

COMMUNITY IN COLLABORATIVE MAKER SPACES

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Abstract

This document describes an ongoing research project investigating the development of a sense of community in collaborative maker spaces. The document reports preliminary findings from a phenomenological inquiry into the nature of identity and interaction amongst artists-in-residence at Standard Projects, a small maker studio in Hortonville, Wisconsin, and the studio's broader social network. The document begins with an introduction to the project, which is followed by a series of annotated images from an interactive artwork (<http://quality.robertfraher.com>) that was created as an experiential representation of the knowledge derived from the study. The annotations describe the user experience and highlight aspects that exemplify the most prominent factors identified in community building. These factors are skill, instruction, and emotion.

Keywords: *interactive, collaborative, creative, community, instruction.*

Introduction

I initially became interested in collaborative maker spaces when a colleague mentioned he was part of an all-night hack-a-thon hosted in Minneapolis, Minnesota to respond to the digital needs of area non-profit companies. I was fascinated by the notion of an informal, creative environment, seemingly unified by little more than a group's shared interest in making something. I wondered about how these entities came together, and what made them, and the individuals who constituted them, work effectively. Over time, my exposure to a variety of maker spaces, and my subsequent conversations with people involved in them, led me to a specific question, "What are the most significant factors in the emergence of a sense of community in collaborative maker spaces?"

This question became the basis of a phenomenological investigation into the nature of identity and interaction amongst individuals in collaborative maker spaces. To explore this question, I embedded myself as an artist-in-residence at Standard Projects, a small multidisciplinary maker studio in Hortonville, Wisconsin. The studio was started in 2014 by artist and designer Claire Abitz. My decision to use Standard Projects as the context for my inquiry was based on three characteristics of the studio, which I did not find elsewhere. First, the studio has a residency program. This attribute was primary in my decision-making, as I wanted to consider the studio's social structure and interpersonal dynamics from within that structure and with the ability to contribute to its dynamics. Second, the studio had been founded fairly recently. Due to this, I reasoned that its social network would still be emerging and thus, might provide more insightful observations related to the process of relationship building. Third, I saw evidence in the marketing and news content associated with the studio of an emphasis on sustainability and ecologically sensitive practices. I felt that, in this way, the value structure of the studio aligned with my own, and therefore hoped this similarity would lead to productive interaction.

During August of 2015, I spent eight days living and working at Standard Projects. My activities during this time involved interviewing, collaborating, and socializing with the other artists-in-residence, as well as with many members of the studio's broader social network. Having reflected upon these experiences and compared my initial conclusions with those of others, three factors have emerged as being the most prominent in influencing the development of a sense of community at Standard Projects. These factors are skill, instruction, and emotion, described below.

Factors in Community Building

The factors described herein are three related ideas, and are understood to be influential in the development of a sense of community at Standard Projects. These ideas were identified based on experiential investigation and systematic reflection and corroboration with others. I present these ideas as categories of description, which are

intended to generalize the knowledge derived from this inquiry to aid in understanding the development of a sense of community within other collaborative maker spaces.

Skill

Individual skill was understood as a major influence in how interpersonal relationships develop. The character of this skill can be analyzed along two main axes, the nature of an individual's skills (e.g., woodworking) and skill level (e.g., expert). During my time at the studio, no individual was considered to be the most proficient with all media or techniques. Instead, it was understood that each person brought to the enterprise either a unique level of competence with a particular process or material, or a breadth of knowledge that could be used to facilitate communication. Skill was identified as a primary determiner of opportunities for collaboration.

Instruction

The process of instruction was observed to happen almost perpetually during activities that involved collaboration. The sharing of knowledge also regularly occurred during periods of nonproductive time, or socialization. The axes along which the character of this idea can be analyzed include providing or receiving (e.g., teacher or learner), applied or conceptual (e.g., hands-on or hands-off), and detailed or general (e.g., in-depth or superficial). A strong correlation was observed between individuals who were active across any of these axes and their sense of place in the community.

Emotion

Perhaps the most telling factor identified, an individual's emotional relationship to his or her work was recognized as a ubiquitous trait amongst the individuals that comprise the studio's social network. The character of this emotional component can be analyzed across three main axes, empathic (e.g., relating to the needs of the user of the artifact being created), qualitative (e.g., describing the experience provided by an artifact), and intrinsic (e.g., an individual's internal motivation for creative activity). It became apparent that the emphasis given to the first two of these dimensions fluctuated based on what an individual was making. However, the last dimension was understood as foundational, and was described as influential regardless of an individual's project focus. Moreover, an individual's strong sense of intrinsic motivation was universally acknowledged as a quality important to others in the studio's social network.

Experiential Representation of Knowledge

Based on the insights described above, I proposed a collaborative project to the other artists-in-residence that would serve as an experiential representation of the knowledge derived from the study thus far. All of the artists elected to participate, as well as several others from the studio's broader social network. This project took the form of an interactive audio-visual documentary (<http://quality.robertfraher.com>).

This piece applies text from Christopher Alexander's *The Timeless Way of Building* as a narrative to guide users through the studio's maker spaces, between each of the artists-in-residence, and amongst the other social activities at the studio. Alexander's text was selected based on how its theoretical perspective aligns with that of the general ideology of the studio. Alexander (1979) describes his theoretical perspective as "an entirely new attitude to architecture and planning" (p. i). This attitude celebrates design and building processes that help people feel alive.

Alexander believes there is a central quality found in all the experiences that cause us to feel alive. He (1979) described this quality as "the quality without a name" (p. ix). This interactive artwork seeks to represent the creative processes and communal situations in which this quality is elicited and appreciated at Standard Projects. The images below are screenshots from the piece, and are accompanied by annotations describing the user experience and aspects that exemplify skill, instruction, and emotion.

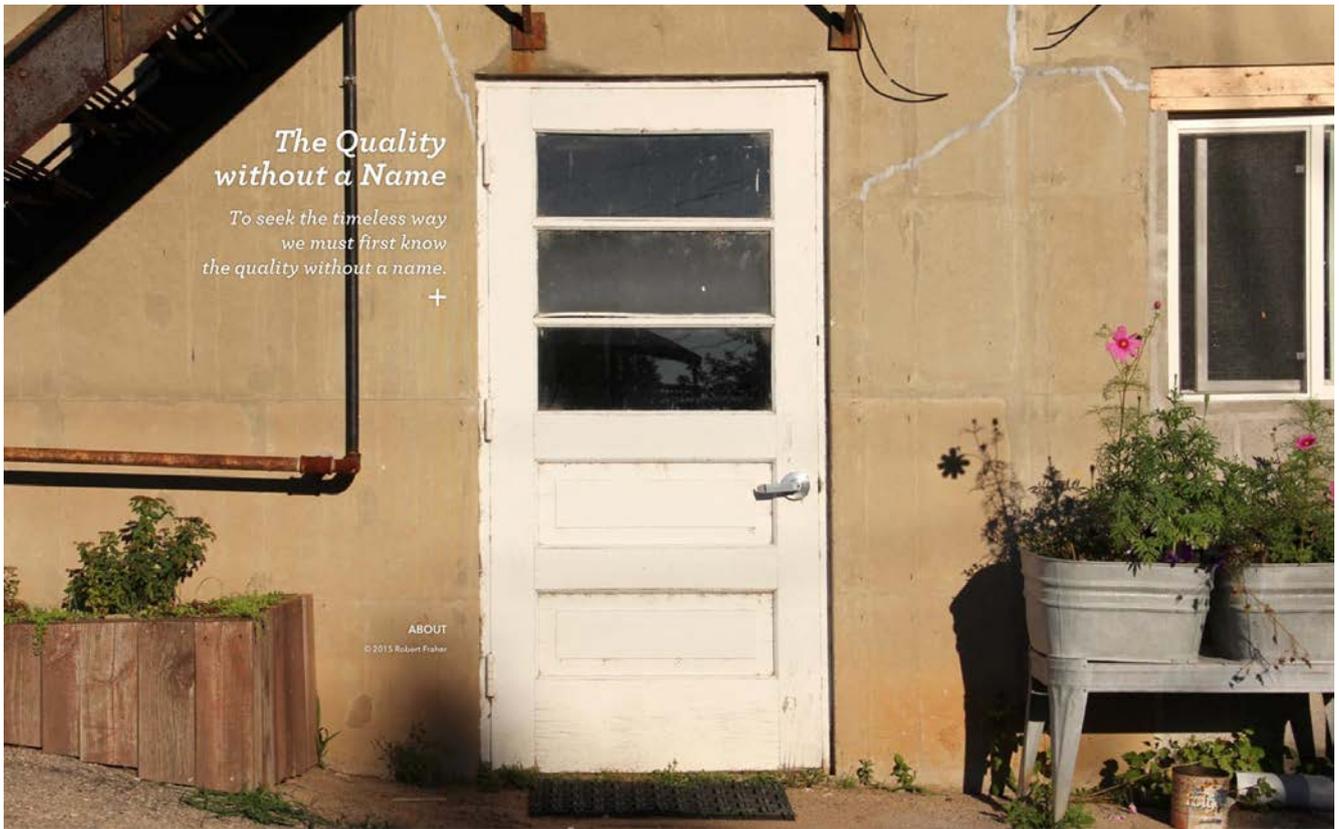


Figure 1: The opening state of the composition uses atmospheric sounds and photography to create a sense of intrigue and establish a premise for the exploration to follow.



Figure 2: Upon the user's initial interaction, animated text continues the narrative as the context for exploration further develops with additional imagery and music.

*The search which we make for this quality,
in our own lives,
is the search for those moments
and situations
when we are most alive.*



Figure 3: Through subsequent user interaction, the composition leads users to a menu of situations to be investigated. Each of these situations employs a dynamic audio-visual format involving additional animated text, time-lapse photography, atmospheric sounds, and music.

Each of the situations represents an artist engaged in his or her creative process. These situations were conceived to demonstrate both an artist's high level of skill and passion for his or her craft.

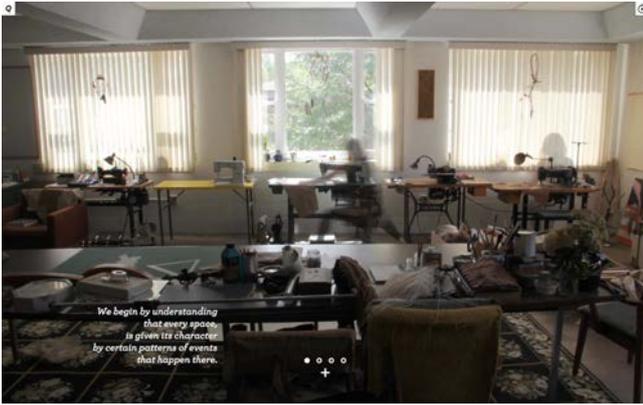


Figure 4: The Sewing Room



Figure 8: Claire Abitz



Figure 5: The Garage



Figure 9: Nic Langner



Figure 6: The Airstream



Figure 10: Shannon Slane



Figure 7: The Study



Figure 11: Robert Fraher

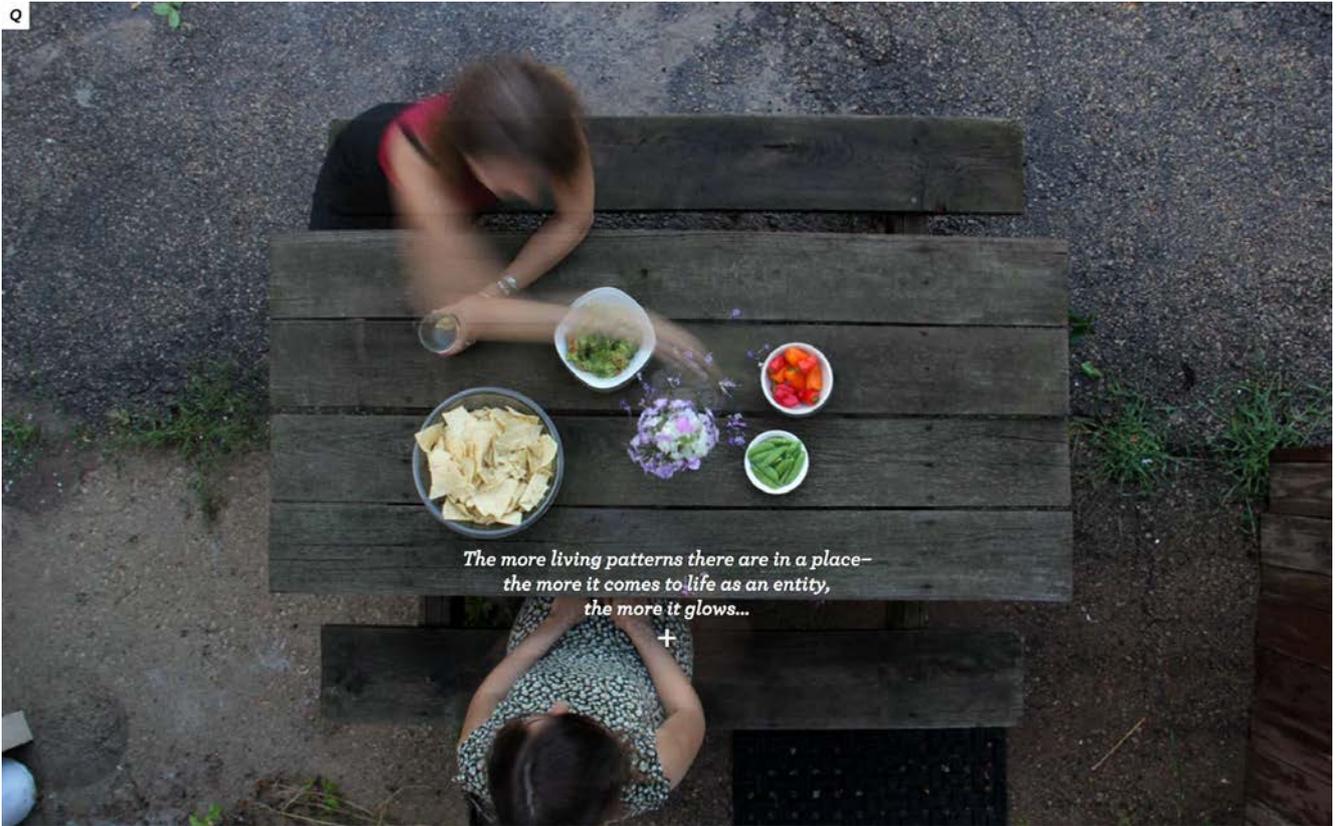


Figure 12: When the user chooses to move on, the composition presents a dinner party sequence involving additional animated text, time-lapse photography, and music. This section also contains an audio recording of part of the dinner conversation, a candid example of informal instruction.

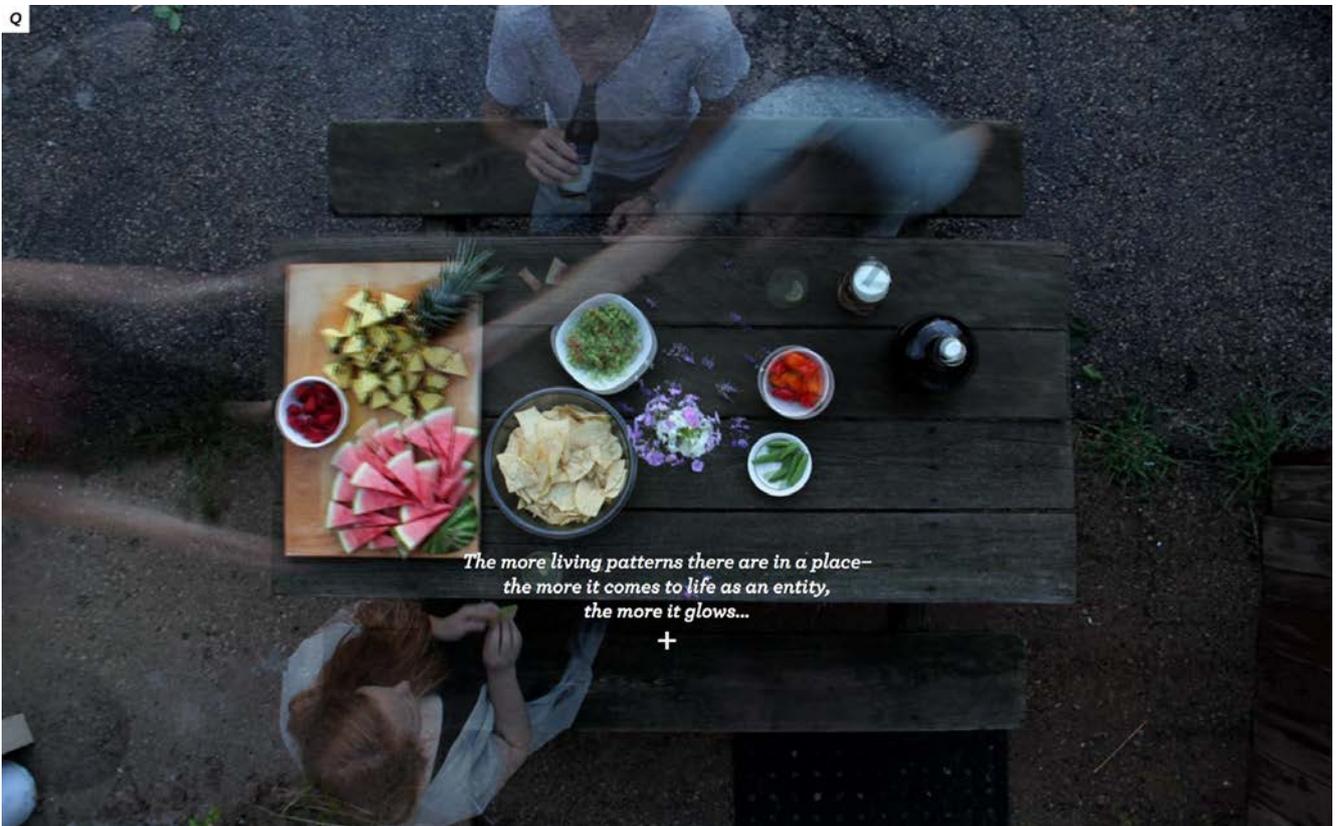


Figure 13: Dinner party continued.



Figure 14: Dinner party continued.



Figure 15: Dinner party continued.



Figure 16: When the dinner party sequence concludes, users are presented with a final image and looping audio until they choose to progress.



Figure 17: The composition then presents the next phase of the evening using additional animated text, time-lapse photography, and music. This section also contains an audio recording of a portion of the campfire discussion. Two designers discuss the subtleties new product characteristics. Two artists learn how to sing a song together.

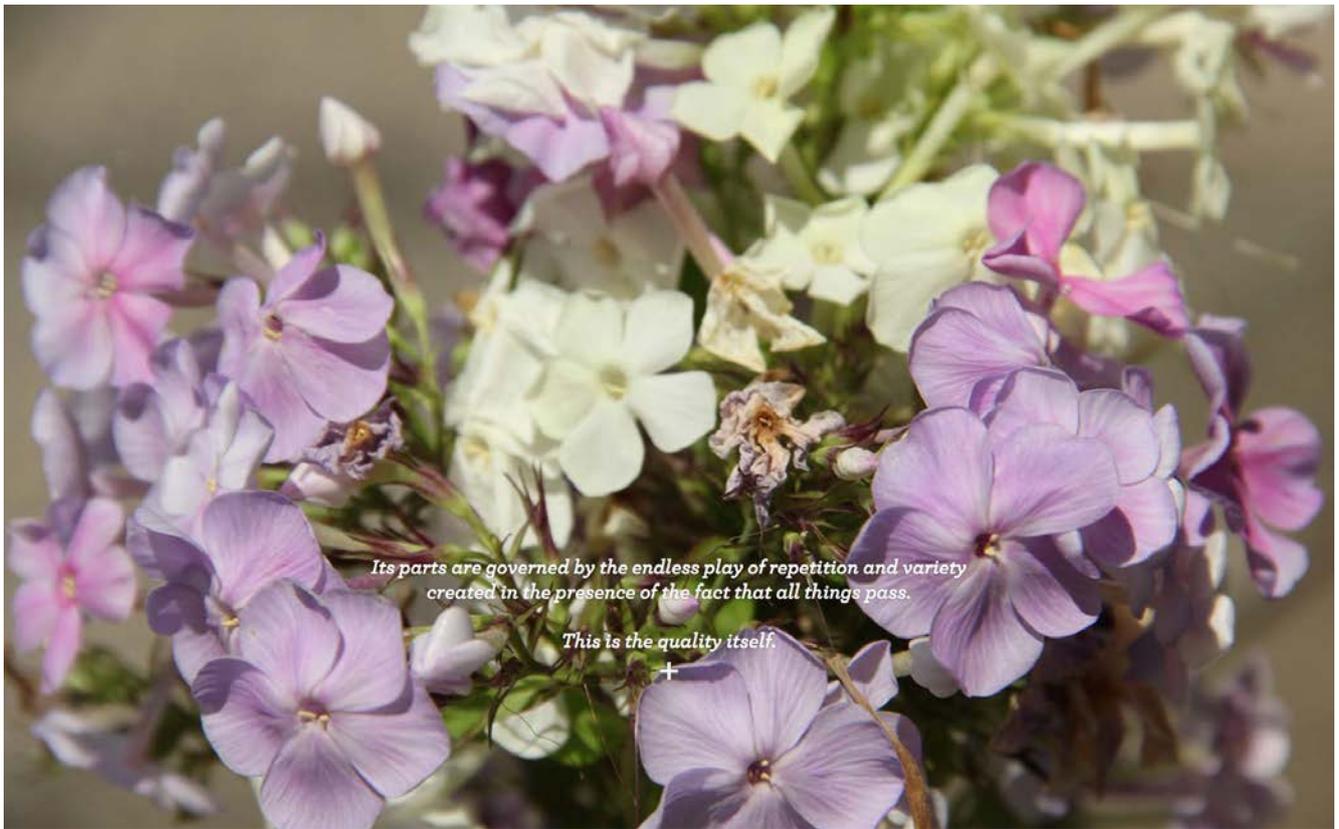


Figure 18: The final phase of the composition presents the concluding text of the narrative, images of cut flowers, and music.

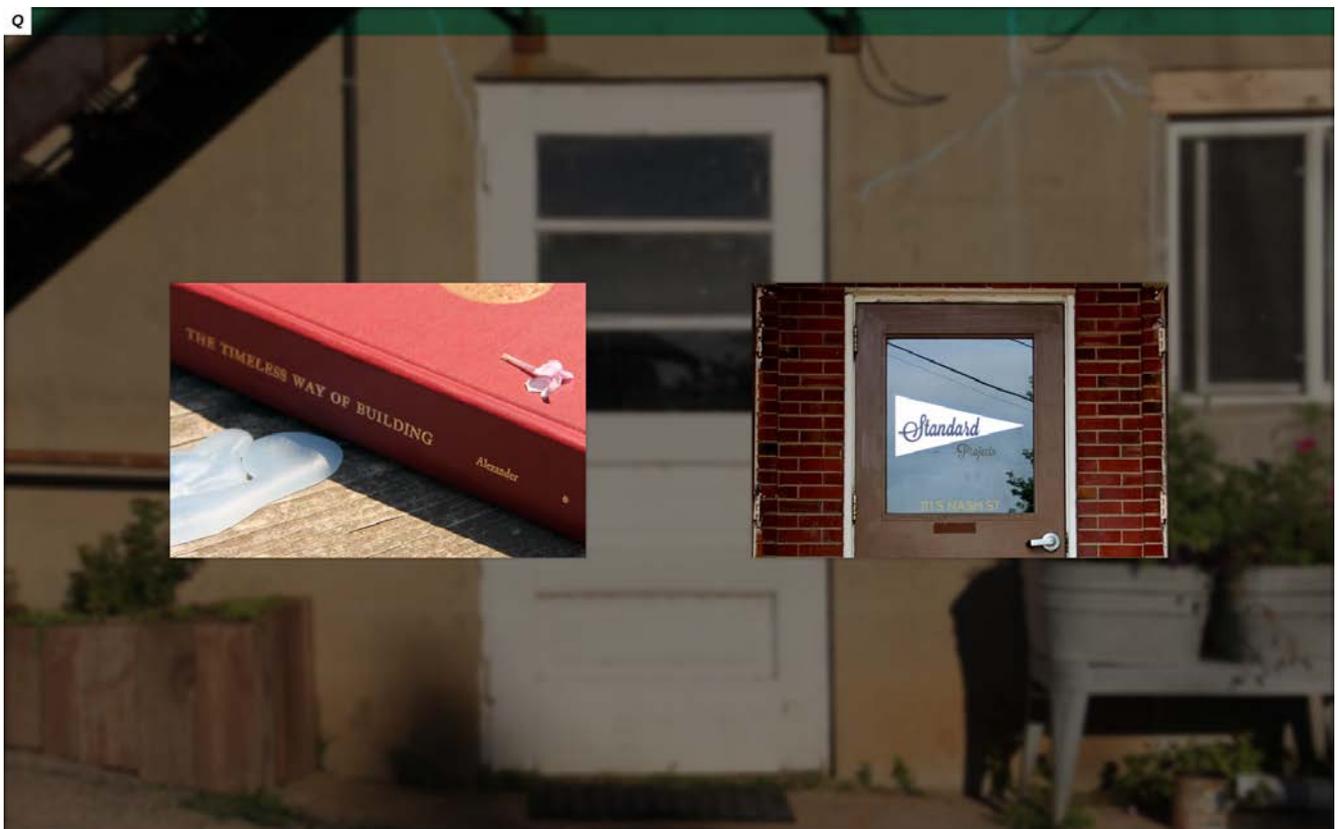


Figure 19: The composition contains an “about” section for users interested in learning more about the guiding text and / or the studio featured in the composition.

References

Alexander, C. (1979). *The Timeless Way of Building*. New York, NY: Oxford University Press.