



ARCHITECTURAL ACOUSTIC CONSULTING

MEDIA SYSTEMS ENGINEERING

# Company Profile Educational

wsdg.com

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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, 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.

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

nahuel.zaccagnino@wsdg.com

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**

#### Jonathan Rose, President Rose Companies New York, NY 10176 (914) 643-5044 jonathanfprose@gmail.com

Rob Jaczko, Chair, Music Production & Engineering Dept. Berklee College of Music Boston, MA 02215 (774) 991-0104 rjaczko@berklee.edu

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Eddie Kramer, Engineer and Producer Jimi Hendrix (818) 456-7261 eddie@eddie-kramer.com

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Diana lvette Urquiza, Director of Digital Music Production TEC de Monterrey Mexico City, Mexico <u>dianauf@tec.mx</u>

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**

Jamie Alls, Director of Engineering KEXP RADIO - 90.3FM Seattle, WA 98109 (206) 520-5804 jalls@kexp.org

Steve Shultis, Chief Technology Officer New York Public Radio – WNYC New York, NY 10013 (646) 829-4089 sshultis@nypublicradio.org

Chris Kroner, Principal MASS Design Group (2022 AIA Architecture Award) Boston, MA 02116 (540) 270-4866 ckroner@mass-group.org

Michael Charzuk, VP Studios Audible (Amazon) Newark, NJ 07102 (917) 673-6429 mcharzuk@audible.com

Doug Hosney, VP, Venue Operations Jazz at Lincoln Center New York, NY 10023 (212) 258-9540 dhosney@jazz.org

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Bob Margouleff, Grammy Award Winner (Stevie Wonder) Margouleff and Associates Los Angeles, CA (323) 864-3235 robert.margouleff@gmail.com

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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 53 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:

EMI Escola de Marketing	Berklee College of Music	Javeriana University
São Paulo, Brazil	Boston, USA	Bogota, Colombia
The Art Institutes	New York University - Steinhardt	University of Colorado – ATLAS
USA	New York, USA	Boulder, USA
Artist for Peace and Justice Jacmel, Haiti	Ellis Marsalis Center for Musicians New Orleans, USA	CUEC - UNAM Mexico City, Mexico
Jazz at Lincoln Center	KKL Concert Hall	Flughafenkopf – Zurich Airport
New York, USA	Luzern, Switzerland	Zurich, Switzerland
VSL Synchron Stage	Aura Club Events Hall	ESPN Digital Center 2
Vienna, Austria	Zurich, Switzerland	Bristol, USA
<b>Rio 2016 – Barra Olympic Park</b>	Morro de Chapeu Residence	Electric Lady Studios
Rio de Janeiro, Brazil	Belo Horizonte, Brazil	New York, USA
Zhejiang Conservatory of Music	Rensselaer Polytechnic Institute	Inhotim Theater
Hangzhou, China	Troy, USA	Brumadinho, Brazil
Jakarta International Expo	Murray Arts Center	PepsiCo Content Studio
Jakarta, Indonesia	Marietta, USA	New York, USA
<b>UCLA Herb Alpert – Lani Hall</b>	Magazzino Italian Art Gallery	Concordia University
Los Angeles, USA	Cold Spring, USA	California, USA
TEC de Monterrey Mexico City, Mexico	Avenues: The World School Shenzhen, China	Jungle City Studios (Mincieli, Keys) New York, USA
Universidad ICESI	Interlochen Center for the Arts	KEXP 90.3 FM
Cali, Colombia	Green Lake Township, USA	Seattle, USA
<b>National Museum of Qatar</b>	Rue Boyer – Mix with the Masters	Spotify at Mateo
Doha, Qatar	Paris, France	Los Angeles, USA

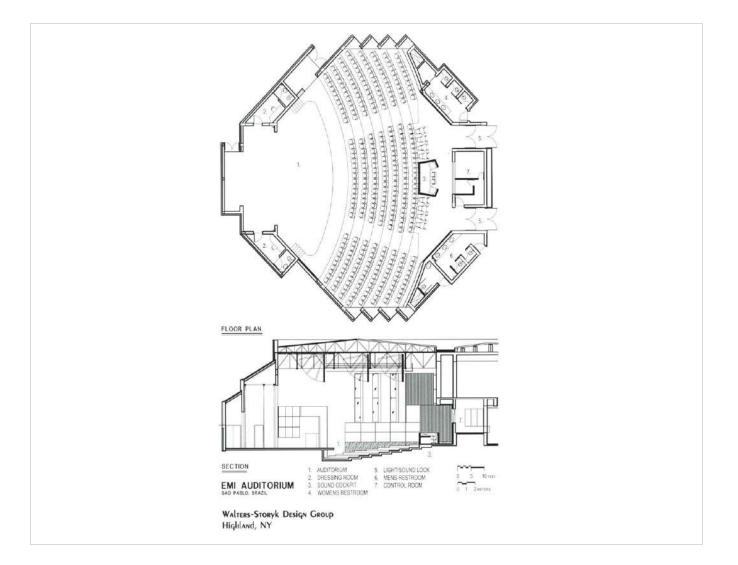
## EMI – Escola de Marketing Industrial - São Paulo, Brazil

EMI is a São Paulo-based education facility responsible for producing, developing and disseminating industrial marketing knowledge, and supporting the talent of professionals devoted to this area of business. EMI is affiliated with two of the largest educational groups in Brazil: Fundação Dom Cabral (FDC) and Fundação Getúlio Vargas (FGV).

When WSDG was hired, the building structure had already been conceived and built. The back wall of the theater presented a particular challenge because of its concave shape- this reflective curve caused sound waves from the stage to bounce back from the wall, creating an undesired slap-back echo and feedback effect. WSDG resolved this problem by installing a large, wood diffuser, which also worked as a resonator for low frequency absorption.

The audio system designed consists of a 7.1 surround configuration, controlled by a 48 channel Yamaha digital console. This is connected digitally to a recording system located in the back of the room, beside a dedicated translation booth utilized for international clients.

Walters-Storyk Design Group was responsible for both the design and construction of the theater. All the wood elements used for the acoustic treatments, including the stage floor, were created from recycled materials of demolished old farms from the northern area of Brazil to create a unique sound character inside the room.



EMI – Escola de Marketing Industrial - São Paulo, Brazil



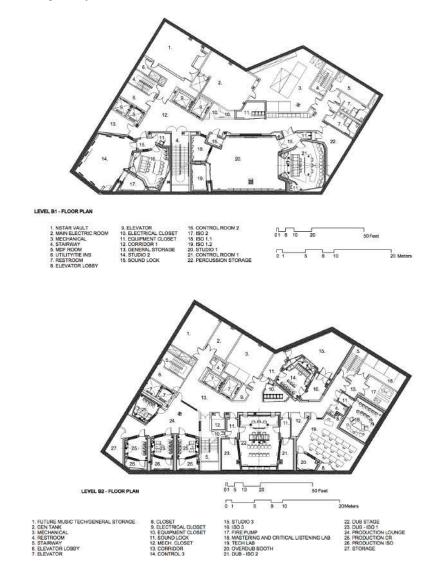


## Berklee College of Music - 160 Mass Ave - Boston, USA

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

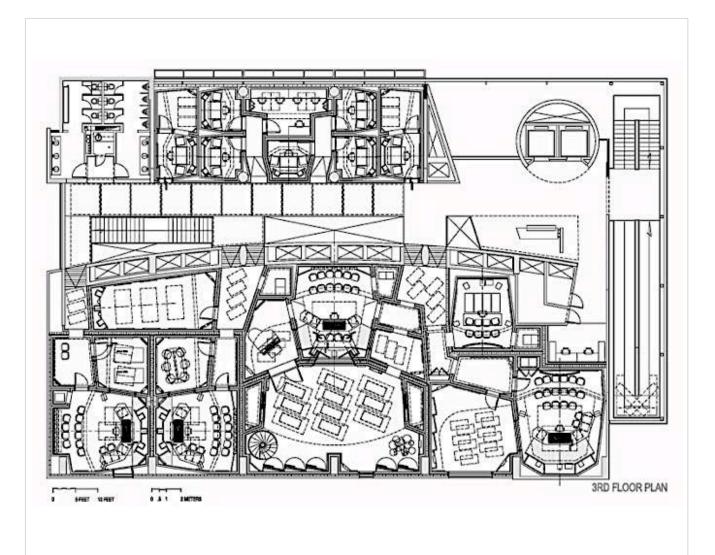




## Javeriana University - Bogotá, Colombia

One of the largest universities in the country, the Pontificia Universidad Javeriana caters to over 22,000 students and 3,500 professors in its 1,882,000-square-foot campus in Bogotá, Colombia. The university campus consists of 45 buildings, including a hospital, a radio station, libraries and the Ático Center, the first high-tech information and communications resource center in Latin America for the development of education, image and design. This nine-story building is the region's most ambitious audio/visual project to date.

The Ático Center, with two of its stories being underground and the other seven above ground, has two TV studios with control and post-production rooms, scenery lighting and make up workshops, as well as storage warehouses for live outdoors filming equipment. Two of its floors are completely dedicated to new media and architecture, animation and 3D drawing. Another three floors will accommodate audio recording studios, post-production rooms for video, film mixing, mastering, audio classrooms and a main auditorium for digital cinema. Overall, the facility will hold 24 specialized areas and recording studios, all of them designed to the highest international standards using the room within a room concept in regards to acoustics and architecture, and being completely isolated from one another to ensure that all of these rooms are operational at the same time without any interference between them. WSDG provided all master planning and acoustic design for audio technology spaces.



# Javeriana University - Bogotá, Colombia



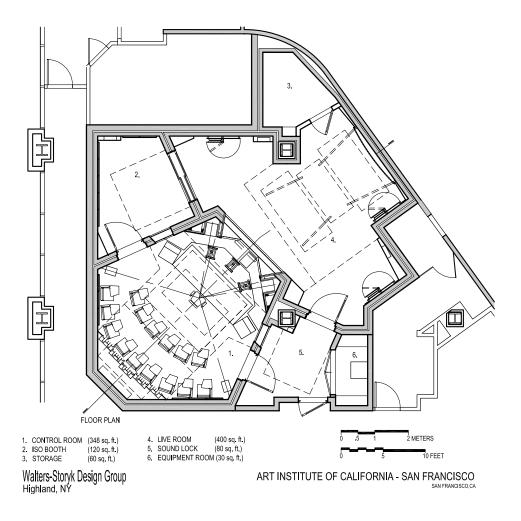


## The Art Institutes - USA

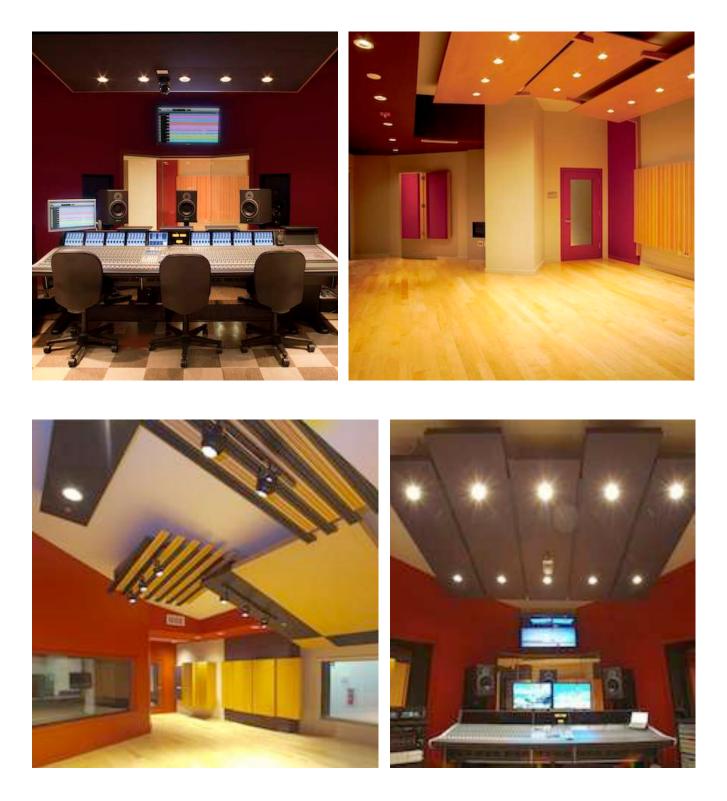
The audio production industry is constantly evolving with new technologies being created everyday, many of which reach far beyond traditional music recording. The Art Institute schools have responded to this demand with the launch of WSDG-designed audio studios at many of its locations. New studios have been implemented at The Art Institute of Austin, The Art Institute of California - San Diego, The Art Institute of Houston, The Art Institute of Las Vegas, The Art Institute of Tennessee - Nashville, The Art Institute of Washington, D.C., The Art Institute of California - San Francisco, The Illinois Institute of Art - Schaumburg, The Art Institute - Chicago, The Art Institute - Los Angeles, The Art Institute - Miami, The Art Institute - Inland Empire, California, The Art Institute - Philadelphia and The Art Institutes International Minnesota. These new studios offer a hands-on learning environment for students pursuing a degree in the Audio Production program.

Students in the program study audio recording, live sound reproduction, audio for video and sound design. Students have the opportunity to gain hands-on experience as they record, mix and produce audio in both analog and digital formats, while gaining an understanding of what it takes to compete in the audio industry. In addition, students learn how to create high quality audio content for a wide range of purposes, including video game production and mobile devices and in various sectors such as corporate, government, and education.

The facilities are generally around 1,500 square feet. Most of the studios designed feature an SSL Duality console, Adam S4X-V main monitors and Dynaudio AIR 15 surround monitors. All rooms are designed to accommodate small-class instruction in audio production and post-production, as well as individual student projects.



# The Art Institutes - USA

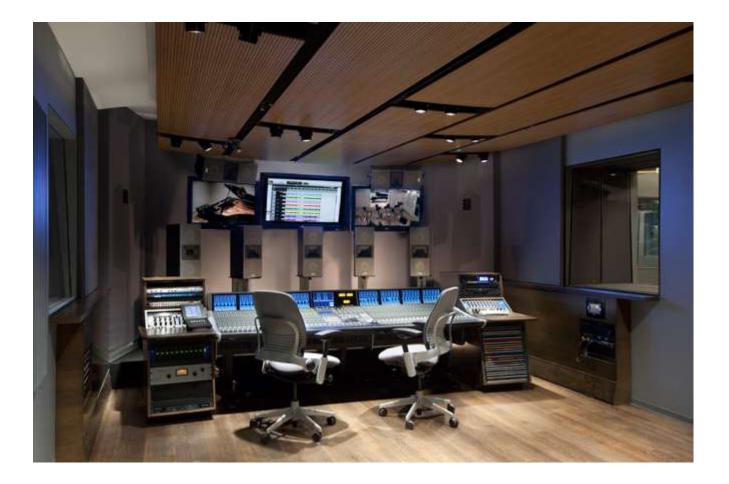


## New York University - Steinhardt - New York, USA

NYU's Steinhardt School of Culture, Education and Human Development's James L. Dolan Recording/Teaching complex at the Department of Music and Performing Arts Professions is one of the most technically advanced audio teaching facilities in the United States. It was created to provide students with an exemplary learning environment. The \$6.8 million, 7500 sq. ft. compound is devoted to contemporary Music Technology: Theory, Cognition, Informatics, Computer Music, Recording, Production, and Immersive Audio.

Describing their architectural program, Gensler principal and design director Keith Rosen comments, "The view into the Control Room through the Reception Area rear wall immediately establishes Steinhardt as an advanced teaching facility. The challenge was to fit an extremely dense program into a relatively tight space. To maximize the flexibility of the larger multi-functional spaces, such as the conference/performance room and study/pantry areas, we developed various private and shared spaces along a single circulation loop. Glass interior walls and doors provide Students and Faculty with natural light, a great asset in a facility with interior studios. Raised floor construction will ease changes in program and technology. The existing steel trusses slicing through the space were embraced as organizing elements for the Control Room and other critical sound isolation areas. The punched windows provide visitors with views into the recording studios. The design constraints we encountered have been turned into powerful aesthetic and way-finding elements", Rosen concludes.

The complex is distinguished by a 25-seat control/class room which features a fully automated 48-channel SSL console and the first Dangerous Music 10.2 surround installation in NYC. In addition to a live room large enough to accommodate a small orchestra; the floor includes several research laboratories, offices, a conference/seminar room and a large iso / drum booth. Multiple windows and a full line of sight provide natural light throughout.



# New York University - Steinhardt - New York, USA



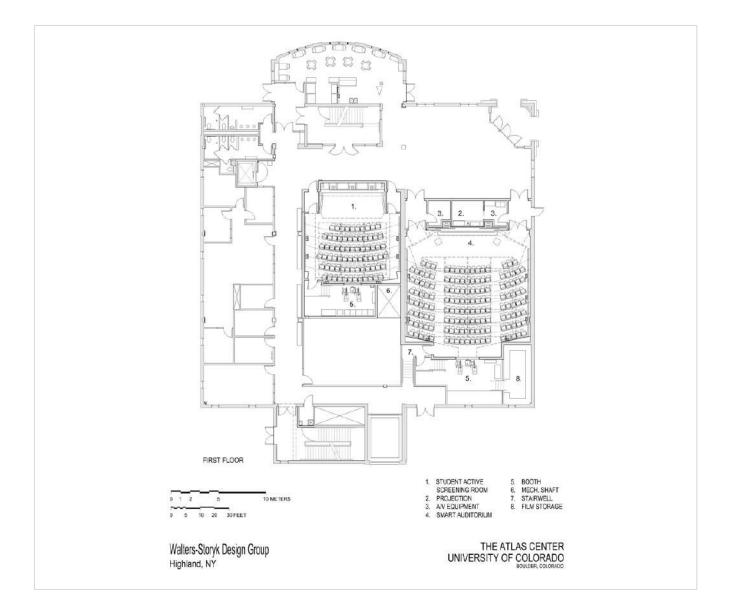


## University of Colorado – ATLAS Building - Boulder, USA

The \$31 million ATLAS building is a unique facility designed to focus on the convergence of technology, media and the arts. ATLAS stands for Alliance for Technology, Learning and Society. Located in the heart of the campus northeast of the University Memorial Center, ATLAS includes a state-of-the-art black-box performance space, a modern broadcast production studio, a large video wall in the building's lobby, a film screening room, a technology-enhanced auditorium, videoconferencing rooms and four computer classrooms. The facilities are open to students of all majors.

The 75-seat film screening room is among the best in the nation, according to ATLAS faculty director Bobby Schnabel, and the black-box theater is on the cutting edge of technology-enhanced performance spaces located anywhere in the nation on a public university campus.

At the center of ATLAS is the two-story, 3,000-square-foot black box performance space. This versatile, hightech theater is designed to provide digital technology for creative digital cinema, interdisciplinary performances that combine musicians, dancers, visual artists and technology, visiting artist webcasts, interactive audio and visual performances, and student and faculty video production.



# University of Colorado – ATLAS Building - Boulder, USA

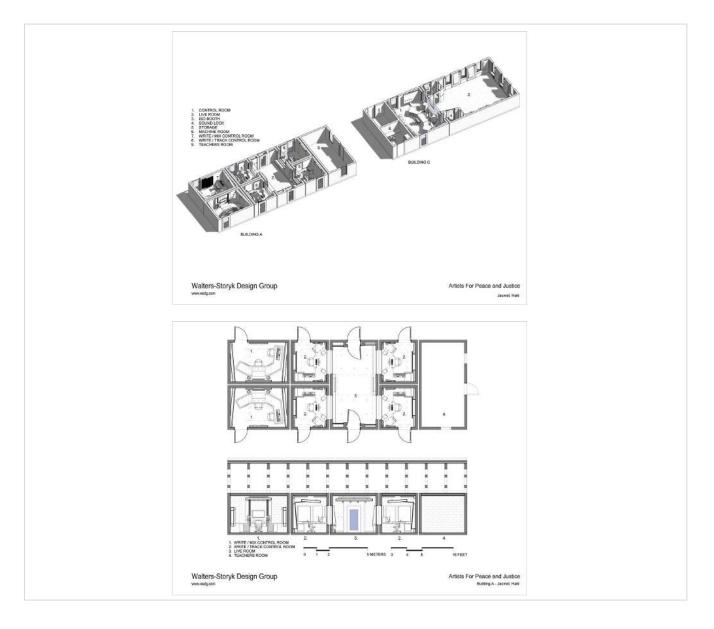




## Artist for Peace and Justice - Jacmel, Haiti

The massive destruction that wracked Haiti by 2008's Hurricane Hanna (and devastating 2010 earthquake) inspired a deluge of volunteerism, and support from around the world. One of the ongoing positives to spring from those disasters is Artists for Peace and Justice (APJ). This nonprofit organization has committed its energies and resources to the development of an innovative full-scholarship, 2-year college devoted to providing young island residents with an audio (or video) production education and, career counseling designed to help them achieve employment.

Built with hurricane (and earthquake) secure construction techniques and materials on the 5 acre site of a former ocean front estate, the APJ campus is comprised of three thatched roof buildings: A the (1432 sq. ft.) Writing/Mixing and Tracking Studios; B A School House with two (500 sq. ft.) Classrooms and C a (1314 sq. ft.) Studio with a (326 sq. ft. Control Room and (579 sq. ft.) Live Room. Designed to accommodate two simultaneous classes of 35 1st year and 35 2nd year students, APJ offers hands-on training on contemporary audio production and mixing technology, and classes on entrepreneurship, business development and traditional educational subjects.



# Artist for Peace and Justice - Jacmel, Haiti



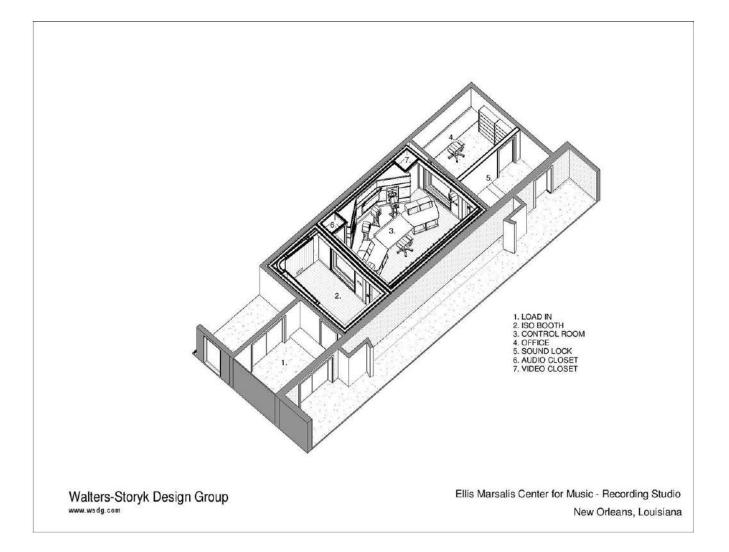


## Ellis Marsalis Center for Musicians - New Orleans, USA

The \$31 million ATLAS building is a unique facility designed to focus on the convergence of technology, media and the arts. ATLAS stands for Alliance for Technology, Learning and Society. Located in the heart of the campus northeast of the University Memorial Center, ATLAS includes a state-of-the-art black-box performance space, a modern broadcast production studio, a large video wall in the building's lobby, a film screening room, a technology-enhanced auditorium, videoconferencing rooms and four computer classrooms. The facilities are open to students of all majors.

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### Ellis Marsalis Center for Musicians - New Orleans, USA

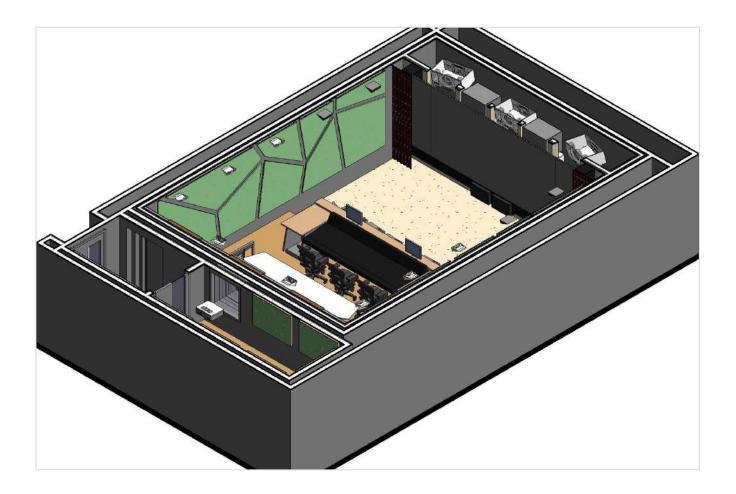




### CUEC - UNAM - Mexico City, Mexico

Founded in 1963, and influenced by both Nouvelle Vague and Mexico's First Contest of Experimental Film, CUEC (Centro Universitario de Estudios Cinematográficos) is the Film School of the National Autonomous University of Mexico (UNAM). It is one of the largest universities and film schools in Latin America, and also one of the oldest, most influential, most prolific and important in the region, producing over 100 short films a year. Notable CUEC alumni includes: Alfonso Cuaron (Y Tu Mamá También, Harry Potter and the Prisoner of Azkaban and, cinematographer Emmanuel Lubezki. Both of whom won Oscars in 2014 as Best Director and Best Cinematographer respectively, for Gravity The main CUEC campus is a World Heritage site designed by some of Mexico's best-known architects of the 20th Century. Located in the southern part of Mexico City UNAM's main campus includes a stadium which hosted the 1968 Olympics; 40 faculties and institutes; the Cultural Center; an ecological reserve; the Central Library; and a number of museums. WSDG was engaged to design the internal room architecture, acoustics and technology integration for CUEC's new building.

Because the Mixing Room had to function simultaneously with classes being held directly on the floor below, isolation presented a primary challenge. To eliminate sound leakage into or out of the mixing room, WSDG developed a Room-Within-Room, acoustical isolation program. Incorporating concrete perimeter walls, completely detached from the interior walls via a network of springs enabled WSDG to achieve the specified, NC20. This pro recording studio-level, construction method enables the room to produce high volume sound without disturbing surrounding classrooms.



# CUEC - UNAM - Mexico City, Mexico



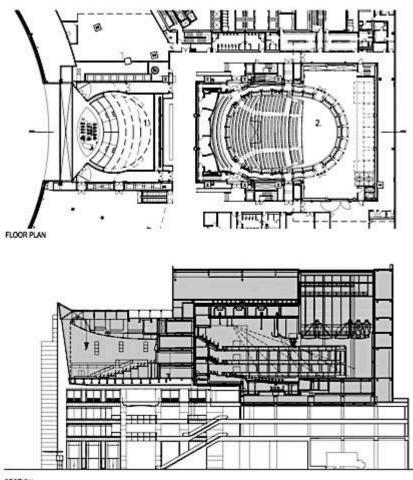


#### Jazz at Lincoln Center - New York, USA

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

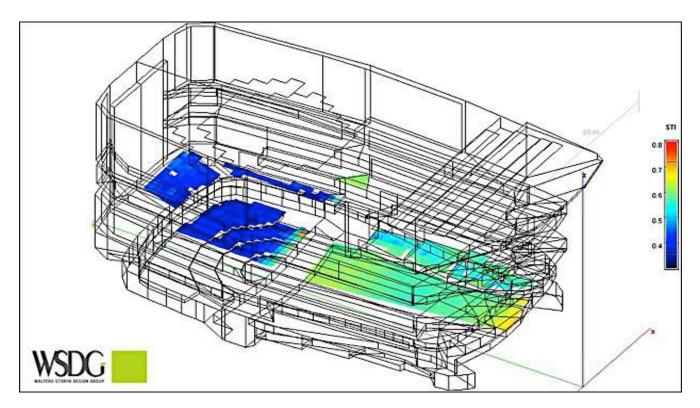
From its opening performance by the Berlin Philharmonic in August 1998, the KKL Luzern Concert Hall was recognized as one of the world's great performance centers. An international landmark, both architecturally and culturally, the complex attracts music fans from around the world to its picturesque 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

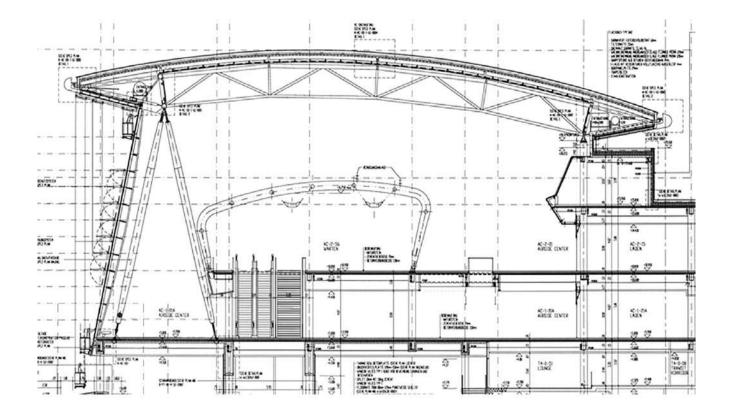


### Flughafenkopf – Zurich Airport - Zurich, Switzerland

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

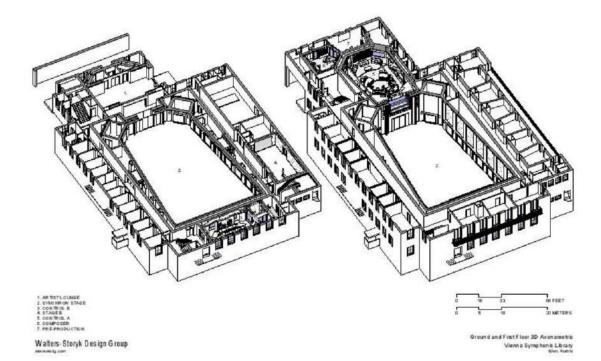




### VSL Synchron Stage - Vienna, Austria

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





### 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



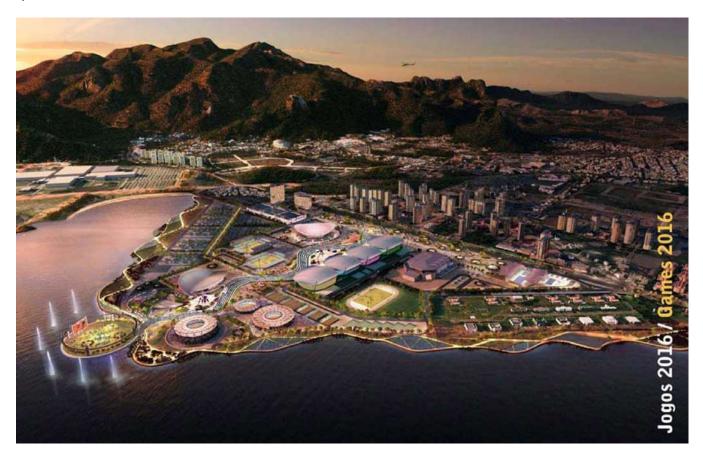


### Rio 2016 - Barra Olympic Park - Rio de Janeiro, Brazil

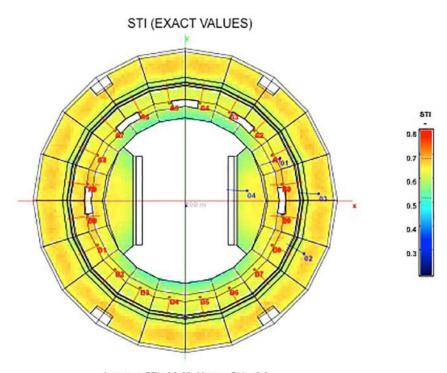
Barra Olympic Park was developed as Rio's primary 2016 Olympic and Paralympic Games competition center. Now it also serves as the city's largest sporting legacy. With an area of 1.18 million sq. m., Olympic Park includes nine sports venues. The Olympic Arena and Maria Lenk Aquatic Centre were built for 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



#### 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



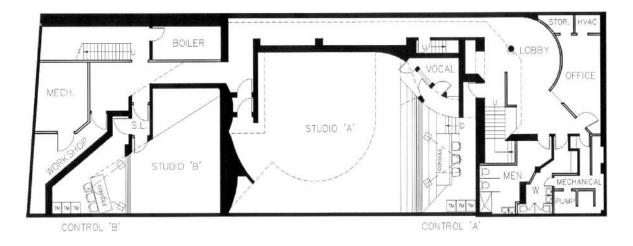




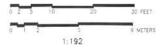
#### Electric Lady Studios - New York, USA

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.

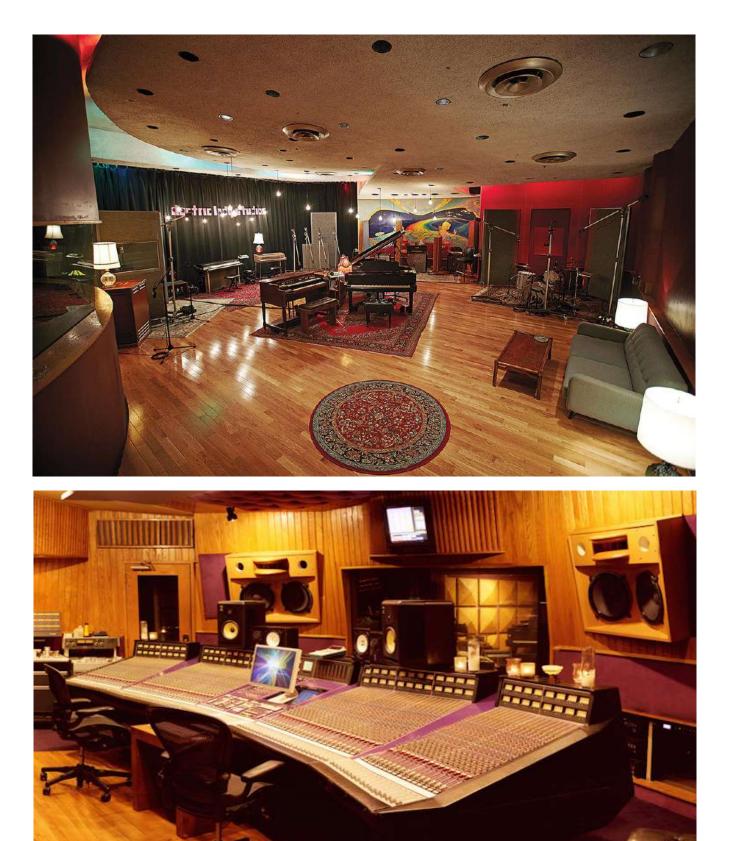
Eddie Kramer (Jimi's engineer) was adamant about Electric Lady having a tall, bright room similar to NY's legendary A&R Studios where Phil Spector did some of his greatest work. Kramer was also familiar with European studios like London's Olympic and Abbey Road. He believed drums required a big room. 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



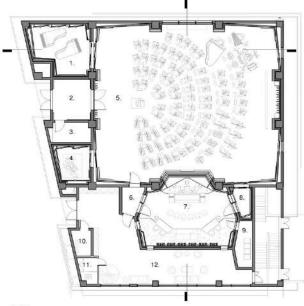
WSDG 57

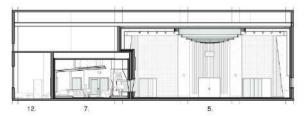
### Zhejiang Conservatory of Music - Hangzhou, China

The Zhejiang Conservatory of Music (ZJCM) in Hangzhou, East China introduced a picturesque 100-acre campus with nine concert halls, 102 rehearsal halls, 842 practice rooms and six small studios. ZJCM's twelve academic departments are designed to provide up to 5000 full-time students with professional educational programs on composition, conducting, vocal and musical instrument performance, recording and technology. ZJCM commissioned WSDG to create an important addition to this extraordinary institution, a 21<sup>st</sup> Century Music Production & Education Complex in a newly completed 8000 sq. ft. two-story building.

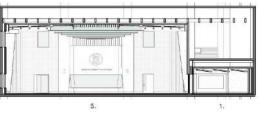
Featuring a 3200 sq. ft. live recording studio with a 26 ft. high ceiling. The new complex can host sessions of 100+ member orchestras. Led by WSDG Founding Partner John Storyk, and partner Sergio Molho the firm's entire 50+ member creative and technical design team contributed to the collaboration. WSDG's Basel, Switzerland and Berlin, Germany offices developed sophisticated 3D room modeling and electro acoustical surface predictions, which were invaluable in creating an extraordinary acoustic environment for the large live studio. WSDG's Argentina and Brazil offices provided extremely accurate renderings, and the U.S. team performed brilliantly on overall design and the development of innovative acoustic solutions.

Among the inventive design elements WSDG developed for ZJCM are two noteworthy variable acoustic treatments for the live recording studio. A large oval ceiling cloud positioned in the center of the 26' high ceiling was fitted with a telescoping acoustical treatment to establish multiple diffusion layers to meet diverse recording requirements. A striking aesthetic design developed by WSDG partner/art director, Silvia Molho graces the facility with an attractive and stimulating ambiance.





SECTION 1



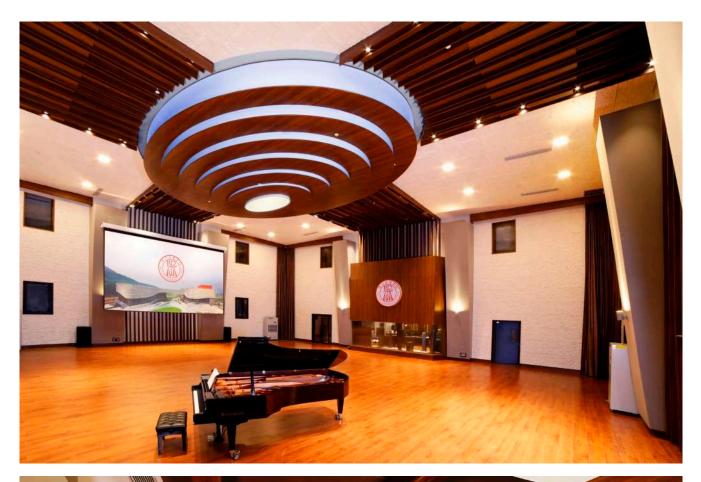
SECTION 2

PLAN

	1. PIANO ROOM	5. RECORDING STUDIO	9. CMR
0 5 10 15 <i>0</i> 1	2. SOUND LOCK 1	6. SOUND LOCK 2	10. DISTRIBUTION
0 2 / 6m	3. STORAGE	7. CONTROL ROOM	11. RESTROOM
	4. DRUM ROOM	8. VOICE REC.	12. LOUNGE



## Zhejiang Conservatory of Music - Hangzhou, China







### Rensselaer Polytechnic Institute - Troy, USA

Rensselaer Polytechnic Institute (RPI), the world's 3<sup>rd</sup> highest ranked research college, has commissioned WSDG (Walters-Storyk Design Group) to design and oversee the construction of a fully immersive audio / video / 3D production, mixing and editing complex for their Troy, New York campus. The primary mission for this addition to Rensselaer's Media Arts, Science & Technology integrated media environment is to advance the creation, performance and production of 3D immersive audio and video content.

RPI's Immersive Production Complex is designed to provide students with a future-proofed experimentation environment. Special attention is being focused on the facility's variable acoustic properties, to compensate for the 'deader' tracking environment required by immersive production techniques. The project is integral to RPI's signature thrust and will significantly extend connectivity to (and collaboration with) the university's Experimental and Performing Arts Center (EMPAC) and Cognitive Immersive Systems Lab (CISL).

WSDG's assignment focused on the complete renovation of an existing 1700 sq. ft. space, and the design, construction supervision and systems integration of a 1000 sq. ft. Audio Recording/Production Studio, a cutting edge 300 sq. ft. Audio Control Room, a 100 sq. ft. Iso lab, a 160 sq. ft. Video Control Room and a 90 sq. ft. AV Lab," reports WSDG Partner/Project Manager Joshua Morris. "With a 16' ceiling height, and sufficient space for ambitious audio and video programming creation, the complex will utilize 'dark' fiber optic connectivity previously installed between RPI's EMPAC and DCC buildings, to allow for seamless audio/video connectivity. Advantages will include the ability to use the EMPAC Concert Hall as a sound stage with audio/video control in the DCC and, enable a live performance at the DCC to be viewed on multiple EMPAC screens.



# Rensselaer Polytechnic Institute - Troy, USA



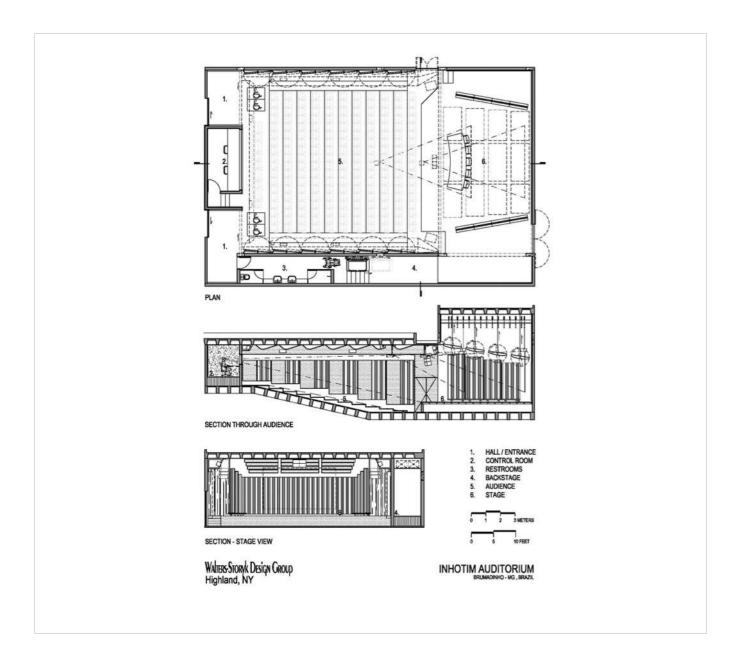


#### Inhotim Theater - Brumadinho, Brazil

Inhotim is the largest open-air museum of contemporary art in the word, located at Brumadinho a city nearby Belo Horizonte, Brazil. It has the most important contemporary art collections nowadays in the world. Besides that the foundation also works on cultural, social and environmental conscious projects and events.

They needed to expand the museum facility by adding a small world-class theater; WSDG was invited to meet the client's expectations for the new building. The 250-seat space was designed to accommodate various types of music presentations, plays and art-oriented movies.

To achieve that, a series of variable acoustic panels, including an acoustic orchestra shell were installed. WSDG was responsible for all the acoustic design including construction and integration of the 7.1 surround audio system.



## Inhotim Theater - Brumadinho, Brazil





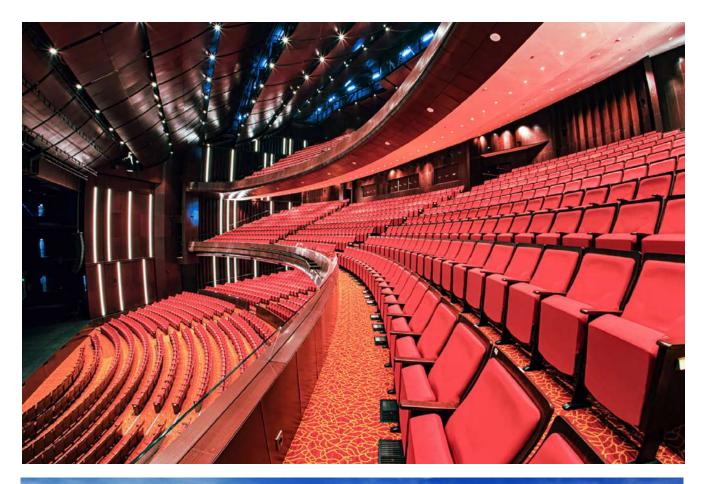
### Jakarta International Expo - Jakarta, Indonesia

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

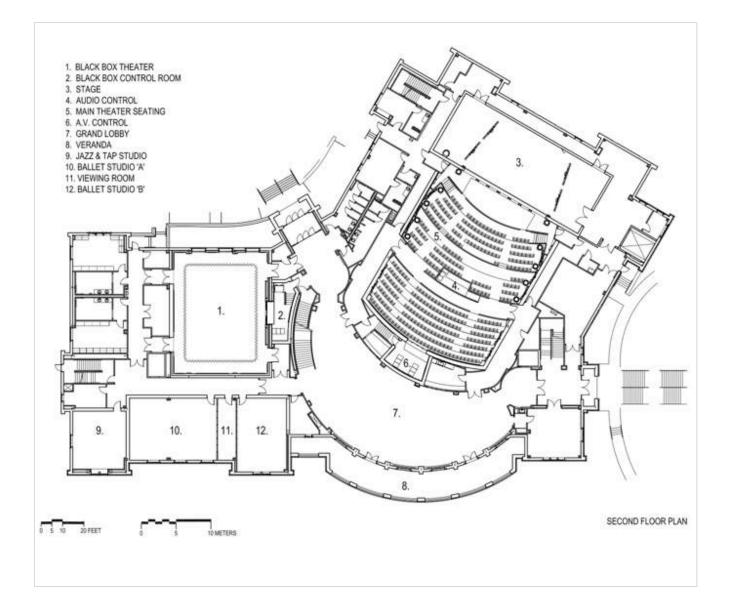




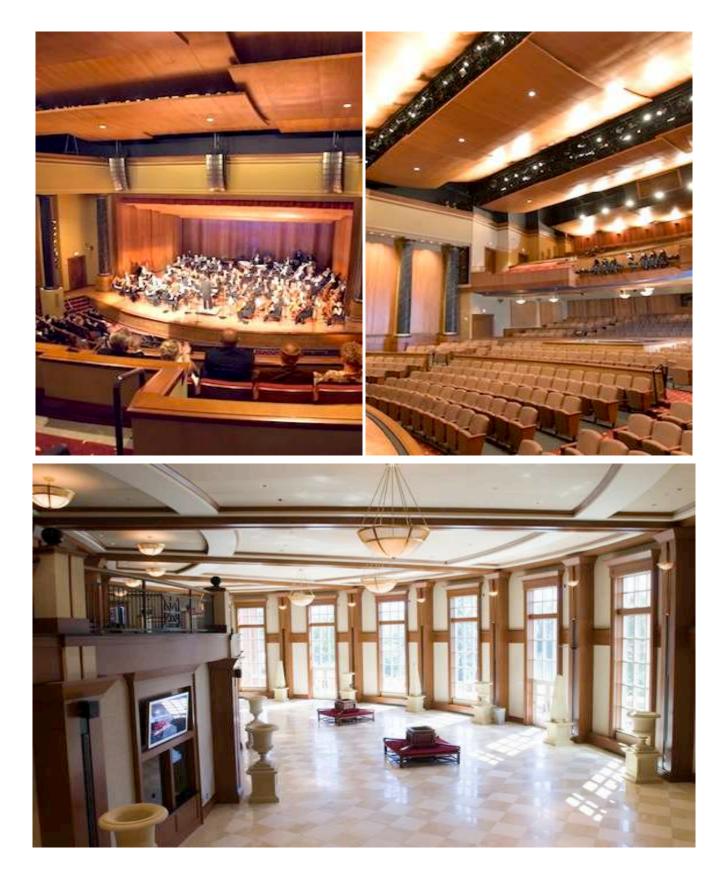
#### Murray Arts Center - Marietta, USA

The Murray Arts Center represents a unique addition to Atlanta's growing commitment to education and live entertainment. Recently purchased by the Mount Paran School with the aid of a generous grant from Atlanta's Murray Family Foundation, the \$35 million complex features a 600-seat music hall, an intimate 2,200-square-foot black-box theater, three dance studios, a cutting-edge recording studio and a sophisticated video production/post-production facility. Each of the Center's components are designed to support the development of the Mount Paran School's performing arts program. The Center has a dual role as a multi-faceted campus preparing students for post-secondary degrees in dance, theater, music, choral and digital media and as a professional-level performance venue.

Crowning a pastoral Marietta hilltop, the striking 84,000-square-foot brick and limestone, multi-level building was developed by award-winning Atlanta-based Randall-Paulson Architects. Distinguished by a soaring 5,600-square-foot 'Grand Lobby' the complex includes over 8,000 square feet of rehearsal space, dressing and green rooms. The architectural and acoustic design for the Center's theatrical performance spaces, state-of-the-art rehearsal rooms and high-tech audio/video facilities was entrusted to WSDG.



# Murray Arts Center - Marietta, USA

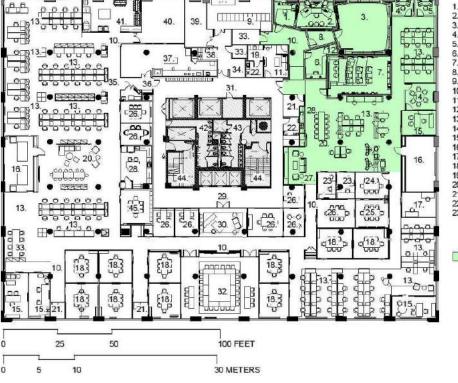


#### PepsiCo Content Studio - New York, USA

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
	Edit / Swing Screening SL / Iso
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

Content Studio

<sup>45.</sup> Video Conference.

## PepsiCo Content Studio - New York, USA



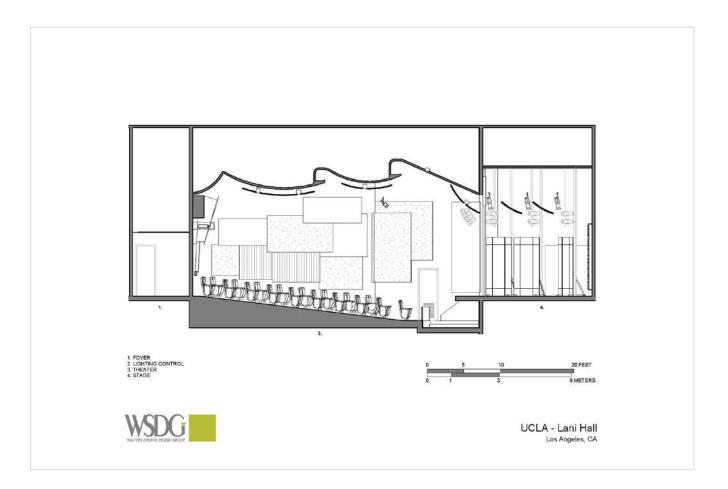


#### UCLA Herb Alpert School of Music - Lani Hall - Los Angeles, USA

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





### 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



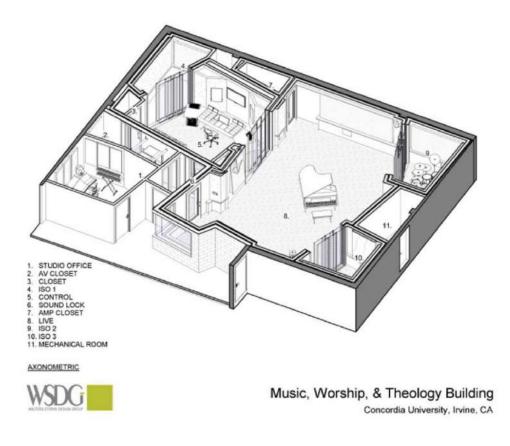


#### Concordia University - California, USA

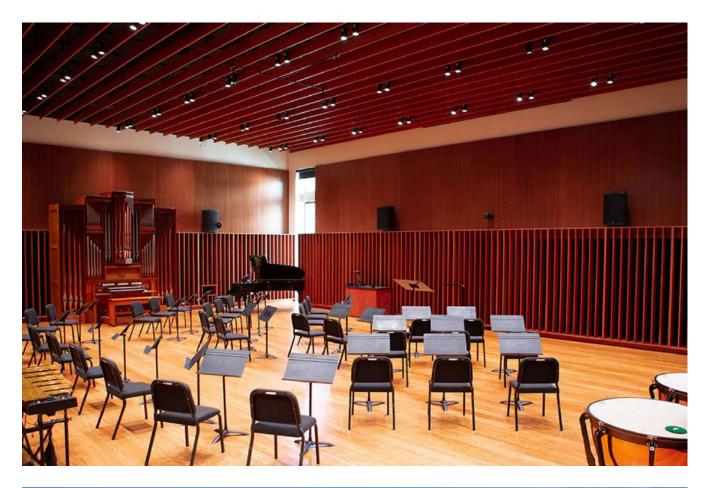
<u>Concordia University</u>, a private Christian university located on a 70-acre campus in Irvine, California, USA, was established in 1976 to provide a Lutheran Church-Missouri Synod college to serve the Pacific Southwest. Concordia's expansive Music Education Program is designed around a rigorous core of music classes dedicated to developing performance musicianship, leadership and collaboration, critical listening and, an intellectual understanding of the various contexts of music. Bauer Architects of Newport Beach created an outstanding building design to bring a distinctive architectural statement to the campus.

Envisioned as a critical element for inspiring and preparing next generation teachers, artists, theologians and production pros, the recording complex is situated in the basement of the University's new 34,000 sq. ft., Worship & Theology and Christ College Buildings. WSDG was commissioned to design the facility and its systems integration, and to provide overall acoustic consulting. WSDG's sophisticated modeling, measurement and instrumentation tests and programs were engaged to predict and pre-tune individual room acoustics and auralization throughout the complex prior to construction.

The Concordia University Music, Worship & Theology Building main floor houses a 2,250 sq. ft. Orchestra Hall and a 1,900 sq. ft. Choral Rehearsal Hall. The lower floor will feature a studio, new to the University's offerings, with an 800 sq. ft. Live Recording Room with three ISO booths, a 300 sq. ft. Control Room. Classrooms, an open office suite, faculty offices, an event space, conference and breakout rooms are located throughout. The building accommodates twenty practice rooms ranging in size from 70 to 240 sq. ft., and twelve Faculty Studios between 140 and 180 sq. ft. for special practice and instructional tutorials.



# Concordia University - California, USA



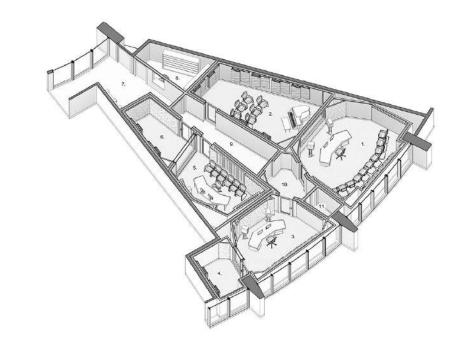


## TEC de Monterrey – Mexico City, Mexico

Founded in 1943, <u>TEC de Monterrey</u> has grown to include 31 campuses in 25 cities throughout Mexico. Always considered a trail-blazing seat of education, the university includes schools of Medicine, Business, Architecture, and Pro-Audio Music Production. In September 2017 a massive 7.2 magnitude earthquake struck a devastating blow to Mexico City, leveling many buildings including the home of the original TEC de Monterrey Audio And Music Production teaching complex. In an effort to rebuild the teaching facility for this popular course as quickly as possible, Director of Digital Music Production & Engineering, Diana Ivette Urquiza, reached out to WSDG.

Starting from scratch, WSDG Partner/Director of Business Development Sergio Molho rapidly mobilized WSDG's global team of architects, acousticians, system designer/integrators and interior designers to develop an architectural and aesthetic design for the new complex. With a dedicated 2000 sq. ft. block of real estate on the ground floor of the Medical Building, WSDG developed a design program, which featured three Control Room/Live Room/ISO Booth teaching studios built with full room-within-room isolation. The complex also includes an inviting student reception area.

Working with TEC de Monterrey's vibrant color palate of blues and reds, WSDG partner/art director Silvia Molho created six distinctive environments. Studio CR A and its spacious Live Room are outfitted with variable acoustic panels and ceiling clouds covered with cool blue fabric. Both CR A and B are distinguished by bold floor to ceiling perforated metal wall treatments and striking wooden rear wall diffusers. CR and Sound Lock B offer warm red fabric draped wall and ceiling treatments. The reception room echoes the cool blue vibe of CR A. The challenge of developing a sense of spaciousness for each of the three studios was to enable up to 50 students and professors to work simultaneously within the 2000 sq. ft. teaching studio while maintaining absolute sound isolation between the rooms. Years of experience in designing close to 4000 studios and educational facilities around the world informed WSDG's ability to meet all of TEC de Monterrey's goals in record time. The complex was completed in September 2018 less than a year after the earthquake.



5 Control Room C 8 Iso Booth C 7 Lounge 8 Control & Storay 9 Sound Lock 2 10 Sound Lock 11 Closet



TEC Monterrey CDMX, Mexico

# TEC de Monterrey – Mexico City, Mexico





## Avenues: The World School - Shenzhen, China

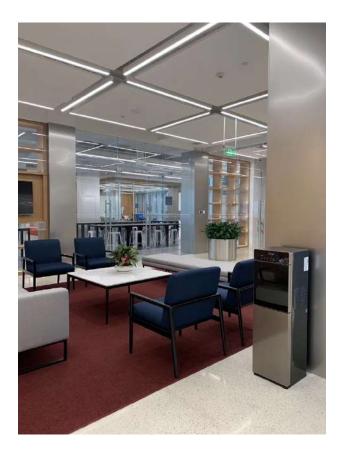
Avenues: The World School opened its first campus in New York City's Chelsea neighborhood in 2012, with the goal of creating a network of international campuses in the world's most vibrant cities. The Shenzhen, China branch consists of two locations in Shenzhen's Nanshan District, a pre-K–12th grade campus in the Tanglang neighborhood, and a Learning Innovation Center in the Sunmax Technology Park.

WSDG provided acoustic and A/V systems consulting as well as construction supervision for the two locations. The goal was to create functional learning environments that emphasized clear verbal intelligibility and allowed for the optimum delivery of A/V content as well as minimizing sonic distraction for students and staff. This meant that design elements had to be implemented to inhibit external noises as well as improve isolation between rooms. In addition to this family meeting rooms had to be sound-proofed for privacy.

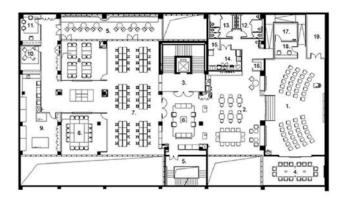
The Tanglang campus was built on the site of a former factory that has been renovated and converted into a school, therefore certain structural elements had to be added to improve the acoustic design. WSDG specified higher-than-average isolation in these designs to improve isolation between rooms and cut down on noise from the outside. In addition to this the A/V systems in the classrooms of the school were designed with educators in mind, focusing on basic functionality and ease of use. For larger gathering spaces such as the auditorium, WSDG incorporated tiered levels of functionality for use by more advanced system operators.



## Avenues: The World School - Shenzhen, China



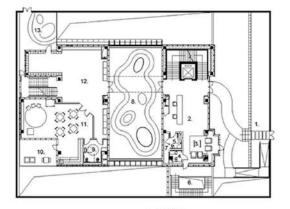














Avaing Area Men's Room Yard J.C. Main Yard Bathroom Learning Area Todder Classroom Todder Rovement Pig/ Area Shenzhen, China

ont Yard

11. 12. 13.

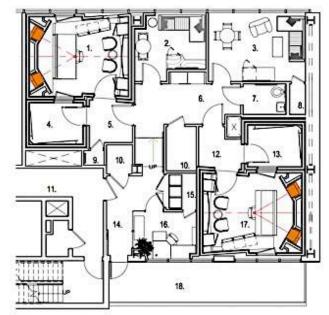
#### Jungle City Studios (Ann Mincieli, Alicia Keys) - New York, USA

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

1. PRODUCTION NORTH 1 2. LOUNGE B 1 3. LOUNGE A 1 4. ISO NORTH 1 5. SOUND LOCK NORTH 1 5. SOUND LOCK NORTH 1 6. CORRIDOR/PANTRY 1 7. WC 1 9. CLOSET 1 10. MECHANICAL 2 0 5 10 FEET

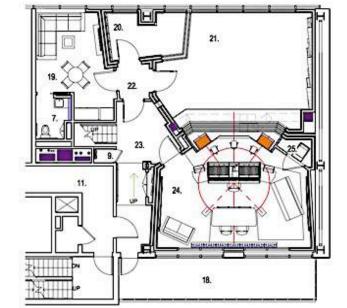
11. ELEVATOR LOBBY 12. SOUND LOCK SOUTH 13. ISO SOUTH 14. LOBBY/ENTRY 15. CMR 16. OFFICE 17. PRODUCTION SOUTH 18. BALCONY 19. LOLINGE C 20. ISO BOOTH 0. 5. 1 2 METERS 11th FLOOR PLAN

21. LIVE ROOM

22. SOUND LOCK 23. CORRIDOR

25. AMP CLOSET

CONTROL ROOM





## Jungle City Studios (Ann Mincieli, Alicia Keys) - New York, USA





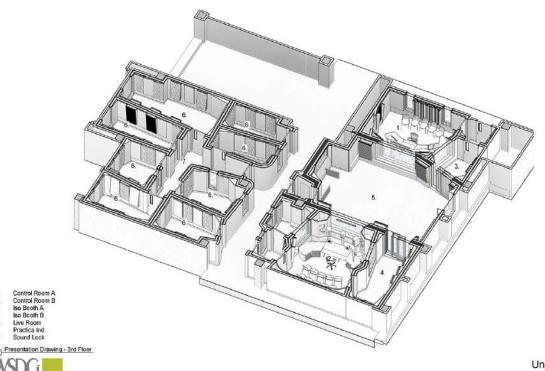


## Universidad ICESI - Cali, Colombia

Universidad ICESI is located in Cali, Colombia and is the third largest university in the country. It currently caters to a student population of around 5,000 and offers a wide range of programs in the arts and sciences. ICESI has recently unveiled a brand-new music performance, composition, and production program and as such commissioned WSDG to design a new building that will serve as a one-stop facility to cater to the needs of students at all levels in this program. The final design was a collaboration between WSDG's Systems Integration Teams and ICESI Music Program Director Mateo De Los Rios.

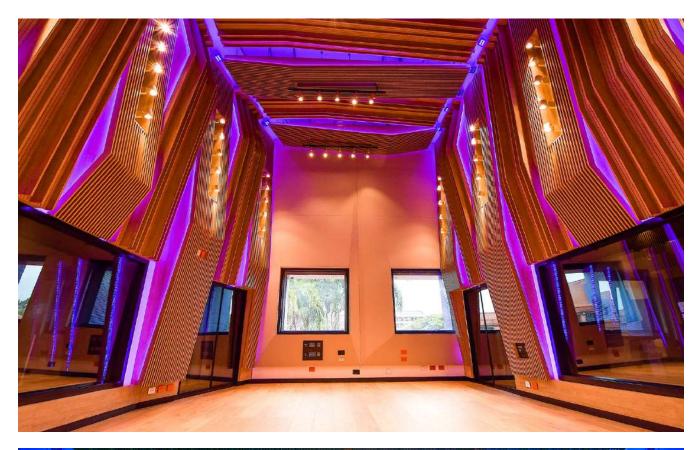
The ICESI building is a meticulously designed all-in-one space designed to provide students with access to not only classrooms and rehearsal spaces, but purpose-designed media labs, video production rooms, and multiple world-class recording studios. The idea behind it is to contain the entire process of composition and professional production contained in one building. The shell building was based on a common template used on the University campus, and then each floor was carefully designed from the ground up by WSDG to meet the exacting standards for acoustic treatment in both performing and recording spaces that the firm is known for.

The four-story building is divided into different sections, each carefully laid out to suit the needs of the different aspects of ICESI's music program. The first floor is divided between classrooms, media lab spaces, a full featured video studio and the first of three top-of-the-line recording studios in the building. Floor 2 features large rehearsal spaces, suitable for bigger ensembles and more complex instrumentation. Floor 3 features two more recording studios linked with a large two-story live room as well as multiple isolation booths. Finally, Floor 4 features a honeycomb of individual rehearsal spaces, as well as purpose-designed labs for piano and percussion students.





# Universidad ICESI - Cali, Colombia



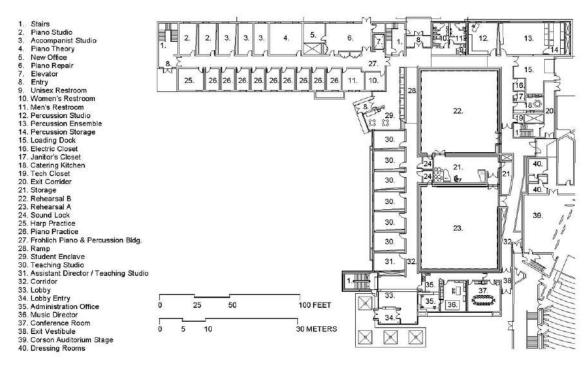


## Interlochen Center for the Arts - Green Lake Township, USA

For over 90 years, the Interlochen Center for the Arts has provided students from third grade through high school from around the world with a unique artistic education. Nestled on 1,200 pastoral acres in scenic Northern Michigan, the campus has now introduced a cutting-edge, \$24-million Music Center to serve as the focal point for its substantively enhanced music programs. A key component of the new complex is a state-of-the-art recording/teaching studio complex developed by WSDG Walters-Storyk Design Group.

Encompassing two double-height, 3,200-sq. ft. rehearsal halls, 25 teaching studios, nine ensemble rooms, ten practice rooms, support areas ranging from administrative offices to student lounges and an instrument repair shop, the Music Center optimizes every square foot of the new building. Previously housed separately in the Corson Auditorium and the Edward P. & Jessie Frohlich Piano & Percussion Building, the entire educational program will now be situated in the new three-level, 62,000 sq. ft. Music Center.

WSDG Partners/Project Managers, Romina Larregina and Matthew Ballos report that two world-class, WSDG recording studios are linked to virtually every creative room in the complex and, to the stage of the Corson Auditorium. Observation balconies enable guests to watch ensembles perform; a double-layered 'floating' roof system was deployed to minimize rain noise. A highly sophisticated systems integration program was custom-designed by long-time WSDG associate Judy Elliot-Brown of Rocket Science. The program facilitates live recording from all of the Music Center's production, rehearsal and performance spaces, each of which features floating floors and room-within-room construction to assure the required Sound isolation between all production and performance zones. Both C.R.'s are equipped with intuitive, Dante user-interface and network management systems as key systems integration elements. The ground level studio features a 250 sq. ft. Control room bookended by two dedicated Iso Booths. Adjacent to the left of the C.R. is a 900 sq. ft. Ensemble Room for orchestras. An 800 sq. ft. Singer/Songwriter Room is situated on the right side of the C.R., which also features windows into both spaces. A second (300) sq. ft. C.R. built on the 2nd level is outfitted with 7.1 Surround Sound Neumann Speakers and is also fully linked to all performance spaces to facilitate simultaneous live recording and/or mixing sessions.



FIRST FLOOR PLAN



Interlochen Center for the Arts Interlochen, MI

## Interlochen Center for the Arts - Green Lake Township, USA



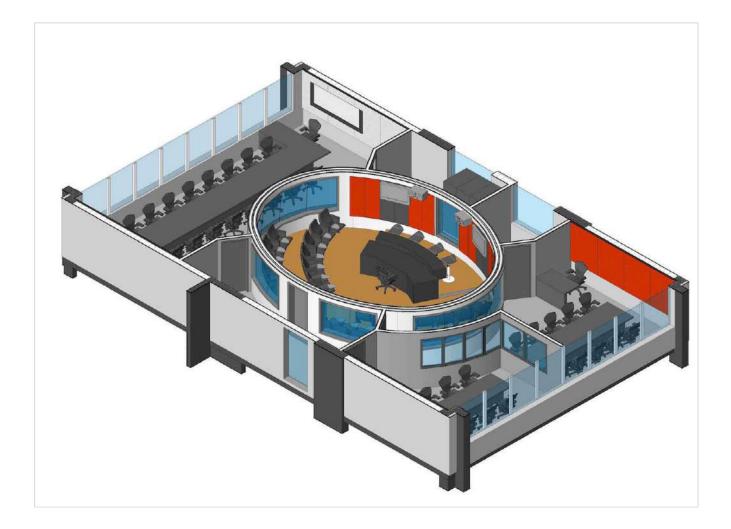


## ESPM Broadcast Teaching Center - São Paulo, Brazil

ESPM, one of Brazil's premiere institutes of higher learning has inaugurated a cutting edge Broadcast Teaching Center for its São Paulo Journalism Campus. Positioned as an elliptical, six-station teaching island, the 45m2 / 480ft2 classroom/production center provides students with full visual access to all production/broadcast activity. The classroom enables students to immerse themselves in the hyper-realistic broadcast environment, both as working participants and as observers.

The WSDG mandate was to develop a comprehensive master plan including production and broadcast studios, office spaces and meeting/conference rooms. And, to design and fine-tune the studio's acoustic. Because the teaching/production studio is situated above and below active classrooms, complete room-within-room studio construction was a key stipulation. This floating system enabled WSDG to isolate all sound emanating from the studio and exclude external sound from encroaching on student productions and broadcasts.

ESPM was determined to make this teaching/production studio a showplace that would inspire and motivate students, and to provide this growing industry with a new generation of highly qualified creative production personnel. The elliptical shape literally places the complex at the hub of the floor. Two expansive studio windows flood the area with daylight, and, also provide every student who passes by with a sense of the activity and excitement generated within. Nine spoke-like ceiling treatments enhance the rooms' acoustic qualities and lend additional visual support to the wheel-like, design concept.



# ESPM Broadcast Teaching Center - São Paulo, Brazil

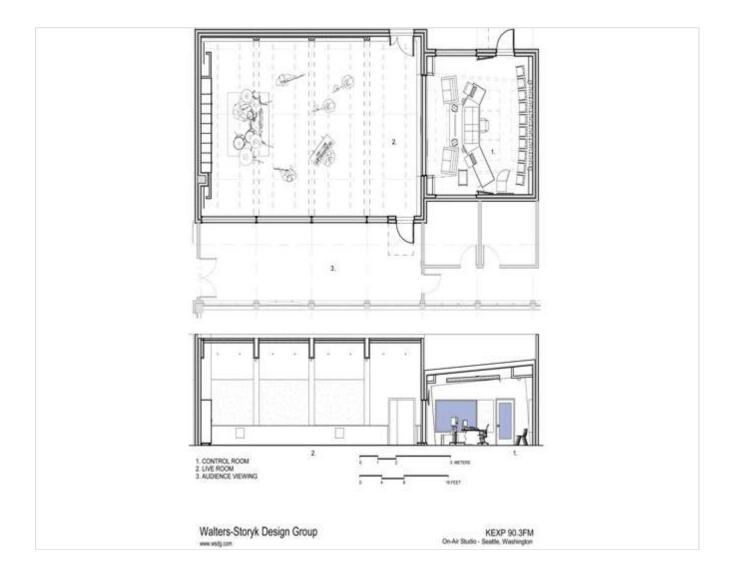




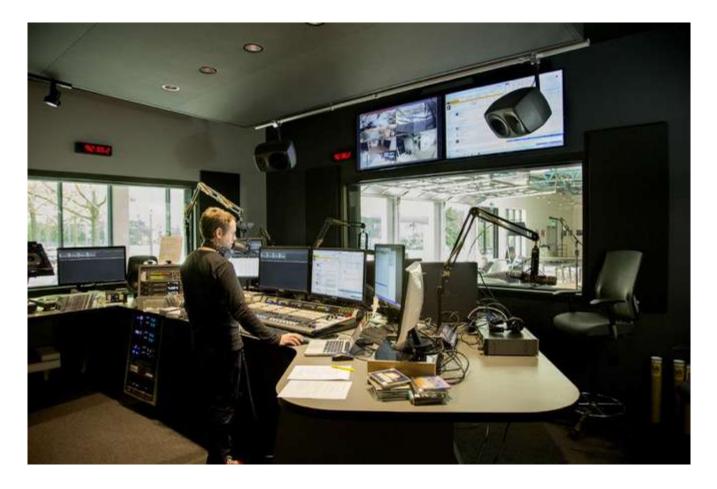
## KEXP 90.3 FM - Seattle, USA

A staple of Seattle's booming music scene for over 40 years, KEXP 90.3 FM Radio recently moved to a new 25,000 sq. ft., \$15 million, 21st Century broadcast facility. Situated in the world-famous Seattle Center, in the shadow of the iconic Space Needle, KEXP FM features cutting edge broadcast and recording studios and, a live performance venue.

The key to the KEXP 90.3 design was developing a sense of how the building's functions frame its courtyard, how traffic flows inside the space, and where guest artists and bands, as many as three on any given day, would park and load-in. Live music performances are an important element of the station's format. The building layout needed to address musician and engineer needs while simultaneously considering fan comfort and line of sight. To further encourage community engagement, the primary DJ Booth was also located in this area. Designed with windows to maintain visual contact between the DJ and the public, the concept is central to KEXP's goal of establishing the studio as a hub for social meeting and interaction.



# KEXP 90.3 FM - Seattle, USA



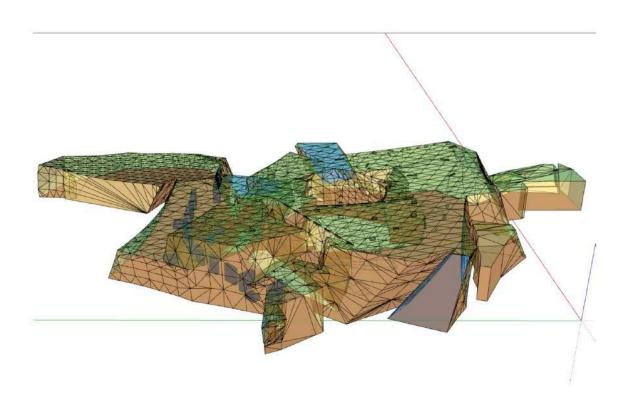


#### National Museum of Qatar - Doha, Qatar

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



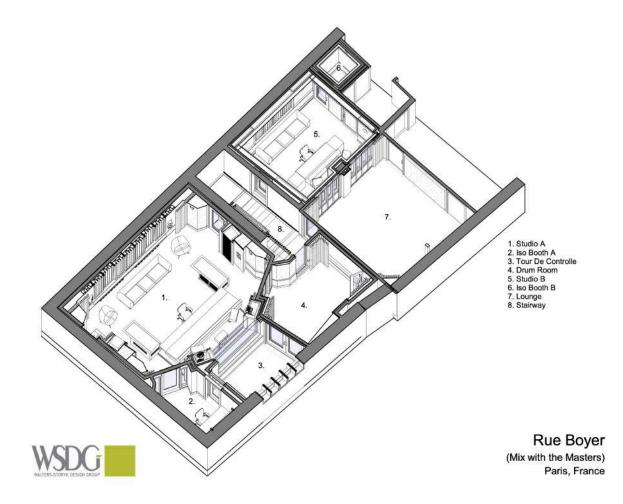


#### Rue Boyer - Mix With The Masters - Paris, France

Mix with the Masters, founded by Grammy-nominated producer/engineer Maxime Le Guil and Victor Lévy-Lasne, are global leaders in music production education, curating an ongoing series of in-person and online seminars with award-winning producers and engineers on the art of record making for a global audience of aspiring hit-makers. When the Mix with the Masters team decided to build a new flagship location in the heart of Paris to meet all of their remote and in-person production needs, they retained the services of WSDG to design the ultimate teaching studio that would make their students and artist partners feel equally at home.

Rue Boyer is located in a two-story building in a residential area within the inner ring of Paris. The recording studio is located on the bottom floor and the top floors consist of a series of production suites and office space used by the Mix with the Masters staff for day to day needs. The WSDG design team was tasked with ensuring acoustic excellence across the complex, as well as ensuring technological and ergonomic flexibility between rooms to allow for multiple configurations of the space for both educational and recording needs.

The studio consists of two main rooms, the 48m2 / 517 SF Studio A which serves as the primary teaching area but can also be converted into a live room, and the 19.5m2 / 204 SF Studio B. Studio A is designed to seat up to 20 students, and its 48-channel E-series SSL 4000 console is located on an elevator platform which allows it to disappear into the floor and easily convert the room into a live room where needed, with Studio B serving as the control room. Studio A is equipped with acoustic dampening curtains in order to provide maximum flexibility for its various uses and is also set up for Dolby ATMOS and video projection.



Rue Boyer - Mix With The Masters - Paris, France



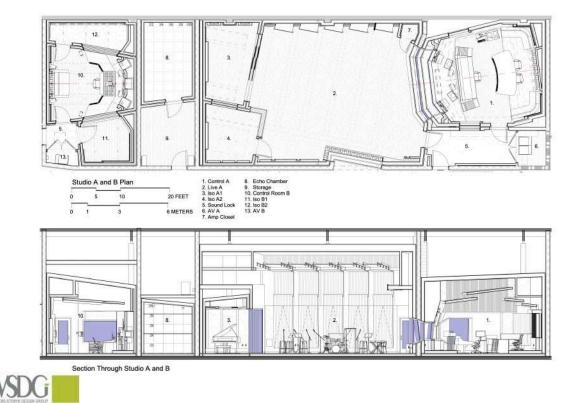


## Spotify at Mateo - Los Angeles, USA

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





#### **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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