

8K Theater Camera System - Pioneering a new means of live viewing for opera

The most revered opera piece in the world is Rigoletto. During a September 15th performance of Rigoletto at NHK Hall by the La Scala Theater company of Milan, NHK conducted live viewings in 8K Super Hi-vision (8K) at two remote sites: NHK Fureai Hall in Shibuya ward of Tokyo and the NHK Sendai broadcasting station. The viewings employed an “8K Theater Camera” that was recently developed by the Science & Technology Research Laboratories (STRL). Many visitors experienced an immersive sensation of presence that made them feel as though they were viewing the performance in NHK Hall itself.

Live viewings provide a live relay of a sporting event or performance on a movie theater screen or large monitor for those who are not able to attend at the event site. With its intense sensation of reality and presence, 8K is perfectly suited for such events. In the past, NHK has conducted various live relay 8K broadcasts, including ones from the London Olympics, Kohaku Utagassen (the year-end song contest), and the Tokyo Girls Collection fashion festival.

Issues related to opera theater performances, such as numerous scenes with low lighting and the requirement to eliminate any noise that could disturb the orchestral performance, had restricted the use of conventional 8K cameras. However, thanks to its combination of a 2.5-inch imaging sensor and noise-reducing signal processing, as well as improvements to the imaging sensor's cooling method, our newly constructed 8K Theater Camera has approximately double the sensitivity of previous cameras and operates quietly enough to meet the stringent noise restrictions.

Recent live viewings have attempted new programming directions for ultrahigh-definition video. The camera for the three-hour long relay broadcast of Rigoletto was placed in a way to have a field of view that captured the full length of the stage. The audiences at the live viewing sites showed their appreciation of the performance with an enthusiastic, lengthy curtain call, and to us, this indicated the emergence of a new possibility for 8K.

The 8K Theater Camera's ability to capture low-lighting scenes will make it feasible to shoot and relay diverse theater performances. Our future work will involve further enhancements to the sensitivity and operability of the camera, with the goal being roll-out of 8K systems to the public.



Live viewing at NHK Fureai Hall



8K Theater Camera

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