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2023 Annual Showcase

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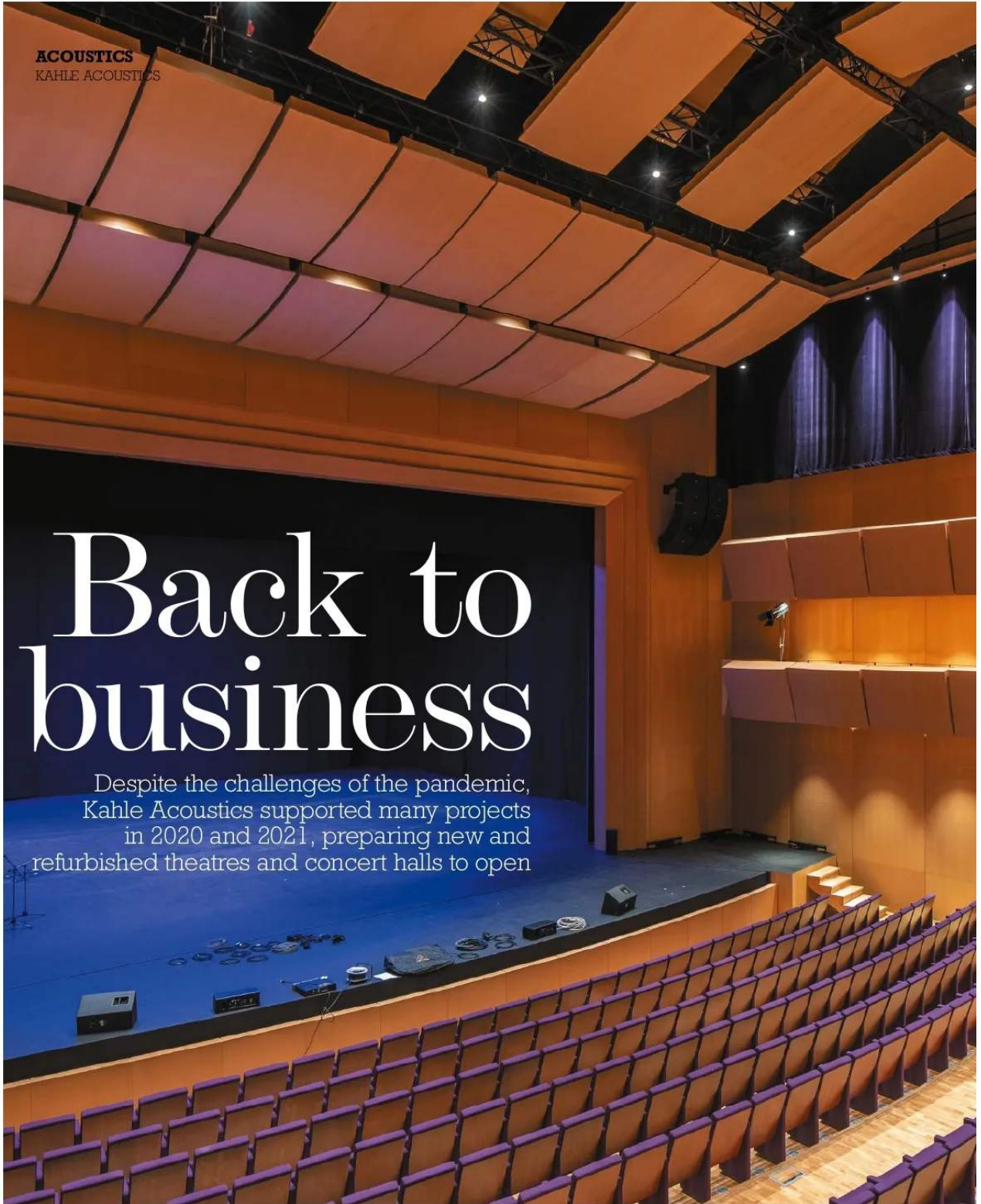


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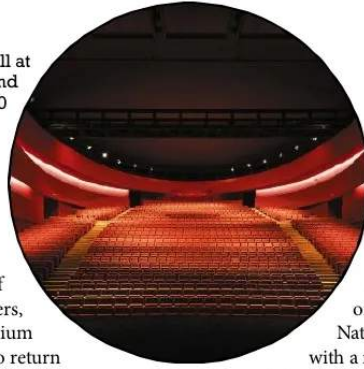


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Main and right: The National Theatre of Opera and Ballet in Tirana, Albania

Right: The 900-seat hall at Comédie de Clermont-Ferrand in France, opened in 2020



ACOUSTICS

During the last few tumultuous years, everybody has needed a light at the end of the tunnel. For performers, users, building operators and auditorium designers alike, the ambition to return to live performances with audiences, to open new venues and to re-open renovated venues, has provided great motivation.

During this time Kahle Acoustics has continued full steam ahead on auditorium acoustics design work, supporting arts institutions and preparing their venues for (re)opening. While live performances and opening concerts were disrupted and delayed, the firm's experience working on international projects enabled it to continue its design work. Construction continued, but with ever-changing travel rules, site visits became very challenging. The company has always enjoyed working collaboratively with other acousticians, and the pandemic gave it the opportunity to forge further connections with local engineers, to help oversee local construction work and to ensure that the acoustical quality goals for each project were met.

Working through the night

Many projects used this 'dark' period to accelerate construction. The opening seasons in 2020, 2021 and 2022 have therefore been unexpectedly busy, with many projects opening their doors.

In Autumn 2020, Kahle Acoustics commissioned venues for contemporary drama both in Geneva, Switzerland, and Clermont-Ferrand, France. La Comédie de Genève (Fres Architectes) has two auditoria: a 500-seat proscenium stage and a 300-seat black box. In the main theatre, acoustically optimised reflectors on the ceiling and walls are integrated behind an acoustically transparent, faceted mesh surface. These reflectors project the voice to the very last rows, creating engagement between performers and audience and providing excellent

intelligibility for the natural voice.

Tied with a bow

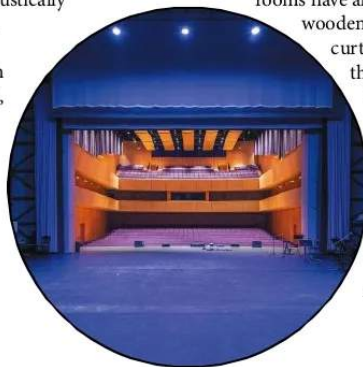
La Comédie de Clermont is one of a network of Scène Nationale theatres in France, with a mandate to support international and regional productions across a wide range of artforms, from drama to dance and music. The complex was designed in collaboration with Eduardo Souto de Moura, winner of the 2011 Pritzker Prize. It includes a 900-seat main theatre and a 350-seat modular hall. The signature 'ribbons' in the main hall envelop the audience and were acoustically shaped in 3D to enhance acoustical projection, speech intelligibility and the sense of spatial and acoustical envelopment.

Finally for 2020, the National Theatre of Opera and Ballet in Tirana, Albania, reopened after a €7m (US\$6.9m) refurbishment. The renovated 1953 façade and entrance hall lead to a transformed 800-seat auditorium and revamped rehearsal facilities. The much-needed overhaul was required to accommodate more than 250 artists divided between the National Symphony Orchestra of Albania, choir, ballet troupe, soloists' lyric troupe and popular ensembles.

Together with Atelier 4 architects, Kahle Acoustics was able to deliver an acoustically optimised auditorium. Firstly, the old ceiling was removed, enabling an increase of the room volume by 50% to allow for a much more reverberant acoustic for opera and symphonic music. In the enlarged volume, wooden ceiling reflectors were suspended, as well as new side balconies with curved balcony fronts to distribute sound reflections to all parts of the audience as well as back to the performers on stage and in the orchestra pit. The rehearsal rooms have also been furnished with curved wooden panels and variable acoustic curtains to acoustically balance the sound for the huge variety of ensembles and groups that use these spaces.

Geneva theatres

In 2021, between waves of restrictions, Kahle Acoustics was able to complete the commissioning for two refurbishment projects in



Images: Besart Cani; Mathieu Noël for Eduardo Souto de Moura and Bruhat Bouchaudy

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Geneva: the Théâtre de Carouge (Pont12 Architects) and the Conservatory of Music of Geneva (GM Architectes Associés).

Established in 1958, the Théâtre de Carouge has played an important social and cultural role but needed a comprehensive update to enable continued innovation in drama and dance productions. The reimagined complex is centred around a 470-seat main theatre that features elegant timber bands wrapping around the audience, each uniquely twisted to direct early sound reflections to the audience. The core aim for the project has been to enhance the feeling of intimacy and connection: between audience and performers, and between inside and outside. The back-of-house areas are visible to the public and

Top left: The 500-seat main theatre of La Comédie de Genève in Switzerland, opened in 2020

Top right: The historic 300-seat Conservatoire de Musique de Genève in Switzerland has been fully refurbished while retaining its famous acoustic

Right: The 470-seat main theatre at Théâtre de Carouge in Geneva, Switzerland

Below: The 800-seat Grand Manège concert hall in Namur, Belgium



circulation routes have been adapted to provide transparency and connections to the surrounding community.

Legacy elements

Built in the mid-1850s, the Conservatory of Music of Geneva is one of the oldest in Europe. With 2,500 students and 150 teachers it is a vibrant player in the musical dynamic of the city. The renovation project includes large underground extensions to provide new performance and rehearsal spaces, while preserving the historic architecture above ground. Historic foundation walls were uncovered and provide expressive, acoustically diffusing surfaces in the practice rooms. The historic concert hall has been brought up to date, while preserving the famous classical acoustics.

A busy year, 2021 also saw the opening of the Grand Manège (Cabinet d'architectes pHD) in Namur, Belgium, a cultural space, home to the Centre d'Art Vocal et de Musique Ancienne. The 800-seat concert hall supports vocal, early and baroque music, but is also conceived to be able to stage symphony orchestras, drama and amplified events.

Flexibility truly was key for the vibrant capital of Wallonia. The client wanted to make the most of the €15m (US\$14.8m) project, which also includes a conservatory of music and 150-seat



ACOUSTICS

multipurpose hall. The hall has gained much praise for its acoustics and has already become a favoured recording venue.

Switzerland's largest theatre

Kahle Acoustics' most recent opening is the Théâtre de Beaulieu in Lausanne (Fehlmann Architects). This is the largest theatre in Switzerland, with seating for 1,600. As part of a full renovation, the acoustics of the auditorium and stage were completely reconceived: the new wave-like wooden ceiling has been moved higher and now provides early sound reflections to all audience areas, while an acoustically optimised stage shell enhances the balance and projection from the orchestra to the audience.

An Amadeus active acoustics system has been invisibly integrated, enabling the acoustical resonance of the hall to be adapted to unamplified drama, opera, chamber and symphonic concerts, as well as to dance, musicals and amplified music performances. The opening in September 2022 proved a huge success with the renovated hall being enthusiastically received by audiences and orchestras alike.



Above: In the renovated hall at Théâtre de Beaulieu in Lausanne, Switzerland, the new timber ceiling is higher than previously and curved to provide early sound reflections to all audience areas

The opening of so many ambitious projects has shown that, despite global challenges, there was indeed light at the end of the tunnel. Kahle Acoustics is so pleased that artists, performers and audiences are now being welcomed back into fantastic new and renovated facilities and can continue their much-missed work. ■

www.kahle.be

Images: Kahle Acoustics; Think Utopia; Lino Bernardi; Fehlmann Architects

