniken, Switzerland Goo Goo Dolls (GCR Audio) Buffalo, USA Graeme Judd Voiceover Studio Calgary, Canada Green Day - Jingletown Recording Oakland, CA Hard Rock Cafe New York, NY Harman Flagship Store Listening Room New York, NY

Hilton Garden Inn Montevideo, Uruguay Hirslanden Group Zurich, Switzerland Hoffman LaRoche Basel, Switzerland Howard Schwartz Recording New York, NY Huber Music Room Carlsbad, CA Hunter College New York, NY IMAX Buenos Aires, Argentina IDZI Lab Mexico City, Mexico Independencia Stadium Belo Horizonte, Brazil Interlochen Public Radio Interlochen, MI Interim Services Ft. Lauderdale, FL Isaac Hayes Westchester, NY J Records (Clive Davis) New York, NY J.A. Castle Recording Utica, NY James Earl Jones Theater - PDS Poughkeepsie, NY Jay-Z (Roc the Mic Studios) New York, NY Jazz at Lincoln Center New York, NY Jim Cramer's Real Money New York, NY Jungle City Studios New York, NY Kimmel Center Philadelphia, PA KKL Concert Hall Luzern, Switzerland La Rioja Theater La Rioja, Argentina Le Poisson Rouge New York, NY Mad Oak Studios Boston, MA Maracana Stadium Rio de Janeiro Manhattan School of Music New York, NY Martin Scorsese Media Center Bronx, NY Merriweather Pavilion Columbia, MD Mineirao Stadium - FIFA Belo Horizonte, Brazil Minnesota Public Radio Minneapolis, MN MJI Broadcasting / Clear Channel New York, NY MonkMusic Studios East Hampton, NY Murray Arts Center Marietta, GA MTV Latin America Buenos Aires, Argentina National Council of Switzerland Bern, Switzerland National Museum of the American Indian Washington, DC New York University New York, NY Northern Lights New York, NY Novartis Basel, Switzerland NYISO (NY Independent System Operator) Albany, NY Peavey Electronics Meridian, MS PepsiCo Content Studio New York, NY Peloton Flagship Spinning Center New York, NY PostFinance Arena Bern, Switzerland

Philippe Moritz Zurich, Switzerland Planet Hollywood Screening Room New York, NY Proctor and Gamble Buenos Aires, Argentina Qatar Television Doha, Qatar Record Plant Los Angeles, CA Restaurant T Buenos Aires, Argentina Richard Gere New York, NY Rio 2016 - Barra Olympic Park Rio de Janeiro, Brazil Robert Clivilles (Paradise Garage) Westchester, NY Salvation Ministries Port Harcourt, Nigeria SBK / EMI Records New York, NY Skank Belo Horizonte, Brazil SONY Corporation Teaneck, NJ Spank! Music and Sound Design Chicago, IL Stanwich Congregational Church Greenwich, CT St. Gallen Train Station St. Gallen, Switzerland Stevie Wonder (Wonderland) Los Angeles, CA Sumitomo Boardroom New York, NY Sunshine Mastering Vienna, Austria Swiss Parliament Basel, Switzerland Telefé Buenos Aires, Argentina Teleproductions, Inc. Washington, DC TSR – Télévision Suisse Romande Geneva, Switzerland The Carpenters Church Port Harcourt, Nigeria The Church Studios - Paul Epworth London, UK The Cosmopolitan Las Vegas, Nevada The Standard Hotel New York, NY Thirteen / WNET New York, NY TV Globo Sao Paulo, Brazil Union College Schenectady, NY University of Colorado - ATLAS Boulder, CO University of Michigan Ann Arbor, MI Univison Miami, USA Universidad ICESI Cali, Colombia Vassar Chapel Poughkeepsie, NY Video Arts Studios Fargo, ND Village Studios Guangzhou, China Vocomotion Skokie, IL VSL Synchron Stage Vienna, Austria Vivace Studios Montevideo, Uruguay Whitney Houston United States WNYC Radio New York, NY Woodrow Wilson Center- Smithsonian Washington, DC Young Israel Synagogue Miami, FL



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