ASSESSING WORKPLACE DESIGN:
APPLYING ANTHROPOLOGY TO ASSESS AN
ARCHITECTURE FIRM’S OWN HEADQUARTERS DESIGN

S. Angela Ramer

Thesis Prepared for the Degree of

MASTER OF SCIENCE

UNIVERSITY OF NORTH TEXAS

December 2014

COMMITTEE:

Christina Wasson, PhD.
Department of Anthropology (Chair)

Ann Jordan, PhD.
Department of Anthropology

Michael Gibson, MFA
College of Visual Art and Design
Corporations, design firms, technology, and furniture companies are rethinking the concept of the ‘workplace’ environment and built ‘office’ in an effort to respond to changing characteristics of the workplace. The following report presents a case study, post-occupancy assessment of an architecture firm’s relocation of their corporate headquarters in Dallas, TX. This ethnographic research transpired from September 2013 to February 2014 and included participant observation, employee interviews, and an office-wide employee survey. Applying a user-centered approach, this study sought to identify and understand: 1) the most and least effective design elements, 2) unanticipated user-generated (“un-designed”) elements, 3) how the workplace operates as an environment and system of design elements, and 4) opportunities for continued improvement of their work environment.

This study found that HKS ODC successfully increased access to collaborative spaces by increasing the size (i.e. number of square feet, number of rooms), variety of styles (i.e. enclosed rooms, open work surfaces), and distribution of spaces throughout the office environment. An increase in reported public transit commuting from 6.5% at their previous location to 24% at HKS ODC compares to almost five times the national public transit average (5%) and fifteen times the rate of Texas workers (1.6%) and Dallas-Fort Worth-Arlington, TX Metro Area (1.5%). This supports the real estate
decision and design intent of the office that relocating near public transit would increase use (nearly six times that of reported use at 1919 McKinney, 6.5%).

Additional findings and discussion relate to HKS ODC’s design enabling increased access to natural light and improved air quality, increased cross-sector collaboration, increased connection to downtown Dallas and engagement with the larger Dallas architectural community, as well as the open office environment encouraging education between all employee levels. Discrepancies between designed ‘flexibility’ and work away from the desk are explored along with the role of technology to facilitate work without replacing face-to-face interaction. This work also identifies key challenges with the design and employee experience and provides recommendations for addressing areas of concern for continued improvement of the workplace design. Continued user-centered research in the field of workplace design is necessary to assess the affect of current interventions in other office environments for comparison and inform future endeavors.
Copyright 2014

by

S. Angela Ramer
ACKNOWLEDGMENTS

Conducting research and writing a thesis is rarely a one-person show. I’d like to acknowledge the many people who have enabled me to complete this project.

• Michael Gibson for referring me to Trip Boswell who originally hired me for a graphic design internship during Summer 2013. Trip was endlessly supportive and much needed comedic relief during my research process in the office.

• Emily Seibert Suter and Dan Noble for seeing potential in my interests, skills, and perspective to convince me to conduct my thesis research not in a healthcare setting like I expected, but in the HKS ODC commercial office building.

• The employees of HKS Inc. One Dallas Center for accepting me into the world of architecture and affording me the opportunity to be a fly-on-the-wall for over six months in their office as a researcher studying them in their ‘natural habitat.’

• HKS Inc.’s investment of in my research and allowing me to reproduce, in whole and in part, our co-created case study booklet, HKS Case Study 2014, as well as general office photography, both of which they have exclusive rights.

• My thesis committee, Michael Gibson and Ann Jordan, led fearlessly by Christina Wasson, whose input helped shape the course of this project and the content of this written work. I’d like to thank Dr. Wasson especially for her unending patience and impeccable guidance through the thesis process.

• Finally, I’d like to acknowledge my friends and family in supporting this lengthy and sometimes seemingly never-ending endeavor- the many late night coffee runs, early morning wake-up calls to do work, and constant words of ‘just get it done.’
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>V</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>VI</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>VII</td>
</tr>
<tr>
<td><strong>DESCRIPTION OF APPLIED THESIS PROJECT</strong></td>
<td>1</td>
</tr>
<tr>
<td>Field Overview Of Workplace Research</td>
<td>1</td>
</tr>
<tr>
<td>Client Overview: HKS Inc.</td>
<td>2</td>
</tr>
<tr>
<td>Research Objectives</td>
<td>5</td>
</tr>
<tr>
<td>Significance Of Study</td>
<td>6</td>
</tr>
<tr>
<td>Disclosures</td>
<td>8</td>
</tr>
<tr>
<td><strong>CHAPTER 2</strong></td>
<td>10</td>
</tr>
<tr>
<td><strong>CONTEXT OF WORK</strong></td>
<td>10</td>
</tr>
<tr>
<td>Origins and Early Workplace Anthropology</td>
<td>11</td>
</tr>
<tr>
<td>Emergence of Design Anthropology</td>
<td>14</td>
</tr>
<tr>
<td>Transdisciplinary Studies of Workplace</td>
<td>19</td>
</tr>
<tr>
<td>Conclusion</td>
<td>23</td>
</tr>
<tr>
<td><strong>CHAPTER 3</strong></td>
<td>26</td>
</tr>
<tr>
<td><strong>PROJECT DESIGN</strong></td>
<td>26</td>
</tr>
<tr>
<td>Study Participants</td>
<td>26</td>
</tr>
<tr>
<td>Scope of Research</td>
<td>29</td>
</tr>
<tr>
<td>Methodology and Instruments</td>
<td>30</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>37</td>
</tr>
<tr>
<td><strong>CHAPTER 4</strong></td>
<td>40</td>
</tr>
<tr>
<td><strong>DESCRIPTION OF DELIVERABLES</strong></td>
<td>40</td>
</tr>
<tr>
<td>Preparation of Deliverables</td>
<td>40</td>
</tr>
<tr>
<td>Case Study Booklet and Discussion of Design Directives Assessment</td>
<td>40</td>
</tr>
<tr>
<td>Increasing Cross-Sector Collaboration (by Physical Co-Location)</td>
<td>41</td>
</tr>
<tr>
<td>Increasing Access to Collaborative Spaces (circulation, proximity)</td>
<td>45</td>
</tr>
<tr>
<td>Encouraging an Educational Environment</td>
<td>52</td>
</tr>
<tr>
<td>Facilitating Employee Wellbeing</td>
<td>56</td>
</tr>
<tr>
<td>Developing the Downtown Area</td>
<td>58</td>
</tr>
<tr>
<td>Office Presentation</td>
<td>60</td>
</tr>
</tbody>
</table>
# CHAPTER 5

## ADDITIONAL INSIGHTS AND CLIENT RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Extensive Sustainable and Wellness Story is Hidden</td>
<td>63</td>
</tr>
<tr>
<td>Open Office Layout Facilitates Knowledge Exchange Between Generations</td>
<td>65</td>
</tr>
<tr>
<td>Discrepancies Between Designed “Flexibility” and Reported Work Away From Desk</td>
<td>69</td>
</tr>
<tr>
<td>Technology Facilitates Work But Does Not Replace In-Person Activities</td>
<td>72</td>
</tr>
<tr>
<td>Environmental Factors Have a Big Impact on Workplace Experience</td>
<td>75</td>
</tr>
<tr>
<td>Shared Services Facilitate Collaboration and Motivation for Physical Movement</td>
<td>78</td>
</tr>
<tr>
<td>A Culture of Critique</td>
<td>80</td>
</tr>
<tr>
<td>Design Equals Tradeoffs</td>
<td>81</td>
</tr>
<tr>
<td>The Concept of ‘The Office’ Extends Beyond the Building</td>
<td>82</td>
</tr>
</tbody>
</table>

## CHANGE MANAGEMENT RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilize More Engaging and Appropriate Styles of Communication with Employees</td>
<td>92</td>
</tr>
<tr>
<td>Internal Education is Just as Important as External Marketing of the Space</td>
<td>93</td>
</tr>
</tbody>
</table>

## DISCUSSION AND LARGER IMPLICATIONS OF RESEARCH

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limitations of Research</td>
<td>95</td>
</tr>
<tr>
<td>Conceptualization Quantity and Quality (or Client Terms)</td>
<td>96</td>
</tr>
<tr>
<td>Visualization of Information</td>
<td>97</td>
</tr>
</tbody>
</table>

## CHAPTER 8

## PERSONAL REFLECTIONS

<table>
<thead>
<tr>
<th>Reflection</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiating Identities</td>
<td>100</td>
</tr>
<tr>
<td>Accessing Information</td>
<td>102</td>
</tr>
<tr>
<td>Identifying Relevant Information (for the Client)</td>
<td>103</td>
</tr>
<tr>
<td>Negotiating Confidentiality and Anonymity</td>
<td>105</td>
</tr>
<tr>
<td>Balancing Employment and Educational Commitments</td>
<td>106</td>
</tr>
</tbody>
</table>

## CHAPTER 9

## CONCLUSION

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPENDIX A: INTERVIEW GUIDE EXAMPLE</td>
<td>109</td>
</tr>
<tr>
<td>APPENDIX B: REWORK ODC CASE STUDY BOOKLET</td>
<td>110</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>135</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Study Participant Demographics</td>
<td>29</td>
</tr>
<tr>
<td>Table 2</td>
<td>Project Timeline</td>
<td>30</td>
</tr>
<tr>
<td>Table 3</td>
<td>Comparative Benchmarking Data</td>
<td>41</td>
</tr>
<tr>
<td>Table 4</td>
<td>Reported Locations for Individual Work Away From Desk</td>
<td>47</td>
</tr>
<tr>
<td>Table 5</td>
<td>Reported Location of Teaming</td>
<td>48</td>
</tr>
<tr>
<td>Table 6</td>
<td>Why Not Work Away From Desk Survey Responses</td>
<td>72</td>
</tr>
<tr>
<td>Table 7</td>
<td>Biggest Changes Survey Responses</td>
<td>81</td>
</tr>
<tr>
<td>Table 8</td>
<td>Design Intervention Give and Get</td>
<td>82</td>
</tr>
<tr>
<td>Table 9</td>
<td>Discrepancies Between Design Intent and Built Reality</td>
<td>82</td>
</tr>
<tr>
<td>Table 10</td>
<td>Employee Interests From Office Survey in Order of Highest Response</td>
<td>85</td>
</tr>
<tr>
<td>Table 11</td>
<td>Smaller Short-term Interventions</td>
<td>86</td>
</tr>
<tr>
<td>Table 12</td>
<td>Improvements Requiring Investment</td>
<td>87</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>User experience mapping example</td>
<td>34</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Interviewee office assignments</td>
<td>38</td>
</tr>
<tr>
<td>Figure 3</td>
<td>reWORK HKS ODC co-location map</td>
<td>43</td>
</tr>
<tr>
<td>Figure 4</td>
<td>1919 McKinney and HKS ODC layout and desk style</td>
<td>45</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Reported heads down work</td>
<td>46</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Floor allocation of HKS ODC conferencing and collaborative spaces</td>
<td>49</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Allocation of McKinney conferencing and collaborative spaces</td>
<td>49</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Reported desk style</td>
<td>53</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Layout of typical work spaces</td>
<td>54</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Identifying a continuum of spaces for education in HKS ODC</td>
<td>55</td>
</tr>
<tr>
<td>Figure 11</td>
<td>Improved air quality at HKS ODC</td>
<td>58</td>
</tr>
<tr>
<td>Figure 12</td>
<td>Sustainable materials</td>
<td>64</td>
</tr>
<tr>
<td>Figure 13</td>
<td>Level 2 circulation and conference room use heat map</td>
<td>98</td>
</tr>
<tr>
<td>Figure 14</td>
<td>Level 2 circulation heat map (Qualtrics)</td>
<td>99</td>
</tr>
<tr>
<td>Figure 15</td>
<td>Level 2 reported conference room use (Qualtrics)</td>
<td>99</td>
</tr>
</tbody>
</table>
CHAPTER 1
DESCRIPTION OF APPLIED THESIS PROJECT

Field Overview of Workplace Research

Recent shifts in architecture reflect a new imperative to incorporate user-centered research for decision support in iterative process of workplace design. While other market sectors like healthcare have utilized user-centered design approaches for decades, industrial design (led by Donald Norman and William Rouse), and, even more recently architecture, is beginning to understand the importance of focusing design decision-making around users (i.e. employee experience and needs rather than designer assumptions or aesthetics) (Cefkin 2009, Wasson 2000). Numerous corporations, design firms, and technology and furniture companies are exploring design research to respond to the dynamic workplace needs of employees in increasingly cost-conscious, risk-averse industries. This includes considerations of multigenerational, international, mobile and collaborative workforces with varying needs, experiences, and expectations. Furniture companies such as Knoll, Steelcase, and Herman Miller have done extensive research on work modes and movement within the workplace, while design and architecture firms such as Gensler and HOK continue to document workplace trends in terms of work styles, workflow, and interior design. The following case study investigates an architecture firms’ move to a new, renovated office as an ideal opportunity to effectively assess their own design processes, from problem framing to design solutions, and design implementation.

Corporations, design firms, technology, and furniture companies are rethinking the concept of the ‘workplace’ environment and built ‘office’ in an effort to respond to
changing characteristics of the workplace. Since typical office-based U.S. employees spend at least one-third of their day in the workplace (with a common 9 to 5pm work cycle), changes in where, how, and when we work will have major impacts on our work habits, work styles, and work culture, and vice versa. Understanding the conditions, factors, and actors that make an effective and acceptable work environment is key to decreasing unnecessary corporate operating costs, attracting and retaining top talent, improving productivity, as well as increasing the employee satisfaction and the quality of life in the workplace.

*Client Overview: HKS Inc.*

HKS Inc. is a global architecture firm with more than ten design sectors (e.g. government, hospitality, commercial, and education), and specialties in healthcare, sports and entertainment design. In May 2013, the corporate headquarters, which had been located in the Uptown area of Dallas at the single-tenant 1919 McKinney Avenue building, relocated into the lower levels of a semi-complete renovated multi-tenant high-rise space at One Dallas Center (ODC) in downtown Dallas. The interior design responds directly to the physical challenges of the previous environment (overall it was dark, with a lack of access to natural light, was served by old mechanical systems, and did not have enough conferencing spaces). It also highlights and fosters change in work culture (i.e. an aspiration to a flatter hierarchy, more accessible knowledge sharing, and attempt to remove dichotomous labels of “design” and “production” from vocabulary to emphasize more integrated work practices and processes), improves the technological capabilities of the workplace, and realizes HKS’ desire to contribute to the development
of downtown Dallas\(^1\). This research also occurred during the promotion of a new chief executive officer at HKS, and marked a major transition in their leadership.

One Dallas Center was designed by I.M. Pei and built as Patriot Tower in 1979 with an iconic diamond-shaped footprint and skewed, northeast, orientation. Statistically, HKS ODC offered almost the same amount of usable square footage\(^2\) (USF) of office space to employees as the previous location; however, there were major changes in the allocation and design of interior workspaces. Employees are spread among seven contiguous floors and most of the older, hand-manufactured work surfaces of 1919 McKinney were left behind for new, more modern systematically organized pieces designed and manufactured by Herman Miller and Knoll. Smart-sensing shades and light fixtures were added throughout the new space, along with recycled and non-VOC (volatile organic compound) materials.

As part of a larger effort to leverage research insights from their work in healthcare into workplace (“commercial interiors”) design, HKS commissioned my post-occupancy assessment of their new corporate headquarters at HKS ODC\(^3,4\). reWORK (as the research approach became called) grew out of the company’s desire for a post-occupancy assessment highlighting sustainability, employee wellbeing, and work

---

\(^1\) These were disclosed to me by the design team during numerous informal conversations as well as presented in a third party visioning booklet.

\(^2\) Usable square footage (USF) is generally considered the private tenant space used to securely house personnel, furniture, equipment, and products. It does not include restrooms, elevator shafts, fire escapes, stairwells, mechanical rooms, or public corridors.

\(^3\) This work was commissioned in September 2013, four months after the official move. Observational data collection was started in late October 2013, five months post-move. Interviews started in November 2013, six months post-move and the survey was done in January 2014, eight months post-move.

\(^4\) This assessment serves as a post-occupancy, ethnographic assessment on the user experience and built environment rather than a more standardized industry-based post-occupancy evaluation, which does focus on occupant feedback but more of building operations, space utilization, and occupant density (see Preiser et al. 1988 for a description).
practices, the design industry’s budding interest in performance-proven design, and my own interests in informing my understanding of the factors that affect employee experience and employee satisfaction with workplace design. Thus, reWORK as an HKS service for architecture and interior design was born out of this inaugural study of HKS One Dallas Center. Since the design was done in-house, my external, university-based and anthropologically grounded research approach enabled them to better understand their workplace design process as a case study. The outcomes of this work were three-fold:

1) Provide a responsive feedback loop for employees in an effort to understand their perceptions and process of moving into and adapting to a new work environment

2) Enable a reflexive study of their workplace design process to promote the concept of co-design/participatory design in future internal and external projects

3) Generate a research-based case study to share both externally (with clients and the larger architecture community) and internally (with project teams and other sectors).

The following research presents a case-study, post-occupancy assessment of the relocation of their corporate headquarters in Dallas, TX. The research transpired from September 2013 to February 2014. Since the research occurred after their relocation, it was not possible for me to collect any primary, pre-move data in their previous office for direct comparison. Methods included on-site participant observation,

---

5 This refers to design-client relationships and contracts negotiated based on design intent and post-occupancy outcomes, where clients either withhold full payment to architects unless the design fulfills promised goals (e.g. 30 percent reduction in energy operating costs) or that architects are awarded a bonus for a design that achieves a promised goal.
semi-structured interviews, informal interviews, and an office-wide survey, along with more novel design-oriented methodologies. This research sought to identify and understand: 1) the most and least effective design elements, 2) unanticipated user-generated ("un-designed") elements, 3) how the workplace operates as an environment and system of design elements, and 4) opportunities for continued improvement of their work environment.

**Research Objectives**

While a foundational part of the HKS Research Initiative, my research, more specifically, sought to compare whether, how, and to what extent the new workplace environment successfully:

- Increased or decreased space allocated for key workplace features/functions (i.e. individual workstations, collaborative space, conferencing, kitchen, back of house operations, movement across and between floors, access to daylight)
- Facilitated both independent and collaborative work through a reorganization of seating and spatial arrangements
- Improved opportunities for collaboration between work sectors
- Maintained desired physical and experiential aspects of the company culture
- Positively influenced work habits, workflow, and/or work culture

The research also sought to compare benchmarking metrics between the previous

---

6 Design elements refer to intentional, tangible and intangible components of the space. Some of these include desk spaces, open layout, circulation paths, collaborative spaces, transparency, conference rooms, entrances and exits.

7 Improvements would constitute changes to the built environment that positively address a known (or unknown) challenge (e.g. the installation of coat racks when employees question where to store cold weather gear). The success of improvements is measured both anecdotally, with a decrease in demand to management, or a positive review in the annual employee satisfaction survey.
space, 1919 McKinney, and the new space, HKS ODC (see Figure 6 and 7 for floor
plans of each space for comparison). Benchmarking metrics are square footage
measurements of built spaces, such as square footage allocated for each workstation,
conferencing, and layout/design spaces. Quantitative metrics from benchmarking and
an employee survey were contextualized within qualitative findings from observation
and interviews to provide a more holistic perspective on employee perceptions,
workplace practices, and use of the office environment.

Significance of Study

The relocation of HKS coincided with major shifts in the firm’s operations and
culture. This included significant shifts in executive management and relocation into the
client’s fourth corporate headquarters, a 100 percent HKS designed project. Thus, this
was a unique opportunity to document and assess the convergence of changes in
corporate leadership, a corporate headquarters relocation process of employees, and
an architecture firm’s own design process, presented in a comparative case study.

There is extensive theoretical significance in this work as well, contributing to the
integration and adoption of design and anthropology started by Lucy Suchman and
Xerox PARC in the early 1990s. The planning and strategic application of
anthropological methodologies highlights the value of engaging the user in the
discovery and design process, previously held exclusively by the designer (or in this
case, the architect) (Wasson 2000, Wasson 2002; for more of a design perspective see
the works of Helen Armstrong, Ellen Lupton, and Pieter Stappers). In addition, the use
of theoretical frameworks in analysis enables applied anthropology to test existing
theories from design anthropology and transdisciplinary fields rather than relegating theory testing and development to academic anthropology. Specific theoretical significance of this study is discussed at more depth in the following chapter.

Therefore, this study provided a human-centered, experience-based assessment of the HKS ODC employee office experience by drawing on ethnographic methods. Ethnography is not a data collection method in-and-of itself, but rather a research approach utilizing a collection of data collection and analysis methods with narrative-oriented outcomes (Blomberg et al. 1993). And within the context of communication, Cayla et al. (2014) warn that ethnography is not “just another innovative research approach in a portfolio of research techniques, but also a critical tool to spark internal conversations about markets [or projects] and facilitate a better ongoing alignment between a business and its future market opportunities” (2014:62). Thus, this project followed the key guiding principles of ethnography, with a blended application of rapid ethnography within a corporate setting and focused on design:

1) Natural setting (*in-situ* study) (Blomberg et al. 1993, Cayla et al. 2014)

2) Holism (studying behaviors in larger contexts) (Blomberg et al. 1993) and a systems perspective (Squires 2002)

3) Descriptive documentation rather than prescriptive interpretation (Blomberg et al., 1993) which is similar to Squire’s (2002) discussion of summative evaluation versus formative evaluation

---

8 “‘When the cook tastes the soup, that’s formative evaluation; when the guest tastes it, that’s summative evaluation.’” The subtle difference between investigating how something can be improved versus if that same thing should even considered/continued. (Squires 2002, p.118)
4) Members’ point-of-view (capture the insider’s perspective- emic vs. etic) 
   (Blomberg et al. 1993)

5) Triangulated data collection (observation, interview, and survey) (Squires 2002)

6) Iterative data collection and analysis (Squires 2002)

Insights from this work will be used both internally to continually improve the HKS ODC workplace, as well as externally to inform HKS’s client projects. Internally, findings will help HKS better understand employees’ use of space, circulation paths, common concerns, and perceptions of the built environment as a workplace system and place to plan and complete work. Externally, insights will showcase the value of research in workplace design for industry clients and begin to build a knowledge of workplace culture in the built environment whereas most previous literature has focused on more standardized architectural assessment; this is discussed at more length in Chapter 2 within the context of previous work. Both internal and external perspectives make use of this research as a case study, presenting examples and guidelines rather than standards and rules.

Disclosures

This research was commissioned by the client and completed entirely on-site with partial funding from the client as part of a graduate research internship. While the client did have some input in the research design, this project was still designed and vetted by my thesis committee and the UNT IRB. The client relationship caused some degree of bias in terms of data collection, such as the dichotomous range of perspectives from interviewees who offered strong, rather than milder, opinions of the
space. However, this also helped select key study participants who could offer the most relevant and unguarded insights.

The client, HKS, owns all rights to the co-created deliverable featured in Appendix B. Permission to reproduce the work in its entirety as reference for this thesis was obtained from the client prior to publication. For those whose experiences, quotes, or photography were used in reWORK ODC marketing publications or this thesis, each participant was re-consented in order to review their quote and sign a release of identity both in name and photography (where appropriate).
CHAPTER 2
CONTEXT OF WORK

In the wake of previous social and economic factors, there appears to be a
growing employer investment in means to promote and track worker productivity and
wellbeing, among non-profit organizations and for-profit corporations alike. As such,
organizations have a taken an interest in studying the employee experience in the office
environment. This in conjunction with radical changes in more recent technological
development results in a remarkable time to reassess “work” in the “workplace.”
However, concepts and practices of “work” and “workplace” are not new to anthropology
and have increasingly captured the attention of applied anthropologists both in and out
of the private sector since the 1940s (Baba 2005, Jordan 2013) with a particularly
strong resurgence in the 1980s and 1990s (Baba 2005, Wasson 2000).

Across time and industry, these practitioners gained entre and employment in the
nontraditional, ‘exotic,’ worlds of business, furniture, technology (particularly software),
and design organizations, such as E-Lab (purchased by SapientNitro Corp. in 1999),
IBM, Xerox, Google, Sony, Microsoft, Motorola, Facebook, IDEO, GravityTank, and
Citrix, to name but a few of the growing list. Assuming titles such as Design Researcher,
Design Anthropologist, User Experience Researcher, Research Analyst, and Solutions
Architect (to name but a few), practitioners are joining the ranks of design,
organizational, and management teams to understand the employee experience and
provide actionable insights for “work” in built (and virtual) work environments. Their work
has and continues to increase understanding of the larger economic and psychosocial
contexts of workers, domestically and abroad.
The several specific fields that this thesis builds upon and reacts to include: 1) workplace anthropology, 2) design anthropology\(^9\), and 3) more recent transdisciplinary inquiries into user experience and the build environment. Each section of following discussion provides differing (and sometimes shared) insights into both the theoretical perspectives and practical approaches. This framework of thought and praxis contextualizes my own work in design anthropology at HKS One Dallas Center, which adds to the existing catalogue of studies in and of corporate environments.

Origins and Early Workplace Anthropology

Applied anthropology’s history in design emerged out of studies focusing on the workplace- the most seminal of these being the well-known Western Electric’s Hawthorne Projects of the 1940s (Baba 2005, Cefkin, 2009, Jordan 2013). Designed by anthropologist W. Lloyd Warner (a student of Radcliffe-Brown) at the invitation of Australian psychiatrist Elton Mayo, the Hawthorne studies uncovered radical insights into working conditions, productivity, and informal organization (Baba 1994, Jordan 2013). These projects mark the first studies on how work conditions impact human work processes and social structures. Previously disregarded physical and environmental aspects of the workplace (i.e. lighting levels, etc.) as well as psychological aspects (i.e. work breaks, work hours, group dynamic, and management) were revealed as having tremendous potential to alter the human experience/ performance of “work.” A final phase of the studies, conducted in a controlled experimental facility at Bank Wiring Observation Room (BWOR) with trained observers, served as the first systematic

---

\(^9\) Design anthropology is an area of concentration within applied anthropology, meaning their studies and work focus on the interaction of humans with technology, build objects, and the built environment. Often they work within industrial design and marketing.
observational investigation of work groups and their organizational culture. The BWOR study made apparent the influence and discrepancy between managerial intent, employee interpretations and responses, and how management-employee interactions impacted worker productivity (Baba 2005).

Mayo's involvement in the Hawthorne studies helped establish the more psychologically focused Human Relations School (Jordan 2013) while Warner went on to apply a larger theoretical agenda and founded the practice of industrial anthropology in corporate America. Some of the original companies that hired anthropologists of the Human Relations School (and students of Warner) included Sears, IBM, the Container Corporation of America, and Bundy Tubing Company; these all led to industrial ethnographies. These industry-based case studies of the 1940s and 1950s focused on management problems like high turnover rates and strikes (Baba 2005). They highlighted the newer perspective that factors and actors directly influenced effectiveness and efficiency of work (Baba 2005), and argued that the study of informal human relations within closed social systems were a means to better understand the organization (Baba 2005, Jordan 2013). Thus, anthropology applied to the study of work and employment became a valuable tool for organizations to assess and inform workplace practices and policies, ultimately influencing organizational culture (Jordan 2013).

The 1960s ushered in a rapid shift back to academia for anthropology in light of economic growth and access to education, as well as national government funding for research overseas, resulting in little anthropological employment in industry for nearly two decades. A range of occupational insights came from ethnographic studies of
population groups ranging from medical school students, nightclub strippers, and accountants to rodeo workers, underground miners, and construction workers (Baba 2005). The two decades between 1960 and 1980 saw an internal fragmentation of industrial anthropology due to the rapid development of anthropological theory and differing interpretations by anthropologists on its purpose(s) in practice (Baba 2005):

- Reactions against prior assumptions that industrial development and cultural change are compatible with existing cultural traditions, which required no adoption of Western practices
- Documenting working class strategies and tacit knowledge used at work in light of for-profit management’s operational end goal for more profit
- Understanding work perceptions, processes, and practices among occupational and professional groups

However, the “explosion of full time practice” Baba (1994) relates directly to the collapse of the U.S. academic job market in the 1970s, in addition to drastic changes in “social, economic, and organizational systems on a global scale,” (Baba 1994:174). Organizations in the U.S. rediscovered the benefit of anthropology in understanding and informing business practices and thus, the 1980s saw applied anthropology extend from academia to the study of workers, groups, and eventually to entire companies (Baba 1994). Wasson (2000) provides a concise overview of the pre-ethnography world of design in an effort to better understand the user, citing cognitive psychology, in particular human factors research, as a means of identifying user’s needs, known and unknown. This approach focused heavily on human information-processing abilities and
“usability” research (see Kuniavsky et al. 2012 for more information), which grew out of historically psychology-based studies.

Early ethnographic work in and for businesses and organizations highlighted the intersection of workplace and consumer studies. This slowly generated the sub-field of the anthropology of work, led by Patricia Sachs, Jean Lave, and Marietta Baba exploring occupational identity, globalization, and science and technology studies (Cefkin 2009). The comparably slow development of ethnography, consumption, and consumer practices are similarly varied, generating shared interests in material culture, symbols, objects, and artifacts particularly as applied to marketing, product design, and advertising (Cefkin 2009, Frascara 2002). This initial adoption of ethnography and anthropological perspective into the creative realm of design at large marks the first steps toward the sub-field of design anthropology.

Emergence of Design Anthropology

Ethnography has been so intuitively appealing to designers (and their clients) because it promises to reveal a whole new dimension of “the user.” It investigates, not just what consumers say they do, but what they actually do. From the beginning, ethnographic studies showed major discrepancies between designers’ intended uses of their products and consumers’ everyday behaviors. (Wasson, 2002:378)

While most of the design industry had yet to officially begin utilizing anthropological theories and methods by the late 1970s and early 1980s, early ethnographic research was being done in the field of industrial design by Jane Fulton Suri (at IDEO) and Liz Sanders (at SonicRim) (Wasson 2000). Both women brought backgrounds in experimental psychology, as well as Suri’s initial studies in human factors-based ergonomics and master’s in architecture (Wasson 2000). Since at least the 1980s, applied anthropologists have been consulted to help guide the design
decision-making that affects marketing and product design projects in the private sector (Sanders 2002, Wasson 2000); however, anthropologists were not well-integrated into the various design communities (e.g. industrial design, interaction design, etc.) resulting in less-actionable summaries of findings and recommendations. Frequently the process of translating research findings into tangible products or outcomes was left to the clients (Wasson 2000).

Generating meaningful and actionable research insights continued to be a challenge for external client deliverables and internal design team briefs (Squires 2002). Blomberg et al. (1993) argued that this disconnect might be due to different approaches to outcomes:

The languages of design and of ethnography evolved in quite different contexts and in relation to different concerns. While the ethnographer is interested in understanding human behavior as it is reflected in the lifeways of diverse communities of people, the designer is interested in designing artifacts that will support the activities of these communities (1993:123)

This may very well be compounded by the past and persistent disconnect between researchers and designers (Wasson 2000) or the occasional “frenzied” design and development teams operating under the pressure of deadlines and project budgets (Watts-Englert et al. 2012).

As an “experiment” of the early 1980s, Elizabeth Sanders explains, “As a social scientist trained both in psychology and anthropology … [when] design firms began experimenting with the social sciences … I played the role of the human factors practitioner, or “user advocate.” My role was to know the user and translate that knowing into [design] principles and prescriptions,” (2002:1). This marks one of the first attempts at a user-centered design process where the social scientist serves as the
interface between the user and the designer (Sanders 2002). This was in direct response to traditional discrepancies between designers who design for assumed users (modeled after themselves, in many cases at the specialist level) and the actual end users (sometimes at the novice level). The later would increasingly become the focal point of most design direction and inquiry (Wasson 2000); where “social scientists bring frameworks for the understanding of user experience to the table, while designers know how to synthesize and embody ideas and opportunities,” (Sanders 2002:6). However, as explained, not all firms rely on social science research. Companies like Apple continue the tradition of pursuing radical “genius” innovation via some combination of technology or design-driven innovation.

A logical (and pragmatic) progression of applied anthropologists beginning to work within design brought together anthropology and industrial design with a focus on studying workplace experiences from the perspective of the employee (Wasson 2000). The innovative work of Eleanor Wynn, Lucy Suchman, and the team at Xerox PARC pioneered use of the ethnographic approach (Cefkin 2009, Wasson 2000, Wasson, 2002). Xerox PARC also brought to the forefront ethnomethodology, conversation analysis, Russian psychologist Vygotsky’s activity theory, and their own concept of “distributed cognition,” (Wasson 2000, Wasson 2002) as well as championing a novel approach to data collection and analysis that featured video recording observational data (Wasson 2000).

The seminal collaborative effort by Xerox PARC (Palo Alto Research Center), Steelcase (office furniture), and the Doblin Group (consulting) pioneered the application of anthropology in industrial design with the “Workplace Project” in 1991 (Baba 2005,
The project inspired Doblin Group members Rick Robinson and John Cain to consider applying ethnographic methods to industrial design more consistently in design projects (Wasson 2000). This convergence of design industry need and anthropological approach spurred the initial and continued incorporation of ethnography into design research as led by innovative firms such as E-Lab which emphasized an equal partnership between researcher and designer (Baba 2005, Wasson 2000). Sapient Corporation’s acquisition of E-Lab in 1999 led the way for large companies to hire sizeable populations of anthropologists and social scientists (Cefkin 2009). It also began blurring the lines between anthropologist, researcher, and designer. This hybridized design, research, and business model of E-Lab has been replicated to some, but not the same, extent across research teams of the most successful corporations today, including Intel, Microsoft, IBM, Yahoo, and Google (Cefkin 2009) as well as design firms like IDEO, Frog Design, Adaptive Path, and Artefact.

A quick assessment of the anthropological practitioner population in the early 1990s revealed that: 25 percent of the total survey response group stated that they worked in the private sector, 37 percent found their primary job function in research, and 31 percent focused on evaluation efforts (Baba 1994:178). Such anthropologists were “deciphering and translating for their sponsors the behavior of cultural others, including others in the form of employee occupational groups, customers, and foreign nationals,” (Baba 1994:179), echoing what Blomberg et al. (1993) outlined early on as six aspects of ethnography’s relevance to design:
1) Understanding user’s setting or contexts of use

2) Helping design avoid the inappropriate imposition of their world view on what the design and implement or disseminate

3) Identifying and describing possible scenarios of use

4) Understanding the human-machine relationship\(^{10}\)

5) Understanding of the users’ work (as a process and product)

6) Provide a systems perspective of objects or environments,

Just as in the fields of marking and consumer behavior, anthropologists’ ability to get close to the consumer, to let the consumer formulate the questions, and to see the rich, contextual issues surrounding product use is an ability that makes important contributions to design research. (Jordan 2013:99)

Increasing industry employment for practitioners of socio-cultural anthropology reveals a shift in the need to investigate and understand the “growing complexity of public and private sector workplaces and the realization by companies and governments that they must operate in a global environment,” (Tett 2005:np). These jobs appear frequently in U.S. technology companies in the likes of Apple, Xerox, and Microsoft or United Kingdom government agencies and non-governmental aid agencies. However, there are consistently struggles on the part of ethnographers to define and legitimize their work in corporations and governments. For some, anthropological research has become “introspective travel writing,” floating between the lines of observer and observed, or “intellectual suicide” with essays declaring little justification for studying other cultures at all (Tett 2005). Geertz went so far as to coin the term “epistemological hypochondria” to describe the excessive self-criticism beyond general reflexivity that prevented researchers from pursuing good ethnographic opportunities

\(^{10}\) However, in a less industrial design approach one would consider the human-environment relationship.
(Eriksen and Nielsen 2001). However since “design is, at its center, about the communication of a product’s use to its users,” and “the uses of a product- the ways it satisfies needs of potential consumers- should be planned before an item is given concrete shape” (Wasson 2002:379), anthropologists and ethnographers have been able to find meaningful, collaborative work in the field of design.

Transdisciplinary Studies of Workplace

The study of office environments or “office architecture,” has ebbed and flowed with the booms and busts of office building projects and related commercial furniture industry (Duffy and Tanis:1993). Thus, with the recent increase of commercial architecture projects, technology-enabled downsizing of brick and mortar spaces, and the ever-diversifying work process that occurs within the built environment, there is a growing effort to quantify and assess the workplace. This has often been done through the perspectives and explicitly empirical measures of facilities management (Haynes and Price 2004, O’Neill and Duvall 2005), which include traditional benchmarking, employee satisfaction surveys, and more typically, post-occupancy operational monitoring. More recent “blended” or transdisciplinary approaches include traditional operations measures, but also include more user-experience and process (rather than product). These focused measures include user journey/workplace mapping or service “blueprinting” (Rasila et al. 2009, Kato et al. 2005) and user needs analysis (Walden 2005) or physical occupancy evaluation with user feedback and environmental comfort evaluations (Ornstein et al. 2005).

Eberhard and Wolfgang Schnelle are credited with conceiving and designing the first variation of an open office plan in 1950 complete with moveable screens, furniture,
and planters (Roper and Juneja 2008). It was called Bürolandschaft (i.e. the office landscape). The concept that guided its design and implementation was that it would foster a more egalitarian work environment (both for operations and communication) as well as enable rapid reconfiguration in a dynamic organizational world. Within the many variations of Bürolandschaft, the defining feature is ironically the lack of a feature, the lack of floor-to-ceiling partitions. (Roper and Juneja 2008) Amidst the empirically identified challenges of distractions (Flynn 2014, Roper and Juneja 2008, Yildirim et al. 2007) transparency (Berstein 2014) and privacy (Aiken 2014; Kim and de Bear 2013, Lawrence et al. 2013, Steelcase 2009), more specifically visual and acoustic privacy (Yildirim et al. 2007), many still look to open office plans as cost-effective, increasingly transparent, and collaboration-inducing environments. However, these presumed advantages are increasingly found to be not true (Bernstein 2014; Steelcase 2009). The overarching challenge, particularly for knowledge workers and creative services firms, is for a workplace to meet “the dual needs of collaboration and concentration,” (Roper & Juneja 2008:91).

Partnerships between designers and big-house furniture companies like Steelcase, Knoll, and Herman Miller have been and continue to be one of the most active areas for workplace design innovation, particularly in relation to marketing furniture products as workplace solutions. Steelcase’s 360 Research group has generated numerous case studies and industry trend reports as a means of supporting their furniture and office design solutions. These studies have most recently begun highlighting movement and the larger role of workplace wellness (Steelcase 2014b) as well as employees’ physical movement (Steelcase 2014a). The Arizona State Study
(Steelcase 2014a) conducted research on renovation of a university-owned building housing the College of Health Solutions and the College of Nursing and Health Innovation. The renovated building provided daylight and natural views, spaces promoting collaboration, and physical activity. The study included a pre-move baseline, and a physiological study of employees (weight, cholesterol, time at desk, and time moving) that bridged industry experience in studying healthcare environments with more current trends in commercial workplace design. It leveraged passive sensors to measure employees’ time standing or sitting at work and at home, physical activity, and sleep. Much like the HKS reWORK project, the study was a “natural experiment,” but it placed special emphasis on physical health, cognition, and stress levels. A follow-up assessment is to be done four months post-move and will include biomedical and physiological metrics (Steelcase 2014a).

One of the oldest, most structured, and most robust approaches to gathering empirical data on workplace design and employee experience comes from the U.S. Workplace Survey of the global architecture firm Gensler. The survey was initiated in 2005 with follow-ups in 2006, 2008, and 2013. This tool compiles data from their individual client-based Workplace Performance Index assessments to provide research-based workplace design trend reports (Gensler 2013). The survey continues to serve as an industry differentiator for the firm in terms of providing in-depth and systematic investigation of the workplace with clearly translatable outcomes for design teams.

In addition, there continue to be many other academic and applied researchers studying various aspects of the modern workplace. Some explore workplace design and open office layouts (Moelich 2012; Roper and Juneja 2008, Yildirim et al. 2007) and
their impact on collaboration (Evans 2012, Hua et al. 2010, Meerwarth et al. 2008, 
Roper and Juneja 2008, Stryker 2012) or on social networks and face-to-face 
communication (Hua et al. 2010, Kim and de Bear 2013, Sailer and McCulloh 2012). 
Other researchers examine blended work environments with both open and isolated 
spaces (Schwartz 2014). Roper & Juneja (2008) provide a good historical overview of 
research on open office environments starting back in the 1960s.

Studies on the role of environmental factors in the workplace, like ambient sound 
and creativity (Mehta et al. 2012), auditory workplace distractions (Flynn 2014, Roper 
and Juneja 2008, Yildirim et al. 2007), lighting (Steidle and Werth 2013, Yildirim et al. 
2007), and temperature (Ornstein et al. 2005) provide a more user-centered approach 
to the traditional technical workplace variables. Another approach is the study of green 
building design on user experience, user comfort, and workplace culture (Brown 2010, 
Smith and Pitt 2013). A different perspective coming from Finland looked at the role of 
exposure to “urban nature environments,” which relates to design interest affording 
access to urban green spaces for employees who work within “built-up environments,” 
(Tyrväinen et al. 2013). Few have yet to empirically explore the role of art in the design 
of workplace environments, although this has been studied to a small degree in 
Workplace technology is a growing topic for investigation (O'Neil 2013, Schwarz 2003, 
Squires 2002, Strohmeyer 2014, Stryker et al. 2012) and more specifically digital and 
distributed communication for teams (Stryker et al. 2012), mobility (O'Neil 2013, 
Schwarz 2003), and telework (Steelcase 2009).
Fortunately or unfortunately, due to the time constrained and fee-oriented nature of industry occupation, many researchers are unable to academically publish their findings as is the traditional practice of academic anthropologists. Often the proprietary nature of the work prevents complete transparency required for such publications. As such, these applied practitioners pursue white paper publications, occasionally with a marketing angle, in similarly valued but less formally structured high-profile communication channels. These include Fast Company, Harvard Business Review, Business Week, Wired, Metropolis, Architectural Digest, Dwell and Communication Arts, as well as academic-based publications like MIT Sloan Management Review (Cayla et al. 2014) and company-specific publications (Gensler’s Dialogue, HKS’ Innovate and Link, Knoll’s Workplace Research Library, Steelcase’s 360 Magazine, Herman Miller’s Insight, IDEO’s Open IDEO) and even company blog pages.

Conclusion

Work, particularly of the types undertaken within the creative services industry, is simultaneously a bounded and planned as well as an organic and spontaneous endeavor. And the lenses through which anthropology views these practices, processes, and products have evolved. Emerging out of evolutionary origins in the early 1900s, anthropologists approached their studies like laboratory scientists looking through a microscope- cultures frozen as closed communities. By later in the century, anthropologists had found the value in and embraced participant observation, in some cases “going native” to better understand the interlinked parts of a dynamic culture (Tett 2005). This ethnographic practice of more inductive, emic, and empathetic inquiry found
its way into the field of design via Rick Robinson, notable other designers like Donald Norman and William Rouse, and design consulting firms in the early 1990s (Wasson 2002). “Where data analytics and surveys provide flattened snapshots, ethnography contributes an empathetic understanding,” of lived realities, perceptions and expectations via rich description and visual detail (Cayla et al. 2014:56). It is capable of capturing the more implicit beliefs and behaviors often overlooked by sales and reported satisfaction data (Cayla et al. 2014) or facility or operation management studies (see Haynes and Price 2004, O’Neill and Duvall 2005, Roper and Juneja 2008). Thus, viewing office employees as active users rather than passive inhabitants, ethnography provides a much-needed angle of illumination for the dynamic experiences and environments of the workplace and the practice of work.

Anthropologists bring three “core knowledge domains” to private industry: “general knowledge of culture and cultural theory, competency in the practice of ethnography, and specialized knowledge of particular cultures and languages,” (Baba 2005:221) Such skills converge at the intersection of business and anthropology (Baba 2005), making use of the unique anthropological perspective that provides “the ability to step back and look at the issues being addressed in a larger context, which gets at the cultural assumptions of the original question and leads to a more holistic and valuable answer,” (Jordan 2013:90). This study brings together both the narrative of user experience within a built environment and the more empirical metrics of the physical environment as a system of active agents; “for the real value of anthropology lies not in its ability to gather data, but in its ability to look at everyday life with fresh, neutral eyes and to spot cultural patterns,” (Tett 2005:np).
The following study builds upon a relatively recent but rich history in workplace and design anthropology, as well as contributing a different perspective to the majority of research currently occurring within the architectural and design industry.

It’s important to remember that interior architecture/design does not directly influence business outcomes such as job performance or organizational effectiveness. Interiors influence building performance, which then impacts psychosocial issues (e.g., environmental satisfaction); these then link to work attitudes, which relate to quality of work life (Brand 2011).

In light of many shared beliefs in the architectural and design world that built space does not directly or only slightly impacts the user, using to building performance often as a medium for user experience, the following research seeks to offer a new, holistic perspective on examining the built office environment and employee experience. Anthropology and ethnography offer the ability to identify and understand discrepancies between design and management intent and employee reality (Darrah and Dornadic 2013). This perspective is also capable of seeing that office design features are neither a trending panacea nor pure evil. These physical factors are merely one (although a rather significant) part of the larger workplace ecosystem. This is of growing interest to researchers as a means to understand company culture, employee behavior, and efficacy of design interventions as qualified by both users and designers which may reveal sharp discrepancies. Anthropologists bring immersive, ethnographic methods along with a theoretical grounding and understanding of the interrelated nature of variables to provide a valuable and useful analysis of the data (Jordan 2013).
CHAPTER 3
PROJECT DESIGN

Study Participants

The study population drew from the existing pool of employees currently working at the HKS headquarters office, a total office population of approximately 450 people. This includes males and females of all age groups, ethnic and national origins, job functions, and all levels of the company distributed between thirteen work sectors and various corporate functions. Due to the identifying nature of any further description, discussion of demographic data is kept to a minimum to ensure participant confidentiality. However, the general analysis from Table 1 reveals the representative nature of sampling for both interviewees and survey respondents.

Interviewees

With over 450 employees actively working in the office at the time of data collection, non-random, quota sampling was used to ensure equal representation of perspectives with this methodology. Quotas were determined first by work sector size, then by previous offices worked at, job function, time employed with company, gender, and rank. An additional layer to quota sampling included specific recruitment criteria based on changes in the work environments of each interviewee from the previous to current office, or what I call “strategic sampling.” For example, moving from a private, enclosed office to a desk in the open office layout or moving from a desk with low

---

11 Sam Ladner’s chapter on sampling in *Practical Ethnography* (2014) provides a pragmatic explanation of the appropriate as well as often assumed, expected, and inappropriate methods for recruiting study participants.
partitions to another desk with low partitions. Ladner sums up this process of layered dimensions with, “The ethnographer, unlike the survey researcher, isn’t just sampling people- she is also sampling sites, times, and seasons” (2014:105).

In response to the busy schedules of many participants I was recruiting, HKS offered interviewees compensation for thirty minutes of billable time at the interviewee’s hourly rate. Interviewees either donated the remaining or all interview time. Working within a tight financial budget and timeframe, emails invitations were sent to selected individuals and positive responses led to the scheduling of an interview time. All participants signed an informed consent form that had been reviewed with them prior to their engagement in interviewing processes.

In total, I interviewed 23 employees at HKS ODC over a two month period of varying rank within the company: five Forum (junior staff), five associate, four vice president, five associate principal and principal, and four executive members. This generated over 20 hours of audio data and afforded a more holistic employee perspective not only based on job function and leadership role, but also seating location and type, and use of shared spaces and general amenities. Besides the four executive members, the remaining general employee\(^\text{12}\) interviews were split evenly with ten male and nine female participants. Members of the immediate One Dallas Center design team were omitted from interview due to the high potential for confounding bias in their discussion and because they would not have represented the experiences and impressions of general employees.

\(^{12}\) These employees worked within healthcare, sports and entertainment, corporate/commercial (office), hospitality and government sectors, along with accounting. They all worked out in the open office environment with direct access to windows and daylight at HKS ODC, but some did have private or semi-enclosed offices with and without access to windows at 1919 McKinney.
Of the 23 employees interviewed, years employed at HKS (serving as a proxy for age) were between 6 months and 46 years, with an average of employment of 16.5 years. This mirrors the general HKS Dallas employee population, but with a slightly higher average experience level. This could be due to the slightly lower representation of more junior level employees and a higher representation of more senior level employees with the inclusion of executive leadership in addition to the general employee quotas.

**Survey Respondents**

The employee survey was offered to all employees of the HKS Dallas office via email announcement. The survey was opened for one week, with midweek and end of week reminder emails for those who had yet to start or still needed to complete the survey. The survey included an electronic informed consent process at the start, the terms of which participants had to agree to in order to launch the survey. Unlike interviewees, survey respondents were not offered a financial incentive but were encouraged to participate as a means of giving anonymous feedback to the company.

56 percent of all Dallas employees completed the survey within the one-week open access period. Demographics of survey respondents closely mirrored those of the general office population (see table below). While age was asked in the survey, too few participants responded to generate a reliable average. Therefore, “years in industry” was used as a proxy measurement for age. The 256 respondents self-reported between 0 and 54 years spent working in their industry (i.e. design, architecture, information...
technology, etc.), with an average of 18.2 years. Years employed at HKS ranged from 0 to 38 years, with an average of 12.8 years.

Table 1. Study Participant Demographics

<table>
<thead>
<tr>
<th>Work Sector</th>
<th>Total Population in Dallas Office</th>
<th>Interviewees</th>
<th>Survey Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>450 (% of total)</td>
<td>23 (% of interviewees)</td>
<td>256 (% of survey respondents)</td>
</tr>
<tr>
<td>Executives</td>
<td>4 (100%)</td>
<td>4</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Corporate Services (i.e. Admin, Accounting)</td>
<td>26 (5.7%)</td>
<td>3</td>
<td>20 (12.6%)</td>
</tr>
<tr>
<td>Commercial</td>
<td>48 (10%)</td>
<td>3</td>
<td>15 (9.4%)</td>
</tr>
<tr>
<td>Healthcare</td>
<td>193 (42%)</td>
<td>6</td>
<td>70 (44%)</td>
</tr>
<tr>
<td>Hospitality</td>
<td>60 (13%)</td>
<td>3</td>
<td>32 (20.1%)</td>
</tr>
<tr>
<td>Sports</td>
<td>46 (10%)</td>
<td>4</td>
<td>22 (13.8%)</td>
</tr>
</tbody>
</table>

| Average Yrs in Industry | - | - | 18.2 |
| Average Yrs at HKS     | - | 16.5 | 12.8 |
| Average Age            | 42 | - | - |

| Male                    | 66% | 14 (61%) | 165 (64.5%) |
| Female                  | 34% | 9 (39%)  | 91 (35.5%)  |

| Forum                   | -   | 5 (21.7%) | 35 (19.6%*) |
| Associate               | -   | 5 (21.7%) | 55 (30.7%*) |
| Vice President          | -   | 4 (17.4%) | 44 (24.6%*) |
| Associate Principal     | -   | 5 (21.7%) | 30 (16.8%*) |
| Principal               | -   | 5 (21.7%) | 13 (7.3%*)  |
| Executive               | -   | 4 (17.4%) | 2 (1.1%*)   |

* Percent of population who responded to the survey question (n = 179).

Scope of Research

The study was inspired by the ratings of workspace design and management presented in Schwede et al. (2008) as a basic outline for what spaces, behaviors, and factors are most applicable to studying a corporate workplace environment in terms of both facility functionality and employee satisfaction. These include: workspace layout,
size of personal workspace, personal work surface area, usability of furniture, flexibility of furniture, workspace storage, meeting rooms, shared equipment, social spaces, suppression of noise, visual disturbance, and access to privacy. However, due to the relatively limited engagement I had with my client and serving as the sole researcher for this project, there were several topics of interest that were identified as relevant but not fully captured within the scope of this project. These are opportunities for further research in the field of workplace design. They include but are not limited to: workplace lighting levels, technology use, flexible work hours, intra and international project team collaboration, client meetings, and workspaces reported as being utilized by employees outside of the corporate office (i.e. transportation, client offices, work sites, and hotels).

Table 2, below, outline the basic scope and timeline of the project. This included research design, data collection, analysis, and assessment for client deliverable.

Table 2. Project Timeline

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Research Design/Logistics</th>
<th>Data Collection</th>
<th>Analysis</th>
<th>Assessment/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>September-October</td>
<td></td>
<td>October - January</td>
<td>December-February</td>
<td>March-April</td>
</tr>
<tr>
<td>Objectives</td>
<td>Develop research design &amp; proposal</td>
<td>Gather quantitative &amp; qualitative data</td>
<td>Identify insights relevant to HKS clients</td>
<td>Develop &amp; present formal findings</td>
</tr>
</tbody>
</table>

Methodology and Instruments

*Participant Observation and Fieldnotes*

As an on-site employee, I utilized participant observation to capture the day-to-day experiences of people working in the office, all employees not just those who completed interviews or the survey, as well as reflect on my own experiences within the
office space (Bernard 2011, Chapter 9). Observations included movement through and interactions on all seven employee-occupied floors (Level 0 to Level 6). My role as full-time employee afforded me the opportunity to accumulate a total of 354 hours spent on-site conducting participant observation. Observations were recorded as fieldnotes in both written and photographic forms.

Per the client’s objectives and my own research goals, I focused observations on some of the following spaces and phenomena:

- Work stations/desking
- Circulation paths
- Amenity use
- Collaborative spaces
- Conference rooms use
- Environmental factor
- Wayfinding markers

Overall, I was investigating the dynamic interaction between people, spaces, and the organizational cultures that they both affected and were in turn affected by. The goal was to identify, analyze, and interpret discrepancies between reported, observed, and desired patterns of use for spaces within the office.

---

13 In this context, amenities are defined as services and/or spaces shared among employees but not distributed equally around the office, for example the multi-purpose Learning Center, espresso bars, client conference center, etc.

14 Wayfinding was first coined by Kevin A. Lynch in “Images of the City” (1960), defining wayfinding as “a consistent use and organization of definite sensory cues from the external environment.” Romdei Passini’s “Wayfinding in Architecture” (1984) expanded the concept to include: signage and other graphic communication, clues inherent in the building’s spatial grammar, logical space planning, audible communication, tactile elements, and provision for special-needs users.
Informal Interviews

These unplanned and unstructured interviews occurred during participant observation when I inquired about activities being done, or not (i.e. ‘Why are you taking the stairs?’ ‘Why don’t you use your task light?’), or objects or spaces being used (i.e. ‘When do you usually come to the materials library?’) (Jordan 2013:27). Informal interviews frequently occurred during or immediately after a social event (the Holiday Potluck), personal interaction (exiting a conference room and seeing someone else come in), or after use of a space or object was observed (Level 2 espresso machine). These interactions lasted between thirty seconds and three minutes. No official count of these interactions has been made due to their integration into my daily fieldnotes.

Semi-structured Interviews

The 23 private, semi-structured interviews were conducted between November and December 2013. Each interview session was completed on-site and face-to-face, in either an available office or vacant conference room behind a closed door. An attempt was made to select an interview location away from the participant’s general work area to avoid interruptions both work-related and social. Interview sessions lasted between thirty minutes and one hour.

The semi-structured interviews included a standard set of questions about the path(s) the employee navigated to get to HKS, in what capacity they’ve worked for the company. This included a short biography of their time working at each office, current employment title, the types of projects they’ve worked on, the nature of their seating assignments, and where they’ve been location in relation to project team members.
Conversational questioning highlighted the following topics: job function, work style, circulation through space, use of office spaces, perceptions of the previous and current office space, and both positive and negative feedback on the workplace. Appendix A details sample questions from the interview guide.

User Experience Mapping Exercise

A unique component of the interviewing process was the inclusion of user experience mapping (UX mapping). This methodology is frequently used in design to identify user journeys\(^{15} \) and perceptions and elicit rich narratives by individuals in relation to people, activity, and space (see Rasila et al. 2009 and Kato et al., 2005 for examples). This also generated a wealth of qualitative visual data for quantitative analysis and helped inform understandings of spatial dynamics of the space beyond room titles and physical locations. Figure 1 provides an example of a user map of the new workplace with circulation routes, destination points, and user feedback.

For this project, UX mapping was the focus of interview discussions. Each interviewee was provided with printed, 11”x17” black and white floor plans of the previous and current office, as well as various marking instruments (pens, pencils, markers, highlighter, etc.). They were instructed to use these floor plans as a reference for discussing the old and new office spaces and to indicating locations of various individuals on the maps (e.g. ‘Can you show me where your team members sit?’), objects/space (e.g. ‘Are there any amenities you use(d) in the office?’), and activities (e.g. ‘Where do you have team meetings?’), ‘How do you get to your desk when you first

\(^{15}\) User journeys tend to encapsulate the day-to-day activities of users, with the potential to tease out special scenarios. For example, showing on a floor plan or other graphic depiction of space how a user moves through a space to meet with team members or attend a client presentation.
enter the office?'). The order of floor plan discussion was alternated, old-new or new-old, between each interview session to avoid bias as a potential result of interview fatigue.

Figure 1. User experience mapping example.

**Online Employee Satisfaction Survey**

The employee satisfaction survey was completed as a means for providing a mechanism to collect the remaining employee perspectives not captured by participant observation and interviews. This was the final phase of data collection and as such was directly informed by interviews and observations to capture local vernacular and spaces of interest and discrepancies (in use) to be investigated.

Using the online software Qualtrics through an external account (not accessible by the client company), the anonymous survey included the following subtopic sections:
• General demographics
• Commuting practices
• Perceptions of workspaces
• Location of team members
• Teaming practices and locations
• Collaborative practices/locations
• Client meeting practices/locations
• Environmental factors (light, sound, temperature)

All questions were made voluntary to avoid dropouts due to concern over identifying information or a participant’s desire not to respond to certain questions. While the entire survey had a maximum of 72 questions, smart survey design (i.e. skip and display logics used by myself within the survey functionality) allowed for the display of only relevant questions and responses requiring follow-up questions. Thus, the survey participant was exposed to an average of eight demographic, 23 office comparison, and fifteen environmental element questions. For those who completed the entire survey in one sitting, it took a median of thirty minutes to complete the survey. Respondents generated over 12,000 words of open-ended feedback for content analysis.

Qualtrics software features static question types (those containing instructions or descriptions, i.e. descriptive text and graphic slides), standard question types (those activated by radial selections or text entry, e.g. multiple choice, matrix table, side by side, semantic differential) and interactive question types with visuals (requiring more
involved activation via select image portion or drag-and-drop functionalities, e.g. rank order, slider, constant sum, hot spot, heat map, and gap analysis). A variety of these question types were used to enable side-by-side comparison of office features and engage the visually-oriented employee population.

Benchmarking and Comparative Metrics

Benchmarking, as a general architectural concept, is the process of calculating and comparing performance metrics to industry standards or best practices within and across industries. Common values for comparison are finite values of time and cost, along with the less tangible values of efficiency and productivity. Within the context of architecture, benchmarking involves the systematic measure of various spatial values of a built environment for comparison. Measurements were calculated according to BOMA (Building Owners and Management Association) industry standards with a project-specific focus on the square footage of workstations, collaborative spaces, conferencing, and social spaces. Following BOMA standards enabled One Dallas Center to be compared to past and future benchmarking metrics in terms of:

- Square and cubic footage of designated work space, conferencing, collaboration, and pathways
- Degree of access to natural light
- Access to and use of digital technologies
- Proximity to collaboration/conference spaces
- Floor plan layout and seating arrangement
- Degree of horizontal (across a floor) and vertical movement (between floors)
This project in particular made use of usable square footage (USF, the amount of space not occupied by mechanical or structural elements) and ratios of number of seats per space/work mode per employee (i.e. 0.8 conference seats per employee). Many of these metrics were strategically selected for consideration in light of the client’s desire to compare this study with future work in which they would replicate the study design, requiring a high level of consistency in data collection and reporting.

**HKS Documents**

Additionally, pre-move employee survey results, employee complaint submissions, move-in documentation, and annotated HKS ODC and HKS floor plans explaining the layout, seating arrangements, and allocations of space were supplied by the client for my reference. Many of these documents were readily available to the general employee population while others were only privy to the HKS ODC design team and upper management. This was done to delimit the amount of feedback in a client population of over 450 design critics. For the few documents still confidential property of the client, they will not be directly referenced but rather used to contextualize other data available.

**Data Analysis**

All interviews were audio recorded and transcribed verbatim. Open-ended survey responses were exported into question-specific Word documents. Interview transcripts, survey responses, and fieldnotes were then coded using Atlas.ti (Version 7) software, moving from open to closed coding through the development of thematic analysis, both deductively to address client interests and inductively to explore additional themes (Bernard 2011). In an effort to validate general self-reported survey findings, results
were crosschecked with on-site observations and informal interviews to identify and clarify any discrepancies between reported, observed, and desired behavior patterns.

Narrative analysis was done of each interviewee’s introductory responses and stories to the following questions:

- Can you tell me a little bit about how long you’ve worked at HKS and how you came to be at HKS?
  - Which HKS offices have you worked at?
  - Can you describe what it was like to work at each of the previous offices?
  - How would or how do you describe One Dallas Center?
- How would you describe the kind of work you do now (at HKS)?

Figure 2. *Interviewee office assignments (number who reported working there).*

Figure 2 shows the results and distribution of respondents. This analysis method was used to identify similarities and discrepancies between how interviewees recalled their personal history at HKS and the environment and their experiences of the different offices. I used content analysis for the following text-entry survey and interview questions to quantify their rate of discussion and rank their importance based on frequency.
• I liked that the McKinney office was/had...

• I wish One Dallas Center was/had...

• In my opinion, I think the most significant changes moving from the 1919 McKinney office to One Dallas Center are: Biggest Improvement; Biggest Challenge.

• Considering everything I’ve said, I think One Dallas Center could be improved to make the workplace a better employee and client experience by ____.

Preliminary analysis was initiated during the data collection process to enable me to develop the employee survey with HKS employee colloquial vocabulary. This preliminary analysis also began shaping the format of the client deliverable as I collaborated with HKS marketing team members and graphic designers.
Preparation of Deliverables

This project yielded two client deliverables. They included both a printed, externally focused marketing piece and an informal, internally focused presentation for employees. Both deliverables included general and focused insights from the analysis. Delivery of both products marked the completion of the research and the discussions below describe the main findings. Chapter 5 presents a more in-depth analysis. Both deliverables were co-created with several HKS visual and communication designers to create professional-grade marketing materials. This was particularly true of the printed piece, since the reporting of this project was to establish content and graphic formatting guidelines for all future reWORK reports. Any quotes used in either deliverable that directly identified employees was done so with the employee’s written permission.

Case Study Booklet and Discussion of Design Directives Assessment

The primary client deliverable consisted of a 26 page printed booklet featuring a mixture of quantitative findings, qualitative narrative, and workplace photography to document and describe the HKS ODC work environment. It presents a narrative general discussion and findings from the study structured within the following five themes that were identified by members of the HKS ODC design team as five design directives for the new office:

- Increasing cross-sector collaboration
- Increasing access to collaborative spaces
• Encouraging an educational environment
• Facilitating employee wellbeing
• Developing the downtown area

Front-end pages from the reWORK ODC booklet (see Appendix B) will help to orient the following discussion within the spatial context of HKS ODC and Table 3 summarizes comparative spatial (benchmarking) data. Since this was a client deliverable generated for external publication, it is a blend of research findings packaged within a marketing narrative. This results in general discussion with supporting data rather than academically formal analysis. More in-depth analysis is found in Chapter 5.

Table 3. Comparative Benchmarking Data

<table>
<thead>
<tr>
<th></th>
<th>1919 McKinney</th>
<th>One Dallas Center</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usable Square Footage (USF)</td>
<td>99,120</td>
<td>100,914</td>
<td>+1.8%</td>
</tr>
<tr>
<td>USF/Employee</td>
<td>202</td>
<td>186</td>
<td>-7.9%</td>
</tr>
<tr>
<td>Private Offices</td>
<td>41</td>
<td>13</td>
<td>-67.5%</td>
</tr>
<tr>
<td>Conference Rooms</td>
<td>16</td>
<td>40</td>
<td>+150%</td>
</tr>
<tr>
<td>Collaborative Seats/Employee Seats</td>
<td>0.85:1</td>
<td>1.12:1</td>
<td>+0.27:1</td>
</tr>
<tr>
<td>% Open Seating</td>
<td>92%</td>
<td>97%</td>
<td>+5.0%</td>
</tr>
</tbody>
</table>

Increasing Cross-Sector Collaboration (by Physical Co-Location)

The new HKS headquarters made drastic changes to the location of people, sectors, and services across and between the seven floors of HKS ODC. The co-location and dis-location of many groups came as a reaction to the previous office arrangement and as part of the firm’s strategic imperative to integrate work processes both functionally and physically that had historically been separated; as in the description of HKS headquarters in the Plaza of the Americas:
Each floor was assigned for a different department. I knew the designers and planners on my floor but not much about what’s happening on the other floors. It was sort of like a very systematic conveyor belt. We did our work and then we passed it to someone else. - Vice President, Healthcare

Thus, the firm's previous physical and functional division of “design” and “production” processes referred to the separation between creative generation and technical support. However, HKS ODC’s design reflects an internal initiative led by HKS management to integrate work groups within the new space and avoid the differentiation of “design” and “production” in colloquial language within the firm’s internal and external conversations.

One of the most dramatic changes was the transition of the healthcare group from a single, “healthcare” floor to vertical and horizontal distribution across HKS ODC (as seen in Figure 3). The rationale was three-fold. First, the population of almost 180 employees working within that sector would not have physically fit on one floor. Second, the distribution was a reaction to the generally perceived isolation of the group from other sectors at McKinney. Third, HKS identified increasing opportunities for cross-sector work with cross-sector services.
One example of successful co-location was placing Government, Sports, and Healthcare Federal sector employees together with Corporate and Marketing employees to collaboratively work on projects like the U.S. Naval Academy Wesley Brown Field House (for athletics) or Walter Reed National Military Medical Center (federal healthcare). This supports the functionality of the design in terms of amount of required movement within the building (less walking distance), more direct face-to-face interactions, and integrates employees based on project work rather than job title or sector assignment. The goal of co-locating people as well as services, both human and machine, was to encourage a new paradigm of HKS work that avoided segregating individual work process and instead facilitated more inter-group collaboration.
This physical design decision attempted to encourage desired cultural and work process changes. However, such processes are often more deeply rooted than any physical design can immediately alter. Relationships between work groups must be established before true project-related relationships can come about. Thus, it requires both physical and cultural change simultaneously to afford such transitions and many are finding vertical separation more of a challenge than the old McKinney site’s large floor plates.

The fact that we are now on many more floors than we were at 1919 [McKinney] in my mind has changed things for me. I do not see and interact with nearly as many people as we used too. We need to change this. Maybe once a week or bi-weekly we could start the day by all gathering on the lower level and stairs for a brief 10 minute talk. An update on the week ahead if you will... or major industry news or just a pep talk. This could last 10 minutes and give all of us on a weekly basis, a chance to see and communicate with people from different floors. - HKS ODC Employee

Communication and interaction between employees in the different sectors seems to have declined greatly. Southwest BP, the model shop and other various people in the basement feel disconnected from the rest of HKS. –HKS ODC Employee

Employees occupying a typical work floor are, on average, within 5 to 25 feet of their nearest team member on the same floor. This is well within the range suggested by Hua et al. (2011) of twelve feet of interpersonal distance in office environments; however, the layout of HKS ODC enables team members rather than general co-workers to be within close proximity. The additional lack of high partitions allows for more visual access across the floor, as seen in Yildirim et al. (2007). All of these factors suggest that HKS ODC’s design for physical co-location of team members on a horizontal floor plate is more viable along with the co-location of services vertically, but that vertical separation of team members is the overarching challenge to both visual and physical access for
communication and collaboration. More targeted investigation into the daily communication and interactions between work groups will be necessary to tease out more specific findings.

*Increasing Access to Collaborative Spaces (circulation, proximity)*

Even if theoretically work can happen anywhere, HKS ODC employees still report spending on average 75 percent of a typical workweek at their desk and over 50 percent of employees report doing heads down work at their desk (Figure 4). Only 15.7 percent of HKS ODC employee report being at their desk 50 percent or less of a typical week. For those not in travel-oriented business development, desks are where people have all of their supplies within arm’s reach, can be less than ten feet from team members if they have questions, and have computers to plug into music and tune out distractions whether or not they are hand sketching, number crunching, or computer rendering. The desk is still a hub of individual activity at HKS ODC.

Figure 4. *McKinney and HKS ODC layout and desk style.*
However, the chart in Figure 4 indicates that since the move from 1919 McKinney, there has been a drastic decrease (20.7 percent) in reported work at desk for individual tasks (74.6 percent to 53.9 percent). A slight increase (6.4 percent) in reported work away from the desk (52.1 percent to 58.5 percent) along with another slight increase (reported 5 percent) in laptop computers use as main machine, and increase in the number of collaborative seats per employee seat (+0.27:1, 0.85:1 to 1.12:1) suggests HKS ODC is a less desk-centric office with the potential for a more evenly activated workplace. This means that employees do not find themselves limited to completing work tasks only at their desk or in a conference room (of which there are limited quantities), but they also utilize, in a more equally distributed rates of occupancy, other spaces within the office.

But a big question is: in a desk-centric work culture, how do you design for productive work away from it? With a self-reported $4 million dollar investment in technology, the HKS ODC office design strives to facilitate a more fluid workflow. A major improvement has been realized by easing access to collaborative spaces that...
provide computer and phone technologies. The trifecta of more space, better technology, and cleaner aesthetics promoting work away from the desk is summed up by one HKS ODC employee as the biggest HKS ODC improvement: “Digital and physical continuity. Conference areas and work areas are fully integrated for digital needs, computer connections, TVs, etc. Physically, everything looks more standardized. All furniture matches in style and color and equipment is fully integrated.”

The largest changes have been reported increase in employee “heads down” focus work occurring in conference rooms (+26 percent) and working from home (+6 percent) (see Figure 5). This is supported by Table 4, which depicts individual work (including heads down, administrative, and other types of work) as increased use of conference rooms and work from home. These increases make sense in light of the numerous times I found people camped out in a conference room surrounded by their supplies. “Why are you working in here today?” I’d ask. “I just needed to get away” was the most common reply. And “away” could mean from their incessantly ringing desk phone, interruptions from co-workers, noise and movement in the open office environment, or a change of scenery to inspire creativity.

Table 4. Reported Locations for Individual Work Away From Desk

<table>
<thead>
<tr>
<th></th>
<th>1919 McKinney</th>
<th>One Dallas Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>General Conference Room (28.7%)</td>
<td>General (Floor-level) Conference Room (33.8%)</td>
</tr>
<tr>
<td>#2</td>
<td>Multipurpose Arena (23.1%)</td>
<td>At/From Home (25.2%)</td>
</tr>
<tr>
<td>#3</td>
<td>At/From Home (23.1%)</td>
<td>Level Two Client Conferencing (15%)</td>
</tr>
<tr>
<td>#4</td>
<td>Out of the Office/Not at Home (13%)</td>
<td>Out of the Office/Not at Home (12.4%)</td>
</tr>
<tr>
<td>#5</td>
<td>Materials Library (5.8%)</td>
<td>Other** (5.3%)</td>
</tr>
<tr>
<td>#6</td>
<td>Other* (3.8%)</td>
<td>Multipurpose Learning Center (3.8%)</td>
</tr>
<tr>
<td>#7</td>
<td>Lobby (2.5%)</td>
<td>Level one Lobby (3%)</td>
</tr>
<tr>
<td>#8</td>
<td>-</td>
<td>Material Library (1.5%)</td>
</tr>
</tbody>
</table>

*Other: Client conference rooms, project sites, hotels, transportation, team tables, collaboration areas, and an open/unoccupied desk.
Finding conferencing and collaborative space at 1919 McKinney proved a consistent and frustrating challenge, with only sixteen conference and teaming rooms and less than one collaborative seat per employee (0.85:1). The design of collaborative and conferencing spaces at HKS ODC was in direct response to this imbalance of supply and demand at 1919 McKinney. Employees view even the spaces not bound by walls favorably, “The work islands and tack walls have opened up the design process to the broader team as well as to the general population.” Table 5 further supports the value of conference spaces as enabling work away from the desk, but for teaming and collaboration.

Table 5. Reported Location of Teaming

<table>
<thead>
<tr>
<th></th>
<th>1919 McKinney</th>
<th>One Dallas Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Large (4+) person conference room</td>
<td>Large (4+) person conference room</td>
</tr>
<tr>
<td>#2</td>
<td>Team member desk</td>
<td>Small (2-4) person conference room</td>
</tr>
<tr>
<td>#3</td>
<td>Multi-purpose Arena</td>
<td>Team member desk</td>
</tr>
<tr>
<td>#4</td>
<td>Collaborative teaming table</td>
<td>Collaborative teaming table</td>
</tr>
<tr>
<td>#5</td>
<td>Small (2-4) person conference room</td>
<td>Level 2 conferencing</td>
</tr>
<tr>
<td>#6</td>
<td>Material Library</td>
<td>Layout islands</td>
</tr>
</tbody>
</table>

Figures 4.7 and 4.8 show floor plans with notations of conferencing and collaborative spaces, colored green, that reveal to what extent HKS ODC has increased and redistributed much needed spaces; this generated the conceptual model that HKS ODC’s successful “Increased Access” (discussed in section 7.2) to collaborative spaces is largely successful due to a three part design intervention: 1) increasing density (number of spaces – commonly seen as the single solution to “access”), 2) increasing diversity (number of types of spaces), and 3) increased distribution (location throughout
the spaces and proximity to users) of conference and collaborative spaces. Figure 6 shows the different types of collaborative spaces on a typical floor level\textsuperscript{16} in more detail.

Figure 6. Typical floor allocation of HKS ODC conferencing and collaborative spaces.

Figure 7. Allocation of McKinney conferencing and collaborative spaces.

\textsuperscript{16} The Typical ODC floor contains 18 Teaming tables (not pictured but within the dark blue zones), 12 Layout/storage islands (light blue), 8 Breakout conference/teaming rooms (green), 4 Informal collaboration/critique spaces (yellow), 4 Tackable walls along the core for pin-up (not pictured but along interior core walls facing the blue workspaces).
Unfortunately, as of January 2014, there was an 18 percent decrease in reported work or meeting in the main multi-purpose Learning Center, as well as the materials library (4 percent). The decreased use of the material library as reported in the survey along with participant observation and informal interviews reveals an underutilized space. Anecdotal evidence suggests that unlike the centrality of the McKinney material library, the HKS ODC material library is slightly more removed from the main circulation path and due to location is commonly perceived as a space exclusively for interior designers and material vendors, rather than open for teaming and architectural layout space. Some interviewees and HKS ODC employees mention an additional factor could be the openness of work surfaces in the area, in relation to the adjacent communication stair, making them feel their work or conversations are on display just like the latest fabric or ergonomic chair.

A design solution created by Susan Cain and furniture manufacturer Steelcase address these concerns within an open office configuration by providing solitary space both for focused work and respite. “I think [open offices] can be wonderful if they have enough pockets of privacy in them… These are spaces where people can innovate… Solitude is a crucial ingredient in innovation” (Schwartz 2014:np). For HKS ODC employees, these spaces for solitude were noted as often existing outside of the immediate work area. While a few survey respondents remarked that if the office is too quiet or loud they will “take a walk,” “go on site,” or “leave for [the] day,” the majority have not identified a coping mechanism. Many employees report a shared sense of lack of control in the situation, where they “do nothing,” “deal with it,” “tolerate” and “tough it out,” “work through it,” or even “quietly rage.” The unique building shape and
subsequent floor plan layouts offer a means to control noise levels within an open office configuration, but simultaneously serve as visual barriers between team members and leadership.

Cain’s description of a space designed for focused work, “completely enclosed (though workers can see out to the larger office), well-lit, and will contain a desk… cozy and personalized, without feeling too corporate,” is similar to what HKS ODC offers as breakout or teaming rooms (Schwartz 2014) but not individual workstations. However, unlike the yet-to-be designed offices with such Steelcase furniture, HKS employees have made their own modifications to achieve this general ambiance by dragging Big Boy bean bag seats into the rooms and doodling on the white board walls. While HKS is openly supportive of collaboration, going to great lengths to provide a variety of spaces for employees to use, based on my observations and interactions with HKS ODC employees there is still a hesitancy to “work” away from the desk. It seems almost that the desk is synonymous with the act of “work,” and therefore being away from one’s desk signals a lack of work. Research from Steelcase (2009) suggests that these concerns are common for workers pursuing mobile work strategies, including a loss of recognition for their work, losing informal networking opportunities, and missed opportunities for promotion if they’re perceived as “stepping off the corporate ladder,” (p.3-4). This reflects a larger cultural issue at HKS ODC with potential generational differences in conceptualizing “work” and appropriate work practices as discussed in Ferri-Reed (2014) and Biggs & Lowenstein (2011).
Encouraging an Educational Environment

While HKS ODC’s new design features a Level 1 Learning Center, the hub of educational activities, there was a clear intent to foster an environment of education throughout the open office plan. The number of private enclosed offices decreased by more than three-fold, from 37 to 11 in the new space. The majority of those who maintained their office included those in the corporate suite (c-suite) and executives. Figure 8 shows a visual representation in the dramatic change in seating/desk style between 1919 McKinney and HKS ODC. This design decision to remove high partitions and decrease enclosed offices challenges corporate spatial and cultural traditions in the U.S. of providing private offices for promoted employees and upper management. Instead it attempts to support, with mixed reviews by employees: 1) a flatter hierarchy of employees in the general work spaces, 2) transparency, and 3) the ability to transfer knowledge more quickly and directly.

It is much easier to work with people. I don’t have to cram into someone’s private office to work things through or get answers. Working through problems is more of an open conversation. This has helped me learn faster, challenged me to think on my feet more, and allowed me to be more efficient with my work. – HKS ODC Employee
In spite of HKS management’s professed promotion of “flat hierarchy,” Figure 9 below shows how some degree of hierarchy was maintained for open seating (which can be challenging for a company with more levels of rank than seating assignments). With the yellow bar denoting an interior pin-up wall, one can see the layout of a typical workstation (in pink) as side-by-side desks for more junior staff, and a more exterior, single station for senior employees. It was a conscious decision to avoid using the title “window seat” in any seating descriptions via internal communication, as with the current HKS ODC layout almost all employees have unobstructed views to the windows. Thus, the larger signifier of one’s status is their degree of removal from more distracting circulation pathways and access to more privacy.
I can definitely hear things, which is nice, because I try to listen in and try and pick things up from the people right behind me or the upper people [around me]. At the same time, it’s not disturbing. – Intern Architect, Sports

These “things” that people are picking up on include expected project information, but also unexpected insights into industry vocabulary and interpersonal skills in how to conduct oneself with clients over the phone; all valuable tools for eager ears. On the other hand, there are times when one does not want to be “in-the-know” about information. These are quick moments of overheard personal information or the endured exposure to droning details not relevant to one’s project work. This has particularly poignant challenges for those who manage confidential conversations either internally or externally with clients. Figure 10 presents the continuum I developed to help HKS ODC understand the roles that their various spaces play in facilitating
educational moments in the workplace, both planned and spontaneous. The Learning Center was designed and appropriately named to highlight its educational function as a multipurpose space. However, this research revealed a high degree of education (often viewed as “access” or “exposure” to project leadership and management) occurring in most spaces that host collaborative work. The individual desk (within the open office) was found to be a high frequency location for less planned and more spontaneous mentorship. Further research should explore the central role of the desk in the open environment as an education venue.

Figure 10. Identifying a continuum of spaces for education in HKS ODC.
Facilitating Employee Wellbeing

Health, wellness, and wellbeing are buzzwords in the design industry as companies try to keep up with employee and institutional demands for a healthier workplace. This research focused on key environmental factors of interest to the client based on their conscious design interventions in lighting (smart shade sunlight sensing system and smart self-dimming overhead lighting, occupancy sensors, and individual task lights), thermal comfort (smart temperature controls), smell (VOC-free materials meaning no chemical off-gassing), taste (filtered water), and acoustics (glass doors for teaming and conferencing spaces). 80 percent of the office is set up with occupancy (auto on) and vacancy (auto-off) sensors to enable energy savings.

HKS conceptualized “wellbeing” as an effort to improve the employee office experience and physical environment, which include commuting practices. The decision to relocate to a downtown building with front door DART (Dallas Area Rapid Transit) access has paid off. 29 percent of HKS Dallas employees report taking pedestrian (walking and biking; 5 percent) and public transit (24 percent) as a part of their weekly commute to work. While this failed to meet the 50 percent ridership anticipated by HKS leadership in selecting the office location, even less than the 56 percent pre-move reported potential use of public transit, and far less than other major cities with public transit systems (i.e. New York, Boston, etc.) the relative statistics are still impressive. Compared to reported use of public transit to and from 1919 McKinney (6.5 percent), HKS ODC’ 24 percent reported ridership reveals a nearly six-fold increase. And within the context of the area, the HKS ODC 24 percent ridership rate is five times the national public transit average (5 percent), fifteen times the rate of Texas workers (1.6 percent),
and Dallas-Fort Worth-Arlington, TX Metro Area (1.5 percent; U.S. Census Bureau, 2012). More notably, of the 24 percent who reported using public transit, 56 percent reported using public transit all five days of the workweek, with some continued use on the weekends for weekend work. That means over 60 employees rely on public transit every workday to make the commute into downtown to work at the new office. This strongly supports the real estate decision to relocate HKS to a more public transit accessible location.

In terms of environmental health at HKS ODC, the site obtained LEED Platinum\textsuperscript{17} accreditation this year. It offers smart sensing technology to automatically regulate LED overhead lighting, task lights on individual workstations, and floor-level shade sections; “I love the bright white work stations and the quality of the ambient and task lighting. That was a big challenge in the last office and I am really happy that we’ve made such a big improvement in that area” (HKS ODC Employee Survey Respondent). In gutting the building structure, HKS ODC features a brand new heating and cooling system that is both a result of the building scenario as well as awareness of McKinney’s poor system which several interviewees and survey respondents cited for generating allergies, irritation, and bad odor. Figure 4.29 highlights the drastic shift in perceived air quality. The irony with a new system being that there are still employee complaints but instead of air quality, it is more frequently about temperature regulation and being too quiet.

\textsuperscript{17} This is an industry program by which buildings are assessed as sustainably designed for construction and operation. Levels of accreditation range from lowest to highest as Bronze, Silver, Gold, and Platinum.
Developing the Downtown Area

So for a little bit of context- known for origins related to high fashion, Neiman Marcus, and the oil industry (though Dallas County has never had a working oil well), Dallas established itself as a financial and technical center for industry. Dallas flourished in the 1970s and 1980s, opening of Dallas/Fort Worth International Airport in 1973, creating a geographic hub for corporate relocations and hosting the Republican National Convention in 1984. At the end of the 1980s Dallas was named the number one business center in the United States by Fortune Magazine as well as one of the leading convention destinations. Rejuvenating downtown Dallas from the 1960s as a major center for entertainment and other pursuits has been slow but steady. It boasts a
present day status as a home for numerous corporate headquarters, world class food, the Dallas Arts District (19 blocks and 68 acres of performance space), West End Historic District along with continued renovation and upgrading of downtown hotels (History of Dallas 2014).

In addition to the previous discussion of employee health and wellness, the downtown location of One Dallas Center also enables employees to walk to work and walk to lunch (a downtown restaurant being the place most frequently identified as where employees at HKS ODC go to lunch, compared to the second most frequent place for 1919 McKinney). Thus, many HKS ODC employees are leaving the office at least once to go get lunch either in the downtown tunnels or street level vendors; “I also love being downtown where we have access to so many amenities within walking distance,” (HKS ODC Employee Survey Respondent). I personally also know of at least ten individuals who leave during lunch to walk to a nearby gym, walk home for lunch, or walk home to let out their pet. This suggests a greater rate of exposure to and engagement with the cityscape of downtown Dallas, as well as active contribution to local economy and community events.

The office seems more impressive and just up to date. While there are small design elements that individually I may not like, overall the whole move has been a positive one. I love being able to walk easily to work and to be so close to the dart/restaurants. – HKS ODC Employee

Overall, I like the location. Other than a little more hassle getting in and out to the building than our previous location, I find it to be a more desirable location to work in than 1919 McKinney, and I really liked our old location and building. – HKS ODC Employee

The street level presence of the Learning Center has attracted and facilitated several community events both during and after office hours, such as hosting
professional and trade group meetings, a local book signing, AIA Dallas presentations and meetings, Red Cross blood drives, and even a photo shoot for a men’s clothing magazine. Each of these events making use of the large, open space on the first level of HKS ODC and its adjacent support services spaces (i.e. restrooms, counter tops, and galley-style kitchen) as well as the stage and projectors within the Learning Center. In my own observations, prior to two cross-sector work groups moving their desks down to level one and the kick-off of the JoinUs campaign, this was an odd and deserted area. However, in the time from the start of JoinUs (January 2014) to the submission of this thesis (September 2014) there have been marked improvements to increased circulation down to level one, utilization of the Learning Center for both internal and external events, and the development of HKS’ own street presence on N. Saint Paul St. It has finally started to feel like HKS ODC has settled into downtown and is engaging its neighbors.

Office Presentation

I made an on-site, informal presentation to HKS employees about key research findings on July 23, 2014, as part of the HKS JoinUs campaign, entitled “If Walls Could Talk – Our One Dallas Center reWORK Story.” This was presented internally as a brown-bag lunch session in a town hall or community forum manner to report study

---

18 This was an unusual but entertaining event where a local shoe designer whose studio is located across the street saw the new space and contacted the office in order to schedule a product photo shoot during office hours. This included them setting up basic lighting and props which created quite the stir in the office.

19 The HKS JOIN US Campaign is a yearlong presentation project to celebrate the firm’s 75 years of work and share knowledge across the firm and design community at large. “As part of HKS’ 75th anniversary celebration in 2014, we’re planning presentations, events, and forums, all designed to share knowledge, listen and engage.” See http://www.hksinc.com/JOIN US/ for more information.
findings, share research methodologies, and review change management efforts. It lasted one hour, including ten minutes for questions and answers by employees present both in person and via live stream online. Unlike most JoinUs presentations, the sensitive nature of this conversation prevented it from being open to clients, vendors, and/or the general public. President and CEO, Dan Noble, introduced the presentation but was unable to remain for the duration of the presentation to field questions from the audience. Overall, it was a positive channel in which to engage the Dallas office and firm at large about the headquarters redesign, relocation process. Common questions from the audience included:

- How can this research approach be applied to projects in other sectors?
- When will the _____ (i.e. motor court, seventh floor) be finished?

As with all good presentations, I failed to mention some exciting upcoming things for the continued office improvements. These will be communicated internally through How-To training tutorials (of office features like technology), graphic communication (of proposed improvements to spaces), and e-blast email announcements (of recently completed projects in the space). In some ways, this is an opportunity to create the desired more open communication channel between employees, management, and the design team as this project, the One Dallas Center office space, continues to change, improve, and adapt.
Unlike the previous chapter’s more deductive assessment of the HKS ODC workplace based on design directives, this chapter provides additional insights that emerged inductively from the research. This involved understanding the evolution of HKS both culturally (through leadership, or as Baba (2005) explains, naturally and physically (through office space design, similar to Baba’s “rationale”). The HKS employee population underwent a dramatic change in their relocation. Not only in terms of location, but in transitioning from a single-tenant to multi-tenant building; from three floors in a conjoined building (previously a brewery and hat manufacturing plant) to a high-rise; from old, exposed brick to new, exposed concrete; and from forty-one individual offices to only thirteen. Thus, regardless of whether or not employees were adjusting well to the new space, one must acknowledge the significant ways in which their work environment and workplace experiences had been altered.

As one member of the HKS ODC design team explained, “We don’t want to sell trends. We want to create environments unique for our clients,” particularly when they are their own client. This sentiment echoes Frascara’s (2002) discussion of design as requiring relevance to “rise above fads and fashions” and enable both “cultural and physical sustainability” (p.35-36). The following discussion presents additional insights outside the scope of smaller analysis for the client deliverable.
The Extensive Sustainable and Wellness Story is Hidden

“We’re now living a green sustainable story. We were selling it [at 1919 McKinney] but not living it.”
–Dan Noble, HKS President & CEO

The concept of “sustainable” and “green” design are more recent approaches to the millennial old tradition of making structures. This type of design extends beyond the general practice and process of designing a standing structure, but pursues the integrated (and sometimes exclusive) use of materials made out of recycled or renewable resources. LEED is a program by the United States Green Build Council, which was established in 1993. It offers levels of credentialing sustainable at the bronze, silver, gold, and platinum level with platinum being the highest and hardest level to attain.

While ODC is a certified LEED Platinum building, there is a larger sustainability story that remains hidden to employees and visitors alike. This is most likely because the sustainable design interventions are non-apparent on employee floors or in back-of-house amenity areas (i.e. restrooms) where clients are less likely to see them and not on the general office tour route. Figure 12 below illustrates an overview of HKS ODC sustainability, highlighting design features and materials that have been recycled or reused. This weaves together an interesting but underappreciated story of HKS ODC that provides character to the spaces.

I propose HKS investing one step further in their design to make this story more visible with wall-mount placards to note unique sustainable materials or fixtures could be educational for both employees and visitors, supporting the frequent tours through the workplace. Alternatively, HKS ODC could design an interactive tour on the touchwall
with that information for clients or visitors to review while they wait. Another visual communication tool that would encourage awareness of sustainable features and active employee interaction with their environment is a kind of dashboard with real time monitoring of building operations like water and energy use, recycling and trash by weight. This is something HKS ODC is currently pursuing in agreement with the building owner and HKS ODC’s in-house research team with simulation technology.

Figure 12. Sustainable materials.

**ODC SUSTAINABILITY: UPCYCLING IN STYLE**

Our quest to be the first HKS office headquarters to receive a LEED-Platinum rating involved making something out of nothing. *Adaptive Reuse.*

+ Glass tiles in rest rooms = crushed windshields
+ Elevator lobby décor = old sprinkler system pipes
+ Pin-up walls = oxidized linseed oil, rosin and cork
+ Wall covering = 39% recycled post-consumer polyester fabric
+ Window shades = 100% recycled polyester fabric (averaging 89% recycled content)

39%
Recycled post-consumer polyester fabric for wall covering

100%
Recycled polyester fabric for window shades

The rich, mohair-like carpet tile line is free of PVC and is renowned for its durability.

Glass tiles in the restrooms are repurposed materials from crushed windshields.

Elevator lobby design elements are repurposed from previous sprinkler system.
When thinking of wellness and workplace, the typical HKS ODC floor plates (i.e. floors 3-6) contain a “race track” interior circulation of approximately 330 feet. At this length, an employee who wants to measure their horizontal movement along a work floor could walk sixteen laps (either consecutively during lunch or throughout the day) to count a mile. Another idea could be to hold “walking meetings” when appropriate to have conversations as you move around the office; this could include following a wayfinding/wellness “start” and “finish” with various distances as movement goals. Unlike the study of walking distance in healthcare settings, typically striving for as low a number as possible, HKS ODC employees can benefit from incorporating more physical movement into their workday.

Open Office Layout Facilitates Knowledge Exchange Between Generations

With the increasingly retirement trend of baby boomers from the corporate work environment coupled with a cultural desire for openness and collaboration, HKS ODC pursued a largely open layout. 97 percent open. The design intent was to make the most of the smaller floor plates at HKS ODC and afford more visual access, as well as increase senior leadership and management engagement with their project teams.

“We didn’t shift drastically to an open office. We were already doing it [at 1919 McKinney]. The biggest thing was planning in the spaces people were already creating [i.e. collaborative and layout space on top of storage cabinets]. The space did not support the way we were working and we didn’t have a kit of parts to allow for change.” –HKS ODC Design Team Member

Thus, this design decision contained many cumulative factors for consideration. It was not just a real estate decision to increase employee density as comfortably as possible in the face of industry trends to decreasing physical office space (Steelcase, 2009), nor...
was it a single attempt to flatten the work hierarchy. It was a conscious and controversial decision to physically bring about cultural change. The challenge has been understanding the implications of this for employees based on work styles and generational differences.

Biggs & Lowenstein (2011) cite changes in retirement behavior (delayed retirement) and the increasingly global economic value of “active aging” as resulting in multi-generational workplaces. The HKS ODC office includes four generations, where the youngest employee is 20, the oldest is 28, and the average is 42. Interestingly, Biggs and Lowenstein’s discussion of generational categories suggests that “it is difficult to distinguish generations in the workplace as it is hard to give specific ages to generations,” (2011:119). Thus, researchers (and in this case designers who are their own clients) must consider design not only by biological age, but lifestyle, “life-course trajectory,” and values of users (Biggs and Lowenstein 2011); Or as Mannhiem (as discussed in Biggs and Lowenstein 2011) proposes, “generation units.”

“For others, knowledge-sharing is natural and comes automatically through cooperation, when the organization and work rhythms allow such cooperation, and when young workers are not confined to peripheral tasks. Knowledge transmission is not only a matter of age, all newcomers are in learning situations. If experience belongs to older workers, young workers seems to be more at the cutting edge of new working methods. Finally, transmission of knowledge is not seen as a unidirectional phenomenon, it also flows from younger to older workers” (2011:122).

New work strategies are being pushed forward by younger generations, particularly Generation Y, promoting an appreciation for new technology, mobility, and collaboration (Steelcase 2009). This knowledge capital and knowledge transfer differ between

---

20 Life-course trajectory refers to more individualized and less structured life stages in the context of work, traditional viewed as various combinations of preparation/training, activity/employment, and retirement (see the work of Cain and Kohli for more information).
generations. Young workers must sometimes take the initiative and ask questions of older (ideally more experienced) workers, making the exchange of knowledge less serendipitous or spontaneous. HKS ODC office design and work culture has responded either consciously or subconsciously to facilitate mentoring and the reciprocal appreciation of skill via the removal of enclosed offices and the location of leadership in the open office environment.

“Placing leadership along with the interns has made them more approachable and able to interact more. However, I think it has been intimidating for the interns.” -HKS ODC Employee

“One very positive change has been the integration of leadership within the general work areas. It allows us to communicate better as a team when our leaders work among us. It also fosters mentorship and camaraderie that supports young employees.” – HKS ODC Employee

Thus, HKS ODC has physically supported a pre-existing apprenticeship and professional development system rooted within the practice of architecture- the need for active apprenticeship toward the goal of mastery (Byrne and Sands 2002). The challenges of fostering intergenerational relations in the workplace are to: redistribute work, redefine work, improve the quality of work, recognize the heterogeneity of individuals and generations, and promote lifelong learning. (p.125) So there is tension more so than conflict between young workers (<30 years old) and the elder generation (>50 years old) due to:

- Incommunicability- a large diversity of competencies for verbal and non-verbal communication, “languages” like digital vs. analog, global vs. local, virtual vs. face-to-face
- Differing values of “work”- older workers’ centrality of work and younger workers’ disaffection with work
• Psychosocial distance: young workers appear more cynical and more passionate in pursuing goals while older workers understand the reality of differences between attainment and expectations in their own success story of employment (Biggs & Lowenstein, 2011: 125)

While there are numerous disadvantages of an open work environment, such as sound, distractions, and lack of privacy, the benefits it offers in terms of access and exposure to the firm’s architectural knowledge can be argued to outweigh them. However, open office designs are not for everyone, every type of work, or all the time. HKS ODC offers a mix of open and enclosed workspaces for heads down, teaming, and client conferencing as discussed in section 4.21 and 4.22.

Technology is one of the largest indicators of generational work style differences. Younger and more junior employees made use of the improved technology features at HKS ODC, including the desktop phone cameras, inter-office communication via Lync (an online, internal instant messaging system) and email, whereas older and more senior employees preferred to engage in conversations face-to-face or over the phone. This conflicts with the physical and cultural change toward a digitized workplace, “We are pushed to work more digitally, since it is very hard to layout [materials at your desk] and see hard copy drawings, as well as nowhere to keep them.” Thus, senior staff are having (or attempting) to adapt work styles of younger workers, but maintain a preference for face-to-face interaction. This preference of senior employees for human interaction provides the impetus for many scenarios of horizontal and vertical movement in the office; this occurs in the morning for coffee and at lunch, as well as for teaming and project questions. The older generation has the potential to learn from younger
employees about technology while the younger generation is learning from their elders about things like sketching techniques to interpersonal communication, due in part to the exposure afforded by an open office environment.

Discrepancies Between Designed “Flexibility” and Reported Work Away From the Desk

Much like how “sustainable,” “wellness,” and “mobility,” are buzzwords within workplace design, “flexible” too is an oft intangibly sought goal. HKS ODC does offer a broad range of flexible spaces for individual and group work (again, see Figure 4.27 for a graphic representation):

- Formal, structural, built into space (i.e. pin-up walls, white boards)
- Semi-formal, semi-structural (i.e. rolling white boards, bean bags)
- Informal, non-structural (i.e. gator board pin-up space)

However, even with a kit-of-parts style modular furniture system, the larger office design system places unforeseen constraints on the original design intent. The current modular furniture does enable some degree of movement, as was the case with the accounting group who had to reorient their desks to avoid direct sun glare on computer screens. At the same time, with the fixed nature of raised access flooring\(^1\) and fixed overhead lighting, the independently “flexible” desk furniture is constrained by the larger workplace system. While marketing statements about reWORK such as “Cookie cutter is for chumps” suggest that template office design is bad, HKS ODC has standardized the number of desk options available and possible layout schemes.

---

\(^1\) Raised access flooring is where there is a space left in-between the base floor concrete slab and actual flooring to contain the electrical system for wiring, outlets, etc.
The majority of employees’ complaints are less about the general open office layout and more about specific aspects. The top concerns coming from survey data, interviews, and participant observation included: noise, lack of storage and layout space (due to smaller desk size), lack of privacy, corporate aesthetics and a lack of personalization of space.

“There is definitely an open feel and sitting among my team and teams like mine is working well regarding collaboration. The openness and more dense seating does have side effects like privacy and noise. Not everyone has learned to lower their conversation levels, sometime there is a cacophony of sounds that can be distracting. I am learning to adapt.” -HKS ODC Employee

“Ok well let me move my calculator so I can work right here. Let me move my phone. The things I have to have on my desk and use everyday, having to move them out of the way so I can lay all my papers out so I can reconcile my project [because I don't have enough desk space].” –HKS ODC Employee

“I feel that the design of the interior space has created a much more corporate work environment that has dampened our "family" feel. That essence existed much more strongly at 1919 McKinney and I don't know how we can go about reclaiming It.” – HKS ODC Employee

Employees also voiced concern about the location and proximity of non-reservable ‘breakout’ teeming and collaborative spaces. In light of their lack of personalization, these spaces are defined based on their spatial association. An example of this would be the level three semi-circle critique lounge area that was substituted for a corner conference room due to the irregularity of the third floor’s layout with the material library. The open, non-reservable space is most often used by the hospitality group and is perceived as being ‘owned’ by that group based on proximity and inaccessibility for others’ use.

Just as I’ve discussed why and where employees work away from their desks and the ‘flexible’ nature of the office design, I must also report employee reasons for not
being able to work away from their desk. Table 6 reveals strong similarities between both 1919 McKinney and HKS ODC in terms of consistent cultural values, sacred objects, and employee behaviors, in spite of two very different office designs and layouts. These include the potential cultural value of work done at the desk rather than away, the necessity of workstation tools (i.e. a desktop computer and printed materials) that afford work that no other place did/can, and the lack of inspiration drawn from the work environment. Desk phones serve as both a ball-and-chain tether to one’s desk and a sacred object that enables instant connection. At HKS ODC, these were seen as irreplaceable by personal cellphones. In these cases, technology has yet to enable all employees to work away from their desk at any time. As one HKS ODC employee noted, “The new office has lots of collaboration areas and if you have a laptop, it also has lots of areas to move around and work but if you do not have a laptop you are stuck at your desk.” While HKS ODC employees report less hindrance to mobility by materials and supplies, it continues to be a challenge for individuals whose work processes straddle digital files and hand drawn ideas. Thus, the HKS ODC office affords no significantly greater perceived ‘flexibility’ to support (and inspire) work away from the desk.
Table 6. Why Not Work Away From Desk Survey Responses

<table>
<thead>
<tr>
<th></th>
<th>1919 McKinney</th>
<th>One Dallas Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>No where I like to go</td>
<td>No where I like to go</td>
</tr>
<tr>
<td>#2</td>
<td>Need/only have desktop computer</td>
<td>Need/only have desktop computer</td>
</tr>
<tr>
<td>#3</td>
<td>Too much stuff/materials</td>
<td>Other</td>
</tr>
<tr>
<td>#4</td>
<td>Other</td>
<td>Too much stuff/materials</td>
</tr>
<tr>
<td>#5</td>
<td>Phone</td>
<td>Phone</td>
</tr>
</tbody>
</table>

Technology Facilitates Work But Does Not Replace In-Person Activities

As the previous section mentions, technology directly impacts the process and scale of design. The most significant piece of technology in the modern office environment, even for workers with a history of manual manipulation of pens, models, and photography, is the computer. The recent introduction of computers as a technical aid for more creative practices was found to have directly influenced HKS’ work process and employee experience in the workplace.

Our work hours was [sic] because of the number of computer available. I remember I worked a 6:30 to 3:30 shift and someone else worked a 9:30 and 6:30 shift. That’s when I started, because there were not enough computers. The time that you overlap, you’re supposed to either look for another computer or there’s always time you need to print out drawings and go through it, red-line it, and when a new station is open you work [on the computer] again. –HKS ODC Employee, Healthcare

That was true for HKS when the headquarters was located at the Plaza of the Americas, 1980-1998. But the current HKS ODC office is not just a few desktops for everyone, but a number of technology combinations for increasingly ubiquitous connectivity. Such as laptops with monitors for a workstation and audio-visual cords in almost every conference and collaborative space to enable easy hook-up and screen use (rather than more traditional project). Computer screens themselves are thinner flat screens, enabling elevation and slightly recessed off the desk area with ‘clean’ hook-ups for
cabling. This frees up space for a keyboard or paperwork and the occasional souvenir from personal trips or projects; this has become a common practice in office design as technology evolves.

Floor-level copy-print stations enable less time in transit to retrieve prints. Meaning that most day-to-day work activities can occur within close proximity to the general workstation and collaborative spaces. This is crucial when teams require quick access to printing for meetings, brainstorming sessions, and client presentations. Digital files still requiring printing are still scaled to a half set that was intended to fit on the typical workstation or on a nearby layout island. However, there is still a need for larger prints that require a 5 to 10 minute trip to the basement where a contract service supplies them. Still more convenient than leaving the building, this is time away from meetings and work (and a few more steps to count toward your indoor movement).

Yes, we are pushed to work more digitally, since it is very hard to layout and see hard copy drawings, as well as nowhere to keep them. We are working together more, asking each other more questions, interjecting in each other's conversations. Collaboration is definitely happening. –HKS ODC Employee

A case study of desktop conferencing equipment (Squires 2002) found that while all study participants responded positively to the concept of video-enhanced desk-top conferencing, only 33 percent of those who were observed to use the technology reported that it had enhanced communication. Additionally, the research team observed that almost all participants who used the video feature turned off their camera or eliminated the video window from their computer screen within the first ten minutes of the study simulation. Thus, despite what participants reported of positive outlooks and cultural value placed on the new, cutting-edge technology and even reported enhanced communication, users became somewhat disillusioned with it. Ironically they failed to
realize that they maintained those cultural values and beliefs even after disabling the video feature. In this example, pre-intervention assessment yielded a research-based recommendation to not purchase desk-top video conferencing for the organization (Squires 2002).

While the present study did not empirically gather information on the use of the new video-conferencing feature of standard employee desk phones, via observation and informal conversation it was noted that the majority of HKS ODC employees disengaged the camera feature. Interestingly, via participant observation I estimated that approximately five percent of employees enable the feature when receiving calls from other employees who have enabled their camera. Unlike the study by Squires (2002), the HKS ODC desk phone video capability was already in place by the time I began this study. In light of the low rates of observed and reported use, I might have recommended against the purchase of these more expensive phones for a more standard phone without video. However, the current phone with video set-up may increase in use and justify the original purchase in the coming years as video-based phone conferencing becomes more of an industry norm for corporations.

This is a similar scenario for the ergonomic keyboard trays that were installed at all workstations at HKS ODC as part of the standard desk set-up. The majority of these trays were unceremoniously removed shortly after move-in due to employee complaints about the lack of adequate leg space under the desk with the trays. This suggests that if designers wish to include ergonomic keyboard and mouse trays underneath desks, the desk height needs to be higher than the standard thirty inches. Norman (1988) suggests the paradox of technology (in the case of telephones) is that 'added functionality
generally comes along at the price of added complexity…systems have more features and less feedback” and “the same technology that simplifies life by providing more functions in each device also complicates life by making the device harder to learn, harder to use” (p.27, 31). Thus, technology has the strong potential to facilitate more efficient and engaging work at HKS ODC, if seen as accessible and acceptable by employees, but it will not completely replace the more tactile operations of face-to-face meetings, sketching or design material selection.

Environmental Factors Have a Big Impact on Workplace Experience

There is no question the HKS ODC office is best known for its unique shape, signature staircase, and wrap around windows (and well maybe the dreidel chairs too). While the almost ubiquitous access to natural light is seen as a primary benefit of the new workplace, the forth and fifth most frequently identified improvement at HKS ODC, both direct and indirect (via reflection on surrounding office buildings) sunlight, has caused major problems for those closest to the exterior. Unevenly distributed lighting levels were frequently reported by employees (15.6 percent of survey respondents), and their existence was supported by my manual foot-candle measurements, participant observation, and interviewees. Due to the exposed and white surfaces throughout the office, lighting was deemed ‘too bright’ (14.2 percent of survey respondents) or ‘glaring’ for people to work. The smart shade and lighting systems were either still being configured or were nonoperational toward the beginning of the study as lighting sensors were being calibrated. However, there were many issues with glare and direct sun exposure (particularly in the mornings and afternoons) where I saw people wearing sunglasses at their desk, or creating makeshift shades with gator board. The secondary
challenge with any temporary shade solution on the windowsill was that if or when the
shade system activated, it might collide with the temporary material and damage the
motors. Thus, technical challenges and proactive problem solving employee behavior
created a layered environmental challenge.

The overwhelming majority of employees reported that HKS ODC was ‘too cold’
and I’ve observed approximately five space heaters working to keep an employee warm
(compared to the two people with desk fans) even in the spring and early summer
months. Echoing similar challenges with the smart sensing lighting and shade systems,
automatic regulation of thermal comfort continues to be a losing battle. The exposed
materials and lack of floor covering and ceiling contribute to HKS ODC’s inability to
maintain a consistent temperature throughout the office. Interestingly, this pervasive
cold influences employee behavior in regard to the general increase in number of
breaks to obtain hot tea and coffee, which can interrupt work flow but also affords the
occasion to meet someone in the office. The layered application of jackets, scarves, and
gloves could also be seen as an obstruction to typing or sketching.

Noise ranks as the number one challenge of HKS ODC. Interviews and informal
conversations revealed that the 1919 McKinney HVAC, while older and seen as less
clean, provided a more optimal and consistent level of background noise to cancel out
rather than enhance sounds within the office. The overly quiet HKS ODC HVAC itself is
not a distraction, but in combination with the open floor plan and concrete floors creates
a perfect storm for auditory distractions like the sharp sound of heels on the sealed
concrete, the sound of the ice machines, and both the social and professional calls of
co-workers.
The open space is noisy. It is hard to concentrate sometimes due to surrounding activities. I still have the need to look at drawings and the full size sets do not fit on my layout space. The concrete floor around the core areas is noisy. It is hard to tune out the foot traffic. The overhead lights are located slightly forward of the workspaces which creates a glare / distraction while working on the computer. Lights could be pushed back some to help this out. Level 5 floor / workspaces are cold around the glass areas. I wish we had a ceiling to quite [sic] down the space.

–HKS ODC Employee

Coping mechanisms for noise served as interesting indicators of generational values and practices. Younger employees more frequently relied on headphones to cancel out distracting workplace sounds, while other generations cited “take out my hearing aids” or merely “tune it out” without music. Many mid and senior level leadership or management members mentioned in casual conversation the dislike of headphones in the workplace as they disengaged employees with their workplace and were an off-putting sign for co-workers.

However, it is also important to acknowledge than several of the respondents describe issues with noise as only temporary, to “put up with it as an interim situation” or “flare-ups,” “until the noise dies down.” This points to the short-term nature of these distractions and employees’ ability to recognize that they are outside of permanent operational features. (Only a handful of employees noted a more root cause for the disturbances being the silence of the HVAC system.) These temporary distractions can be addressed rather than taken as fixed feature of the work place. Such a perspective may be why employees tend to complain about these factors more often.

Aiken’s (2014) discussion of the social aspect of privacy, or ‘shared’ privacy in work environments for astronauts, can be extended to the open environment at HKS ODC. While the two scales differ, astronaut environments being small and compartmentalized compared to the larger, open area of HKS ODC, workers in both
settings appreciate the communal value of privacy. “Privacy is a social affordance” on both individual and group levels, where the ability of each level to achieve privacy impacts other levels (Aiken 2014:57).

Shared Services Facilitate Collaboration and Motivation for Physical Movement

While the HKS ODC office increased by 500 usable square feet over the McKinney office, the square feet of office space per employee has decreased by 16 USF (7.9 percent). This reveals a small but, when multiplied by 450 employees, major shift in office design and layout away from personal, 'me' space (i.e. individual desks and offices), to much more shared, 'we' space (i.e. the multi-purpose Learning Center, conferencing, collaborative spaces) (see Table 4.2). Previously group-specific printers have been replaced with floor-level color copy-print stations. Coffee bars are on every floor in the pantry area, but two high-end espresso machines are located on level one and two. Bike and coat racks are also found on every floor (excluding the basement and level one). Break out spaces and conferencing or collaborative rooms are also distributed on every floor. Hua et al. (2010) suggest that ‘service hubs’, meaning shared copy/print/coffee facilities in an open, central location can:

- Increase perception of rates of collaboration
- Increase perception of concentrated work
- Decrease perception of distraction

So with all of these shared spaces and shared services, why would anyone ever need to leave their floor? It seems almost everything can be accomplished within arm’s reach.

Distributed spaces and services are not always the most efficient. In particular, most corporate or commercial environments prefer to maintain a single, controllable
entrance into and out of the workplace. The dual level entries of HKS ODC split the anticipation and acknowledgement of traditionally single-entry spaces, in terms of both user experience and aesthetics. Level two is the more formal, client-focused entry from the parking garage that features a reception with an impressive touchwall, scaled project models, unique semi-circle seating, a larger reception desk and adjacency to the conference rooms. This level two is a main entry point for the majority of HKS ODC employees and visitors who park across the street and enter via a skybridge. However, with the planned opening of the ground-level motor court, more clients and visitors will be passing through the smaller, less formal entry on the ground floor. The grandeur of the ground level entry is the communication stair that rises up through a cut-out section of level two. However, you have to get past reception to even notice the stairs. And until the ground level floor finished construction and employees and activities were introduced to the space, it was oddly quiet and uninviting. Thus, a need to market the space to its own residents began with the JOIN US campaign.

Alternatively, an example of something considered for consolidation was the placement of microwaves. Originally the design team wanted to put microwaves exclusively on the first floor within the corporate catering area adjacent to the Learning Center. The idea was to pull those who brought lunch for in-office consumption down off their assigned floors to gather and interact with fellow workers on level one, the only level with fewer than ten employees, i.e. not typically a space for teaming or meetings. However, this decision was vetoed and microwaves kept at each floor. This does cut down on the amount of lunchtime traffic to the ground floor, but ever since the ground floor construction was finished and JOIN US (the year long knowledge sharing
presentations) began, getting employees to use and engage the space has not been a problem.

A Culture of Critique

As an office of both technical and creative workers, many with academic grounding and industry experience in design critiques, there was bound to be dissatisfaction with the new HKS ODC space. It appears that criticism comes much more naturally than praise in this professional environment, as good design is either subjectively overlooked due to its well integrated nature or expected as an HKS standard. Criticism was more often than not employees’ mode of communication about the building, with everyone offering up their interpretation of the space and known design decisions. These anecdotal opinions and experience were acknowledged by leadership but not organized into a system or repository of insights.

Cayla et al. (2014) encourage us to leverage this enthusiasm for feedback, this culture of critique, into more constructive channels by cultivating a ‘storytelling organization,’ or a culture of constructive communication. Whether to communicate about market sectors, industry insights, or internal education, HKS has the opportunity to “share and circulate narrative understanding, such as regular debriefings on tales from the field, as well as through ethnographic research that seeks not to verify and confirm but to inspire and surprise,” (Cayla et al. 2014:62). Table 7 begins to develop such a system by tabulating most frequently cited improvements and challenges of HKS ODC compared to 1919 McKinney from the survey data.
Table 7. Biggest Changes Survey Responses (Top 5)

<table>
<thead>
<tr>
<th>#1</th>
<th>Biggest Improvement</th>
<th>Biggest Challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public transit access</td>
<td>Noise</td>
</tr>
<tr>
<td>#2</td>
<td>Downtown amenities</td>
<td>Vertical separation on floors</td>
</tr>
<tr>
<td>#3</td>
<td>New technology</td>
<td>Storage/layout space</td>
</tr>
<tr>
<td>#4</td>
<td>Lighting</td>
<td>Privacy</td>
</tr>
<tr>
<td>#5</td>
<td>Daylight</td>
<td>Conferencing access*</td>
</tr>
</tbody>
</table>

Parking and lack of enclosed, private employee offices were listed as close sixth and seventh place for “Biggest Challenge”.

*Formal conference rooms are commonly booked weeks in advance for client presentations even with the additional numbers. This was semi-intentional design to encourage employees to conduct client conferences on their working floor as a way of better showcasing more of the office space.

Design Equals Tradeoffs

Workplace design is a balancing act, especially with large corporate offices. Not everyone will be happy and some of HKS’ changes were dramatic, but identifying what was changed and why is key for communicating the rationale for design decisions to employees. Such communication did not take place prior to move-in (overall design intent), during and after first move-in (changes made to original intent), or post-occupancy (substitutions or deletion of design interventions from original intent).

The following insights were derived from informal interviews with members of the HKS ODC design team and HKS senior leadership. Table 8 shows a large but not exhaustive list of design interventions and their original intent. “Give” represents what the HKS ODC office design asked employees (directly and indirectly) to give up in order to afford another ability. These are not certain scenarios, however, they begin to show the interrelated relationships between design intervention and user experience.
Table 8. Design Intervention Give and Get

<table>
<thead>
<tr>
<th>Give</th>
<th>Get</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer offices and high partitions</td>
<td>Increased access to information, leadership, and mentoring</td>
</tr>
<tr>
<td>Old HVAC with white noise</td>
<td>Newer HVAC system for quieter operation and cleaner air quality</td>
</tr>
<tr>
<td>Convenient parking access</td>
<td>Easier public transit access</td>
</tr>
<tr>
<td>Single tenant building in Uptown</td>
<td>Downtown location, accessible amenities</td>
</tr>
<tr>
<td>More privacy and personal pin-up space</td>
<td>Visual access to floor plate</td>
</tr>
<tr>
<td>Convenient surface lot</td>
<td>Covered, adjacent parking garage</td>
</tr>
<tr>
<td>Reservation only conferencing/collaboration spaces</td>
<td>Planned and spontaneous reservation conferencing/collaboration spaces</td>
</tr>
<tr>
<td>More personal workstation USF space</td>
<td>More shared USF collaborative spaces</td>
</tr>
<tr>
<td>Single location services/amenities</td>
<td>Motivation to move around the office</td>
</tr>
<tr>
<td>Single area or group printers</td>
<td>Shared color copy print stations</td>
</tr>
</tbody>
</table>

However, a number of design decisions and features were delayed and a few are indefinitely postponed. Once again, these planned design interventions have not been clearly communicated to employees as listed in Table 9.

Table 9. Discrepancies Between Design Intent and Built Reality

<table>
<thead>
<tr>
<th>Design Intent</th>
<th>Post-Occupancy Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKS motor-court adjacent to building</td>
<td>Currently under construction</td>
</tr>
<tr>
<td>All open office environment excluding c-suite executives</td>
<td>Modification of open corner spaces for offices for executive leadership</td>
</tr>
<tr>
<td>7th floor “lab space” for mock-ups, research, and collegiate collaborations</td>
<td>Delayed until funding can be allocated for the completion of the floor; current status and building shell and use as storage</td>
</tr>
<tr>
<td>Level 1 patio space at street level</td>
<td>Indefinitely delayed by building owner</td>
</tr>
</tbody>
</table>

The Concept of ‘The Office’ Extends Beyond the Building

My commute is a 100 percent train I’ve decided. I actually like it. I just park at the station and don’t think about commuting again. That morning traffic was always very stressful. I’d get into work and feel like I’d had this intense morning already. Now I just sit down and go through email or read the news on the train and it works out well…” –Associate Principal and Senior Vice President, Sports
Too few office designs consider the larger context and systems of work as both getting to and coming from the workplace, in addition to the work done outside the boundary of the office. This ethnographic research at HKS ODC highlights a case study of the workplace experience starting outside of the built environment with the commute, where a stressful or challenging commute can translate into a stressful and challenging experience in the work environment. Section 4.24 provided a more in-depth discussion of commuting but brings attention to understanding the “other” and “outside” story of the office. In relation to survey responses and interviews, these “other” and “outside the office” responses to questions like: ‘Where do you work away from your desk?’ and ‘Where do you do your best heads down work?’. Table 4.24 presents these alternative work environments and ones to which others (either team members or clients) and the HKS technological system (IT, server access, VPN, video-conferencing, etc.) must be able to link to and support for collaboration and communication. These external work locations include: at home, in a hotel (room), in a client conference room, on the job/construction site, in conference centers, and in transit (car, plane, train).

Understanding these “other” locations of work, technology’s ability for virtual communication, and overall employee desire for mobility (especially for the younger generation), the growing context of ‘work’ and ‘workplace’ must be considered in workplace design. In today’s world, corporate headquarters must be designed to facilitate mobile workers, employees visiting from regional offices, client work, and virtual collaboration (see Evans 2012, Hua et al. 2010, Kim and de Bear 2013, Meerwarth et al. 2008, Roper & Juneja, 2008, Stryker 2012, and Sailer & McCulloh, 2012 for more information on this growing field of research).
CHAPTER 6
CHANGE MANAGEMENT RECOMMENDATIONS

Change management does not happen overnight. It can take weeks or months, and in my opinion, a truly responsive office design is never done changing as it constantly adjusts to needs of its users, building materials, and the environment. Since there is not enough time to delve deeply into each item, I briefly present levels of change that can be addressed with varying intervals of time and funds as investments for a continually improved workplace. In particular, I will discuss two “investment” interventions that would require some thought, time, and additional design funding to accomplish but could offer increased returns in terms of HKS ODC user experience. Finally, Table 12 presents an overview of main complaints that cannot be addressed without major renovation or abandonment of the current space on N. Saint Paul St. These change recommendations have been presented to HKS employees and leadership in the internal presentation discussed in section 4.2 as well as directly to executive management. While I cannot guarantee that any of these recommendations will be carried out, my continued presence on-site as an employee will hopefully encourage their adoption.

Change Management Overview

Change is hard, and while the new office space needs to be different from the old one, to showcase improvements in design, there is a sentiment echoed across sectors and level within the company of, ‘well McKinney had...’ This backward looking perspective of HKS ODC employees hints at challenges beyond designing a new
workspace. Management’s efforts to shift employee perspectives on the change require effective and engaging communication (section 6.2 and 6.3 below). Considering the feedback featured in Table 10, the leadership still has work ahead of them to improve the employee experience at HKS ODC and facilitate effective work. Improvements are still possible, with many already in the works.

Table 10. Employee Interests From Office Survey

<table>
<thead>
<tr>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Liked that McKinney Had</td>
<td>I Wish HKS ODC Had</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessible parking</td>
<td>Fitness center/gym</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy (street) access</td>
<td>More accessible parking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character/uniqueness</td>
<td>Better entry process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Layout space</td>
<td>Better sound proofing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*More privacy and an employee lounge were fifth and sixth for what employees wished HKS ODC had on the survey.

1919 McKinney did not and HKS ODC does not provide an onsite fitness facility. However, HKS ODC does offer reduced rate memberships to gyms within a few blocks of the office. It also makes use of the multi-purpose Learning Center to host a YMCA-led yoga class once a week. Wellness is increasingly of interest to employees, aware of the negative impacts of their seated and stationary work, as well as employers hoping to prevent illness and sick leave. Employee-generated recommendations include dedicating a space for meditation, potentially by reallocating one of the lactation rooms or a small space on the unfinished seventh floor. Another would be to have inset indicators on the communication stairway to denote distance from either the ground floor or level two, i.e. “25 calories,” or “0.10 mile” to encourage awareness of movement in the workplace.
Parking does and will continue to be a challenge for employees as one-way streets on three sides and an unusable public transit track surround HKS ODC. The covered parking deck across the street is hard to reach, especially for people unfamiliar with the area, but the addition of a motor court for visitors, clients, and vendors will ease the confusion. And while the level one entry area is largely complete with soft seating and HKS aesthetic design, the level two Skybridge entrance still requires wayfinding and aesthetic improvements. Soundproofing is also being explored with tackable wall covering. However, due to the current open office floor plan there is no simple solution for increased privacy (see Aiken, 2014 and section 5.5 for further discussion this topic).

Tables 6.2 and 6.3 provide an overview of the main low and moderate level investments (of both money and time) that have been, are being, or will be done at HKS ODC. While most data collection was concluded in March, these tables reflect more recent input as of September 2014. The cheapest investments being communication-based, while the more involved investments reveal physical facilities improvements. However, both are necessary for the improved user experience of employees and functionality of spaces.

Table 11. Smaller Short-term Interventions

<table>
<thead>
<tr>
<th>Low Hanging Fruit</th>
<th>Status as of September 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coat racks</td>
<td>Installed on every floor (excluding the basement) in the copy-print/kitchen areas</td>
</tr>
<tr>
<td>Event programming in Learning Center</td>
<td>JOIN US events happening each month, vendor presentations, AIA events, some community events (i.e. book signings)</td>
</tr>
<tr>
<td>Facilities awareness</td>
<td>Pending program for online and/or interactive touchwall feature to announce ‘Did You Know’ and ‘In the Pipeline’ for current and upcoming facility spaces/amenities</td>
</tr>
<tr>
<td>Points of contact for environmental issues</td>
<td>Floor-level, zoned area representatives have been trained and given access to iPad shade and lighting application to override system when requested by area</td>
</tr>
</tbody>
</table>
More engaging modes of communicating to employees

- Continued use of e-blasts with addition of my internal JoinUs presentation and future HKS ODC tour guide overviews and touchwall HKS ODC trivia

Using the touchwall as a television with speakers for overflow to Learning Center events/presentations

- Speakers have been installed above the touchwall for auxiliary seating, however, the touchwall has yet to be outfitted with live-streaming capabilities

<table>
<thead>
<tr>
<th>Future Improvements</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client/visitor/vendor parking</td>
<td>The twenty-one car motorcourt is in the final stages of construction to open soon</td>
</tr>
<tr>
<td>Aesthetically and environmentally appealing Skybridge</td>
<td>On hold until an acceptable solution can be made between HKS and the building and parking garage owners</td>
</tr>
<tr>
<td>Better outdoor patio space</td>
<td>Indefinitely on hold</td>
</tr>
<tr>
<td>More stable environmental levels</td>
<td>Lighting controls have been given to floor area representatives for self-control</td>
</tr>
<tr>
<td>Soundproofing</td>
<td>Begun with the addition of pin-up wall covering material in level 2 conference rooms but none yet in breakout rooms</td>
</tr>
<tr>
<td>Wayfinding from parking garage</td>
<td>On hold until an acceptable solution can be made between HKS and the building and parking garage owners</td>
</tr>
<tr>
<td>Easier access to c-suite executives</td>
<td>Possible reorganization of level 2 work area to bring executives out into open floor plan to work more as a ‘team’ or ‘studio’</td>
</tr>
</tbody>
</table>

**Wayfinding**

HKS ODC can be a beautiful but disorienting place for those just getting the hang of the shape and off-set building layout (i.e. northeast orientation). The space includes two very different aesthetics, both of which have perceived strengths and weaknesses. The second floor, which houses client-facing corporate service functions, has a clean, curated, corporate feel, with the color palette limited to black, grey, beige, and HKS red. Employees on this floor compare the space to a formal living room – beautiful, but not a
comfortable place where you would want to hang out for too long. By contrast, the
typical employee floor (i.e. level 3-6) is colorful, artistic, engaging, and temporary. It has
active design spaces (i.e. layout islands and pin-up walls) with colorful rendering print
outs, 3D models, and interior design swatches. However, the wayfinding design
elements of brightly color-coded accent walls, elevator banks, couch cushions, carpet
tiles, and restroom graphics are often seen by designers as overwhelming and for
some, “juvenile,” (reminiscent of the pediatric clinics they design).

There have been mentions of enhancing level two with colored pillows for soft
seating, improving the quality of lighting in circulation to brighten the atmosphere, and
featuring the work of local or in-house artists as part of a rotating display. These post-
occupancy interventions seek to enliven the client conferencing area and establish more
of the ‘character and uniqueness’ that many liked about 1919 McKinney. This directly
relates to the need for more branding of specific office spaces. With the JoinUs
campaign, the Learning Center has been clearly communicated as a space for
presentations and gathering. Similar consideration could be given to communicating the
use of other key spaces, features, or wayfinding points. For example, since HKS ODC
possesses two entrances and lobbies, one at ground level and the main receiving area
on Level 2, there needs to be a clear differentiation. Rather than the confusing title of
“The Lobby” (referencing neither the floor level or adjacent spaces), HKS ODC could
use “Skybridge Reception” for level two and “Lower Lobby” for level one. Naming should
be relevant and clearly communicated, since the dual entries have created considerable
confusion for visitors, clients, and employees alike. I would suggest that a consistent
wayfinding language needs to be codified and put into use.
Finally, because a majority of employees missed having McKinney’s “easier (street) access” and stated a desire for a “better entry process” for the HKS ODC, additional design direction should be given to wayfinding external to the office space as well. The building adjacent to HKS ODC that houses the shared parking lacks any discernable wayfinding in relation to accessing HKS ODC. The parking structure wayfinding is set up for street access (i.e. the “main floor” button is L1 ground level) with stairwell numbers counting down to the street level. If possible through negotiations with the owner of the parking structure, HKS could extend branding and wayfinding for employees and visitors for easier access, extending the workplace experience outside of the building. For example, elevator and stairwell signage could label level three as “HKS Inc.” with the HKS logo, since there is no other way of knowing where the access to HKS is located. This could also be accomplished with an HKS red colored door in the stairwell and a “follow the red brick road style graphic design leading from the elevators and stairwell on level three in and through the Skybridge.

**Improving Affordances**

Following the theories of Donald Norman and James J. Gibson, good design clearly communicates affordances, constraints, and conceptual mappings to users. Affordance “refers to the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used,” (Norman 1988:9). HKS ODC is largely successful in offering visible design affordances for both spaces and objects within those spaces. Some examples I observed and

---

22 A brief example to elucidate these terms includes a pair of scissors, the handle holes are an affordance for grip, the size of the holes are a constraint, and the conceptual mapping is the movement and distance of the blades in relation to the handles.
experienced at HKS ODC include the affordance of moveable tables, glass-enclosed quiet workspaces, central circulation, and fresh daily coffee.

However, there are a number of affordances with the original design intent that are not communicated clearly, via design, to the employees. Examples of these include the integrated water filter in every pantry sink set-up. Turning the left faucet handle (much like revving a motorcycle) until a blue light illuminates the handle will manually activate the filter by rerouting the flow of water through the filter. The selection of this fixture was an excellent intention, but the use of the fixture fails to be communicated directly through its design or indirectly through environmental communication (i.e. signs or instructions for use on nearby chalkboard above the sink).

Door handles at HKS ODC have been a challenge in navigating from day one. The current fixture to push and pull the doors is the same on both sides of the doors. The visual confusion is amplified by typically glass doors. This set-up does not afford users the ability to quickly and easily discern if the door is push or pull operated. As such, small labels have been placed in both sides of doors in major circulation routes to inform users, but an easier design solution would have been to use two different fixtures to show differing modes of user interaction with the objects. For instance, the doors could have a metal plate where users are to push the door and a handle for where users are to pull the door. While this is not a major design failure, it does impact the ability of users to flow seamlessly between spaces and avoid frustration with interacting with the built space. Ironically, this exact issue was already addressed many years ago by Norman (1988).
However, a fun and often entertaining affordance challenge is the “dreidel” or “spin” chairs located on level one outside of the Learning Center. These chairs, designed by Thomas Heatherwick and purchased from Herman Miller, offer a confusing sense of affordance. ‘It looks like a chair but it does not look like I can comfortably or safely sit in it.’ As someone who sits next to these chairs and uses them regularly as auxiliary seating for my desk, I have seen how this perceived discomfort actually helps create a fun conversation piece breaking the ice with visitors willing to try them out, and establishes a playful, interactive tone for the office as part of the entry sequence.

Another challenge with affordances is that as the capabilities of products that HKS designers specify for their client projects improve with technology advances, they have come to expect those or similar products in their own work space. Take for example the floor-level white boards installed in the semi-circle collaborative/critique areas. At HKS ODC these are simply large white board surfaces surrounding a flat screen television. A handful of employees have voiced questions as to why the white boards are not magnetized to enable easier temporary placement of materials like floor plans, tracing paper, etc. These designers are aware of and/or actively specifying magnetic white board surfaces for clients as a newer product offering, and find it dissatisfying to have only the older product versions in their own newly designed space. I am unaware of the rationale for not specifying the newer product, but it serves as an example of discrepancies in expected and experienced affordances.

Finally, there were several challenges voiced by employees that are not able to be addressed or not without major or complete investment in altering the physical space. These include challenges and complains about:
• Occupying a multi-tenant building
• Possessing multiple entrances (on Level one and Level two)
• Lack of integration for those in cross-sector services (e.g. Human Resources or Accounting) with general design and architecture spaces
• Basement location of mail services, model shop, photography and videography which require large or specialized spaces
• Vertical floor plates
• Diamond shaped building

Utilize More Engaging and Appropriate Styles of Communication with Employees

Moving is stressful enough for one person. Multiple that by more than 450 employees and you have got yourself a massive endeavor; 450 computer set-ups; 450 phones; 450 (or probably many more) storage containers of books, printed materials, office supplies, and models. Moving is technically, physically, and culturally demanding. In my time transitioning to and around the HKS ODC office place, I likened the experience to moving to college; understanding one’s location on campus and space in the dorm. It is a major transition from a lifestyle you might have had for ten or more years, where now everything is different, unknown, with high expectations and sometimes harsh realities requiring acceptance and adjustment. A key perspective to take in any and all communication to employees should be about what HKS ODC offers either as new or the same as 1919 McKinney. The ultimate goal is to get employees away from the comparative and judgmental perspective, ‘well, 1919 had this… and HKS ODC doesn’t.’
While it might seem like one “just more thing” to arrange in a busy time, I would recommend for management to host pre-move tours or early post-move “open house” events to introduce employees to a new space. It is their new home and beyond technical office protocols, employees are unaware and unsure of how to engage with the space. Can anyone use the fancy new espresso machines or only executives and clients? How do I reserve floor-level collaborative and conference rooms (when the answer is you do not)? Internal communication pieces and leadership example will help employees visualize and prepare for the move, get oriented to the space, and get excited for existing or upcoming changes. Several employees shared similar responses to a survey question about whether HKS ODC had brought about culture change with:

It will take some time before people are more comfortable in this environment, so people are much more reserved and less "creative". Still struggling with getting into a new routine, but I've seen it before with our move to McKinney. Once people get used to how best to use the spaces that will get better. –HKS ODC Employee

Internal Education is Just as Important as External Marketing of the Space

Awareness, assessment, and acceptance of a space requires more than just industry awards and architectural reviews. This research has found that first and foremost, employees must be introduced to their new space in order to become ambassadors (or ideally constructive critics) of the office design. The HKS intranet offered a construction and move-in blog with updates from the project manager, project architect, and leadership. This was well maintained leading up to the move and shortly thereafter, but fell behind within a few months of relocation. An “Ask Ralph” (the then CEO) email account was popular with employees for open dialogue, but the release of office “protocols” sent out by management were read by employees with either
confusion or open rebellion due to the lack of explanation for required behavior (i.e. do not place items on the window sills, because the automatic shades need to come down uninterrupted). The use of a more engaging, marketing style communication rather than formal documentation could improve not only the education of employees but their acceptance of directions for appropriate behavior. As their own client, they’re first in the market of selling the spaces to themselves. Why do it any differently for HKS than they would for any other client?

Possible solutions for future employee communication could feature more than the typical e-blast e-mail, but make use of environmental features like the touchwall to promote a Get to Know HKS ODC or Did You Know HKS ODC style announcement or interactive piece highlighting overlooked or upcoming office features. Such features might include the floor-level filtered water, color copy-print features, or how to use the teleconference hook-up equipment. As previously mention in the section “Culture of Critique,” this might require using an established system for identifying, organizing and storing insights for future design use; this could include quotes, statistics, graphics, and photography to create more engaging rather than corporate communication pieces.
CHAPTER 7
DISCUSSION AND LARGER IMPLICATIONS OF RESEARCH

Limitations of Research

Data Collection Biases

Since the entirety of this research was completed on-site, there is the distinct potential that employee interview data may have desirability bias due to their non-confidential participation with the study. The informed consent form clearly articulated that transparent nature of the physical space, as well as the mode of compensation would prevent any guarantee of confidentiality. As such, even with the promise of anonymity, there were some participants who were cautious in their responses and plentiful with their disclaimers (i.e. “not that I’m complaining...”) as a means of protecting themselves from perceived repercussions.

For a few of the interviewees not within or from a visually oriented field, i.e. corporate services, accounting, etc., the user experience mapping exercise was more of a challenge than a catalyst for conversation. They were unfamiliar with reading floor plans and I had not allotted time prior to or at the beginning of interviews to orient them well with the office spaces. As a result, I took on the role of tour guide and note taker as we worked through the activity and had them talk me through their daily behaviors and perceptions of space. My more active role in these interviews may have been somewhat leading as I had to identify spaces/activities for the participant rather than the participant voluntarily generating the data.

I also had to avoid data collection bias on a personal level by not convenience sampling from my pool of work acquaintances for interviews. I made a conscious effort
to avoid interviewing employees who would offer unique and interesting insights but not representative data; for example, individuals in operations, administration, or event planning. These individuals I am sure would have had valuable insights, but in the context of such a small scale project not generalizable opinions. These perspectives were captured in the employee survey but were in too small a number to be statistically significant in analysis.

Unutilized Methodologies

There were several components of the study design that did not come to fruition in the reality of the project. Anticipating the busy nature of HKS employees, I had originally expected to use shadowing as a means of capturing insights from employees whose schedules would not permit them to participate in an hour-long interview. However, I was fortunate enough to negotiate scheduling all of my participants for in-person and on-site interviews. Shadowing was not required. An additional element unfulfilled in this work was the projected use of stationary observation sessions and intercept interviews. Observations and on-the-spot employee interviews for this project were less structured and more fluid in terms of both execution and documentation. Key design features and employee behaviors were still observed and documented but in field notes rather than spreadsheets.

Conceptualization Quantity and Quality (or Client Terms)

In the process of accessing the design of the HKS ODC workplace, it became apparent that minor terms and phrases consistently used by the design team were challenging to empirically assess. Quantitative terms such as “increase” and “improve,”
as well as more qualitative terms like “work,” “access,” “flexible,” and “collaboration”
serve as excellent examples of how my research was not only to assess the built
environment, but also to help my client conceptualize and operationalize the terms with
which they hoped to measure “success”. This task emerged organically out of the
research after conversations with HKS ODC design team members. Findings showed
that concepts of “access,” “improvement,” and “satisfaction” were relative terms that
required both quantitative and qualitative analysis to both conceptualize and gauge their
role in assessing workplace design. For example, assessing “access” to conference
rooms involved more than a statistical analysis of square footage allocation or number
of seats per employee. It involved understanding proximity, vertical and horizontal
circulation, and employee perceptions of accessibility.

Visualization of Information

My findings also suggest that more novel mediums to report key findings, i.e.
heat maps, personas, and scenarios of use, offer a great potential to engage study
participants and more clearly communicate research results to designer and client alike.
A key insight was found in the somewhat experimental use of a hands-on user
experience mapping activity conducted during interviews. It brought tangible artifacts
(printed floor plans and markers) into the eager hands of architects and designers alike
as a more meaningful medium in which to communicate their thoughts. This
methodology not only served to engage participants but elicit key insights and

23 For my 2014 SfAA conference presentation that discusses this point in slightly more detail, visit
http://sfaapodcasts.net/2014/03/22/coming-of-age-in-the-corporate-context-exploring-the-non-linear-
transition-from-student-to-practitioner-and-back-again/ to access both the audio discussion and
presentation slides.
documentation via oral, written, and drawn narrative (see Figure 1). Thus, interviews ceased to be formal interrogations and became a more open conversation between interviewer and interviewee, emphasizing the dynamic of student and teacher. It facilitated more insightful discussions and definitions, via narrative, of concepts like “work,” “desking,” “heads down,” “collaboration,” and “circulation.” While somewhat unfamiliar to the anthropological toolkit, the user experience mapping was a major success in collecting meaningful metrics, entertaining organic or abductive insights, and capturing colloquial terminology.

Figures 13, 14, and 15 serve as an example of how raw UX mapping data was generally analyzed and then formally visualized. The original information from Figure 13 from both circulation and conference room use data (from the 23 interviewees) was retroactively divided into two different heat maps using the Qualtrics survey software. This enabled me to isolate the reported phenomena (from all 23 interviewees) of circulation paths and conference room use/occupation. This helped to simplify the data and present the findings in a digestible manner.24

Figure 13. Level 2 circulation and conference room use heat map.

24 Using interviewee UX mapping notations as circulation data, I manually entered data into Qualtrics to generate a more formal presentation of the original data.
Figure 14. *Level 2 circulation heat map (Qualtrics).*

Figure 15. *Level 2 reported conference room use (Qualtrics).*
CHAPTER 8
PERSONAL REFLECTIONS

Following the self-reflexive nature of anthropology and the fact that “research never lacks a point of view” (Sunderland and Denny 2007), the following section reveals a reflexive narrative of my thoughts, concerns, process, and negotiations throughout experiences with this applied project. Unfolding within the dual context of academia and industry, this project represents work done within the challenging arena of industry-academia partnerships previously explored by Wasson and Metcalf (2013) and Baba (2006). While this work with HKS ODC took place after their design, build, and relocation, it documents ongoing changes and offers continued transformation via empirically-based recommendations. This is the client’s chance to acknowledge errors, challenges, and opportunities and so act upon them; however, such changes are the sole initiative/prerogative of HKS. My hope is to reflect upon my experiences and also to make improvements to my research process.

Negotiating Identities

My role within the office shifted dramatically as I transitioned from a summer intern in the Sports and Entertainment sector to a freelance consultant position working directly with the HKS CEO, Dan Noble, and Vice President of Integrated Communications, Emily Seibert. This project was commissioned by Dan Noble and managed by Emily Seibert. However, working under the auspice of the official title of “intern,” I had the unique opportunity to invent my project title, which I listed on all communications as “Design Anthropologist/ reWORK Research Coordinator.” This was
a conscious effort to identify myself as an anthropologist working within an architecture and design environment while also associating myself with the reWORK project and my role as a researcher within it. Even with all of those titles floating around the office and firm—intern, anthropologist, researcher, coordinator—I was still perceived as a non-designer. I considered this a catalyzing factor more than a challenge.

Being a non-designer and of junior status within the company, made me an approachable insider-outsider. I was an insider-outsider in that while I was an HKS employee, I was not distinctly affiliated with any one sector or client project. HKS employees were genuinely interested in finding out “What are you doing here?” and “An anthropologist… What does that mean?” I used this as an opportunity to open up conversations about myself, explaining what well done applied anthropology research offers design, seguing seamlessly into a brief description of my research project. I was met with eager enthusiasm and some skepticism. Anthropologists in the architecture industry do exist, but are few, and often disguised within the various titles (e.g. research analyst, user experience researcher, etc.) as discussed in Chapter 2.

Finally, a small but entertaining challenge that endured the length of my project was a lack of image. No, it’s not that I was disrespected or misrepresented. My company profile (adjacent to my name in emails and instant messages) lacked the standard, black and white, company photo of a full-time employee. So even with a highly descriptive, self-generated signature of “Design Anthropologist: reWORK Research Coordinator”, my interviewees and people in general never knew what I looked like. This made for some entertaining pre-interview session emails with statements like, “I’ll be the brunette girl waiting by the center stairs, sitting on the couch,
in a purple sweater.” (And I have to admit that on days I interviewed an employee I had not met personally, I had a system to make sure I wore something distinctive for locating purposes.) Otherwise I would fail to meet up with people at the scheduled time and lose precious interview minutes trying to find the participant with whom I was trying to meet.

Accessing Information

HKS, like many large organizations, possesses a tremendous breadth and depth of knowledge. However, in my experience, I found that much of that information resides only with individuals, there is little documented institutional memory. Thus, one of my main challenges with this project included accessing specific information in a reasonable amount of time and effort, manifest in three different challenges.

‘Ah, that’s interesting, but where can I find out more?’

My primary challenge regarding accessing information included knowing where to go or who to ask to find additional or “real” information straight from the horse’s mouth. This was also assuming I correctly understood various design and architecture terminology as was explained to me. At times industry terminology proved slightly misleading, as “workstation,” “desking,” “wall,” and “partition” naively seemed the same to me until further clarification was offered by one or more other HKS employees (typically after I misused a term or concept). Some HKS knowledge is contained within various publication outlets, such as *HKS Innovate* or *Link* with topics per publication. Other knowledge can be found within the extensive but less than intuitive confines of an HKS intranet portal of announcements, blog posts, web links, and white papers. Upali
Nanda, the Director of Research at HKS, is spearheading an effort to compile research information and resources as a reference library for all HKS employees to use in their projects.

_Can you pencil me in on Monday?_

Additionally, much information still remained within the physical brain-space of those who knew it, meaning I had to track down individuals to get the information. This took time and persistence operating in the context of busy schedules, constant project deadlines, and my part-time presence in the office due to coursework on campus in Denton, TX. Thus, my secondary challenge was scheduling time to meet with people. Besides the general knowledge gatekeepers, I also had to work to meet with members of the reWORK Committee, my project manager Emily, and the project sponsor, Dan Noble. All of these people were excellent informants and extremely approachable, but incredibly busy with meetings booked months in advance and/or travel (domestic or international). This resulted in numerous and repetitive points of contact for scheduling, a reality of working with more senior level employees and management.

Identifying Relevant Information (for the Client)

Much of this topic has been discussed in the previous section, “7.3 Visualization of Information.” A study of this size generates a surprising amount of data, data of varying quantity, quality, and significance (both statistically and subjectively). This was particularly true of the mid-research addition of the employee survey. Its iterative development with HKS designers created minor delays due to the UNT-mandated IRB modification process. With that stated, the final, less prescriptive and more subjective
phase of research involved sifting through mounds of printed reports from SPSS Output and Atlas.ti and then reporting results back to the client. While much of what I had to share was eagerly anticipated and used, some findings I found interesting were disregarded as non-essential and others (which I thought wouldn’t be of interest) were treated as revelations.

One example is my own interest in understanding why employees do not like to work away from their desk and why choose no to use amenities like the showers, locker rooms, and technology to its full capability. Reasons ranged from ‘people think I’m not working if I’m away from my desk,’ ‘there’s no where else I’d want to work’ (hinting at the lack of cultural and facilities support of non-desk work), to ‘I don’t know where that is,’ and ‘it’s too confusing and could make me look unprepared in front of a client.’

Another example was the challenge with perceptions of pin-up space. This space previously confined to the desk or group area at 1919 McKinney was now out in the open for anyone on the floor to see. This caused some concern over confidentiality, confidence in posting work in progress that could be harshly critiqued, or showcasing finished work when it was promoted as a work (rather than a display) space. Interestingly, the information on percentage of time at one’s desk (on average 75 percent of the week) helped them understand the value of the desk space in tandem with statistics on reported work away from the desk and use of collaborative spaces. This conceptualized the “flip the script” description of HKS ODC carried through for many explanations of the office design.

The iterative review of information during the storyboarding process for the marketing piece mirrors that of most visual communication design. This approach was a
benefit, as I was responsible for generating most of the supporting copy (writing) for the publication due to my familiarity with the nuances of the research story. Additionally, my analysis section in this thesis was able to focus on findings not featured in the client deliverable, of which there were many as discussed in Chapter 5. I also plan to pursue publication of additional findings in peer-reviewed journals.

Negotiating Confidentiality and Anonymity

Due to the intimate and transparent work environment in which this research was conducted (mostly glass doors, not completely sound proofed, etc.), confidentiality of interview participants was neither guaranteed, nor achieved. However, participant responses were rendered anonymous in all documentation via assigned participant numbers and were then pooled together as a whole group. The survey was designed to be anonymous, but one could theoretically go back to see the cumulative responses and attempt to guess the identity of the respondent based on this analysis. However, all online survey accounts were password-protected and only I had access. The confidentiality of all other participants' individual information is maintained in this and all future publications or presentations regarding this study. Due to the nature of how the survey text-entry data were collected, write-in quotes were not associated with any specific respondent. This created somewhat of a limitation, as I would have liked to do a content analysis of responses between floor levels, job functions, and generations of employees but was unable to do so.

Additionally, the identification of HKS in public presentations and publications had to be negotiated with company leadership. This was not originally agreed upon prior to the research, however, after data collection and analysis I approached HKS
leadership to discuss the benefits and drawbacks to public identification. Since the reWORK case study booklet as well as this thesis publication present less than perfect findings (meaning it would highlight lessons learned and recommendations) the material was kept confidential until a formal decision was made. HKS was not given the right to review prior to this publication, but I did review the majority of content that could be publically perceived as negative (i.e. worst case scenarios) with HKS leadership so they could make an informed decision to accept or decline identification. It was decided that the benefits of public acknowledgement for thought leadership and innovative design assessment outweighed public knowledge of their own design shortcomings.

Balancing Employment and Educational Commitments

This thesis was completed only after I accepted and transitioned to a full-time position at HKS, taking on full workload for definition and promotion of the new reWORK research service. There were benefits in remaining on-site after the completion of my project that facilitated direct access to participants for follow-up questions and that allowed me to continue to gain insight into improvements being made to the office. However, this created a double workload with my HKS employment, with some overlap. Finally, this dual role as employee and student became inextricably interwoven in my presence at HKS ODC. I found I could not ever really step away from my research as I saw and experienced new components of it every day. I was not going to physically leave the project site so I finally had to choose an "end point" to data collection in March for most field notes and observations. Otherwise I would not be able to complete the project in time to do a full analysis of the data I had collected.
The application of anthropology within architecture is a small but growing subfield. This research builds upon the efforts of E-Lab, Xerox PARC, and others who pioneered the integration of business, workplace, and design. This case study into the headquarters relocation of architectural firm HKS Inc. to One Dallas Center in downtown Dallas provides numerous technical, social, and cultural insights into the modern workplace. It brings together a blend of ethnographic, architectural, and design research thinking and methods that offer both a holistic and relevant approach to what can be gleaned from post-occupancy assessment. While this study provides a small glimpse into the lived reality of the entire headquarters of a leading architectural firm, I now work at HKS applying this research design to other HKS client projects with both pre-design and post-occupancy components to more systematically capture affects of design. “At the building level, the workplace is no longer about defining status by office square footage [sic] or location. The workplace supports knowledge work to the extent it delivers collaboration, communication and connection with colleagues,” (Steelcase 2009:6).

As we begin to understand the impact built environments have on daily work practices, organizational behavior, as well as the health and wellbeing of workers, there is a need to broaden the study of urban offices to include the role of external work environments, community development, and discrepancies between design/management intention and design reality (see Darrah and Dornadic 2013), particularly in how those differences are communicated to end users. This can encourage the industry movement away from design for design’s sake toward more
user-centered design. However, Frascara (2002) warns that, “It is not sustainable to continue just reacting to clients' requests for design interventions. It is necessary to consider the discovery and definition of physical and cultural problems as an essential part of design,” (p. 36). User-centered design should include the input and enthusiasm of end users, not just leadership and management.

Design is a problem-oriented, future-focused, interdisciplinary activity and as such, good design requires interdisciplinary strategies to identify and address problems. (Frascara 2002). Ethnographic studies like reWORK ODC bring together architecture, interior design, graphic design, and the social sciences to obtain the breadth and depth necessary to facilitate actionable understanding rather than interesting data points. This depth provided meaningful insights for this one specific client, HKS Inc., and will serve as the first of many HKS case studies operationalize user-centered design in workplace environments as part of the HKS reWORK Initiative as a design service led by myself and other researchers in the firm. The study thereby provides advice for future research in workplace design, employee experience and satisfaction, and larger corporate real estate decisions.

In light of this lengthy analysis of their new workplace, outlining successes and drawback of their space, the entrepreneurial spirit of HKS is summed up in this employees' words: “I think that HKS people are the greatest bunch of folks in the world. We could operate out of a shoebox if we had to. Our expertise is designing great buildings that work well for our clients. We will do that no matter what.” Fortunately HKS ODC is no shoebox and can be praised as an effective, but ever improving, workplace, for these creative and critical people who now call HKS ODC home.
APPENDIX A

INTERVIEW GUIDE EXAMPLE

Semi-Structured Interview Guide Sample Questions

– Can you tell me about how you came to work at HKS? How long you’ve worked with the company and the type of work you do now?
– How would you describe [each office they’ve worked in] office?
– What was the seating like in that office?

Participant given floor plan and photos of McKinney office to identify paths of circulation and areas of interest for the following questions.

– How long did you work at HKS on 1919 McKinney Ave?
– Where did you sit? Can you show me on the map?
– How would you describe the McKinney Avenue office?
  o Why is that?
– Is there a particular instance that serves as a good example of that?
– Can you walk me through your typical workday in the old office?
  o How did you commute to the office?
  o Mode of transportation? Commute time?
– Where did you typically enter the office?
– How did you get to your desk?
  o Did you stop anywhere on the way?
– Where did you typically do individual/heads down work?
  o What about this space was good for heads down/independent work?
– Where did you typically hold team meetings?
  o What about this space was this good for team meetings?
  o Where they planned or spontaneous?
  ▪ Ask to report in ratio or percentage of time for type
– Where did you eat lunch?
– Where did you make personal phone calls?
– In your opinion, what were the best features of the McKinney Avenue work environment?
– What would you consider the worst features of the workspace?
  o Spaces never used? Always crowded? Broken? Cluttered?
  o Least productive space/place?
– Can you give me an example of an aspect/element/feature that was not ideal but you tolerated anyways?
– Is there anything else you would like to share?
APPENDIX A

REWORK ODC CASE STUDY BOOKLET

New Digs.
The assessment of our own headquarters relocation.

25 Reproduced in whole with permission of HKS Inc. An interactive online version can be found at http://www.hksinc.com/rework-hks/.
Welcome to reWORK.

Results-driven and people-oriented, we look beyond “big box” statistics and meaningless metrics. Our goal is to capture both the richness and reality of the employee workplace experience.

Everyone has their own definition of what work is, what today’s workplace should look like and how the workplace should perform. As an industry observed both macro and micro of the cubicle and the open office, how do you decide what is best for your company?

HKS takes an ethnographic approach to workplace design, analyzing quantitative and qualitative research insights to guide our designs. Our methodology leverages both the focused observation, interviewing and employer surveys within an analytical perspective to have fresh and as open mind.

Humanizing the Science of Workplace.
WHO ARE WE?
EVOLUTION OF ODC

Founded by Johnston, Smith in 1949, ODC grew from a single architect in Dallas, TX to a global firm of over 450 employees in 21 offices worldwide.

This year we celebrate our 75th anniversary, 75 years in the making. As an architectural services provider in Dallas, ODC reflects our business and building approach in architecture.

1961-1980
SOUTHLAND CENTER

"There was an office tower in far-off El Paso where we lived. At that time, we were a fairly small group. Almost everyone was very far away and there were few instances of privacy. Most of us worked in an open office environment at the time." - Ron Wygant

1980-1998
PLAZA OF THE AMERICANS

"First floor was reserved for the main office department. I think the design was simple and planned on one floor. But there was a lot of things going on the other floor, so we put up this very simple and basic setup. We put up what we thought was necessary and then we opened it to the office area." - Angela Lee

1998-2013
1919 MCIC INNEY AVENUE

"There were a lot of informal encounters with people moving up and down through the building. We were located on three floors with an open floor plan. You went through an open system with windows, which allowed us to create a "5/2" or a week per floor." - Ralph Norvell

2013-PRESENT
ONE DALLAS CENTER

"The exterior office seems to have cool and colorful offices. As we are one, which is pretty much an open area, with people working in a relaxed, collaborative and colorful space. It creates a "5/2" or a week per floor." - Ron Wygant

KEY ROLES
AT ONE DALLAS CENTER

- GS: Architects
- 15% Administration/Support
- 15% Interior
- 15% Technology
- 15% Accounting

FEMALE EMPLOYEES
- 34%
MALE EMPLOYEES
- 66%

AVERAGE YEARS IN INDUSTRY
- 18.2
AVERAGE YEARS AT ODC
- 12.8

OLDER EMPLOYEE
- 78
YOUNGEST EMPLOYEE
- 20

AVG AGE
- 42
01: HOW WE WORK? VS 02: HOW DOES THIS AFFECT ME?

01: Third-party assessments of employee interests and corporate culture highlighted some major design principles to address issues from the old and inspire change with the new:

- Approach and Entry
- Collaboration and Meeting
- Flexibility and Mobility
- Visibility and Access
- Information Display and Branding
- Diversity of Space Types
- Access to Technology

02: Pre-design programming interviews of employees revealed common concerns for the new office environment:

- Convenient Location
- Environmental Quality
- Access to Workspace
- Open Seating/Boarding Style
- Confidentiality
- Fewer Offices
- Disruptions/Focus

EMPLOYEE PRE-MOVE SURVEY

EMPLOYEE OF
THE MONTH

55% of employees ranked their primary office experience as parking.
77% of employees rated their secondary importance for covered parking.

CONVENIENCE TO THE DART LIGHT RAIL IS IMPORTANT.
25% of respondents would use the DART if a commuter site was located.

WHAT ARE MY TOP THREE ISSUES IN THIS OFFICE?
- Parking is free or at a reduced rate
- Dining options and service are offered
- Headquarters in an LEED-certified building
“Foregoing the traditional office mindset and adopting the philosophy of more ‘we’ space and less ‘me’ space. Team-oriented, high-performing and energetic workgroups that encourage cross-market collaboration...a wide range of collaborative settings equipped with the latest in technology to make quick, effortless transitions from one space to another.”
DESIGN DIRECTIVES

This document presents a brief overview of research findings that assess and evaluate the AIA Dallas Center's working space design. The following five sections represent themes in the findings that relate directly to the office's original design intent.

01: INCREASE CROSS-SECTOR COLLABORATION
Teamwork shouldn't be limited to a single studio or department. How has the co-location of related sectors facilitated project work?

02: INCREASE ACCESS TO COLLABORATIVE SPACES
Work can happen anywhere. Where do ideas emerge and who is open to hearing new ideas?

03: ENCOURAGE AN EDUCATIONAL ENVIRONMENT
If space is given context, it need not be a tabula rasa - How has bringing the work and collaborative process out into the open engaged others and allowed them to give constructive feedback?

04: FACILITATE EMPLOYEE WELL BEING
We're LEED Platinum here at OGD. To what extent is the new office adhere to the principles of health and workplace satisfaction?

05: DEVELOP THE DOWNTOWN AREA
Moving to OGD let us be "Urban Florentines." How is OGD's presence contributing to the development of downtown Dallas?
THE BIG PICTURE

3/7
Number of floors

1/Multi
Number of tenants

99K/
101K
Net assignable square footage

202/
186
Usable square feet per employee

16/40
Number of conference rooms

0.9:1/
1.1:1
Ratio of total collaboration seats to employee seats

Typical Floor - Collaborative Spaces
Employees have an average of 36 learning tables, 25 desk islands, 4 open-up walls, 6 breakout conference rooms, and 4 informal collaboration/office spaces.

The Learning Center
Serves as both a visual statement piece for the CDC space, as well as a functional core node of floor architecture.

33 Touchless & Conferencing
A 14 foot interactiveurus features meeting rooms and provides a series of what is outside of most formal client conference spaces.

The Learning Center
Truly a multipurpose space used for both CDC programming, Business Affairs, Training, and: on-site University and community events.
CO-LOCATION OF SECTORS

TEAMWORK SHOULDN'T BE LIMITED TO A SINGLE STUDIO OR DEPARTMENT. HOW HAS THE CO-LOCATION OF RELATED SECTORS FACILITATED PROJECT WORK?

It's one thing to say you are collaborative, but what does it mean to collaborate?

HKS is promoting “The Whole Architect” in firm factions. HCC supports the idea that collaboration requires and is facilitated by the latest technology to enable co-located sectors, both within and outside of the Dallas office.

HCC design is able to support employee needs at both the floor level and office scale, due to diversity and distribution of work spaces, team members and amenities. This encourages both horizontal and vertical movement through the office space.

97% of employees sit in an open office configuration.

8-26 ET
Average distance to nearest team member on the same floor.

01
INCORPORATE CROSS-SECTOR COLLABORATION
**CREATIVE CONSIDERATIONS**

Balance functional design with organizational structure. HCB is no Google, but it's also not a call center. Our creative workforce creates a dynamic, interdisciplinary process and requires a space that reflects and supports these nuances.

**HITS AND MISSES**

**SUCCESSFUL**
- Floor head amenities (copy/print, kitchen) reduce access distance to daily resources, supporting more productive work flow
- Ubiquitous conferencing technology to facilitate seamless work mobility
- Coffee bars as a venue to facilitate spontaneous communication

**MISSING**
- Hands-free phone headsets provide employees with a hands-free work-play

**UNSUCCESSFUL**
- Embedded cameras in desk phone for video calls in a new and under-utilized communication arena, which is used but not consistently.

**TRADE OFFS**

**GOT**: Immediate access to team members, ubiquitous technology

**GAVE UP**: Some loss of personal human interaction
WORK CAN HAPPEN ANYWHERE, WHERE ARE PEOPLE DOING WORK AND DOES THE OFFICE DESIGN SUPPORT THOSE FLEXIBLE NEEDS?

The age of segregated, office-based work is so far past us that it is hard to imagine work in an industry of constant collaboration and team-based activity. However, companies are not just increasing the number of collaborative areas; they are increasing the number of project teams.

The CEO of this firm offers a five-year history of collaborative areas; located within every reach of project teams.

ACCESS = DENSITY + DIVERSITY + DISTRIBUTION

(November) (Type) (Location)

36% Employees report working in conference rooms
12% Employees work in a cocoon, collaborative area
30% Employees work out of the office
9% Employees utilize soft seating to do work
2% Employees report doing work in the manual library

TYPICAL STUDIO WORK SPACE
THE AVERAGE ODC EMPLOYEE REPORTS SPENDING 75% OF THEIR WORKWEEK AT THEIR DESK. YOUR DESK HAS BECOME MORE DYNAMIC.

DESKS ARE NOT JUST FOR INDIVIDUALS

After conference rooms (large and small), a team member's desk and the training/desks/collaborative table are the next spaces most frequently reported as being used for learning and collaboration.

PLUS, WORK HAS GONE MOBILE

4% increase in access to laptop computers and 8% reporting work out of the office means more work has gone mobile.

CREATIVE CONSIDERATIONS

Old habits die hard and people are like relatives — they bring baggage with them. Design must identify points of behavior shift to encourage desired, and discourage undesired practices in the workplace. This is more than behavior, it’s culture change.

HITS AND MISSES

SUCCESSFUL
- Small, 2 to 4 person, floor level conference rooms for quick access
- Semi-circle collaboration area is an open, informal place for meetings
- Technology integration in collaborative spaces allows for flexible use
- Standing layout islands allow for team collaboration with close proximity to the desk, but are sometimes used for storage
- Pin-up walls display work as more of a presentation style rather than in-progress versus
- Local 2 conferencing is a high-use space, but can be over booked and aesthetically/less inviting

TRADE OFFS

- 30% increased space allocation for collaborative spaces, flexible space
- ONE UP: Desk and layout space ability to reserve floor level rooms for team meetings or conferencing
WE’VE FLIPPED THE SCRIPT, RE-ENGINEERING THE IDEA OF COLLABORATION AND THE OPEN OFFICE.

As a creative services firm, it makes sense for us to collaborate every day, not just on transforming spaces or on casual Fridays. It’s important to us that we designed the primary workspace for collaboration; the rest is there to help with the tasks often done alone elsewhere.
IF SILENCE GIVES CONSENT, WE’D RATHER HAVE A TALKATIVE CROWD. HOW HAS BRINGING THE WORK AND COLLABORATIVE PROCESS OUT INTO THE OPEN ENGAGED OTHERS AND ALLOWED THEM TO GIVE CONSTRUCTIVE FEEDBACK?

LEARNING OPPORTUNITIES

PLANNED/STRUCTURED

- Learning
- Conference Rooms
- Auditorium
- Training Lounge
- Training Table
- Personal Desk

SPONTANEOUS/UNPLANNED

- Collaboration
- Idea Hub
- Breakout Rooms
- Outdoor Space

ENCOURAGE AN EDUCATIONAL ENVIRONMENT

With a move towards open working, the learning environment has evolved to encourage more formal and collaborative learning opportunities. This approach not only enhances knowledge transfer but also fosters a culture of continuous improvement and innovation among employees.
CREATIVE CONSIDERATIONS
Facilities change will be maintaining traditions. Don't wait for someone to invite you to this conversation. Make the environment a space of open dialogue at both the spontaneous team-level and the structured office-level.

HITS AND MISSES
SUCCESSFUL
- Collaborative table within meeting cluster makes teaming more accessible
- The multi-functional learning center facilitates a wide variety of programming and encourages vertical movement in the office
- Flexible space enables more transparent workforce
- The interactive and clean design is eye-catching and educational but not yet luring enough to fully promote for employee work and client meetings

TRADE OFFS
GET / GIVE UP: General individual privacy and offices and larger, individual learning spaces
“I can definitely hear things, which is nice, because I try to listen in and try and pick things up from the people right behind me or the upper people. At the same time, it’s not disturbing ...”
WE’RE LEED PLATINUM HERE AT ODC. TO WHAT EXTENT IS THE NEW OFFICE LITERALLY A BREATH OF FRESH AIR?

A healthy workplace is more than being VOC-free products or a LEED-Platinum certification. It is a place that values and fosters employee wellness both inside and outside of the office, extending the employee experience beyond physical walls of the space. To consider commuting, productivity, loneliness, mental health, and thermal comfort. Our $4 million investment in smart sensing technology is helping ODC maintain a higher, more energy-efficient, healthy, and comfortable indoor environment with occupancy light control and a smart heating, ventilation, and air conditioning system.

YOU LIVE AT WORK. STAY HEALTHY.

-----------------------------------------------

AIR QUALITY COMPARISON

1900 MCKINNEY AVE

ONE DALLAS CENTER

Quality

Excellent

Fair

Poor

Good

16%

29%

43%

43%

11%

8%

41%
"MY COMMUTE IS 100% TRAIN NOW. MORNING TRAFFIC WAS ALWAYS STRESSFUL. I’D GET INTO WORK FEELING LIKE I’D HAD THIS INTENSE MORNING ALREADY. NOW I READ THE NEWS ON THE TRAIN AND IT WORKS WELL."

CHRIS SHEELEY
Vice President, AECOM

FACTOID

ODC employees are reportedly using public transportation as a means of commuting to work almost 8 times more than the national average and 10 times more than workers from the Dallas Metro Area.

24% ODC
1.5% DALLAS METRO AREA
5% U.S. OVERALL

US Census Bureau, 2015 American Community Survey 2015

MEASURING UP TO PROMOTE EMPLOYEE WELLBEING

95% Of employees within 25 feet of windows/natural light
Because getting to see outside shouldn’t be a privilege

5% Of entire ODC office allocated to healthy lifestyles (i.e. locker rooms and showers, outdoor patio space, wellness/flextime rooms and multi-purpose spaces for fitness classes)

CREATIVE CONSIDERATIONS

Offer acceptable and accessible solutions. Change is hard, for everyone. Whatever new additions or alternatives are available must be known and understood before they can even be used or appreciated.

HITS AND MISSES

SUCCESSFUL

Central communication wall provides easily accessible vertical movement
Multi-purpose rooms hosts after work fitness classes (i.e., yoga and Zumba)

SO-So

Filtered water is available in every kitchen, but employees aren’t always aware of this.
Regular tap water is filtered or not knowing if filtered option

UNSUCCESSFUL

Showers, lockers, wellness, flextime rooms are new, unknown additions which means less observed and reported rates of use

TRADE OFFS

GET: Public transit access to front door, new HVAC, better air quality, smart sensing environmental controls (thermostats, shades, and occupancy sensors), upcycled and healthier materials

GIVE UP: Easy access parking, white noise, manually controlled thermostats, blinds and lighting, “unfinished” look and unintended aesthetic
"WE'RE NOW LIVING A GREEN, SUSTAINABLE STORY. WE WERE SELLING IT BUT NOT LIVING IT."

[Dan Noble]

ODC Sustainability:
Upcycling in Style

Our quest to be the first LEED office building to achieve a LEED Platinum rating involved making something out of nothing. All the house.

- Glass tiles in rest rooms = crushed windshield glass
- Blower-door cleaner = crawler system pipes
- Fix-up walls = cold-rolled stainless, rest and sink
- Wall covering = 80% recycled post-consumer polyester fabric

100% Recycled polyester fabric for window shades

39% Recycled post-consumer polyester fabric for wall covering

The list goes on. For more: www.rework.org
MOVING TO ODC LET US AGAIN BE “URBAN PIONEERS.” HOW IS HKS’ PRESENCE CONTRIBUTING TO THE DEVELOPMENT OF DOWNTOWN DALLAS?

We moved to Uptown before it was popular, helping to bring business and energy to the area. With this move to downtown Dallas, we hope to continue actively contributing to the development of our city. Not only are we supporting local businesses nearby, we are also hosting street events and seeking new venues to host community events. This is our city and we want to be part of what we’re working on.

STATS:
- 12 Restaurants
- 5 Coffee Shops
- 2 Parks
- 1 Fitness Gym
- 12 Hotels
- 3 Coffee Shops
- 1 Fitness Gym
- 35 Restaurants
- 8 Coffee Shops
- 4 Parks
- 6 Fitness Gyms
- 40 Restaurants
- 10 Coffee Shops
- 6 Parks
- 8 Fitness Gyms

DEVELOP THE DOWNTOWN AREA

DOWNTOWN DALLAS

ARTS DISTRICT

DALLAS MEDICAL CENTER

DEEP ELLUM

ONE DALLAS CENTER

DOWNTOWN PROXIMITY

FARMERS MARKET
CREATIVE CONSIDERATIONS

Some of the most dramatic transformations involve a strong vision of the future. Revisions may not be on a specific timeline, but designed to emerge out of ambition and idea.

HITS AND MISSES

HITS
- Building and landscape renovations enhance the general streetscape and provide employees with outdoor work and relaxation spaces
- Ground-level, walkable access to community and street presence

MISS
- Level 1 workspaces are somewhat isolated from typical working floors
- Level 1 outdoor patio has yet to be occupied during some weather

TRADE OFFS

- Reduced to distant amenities (i.e., restaurants, post office, dry cleaners), more prominent company branding, street presence
- O/V E UP: Large floor plans, horizontal movement, single-store-front building
SPACE INFLUENCES PEOPLE AND PEOPLE INFLUENCE SPACE.

There are [1] in every design project. While the environment is stable or constantly changing, it influences people who use it, and who in turn influence the space, bringing it to life—people who experience it, pass through it, use it, improve it, change it, and change it beyond it.
“THE FARTHER BACKWARD YOU CAN LOOK, THE FARTHER FORWARD YOU CAN SEE.”

| WINSTON CHURCHILL |

THE FOLLOW UP.
ONE YEAR AFTER THE MOVE, HOW ARE WE DOING? WHAT CAN WE DO TO CONTINUE IMPROVING ODC?

Design is more than concepts and construction. It’s culture change as well. Which is why we believe that office designs deserve more than certificates of code compliance. WDCR’s design approach includes both pre- and post-occupant assessment to identify successful interventions and areas needing further improvement. These improvements can be made as follow-up design interventions, or as a case study to inform our existing and future client work.

PROJECT TIMELINE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
<td>Collected data</td>
</tr>
</tbody>
</table>
**SEEING THE BIG PICTURE:**
**LESSONS LEARNED**

**01: MOST SIGNIFICANT IMPROVEMENTS**
- Public transit access
- Downtown amenities
- New technology
- Lighting
- Daylight

**02: MOST SIGNIFICANT CHALLENGES**
- Noise
- Vertical separation on floors
- Storage/layout space
- Privacy
- Conferenceing access
- Parking
- No general employee offices

**03: COOKIE CUTTER IS FOR CHUMPS**

One-size-fits-all solutions do not mean one-size works for all. Understand the working needs of employees (space, materials, technology, interactions) in order to provide designs that support that diversity. Allow for the space to be flexible enough for people to make it what they need.

**04: ESTABLISH SPATIAL SIGNATURES**
Brand your office environment, i.e., “The Learning Center” (NOT “the learning lab” or “the classroom”) and “Skylight Reception” (NOT “the 2nd floor lobby”). This helps personalize the space and increase the ease of orientation and wayfinding.

**05: THINGS GET LOST IN TRANSLATION**

It takes time to feel “at home” and develop a unique “character” in a space. Give employees the freedom to personalize their spaces. Use leadership to show appropriate use.
- GDC’s Learning Center is not 1919 McKinney’s Arena
- Level 3 rooftop deck at GDC is not 1919 McKinney’s courtyard
- “Rock/posse” features are not 1919 McKinney’s historic “character”

---

**“PEOPLE NEED TO LEARN HOW TO USE IT. THIS IS LIKE A TRANSFORMER; THE OFFICE CAN BE TRANSFORMED INTO HOW YOU WANT TO USE IT TO FIT YOUR NEEDS.”**

**ANONYMOUS EMPLOYEE**

---

**WHAT WE WOULD’VE DONE DIFFERENTLY**

**01: EARLIER INTRODUCTION TO THE SPACE**
Host pre-move tours or early post-move “open houses” to introduce employees to new space. It’s their new home. Helps them visualize and prepare for the move, get oriented to the space and get excited for change.

**02: COMMUNICATION IS KEY**
Use marketing-style communication in lieu of formal protocols to educate employees on features and acceptable use of the workplace. As our own client, we were selling the spaces to ourselves. Why do it any different for us?
reWORK workplace research brings together design and research professionals from across the nation. Our interdisciplinary team leverages knowledge and skills in architecture, interior design, healthcare research and the social sciences.

OLGA ACOSTA  
Vice President, Interiors  
OAcosta@fhinc.com

KATE DAVIS  
Vice President, Interiors  
KDavis@fhinc.com

ANGOLO RANERI  
Integrated Communications  
Raneri@fhinc.com

EMILY MILLER  
Vice President, Interiors  
EMiller@fhinc.com

LUCY VOLOSIN  
Vice President, Interiors  
LVoilosin@fhinc.com

OLGA ACOSTA  
Vice President, Interiors  
OAcosta@fhinc.com

KATE DAVIS  
Vice President, Interiors  
KDavis@fhinc.com

ANGOLO RANERI  
Integrated Communications  
Raneri@fhinc.com

EMILY MILLER  
Vice President, Interiors  
EMiller@fhinc.com

LUCY VOLOSIN  
Vice President, Interiors  
LVoilosin@fhinc.com
REFERENCES

Aiken, Jo

Baba, Marietta L.


Bernard, H. Russell
2011 Research Methods in Anthropology: Qualitative and Quantitative Approaches. AltaMira Press: Lanham, MD.
   Chapter 9: Participant Observation.
   Chapter 19: Text Analysis II: Schema Analysis, Grounded Theory, Content Analysis, and Analytic Induction.

Bernstein, Ethan

Biggs, Simon, and Ariela Lowenstein

Blomberg, Jeannette, Jean Giacomi, Andrea Mosher, Pat Swenton-Wall
1993 Chapter 7: Ethnographic Field Methods and Their Relation to Design in Participatory design principles and practices, Douglas Schuler and Aki Namioka, eds. Hillsdale: Lawrence Erlbaum Associates.

Brand, Jay L.
Brown, Zosia, Cole, Raymond J., Robinson, John and Hadi Dowlatabadi
2010 Evaluating user experience in green buildings in relation to workplace

Byrne, Bryan and Ed Sands
2012 Chapter 3: Designing Collaborative Corporate Cultures in Creating
Breakthrough Ideas: The Collaboration of Anthropologists and Designers in the

Cayla, Julien, Robin Beers, and Eric Arnould

Cefkin, Melissa
2009 Introduction in Ethnography and the corporate encounter: reflections on

Darrah, Charles N. and Alicia Dornadic

Erikson, Thomas Hylland and Finn Sivert Neilsen

Ferri-Reed, Jan
2014 Millenializing the Workplace. The Journal for Quality and Participation

Flynn, Donna

Frascara, Jorge
2002 Chapter 4: People-centered design: Complexities and uncertainties in
Design and the Social Sciences: Making Connections, Jorge Frascara, ed. Taylor
Gensler

Gregory, Tim

Groat, Linda and Lawrence Stern

Gun, Wendy, Otto, Ton and Rachel Charlotte Smith, eds.

Herman Miller

History of Dallas

Hua, Ying, Vivian Loftness, Judith H. Heerwagen and Kevin M. Powell

Jordan, Ann

Kaia Lõuna, Jaak Lavina, Jüri Riivesa and Tauno Ottob

Kato, Akikazu, Pieter C. Le Roux, and Kazuhisa Tsunekawa
Kim, Jungsoo, and Richard de Dear

Kuniavsky, M., E. Goodman, and A. Moed

Ladner, Sam

Meerwarth, Tracy L., Trotter, Robert, and Elizabeth K. Briody

Mehta, Ravi, Rui (Juliet) Zhu, and Amar Cheema

Moelich, Brian
2012 Workspace design that is both quiet and collaborative. Open IDEO. Accessed on 8/24/14 at https://openideo.com/challenge/well-work/concepting/workspace-design-that-is-both-quiet-and-collaborative.

Nanda, Upali, Sarajane L. Eisen, and Veerabhadrpan Baladandayuthapani
2008 Undertaking an Art Survey to Compare Patient Versus Student Art Preferences. Environment and Behavior, 40(2):269-301.

Nanda, Upali, Cheryl Chanaud, Michael Nelson, Xi Zhu, Robyn Bajema, Ben H. Jansen

Norman, Donald A.
O’Neil, Michael

O’Neill, Michael, and Tracey Wymer

Ornstein, Sheila Walbe, Cláudia Miranda de Andrade, and Brenda Chaves Coelho Leite

Park, Jin Gyu and Changbae Park

Preiser, Wolfgang and Jacqueline Vischer, eds.

Preiser W F E, H Z Rabinowitz, and White E T

Sailer, K., Budgen, A., Lonsdale, N., Turner, A., & Alan Penn

Sailer, Kerstin and Ian McCulloh

Sanders, E.B.
Schwarz, Heinrich

Schwartz, Ariel

Schwede, Dirk A, Hilary Davies, and Brian Purdey

Steelcase
2014 Issue 67


2009 Deep Dive

Strohmeyer, Robert

Sunderland, Patricia and Rita Denny

Tyrväinen, Liisa, Ann Ojala, Kalevi Korpela, Timo Lanki, Yuko Tsunetsugu, and Takahide Kagawa
U.S. Census Bureau

Walden, Rotaut

Wasson, Christina

Wasson, Christina, and Crysta Metcalf

Watts-Englert, Jennifer, Margaret Szymanski, Patricia Wall, Mary Ann Sprague, and Brinda Dalal

Yildirim, Kemal, Aysu Akalin-Baskaya, and Mine Celebi