EDITORIAL

Digital Scenography Must Confront Its Material Footprint

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A projected environment can replace painted flats, and remote collaboration can reduce some travel. These benefits are real. Yet digital scenography relies on projectors, displays, sensors, computers, cables, network infrastructure, cooling, storage, software, and electricity. Devices contain extracted materials and embodied energy; their production and disposal occur far from the stage. A visually empty set can therefore be materially intensive.

Performance and technology scholarship has emphasized that media are entangled with bodies, spaces, and systems. Environmental evaluation should adopt the same perspective. The relevant unit is not a single object visible to an audience but the production lifecycle: procurement, rehearsal, operation, touring, maintenance, storage, and end of use.

Environmental review conducted after a design is approved can usually make only marginal changes. Early development should identify the artistic function of each resource. Does a high-lumen projector enable a crucial relation between performer and image, or compensate for an avoidable lighting choice? Does real-time rendering materially affect audience experience, or could pre-rendered media achieve the intended result? Can existing equipment be used even if it alters the visual language?

These questions are not intended to police artistic ambition. Constraints have always shaped scenography: space, sightlines, budget, safety, touring, and time. Environmental impact should become another explicit parameter. McKinney and Butterworth describe scenography as the organization of performance environments and audience experience. Resource choices are part of that organization.

Design teams can establish a material and energy brief alongside the aesthetic brief. The document should identify expected operating hours, available inventory, transport, replacement risk, repair options, and plans for reuse. Decisions can then be revisited as the production develops.

The most sustainable device is often one that already exists and remains functional. Institutions should maintain equipment inventories, share resources, standardize connectors where feasible, and invest in repair skills. Procurement criteria should include expected lifespan, modularity, software support, energy use, availability of spare parts, and safe disposal.

Software obsolescence can make working hardware unusable. Productions should document dependencies, preserve installation files where licensing permits, and consider open formats for media. A design that can be re-mounted only with a discontinued platform creates artistic as well as environmental risk.

Touring requires particular scrutiny. Transporting heavy equipment may be less efficient than sourcing compatible devices locally, but local substitution can require additional rehearsal and alter calibration. Touring agreements should allocate time for these adjustments. Technical riders can specify performance requirements rather than brand-specific equipment when exact models are not artistically necessary.

Carbon calculators and production standards can support better decisions, but data will be incomplete. Electricity sources vary; embodied impacts are difficult to allocate; shared equipment serves several productions. Institutions should use measurement to compare options and track major sources rather than claim a perfectly precise footprint.

The Theatre Green Book provides a practical industry framework for considering sustainable productions, buildings, and operations. Such tools are most useful when teams record assumptions and learn across projects. A short post-production review can identify what was purchased, reused, stored, donated, or discarded and whether predicted energy and transport patterns were realistic.

Environmental reporting should not shift responsibility onto freelance designers without budget or authority. Institutions control buildings, procurement, schedules, and storage. They must provide shared goals, data, and resources.

Resource decisions need not remain invisible administration. A production may choose to reveal its devices, incorporate repair, reuse imagery across scenes, or make latency and limitation part of form. Other productions may preserve illusion while reducing impact backstage. There is no required ecological style.

What matters is that sustainability becomes a site of artistic judgment. If a design intentionally uses intensive technology, the team should be able to explain the value and identify reductions elsewhere. Blanket guilt is less useful than accountable choice.

Digital scenography is material, and recognizing its materiality expands rather than diminishes artistic responsibility. Lifecycle thinking, durable equipment, repair, shared infrastructure, flexible touring, and transparent measurement can reduce impact while improving production resilience. The stage has always transformed materials into meaning. In a changing climate, the sources, afterlives, and energy demands of those materials must become part of what scenographic intelligence knows how to see.