

Projectors Brighten Worship

Illuminating the AV Needs for Your Service



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Executive Summary

□ Executive Summary

Houses of worship are increasingly adopting multimedia content to better engage, inspire, and motivate their congregations. Although the use of video, music, and an immersive experience using technology in worship facilities is a recent phenomenon, history shows that there has been a steady evolution in the rise of dynamic content and greater congregation participation to enhance spirituality. The most prevalent and cost-effective delivery of inspirational media today is through the use of multimedia, most often connected to projectors, sound systems, computers, and software. While large congregations have been on the forefront of using projector technology and media to inspire its members, with the latest projector technology, small to medium-sized churches now can afford to enhance services with multimedia as well. Whether purchasing projectors for the first time, or replacing aging equipment, houses of worship should choose technology that is proven, cost-effective, and easy to integrate into their spiritual services.

Part I

History of Participatory Engagement in Houses of Worship

The Reformation of religion in Europe, which began in the 15th century, began as local spiritual leaders and their parishioners took greater control over their services and worship. Power devolved from a central authority to local churches. This Reformation led to greater participatory worship throughout mainstream faiths. Services, once conducted exclusively in Latin, for example, were translated into local languages, removing barriers between faith and the faithful.

Greater Spirituality Through Inclusive Engagement

Religious composers also began the practice of writing new hymns for service, written in the vernacular, so that common parishioners could understand and learn from the songs. With new hymns written in their language, parishioners could then raise their voices and sing with full understanding as a united congregation. By the 1800s music accompaniment of hymns became common. Congregation-led choir flourished, further engaging worshipers directly.

The United States ushered in a new era of worship. By the end of the 19th century and into the early 1920s, the rise of traveling worship began, with “tent revivals” bringing participatory and celebratory worship to outlying areas of the new nation. The focus was on dynamic preaching, song, and the encouragement of loud, vocal affirmations from large groups of worshipers.¹ The tent revival movement entered a slow decline, but its root success of more lively services and group participation merely moved indoors.²

By the 1960s, houses of worship began to see an increasing divide between its congregation’s public lives and their experiences in worship services. In many ways the media had taken over many of the social and spiritual functions once performed by religious institutions.³ In an effort to bridge this gap, houses of worship incorporated film clips or entire films into worship services and study groups for spiritual discussion. Houses of worship could now use contemporary media as teachable, spiritual material and bridge that divide that many parishioners may have felt in their lives.

Spiritual Multimedia

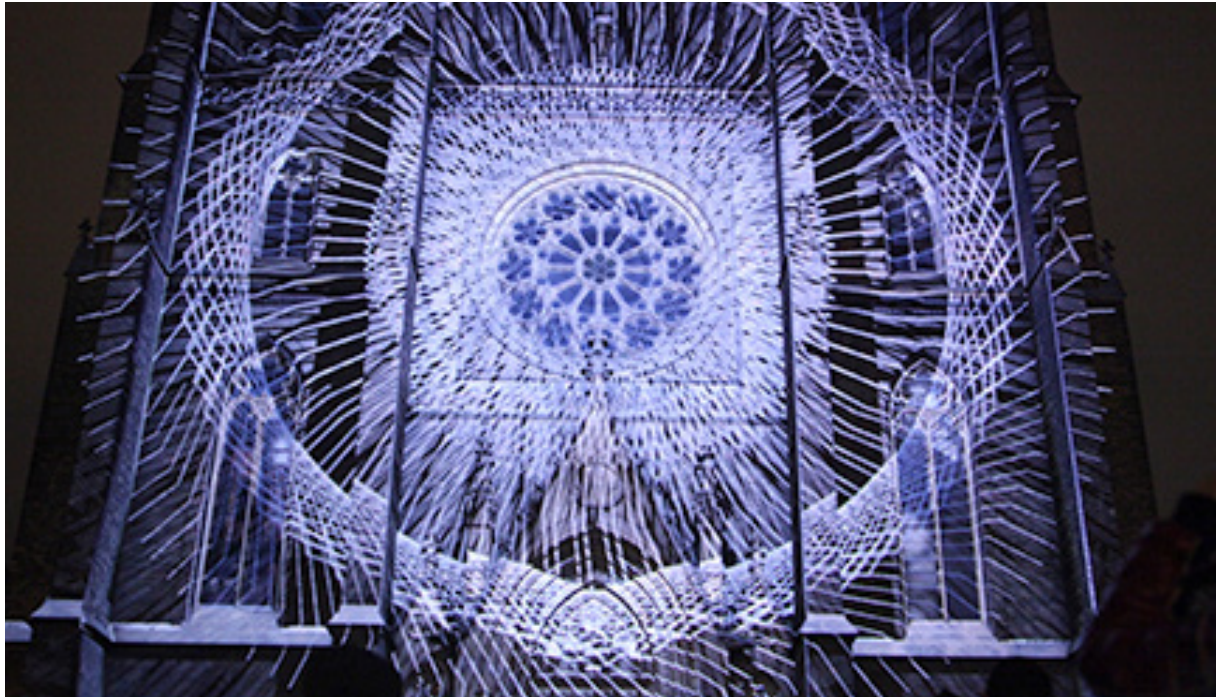
As a natural extension of their use of film, houses of worship in the 21st century are increasingly using their own media as a communications channel to re-spark engagement. Individuals



are already immersed in contemporary media forms such as film and music, and re-appropriating media as a vehicle for spiritual messages is a natural extension of faith-based expression for houses of worship. Music, in particular, began the reintegration of popular media with faith as houses of worship incorporated folk, country, and even rock music into their sanctuaries in the late

1900s.⁴ Soon after, as the cost of multimedia production and affordable projection devices and computer software became available, houses of worship could create an immersive media environment that rivaled or even exceeded the standard movie theater environment. In effect, congregations could now own the messages once co-opted by the secular media. Regardless

October 17, 2013:
People watch a
projection mapping
by Czech art group
The Macula on
the facade of St.
Ludmilla Church
during the Signal
Festival in Prague,
Czech Republic



of denomination or faith, these more inclusive congregations are joined in a sense of shared community and belief with the use of media. Uplifting multimedia sermons, choirs, music, and group devotion bring all participants closer together in a more immersive spiritual experience.

“

You don't need to be a mega-church these days to deliver impressive capabilities.

— Art Feerman,
Projectorreviews.com

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Part II

□ Use of Technology and Media Has Lasting Effects on Faith and Worship

The success of multimedia to increase spiritual participation is borne out by recent trends. Research conducted by Stephen Koster at Michigan State University showed a sharp increase in "visual media technology" in worship. Media use rose from 16% to 50% of Christian churches in the United States over a three-year period.⁵ The *Barna Group*, a leading research organization focused on the intersection of faith and culture, found that "more than six out of every ten Protestant churches (62%) presently use a large-screen projection system in their communications."⁶ Meanwhile, a research report issued by *The Hartford Institute for Religion Study* found:

- 86% of houses of worship surveyed reported that the use of technology spurred member recruitment "quite a bit" or "a lot."
- 62% indicated that use of technology improved their clarity of vision and purpose.⁷

Clearly the majority of houses of worship are rapidly adopting media to brighten their services. Research shows three key motivations for its use:

- More dynamic engagement of congregations
- Effective delivery of clarity of vision and purpose
- Promotion of membership recruitment

As 21st century churches increasingly realize, use of multimedia has a lasting effect on its congregations through greater engagement, retention of key messages and shared vision, and fostering a group identity. Projection, in particular, provides greater congregation engagement in a number of ways, including:



- Wide screen hymnal displays that prompt participation, especially for the visually impaired
- Sermon highlights for the hard of hearing and for underscoring uplifting messages
- Special slide programs and videos, including inspirational stories and testimonials
- Clearly visible announcements of important events
- Live video for impactful, close-up viewing of sermons, choirs, and congregation participants

Regardless of its use, multimedia projection is a spiritually uplifting aid to any community of worshipers. Much has changed in the last few years in house-of-worship multimedia—all for the better.

Part III

▣ The Latest Projector Technology

The latest projector technology supports wide-screen (16:10) and high definition (720p or 1080p) projection. Yet these newer projectors can accommodate both 4:3 and newer 16:10 aspect ratios. As multimedia productions evolve beyond slide shows and PowerPoint presentations in sanctuaries, the newer projectors can deliver a higher level of multimedia engagement—while easily accommodating current content. Meanwhile, commercially available software specifically designed for houses of worship, and spiritual programs and videos are now almost exclusively distributed for rent or purchase in wide-screen, high-definition formats. When choosing a new projector, congregations should evaluate the following:

Ambient Light in the Sanctuary

The lighting in a sanctuary is a primary factor to consider. More ambient light will require a brighter, higher-lumen projector to deliver a crisp, colorful display. One way to determine the required brightness for a house of worship is to rent a light meter to determine the relative ambient light where projection will be used in the sanctuary. A basic formula for calculating the lumens required is the following:

$$\begin{array}{r} \text{Brightness Desired} \\ \times \\ \text{Ambient Light Reading} \\ + \\ \text{Screen Size Square Footage} \\ \hline = \text{Total Lumens Needed} \end{array}$$



Projector Chip Technology

The latest 3LCD (liquid crystal display) technology, provides up to three times brighter colors than other technologies that rely on 1-chip DLP (Digital Light Projection) projectors.⁸ Houses of worship should look for projectors with the “most lumens for the dollar” in both higher white value and color lumen ratings. Comparisons can be found here: www.colorlightoutput.com

Maintenance and Lamp Replacement

Costs

When making a choice for projection, houses of worship should factor in the maintenance and part replacement costs. Projector lamp replacement for older models can be expensive. 3LCD projectors, however, can be less costly to maintain. In some cases, the cost of two legacy model replacement lamps could equal the cost of a new 3LCD projector.

Versatility

Finally, houses of worship should consider the versatility of any projector before purchasing. Most houses of worship already have audio systems. Any potential projector installation or replacement should seamlessly connect to existing audio and video cabling and controls yet have options for future audio and network connections. Also, projectors should deliver focused, bright displays across virtually any surface in the sanctuary, particularly in environments with curved walls or corners. Also, can the new projector display current content in 4:3 aspect ratio yet provide an upgrade path to high definition 16:10 screen format?

Warranty

Also compare manufacturers’ warranty and replacement policies. Reliability and timely warranty replacement of broken equipment is essential to make certain that projectors are always available for use in planned services.

Part IV

□ Epson PowerLite® Color 3 LCD Projectors for Houses of Worship

Epson PowerLite series projectors deliver 3LCD, widescreen (16:10) high definition projection that easily integrates with existing sound, video, and computer systems. Connectivity includes 3G-SDI (3 Gigabit Serial Digital Interface), multiple HDMI interfaces for single-cable sound and high definition video, and HDBaseT Cat 5/6 standard for HD video and audio and network connectivity. Epson PowerLite series projectors are compatible with Macs, PCs, and a variety of tablets. Using multiple projectors, houses of worship can use edge blending to seamlessly stitch together multiple images for more impactful, panoramic displays, and stack projectors for even larger displays across curved or irregular sanctuary surfaces.

Epson also provides a special warranty program exclusively for houses of worship. Every Epson PowerLite projector sold to houses of worship is protected by up to a five-year warranty, next-business day delivery of replacement units, and free return shipping.

For more information: www.Epson.com/HOW

Part V

▣ Projection Illuminates Any Sized Sanctuary

The face of modern worship continues to evolve, from its roots as a more inclusive and participatory event in the Middle Ages to today's modern sanctuaries that more fully engage worshipers with an immersive spiritual experience. As a result of this evolution, multimedia engagement is the "new normal" in modern-day worship, as congregations around the world find projection is the most versatile and cost-effective way to motivate and enliven nearly every service. Driving this new level of congregation engagement are high-lumen, color-intense LCD projectors that are now within the budget of even small to medium-sized houses of worship. Whether projection is used in intimate, 200-seat sanctuaries or multi-projection large venues, houses of worship should carefully consider quality, versatility, and reliability before making any investment in their multimedia spiritual productions.

For more information: www.Epson.com/HOW

About Epson

Seiko Epson Corporation is a global imaging and innovation leader that is dedicated to exceeding the vision of customers worldwide through its compact, energy-saving, high-precision technologies, with a product lineup ranging from printers and 3LCD projectors for business and the home, to electronic and crystal devices. Led by the Japan-based Seiko Epson Corporation, the Epson Group comprises over 70,000 employees in 108 companies around the world, and is proud of its ongoing contributions to the global environment and the communities in which it operates.

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8. Color brightness (color light output) measured in accordance with IDMS 15.4. Color brightness will vary depending on usage conditions. Leading Epson 3LCD business and education projectors compared to leading 1-chip DLP projectors, based on NPD data for June 2013 through May 2014 and PMA Research data for Q1 through Q3 2013.

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