

SIGN RESEARCH FOUNDATION EXECUTIVE SUMMARY

DIGITAL PRINT TRENDS AND TECHNOLOGIES IN THE SIGN AND GRAPHICS INDUSTRY



EVOLUTIONS IN

LARGE FORMAT PRINTING INCLUDES ADVANCES IN INKS, COATINGS AND PROCESSES

Large format digital print is a rapidly changing field in a variety of areas.

- Advances in ink have led to improved durability for direct to substrate printing. The ability to apply this printing to dimensional surfaces has been transformative. New machines have automated printing and cutting tasks.
- Vinyl and fabric may have lost its place as the primary material for sign development, but it is gaining in popularity as a medium for covering exterior and interior wall and window surfaces. Its advantages include its relatively low cost and high dependability.
- Embedded and sublimated digital graphics are able to withstand harsh outdoor conditions for years; advances in coatings have led to increased durability. That said, these products are difficult to manufacture and often are outsourced.

Virtually every aspect of the sign and graphics industry—illuminated, wayfinding and architectural signs included—has been transformed by digital printing.

Improvements in technology have increased the number of substrates available, in addition to the possibilities.

These changes, though full of opportunity, can present challenges for today's sign and graphics companies. There's much to know when it comes to new technologies, methodologies and materials shaping large format digital print.

Digital Print Trends and Technologies in the Sign and Graphics Industry, prepared by Craig M. Berger for the Sign Research Foundation explores the questions that may arise when a fabricator debates whether to invest in large format print processes or outsource to a specialist. It considers issues in quality, durability and changeability for different interior and exterior applications, and showcases opportunities where graphic applications can enhance or replace paint or natural materials and coatings.

The paper also includes a number of interviews with key industry influencers who share their insights on the direction of digital printing.

INDUSTRY DISRUPTORS: THREE TRENDS TO WATCH IN LARGE FORMAT PRINTING

Printers are becoming fabricators

- 1 Opportunities in interior and placemaking signage have drawn large print companies into the sign and graphics industry. Printers are able to use their expertise in interior placemaking to dominate all aspects of interior construction.

Fabricators are becoming printers

- 2 Fabricators have been able to use their exterior installation expertise to add printing to existing businesses, increasing both custom interior and more complex exterior work.

DIGITAL PRINT

INDUSTRY PROGRESSION MEANS NEW OPPORTUNITIES—AND NEW COMPETITION

Each of the advances in the field creates fresh prospects for sign and graphics companies to play to their strengths, offering a competitive advantage as others enter the market.

- Building graphics and architecture offer potential for sign fabricators, due to the higher level of preparation and installation skills needed. Building owners remain concerned about product failure, making durability a key to success.
- Digital printing in wayfinding requires a high degree of fabrication skill. But stringent ADA requirements necessitate expertise in this area.
- Temporary and permanent solutions highlight a sign company's skill in understanding durability issues, including the ability to mix solutions based on specific needs.

EXPERIMENTATION BRINGS CREATIVITY TO MARKETPLACE

New materials are finding new homes in different environments, thanks to a fair amount of experimentation.

- Direct printing to new materials: The ability to print directly on substrates has allowed for experimentation in printing approaches on natural woods and metals.
- Printing combined with manufacturing: Engraving, cutting and molding are creating different effects, including layered and dimensional graphics.
- New approaches to durable graphics: Topcoats, embossing and clear layers have extended the life of graphics, allowing for existing products to be used in new ways.

SIGN ILLUMINATION CONTINUES TO MATURE

Large format printing advances have revolutionized sign illumination as well, leading to a variety of new opportunities.

- Illuminated architecture: Glass curtain walls have proven popular in urban architecture. Curved and tempered glass has allowed entire buildings to serve as illuminated signs with translucent and reverse sign films.
- Light boxes: Both interior and exterior signs are taking advantage of these advances. Dye sublimated and direct surface fabrics are beginning to dominate the interior light box industry while direct to substrate flex face printing is driving the exterior sign market forward.
- External illumination offers an inexpensive alternative that can be coordinated with other architectural elements like awnings, brick walls and landmarks. Advances in vinyl have made adhering to rough surfaces possible, leading to a popular option for external illumination as well as fabric wraps.

Crossover companies are expanding into sign and graphics

3 Advances in digital graphics have brought in new players, including: packaging companies in the fixture market; display companies into interior sign expertise; and exhibition firms into exterior placemaking.

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