

Tessellated Floorscape (2010-): interior acts of production, siting and participation

Igor Siddiqui : University of Texas at Austin, USA

ABSTRACT

The project Tessellated Floorscape (2010) consists of a modular rug that is digitally constructed from remnant carpeting, the collaborative process through which the rug as a material product has circulated through different social venues from fabrication to inhabitation, and the writing which serves as a reflective tool that links the specificity of the project to a broader set of issues in contemporary design. This essay focuses on three aspects of the project – production, siting, and participation – in an effort to map out a network of relationships among people, places and resources, and by doing so expose a set of ecologies that informs and shapes the creative practice of interior design as a materially and socially sustainable practice. The aim has been to take advantage of the physical portability of the installation, engage a range of public spaces as its temporary sites, and see what kind of value the acts of spatial re-territorialisation may hold in the study and evolution of the contemporary interior.

INTRODUCTION

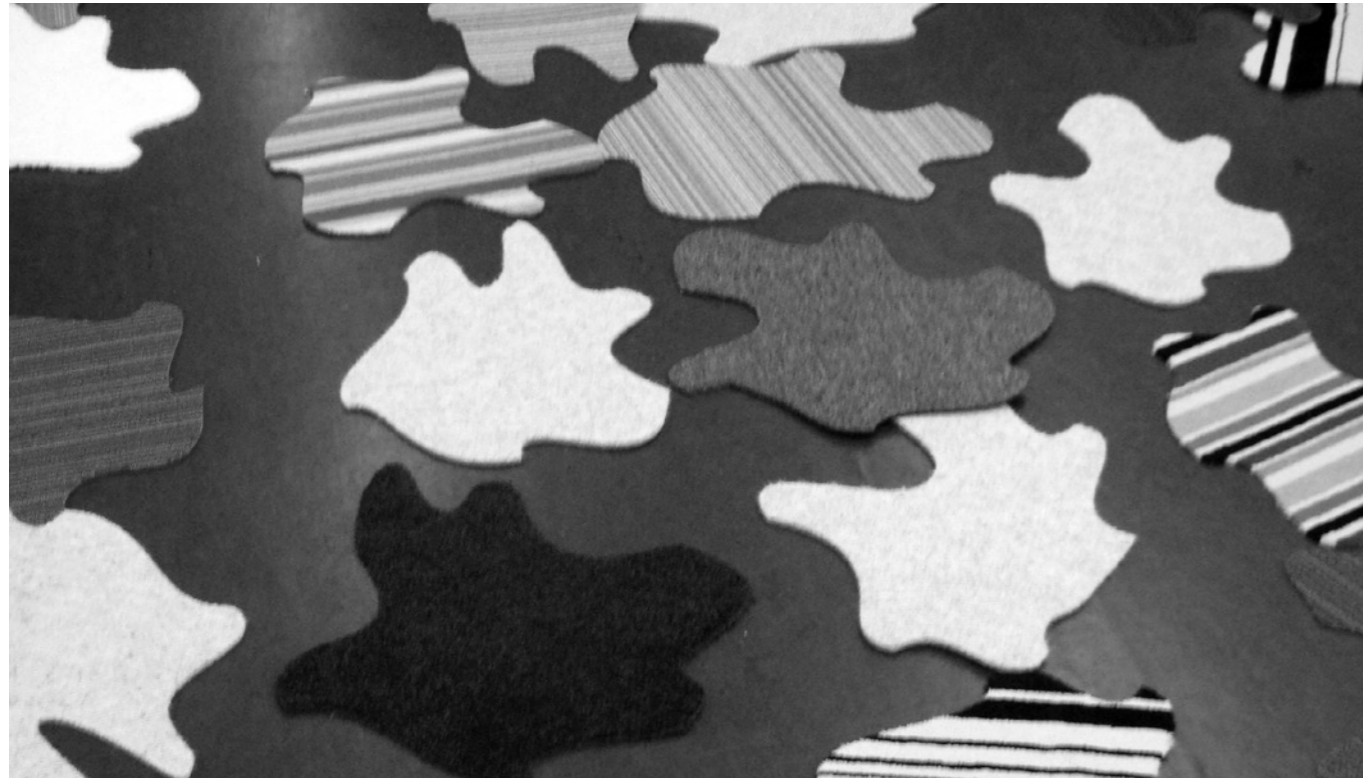
Tessellated Floorscape (2010-) is a travelling installation, digitally fabricated from remnant carpeting (Figure 1). Approximately 150 square metres in area, and assembled from nearly one hundred uniquely fitting tiles, the 'floorscape' is a non-standard modular rug that sprawls across the architectural surface of the floor creating a differentiated but continuous ground cover. Its size situates the work between the scale of furniture and that of a room, and as such suggests the creative and critical context from which it emerged – the expanding gradient between product and architectural design that is interior design. By investigating the project's material, experiential, and aesthetic properties, the aim is to articulate a series of relationships between modes of production, siting and participation. Those, in turn, may suggest new ways of considering the evolution of interior design as a cultural force that is materially and socially sustainable.



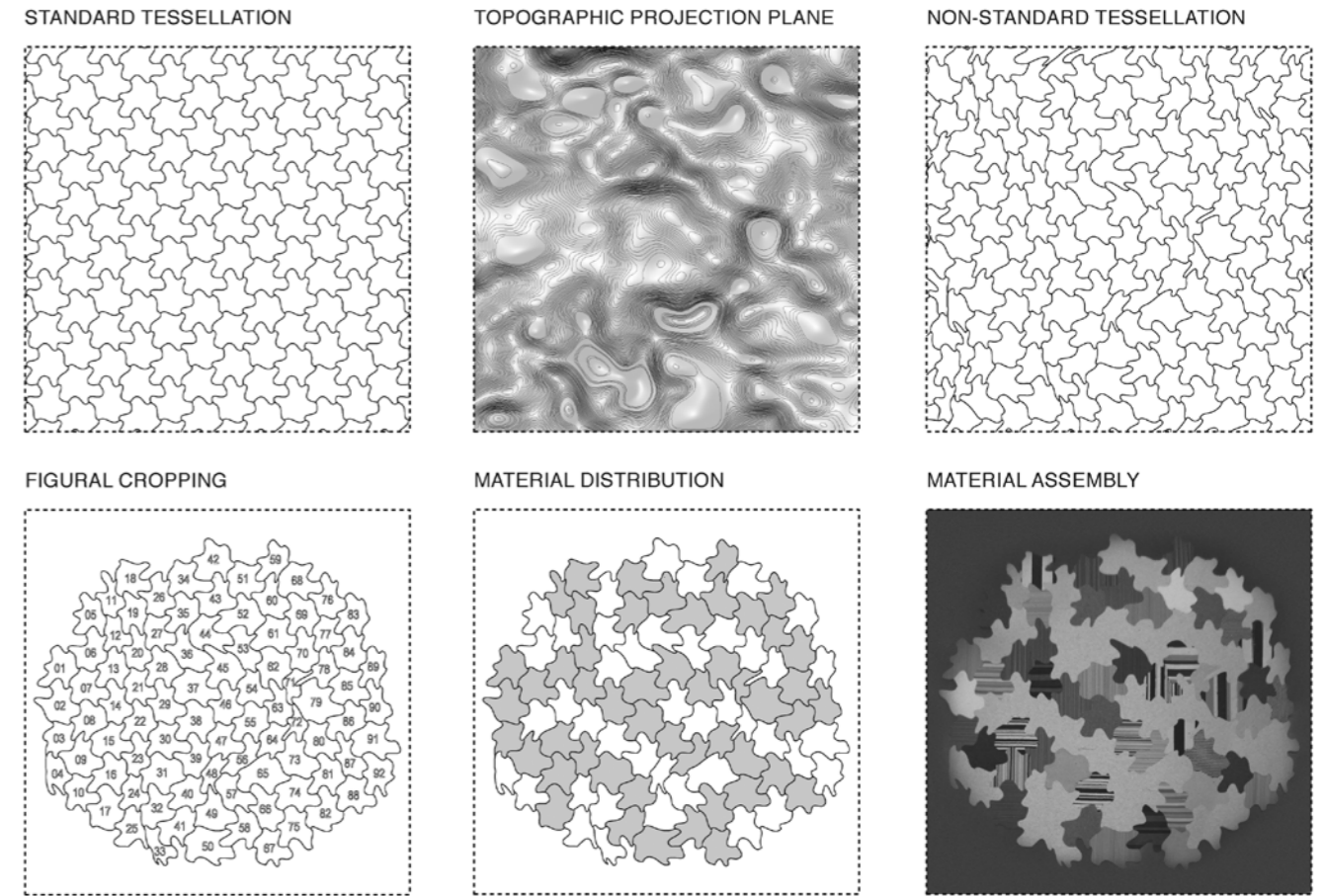
PRODUCTION

The installation was produced from design to fabrication through a collaboration between the designers from ISSStudio¹ currently located in Austin, Texas, and Aronson's Floor Covering, an innovative flooring retailer in New York City, as well as by closely working with the digital fabricator, Surbeck Waterjet Company, from Ardmore, Pennsylvania. While the 2,700 kilometres between Austin and New York and another 160 from New York to Ardmore hardly suggests hands-on interaction between the collaborators, what allowed for a clear line of communication was the immediate transmission of information through digital media on the one hand, and the previous working relationships between the participants on the other. In Texas, ISSStudio had been working on a series of digital patterns whose tessellations were studied in relation to material and potential use. The idea for Tessellated Floorscape unfolded in a meeting in which the patterns produced by ISSStudio were reviewed for another project, and the owner of Aronson's, Carol Swedlow, brought up the problem that the showroom had with the surplus of unused, unsellable carpet tiles. Rather than prematurely ending the material's lifecycle as a useable product, the intention was to extend its life and add to its value through manufactured pattern (Figure 2).

Above
Figure 1: Tessellated Floorscape assembled.



Carpet tiles are typically repetitive and interchangeable, and their orthogonal geometries produce infinitely expanding fields of homogenous grid, thus reflecting the values and efficiencies of industrial mass production. Each tile can in this way be replaced individually with another identical one without any interruption to the geometry of the overall system, a logic that Tessellated Floorscape challenges through its non-standard pattern. The intent was to deploy an organising pattern that facilitated continuity without gaps or overlaps – a true tessellation – while allowing for variation within the field. Because the design and manufacturing processes were entirely digital from the outset, the standard repetition inherited from the analogue production of existing carpet tiles was rendered obsolete. Instead of relying on the repetition of identical parts fabricated by the same template or die to maintain efficiency, in digital production a vector of a certain length is drawn and cut with the same speed and energy regardless of its shape. The pattern, a collection of outlines that defines each carpet tile aggregated into a field of tightly fitted seams, indexes the technological change from standard to non-standard production. Its formal properties necessitate, as will be discussed, a re-tailoring of social engagements that surround its design, manufacturing and installation.



The patterning process began with the design of an irregularly shaped, but repeatable tile in which the perimeter curvature was maximised for ornamental effect, while an alternating 120-degree rotation in the tessellation added to the visual intricacy of the overall field. To introduce another layer of variation – in order to give each tile its own unique form on the one hand, while also exploring the organic landscape quality of the assembly on the other – the regular tessellation was projected onto a three-dimensional topographic surface and digitally captured in this new state. The resulting aggregation is morpho-genetically consistent from within with an allowance for differentiation based on the encounter between the repeated pattern and the projection plane (Figure 3). As an assembly of parts, the pattern resists generalisation, and the specific compatibility among the tiles instead requires close inspection, attention to detail, and trial-and-error fitting.

Opposite

Figure 2: Standard carpet tiles reshaped through digital manufacturing

Above

Figure 3: Generative process drawings

As a whole, the larger pattern was cropped to produce a cluster of tiles resembling an island-like formation whose scale responds to the spatial and material limitations of the project. In response to the inventory of available material (of which about half of the stock was of a single carpet type, while the other half was an assorted collection of colours, textures, and prints), the designers developed a distribution strategy that related the geometric pattern for cutting with the range of remnant types. The strategy had to be systematic and rule-based, rather than compositional and purely visual, because of the quantity of material that had to be managed and the designers' lack of direct access to the material stock itself. The resulting pattern, an arrangement of two distinct interlocking swirls, distinguishes between the uniform and the variable carpet stocks, while leaving the actual distribution of the assorted material up to the fabricator's choice and improvisation (Figure 4). The pattern had clear aesthetic consequences, but importantly it structured the fabrication process and delineated boundaries of responsibility within the collaboration. It embedded a layer of certainty into the process, but also allowed for both chance and personal choice by the fabricator to be reflected in the final product. The differentiated part of the surface, in other words, registers the free improvisation with which the fabricator paired a digital template for each tile to each piece of carpet. The overall composition of material patterns, textures, and colours remained unknown to all the participants until the entire rug was first assembled in New York City in February of 2010.

The intent to link the organisational matrix of the pattern with the chance-based distribution of its fill within is informed by a long lineage of precedents that include Gyorgy Kepes's extensive mid-twentieth century design research on patterns, as well as standard labour practices such as masons' traditional and current methods for producing brick blends.² Digital design techniques expand the potential for such practices by freeing the geometries and distributions of patterns from the analogue logic of efficient repetition, instead allowing for the simultaneous unfolding of repetition and difference. Each interlocking tile, in other words, is produced with an equal level of efficiency and precision, but is in itself geometrically different from the rest, thus referencing



a specific moment of its making. Architects Stephen Kieran and James Timberlake, whose design research addresses the impact of mass-customisation on the construction of building products, refer to this phenomenon as 'the ability to differentiate each artifact from those fabricated before and after.'³ The embedded temporal aspect to such methods of making, in particular the potential for the indexing of human actions as they unfold in space and time, carries through the project from its design and fabrication to its installation and use: one tile fabricated after another segues into deployment at one site after another.

SITE

Intentions for the siting of Tessellated Floorscape are twofold. First, the aim has been to exploit its mobility and ability to travel in order to find out how it interacts with and operates within different environments, in this way saving it from immediate consumption as a domestic product. Second, consistent attention has been paid to observations about how such mobility may allow the product and its associates to traverse boundaries

across contexts – commerce, academia, industry, culture, and art. As an interior design exploration, the aspiration has been to examine how such a small-scale intervention may inform, and indeed give form to, various relationships between interior practice and multiple spatial contexts, but also address what an expanded notion of site-specificity may mean for such a practice. In that sense, the project seeks 'the chance to conceive the site as something more than a place,'⁴ an important conceptual leap defining site-specificity in contemporary public art, as identified by art and architecture theorist Miwon Kwon. Addressing a type of recent public art practice and its relationship to site, Kwon writes: '(Unlike the previous models) site is not defined as a precondition. Rather, it is generated by the work (often as 'content'), and then verified by its convergence with an existing discursive formation.'⁵ Although Kwon focuses on works of public art and not explicitly on design, her writing provides clues for how a design practice may address parallel concerns.

Tessellated Floorscape is a synthetic ground, an interior terrain whose ornate figure domesticates the architectural substrate beneath it. At first encounter, its formal properties suggest the kind of relationship to site specificity that is grounded by gravity and embedded in 'the impure and ordinary space of the everyday,'⁶ constructing in this way a tangible reality through a unique combination of physical elements – not unlike the 1960s and 1970s installations that Kwon considers to be representative of site-specific art's earliest formations. While such an impression is possible and not entirely inappropriate – this is after all how the installation appears to be once it lands onto a temporary site – it nonetheless misses the broader scope of the project, which is defined not by a single moment of deployment but rather by a network of spatial and temporal relationships. As such, the project reflects more contemporary notions of site-specificity (as provisionally defined by Kwon), the kind of practice for whom the model of the site 'is not a map, but an itinerary, a fragmentary sequence of events and actions through spaces, that is, a nomadic narrative whose path is articulated by the passage of the artist.'⁷ Tessellated Floorscape's shipping, installation, exhibition and storage schedules continuously define its patterns of movement and rest, a condition that is not uncommon considering the ubiquity of travelling exhibits, art and design fairs, and inter-institutional exchanges of artifacts. More importantly, however, is the observation that the itinerary also shapes the project's identity as it moves from one context to the next. This is most evident as one traces its trajectory and chronologically witnesses its multiple engagements.

The first iteration of Tessellated Floorscape came together in the Aronson's Floor Covering showroom in Manhattan. The 92-piece set of tiles arrived by United Parcel Service from the digital fabricator in Ardmore and was assembled on the floor of the showroom during regular business hours. The process of assembly – a collaborative performance between the showroom staff and the designer – took place amidst ordinary commercial activity, and slowly revealed the final formation of the rug. Working between a drawing as an instructional diagram and the full-scale components on the floor, the overall effect was as unexpected to the designers as it was to the shoppers who witnessed the process. Fully assembled for the first time, Tessellated Floorscape occupied the centre of the showroom and was featured as a custom product developed by

Opposite
Figure 4: Material striation

Aronson's. In the context of the commercial site, the rug was seen as a high-end design commodity to be ordered, purchased and inhabited, inheriting along the way its status as an environmentally sustainable product. The rug continues to generate interest in the form of enquiries about its pricing, lead-times, customisation options and maintenance, and such responses at once confirm its aesthetic appeal and help clarify ways in which it encounters consumer expectations. In particular, Tessellated Floorscape complicates the relationship between a reproducible off-the-shelf product and a 'one-off' by simultaneously being 'one-of-a-kind' and a prototype for a larger edition. On the one hand, the pattern has the ability to propagate itself infinitely, shaping as much material as the CNC (computer numerical controlled) waterjet finds on its cutting bed. On the other, the particular chance-based overlap between the digital pattern and the available material produces a visual outcome that would be impractical, if not impossible, to reproduce. As such, the site of the showroom acts as a context within which the mass-customised principles that ground the rug's manufacturing process come into direct contact with the consumer's preconceived understanding of the availability and uniqueness of a retail product based largely on the conventions of pre-digital mass production. In that sense, the very idea of the prototype (defined as the first in a repetitive series) is transformed, echoing William Massie's argument that 'the concept of infinite variation replaces the model of the 'prototype.' The prototype is simply replaced by the type – the death of 'proto' – and the concept of standardization is no longer viable.⁸ The site acts as a framework within which the reproducibility and variability of the product are assessed as market-based values, and the rug, in addition to providing the 'there-and-now' aesthetic experience, acts as an interface between the sites of its production and consumption.

From the commercial showroom Tessellated Floorscape moved to the Flux Factory, a Long Island City, Queens, non-profit art organisation with gallery and artist residency programming, described by the art critic Holland Cotter of the New York Times as 'a cross between a youth hostel and a space station.'⁹ The rug was a part of a large group show titled 'Housebroken,' curated by Jean Barberis and Georgia Muenster, and on view from February 18th to March 21st, 2010. The exhibit was (based on the curatorial statement included in the initial open call for proposals), 'an exercise in architecture, interior design, social practice, and general aesthetics covering every room, every surface, and every object of the building and affecting every physical and conceptual space.'¹⁰ Located in a raw two-story former greeting card factory, contents of the exhibit blurred with the content of the site – the furnishings, surfaces, personal belongings and works in-progress by the current residents interacted with the artifacts, actions, and processes transposed into the space by the invited artists. The rug was installed in what would be considered the organisation's administrative office, a space connected to the building entrance, grounded by a layer of decaying vinyl flooring, an eclectic assortment of furnishings, and storage for a range of items from theory books to power tools (Figure 5). The curators' strategy was to have the rug installed so as to transform the definition of conventional office carpeting, but also serve as a type of new stage for artist performances that were scheduled throughout the duration of the exhibit. Tessellated Floorscape was in this way both sited and became a site for other works, oscillating between



its status as an object framed by the building interior and receding into the background in relation to temporal activity (Figure 6). Removed from the commercial realm and situated within a constellation of unique artworks that are predominantly handmade, specifically sited, and not for sale, the rug's potential reproducibility and multiplication – and by extension market value – became secondary to its physicality and visual presence in the exhibit. The site's framing of Tessellated Floorscape presented new dilemmas for those that encountered it: is the work to be looked at or walked on? Will it become the permanent office carpeting or does it vacate the building when the exhibit ends? Here in the context of art, and more specifically, within the kind of exhibit that asks the art to engage with the architecture of the site, the rug's affiliation to design practice has less to do with product (as was the case in the commercial showroom) and is more about its participation in the making of the interior. As an object whose utility is more explicit than any other work selected by the curators, the floorscape entrenched itself into the site by forming quick alliances with the surrounding objects – office chairs, tables, filing cabinets – and literally absorbing the site's atmosphere by getting progressively, dusty, odorous and stained.



Next, the installation traveled to York, Pennsylvania, this time to become a decorative element in a stage set for an artist video. The artist, Jonathan VanDyke, integrated Tessellated Floorscape into his set design for *Elision* (2010), a 12-minute, 4-channel video installation based on the opening scene of Michelangelo Antonioni's 1962 film, *L'eclisse* (Figure 7). The project, funded by the Mid-Atlantic Arts Foundation and produced in collaboration with the York Centre for the Arts, reframes the floorscape as a prop, one among a constellation of objects that supports the visual narrative and mood of the video. The rug weaves in and out of the artist's own spatial composition of the stage set, its colourful surface marking the ground relative to groupings of other furnishings, accessories and objets d'art (Figure 8). While the video, as a kind of visual site, reduces the spatiality of the rug to a flat field of pixels, it also provides a vehicle for its visual reproduction and multiplication. Perhaps the most significant consequence of this specific siting is the both the fragmentation and multiplication of the whole that occurs in at least three ways. To begin with, the artist took a liberty with the overall assembly of the tiles, taking advantage of its modularity and fragmenting the figure into multiple smaller clusters. Then, through the sheer

Above Left
Figure 5: Tessellated Floorscape at Flux Factory during installation

Above Right
Figure 6: Tessellated Floorscape at Flux Factory during an interactive artist performance

device of framing, the camera further re-crops and reshapes the clusters into partial, fragmented views. Finally, the four-channel installation intended for simultaneous four-screen projection acts as a kind of reproductive device, multiplying and distributing representations of the floorscape across multiple shots, screens, and spaces. Siting as such ceases to function as the placement of the object in a specific space, but rather exemplifies an engagement in a network of relationships that connects institutions, disciplines, and creative processes. While the physical location still matters, the operative definition of the site has been transformed (according to Kwon), to a discursive vector that is ungrounded, fluid, and virtual.¹¹

More recently, Tessellated Floorscape had been reunited with its designers in Texas where it functions as both a rug in the studio's loft space and a participant in the various exhibitions to which it is shipped. Enjoying yet another type of context, the rug participated in the exhibit 'Rough Cut: New Furniture Design in Austin' organised by the Industrial Designers Society of America. Displayed alongside prototypical chairs, benches, stools, light fixtures, consoles, and tables by emerging industrial designers, Tessellated Floorscape opened the exhibit as an equal participant relative to the furniture pieces, but ended up

functioning as a dance floor for the closing party. The rug, in other words, functioned as the thin veneer that subtly differentiates an area of the ground plane in order to attract and maintain an activity; a social site of interaction, pleasure, and intensity. In the upcoming year, the work is scheduled to appear in an exhibit at the University of Texas at Austin, where it will for the first time, as a material artifact, encounter the academic context. When not travelling, its periods of rest are marked by domestic occupation. Florian Slotawa, the Berlin-based conceptual artist, has since 1996 been producing a series of works titled *Besitzarbeiten*, for which he transports all the belongings from his apartment to a gallery, producing site-specific installations that leave his domestic space temporarily empty.¹² In the same spirit, albeit to a less extreme degree, Tessellated Floorscape produces a void in the private loft while it is at work in public spaces, connecting in this way the domestic realm with the urban context beyond.

PARTICIPATION

Given the discussion about the production of the rug as well as the sites with which it has been associated, it may be all too evident that its continuing lifecycle has been contingent upon the participation of multiple agents along the way. From the design



assistants, retailers, fabricators, shippers, curators, installers and cameramen, to the shoppers, gallery visitors, actors, and even lovers, Tessellated Floorscape makes explicit that which is always present – but not always overtly revealed – in the production of interior design. The relatively obvious fact that the travelling installation has been handled and experienced by many and in different ways is amplified by the demands posed by the rug's particular material and formal properties, and the necessity for active participation in its assembly, care and use underscores its social dimension. Like a jigsaw puzzle, or even a crossword puzzle, there is an underlying logic and authorship to its order; yet it has to be processed, figured out and ultimately owned by those working with it. If the fabricator touched every single random piece of remnant material and made a choice as to which tile is to be cut out from which material, it is the installer's challenge to relate those tiles back into a working assembly. This somewhat tedious task translated itself into a particularly joyful process on the set of Jonathan VanDyke's video in York, where a group of high school, theatre arts students who performed in the video was also in charge of assembling the set (Figure 9). By participating in its assembly, the students developed an endearing attachment to the rug, referring to it throughout the filming as theirs. A similar sense of ownership and responsibility

developed previously at the Flux Factory where the residents proposed a 'no-shoes' policy in the space where the piece was installed throughout the duration of the installation. This seemed especially thoughtful for an artist collective space in which the mix of art-making, shared living facilities and high public traffic can yield an overall 'less-than-precious', gritty character.

Inevitably, however, having served as the floor for a number of performances at multiple sites, the rug is already starting to show signs of wear – footmarks, spills, and worn edges. If this were simply a modular rug made of standardised tiles, the kind that one finds in real offices and buys off-the-shelf, one can imagine replacing the affected tiles with new ones, interchanging the old with the new as required. However Tessellated Floorscape, made from animated digital templates, with a patchwork of materials handled in real time by real people, would in this way unravel and perhaps even vanish. The registration of time, the efforts specific to that time embodied by materials and geometries, begin to describe the fragility with which material environments hold together in space and time, and the sturdiness with which they carry our marks from the time that they are intellectually conceived to the moment they are discarded. In the opening of Relational Aesthetics, Nicolas Bourriaud writes: 'Artistic activity



Opposite Left
Figure 7: On the set of Jonathan VanDyke's *Elision* video project

Opposite Right
Figure 8: A scene from Jonathan VanDyke's *Elision* video project

Above
Figure 9: Student participant assembling portions of the rug

is a game, whose forms, patterns and functions develop and evolve according to periods and social contexts; it is not an immutable essence.¹³ Interior design, as an artistic activity, may already understand this notion of development and evolution all too well, given its responsive modes of operation and its service-oriented conventions. The aim of the installation, however, has been to frame the interior as a space within which the forms, patterns, and functions of the 'game' allow for layered, continuing and pliable registrations of forces at play, a medium that facilitates the visibility of the multiple forms of participation. By focusing on the production of interior artifacts as the subject matter of interior design practice and expanding the notion of the site as a relational, non-stable condition, it becomes possible to expand the field of participation in the construction of interiors that goes beyond the client-designer dynamic. In theoretical terms, after all, participation is less a framework for the examination of individual viewers' relationships to art than it is about the social dimension and group dynamics prompted by artists. While what this may mean for interior design generally remains open to further speculation, Tessellated Floorscape begins an outline for a practice that combines aesthetic pleasures with social networking and acts of re-territorialisation. The outline, as a preparatory stage of effort, may also be the appropriate moment for the cascading of questions that will undoubtedly only increase in relevance over time. For example, at a time when design processes are increasingly technologically integrated in order to maximise predictability of outcome and minimise risk, what is the role of social participation in the shaping of interiors? How can parametric processes accommodate material sustainability? How may nomadic movement serve as a model for the siting of contemporary interiors?

CONCLUSION

In his essay 'Please, Eat the Daisies,' Joe Scanlan criticises as laughable artist and designer Andrea Zittel's A/Z Living Units for claiming to be anything other than art. The works were made to be inhabited but are, according to Scanlan, materially cumbersome, ergonomically cruel, and too shiny to suggest that anyone ever cared to interact with them. He writes: 'And while this is probably fine with the people who own them, a lack of wear is a serious flaw for any artwork that proposes use value as a fundamental aspect of its radicality.'¹⁴ Provisionally defined by its itinerary through multiple sites as much as by its aspirations, Tessellated Floorscape (not unlike Andrea Zittel's work in its blurring between art and design, but different given each author's disciplinary points of departure), has started showing some signs of wear: spills, bubble gum and rips. While the project's objective was never to be just looked at, and its designers never identified themselves as artists, the blur between design and art never posed much of a problem until the question of cleaning came up. Ironically it was the issue of maintenance that required disciplinary delineation. The dilemma – to clean the rug and erase the marks left by its unfolding journey, or let it be and reduce its desirability as a used object – brings into question not only the work's perishable value, but also how public institutions, commercial and non-profit alike, would define its lifespan. Scanlan's critique of art practices that engage with design (like Zittel's), is ultimately that they 'do not fail to be useful as much as they prematurely commit to one value system to the exclusion of all others, thereby

demonstrating a faith in institutions and an impatience with the public that contradicts whatever transgressions their works aspire to.'¹⁵ While the conversion of the movement from art to design to one that is going in the other direction (the design object becoming art through siting and participation), is certainly not symmetrical, the necessary resistance to the commitment to a single value system as described by Scanlan may indeed be a powerful strategy for the advancement of design through acts of re-territorialisation. The ecology of interior design – the relationship between the interior as a particular disciplinary environment and its participants – is a living system. Its emergent properties are a consequence of the expansive framing of what provisionally defines it as an environment and who and what is counted as participating. As an interior design practice, Tessellated Floorscape is exploratory and as such resists closure. As both process and product, it has operated as an itinerant gathering of evidence, rather than as the application of evidence to preconceived positions. Like its ground-bound form dependent on adjacent relationships, the insights form a mesh of narratives, thickened and expanding over time.

NOTES

1. I co-founded ISSStudio with designer Susan Sloan in 2006 in Brooklyn, NY; the studio has since expanded to Austin, TX where I currently direct all of its design and research activities.
2. My students Alexander Odom and Daniel Morrison pointed out to me the various rule-based material specifications that produce masonry blends on the campus of the University of Texas at Austin, within which masons are encouraged to exercise their own judgment, preference and choice.
3. Stephen Kieran and James Timberlake, *Refabricating Architecture* (New York: McGraw Hill, 2004), xiii.
4. Miwon Kwon, *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge: MIT Press, 2002), 30.
5. Kwon, *One Place after Another*, 26.
6. Kwon, *One Place after Another*, 11.
7. Kwon, *One Place after Another*, 29.
8. William Massie, 'Remaking in a Post-Processed Culture' in *Fabricating Architecture: Selected Readings in Digital Design and Manufacturing*, ed. Robert Corser (New York: Princeton Architectural Press, 2010), 104.
9. Holland Cotter, 'The New Bridge and Tunnel Crowd,' *New York Times*, March 13, 2005, accessed January 20, 2011, <http://query.nytimes.com/gst/fullpage.html?res=9402EFD81F3DF930A25750C0A9639C8B63&pagewanted=all>.
10. The description comes from the curatorial statement disseminated through email announcements, blog postings, and Flux Factory's Facebook page, last accessed on January 20, 2011, <http://www.facebook.com/event.php?eid=267467810714&index=1>.
11. Kwon, *One Place after Another*, 29.
12. I first encountered Slotawa's work at New York City's PS 1 Contemporary Art Center in the summer of 2009. The installation there was the twelfth in the series. For online information of the PS 1 exhibit, see <http://ps1.org/exhibitions/view/249>.
13. Nicolas Bourriaud, *Relational Aesthetics* (Dijon: Le presses du reel, 2002), 11.
14. Joe Scanlan, 'Please, Eat the Daisies' in *Design and Art*, ed. Alex Coles (London: Whitechapel and Cambridge MIT Press, 2007), 63.
15. Joe Scanlan, 'Please, Eat the Daisies,' 64.