# ASSEMBLY

MATTER,
LINEAMENT,
AND AGGREGATED
SYSTEMS IN
ARCHITECTURAL
PRODUCTION

EDITED BY
GAIL PETER BORDEN,
AND MICHAEL MEREDITH

ROUTLEDGE

### 2

## DUCHAMP'S SHOTGUN HOUSE BY FIRST OFFICE

Anna Neimark and Andrew Atwood

#### **Assembly Is Both Material and Conceptual**

Material acts and conceptual thoughts are often defined as antonymous in relation to one another. But Craig Dworkin's "Fact" is a conceptual poem because of its own material specificity. The poem documents the exact ingredients of toner on a sheet of paper. Syllables are bound to chemical compounds, collected as much from dictionaries as from an organic chemistry textbook. These resources make up the material substrate of poetic media (Figure 2.1). Often described as self-reflexive, the poem confuses its literary content for its printed format. This estrangement renders the poem at once conceptual and material. Taken together, the assembly of any printed text includes a pile of materials, often repressed to the background – printing press, peer review, and legal patents – without which the disciplines of literary exchange would come to a grinding halt. "Fact" gives poetry material weight, made especially palpable in the turning of its page.

Now consider the accretion of material in another conceptual artwork. It has been recounted that when Robert Rauschenberg erased a drawing by Willem de Kooning, he handed it to Jasper Johns to inscribe it within a mitered window of the bottom margin of its passe-partout: "ERASED de KOONING DRAWING/ROBERT RAUSCHENBERG/1953." Another directive was glued to the backing board of its gilded frame: "DO NOT REMOVE DRAWING FROM FRAME/FRAME IS PART OF DRAWING." With every new showing, the backside of the framed, matted, and erased artifact acquired another loan sticker. Importantly, the drawing's erasure set into motion a sequence of acts that ended with flipping the frame to verify its authenticity. The ink on paper in "Fact," as well as the drawing in the frame of the Erased de Kooning, are examples of mediated assemblies that materialize the conceptual intents of the artists.

#### Doors in General and the Door of Duchamp in Particular

Turning the page and flipping the frame are actions that hinge on a metaphorical "joint," whether it is the spine of a perfect binding in a poetry journal or wire on D-rings screwed onto a drawing's backing board. But joinery is literally the stuff of architecture, only at a slightly

larger scale. No doubt, this is best illustrated in the mundane element of a door. To Bruno Latour, the door is nothing less than a "miracle of technology, [which] hinges upon the hinge pin: instead of driving a hole through walls with a sledgehammer or a pick, you simply gently push the door."3 Doors inscribe action: they force us to dwell on their fronts and backs, their open and closed positions, their public posture or intimate prelude, their visual content and accessible format. All the structural and material predicaments are inherent in the flip from one side to the other. These are mostly conditions that can be defined by binaries; doors in general are symbolically charged on/off switches in the greater circuit diagram of the plan.

Along these lines, Bernhard Siegert theorized doors as culture-technical media.4 He describes the case of one door in particular, the "Door of Duchamp," which challenges the binary relations described earlier, erasing the distinction between open and closed, blurring boundaries to produce frustration and revelation. The story begins in 1927, when Marcel Duchamp built - with the help of a carpenter - a door that oscillated between a functional object and a work of art. While most doors hinge in and out of the door frame of one opening, this door hinged out of one opening and landed inside another. In swinging between two walls arranged perpendicularly to one another, the "Door of Duchamp" opened one room in the action of closing another, producing a conceptual dilemma - a short circuit - at the small apartment at 11 rue Larrey in Paris.

Siegert reprinted the diagrams of Duchamp's apartment layout from the journal Orbes to bring our attention to several peculiarities in print. There is a doubling of the plan with three distinctions: first, the closed door and the open frame are shown in two possible configurations; second, the doubled diagram along with its respective text is printed upside-down, reversing our point of view in relation to the entryway; and third, the two diagrams are printed on the front and the back of the journal's sheet, allowing the reader to animate it with a flip of the inframince page. 5 In the course of reading the journal, "the viewer [was] forced to carry out a hinge operation with the periodical page analogous to the hinge operation one carries out with a door."6 In other words, the perspective of the viewer was forced from the front of the apartment in the atelier entering the bedroom [chambre], to the backside of the door, closing it shut to reveal the opening to the bathroom [salle de bain]. The resulting rupture in the established social codes of the home makes this door a readymade, an ordinary element that has the potency to produce an aesthetic rupture.

At First Office, we quibbled that Duchamp conceived of the door with a sort of material indifference. The door opening was never finished in the architectural sense of the term - its molding only folded around one side of the jamb, leaving a bare hole leading up the steps to the toilet. To extend the conceptual experiment from the realm of art to the realm of building, we decided to reconstruct the "Door of Duchamp," this time doubling its twinned framework. Multiplying the doors and their respective frames required returning to traditional architectural topics of structure (studs) and ornament (molding). But before we get into these details, we must explain the origin for our architectural encounter with the "Door of Duchamp." We were working on an intervention to an existing house - a shotgun house in the North Limestone neighborhood of Lexington, Kentucky - and we realized that its historical arc in part revolved around its doors.

#### Shotgun Houses in the African Diaspora

The shotgun is a house found mostly in the American South; it presents us with an extreme condition of movement of and through doors. Such houses arrange three or more rooms in a row with doors in between. Its name comes from a rather violent image: when all doors are open, a shotgun could be fired through the front door and exit the back without piercing any transverse walls. bell hooks recalls her early childhood encounter with one of these homes in Kentucky, where such a blast was replaced by the force of her curious gaze, turning into a sprint from front to back:

I would go daily and stand in front of a shotgun house. An elderly lady and her grown son lived there. When the doors were open wide I could look straight through from front to back. And it did not take long for the owner to invite me and show me her precious little house. This intense looking was the beginning of my love affair with architecture. . . . I can still recall the delight I felt as a girl running through this structure for the first time, racing through a shotgun house from the open front door to the closed back door - this straight line movement enchanted.

bell hooks, "House Art: Merging Public and Private"8

hooks focused her thoughts on the house as a site for movement: indeed, it moved with its inhabitants from Africa, through their enslavement, in Santo Domingo, now Haiti. It housed people through the Jim Crow period into today's South. She describes the shotgun house as "the primal architecture of the displaced person, of one who lives a fugitive existence, always on the move."9

While some ascribe the shotgun's narrow shape, with its short façade aligned to the street, to subdivided urban lots into long slivers of real estate, others attribute the origin of the plan to memory, assimilated by context. 10 Notably, John Michael Vlach has identified this "type" as "an African architectural legacy" by locating it among a family of enfilade buildings found throughout the African diaspora.<sup>11</sup> Vlach begins with a series of shotgun plans measured in rural (rather than urban) settings in the South, locations where there was too much space rather than too little and where the form of the home would not have been constrained by external contexts of street grids, parcels, or zoning laws. In New Orleans, where the shotgun type was commonplace, Vlach identified names of free Black landowners and contract workers who built their homes following forms found in rural Haiti, which, in turn, he traced to origins of the Apuja homes of the Yoruba people in Nigeria.<sup>12</sup>

The details of the house, by this telling, changed from one place to the next, including the number of rooms, as well as the house's assembly. Charles Davis recounts the transformations found in Vlach's journey - from Nigeria's waddle-and-daub Apuja homes to Santo Domingo's mortise-and-tenon Bohio homes via the French Maison Basse, to New Orleans' light frame Shotgun houses – as "syncretic development." <sup>13</sup> In its movement, the Apuja two-room house assimilated local materials and building customs, changed its roof from hip to gable, added a decorated porch, doubled its rooms, rotated its orientation, and adopted new names. Reading these accounts, we began to imagine the Apuja home as the mythical ship Argo, with a vector in history and an anchor in territory.14

Our attention fixed on the discontinuities, in particular, on the contrast in the locations of doors, both external and internal. In the Nigerian house, the entry door was located along the longitudinal wall, so that one would approach it looking at the long elevation. The movement of the inhabitant through the long wall, then, was followed by a 90-degree turn, through a short wall separating two interior rooms. In the American house, that rotation was lost. Perhaps what the shotgun needed was more confusion (not less), more turns, more myths – more doors.

#### **Duchamp's Shotgun by First Office**

We entered a challenge staged by the LuigART Makers Spaces with the charge of adding an art space to the domestic interior of an existing shotgun house. 15 In theory, the home and the gallery would open into one another to produce a continuous interior of rooms. But in practice, they would have to close off from one another to be occupied simultaneously and independently. To us, the conundrum of the brief reflected the complexities of Duchamp's Door – its ability to close one room while opening another would hold both practical and symbolic meaning. We titled the house Duchamp's Shotgun.

On the exterior, the art and house programs would have their own front doors, and on the interior, they would occupy linear circulation paths, parallel to one another. Three existing transverse walls already divided the length of the interior into four equal parts: the work room, the bedroom, the kitchen, and the common room, moving from front to back. A newly added longitudinal wall would split each room into two unequal parts: the larger domestic program on the southeastern side and a long gallery along the northwestern wall. Not counting the bathroom that partially occupied the kitchen bay, a total of eight spaces would all interconnect by a sequence of openings.

Every room would have four openings, four paths of moving in and out, filled only by two doors. We adopted the "Door of Duchamp" to the structural and ornamental details of shotgun house construction. These include standard two-by-four studs, door frames, baseboard, chair rail, and crown molding. Our description in the competition submission noted that:

[t]hese elements are not just decorative; they are also, of course, practical. Molding helps span gaps and bridge expansion joints. The doorjamb detail is one place where the elastic qualities and flexible nature of domestic molding is most evident; the extruded profile wraps the corner of the jamb and also folds into the corner of the room, making the double-door detail possible.<sup>16</sup>

At first, we developed the details in a scaled lumber model, built from basswood, carpet, paint, and miniature doorknobs. We even chiseled electrical sockets from wood and ran "conduit" along the walls to account for the house's adaptation to its new functions.

A structural problem became immediately apparent: the transverse walls needed to shift off center to accommodate the door's returning jamb, such that it could close flush with the wall. In the model, we hid a little magnet in the central stud, so that the door would close with a satisfying click. But at full scale, the thin door, which was centered on the longitudinal wall, would upset the equal subdivisions in the plan. The first and third rooms contracted by the dimension of the walls' thickness, while the second and fourth rooms expanded. There is a notable difference in sizes of the room in the drawings, making visible the effect of the doors' assembly on the spatial layout of the house. In a full-scale mockup, we replaced the magnet with a door stop, thereby producing another hiccup in the plan for an added pleat in the extruded molding.

Duchamp's Shotgun House holds multiple circuits and memories in one building. It collapses the mythical rotations of the African house - from short to long side through a multitude of doors - rendering displacement and movement visible and experiential. In the process of their assembly, the doors' hinges shift the configuration of the walls, altering the sizes of the rooms and folding the molding profiles. This conceptual project hinges on minute material details to produce a symbolic realm within a home.

#### **Project Credits**

Duchamp's Shotgun House, Luigart Makers Spaces York Street Challenge, Lexington, Kentucky, 2014. First Office Team: Andrew Atwood, Anna Neimark, David Eskenazi, Brooke Hair, Melissa Lee, and Alex Spatzier.

We would like to extend a special thanks to Tricia Van Eck at 6018 North for bringing the project to full scale for the 2016 Chicago Art Expo.

#### **Figures**

#### **CRAIG DWORKIN**

Fact

INK ON A 6 BY 9 INCH SUBSTRATE OF 60-POUND OFFSET MATTE WHITE PAPER. COMPOSED OF: VARNISH (SOY BEAN OIL [C\_H\_8O\_6], USED AS A PLASTICIZER: 52%. PHENOLIC MODIFIED ROSIN RESIN TALL OIL ROSIN: 66.2%. NONYLPHENOL [C.H.O]: 16.6%. FORMALDEHYDE [CH.O]: 4.8%. MALEIC ANHYDRIDE [C.H.O.]: 2.6%. Glycerol [C.H.O.]: 9.6%. Traces of alkali catalyst: .2%]: 47%): 53.7%. 100S Type Alkyd used as a binder (Reaction product of LINSEED OIL: 50.7%. ISOPHTHALIC ACID  $\left[C_8H_6O_4\right]$ : 9.5%. TRIMETHYLOLPROPANE [CH\_CH\_C(CH\_OH)]: 4.7%. REACTION PRODUCT OF TALL OIL ROSIN: 12.5%. MALEIC ANHYDRIDE [C.H.O.]: 2.5%. PENTAERYTHRITOL [C.H.O.]: 5%. ALIPHATIC C14 HYDROCARBON: 15%): 19.4%. CARBON BLACK (C: 92.8%. PETROLEUM: 5.1%. WITH SULFUR, CHLORINE, AND OXYGEN CONTAMINATES: 2.1%), USED AS A PIGMENTING AGENT: 18.6%. TUNG OIL (ELEOSTEARIC ACID [C,H,O]: 81.9%. LINOLEIC ACID [C,H,O]: 8.2%. PALMITIC ACID [C,H,O]: 5.9%. OLEIC ACID [CH\_(CH\_)\_CHCH(CH\_)\_COOH]: 4.0%.), USED AS A REDUCER: 3.3%. MICRONIZED POLYETHYLENE WAX (C.H.)N: 2.8%. 3/50 MANGANESE COMPOUND, USED AS A THROUGH DRIER: 1.3%. I/25 COBALT LINOLEATE COMPOUND USED AS A TOP DRIER: .7%. RESIDUES OF BLANKET WASH (ROUGHLY EQUAL PARTS ALIPHATIC HYDROCARBON AND AROMATIC HYDROCARBON): .2%. ADHERED TO: CELLULOSE [C.H.O.] FROM SOFTWOOD SULPHITE PULP (POZONE PROCESS) OF WHITE SPRUCE (65%) AND JACK PINE (35%): 77%; HARDWOOD PULP (ENZYME PROCESS PRE-BLEACH KRAFT PULP) OF WHITE POPLAR (ASPEN): 15%; AND BATCH TREATED PCW (8%): 69.3%. WATER [H<sub>0</sub>O]: 11.0%. CLAY [KAOLINITE FORM ALUMINUM SILICATE HYDROXIDE (AL SI O [OH]): 86%. CALCIUM CARBONATE (CACO): 12%. DIETHYLENETRIAMINE: 2%, USED AS A PIGMENTING FILLER: 8.4%. Hydrogen Peroxide [HO], used as a brightening agent: 3.6%. ROSIN SOAP, USED AS A SIZER: 2.7%. ALUMINUM SULFATE [AL (SO )]: 1.8%. RESIDUES OF CATIONIC SOFTENER (H.O: 83.8%. BASE STEARIC ACID (C.H.O): 53.8%. PALMITIC ACID (C, H, O): 29%. AMINOETHYLETHANOLAMINE (H, -NC -H -NHC -H -OH): 17.2% : 10.8%. SUCROSEOXYACETATE: 4.9%. TALLOW AMINE, USED AS A SURFACTANT: 0.3%. SODIUM CHLORIDE [NACL], USED AS A VISCOSITY CONTROLLING AGENT: .2%) AND NON-IONIC EMULSIFYING DEFOAMER (SODIUM SALT OF DIOCTYLSULPHOSUCCINATE [C. H. NAO S]), COMBINED: 1.7%. MISCELLANEOUS FOREIGN CONTAMINATES: 1.5%.

FIGURE 2.1 Craig Dworkin, "Fact," Chain 12, 2005. Reprinted with permission of the author.

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Photograph of the door in the 11, rue Larrey apartment (Paris, 1927), Schwarz Gallery ed., 1963. Marcel Duchamp Exhibitions records, Philadelphia Museum of Art, Library & Archives © Association Marcel Duchamp/ADAGP, Paris/Artists Rights Society (ARS), New York 2024.

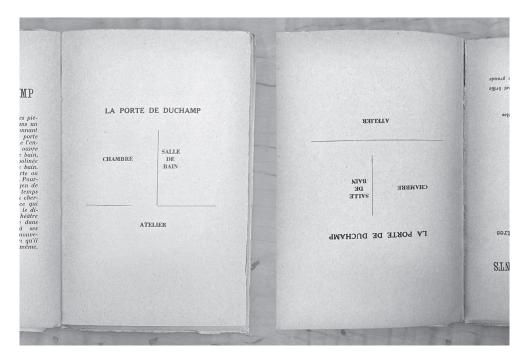


FIGURE 2.3 Jean van Heeckeren and Jacques-Henry Lévesque, "La porte de Duchamp," *Orbes* 2ème série n°2 (Paris: Au Sans Pareil, Summer 1933). Reprinted with permission of the Getty Research Institute.



FIGURE 2.4 First Office, Shotgun House model, Lexington LuigART Makers Spaces Challenge, 2014.

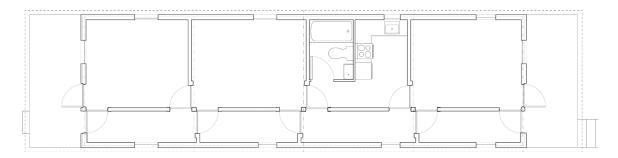


FIGURE 2.5 First Office, Duchamp's Shotgun House, plan.

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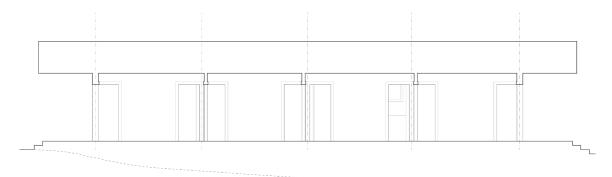
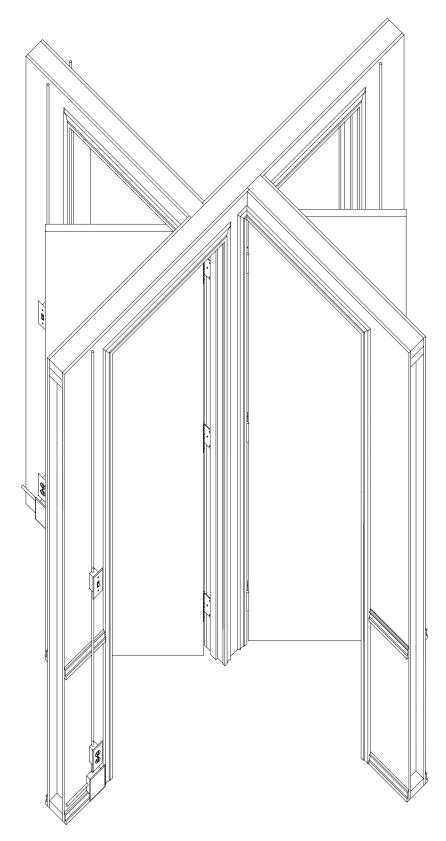


FIGURE 2.6 First Office, Duchamp's Shotgun House, section.



FIGURE 2.7 First Office, Duchamp doors model, The Architectural League of New York: *Authenticity* Exhibit, 2015.



**FIGURE 2.8** First Office, Duchamp doors, 45° oblique.

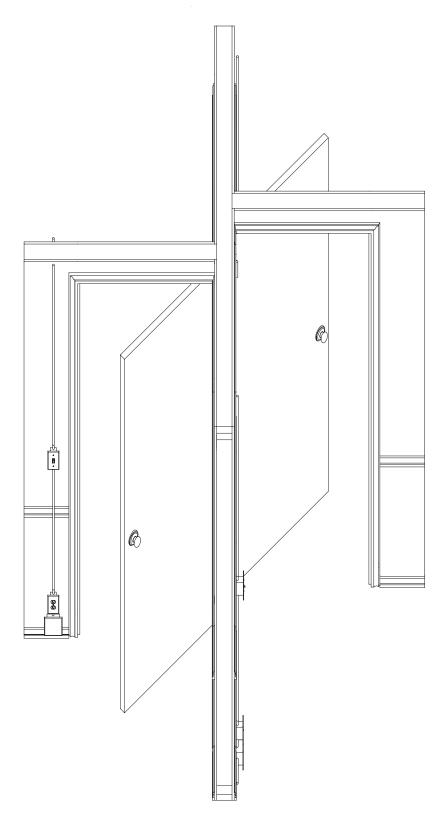


FIGURE 2.9 First Office, Duchamp doors, 90° oblique.

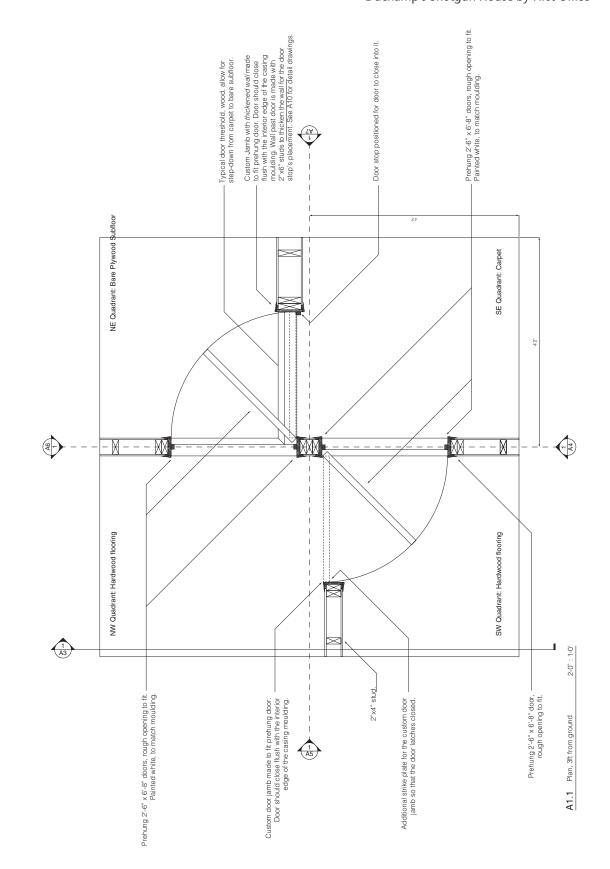


FIGURE 2.10 First Office, Duchamp doors, construction documents developed for the group exhibition It's Elemental at 6018 North in Chicago, 2015

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FIGURE 2.11 Photography Carolina Murcia. Duchamp doors, 2016 Chicago ArtExpo.



FIGURE 2.12 Photography Carolina Murcia. Duchamp doors, stop and molding detail.

#### **Notes**

- 1 Dworkin, Craig. "Fact," Chain 12, 2005.
- 2 For more information on the Erased de Kooning Drawing and the research surrounding its origins and ongoing discourse, including a reveal of Willem De Kooning's original marks through an x-ray process, see Roberts, Sarah. "Erased de Kooning Drawing," SFMOMA Rauschenberg Research Project, 2013. https://www.sfmoma.org/artwork/98.298/essay/erased-de-kooning-drawing/.
- 3 Latour, Bruno. "Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts," *Shaping Technology/Building Society: Studies in Sociotechnical Change*, eds. Wiebe E. Bijker and John Law. The MIT Press, 1994, p. 228.
- 4 Siegert, Bernhard. "Doors: On the Materiality of the Symbolic," trans. John Durham Peters, *Grey Room* 47, Spring 2012, p. 8. Addressing the history and origin of doors, Siegert recounts the story of the gates, the *portae* of the antique Roman city, that were created by the mark in the land formed with an agricultural plow. In places where an urban gate needed to be located, the plowshare was carried over, or trans-*port*-ed, to render an interruption in the bounding line. In Romance languages, the door [*porta*, *puerta*, *porte*] stems from this Latin lineage, making the concept of portability deeply rooted in the term. With this narrative of an agricultural tool borrowed from cultivation of land for the delineation of urban form, Siegert defines the door as the threshold into lawful territory. In processing the difference between inside and outside, he holds that doors in general accustom us to laws and rituals, disciplining social codes while organizing space.
- 5 Marcel Duchamp used the term *l'inframince*, or "the infrathin," to signify conditions of bare difference, pointing specifically to the verso and the recto of a sheet of paper as an example. Quoted in Craig Dworkin. *No Medium*, MIT Press, 2015, p. 18.
- 6 Siegert. "Doors," p. 15.
- 7 The story is told by numerous authors, including Holl, Steven. Pamphlet Architecture: Rural & Urban House Types in North America, no. 9, Princeton Architectural Press (1982), p. 34; and by Wilson Jr., Samuel. New Orleans Architecture, Volume IV: The Creole Faubourgs. Pelican Publishing, 1974, p. 71: "A projectile discharged from a gun aimed through the front door would presumably travel unimpeded through the house, and emerge from the rear; thus the derivation of the name."
- 8 hooks, bell. "House Art: Merging Public and Private," *Row: Trajectories through the Shotgun House*. Rice University School of Architecture, 2004, p. 23.
- 9 Ibid
- 10 Holl. *Pamphlet Architecture*, pp. 34–36.
- 11 Vlach, John Michael. "The Shotgun House: An African Architectural Legacy. Part I," *Pioneer America* 8, no. 1, January, 1976.
- 12 Vlach, John Michael. "The Shotgun House: An African Architectural Legacy. Part II," *Pioneer America* 8, no. 2, July, 1976.
- 13 Davis, Charles L. II. "The Trouble with Typology: Exposing an Essentialist Model of Cultural Analysis," *Race and Architecture Blog Entry*, March 1, 2013. https://raceandarchitecture.com/2013/03/01/the-trouble-with-typology-an-essentialist-model-of-development/.
- 14 It may be simplistic to compare the *Apuja* house to the ship *Argo*, described by Roland Barthes, but we are compelled by the structuralist reading of the "substitution" of the parts until "nothing is left of its origin." See *Roland Barthes* by Barthes, Roland. *The Ship Argo*. Hill & Wang, 1977, p. 46.
- 15 Through a decade-long project, LuigART Makers Spaces developed a program to save from demolition and rehabilitate for inhabitation a series of shotgun houses in the North Limestone neighborhood of Lexington, Kentucky. Of utmost important to the artistic collective and the architects involved was to preserve shotgun homes for the cultural and historic value they embody, especially as symbols of African heritage in the American landscape. Through an effort to bring an economy to the block, the renovated houses would double as art galleries and makerspaces, with artists living, exhibiting, and selling goods under newly expanded zoning rules. For more information on the LuigART Makers Spaces Challenge and the North Limestone Community Development Corporation, see the Art Place funded project description on https://www.artplaceamerica.org/funded-projects/luigart-makers-spaces.
- 16 Atwood, Andrew and Anna Neimark. *Young Architects 17: Authenticity*. The Architectural League of New York, 2017, p. 66.