

**THE SPACES IN BETWEEN AT ORBIT HIGH:
AN ANALYSIS OF TEENAGE BEHAVIOR DURING BREAKS AT SCHOOL**

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Doctor of Philosophy

by

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THE SPACES IN BETWEEN AT ORBIT HIGH

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THE SPACES IN BETWEEN AT ORBIT HIGH

The undersigned, appointed by the Dean of the Graduate School of the University of Missouri, have examined the dissertation entitled

**THE SPACES IN BETWEEN AT ORBIT HIGH:
AN ANALYSIS OF TEENAGE BEHAVIOR DURING BREAKS AT SCHOOL**

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a candidate for the degree of Doctor of Philosophy,
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THE SPACES IN BETWEEN AT ORBIT HIGH

to all teenagers

of Orbit City

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STUDENT CHARACTERS

Student

Alaia was a junior of mixed race. Together with two or three close friends, she walked the hallways of Orbit High until it was time to find her first classroom. On her regular trips to and from the counselors' suite where her meds for ADHD and anxiety were administered, she talked to many other students who hung out in their usual spots. She was the president of the book club but seldom spent time in the library. She also was active in several other school clubs and part of the stage crew for theatre productions. She loved to talk and had strong opinions about her peers and their behavior in the hallways during breaks.

Annie was a white sophomore who reported that Netflix was an important part of her life. She stopped her membership in the marching band after only one season because she could not be a percussionist. Her cousin was also her best friend and their favorite places were a booth and a remote table in the coffee shop where they met to watch cooler students do their thing. She was able to secure these extremely popular spots regularly because one of the classrooms she attended right before lunch was located extremely close by.

**Bethany
and
Danielle**

were two white cheerleading girls who attended 12th grade. They regularly hung together with a third girl in a laboratory space that belonged to their coach. They enjoyed the private and quiet nature of their spot in contrast to the more hectic public areas at school. Here, they talked and joked around, listened to music, and went online shopping for prom dresses. They missed their other friends, though, who attended different classes and observed different schedules.

Brad self-identified as one of the popular kids. He was a white senior and athlete, extremely busy throughout the school year because he had to coordinate his schoolwork around the seasons for soccer, baseball, and wrestling. Despite all his athletic activities, he was almost done with his high school class requirements, which gave him the opportunity to fill his senior schedule with easy and fun classes and left him with substantial time to hang regularly with his friends in the coffee shop.

Briana really wanted to talk to me but lost the consent form three times before we finally were able to meet for an interview. She was a black girl, a sophomore who hung with other black girls in the hallway in front of the library in the mornings. The lunch breaks she spent with a mixed gender black crowd in one of the big lunchroom booths. She did not engage in

any extracurricular activities at school but had just started a job at the Salvation Army. After having not passed all her classes in the previous year, she wanted to do better.

- Brody** was a very eloquent white sophomore, openly cynical about the school environment and the state of the world we live in in general. The game club that met early every morning to play the card game Magic in one of the open classroom areas was what he will choose to remember vividly about high school. Many of the kids he hung out with had not cared much about him back in middle school. These relatively new friendships and the games they shared in the mornings were at the core of his lunch experience as well, when they recapped the games' highlights and analyzed their strategies.
- Claire** was a white senior, belonged to several academic clubs, and was an excellent student. She also liked to draw, and Colby and Claire referred to themselves as the "parents" of the cartoonist club. The lunchroom and the main staircase were too crowded for her. She usually had her lunch alone on the casework in the classroom wings while she attended to her homework, read, drew, or updated the cartoonist club online site.
- Colby** identified as a boy. He was a white senior and told me that he could count the friends he had at school on one hand, but also regularly met a few lower classmen from the cartoonist club at one of the round tables in the lunchroom. He would have liked to be able to draw in the courtyards during the breaks and play the piano in the performing arts building.
- Diego** was a charismatic Hispanic senior, someone I noticed and started to be curious about early on in the hallways. He could regularly be found in several of the popular social spaces in school where he hung out with Jarmal and other friends from the hip-hop club. There was also a small group of girls that regularly met with him in front of the open staircase in the lunchroom.
- Hannah** was a white sophomore. She took her time to make a decision and we exchanged a few e-mails before she agreed to talk to me. She had experienced some online drama, and together with her mom had decided to delete her Facebook account. After we had finished our interview in one of the booths at the coffee shop, she talked for a long time about how important her activities in the Junior Reserve Officer Training Corp and the associated new friends were to her.
- Jarmal** was black and together with Diego led the hip-hop club. He published new songs he had recorded with his band on Sound Cloud and was part of the school's show choir. Most of his non-academic activities revolved around

music. His regular lunch spot at a table in the courtyard next to the coffee shop, however, he shared with a group of male black skateboarders.

- Katie** was the only freshman I interviewed. She was white, part of the athletic crowd and was well-liked in a variety of groups. In the morning, she hung on the skybridge with the basketball players, the football players, and the cheerleaders, but later she floated through the school to meet a few other groups she was acquainted with. She did not like to read and explained how it was easier to finish her homework when she streamed a movie in a tiny window on her laptop while she worked.
- Lilly** was an energetic and witty white 10th grader. After school, she goofed around with her friends in the entry lobby until their parents picked them up, before she drove herself home. She was a violin player in the orchestra and a female enthusiast of x-box video games. Originally, three of her friends claimed to be excited about the idea to talk to me and I did not want to turn them down, but she was the only one who actually showed up
- Mateo** was a very quiet Hispanic senior on the soccer team. He suggested that I pick him up from the in-school-detention (ISD) room to conduct the interview but was nowhere to be found that day. We did talk a few weeks later, instead. His best friend was a girl he had known since elementary school. He had lunch with her and some of her other friends at one of the large tables close to the coffee shop. While he despised having to get close to some of the smelly teenagers on crowded staircases during passing, he voluntarily spent time with her in front of the big open staircase while she waited to meet her boyfriend.

SOCIAL SPACE AT ORBIT HIGH:
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Elke Altenburger

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ACADEMIC ABSTRACT

Most public schools in the United States were designed and built in the second half of the last century. Their buildings typically consist of classrooms and narrow, locker-lined hallways. The former clearly belong to the teachers and best support lecture-style instruction. The latter are the locations for social interaction between students during their breaks. Many educators, administrators, and researchers worry about teenage behavior in high schools. Student peer culture is commonly understood as problematic. In response, break times typically are minimized, supervision routines are designed to be seamless, and educational policies regulate disciplinary institutional responses to acts of violence between students.

This research study investigates teenagers' break behavior in a contemporary school building that is unlike the institutional school buildings most current educators are used to and experience as "normal". The ethnographic case examines the relationships between high school student break behavior, local disciplinary practices, and a school building designed to blur the boundaries between lounge-like social spaces and informal educational spaces. Over the course of six months, the researcher spent 42 school days with Orbit High's teenagers in the spaces in between. Primary sources of data were field notes, log entries, behavioral maps, and open-ended interviews with 24 purposefully chosen participants.

The findings provide a deep understanding of the phenomenon of student behavior that occurs in the spaces between classrooms during the breaks at school. The design of the school building under investigation promoted social encounter between students and offered opportunities for a wide variety of learning activities. But adult stakeholders believed that their role was to enforce a school environment that eliminated opportunities for misbehavior and conflict. Therefore, much of the behavior-prompting potential of the architecture remained unexplored by its community. Instead students were not allowed to use the courtyards, the doors to the think tanks for the most part remained locked and the school library was barely used. In response to minor rule violations adults relied on surveillance camera footage to identify the responsible teenagers.

Students experienced their school place as overly controlling, surveilled and, because of the very brief times available to move from one classroom to the next in combination with the spaces not accessible to them, also as crowded. The only supportive aspect of students' school experience during break times was the informal social space they created with their friends in the hallways. The value of teenagers "hanging around" in the "spaces in between" classrooms during breaks at school was perceived as main source of social support by students and underestimated by teachers and school administrators.

INTRODUCTION

Break Times at School Have a Bad Reputation

Break times at school have such a bad reputation that American educators have considered abolishing breaks during school days for students all together. The discussions about the pros and cons of recess for school children and adolescent students are not exclusive to the research literature and have had a long shelf live. In 2009, Education World, an online resource for teachers, administrators, and school staff, reposted the article “Should Schools Take a Break from Recess?” eleven years after its initial publication. In 2014, The Learning Network of the New York Times, an educational blog for parents, teachers, and students, hosted a discussion around the question, Do kids need recess?

While the cognitive, social-emotional, and physical benefits for students are well established by researchers from various domains (Murray et al., 2013), experts saw until relatively recently the need to highlight the substantial gap between scientific knowledge and educational policy in the recess debate (Pellegrini, 2008). Motivations to minimize recreational times in schools despite the benefits emerge as a response to common school issues that are perceived as extremely hard to resolve.

In the mid-sixties, a decade after the Supreme Court decided that students’ race should not determine which school they would be allowed to attend, “school accountability” was introduced as a tool that was supposed to ensure the quality of public education for all its students. The concept entails three elements: rigorous academic standards, the measuring of students’ progress against these standards, and consequences for schools and teachers in response to the performance levels they are able to elicit. The

pressure created by regular standardized tests that every public school in the US now has to prepare for and facilitate, are often mentioned as a reason why instructional times at school have to be maximized at the expense of breaks.

The accountability concern is closely followed, if not topped, especially in secondary school environments, by the fear of creating unnecessary opportunities for problematic student behavior, such as bullying, during these times between classes. Supervision activities and their administrative coordination through supervision schedules are tightly connected to this issue. The more time students have to take a break, the more time teachers have to spend on supervision. Every minute teachers spend supervising cannot be used for the preparation of their instructions.

There is a vast amount of research on problem behavior, violence between students, and discipline at schools (Astor, Benbenishty, Zeira, & Vinokur, 2002; Astor, Meyer, & Behre, 1999; Behre, Astor, & Meyer, 2001; Blossnich & Bossarte, 2011; Gottfredson, Fink, & Graham, 1994; Heaviside, Rowand, Williams, & Farris, 1998; Kumar, O'Malley, & Johnston, 2008; Losen, 2011; Ludden, 2011; Neiman, 2011; Schneider, Sprague, & Walker, 2000; Simons-Morton, Crump, Haynie, & Saylor, 1999; Stephens, 1994). It appears that tremendous efforts have been made to understand all the negative effects of the related phenomena and the institutional routines that are supposed to help keep these truly worrisome effects under control.

However, despite all the attention given to social issues between students at school, few have tried to understand what adolescent students do when they hang around the hallways in their high schools and what it means to them. Peter Blatchford and Herb Childress are the exceptions. Blatchford studied students' experience of break time in the

context of England's school culture, which appears, surprisingly, incredibly similar to the school culture of the United States (Blatchford, 1998). However, he did not consider the physical school environment. Closest related to my own work is that of Herb Childress. He studied the teenage peer culture as it unfolded in a school building in California (1993). But in the 1990s, the digital age had not started to be a relevant factor to the social life in public schools and the buildings were still mostly cheaply made and ugly.

In my experience, designers want to believe that beautiful buildings promote beautiful social interactions, while they suspect that ugly buildings promote the opposite. After having completed a pilot study in an institutional-looking school building in which the middle school students were expected to walk in circles through the hallways before the start of their instructions, I wanted to find out what was happening in an amazing local high school building. Unfortunately, I was not able to gain access because the principal found it strange that I wanted to conduct a case study of her school but not of the classrooms or instructions. She was skeptical of the rigor of this project and did not want to waste anyone's time.

I moved on to search for another beautiful school building that belonged to a public school because I wanted to understand how a regular student population with regular problems behaves in an extraordinary school building. Eventually I found a beautiful school that came with a story driven by hope for a better future.

The Story of Orbit City's High School

Orbit City's high school building was destroyed by a natural disaster that left much of the town in a desperate condition, one educator and seven students dead, and more than 2000 teenagers without a place of education. This original building was from

the late 1950s and had barely any non-essential spaces available to the students during their breaks. The school's social life used to condense at a few benches in front of the lunchroom where the adolescents self-segregated into sophomores, juniors, seniors, and blacks, and Hispanics, each group claiming exclusive ownership of one of the benches. Interestingly, the last major improvement to the building, completed shortly before the disaster turned it into a pile of rubble, had been the installation of a state of the art video surveillance system.

The principal, Dr. Spacely, told me that he had received a call from an experienced architect of school buildings immediately after the disaster. He promised to help the community with the design and the construction of an interim school that would be completed in time for the start of the next school year, less than eight weeks away. The hastily built interim school occupied an empty space in a local mall. It served the school district for three years until a new building for up to 3000 students was ready to be occupied. Life at the mall campus had been relatively simple. The interim school was beautiful enough to win design awards but not big enough to accommodate all of Orbit High's students. Therefore, the lower classmen were temporarily sent to attend school in different buildings. Since only juniors and seniors spent their days at the mall campus, the student body had only half its usual size and the kids were generally older. Because of the lack of athletic and performing arts facilities, the teenagers had to attend after school activities elsewhere and the campus was usually closed right after the end of instructions. Many students and teachers remember the school at the mall fondly.

The new permanent building, which eventually was designed by the same group of architects who had led the emergency efforts, was the result of a participatory design

process in which all user groups, including students, had been involved. They called themselves the “dream team” and used the design of the temporary building to experience and evaluate unconventional spatial configurations before they incorporated them into their vision for the new school.

The New School Building

When visitors approach the school building from the parking lots located on the east side of the campus, they are greeted by a two-story image of the school mascot that was screen printed onto the glass facade (Figure 1). Whenever I reached the school between classes, I could see hundreds of students moving quickly from one classroom to the next behind it. The classroom wings, each organized around one of five career paths, stick out like fingers on the west side of the long major hallway spine that connects them (Figure 2).

The exterior spaces between the classroom fingers are courtyards designed for student use. They offer ample seating and support learning activities particular to the adjacently located content areas. All exterior spaces are well defined and carefully landscaped. The most prominent exterior materials besides glass are big metal panels in three colors that complement the large scale of the building. The main façade of the school jets in and out around staircases and spaces that expand the intersections of the hallways, creating protruding porch-like areas that are furnished with a variety of informal seating arrangements (Figure 3).



Figure 1. Mascot image screen printed on the glass facade



Figure 2. Aerial view of the building



Figure 3. Social porch at the intersection of two hallways



Figure 4. Fence closing off the courtyards against the rest of the site

When I initially visited Orbit High during the summer break of 2015, one of the first things I remember noticing was the fence that closed the courtyards off from the rest of the site (Figure 4). It looked like a late addition to the overall design and I was vaguely worried about the connotations it might elicit.

Institutional Routines

Unlike the principal at the local high school, Dr. Spacely was very proud of the school building he had helped to envision. They had used it for a full school year already and felt the need to make some adjustments to their everyday routines in response to the affordances of the physical environment. He explained that it had been a lot easier to manage the old building. Empty hallways during class times used to be a solid indicator that everything was in order. In the new building, the spatial connections between areas were more fluid and it was hard to decide who skipped class and who had a legitimate reason to hang out in all the comfortable spaces the building provided for students. Therefore, he was intrigued by my goal to understand students' interactions in the spaces between the classrooms. He was hoping to get valuable insights that could help to inform the institutional routines.

When I started my time at Orbit High on the first day of the new school year, only a few weeks later, the following practice was in place to promote student attendance of classes in a timely manner. The doors that connected the entry lobby with the rest of the school were open while the students arrived in the morning. With the start of instructions, these doors were locked; during the rest of the day, everyone who wanted access to the building had to ask the young white woman who staffed the attendance window to buzz one of the doors open. Therefore, students who arrived late could not enter the school and

had to wait in line to check in with their student ID at the attendance office where they received a hall pass. From here, each of them was accompanied individually by an adult to their first hour classroom. Their teachers had, in the meantime, also closed and locked their classroom doors and were expected to only allow documented and accompanied students into their rooms. Records were created, kept, and counted, and eventually students had to undergo in-school detentions (ISD) as a consequence for their tardiness.

Organization of the Dissertation

The research I present here offers insights into students' behavior during non-instructional times and into students' experience of break times in Orbit High's new school building. I focus on the teenagers' perspectives on their place of education.

In Chapter 1, I locate my work within a core of interdisciplinary literature. The themes: digital age, American school culture, peer culture, and the *Spaces in Between* are anchored within this existing research knowledge by the conceptual framework I developed, which will be explained in detail and applied to the particular case in Chapter 2. This methods chapter is organized into two major sections, my theoretical stance and the research design of the case.

In Chapter 3, I share the case findings. Since this is a post occupancy evaluation of a school building, I start with the architectural intent as originally envisioned by the "dream team" and describe the social life of the students in the most popular spaces, followed by sections centered around particular spatial aspects of the place that emerged as most relevant to my adolescent participants. The chapter comes to a close with comparisons between the publicly stated goals for the new building and the everyday activities, routines, and associated experiences of stakeholders at the school.

The discussion in Chapter 4 uses David Canter's place experience model as an organizing structure and creates a coherent student-place account. I conclude with implications and recommendations for Orbit High and similar institutions and connect the micro scale of my findings with the macro scale of public secondary education in the US.

CHAPTER ONE

Core Literature

Social Space at Orbit High is a case study of everyday activities in the spaces between classrooms during non-instructional times in a single school. The scope of the project appears extremely limited since both lesson times and classroom spaces are excluded. However, at closer inspection, it is a study of the social life of more than 2000 students in a school building that occupies almost 500,000 square feet. Not counting the minutes before school started and after school was over, depending on the day of the week, each teenager at Orbit High had between 37 and 52 minutes to talk to friends, wait in the lunch line, find a table, eat, visit the bathroom, and change classrooms between four and eight times. New to the place, it appeared to me like a complex task and very limited time to observe thousands of moving research participants in a building the size of an airport terminal.

Before I entered the field, I had identified three themes of an emerging conceptual frame that I hoped would help me organize my thoughts and understand my observations: (1) the spaces in between, (2) the culture of control, and (3) the concept of place. While they all still seemed relevant, after some observation time I felt the strong need for additional concepts or categories that would sharpen my senses for all these individuals and groups of teenagers and what was happening between them in the hallways at Orbit High. I realized how much I knew about the well-documented adult perspectives on students' behavior at school and how little about students' peer culture. I wanted to know more about how students think about their peers, how they select their friends or

acquaintances, what drives their group membership, how group sizes are established, and what they mean. I termed this new theme peer culture.

Peer Culture

“It is all too easy to slip from analyzing the problems young people face, to seeing youth as themselves the problem” (Maira & Soep, 2004).

In the introduction, I described how the peer culture of American teenagers at school is often perceived as potentially problematic by adult stakeholders. But, it is not exclusively an adult perspective or simply one generation being judgmental about the decay of the social culture of the next. When compared to adolescence in twelve other western industrialized countries, American teenagers felt the least comfortable at school. They do think of their teachers as supportive, but at the same time report social isolation (Juvonen, 2007). Since students like their teachers, but also feel lonely at school, the attempt to understand the relationship systems between teenage friends, their acquaintances, and classmates seemed like a logical next step.

Experts on adolescent peer relations explain that teenagers have to navigate sophisticated and continuously evolving systems of peer relationships. Social groups have a variety of sizes, each offering a different level of connectedness; these groups exist in parallel, overlap, and affect each other (B. Bradford Brown & Klute, 2008; Urberg, Değirmencioğlu, Tolson, & Halliday-Scher, 1995). The smallest groups (friendship pairs) are nested within and constrained by friendship networks (cliques) which are in turn affiliated with yet bigger groups of peers (crowds) (B. Bradford Brown & Klute, 2008).

Similarity is often the foundation for these teenage friendships. But the clear boundaries between crowds, typical for early adolescents' social life, begin to blur eventually (B. B. Brown, Eicher, & Petrie, 1986). Several authors concerned with youth culture and affiliated with a variety of domains agree that social peer crowds and friendship groups are more likely to bridge the initial boundaries during later stages of their time in high school (B. B. Brown et al., 1986; Shrum & Cheek, 1987; Zisman & Wilson, 1992). Juniors and seniors seem more capable of bridging social differences than freshman and sophomores.

While navigating through the challenges that dynamic and complex networks of interlaced groups provide, secondary school students stop the active games that they engaged in on elementary school playgrounds; instead, the *Social Life at School* (Blatchford, 1998) starts to consist mostly of "hanging around." Early in the school year, cliques claim a regular "hangout" spot (Childress, 1993) to meet and stand around in circles while talking about last night, to tease each other, and occasionally get into a fight (Blatchford, 1998). On the one hand, Blatchford warns educational stakeholders not to underestimate the value of "hanging around" and shows that adolescent students see a clear difference in quality and meaning of "teasing" among friends versus the teasing of outsiders. Laursen argues in a similar fashion that teenagers perceive daily conflicts with friends or romantic partners as "benign events" with little consequences (1993).

But on the other hand, it is also important to remember that American students feel isolated (Juvonen, 2007), alienated (E. S. Lee, 2004), and stressed (Ahrentzen, Jue, Skorpanich, & Evans, 1984). Bullying, aggression, and violence in schools have been highly visible and persistent topics of educational research (Astor et al., 2002; Astor et

al., 1999; Behre et al., 2001; Blosnich & Bossarte, 2011; Heaviside et al., 1998; Neiman, 2011; Perkins, Perkins, & Craig, 2014) since the Safe Schools Act was adopted in 1998.

Other relatively late additions to my conceptual framework were aspects of the digital school environment. My initial hesitation to include them to the case was twofold: my expertise is not the digital but the physical environment, and online habits are not easily observed.

Digital Age

Though I hesitated to include digital aspects of interaction, there were numerous digital activities and a few gadgets that were hard to exclude from the “environmental setting” (Barker, 1963) under investigation, such as text messaging and the always present smart phones (Madden, Duggan, Cortesi, & Glasser, 2013). The mobile devices have been found to change the quality of real-life in-person social interaction. Some report less empathy for their partners in conversation in the presence of phones (Misra, Cheng, Genevie, & Yuan, 2014). Others use them as a shield from unwanted social interaction (Hampton & Gupta, 2008) or to socially engage with people with whom they are already intimately connected but who are elsewhere, instead of interacting with relatively unfamiliar people in their immediate physical environment (Wellman et al., 2003).

Also important to this particular case are the textbook-replacing high-end laptops that every student received at the beginning of the school year at Orbit High. The school building, designed for the net-generation, is not unlike most institutional buildings equipped with a wireless network and designed to support technology-driven learning needs. A substantial IT department, located at the school’s social center, stood by to keep

the student laptops running smoothly and struggled to keep up with the ever evolving online behavior of the adolescents while trying to enforce the latest rules identified by the leadership team as targets for appropriate online supervision.

Teachers used social networks to create and maintain Facebook groups and Twitter feeds that organized athletic student activities and schedules, documented competition results, and connected the team members or school club participants. Students relied on other social network sites, such as SoundCloud, to publish and share songs they had just recorded with close friends and larger groups of interested peers. Students also accessed online gaming sites and television streaming sites over the course of the school day or had Skype conversations in the hallways during their breaks. Furthermore, there were digital classroom tools in place, such as Canvas sites, which teachers' used to post homework assignments and grades, as well as calendars with test dates. Some of the classes were blended environments where both on-site and online activities and spaces had to be navigated by students over the course of the school day. Orbit High, therefore, needs to be conceptualized as a place-based host setting for a variety of virtual settings that are accessed from it (Misra & Stokols, 2012).

The understanding of social consequences of the internet for the adolescents has changed since the early studies in the late 1990s. Initially, researchers across domains found evidence to support the "reduction hypothesis," which suggested that technology reduces teenagers' connectedness. Back then, online and offline contacts were separated because of limited access to the World Wide Web. Online communications were usually interactions between strangers in chat rooms, which were considered less beneficial than real life exchanges (Valkenburg & Peter, 2009) with familiar people.

Only a decade later, the number of teenagers who used the internet had grown dramatically (Smahel, Brown, & Blinka, 2012). Technology, now, is first and foremost used to talk to peers (Subrahmanyam, Smahel, & Greenfield, 2006) and social network sites have evolved to become popular and important parts of the social lives of teenagers (Lenhart & Page, 2015) across continents. The online communication habits of northern Europeans and Americans of high school age, for example, appear to be very similar (Valkenburg & Peter, 2007). Currently, young people use the internet in general and the social network sites in particular to communicate with their friends and to maintain their existing social networks (E. F. Gross, 2004). Researchers, interested in the relationship between the internet, adolescent development, and the effects on their existing “friendships,” suggest that their online contexts strengthen their close offline relationships (Reich, Subrahmanyam, & Espinoza, 2012). In this context, the substantial “overlap” between teens’ closest offline and online friends is important to note (Reich et al., 2012). The internet obviously provides new venues and additional channels for conversations, but it also encourages new activities, new behaviors, and new social patterns.

The “simulation hypothesis” starts from the observation that computer-mediated communication usually provides the participants with less rich visual, auditory, and contextual clues (McKenna & Bargh, 2000). While this certainly can be understood as a loss, one of the consequences is that teenagers become less concerned with the way they are perceived and more likely to disclose their true feelings than during offline interactions with their friends. This particular quality of the new venues seems to promote openness and intimate self-disclosure and, when used for interactions with existing

friends, to stimulate the closeness of these friendships (Valkenburg & Peter, 2007), which is crucial to “healthy cognitive, emotional and social development” (Newcomb & Bagwell, 1996) of adolescents.

While the interesting effects of intense online social interaction I described above might be surprising, perhaps consoling to members of previous generations who are likely to live a less digital social life themselves, there are also less optimistic concepts and understandings concerning the digital age, such as “socio-digital-stress” (Weinstein, 2016). Weinstein describe two types, hostility oriented issues, such as cyberbullying, and digital challenges in the context of close relationships, such as the pressure to comply with requests for nude photographs.

The concept that is most relevant to my understanding of “the realities of teenage interaction in the networked age” (Marwick & Boyd, 2011, p. 24) in context of my experiences during break times at Orbit High is “drama.” A critical new “affordance” (Gibson, 1979) of the internet is the effortlessness with which individuals can reach and potentially manipulate perceptions of bigger groups of peers than ever before. The “networked publics” offer large engaged audiences that are intrinsically tied to teenage drama. Similar to bullying, it can manifest itself in the form of a variety of social actions evolving around stories of mundane interpersonal conflicts, not unlike the ones typically found in the plot of soap operas. The clearest difference between drama and the related but adult defined concept of bullying is that the former assumes two active agents rather than a perpetrator and a victim (Gardella, Fisher, & Teurbe-Tolon, 2017). Drama is a deeply gendered process, girls are usually the actors and boys are the subjects as well as sometimes the entertained consumers (Marwick & Boyd, 2014).

Teenagers spend a lot of time connected to the internet (Madden et al., 2013) and their online activities are for the most part social in nature (Lampe, Ellison, & Steinfield, 2006). My experience suggests that the majority of Orbit's students fall into the category of "place and cyber oriented" adolescents who navigate both of these realities (Misra & Stokols, 2012) and the associated technology, often at the same time. "Consider the adolescent doing homework on a laptop with headphones on listening to music, texting friends on a smartphone, updating a status on Facebook or Instagram using a tablet, while the TV is playing in the background" (Michikyan & Suarez-Orozco, 2016, p. 411). Orbit High is a polyfunctional and hybrid environment of the 21st century (Misra & Stokols, 2012) during a time where digital sociologies of schooling start to emerge (Selwyn, Nemorin, Bulfin, & Johnson, 2016), and I hope that this dissertation is a contribution toward understanding the people–environment relationship in the digital age (Misra & Stokols, 2012).

However, my interest in schools was originally sparked by my surprise at finding so many uninspired and institutional-looking secondary school buildings that did not provide any unessential spaces for the social interaction between students. The physical school environment and my curiosity about the quality of the social interactions within the spaces between the classrooms remained at the core of this investigation.

Spaces in Between

Classrooms are commonly understood as the "real" spaces for education. I, on the other hand,

single out corridors and locker spaces because they, much more than the classroom(s) (...) tell the child in silent language about the spirit and intention of the school, and thus those of the society that built it for him. After all, the classroom(s) (...) were built for what the school wants of the

child: that he should learn. Therefore these speak most of what we want of the child and much less of what we want for him. The other places – the corridors, the locker space, the lunchroom – are not for learning, but belong to the social life of the child. Yet if the good life does not begin at school, few children will believe that school is meant to help them reach the good life (Bettelheim, 1979, pp. 211–212).

There are two kinds of studies about non-instructional spaces at school. The first one is closely related to my own work and asks questions such as: Can the physical school environment promote social encounters between students? These scholars want to understand students' spatial needs, the whole range of their social interactions, and the effects the quality of the spaces between classrooms have on their behavior or attitudes toward their place of education.

Place is an interdisciplinary concept developed to understand the shifting and complex connections between the social and physical aspects of environments as part of their particular times and the perceived effects on people's feelings of attachment or belonging (Casey, 1997; Cresswell, 2004). Heidegger's notion of place, rooted in a conservative and rather static celebration of authenticity, has long been criticized as a symbol for "reactionary exclusivity" (Harvey as cited in Cresswell, 2004, p. 39). It has since been replaced by continuously evolving contemporary concepts of place that emphasize the "progressive" (Massey's term used in Cresswell, 2004), the "becoming" (Dovey, 2010), or its "never finished" (Pred's term used in Cresswell, 2004) character.

Massey argues that it is not appropriate to think about places as containing an essence, a basic property of existence that needs to be discovered. Instead, she suggests studying continuously changing processes and points out that the same place can have different meanings for different people (1994). The uniqueness of a place might even

emerge from these differences in perception and the conflicting understandings of the particular place by different social groups that belong to it (Gustafson, 2001).

Place, and place attachment—the emotional bond with a particular social and physical environment (Kopec, 2006)—are the very prominent concepts for the inquiry into peoples’ social engagement with physical space. There are a few other related terms that scholars have used in their reports about investigations into meaningful physical environments for children, such as “friendship with place” (Chatterjee, 2005), “favorite place” (Korpela, 1992), “third place” (Oldenburg, 1989), and most importantly the concept of “social space” (Lefebvre, 1991).

Social space is “made out of places linked by networks and structured by communication. It is through the communication process that group consciousness grows” (Claval, 1984, p. 108). Herman Hertzberger, the Dutch architect and creator of the term “spaces in between,” puts it like this: “(I)t is social contact that turns collective space into social space” (2002). His school buildings always include great central lobby spaces which he chooses to photograph inhabited by kids, unlike other architects who prefer to document their buildings nearly uninhabited by people. Ogden and colleagues found evidence that features like gathering spaces can, in fact, promote social interaction at school (Ogden et al., 2010). Celen Pasalar, who focused on spatial layouts, found that highly visually accessible common public areas in schools can provide more awareness between students (Pasalar, 2004).

Two decades ago, Herb Childress experienced how particular spots in a school hallway in California slowly turned into everyday “hangouts” (Childress, 1993) for groups of friends. These hangouts need to be understood as teenagers’ “favorite places”

at school where members can regulate their feelings and prolong the effects of positive experiences (Korpela, 1992). There are powerful examples for the transformation of a hallway space at school into a meaningful supporting place for students. Dorinda Carter studied the informal same-race peer network between high achieving black students. She found that it supported their racial identity in a predominantly white suburban high school. Their network had formed around the bottom of a school staircase (2007) where the students met regularly during their breaks to “act black” together. At popular hangouts or third places (Oldenburg, 1989) at school, students talk in a relatively unguarded fashion and the mood is usually upbeat. No arrangements are necessary in order to meet people one knows. One can be all but certain that some of the usual social actors are already present when one arrives around the usual time in the morning. Ever since Jane Jacobs described how “self-appointed public characters” and city environments that promote frequent incidental encounters effect the livelihood and safety of their sidewalks (1961), ambitious architects of school buildings have been striving to create both beautiful spaces to hang and ample opportunities for incidental encounters at school. However, educators, in my experience, are usually worried about the quality of the social interaction that these buildings are designed to promote.

Finally, there are some spaces at school that have changed their identity from “spaces designed for learning” to spaces that might be able to blur the boundaries between learning and hanging out. School libraries, for example, are not necessarily perceived as learning laboratories anymore. I remember a relatively short transition phase in which school computers lived in the libraries. In my experience, these “technology centers” afforded middle school students a place to play videogames before the start of

instructions in the mornings. Around the same time, researchers started to investigate the social use of libraries (Shilling & Cousins, 1990).

Perhaps most importantly, the *Spaces in Between* seem to be connected to students' confidence. They are a better indicator of how students feel about their chances to be successful in life than the quality of the classroom spaces (Maxwell & Schlechtman S., 2012).

Other studies about non-instructional spaces at school were based on a model of insufficiency and tried to understand school buildings' shortcomings and their potential to promote problem behavior. The researchers asked questions such as: "How does the school building environment exacerbate bullying and peer harassment?" (Fram, 2012) or "Can the physical school environment help to promote violent student behavior?" The researchers identified the *Spaces in Between* as places to avoid (Vaillancourt et al., 2010) or locations of harassment (Perkins et al., 2014) and conclude with recommendations for additional security measures and surveillance technology in the hallways (Astor et al., 1999).

American School Culture

Tougher disciplinary practices (R. J. Skiba, Peterson, & Williams, 1997), zero tolerance, and order maintenance policing approaches (Russ Skiba & Peterson, 1999) are widely accepted as common-sense solutions to behavioral problems in schools (K. Nolan, 2009). This culture of control (K. Nolan, 2009) is meant to create school climates that are safe, civil, and orderly (R. J. Skiba & Losen, 2015).

Order has been at the center of public schooling in the United States from the beginning (Nasaw, 1979). Social practices were driven by a strong need for the control

and discipline of students and teachers in an attempt to preserve the class advantage of their inventors (Markus, 1993), and theories of social reproduction (Bowles & Gintis, 1976) and resistance (Scott, 1990) still have a solid place in educational research (Weiss, 2009). Recently they have been adjusted by scholars committed to student voices to allow for a more central role of human agency (K. M. Nolan, 2011; Weiss, 2009).

The need for discipline, however, remains of major importance for everyday practices and is commonly considered to be the necessary foundation for safe and focused learning environments and, in extension, for students' academic success. Every time students leave the classrooms that clearly belong to their teachers (Astor et al., 1999), opportunities for a range of social interactions between teenagers who attend different grades or schedules are created. Critical scholars argue that a prophylactic sacrifice of the meaningful interactions between students during their breaks is likely to be detrimental to the healthy social development of the adolescent (Blatchford, 1998; McNamara, Colley, & Franklin, 2015). They advocate to move beyond the zero tolerance policy approaches in high school and instead to "tolerate" adolescent nonacademic needs (Gregory & Cornell, 2009).

In the long run, the American school culture might reconsider its unfeasible goal of controlling students' behavior to create perfect rule and attendance compliance and reallocate associated energy and resources instead toward the goal of promoting positive "school climates" throughout the nation. The term combines educational, social, and physical aspects of the school environment. "A positive school climate exists when all members of the school community feel valued and respected, are constructively engaged in their activities, and feel emotionally and physically safe in the school building and its

surroundings” (Bosworth, Orpinas, & Hein, 2009). I consider the risk-free school environments in the literal sense as a utopian goal that is unfortunately also likely to support the “discipline gap” (Bryan, 2017; Monroe, 2005; Okilwa & Robert, 2017) because “African American boys are targeted for disciplinary actions in greatest numbers” (Monroe referring to research report from Johnson, E., & Pittz, 2001) often because their intentions are misinterpreted by adults at school who come from a culturally different background (Carol S. Weinstein, Tomlinson-Clarke, & Curran, 2004). The misinterpretation of play fighting as aggressive behavior can serve as an example. Black students are also most likely to be exposed to *Police In the Hallways* (K. Nolan & Willis, 2011), metal detectors in the lobbies, and exit staircases equipped with surveillance technology (Weiss, 2009), all of which were found to have detrimental consequences on the self-conception of students.

I have been interested in the topic of American school culture since 2011. Two years later, I started to prescribe to its depiction as a “culture of control” (K. Nolan, 2009) which must be the product of a widespread and deeply rooted fear that surrounds the public school context in the United States. While I believe that the perceived need for maximum control is still the driving force of the American school culture, I have recently noticed an opposing trend. There is a substantial number of new publications that either focus on the “toxic school culture” as the greatest challenge of educational leadership to redefine it as a positive culture (Deal & Peterson, 2016) or related issues such as positive behavioral support (AJAYI) and positive approaches to discipline at school (Mediratta, 2016). For his recent article called *From Reaction to Prevention*, Russel Skiba, for example, traced changes in disciplinary policies. He reports about legislative changes

addressing the topic of school discipline in five states that started to promote and incorporate positive interventions and require districts to define acceptable behavior and respectful learning climates in their student handbooks that traditionally have focused on listing defiant behaviors.

These research and policy trends are based on a growing understanding that social and emotional educational outcomes are equally important and significantly influence academic outcomes, which have long been perceived as more relevant and a more reliable foundation to create educational policy. Therefore, research studies that contribute to the understanding of how schools can support the socialization process of students and how school design can help to foster the process (Garibaldi & Josias, 2015) are both valuable and timely.

CHAPTER TWO

Methods

Theoretical Stance

The work of social scientists is driven by their understanding of the world and the nature of reality, their ontology (Merriam, 2009, p. 8), as well as how they think about the production of knowledge, or the way we know, their epistemology (Crotty, 1998). Theoretical perspectives or research paradigms are models or frameworks that are derived from these worldviews about the nature of existence and knowledge, or simply “basic set(s) of beliefs that guide action” (L. Lincoln & Guba, 2011). They influence what kinds of issues researchers raise, the questions they ask, the concepts that seem relevant to them and the methods they consider appropriate to inform all of the above. Ontology, epistemology, paradigm, and methodology together create the foundation for the quality of findings and interpretations (Creswell, 2007, p. 30).

Educational research seems to be divided into at least two major paradigms which are characterized by contrasting assumptions, values, and goals. Post-positivists have a “scientific self-image of modern society” (Comstock, 1982, p. 372). They believe in a single objective reality and understand knowledge as a conglomerate of measurable truths that need to be investigated by scientists (Guba & Lincoln, 1994). They predominantly use quantitative and mixed methods for their inquiries into nationally collected survey data in order to discover knowledge that is applicable to a wide range of educational contexts.

Critical theory. The second major paradigm in educational research is where my own work originates. Critical theorists think that reality is subjective, tied to human

interests, and manifested through struggles for power (Crotty, 2005). Knowledge is, therefore, socially constructed. Associated research projects are driven by “emancipatory interests” (Comstock, 1982, p. 374) and a desire for fundamental social “change to the benefit of those oppressed by power” (L. Lincoln & Guba, 2011, p. 102). The nature and purpose of the work of contemporary critical theorists ideally complements the work of their post-positivistic peers. Critical theorists are likely to start their inquiries where post-positivists’ recommendations end and try to understand and demystify the effects of already implemented educational policies and institutional practices or the pragmatic and “commonsensical solutions” to social phenomena in schools that are widely considered as problematic (K. Nolan, 2009). Social scientists, associated with critical theory, strive to untangle the conflicting conditions and forces, often hidden by common sense explanations that inform and shape everyday practices using naturalistic methods of inquiry (Y. S. Lincoln & Guba, 1985). They try to increase the awareness of relevant social actors to these complex matters. They hope that their constructions of knowledge will affect the social structures that they understand as continuously changing.

Unions, practitioners, and researchers identified break times at school as a huge behavioral problem which prompted an anti-recess movement. Transitional times have been minimized and block schedules are used to eliminate opportunities for “trouble at school” (Irby, 2014). Across the country there are strict conduct rules, disciplinary routines, and supervision schedules in place. Together with elaborate systems of institutional disciplinary consequences for problematic student behavior, they govern the short moments students have to travel from one classroom to the next. The presence of armed police officers in high school lunchrooms and metal detectors in the lobbies appear

to many stakeholders as normal (K. Nolan, 2009). But there is also a growing number of experts that consider these everyday practices not as an effective strategy but instead as a component of the social life at school that needs to be questioned and thoroughly investigated (Irby, 2014).

I wanted to collect student voices on the phenomenon of teenagers' break behavior at school in an attempt to illuminate a perspective that has remained largely absent from the academic discussion of the topic. Furthermore, my goal was to understand common disciplinary school routines and their unanticipated effects on students' behavior and attitudes toward their school environment. Lastly, I was curious to understand if what I considered a beautiful school building would promote exceptional student break behavior.

Research Design

I used Maxwell's interactive model to design the research project (2013). He suggests thinking of five crucial components. The academic goals (1) and the conceptual framework (2) belong to the theoretical half of higher order, while the methods (3) and measures to ensure the validity (4) of the study belong to the operational lower half. Theoretical and operational aspects are tied together through the research questions (5) which he considers central to the research design.

Goals. Student behavior during breaks in secondary schools has been identified as a problem by many stakeholders, and solutions as described in the previous section are in place all over the United States. The administrators in charge of discipline, in my experience, are the first ones to admit that these solutions are ineffective, but they tend to believe that yet stricter rules—greater numbers of supervising teachers, more resource

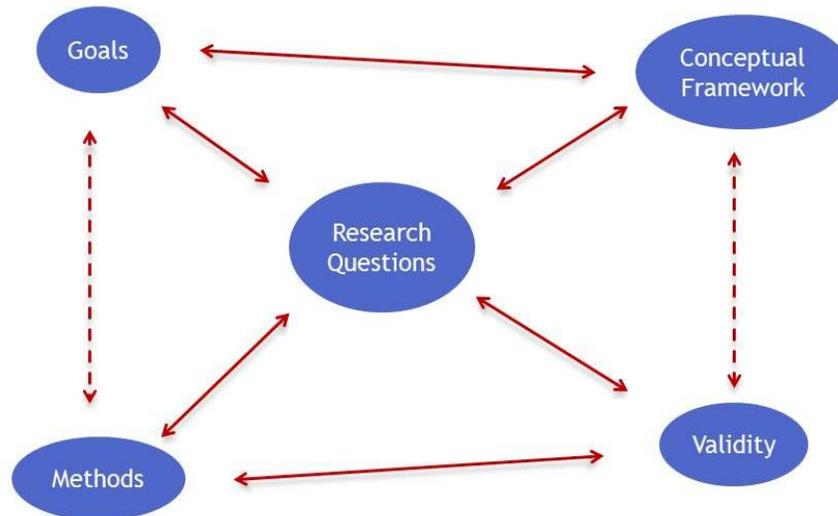


Figure 5. An Interactive Model of Research Design, after Josef Maxwell (2013)

officers, and bolder institutional consequences to student misconduct—could eventually solve the problem. I disagree. I find the quality of these solutions questionable to begin with and, furthermore, suspect that while an increase in repression might lead to more compliant behavior, it might also lead to more student resistance. In any case, I expect that more effective interventions of controlling nature will, at the same time, be unlikely to promote increased levels of student engagement at school. My hope is that if we understand the problem of student behavior during their breaks better, we will be able to find better-suited solutions as well. I would like to reach educators with this research, educators of teenagers and educators of future school designers.

Conceptual frame. Figure 6 illustrates my conceptual frame for the research project.

The digital age matters more to the netnet-generation-generation that is the social subject of this study than to previous student generations, which is the reason that I included it as part of this model. Today’s teenagers grew up using electronic gadgets almost as an extension of their bodies (Madden et al., 2013) and many of their social

interactions are mediated through technology and social media (Valkenburg & Peter, 2009). Technology also plays a crucial part in the particular physical environment under investigation. Orbit High is recognized by Apple as a distinguished school for innovation, leadership, and educational excellence. Every student received a Mac air book at the beginning of the school year instead of textbooks. Everybody had an opinion about this policy and was eager to share it. There were 2,184 students, as many laptops, and 189 security cameras. I did not count the screens in the hallways, but they certainly were omnipresent, as were the phones.

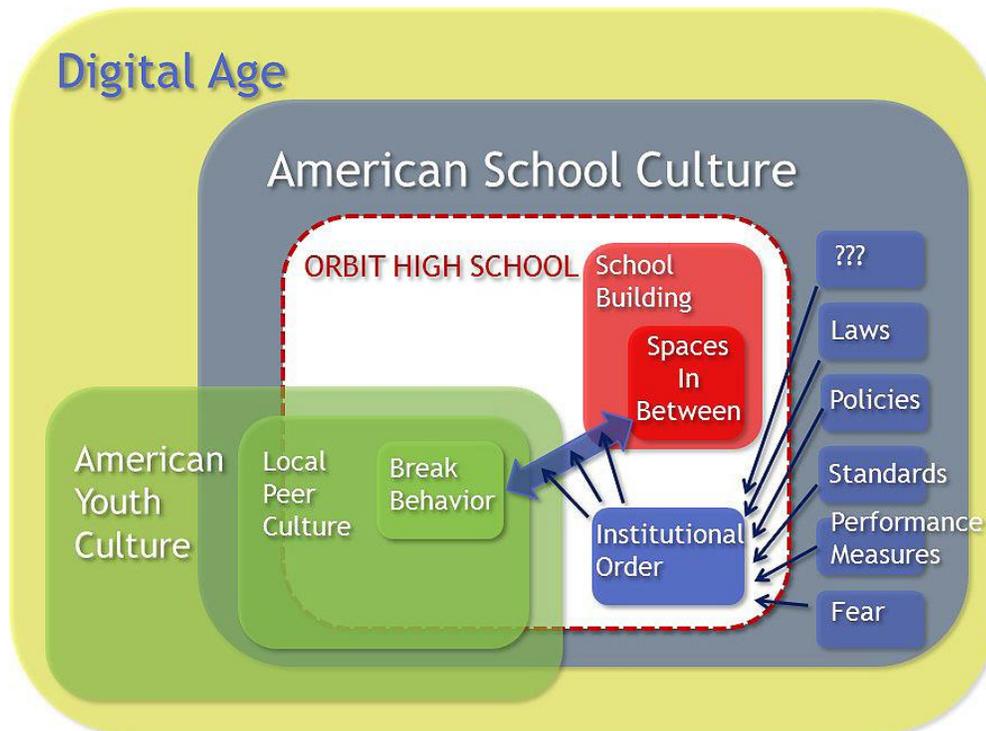


Figure 6. Conceptual framework connecting the social, physical, and organizational aspects of the case

The American school culture exists within the digital age. It holds all underlying values and understandings that most stakeholders share and usually do not question because they feel normal if not natural. These are things that almost every adult, educated

in the public school system of the United States, came to expect from school in the national context. It is created by decades of experiences with student cohorts, educators, school buildings, curricula, slowly evolving policies, and the rules and expectations for student behavior during break times.

The American youth culture exists, of course, within the digital age as well, extends into the American school culture, and all the way into Orbit High, the school at the core of this study. From here, I zoomed closer into what I call local peer culture, which is a part of the American youth culture and is located both inside and outside of Orbit High. The student break behavior at Orbit High is the narrowly defined social object of my inquiry, but together with the local peer culture it is part of a larger cultural phenomenon.

Orbit High School is part of the American school culture, as is every other school in the United States. The boundaries around this socio-physical learning environment are permeable to the national school culture. From the physical environment—the school building as a whole—I zoomed deeper into the relevant spaces in between the classrooms, because these are the spaces in which break behavior happens. The fat blue arrow between the “spaces in between” (a term coined by the Dutch architect Herman Hertzberger) and the “break behavior” suggests that the quality of the hallways and the lunchroom, etc., promote some social actions and hinder others.

The institutional order includes all the local rules of conduct, the disciplinary routines, and the consequences students face for misbehavior or inappropriate actions. It is unique to the school but not independent in nature. On the contrary, it is heavily informed by many aspects of the American school culture, such as educational laws and

policies, standards and performance measures, and perhaps most importantly the fear for and of American teenagers. The institutional order indicates what kind of social conduct between teenagers is legal and encouraged at school, but also where students are allowed to go, where they are allowed to eat, and when they get a chance to visit the bathroom. It is the institutional order at Orbit High that governs the relationship between the social and the physical school environment.

Research questions. To capture the full range of social interactions during break times, assess the quality of the physical spaces available, determine how the interactions were ruled and affected by disciplinary school procedures, and gather students' perspectives, I developed the following questions:

1. What happens regularly during the breaks at this high school?
2. What are the most popular student spaces during these times?
3. How can these spaces be described and understood?
4. How do students understand their school place?

Methods. Social Space at Orbit High is an ethnographic case study coming from a critical perspective.

Ethnography. There are several ways to think about ethnographies. The term refers to a set of fieldwork techniques that guide the data gathering process, as well as to the final written account, the product that brings the project to a close (Wolcott, 1997). Some would even argue that ethnographies can be understood as epistemologies or ways of knowing (Green, 2011). In any case, ethnographers strive to understand the culture of a specific social group; their goal is to find out what everyday activities and routines mean to those involved. Ethnography originates in the domain of anthropology where it was used to study exotic environments. Today, it serves across disciplines as a way to

study the life of any clearly defined group of people in a particular time and place; in this case, students' social life during the breaks at Orbit High.

The outsider perspective of the researcher, however, remains important to ethnographic enquiries. Someone outside the group and inexperienced with the institution being studied will work harder to understand the cultural system than a natural participant, such as a teacher or school administrator, who will be less likely to question the underlying assumptions that rule the place. Cross cultural experience has been discussed as a requisite for conducting ethnographic oriented research in schools (Wolcott, 1997) because the alternative, to try to make the familiar strange, is hard to accomplish (Erickson, 1984). I do not think of myself as a teacher, and I was educated in public schools in Europe, which is relevant for two reasons. First, my socialization in a German school context provides me with this cross cultural experience. Secondly, it has also been the source of my curiosity and the driving force for the research design of the project.

Another crucial aspect of ethnographic inquiries is that the researcher spends sufficient time immersed in the field, ideally a full cycle of activities, in order to learn, document, and portray the culture in question. Ample time is both an indicator for potential quality and a challenge to ethnographic inquiries, since the researcher walks a fine line between her original detachment and her eventual involvement with the group under study. One needs to find a compromise between staying long enough to acquire a fair and deep understanding and not so long that writing about and describing this culture feels like a betrayal of friends' secrets. Successful ethnographers resolve this tension.

Herb Childress' *Landscapes of Betrayal, Landscapes of Joy* (1993) showed me how ethnographic studies in educational settings can complement quantitative inquiries into big data sets by looking closely. He spent a full year with the teenagers of the city he called Curtisville in California in order to understand their spaces, how they chose them, and how they used them.

Critical ethnography. Critical theory and ethnography originally were grounded in different belief systems. "Critical theorists in education have tended to view ethnographers as too atheoretical and neutral in their approach to research. Ethnographers have tended to view critical theorists as too theory driven and biased in their research. Critical ethnography in educational research is the result of this conflict" (Anderson, 1989).

The leading figures of critical ethnography in educational settings are Bowles and Gintis, Jean Anyon, and Paul Willis. Their publications (Anyon, 1980; Bowles & Gintis, 1976; Willis, 1977) are powerful, enlightening, and inspiring to me. They rely heavily on theories (Lather, 1986) that portray the role of schooling in the reproduction of social inequality (Giroux, 1983) and the potential of resistance for social transformation (Scott, 1990). My own research is motivated by related understandings and similar concerns. The findings of this dissertation project, however, are deeply grounded in my observations and the experiences I had over the course of six months. During that six months, I spent much time at Orbit High where the students and adults at this high school shared their understandings with me, as opposed to the project being driven by theory from the start.

Case study. Social Space at Orbit High is an intrinsic case (Stake, 1995), interesting in itself because ambitious, beautiful brand new school buildings are usually found in more affluent and private school contexts. This high school building was designed for the future while it serves an unprivileged school district. The same aspects that make the case uniquely interesting also suggest qualities we expect from instrumental cases (Stake, 1995).

What we will learn about the break behavior here should be interesting to educators and administrators in districts of similar social makeup and context elsewhere, where the school buildings are old, cheaply made, and more institutional looking. I chose Orbit High as the object of my inquiry in the hope that it would provide us with a deeper understanding of the issue of break time as it manifests at public schools that were designed to support a wide variety of contemporary learning activities. Now, after I have finished the analysis of the data I collected, I think of it as an example of the challenge that school buildings designed for the 21st century can create for the *Institutional Order* and, on a bigger scale, the American school culture, which is driven by fear and governed by attempts to control students' behavior at school.

The boundaries of the case (Stake, 2003) were already explained as part of my conceptual frame. They are represented by the red dashed line in Figure 6.

Research site selection. During my review of the existing literature on non-instructional spaces and times at school, I found substantial research based on a model of insufficiency that tried to understand school buildings' shortcomings and their potential to promote problem behavior (Astor et al., 1999; Branham, 2004; Fram, 2012; Kumar et al., 2008). The buildings that served as the objects of or the locations for these studies

were, as far as I was able to determine, institutional egg-crate-design schools. They were built extremely inexpensively and in great numbers with the help of standardized plans in the 1950s and 1960s (Lackney, 2009) when the postwar baby boom generation needed to be enrolled in great numbers. These schools' interiors are characterized by cheap, hard but easily cleaned materials, and color schemes in the beige range. There are a few variations for the layout of the floorplans, but the common features between types are narrow, locker-lined, double-loaded corridors that allow access to a maximum number of generic classrooms on either side. Besides designated lunchrooms, these hallways are the predominant interior spaces for students' interactions during their breaks. Most schools currently in use in the United States were created during the same time and have similar qualities. These are the buildings that have informed the current educational stakeholders' expectations about how schools look.

In contrast to these studies and the institutional buildings they investigated, I was interested in finding out what kind of student behavior I would find in a school building that offers spaces deliberately designed to promote social interaction between students during breaks. I wanted to study the social life in a school that I would consider unusually beautiful, inhabited by a student body that otherwise is not privileged and part of the American school culture, much like other public schools in a similar context. Therefore, I chose a new school building in an unprivileged community in a small town in the Midwest. For the school year 2015/16 the state's comprehensive data system reported 2,185 students enrolled at Orbit High, of which 82 percent were white. The remaining 18 percent of students were split into the following racial groups with approximately 1.5%

Asian, 2% Indian, 2.5% Multiracial, 5.5% black, and 6% Hispanic. The local free and reduced lunch rate was close to 50 percent.

As for the physical environment, Orbit High offers beautiful entrance lobbies, many colorful lounge-like areas for student break activity, a coffee shop, intimate think tanks, large open areas with informal furniture arrangements, and unconventional casework along the light filled hallways, as well as a number of carefully designed courtyards. It is the result of a participatory design process that took place after a natural disaster had destroyed the previous building that had opened its doors in 1958. The new building was envisioned by architects, educators, and students together as a school designed for the 21st century.

Positionality. I am a white woman who had turned fifty shortly before the start of the school year and I behaved like many other adults who spend time in public places during breaks at school. For the most part, I stayed on the periphery of the popular spaces, trying to look friendly, and talked to students only after they had addressed me first. Students occasionally asked me for assistance on how to find the counselors' suite or for clarification about the schedule that regulated the school day's activities. Teachers asked me, especially in the initial phase, sometimes, if I was a substitute for an absent colleague when they found me observing what was going on in the hallways. In short, I was perceived as a teacher.

Sometimes I asked students who had sat down in the lounge chair next to me to explain everyday routines I did not understand, such as the meaning behind the several different colors of hall passes. But, the most common way for students to find out that I was not a teacher, but a researcher, was immediately after they swore in the hallways

while I was close. When they started to look uneasy and to make excuses for their inappropriate behavior to me I usually responded to the effect that I did not care much about their choice of language, which strongly indicated that I could not be a teacher and regularly left them wondering out loud why else I could possibly be there so regularly. That is when I told them about my interest in break times and their school building and when we often started to have conversations about their life at school. I think it is fair to say that I was able to assume the role of a “privileged observer” rather than a “participant-observer” (Wolcott, 1997, p. 160).

Participant selection. I purposefully chose participants from all user groups and selected a total of fifteen students from all grades, five male, nine female, and one transgendered student, ten Caucasian, two Hispanic, two African American, and one that is considered mixed race. Sponsors of Orbit High’s clubs helped me with recruitment of the student participants. I suggested that they recommend “students that like to talk” and I also contacted a few students directly. The latter were “regulars” in particularly important spaces and also teenagers who were unlikely to be recommended by teachers because they were considered to “have issues.” My participants were members of the school band, the orchestra, the Junior Reserve Officer Training Corp, the cheerleading squad, the wrestling, baseball, and soccer teams, as well as the hip-hop club, the show choir, the cartoonist club, several academic teams, the book club, and the game club. One of the students did not attend any extra-curricular activities at school but had recently gotten a job at the Salvation Army.

As for my adult participants, I interviewed the architect, the principal, one of the assistant principals, and three teachers. Furthermore, I interviewed the school

psychologist, the librarian, a male intern of the IT department who also was a recent graduate of Orbit High, and the school district's director of safety and security. His office was located in the school where it doubled as the location for the monitors used to review footage of the 189 security cameras at Orbit High. I reviewed security footage here for a full school day. All adults were white.

Colonel Jasper was one of the teachers I interviewed. He was in charge of the Junior Reserve Officer Training Corp, relatively new to the school, and the regular supervisor at the front of the lunch line. He spent ample time in the lunchroom, just like I did. He was friendly, smart, and he enjoyed explaining how things were done at Orbit High. It became clear to both of us early on that his stance toward teenagers' peer culture at school could have hardly been more different from my own, but we liked each other and kept having conversations during which he occasionally made references to the science fiction novels *Lord of the Flies* and George Orwell's *1984* while pondering the driving forces for social behavior. I never suspected that he hoped that I had missed a recent little incidence of girls pulling each other's hair. Instead he would find me at one of my favorite spots, at the open staircase in the lunchroom, where I was able to see several levels at the same time, and opened a conversation with remarks like: Did you see the two girls earlier today getting into a fight? What did you think? I believe that he deserves to be considered as my ethnographic informer at least during the early phase of my time at the high school in Orbit City.

Data collection. After receiving permission to conduct this research project from the Institutional Review Board at the University of Missouri, Orbit High's principal—Dr. Spacely, and the local school district, I was categorized as a “volunteer” for the lack of a

better official term. My attendance at the high school was, therefore, tracked by the local volunteer coordination system. Every time I entered the school building I signed in on an iPad at the front desk and received a volunteer badge from Cindy, the affectionate black receptionist. The badge was green, which indicated to the informed observer that I had previously passed a background check. I was expected to sign out with her again whenever I left the building. According to the records created by this system, I spent 269 hours and 30 minutes on 41 days between August of 2015 and January of 2016 in the non-classroom spaces at Orbit High, hanging out in the little lounge areas adjacent to the main hallway, sometimes chatting with student or adults. Occasionally I had informal meetings with the principal in one of the booths close to the coffee shop during which he answered my questions about the complex schedule or explained the districts' expectations and goals about students' attendance rates. I visited pep rallies and several grade-level assemblies and created behavioral maps on floor plan excerpts during the lunch periods at Orbit High. Figure 7 is an example of one of these maps.

Primary sources of data were my field notes that I wrote during instructional times and open-ended interviews with 23 purposefully chosen participants from all user groups. In the next paragraph, you can find an example of my original field notes to illustrate the process. It shows the format I chose and the unaltered language of a researcher who works in her second language. I used the present tense because the notes were usually created very shortly after the experience. Red font was used to highlight the spaces and locations where I observed and blue font was used to highlight participants' quotes.

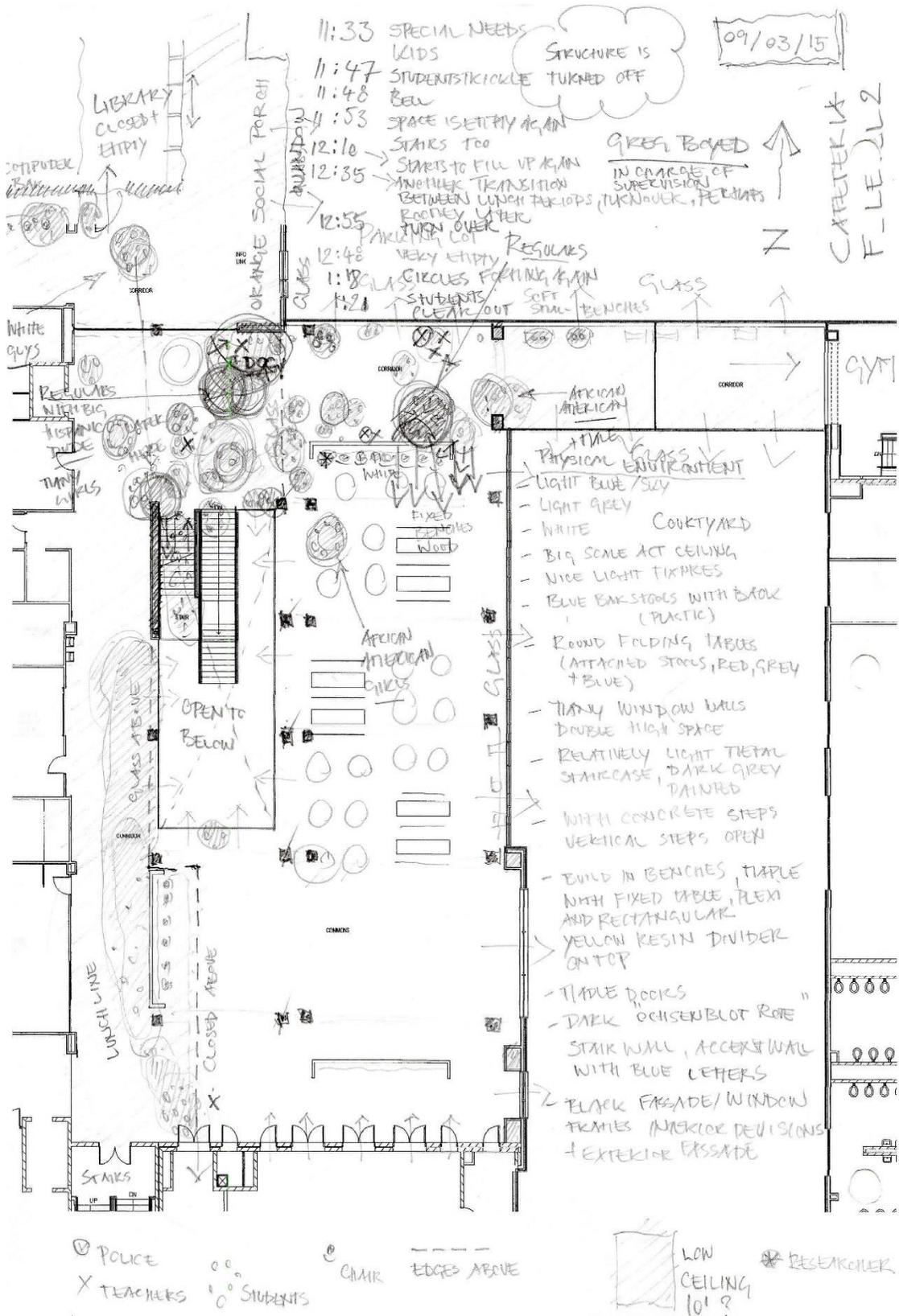


Figure 7. Behavioral map of the central space at Orbit High

Social Space in High School: Teenage Behavior between Classes
Fieldnotes_09.10.15_Elke Altenburger

Thursday (4 long classes, 2, T, 4, 6)

7:45 – 8:55 **Learning Stairs**

I sit at the very top of the stairs. From here I can see everybody who uses the entrance lobby. The students who hang out here, all sit below me, alone or in a variety of group sizes, on the interior part of the learning stairs. The students who arrive with their own car and the ones that are dropped off by their parents use the regular stairs to get to level 2, which is the main school level. There is a constant stream of students walking up the stairs. Couples holding hands as they walk by. Students have their bag packs and their lunch boxes. Some carry big cups of soft drinks. On the upper level of this double spaced lobby or, to put it differently, on the final landing are the big glass doors that are the “real” and guarded entrance to the rest of the school. After instructions start at 8:30, these doors will be opened for visitors and students only after checking in with the young female assistant who sits behind the window of the attendance office with the sign: “Have your student ID ready”. But for right now the doors are open and can be operated by the students and teachers. The students who arrive by bus enter the building on the upper level (2), they walk by the attendance office window on the landing and enter the school core through the same doors as everybody else. There is another quasi-lobby-space, or one could think of it as a generous hallway zone. It is wide and spatially connects to the seating porch on the east side of classroom wing C and wraps around the air space of the entry lobby. The balustrade toward the stairs is for the most part screened off by ceiling high panels out of metal frames that are covered with metal mesh. The mesh is translucent, it allows visual connections into the lower part of the lobby, but makes it hard to step up to the balustrade. Only an occasional single student steps into the 18 inch gap and peeks down onto the stairs and into the downstairs lobby for a while. Students start to form circles adjacent to the screens leaving an open space wide enough for other students to walk by on the wall (west side) of the space.

One group of students sticks out to me this morning. They sit three steps below me on the learning stairs. Three or four girls and a few boys. One of the boys stands with them. He is skinny has medium height and very blond but not artificial looking short hair, long bangs that swoop a little to his right side. He wears a pair of glasses that have a skinny landscape format and a witty smile. He performs a fast shadow boxing act in front of

one of the girls' face. She remains sitting very still. I can only see her back from where I am. He wears jeans and a black "43ermuda bro" T-shirt. Most students in this group move slowly. The conversation is calm. With the exception of the blond boy. He moves fast, talks louder than everybody else and asks everybody for several of the very controlled hugs that they exchange when another student arrives. These hugs are very popular with many of the student groups. They are slow and controlled, avoid too much physical contact, but include a gentle finger tapping of each other's backs. They are performed between two girls and a girl and a boy, not as regularly between two boys. This group uses a short but ceremonial hand shake when two boys greet each other in the morning. He joins hugs for new arrivals as the third person, when two girls hug. The originally hugging pairs look cool but let him join without to comment on his actions. One of the girls lies on her belly on the concrete landing. He talks to one of the other boys, walks over and slaps her on the butt. There is some talk about not touching anybody's butt for a while. Then he runs the few steps up to the next level and through the doors, while everyone else remains put on the stairs, to return a few minutes later. He moves back and forth between the two levels in this manner several times of the next twenty minutes.

A group of students remains standing just outside the door through which the bus riders enter the building. They don't use the learning stairs to sit down, but remain standing. I have seen them there before.

10:12 bell rings.

Transition is next today. An announcement explains that it is Junior club fair "Club Fest" today. Many cheap white plastic folding tables have been sitting empty along the east façade on the main floor. I have been wondering if I missed something in the morning while I was on the learning stairs. Now the student clubs use them for their displays and sign-up sheets. There is the robotics club, international students, volley ball, reading and writing...student council....

It is crowded at the big traffic junction into the cafeteria, very crowded. I wonder if I should just stay here. Many students do what they always do here. They stand in circles and talk to their friends, but it is so crowded that the students who walk from one table to the next along the façade have to squeeze through between the student groups. I decide to move on, because I want to see what all this school has to offer in terms of extracurricular activities. It is a lot and now I can barely remember any of it.

At the **social porch in front of classroom wing C** in front of the **nest** is a relatively big group of students. A handful of African American, the big Hispanic student, who is at the center of a little group of white female students every day during lunch (they stand together at the traffic junction) and a short pimply white boy with ambitiously gelled hair project hip-hop music with one of the air books that every student gets here and two small speakers. The music is not very loud and keeps stopping so do the dancers. There is a science board on display on the white plastic folding table. It is the hip-hop club. The performance stops and then starts again with the music. But the audience remains in place. Students who want to pass by the large group start to move through the porch instead of the hallway that is filled with people standing. They take the route closest to the façade, between the loose furniture and the east façade. One of the assistant principals is there. He looks concerned. The sponsor of the hip-hop club is female and I think in her forties. After a few more minutes the principal sends the performers with their table and equipment down the hall. Everything and everybody is moving toward classroom wing B and then down the hall / glass bridge until they stop in front of the big set of double doors that connect it with the part of the building that houses the auditorium. While the doors are closed this appears like a dead end kind of space. There won't be too many students trying to slide by here. The group consolidates again and the hip-hop club members start to dance again. Big smiles all around on the faces of the dancers. With some songs they all roar "JA" every few measures and the dancers raise their fists fast for that. "JA" Big Hispanic guy seems to be the center of this group as well, perhaps together with a tall black student. Sometimes a few black girls join in and a few skinny tall white boys seem to belong to the group as well. They do small dance motions around the edges of the open space they use as dance floor. And eventually there are two husky white boys dancing too. Their hair is very short and they don't take their bag packs off first. They are no experienced hip-hoppers their moves are wrong and clumsy, but they seem to enjoy themselves. A black boy with short dreadlocks walks around and asks people to sign up. But most of us are here to watch. The audience is diverse and stands very closely together. It is hard to see on the flat hallway floor. The teacher who sponsors the club, white female and in her forties, walks up to me and says: **I see you a lot hanging out everywhere**, what are you doing here? I explain and ask her if she is the sponsor of the hip-hop club. She tells me that she had this "at risk" student about four years ago and that another teacher had shown her a video of him dancing. Together they seem to have started the hip-hop club of which the student became the leader. He did finish high school and

the hip-hop club has been around ever since. She does not like the music much.

I walk back to the traffic junction in front of the cafeteria. It is still very busy and lunch has started in the meantime, so there are students at the cafeteria tables now too. I must have missed a fight while I was watching the hip-hop club. There is a rumor in the air, several student groups talk about a fight that must have happened between two girls. At least eight teachers are standing together at the traffic junction and talk. A male student later during lunch in the alley while looking at his phone, said he learned about it on Facebook. It cannot have happened more than fifteen minutes ago...

Lunch in the **alley** writing about my experiences during Club Fest.

Last class is over at 3:40. I observe in **porch of classroom wing D on the main level, close to the traffic junction** because I am interested to learn if the students are going to use it again to wait for and meet their friends. They do. Diego (pseudonym) the big Hispanic guy is one of the first. He has changed his shirt but he is still dancing hip-hop. **I had to change my shirt.** The short white hip-hopper is there too and the tall skinny guy shows up as well. Most people have left from the traffic junction. A relatively big group of students are standing around the corner in the space in front of the cafeteria bar on the east side of the room, in extension of the skybridge that leads to the gym. Three boys wear a cast on one of their legs. They each sit on a medical scooter on which usually their hurt leg rests, but right now they are using it almost like a tricycle or a very small pretend motorcycle. Every once in a while an adult walks by. They smile, like I do and keep walking. More and more girls leave the spot the group gets smaller, mostly male students now. I wonder if they are waiting for soccer practice to start or something, accompanied by female fans and friends.

I spend the rest of my day at the **learning stairs** again. An alarm goes off, from the emergency exit only door next to the reception desk. The secretary turns it off. There are a few medium sized student groups, a couple, four white girls, a white girl with two male students one black one white. I saw both boys at the hip-hop club event. One girl is standing next to the bottom of the stairs alone. Two girls are sitting on the exterior parts of the stairs and several students are sitting on the long concrete bench outside that runs along the east façade. The four girls are talking. The two boys take turns sliding down the stairs guard rail from the lowest landing to the bottom. A third boy joins them for a little while. They don't use their

hands. A little later they join the girl again who is taking selfies with her phone. They photobomb and then take real group selfies on the first big step. Another group returns from the outside they look sweaty. They also remain at the bottom of the stairs. The secretary leaves, the police officer left a while ago. One of the assistant principal left as well as a few teachers. They all use the front door. I am the only adult left, it seems. The atmosphere does not change. It takes until about 4:20 until almost all students have been picked up.

After the end of the school days, I usually returned to room 214 in the cheap local motel where I was considered a regular guest and watched the local TV channel that showed recent school-orchestra and show-choir concerts, student produced music performance videos, local schoolboard meetings, and promotional ads that showcased the district's educational institutions. I also spent time trying to find journalistic online accounts and blog entries that reported about small local scandals involving the school's administration, previous teachers' actions, or students' problematic behavior that somebody had hinted at or referred to during the school day. These incidents usually belonged in the past. I did not investigate them systematically but wanted to understand both the particulars of the problem someone had talked about and the quality of the online account of the event.

Furthermore, I collected architectural plans, studied a book length document produced by the architects that explained the participatory design-process and the architectural intent of the building, as well as written school rules and the student handbook. Architects and administrators were equally helpful. One of the assistant principals shared the supervision schedule and the principal printed a copy of the "cheat sheet" of suggested disciplinary responses to a variety of possible problem behaviors for me.

Data analysis. Interviews were audiotaped and immediately transcribed using pseudonyms to protect participants' identities. The names referring to all the people I met at Orbit High have been changed for this report. I used dedoose, a qualitative data analysis software, to simply sort and tag the interview data by spaces such as coffee shop, courtyards, hallways, library, lunchroom, etc. I tried to think as little as possible about social or organizational aspects of the environment at this point and just wanted to have everything that belonged to the lunchroom sorted and separated from everything that was said about the library, etc. However, there were a few broad social or organizational tags that I did not manage to ignore, such as "technology," "closed campus," "tardies," "playful behavior," and "fights."

After this initial tagging of the data, the open coding phase coincidentally overlapped with a phase during which I wrote an expanded research summary of the project for a graduate student workshop at the Environmental Design Research Association in May of 2016. The biggest part of this summary was dedicated to a short review of the literature that I organized into the following themes:

1. Digital age at school
2. Peer culture of American teenage students
3. Spaces in between
4. Order of institutional school environments

Both tasks started to inform each other and halfway through open coding I converted and sorted the original tags and the more recently developed codes into categories that loosely aligned with the themes I had just developed to organize the relevant literature. All the non-instructional spaces found their home in the category

“spaces in between.” “Technology” became “digital age,” which I later subdivided into “surveillance,” “social media,” “phones,” etc. “Tardies,” “closed campus,” and “anti-recess” evolved into codes belonging in the category “institutional order.” “Fights,” “teasing,” “cliques,” “friendship pairs,” a few others, and most importantly, “hanging around” subdivided the new category called “peer culture.”

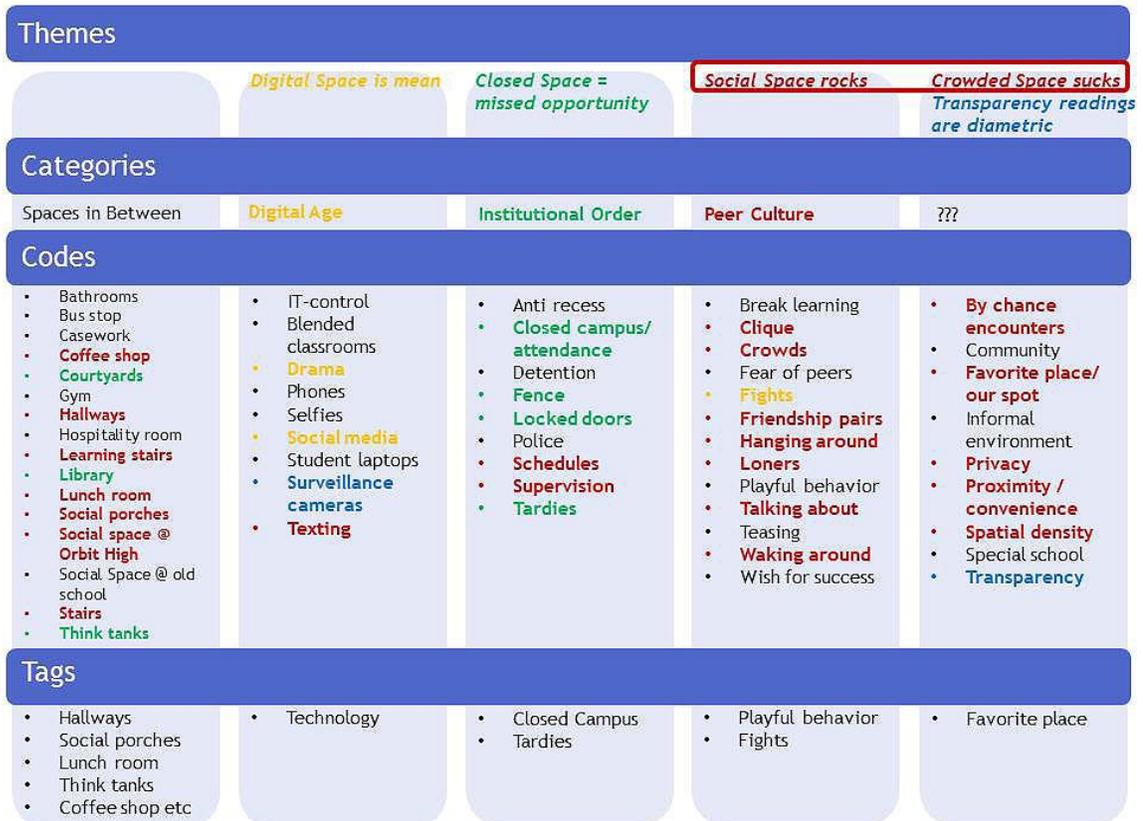


Figure 8 Code map illustrating the coding process (Please start reading from the bottom upwards)

During open coding, a few very important codes had emerged from the data that did not fit neatly into any of the categories. Please refer to the category ??? on the far right of Figure 8. I decided to focus my attention for this “wildcard” category on particular spatial qualities such as transparency and divided the code into multiple child codes: “transparency fear,” “visibility,” and “lighting.” Despite the fact that some of the

child codes held a relatively small amount of data, it became clear that transparency was a quality that had prompted diametric reactions in my participants. The biggest chunk of the transparency data I had coded for “visibility.” At closer investigation, these excerpts showed that transparent building qualities afforded opportunities for informal supervision at Orbit High. It was only during the early writing stages that I decided to also frame data I had collected about the surveillance cameras from the digital age category in the context of transparency. I will return to all of these aspects as part of my findings in the section *Transparent Space*.

“Spatial density” was another “misfit,” a particular quality of the physical school environment and very important to all of my participants. The social centers at Orbit High were the locations where both the best and the worst things happened between students. The “favorite places” (Korpela, 1992) were, while enlivened by meaningful and fun social interaction between students, also perceived as unpleasantly crowded. *Social Space* and *Crowded Space* were flip sides of the same coin of peer culture at Orbit High.

I used relatively long excerpts to keep the connections students made intact. Therefore, I liberally double and triple coded interview excerpts during focused coding with codes belonging into different categories. I later followed up by studying the most obvious regular code co-occurrences. Students strongly believed in close connections between “drama,” “social media,” and “fights.” After careful re-examination of the relevant data, I developed the theme statement: *Digital Space* is mean.

The *Institutional Order* at Orbit High manifested in a variety of forms, such as a tight schedule, a closed campus policy, and locked doors that denied students access to some of the spaces. This enforced empty spaces, which I understand as missed

opportunities because they all were designed to promote learning activities. By closing off spaces, the *Institutional Order* also fostered the emersion of *Crowded Space* elsewhere.

After I had finished the focused coding tasks, I exported, printed, and read the data again, code by code, and wrote dozens of theoretical memos. In each, I tried to extract the essence of all the data belonging to one important code in an attempt to capture the discrete phenomena. Some of the memos were more integrative in character and started from strong code co-occurrences. These memos were not smooth accounts of the different aspects of case knowledge, yet; they were still relatively fragmented in nature. Most included a few relevant and especially enlightening or clear interview excerpts. These 34 memos together became the crystallization point for Chapter 3 in which I present the findings from the interview data analysis. Chapter 3 also offers disconfirming evidence. It uses my own experiences and conversations in the field to compare, expand, and confirm participants' understandings and makes connections to the contents of the relevant documents I collected.

Validity. I use the term validity purposefully, despite its quantitative connotations, to refer back to the terminology Maxwell used to explain and guide the process of research design (2013, also refer to Figure 5). Much has been written about the criteria for assessing research quality and rigor in qualitative research over the course of almost four decades (Denzin, 2003; Erlandson, Harris, Skipper, & Allen, 1993; Eva, 2004; Guba, 1981; Lather, 1986; Y. S. Lincoln & Guba, 1985; Tracy, 2010). In Anfara and colleagues' review of many of the classic texts that guide the work of qualitative researchers across disciplines, they list numerous strategies and pair them with Lincoln

and Guba's new qualitative terms (Anfara, Brown, & Mangione, 2002, p. 30; Y. S. Lincoln & Guba, 1985): Credibility, Transferability, Confirmability, and Dependability.

I will use both the strategies and the qualitative terms to structure the rest of this chapter. Anfara and colleagues emphasize the necessity for "public disclosure" of the operational level of research proceedings in general and data analysis in particular to help readers to understand the logic connections between the research questions, the collected data and its analysis (Yin, 2009). I wrote the previous section in which I explained my data analysis process with analytic openness in mind and shared my code map. I hope that both accounts together create a comprehensible record "as public and replicable as possible" (Denzin, 2003).

Credibility.

Prolonged engagement. This is the essence of ethnographic inquiry. It allows the researcher to learn the culture, eventually blend into the environment of interest, minimize the distortion her presence creates, and promotes the rapport with and trust of the participants and informants (Y. S. Lincoln & Guba, 1985). I started my field research at the beginning of the 2015/16 school year and continued to spend time there until late in January of 2016, at which point I felt like nothing that could happen during break times would surprise me and nothing that a student could tell me about their break behavior would feel new to me anymore. This prolonged engagement is the base for "within method triangulation" (Erlandson et al., 1993) of my observations.

Triangulation. The diverse data sources I described in the section on data collection prompted different methods to obtain, to study, and to analyze them. Beyond the practices I already described and shared (interview data analysis and field note

practices), I also kept an analytical log in which I recorded decisions and what had prompted them during the analysis and the order in which I implemented different methods.

The documents I collected were important because they served as official records or the “public transcript” (Scott, 1990) that I compared to my own or students’ experiences of everyday practices at Orbit High. I used the schedule to understand the complex routine procedures of the *Institutional Order*. The cheat sheet of recommended institutional consequences for inappropriate student behavior and the student handbook illuminated the local adaptation of the American school culture. Lastly, I compared the everyday school practices with the official design intent by referencing the book that documented the participatory design process. This is the foundation I relied on for “between method triangulation” (Erlandson et al., 1993).

While I do not think of myself as a teacher, though I am, I was most interested in students’ perceptions on break behavior, so I remained an adult observer. I used informal member checks to try to bridge this gap between my observations of student behavior and the meaning these behaviors had for the teenagers.

Member checks. Some of the students I interviewed after having observed them for weeks because I was curious about the motivations for behavior patterns I had noticed. Most of my interview transcripts show questions that start like this: “You saw me hanging out at the learning stairs after school, where we first met; I noticed that you do ...regularly. Tell me about it?” I also told everybody that they could read the transcripts of their interviews in order to engage in a more formal member checking process. Nobody took me up on that offer. Sharing final interpretations with the

participants in Orbit High is difficult because of the significant time it took me to analyze the collected data and to produce a serious draft that included findings and interpretations. Many of the students had already moved on to college during the summer of 2016. The principal at the time took a new administrative position within the district before the beginning of the school year that followed the one I spent at Orbit High. He remained interested, though. I provided him and the current principal a copy of this report. This happened very recently and I have not received a response, yet.

During my field time, I relied heavily on my observations, my experiences in the social centers, and on what I had learned from the student interviews that I conducted before I enlisted adults as interview participants. Motivations for actions of adults are, of course, equally hard to observe as for students. I engaged in informal meetings and conversations with the adults, such as the assistant principal who was in charge of disciplinary routines, the principal, and the librarian, etc., long before I conducted formal interviews. I think of these earlier encounters as informal member checks of initial impressions about and understandings of the behavior I observed.

I met the architect and the interior designer of the building coincidentally during the first day of the school year, which was my first day in the field, late in August. They led a group of what I assume to be administrators from a different district or state through the building on that occasion, but I waited to interview the architect until almost two months later. The obvious inquiry into design intents, I could have done earlier, but I wanted to experience the building for some time prior to our interview. This gave me the chance to also use the interview to confirm and disconfirm, or member check, a few

suspicious I had developed about particular building features, how they had materialized, and the original design intent.

Transferability.

Thick description. Every qualitative researcher tries to accomplish what Gilbert Ryle, as early as 1949, called “thick description,” and what Clifford Geertz much later tied intrinsically to ethnographic research. My readers will have to judge whether I succeed in this matter, when I describe the case study’s context and the connections between data, findings, and interpretations. If so, it should enable them to understand existing similarities and to decide about the appropriate level of transferability towards the environments they are most concerned about. “The question (as) Margret Mead once noted is not ‘Is this case representative?’ but rather, ‘What is this case representative of?’” (Wolcott, 1997, p. 166).

Purposive sampling. In the section on participant selection, I described my participants and how and why I selected them. My hope was that the diverse group of students could provide me with a range of perspectives and share their experiences with as many different activities during break times at school as possible in order to capture the breadth of the phenomenon.

The group of adult participants was racially not diverse, but nonetheless very purposefully chosen. Most of the adults I considered as “experts” on at least one of the spaces in between because they were assigned to supervise it regularly—like Colonel Jasper in the lunchroom—or were through the particularities of their job description a natural expert—such as the librarian—or just very present in the hallways—like the school psychologist. This expert status was the main reason for their selection. I

interviewed the principal because he was very interested in my research throughout the process and had been extremely involved in the participatory design process. The assistant principal I talked to was the designer of the supervision routines and the practices that managed the end of every school day. He also had indicated that he was instrumental to the decision to implement a coffee shop into the room program for the new school building. The school district's director of safety and security was in charge of reviewing the security camera footage when teachers or administrators requested it. I thought of him as the liaison between surveillance technology, students' break behavior, and the *Institutional Order*.

Limitations. They are most obvious concerning notions of transferability. This is a single case study. Transferability is not at the core of it. However, it is already my second case study of the break behavior in secondary public schools. The first one was conducted in a middle school housed in a school building of very different quality from the early 1960s. I hope that what Erickson calls "concrete universals" (Erickson, 2011) will eventually be achievable, because my plan is to collect more of these case studies of break behavior in different school contexts in the future.

Confirmability.

Reflexivity. I used my research log as a reflexive journal during the field time to document the actual developments and order of implementation of methods as well as my evolving understanding of what works, what doesn't, and what appears to be necessary to consider next.

It is not free of observations, but these descriptions have a different quality than the field notes, which, in contrast to the reflective journal entries, by definition refrain

from speculations as much as possible (Emerson, Fretz, & Shaw, 1995). I highlighted names of locations and spaces in red, again. Participants' quotes and things they said that I found noteworthy were recorded in purple font. Remarks that indicated what I considered to do next in the field are colored in cyan. Below, you will find an example of an early research log entry.

Social Space at Orbit High: An Analysis of Teenage Behavior during Break Times in School
Research Log_Elke Altenburger

08/27/15

I wonder if the blue hall passes are new this year or if they used them last year already to keep the hallways clear during class time. What if you just don't have class? Will you get a hall pass for that time as well?

What are transitions?

Tardy sweep

Duty to watch

Lock the gates

How many police officers are here? How many teachers?

One of the uniformed teachers starts talking to me in the **lunchroom** today. He is aware of my study and his first question is about **how to secure a school building like this one**. In his third sentence he mentions **schools that look like prisons** and that they are easier to secure. He invites me to **observe the first lunch period at the front of the lunch line where he is**. He suggests to come early. **"I don't like it when the rules are not clear."** Last year the students were not controlled enough. I will go do what he suggested and told him that **I might ask him for an interview** if he is interested in the matter.

I spent my time after school is over for the day on **the west or back side of the school where the busses pick up** the students. This is where most students are at this time of the day I think. It takes about half an hour until all the busses are gone, substantial time for social interaction compared to the short breaks between classes. The students use a little wall next to a simple staircase as a bench and Stromkaesten as bench as well as anchoring object. This is perhaps where all the fancy benches etc should be, that are sitting as much as I understand for right now located in all the

courtyards that are not getting much use. But this is just the **bus station** I am not sure if these are still school grounds. In any case two police officers are out there to keep an eye on things. **I will look at the courtyards again in the morning**, before school starts perhaps they are occupied then. All the exterior furniture is inside the **gated zones/courtyards** but most students wait closer to the buses where they can see them arrive in order to not miss them I suppose. **A girl asked me if I am a teacher**. I said no but should have taken the chance to tell her who I am and what I do, I thought of it fast but the moment was already over. **Next time a student asks me I will tell them... what exactly?**

The **open spaces in the hallways** of the classroom fingers are used for study halls, at least that's how it looked like to me. Also a good number (perhaps twelve) kids hid in one of them to stretch time before returning to their classroom during the last class of the day on their way back from a task elsewhere.

I received an e-mail from the architects today. They will **grant me access to their architectural plans** etc and invited me into their office. Hopefully this will happen next week at the latest.

Dependability.

Audit Trail. To produce qualitative research of a dependable nature, I organized and maintained my audit trail with the following structure.

1. Raw Data
2. Plans
3. Analytical Docs_ Findings
4. Reflexive Journal
5. Docs_Tools
6. Consent Forms
7. IRB_School District_Review
8. Intentions and Results
9. Conceptual Frame

It would be very easy to offer access to someone at any time. Please also refer to the appendix where I provide all my interview guides and a document that shows how the interview questions I used informed my research questions in an attempt to illustrate how I connected etic issues with emic issues (Stake, 1995).

CHAPTER THREE

Findings

Architectural Intent

Crisis creates opportunities. In the introduction, I told the story behind the crisis that created the need to build this exceptional school building, in as much detail as possible while honoring the principal's request to keep the high school anonymous. It was part of a school district which had suffered greatly from a natural disaster. Mr. Cogswell, one of the assistant principals and a member of the "dream team," explained to me that the traumatic experience of the destruction of the old institutional school building left the leadership team with a changed mindset. Soon after the disaster, a shared sense of hope for a better future school environment seemed to have emerged. That hope was accompanied by an unusual openness to explore unconventional, new ideas about how to create a successful and inspiring new school building. The interim campus at the mall, while carefully designed and resourcefully realized, was a temporary solution. It was apparent that bad decisions would not be followed by decades of regret. Therefore, the mall campus became a field test site for new or unconventional approaches to the physical school environment of the future school building in Orbit City. After being tested there, where teachers and students had to go about their daily school business of teaching, learning, and socializing, some features eventually found their way into the new Orbit High campus, while others, such as classrooms without walls, did not. The main objective for adults at Orbit High during these transitional times when the new school was designed, planned, and constructed was, according to Mr. Cogswell, to nurture the

traumatized students in any way possible. Many remember the interim campus and the associated social school environment fondly.

Participatory design process. Most importantly to revisit here is that the building is the product of a participatory design process, led by a group of architects and planners with the input of future users such as administrators, teachers, and students. This relatively big group of planners and stakeholders must have had, and probably still has, a range of perspectives on public secondary educational environments depending on their roles and everyday experiences with schools. In extension, I expect that their visions are influenced by a variety of agendas that correspond to these perspectives and that their goals for this building are a little less homogenous than the available records and recollections of the process suggest.

There were five sources that I managed to access in order to try to understand the original design intent of the vision team. The first was the flyer given to me on my first day by Cindy Walker, the black receptionist in charge of the front desk. It contains a site plan, floor plans of the school, and a project statement. My second source was the principal, Dr. Spacely. We engaged in a number of casual conversations and a semi-structured interview. I also conducted an interview with the locally responsible architect, Jon Simon. My last source was the formal documentation of the charrette process and its results in the form of a design manual that was prepared by the architectural team. I wish I had been able to observe the participatory design process. Since that was not the case, I want to point out that, on the one hand, I consider both the principal and the architect as official representatives and the design manual as an illustration of the official record or the “public transcript” (Scott, 1990) of the schematic design process. On the other hand, I

believe that the fact that Dr. Spacely, years later, still very effortlessly recalled core aspects of the design intent they determined in this group is an indication that this vision was, in fact, a truly shared one between designers and educators.

21st century learning environments. The “dream team” wanted a school for the future. Together they developed four principles to guide the design of Orbit High’s new school building.

1. Spirit of exploration
2. Connectedness
3. Flexibility
4. Comfort

First, trying to promote a “spirit of exploration” is an ambitious goal for a building of public education, and a very poetic term. By the time I started to spend time at the school, during its second year of operation, people and documents referred to this first principle in a more descriptive manner as “learning on display,” which points more towards *how* the physical environment is designed in order to foster the underlying educational value that was considered crucially important during early design stages. The school has a lot of beautiful custom display cases in the hallways of all classroom wings that offered teachers opportunities to share their students’ work or artifacts that relate to their content areas. These display cases are occasionally combined with casework that is intended for students to hang out on while they wait just outside of the classrooms for their teachers to arrive (Figure 9). Most importantly, the building has a lot of interior windows and transparent walls that allow students to see into special classrooms or into adjacent areas of the building when they traveled through the hallways. There is a big

window wall into the beautifully equipped drafting studio, for example, and smaller windows that allow glimpses from the coffee shop into the state-of-the-art teaching kitchen (Figure 10). After substantial experience with American educators elsewhere, I was surprised that the adults at Orbit High School were not more concerned that the students engaged in learning activities in these rooms could be distracted by the students' social life in the hallways. Dr. Spacely explained that they liked to believe that, instead, these glimpses into all the interesting things to do at school would promote curiosity and the wish to explore new avenues for learning in the students who walk by them. The architect was just as verbal about the educational hopes for this facility as the administrator. He pointed out that they “wanted the students to be exposed to all the different various opportunities within their learning curriculum in this building.”

Second, more than 2000 enrolled students make Orbit High a big school—two big schools in one building, to be precise. One is a comprehensive high school and the other is a career education center. While I will continue to refer to these institutions together as Orbit High School, the second guiding principle of “connectedness” tries to address both the large student population and the wish to promote connections between these two communities.

School size was one of the first well-examined variables of school environments. The positive effects of small high schools on students' levels of engagement that Barker and Gump published in the classic text *Big School, Small School: High School Size and Student Behavior* (1964) were found especially relevant for students with low socio-economic status. Barker and Gump's findings, together with a whole body of work that focuses on related concepts such as “social density,” the size of the student population



Figure 9. Case work in the classroom wings



Figure 10. Window wall into the art studio

occupying a single school, and “spatial density,” the amount of space every student has within a school or one of its many behavior settings, (Aiello, Nieosia, & Thompson, 1979; Cash, Bradshaw, & Leaf, 2015; Earthman, 1986; Garbarino, 1980; L. E. Maxwell, 2003; Tanner, 2000; C. S. Weinstein, 1979) have effected decisions about school environments for about fifty years. It appears that the vision team for Orbit High was aware of them as well. They aimed to create spaces for small communities of different career paths and discrete content areas such as art and communication, math, or foreign languages, but at the same time had the wish that these smaller groups of like-minded students would feel connected to the larger whole. While the word “community” might have been frequently used during the participatory design process, during my time at Orbit High several years later, the architect was the only one I heard referring to the school or parts of it as “communities.”

Jon Simon got very animated when he talked about “purposeful collisions” in this context. He used the term to describe the intersections between the main hallway, the “circulation spine” running from the north to the south end of the school, and the smaller hallways at the center of each classroom wing running east to west. Rather than just let the two hallways meet at an intersection, the designers added little protruding porch-areas to the exterior edge (east side) of the main spine (Figure 11). The intent was that students who usually would be unlikely to meet because of their different schedules and class selections could encounter each other by chance during passing times at these intersections. The architect predicted that they would step out of the hallway traffic into the “social porches” (my term) furnished with small armchairs, barstools, and high tables to talk for a moment.

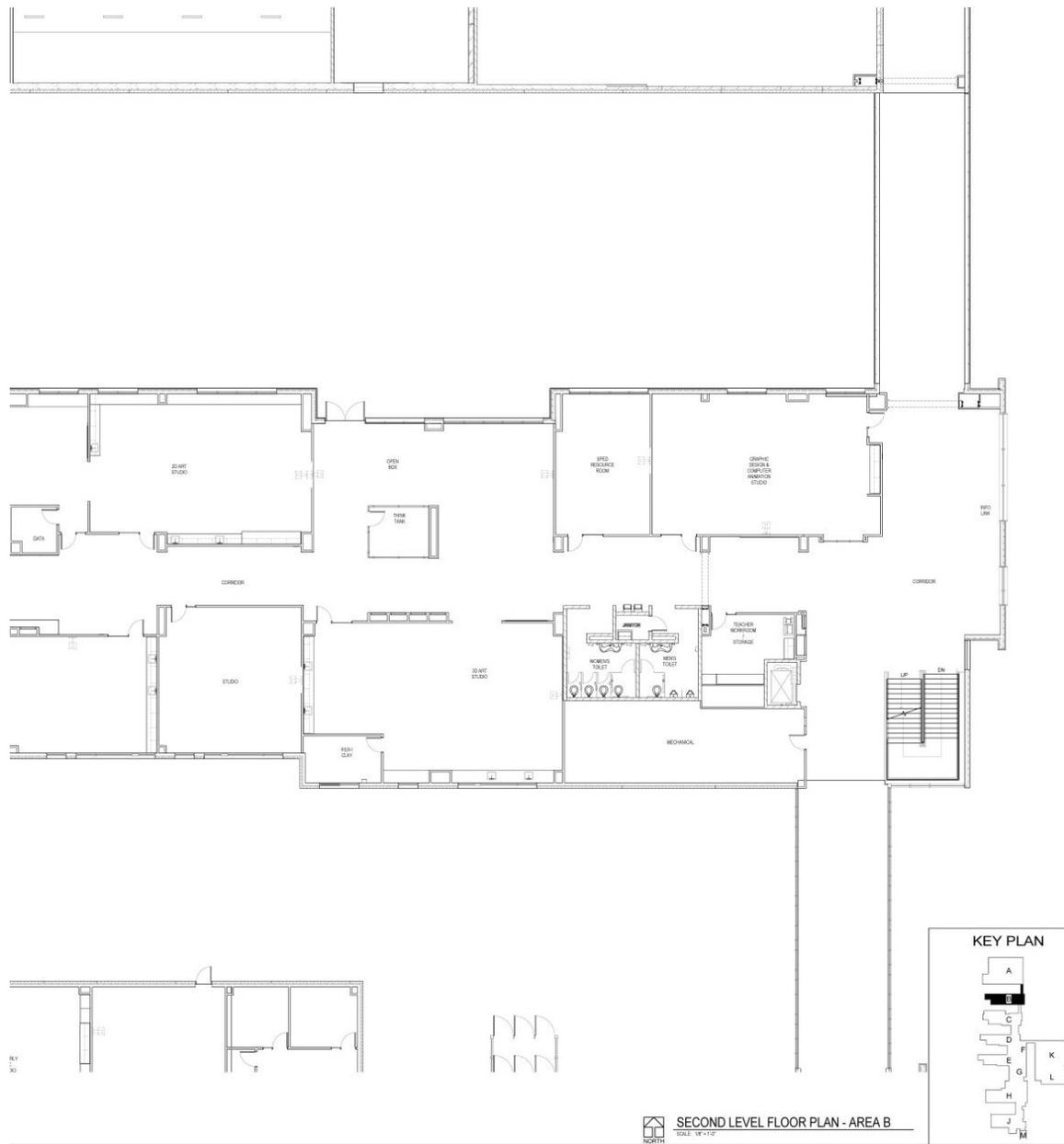


Figure 11. “Purposeful collision” of the hallways

The wish to provide spaces that would promote social interaction between students at Orbit High and their perceived potential to positively affect educational outcomes can be found on the school’s flier in two spots. I found the suggestion that “several indoor and outdoor areas encourage social interaction” in the project summary

and the claim that the school included indoor and outdoor “social spaces foster student engagement.”

Third, “flexibility” appeared to be important in order to be able to serve the future and any unforeseeable new educational needs with this school environment. The shared understanding was that a flexible school building would be able to respond to inevitable changes occurring over an expected minimum building life span of half a century. The team anticipated that the school environment would have to be able to support changes driven by constantly evolving technologies, changes to the curriculum, and likely also changes in spatial needs. They decided that a variety of learning spaces of very different sizes and quality, as well as adaptable spaces that could be used in different ways would be best suited to address both current and unforeseeable future needs.

Fourth, “comfort” was the final guiding principle for the design of the new Orbit High School building. According to the architect, students wanted a “cool fun vibe” and an “innovative environment.” When I asked Dr. Spacely what the goals were for the school building at the beginning of the participatory design process, he responded with: “(t)hat is kind of how we started: light, flexibility, wide open hallways, not having the feel of a school, more like a supportive environment” in contrast to “institutional. That’s what our old school was like.” In short, they wanted an environment designed to speak to the emotional needs of the core users, Orbit City’s teenagers.

I organized the findings that emerged from this case study into four sections. The first one is called *Social Space* and focuses on the student life at the spaces that I consider social centers for peer culture at Orbit High. The following sections are called *Closed Space*, *Crowded Space*, and *Transparent Space*. Each will provide my readers with

insights into students' perceptions of an outstanding quality of the *Spaces in Between* that were especially relevant to their experience during break times. I will conclude the chapter with a summary of my findings.

Social Space: The Epicenter

Emile Durkheim, one of the architects of modern social science, coined the term “social space” more than one hundred years ago; it became a widely used concept in the 1950s. Durkheim thought of it as the area inhabited by a group and wanted to understand the relationship between the density of a population and the connected type of social interaction. Since the end of the nineteenth century, the conceptual frames used to think about and guide research on social space have continuously evolved, and social relations have become increasingly relevant to the concept. According to the human geographer Paul Claval, social space is “made out of places linked by networks and structured by communication. It is through the communication process that group consciousness grows” (1984, p. 108). This is the definition that I would like to use here. It includes another concept that needs to be defined, “place.”

Place is “space that has been given meaning through personal, group, or cultural processes” (Altman & Low, 1992). It is an interdisciplinary concept, developed to understand the shifting and complex connections between social and physical aspects of environments as part of their particular times and the perceived effects on people's feelings of attachment (Casey, 1997; Cresswell, 2004).

The teenagers at Orbit High used two different strategies to create *Social Space* at school, “hanging” and “floating.” While researchers of school environments have reported about hanging at school before, floating has, to my knowledge, not been part of

the academic conversation, yet. Peter Blatchford (1998) had very systematically observed and studied teenagers hanging in school in England. But while what he described in his book *Social Life in School: Pupils' Experience of Breaktime and Recess from 7 to 16 Years* would most certainly sound relevant and true to secondary teachers and administrators in the US as well, he did not think about the quality of the school buildings in this context. Important to mention at this point is also Herb Childress (1993) who spent a year studying the “hangouts” of the teenagers of Curtisville in the 1990s and whose book *Landscapes of Betrayal Landscapes of Joy* has inspired this dissertation since its early stages.

Many things that were important to the teenagers of Curtisville in California seem to have been similarly meaningful to Orbit City’s Midwestern adolescents. But, the students who belonged to Orbit High were of another generation that has incorporated the “digital space” deeply into their social lives in general and, more importantly, into their peer culture at school. I will address the things I learned about how *Digital Space* effected their behavior and the *Social Space* at school as part of this chapter. Furthermore, the character of the two school buildings could hardly be more different from each other. The physical school environment under my investigation does not seem to be a “betrayal.” Instead, it is a beautiful school building created with a generous budget of close to \$122 million. Unlike the high school of Curtisville, it offers an expansive network of connected semi-public spaces between classrooms (Figure 12), most of them purposefully designed to promote social encounter. In my opinion, this building needs be understood as a landscape of promise to the teenagers of Orbit City.

There are several established ways to classify students at school. The most common ones group students by grade level, gender, race, or economic status. There are also common categories that refer to students' level of academic achievement or potential for success at school, or the lack thereof, such as "at-risk students," "special education students," or "gifted students." None of these classifications seemed to be helpful for this case. After I had spent substantial time hanging around in Orbit High's hallways trying to understand how 2000 teenagers spent their breaks, how they used the *Spaces in Between* and how they chose to socialize with their peers, I eventually started to see three categories of students.

Hangers at Orbit High were made up out of "cliques" or "crowds," which are teenage peer groups of different sizes and levels of connections. Cliques are groups of three to ten friends. Their peer association is usually

interaction-based, identified by the fact that group members do things together.

Crowds cluster together individuals who have established the same basic image or identity among peers. Crowd labels reflect a particularly prominent feature of group members such as residential location (northsiders), ethnic or socio-economic background (Mexicans or rednecks), peer status (the popular kids), or individual abilities and interests (jocks, skaters, brains). (B. Bradford Brown & Klute, 2008, p. 332)

Student hangers started to create social space by claiming temporary, yet long-term, communal ownership of one or more particular spots in the spaces in between classrooms. By meeting there regularly during non-instructional times at the beginning of the school year, they tried to establish it as a "group territory" (Delaney, 2005). I decided to think of these meaningful spots as their "place" at school. The classrooms usually belonged to the teachers (Astor et al., 1999) and a few loners, which is another student category I will talk about in a moment. But, the almost invisibly defined student spaces

between the classrooms, regularly inhabited by *Hangers*, had been given meaning by the interactions between adolescent friends. Their actions during these moments in the hallways were as unmediated by adults as possible within the local adoption of American school culture. The regular meeting points or “hangouts” (Childress, 1993) they used before school started, after lessons were over for the day, and during the few minutes they had to walk from one classroom to the next (passing) were their “favorite places” (Korpela, 1992) at school. They mostly stood around in circles and chatted about the previous night, about their teachers, upcoming tests, and, of course, about their love interests at the time. They joked around, teased each other, texted to either connect with sick and absent friends, to coordinate with their parents, or to make inside jokes with their best friend in the *Digital Space* while also being part of the bigger group conversation in the physical space. The mood was often upbeat and goofy. They did not need to make plans in order to meet each other since they considered this “their spot”; hence, they expected to see a friend there soon after they arrived. Ray Oldenburg would claim that hangers used these hallway spots as “third places” (Oldenburg, 1989) at school.

Floaters’ break behavior was very similar but more complex in nature because they walked the hallways while they created *Social Space* for themselves. They *all* walked, but for a variety of reasons. They could have loosely belonged to more than one group of friends or were in a transitional phase from one peer group to the next, which is not an uncommon stage to be in for teenagers (B. Bradford Brown & Klute, 2008). They either walked the hallways in order to meet different cliques that hung in different spots or just did not have a regular spot to hang. Floaters could be single students, friendship

pairs (two close friends) or small cliques. Alaia usually floated with two of her best friends.

I don't stay in one spot, because I don't like staying in one spot in general because (...) if I stay in one spot, it's usually with a certain type of group. I don't like titling myself in one group. I would prefer talking to everyone so I talk to the kids who play magic and then the exact opposite is where those black kids who are really loud (meet), I talk to them or the performing arts kids or the athletic kids. I just like talking to everyone because putting myself in one group or one area will give me a title of some sort and I don't like being labeled or having a certain spot where people can find me.

Jack Randall, the intern of the IT department, was a recent alumnus of Orbit High School. He talked about students who floated around the new building and remembered doing the same back in the old high school. "There's a huge trap of students that I see make their rounds around the school, which is basically exactly what we used to do, just get in a group and just kind of walk the school until lunch is over or after you've eaten."

I am not certain how floaters created social space, whether it was made out of a network of spaces that became meaningful through interaction or if it did not have a location at all but existed like a wifi network all around a clique as they walked from one social center to the next. They were much harder to observe and study than the hangers. One would have had to follow them around while trying to find out what their *Social Space* was made of and how they created it for themselves.

While these categories are helpful in order to understand the different needs students at Orbit High had during their break times, it does not make sense to try to think of these terms and the student groups as exclusive or neatly separated from each other because there were behavioral overlaps. Most of the *Hangers* did float just a little. And *Floaters* eventually stopped to hang in front of a vending machine or with one of their cliques.

Hannah, for example, was in active transition between two not very compatible groups, her orchestra clique from last year and a new clique that had formed around her activities in a Junior Reserve Officers Training Corp (JROTC) class, which she had become more and more excited about over the last couple of months. “(W)henever you walk in, you see some of your friends that are scattered about and you see some of them standing by the doors and other ones all the way in the cafeteria. You’re like, ‘Which group should I be with today?’” When Hannah arrived at school she usually floated for a while before she eventually decided to hang out with one of these cliques. While she floated alone she was socially well connected at school and therefore cannot be considered a loner.

Loners were kids who spent much of their break time alone or with electronic devices. Some stayed on the periphery of lively social centers where they observed the active social life around them. Others avoided public spaces and, instead, hung out in their favorite’s teachers’ classrooms or read. While I did interview *Loners* who enjoyed talking to adults, they were similar to the *Floaters* in that they were hard to observe. Many of them spent much of their break time in classrooms, which put them outside the boundary I drew around this case.

Locations of social space. Even after the exclusion of students who hung in the classrooms, *Social Space* was created in different kinds of locations at school. First, *Social Space* evolved within group spaces, which, according to the architects, are spaces designed for the use of 16 to 64 students. An example of these spaces would include the open classroom area in E-hall where the “magic kids” from the game club met every morning before school to play a card game called Magic. Second, *Social Space* was

created in even larger assembly spaces that were important to the particular group's identity. Two cliques of athletes chose the bleachers of the gym in which the occasional pep rallies were held, while the lobby in front of the school auditorium served as the *Social Space* for cliques that connected via the show choir membership network, for example. A third kind of location was both less prominently and less intuitively located. *Social Space* crystalized just around a focusing object such as a low, vinyl-covered, backless bench that was placed somewhere along the main hallway in front of the glass facade or around a table in one of the many colorful social porches.

In the following section, I will focus on the most prominent fourth location, the social center at Orbit High, because the largest groups of students met there and because it offers ample opportunities to talk about a variety of connected and adjacent *Spaces in Between*.

The social epicenter. Interestingly, there was one location that seemed to work inverted compared to the process I just described for the hangers. Instead of friends trying to actively find "their spot" in close proximity to where their favorite activities happened, close to where their favorite teachers had their spaces, or just around an anchoring object that had not been claimed by anybody else, this location seemed to attract student groups more independently of other meaningful locations and objects. It was the location for *Social Space* with the strongest "pull," the liveliest quality. In contrast to other locations, the cliques that belonged there were parts of more than just one crowd. Social space needed less of a concerted group effort to be created here. It almost appeared to create itself in a conveniently located area at the school's main traffic junction. This location clearly afforded *Social Space* for diverse cliques.

Orbit High is organized as a finger plan school. Its social center (which is marked with a red dot in Figure 13) is at the major intersection of the main hallway, the big open staircase that connects all three school levels and the main entrance to the lunchroom (G). It is also close to the skybridge, which connects the lunchroom to the gyms (K and L). The open social center at Orbit High extends into the adjacent orange social porch which is right across from the entrance to the library. “(T)hat is the core of the building. That is the heart of it, (...) the epicenter” (Jon Simon, architect). The social epicenter was the first and last space to be lively every day. It was well attended at the end of each of the four lunch periods and during the brief passing times.

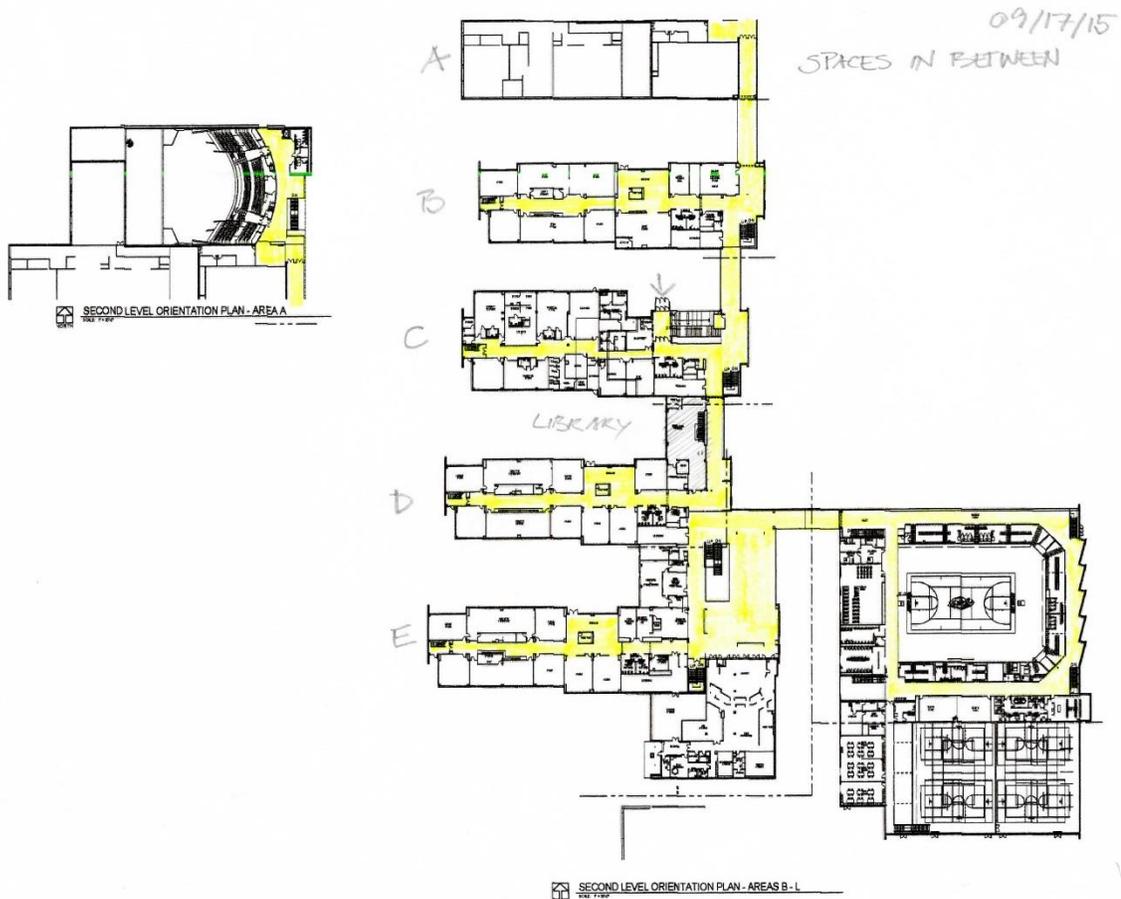


Figure 12. Network of spaces in between

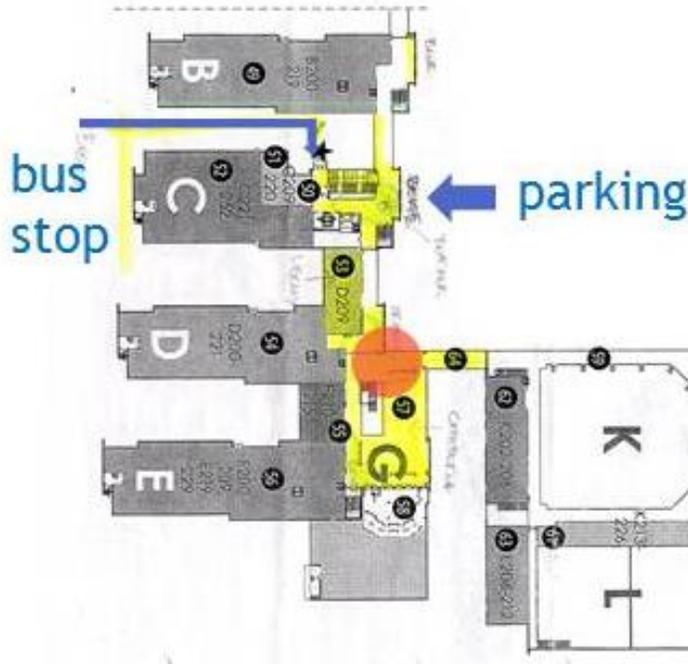


Figure 13. Location of the social center marked with red dot

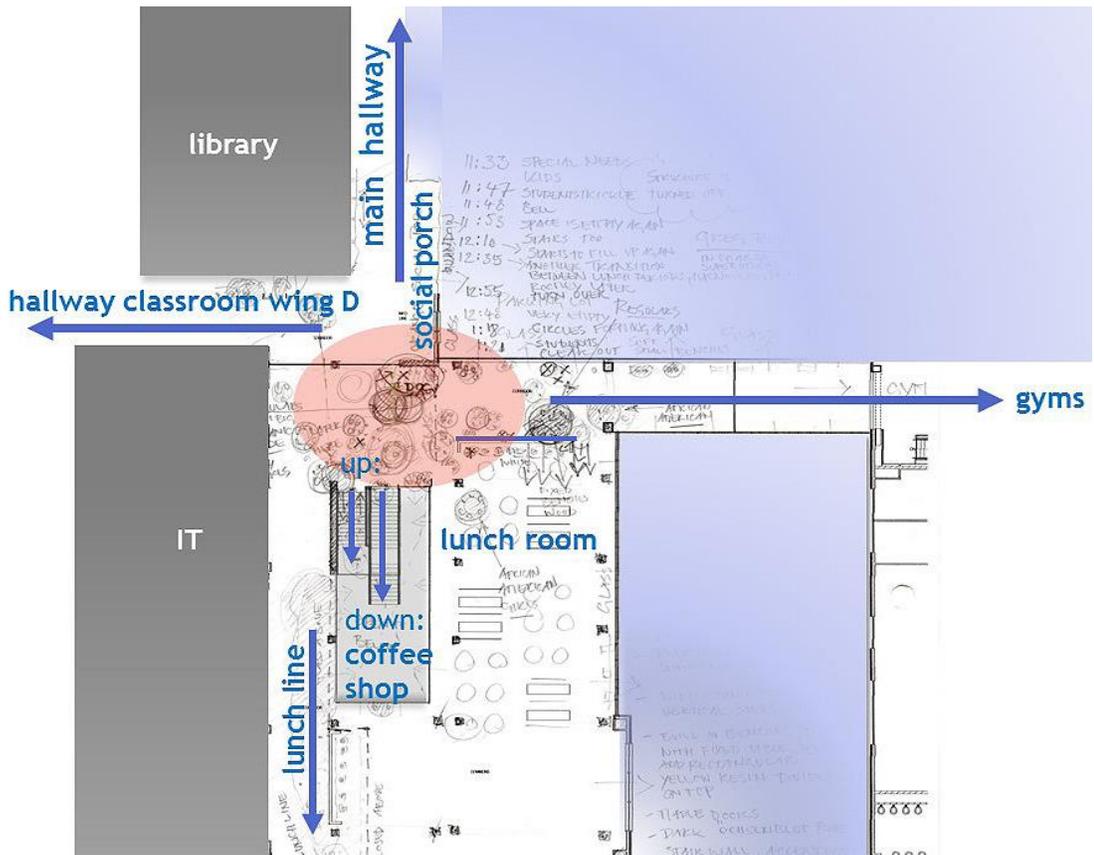


Figure 14. Spatial diagram of the social center



Figure 15. Location of the social center at Orbit High



Figure 16. Social center

I found *Hangers*, *Floater*s and *Loner*s here in the “big giant open space” (Bethany) in front of the staircase that appears relatively undefined compared to most other areas in this building. The inhabited space looked like a theatre lobby at intermission where people stood around in circles and talked, but instead of well-dressed adults drinking champagne, one has to envision teenagers with snacks from nearby vending machines and a substantial infusion of “horsing around” (Figure 16). Early in September, I wrote the following note about this space:

8:05 – 8:30 **traffic junction**

Many students are standing around in circles. The adjacent porch is also very busy. Coffee is shared, arms are pinched, jokes are made, and butts are slapped. It is loud. At 8:26 student start to disappear towards their classrooms and the junction empties

Most students had to cross this junction several times over the course of every day in order to get to their next classroom. During passing, students stopped at the epicenter and hung in front of the stairs on the second floor for about thirty seconds before a friend arrived. They talked for a few minutes, then split again and left to find their next classroom in time. It is “the most convenient place (...) it’s just like easy, it’s the middle of the school. (...) My best friend, (...) I don’t see her at all during the day. I see her at first hour in passing because that’s when I stop (at the epicenter) because I don’t (have to) go very far so I stop to talk to her” (Katie). “If you look during passing, it’s completely full of people. (...) Everyone for some reason just likes to hang out there” (Brad). “There is a ton of people usually but you can find a spot and that’s kind of where you see people if you want to. If you want to see your friends, that’s where you go because everybody passes through there” (Danielle). Students figured out during which passing periods on which days of the week they did not have to travel very far to their next classroom. This left them with about three extra minutes that they decided to spend at the epicenter. They

also had to figure out, or learn by repeated running into each other at the epicenter, which of their precious three-minute moments aligned with a similar opportunity with a friends' class schedule. This gave a couple, for example, the opportunity to meet there, hold hands for a while, and talk briefly before kissing fleetingly and disappearing in opposite directions.

But the central space was not only a conveniently located and popular meeting space to numerous groups of teenage students on tight class schedules for which theoretically every minute was accounted. A few months into my time at Orbit High, I also started to notice a regular group of perhaps six to eight adults hanging out there in the mornings. They usually were standing in a circle just a few feet away from where members of the Junior Reserve Officers Training Corps later would spend their lunch break, next to the white bar that seems to extend the skybridge, coming from the gym, all the way into the lunchroom. I knew that the only female adult present was a coach, since I had noticed her during one of the pep rallies at the beginning of the school year. I suspected more coaches and was aware that one or two of the regulars were resource officers. I learned later that one of these adults had supervision duties there in the mornings, while all the others were there by choice. Every day before the start of instructions this group met at the social center of the school and presented a somewhat boisterous demeanor. I remember thinking that their *Social Space* appeared to be surprisingly similar in nature to the *Social Space* of the students around them and I made a few jottings to that effect.

Mr. Ross was the last teacher I interviewed. I had decided to ask him for an interview not because he was part of this group, but because I considered him an expert

on the coffee shop, which is another lively location for *Social Space* adjacent to the open staircase, but on the lower level. I did, however, ask him early on during our interview:

“When you’re upstairs there in the lunchroom, that’s a lot of coaches and resource officers in the morning, what do you do then?” His response was:

I think we mostly just kind of, are like kids. We just kind of talk about something that we saw the night before, or maybe something happened before. I think it’s just sort of, it’s kind of like a buffer to your day, kind of gets you going instead of just going right into it. It’s usually pretty much nonsense, to be honest with you. (...) We’re in high school. We are absolutely high school kids. We are an adult version of high school. (...)

I prompted him further with a remark that if I had only a sentence to describe what I had seen students do during their breaks at Orbit High, I would say that they stand around in circles and talk.

Yeah, it is without a doubt a different atmosphere (than at the old building), that’s for sure but that’s what they do and that’s what we do too. It is. It’s our only chance, again, because the building is so big. It’s probably the only time that most of us are going to see each other and like the school before, it was so small you would almost run into, like everybody ate lunch together and stuff like that, where there in this one you’ve got the four different lunches. It’s the only time when everybody gets to see each other and it gets you a little bit ready for the day, I guess, but it’s nothing big. (...) (O)ne has to make an effort in this school to meet the people important to you, because of the size (Mr. Ross).

While this is a casual adult voice, rather than a student talking, it perfectly captures the highly valued short opportunities for *Social Space* this central location offered to the students of Orbit High within the constraints of complex class and lunch schedules and very brief passing times. I would like to speculate for a moment about the reasons why this teacher sounded so much like the students I met and why he and his adult peers behaved so similarly to the groups of students who occupied the same space. It could be because the coaches, the high school students, and the police officers had a very similar mindset. While I don’t want to dismiss this idea as out of the question, I

suspect that what coaches, police officers, and students at school had in common was that they did not own spaces, or at least not in the right neighborhood to meet their friends coincidentally while going about their everyday tasks. Therefore, they had to “make an effort to meet the people important to them” in locations that were equally convenient to them all. Not all coaches were gym teachers and they taught different subjects that were not related to sports. Therefore, their classrooms were spread out all over the school. They were part of a neighborhood that was organized around a career path. While it was probably easy for them to socialize with teachers from their content area, since they occupied the adjacent classrooms, it was harder to find a convenient space and time to meet the other coaches. I further suspect that, if the resource officers had a space of their own, they felt like they belonged in the hallways and other semi-public spaces at school because the core of their jobs was to make sure there is no trouble at school (Irby, 2014) in these spaces in between classrooms.

Despite the fact that this particular group of adults used the space very similarly to the students, obviously enjoyed their time together, and considered hanging out with their friends there, an important part of their life at school, many other teachers and administrators thought somewhat critical about the epicenter and the way it supported *Social Space* at school. The principal, Dr. Spacely, was especially concerned about how the social center at Orbit High drew groups of students in during passing. He thought that the affordances of the centrally located space also caused too many students to be late to their next class. He put it like this:

The space that I wish we would have thought about better (...) is the cafeteria (means the epicenter at the entrance to the lunchroom in front of the big open staircase). (...) (I)t tends to be a congregating space between classes. Which is not a bad thing on the one hand, but on the other hand kids aren't getting in the class

because they want to stop there and have to talk all the time and it's not...I think there are kids that look for reasons to go to a certain place because they know their friends are going to be there even though it's not on their path. (...) (B)efore school, after school not an issue of course, but between classes it tends to be that place where kids want to go and then it causes them to be late in the class.

The concerns the principal addressed with these remarks are, of course, connected to the disruption students' tardiness can cause to any classroom activity. His comments were also a response on pressure he had received from the district's school board to ensure better evidence for academic success by improving Orbit High's attendance/tardy data compared to the previous school year.

While Dr. Spacely talked about students who "wasted time" there by hanging around too long, the epicenter was also the space adults at Orbit High worried more about than any other that "horsing around" between male athletes for example could turn into physical fights.

Colonel Jasper, a retired army officer and one of the JROTC teachers, was an expert for an adjacent space. Part of his responsibilities at school was to supervise the students in the lunch line on the south side of the lunchroom. After the lunch line had dissolved, he made a habit of sticking around until the epicenter was "cleared out."

I stay...I make sure I'm around and stay until that's cleared out. Usually there's a lot of horseplay from young men in particular. That looks like to be a football or basketball kind of team. That's where they tend to congregate. That's my impression. I don't know for sure, but they look like those kinds of kids. They're athletic, physical fit, and there's a lot of friendly butting heads. Sometimes it can turn from friendly to something else fairly quick. I like to stand over there and just kind of keep an eye on things. (...) I am glad from my perspective, I'm glad when passing period is over (...) Just in that spot. In that particular spot, because there's people coming from the gym that are just hanging out there and they're waiting for their friends (...) They're just playing, but there's more to it, underlying, it can get more intense.

Colonel Jasper had a lot of experience with environments full of predominantly physically fit young men and their social dynamics. I trust that he knew what he was concerned about while watching these students horse around at the social epicenter at Orbit High. However, when my student participants talked about occasional physical fights at school, all of them reported that typically it was two girls fighting after a substantial drama phase on social media. My own experiences at school support students' understanding that it was pairs of girls who got into fights rather than male athletes. I saw two or three fights during my time at Orbit High or, more accurately, got to the location right after the hair pulling, phone throwing, or punching event had died down to shouting after teachers and resource officers had already stepped in.

Digital space. Social media clearly played a big role in the process of how a conflict between two girls slowly changed character and picked up momentum until they met coincidentally a week or two after the initial event at the epicenter or on the lower level in front of the coffee shop and started to first scream and eventually hit each other. The *Digital Space* remained important to the conflict—its documentation and its public perception—until long after the two girls were led down opposite hallways toward their principal's office to be informed about the consequences of their actions. I did not inquire deeply into the nature of the original issues, like others have, while thinking about concepts such as “drama” (Marwick & Boyd, 2011); instead, I tried to understand and talk more about the nature of the process after the initial conflict. While the students appeared to be at ease, almost eager, to explain the role of the *Digital Space* for conflicts between students at Orbit High as they understood it, it felt like prying to me to try to dig too deep into the nature of the original conflicts.

I did not have to ask. Students just started to talk about fights at some point in our interviews while sharing concrete stories about their everyday social life in the hallways during non-instructional times. They talked about the latest incidents between two girls and that the initial issue usually evolved around boys or boyfriends, and related acts of jealousy and betrayal. The conflicts occurred in the physical environment in or outside of Orbit High School, during a party for example.

Social media communities are, of course, much bigger and promote conversations at a much faster pace compared to the way traditional social networks within the physical space are maintained and used. The discussions and assessments that followed such an event of teenage conflict later on social media, therefore, also appeared to include a much wider circle of actors and happen at a faster pace than possible through social encounter through physical space alone. “Once it is on social media it spreads like a wildfire” (Jarmal). Furthermore, Facebook friends are engaged in it for a long time. “Most of the time it doesn’t get out of hand right off the bat. It takes some time. (,,) it doesn’t get that far until a week or two, after nobody will let it die.” Jarmal seemed to think that the social media aftermath of students’ peer conflicts at Orbit High is characterized by a particularly long memory that might fuel the conflict unnecessarily and eventually be partially responsible for a late escalation into a physical fight at school.

When Lilly tried to remember on which particular social media site a conflict that recently had led to a physical fight was first discussed, she did not refer to it as the digital location of the discussion but instead suggested that the particular social media outlet was the location of the conflict itself. “Was it through Twitter? It started through Twitter.” Diego voiced what he understood as the cause for violent conflicts even clearer. “That’s

how a lot of fights start in school. It's *because* of social media." Hannah would probably agree. She told me, after she had had an unprovoked run-in with another girl in the hallway during passing once, how "(s)ome of her friends thought I was friends with her on Facebook, and they were kind of slamming me a little bit. It kind of made me mad to where I was like, 'I'm going to punch them,' but I'm not going to do that here or even there. I don't really want to start stuff and get in trouble."

As I already discussed in the review of the core literature in Chapter 2, there is evidence that computer mediated communication lets teenagers become less concerned with the way they are perceived and more likely to disclose their true feelings than during offline interactions (McKenna & Bargh, 2000). McKenna and Bargh found that *Digital Space* could promote developmentally important honest disclosures between existing friendships in teenagers, and students at Orbit High made similar observations. "Yeah. It's kind of like...Everybody is different on social media, if that makes sense. You think that you are the same, but not at all. There's this kid and he doesn't talk at all at school. He just doesn't. On social media, he is all emotions." The flip side of the different mental state teenagers at Orbit High presented during online interactions (being less concerned about the way they are perceived and more honest) might have been that their interactions on social media in conflict situations were meaner than they would have been in the hallways. Bethany and Danielle felt strongly about this:

Yeah and say what you really feel about somebody and offend people. You can do whatever you want on social media. People laugh at it and it becomes this big old joke about somebody, but then somebody's sitting over here crying, but they don't care because it was on social media. They don't even see. You can say, "Oh will you please stop? That's offending me," or, "That's making me upset," but everybody else is still like, "Ha ha, that's so funny." They go to school and they act like that never happened. That's one really annoying thing I think."

During our interview, Mr. Wilson embraced the opportunities both technology and social media access at school created, but he also shared the two cheerleaders' understandings about how students engaged in different behaviors, how they almost took on different personalities, especially in conflict situations, once their interaction moved into *Digital Space*.

Students will go online and be very critical, and I've done this experiment. I sent everyone an assignment on Campus, which is the online platform that we use. First in class I ask them, "I notice that you guys are a little bit stressed out about the work we've been doing. Does anyone have any suggestions, any critiques, anything like that? Just raise your hands." No one did. A week later, I said, "Okay, I want to touch base with you guys again. Does anyone have any critiques, suggestions, anything? No offense will be taken if you want me to change, if I'm doing something wrong, if I'm upsetting you in some way, let me know. I'm handing out a sheet of paper. Don't put your name on it, just write what you think."

Most students turned in a sheet of paper that said, "No, everything's good." I then did the same thing online, and I said, "Okay," I sent out the same prompt a week after that and I had students that have always been very, very sweet be extremely critical online, and their name was associated with it. They were submitting it, so Sarah was submitting Sarah's work. Oftentimes very rude, very unprofessional and extremely out of character, and it only happened online. Then when I asked them about it in class, they didn't want to talk about it. I think that's the only part of this omnipresence of social media that worries me a little bit is in conflict. (...) That's my biggest fear for social media for students.

Furthermore, Digital Space was instrumental for the documentation and wide distribution of authentic records about school fights. I noticed how students learned about them only minutes later while checking their phones during lunch. "People get into fights and almost instantly people are recording it, taking pictures of it and posting it to Facebook, tagging their friends and saying, "Hey look at this," or, "(t)his happened." Most of these people have lots of friends on Facebook and so they see it instantly. It really spreads like that" (Brody). "Facebook's really popular about posting videos after

fights. Then about an hour or two, it gets taken down because the principal will see it. That is mostly how it spreads. I don't really hear about any of them in person" (Katie).

I will revisit the topic of physical fights as part of the peer culture at Orbit High in some of the later sections on *Closed Space*, *Crowded Space*, and *Transparent Space* to discuss connections to particular spatial qualities. But, here, I will move on to talk about spaces on the periphery of the social epicenter. To draw a clear boundary around the epicenter is impossible because of the fluid spatial connections to other important social centers, such as the skybridge, the orange social porch, and the library.

Skybridge. The lunchroom and the athletic center are connected on the second floor by the skybridge, a construction that is predominantly made out of glass that allows for good views from its interior onto the drop off circle and the parking lot (Figure 17) in front of the main entrance one level down. The bridge space is immediately followed by another area that is part of the lunchroom but separated from it by a piece of casework, a bar, which is finished in white plastic laminate. The lunchroom side of the bar was used by *Loners* and friendship pairs who sat and ate their lunch. Many of them engaged at the same time with their school issued high-end laptops.

The other (outer) side of this bar was usually occupied by cliques of *Hangers* leaning against it, like the regular JROTC clique during lunch. They gathered in a large circle around that outer edge or engaged in conversations with students, sitting on bar stools on the other side, over the top of it. I liked this bar too. I either leaned against a section toward its West end, which put me close to the social interaction at the epicenter but also gave me something to hold on to. When I turned around it was easy to observe



Figure 17. Skybridge



Figure 18. Extension of the skybridge in the lunchroom with bar

the whole lunchroom from the same spot. Sometimes during class time I sat on the lunchroom side of the bar to write my field notes on my laptop.

In the mornings, a crowd of athletes used to hang out on the skybridge after they entered the building through the entrance to the gym and climbed the adjacent stairs to the next level. They gathered around the low benches that are covered in Orbit High's school-color red vinyl and talked. Cheerleaders, football players, basketball players, and members of the cross country team used to mingle there. There also seemed to be some room for unconventional students on the skybridge before school started. "There is this one kid, his name is Danny, and he's a little bit mental, but high functioning, I guess (...) and he has a huge crush on a few of the girls. He'll come up and he'll say his poetry. (...) He's our little smile for day. He is funny. Then...I don't know what else do we do? We eat." (Danielle)

The white bar and the vinyl covered benches served as "anchoring objects" straight from the unwritten tacit textbook of architectural design studios. Early on during the design of this study, I thought that one of my main objections or tasks would be to investigate if strategies like the one of providing an anchoring object actually promoted social encounters in the ways designers in general, and teachers of design studios in particular, like to claim. Over the course of my time at Orbit High, I became convinced that many of these simple strategies that are passed along from one generation of designers to the next work exactly like envisioned and talked about in colleges of architecture.

For a while, this space between the bar and the glass façade also became a site for playful behavior during the afternoons after the end of the school days. Students would

gather here, close to the gyms, for ten or fifteen minutes before their team practice started to chat with friends who waited here for their parents to pick them up with the car, because you could see them arrive from here. As the athletic fall seasons unfolded, I saw more and more students with leg injuries. There were a few weeks during which male students would have a leg in a cast or boot and a little medical scooter to rest the knee of the injured leg, while navigating the hallways during passing. These scooters became an object of team play and friendly competition. Pairs of students, healthy as well as injured would use the scooters to race down this space and over the skybridge toward the gyms and back into the lunchroom to the cheers of their crowd. This occasional phenomenon, which I had also observed in two dead-end corridors on the lower level, disappeared after just a week or two together with the scooters. I suspect that someone who represented the *Institutional Order* had noticed the behavior, assessed it as a potential problem, and decided to prophylactically ban the “toy” from the environment.

Orange social porch. Orbit High has similar social porches at all the intersections where the shorter hallways located at the center of each classroom wing meet the main hallway. Each of them has its own color. The orange social porch expands the social center at the entry to the lunchroom; it is the porch that was more frequently used and livelier than any other. It is furnished with a combination of small-scale soft seating, barstools, and tables and is equipped with three wall mounted flat screens, which remained unused during my time at Orbit High except for occasional use in October. The porches are relatively small, only about 7 feet deep, and they occupy an area of perhaps 300 square feet. They just provide enough space for four small armchairs and twelve barstools arranged around two high tabletops and a big garbage can. The ceilings are

lower than in the adjacent hallway, the carpet tiles are thicker and of more solid and saturated hues (Figure 19). Most porches have a relatively solid façade with a few smaller window openings in contrast to the big adjacent glass façades of the main hallway. It has the feel of a brightly colored alcove made out of solid materials that is attached and open to an adjacent big public space made out of air and separated from the outside by glass. These small spaces seemed to afford student groups of different social makeup during different times, as well as a variety of group sizes and activities. Adults used these spaces as well. The orange social porch served as a very regular morning hangout spot or third place for a clique of black girls. They always met at one of the high tables. During that time of the day there were about two or three more groups who hung out there and several more cliques standing around in circles in the hallway between the porch and the library (Figure 20) and in front of the open staircase at the entry to the lunchroom. It was hard to determine where the territory of each student group in the social porch or the group itself ended and where the territory of the cliques in the hallway started.

Social boundaries and boundaries of the physical environment appeared during this time on a range from somewhat fluid to completely invisible. The space was characterized by spatial density. Later during the day, a small handful of students who were part of a blended classroom environment sat in the armchairs and at the high table tops while working on their laptops on the online assignments or were just joking around and “wasting their time” with YouTube videos. One freshman student used to meet a parent or guardian there on Thursdays for lunch, next to two small regular lunch cliques who thought of the porch as “their lunch spot”. My favorite armchair was usually occupied by a skinny girl with long reddish blond hair. She sat there so often, for at least



Figure 19. Orange social porch



Figure 20. View from orange social porch onto the big sliding library display case



Figure 21. View from orange social porch



Figure 22. Epicenter

three of the four daily lunch periods, that I started to think of the chair as hers. I cannot picture her without a laptop propped up on her armrest and rarely witnessed her speak to anybody, though she was often accompanied by a boy of similar features, who belonged in the chair to her left.

Jarmal liked to spend his last hour of the day here. He was a senior and did not have lessons during the seventh hour. This was the spot he used to wait until his mom had time to pick him up from school. It was a good space for him to be alone. Acquaintances that walked by used the opportunity to chat with him for a minute and teachers made regular jokes about him “skipping class again.” He enjoyed that and sat there to maximize his chances for such chance encounters. After his mom’s work schedule had changed halfway through the school year, which would have allowed him to leave earlier, he decided to hang in the orange social porch anyway for some time before he felt ready to be picked up.

Library. The last space located at the perimeter of the epicenter is the entry area of the library. It is separated from Orbit’s social center by a huge, ceiling-high, custom made, glass sliding door that doubles as a display case for books. These book displays, which leave glimpses into the library open, are prominently placed on the other side of the main hallway just across the orange social porch (Figure 20). If opened, the oversized door would slide in front of the adjacent hallway wall and leave a 25 feet wide opening into the substantial entry area of the library. The architects designed this area as another semipublic space and deliberately placed it at the perimeter of the traffic junction as an expansion of the epicenter. They envisioned that students would step into this connected lobby-like area and start gathering there, leaving the middle of the busy hallway

connection open for students to travel toward the lunchroom for breakfast or to their classroom for their first hour of instructions. “(T)he intent was that the bottom floor became the more social area and the top became a more quiet zone where you could get away from it all.” Jon Simon shared with me that he thought that students who regularly spent social time in the library because it is pleasant and conveniently located might, even if they were not avid readers to begin with, someday see a title on display that relates to their favorite activity and therefore be tempted to pick it up. “Imagine if you saw something and stepped in to take a look at it and you realized, “Uh-oh, I’m in the library. How did that? How did that happen?” The designers tried to create an environment in which the boundaries between educational spaces and spaces for social encounter are blurred and expressed the hope that luring students into the library, even if it is to hang with their friends, would create opportunities that could contribute to the process of becoming readers. This is a stance that could resonate with educators who work hard to enforce school routines designed to ensure high student attendance rates because they believe that having students in the classroom regularly and on time is a basic but important prerequisite in order to maximize opportunities to learn.

Closed Space: Missed Opportunities

Library. I never saw the library door open, so I did not experience students using the space in the configuration described above and cannot relate how their behavior would have adapted when the entry to the library lobby connected to the epicenter in a similar manner as the orange social porch does. Ms. Reed, the librarian, tried to protect real library users from the noise student hangers created during break times at the epicenter just outside the library by keeping the door closed throughout the day. She

referred to the custom door construction as a “decoration” and to the little library lobby as a “waste of space.”

The library did appear always empty to me, except for the three librarians and when teachers took a whole classroom for a library visit during instructional times. Sometimes it looked like it took determination to get access to the library. Several of my field notes describe how I had observed a library user who knocked on the small official entry door and waited for several minutes before someone opened the door from the inside to let the student in and then carefully closed the door again. I was not able to find a student or an adult at Orbit High who claimed to regularly use the library, even though I made a point of asking many students and teachers about the space and also interviewed the president of the book club.

Most of the teenagers I asked described in no unclear terms that they did not think of themselves as “big book readers” (Mateo) or they frankly “don’t like to read” (Katie). They do not visit the library on their “own time” (Brad). “But for English there is times we have to go in there to pick out a book and read” (Mateo).

When Briana and I talked about her morning routines at school, we had the following exchange:

Brianna: (...) I sit at the same table every day (in the orange social porch), right there, between the cafeteria (means the lunchroom) and the library, right in front of the library.

Elke: Do you ever spend time *in* the library?

Brianna: We’re not really allowed to.

I remember being flabbergasted when she said that and later during data analysis stopped to think about the meaning of the remark whenever I came across the excerpt.

After I printed and read all excerpts that I coded as connected to the “library” together and compared them to the excerpts that I coded for “social porches,” I decided that Briana must have meant one of two things. I suspect that she thought that the conversations with her peer group of black girls in combination with loud voices and goofy behavior would be considered inappropriate for the library. This is how she described what they talked about in the mornings:

Just girl stuff, like, I want to say, drama, really. It sounds bad, but it’s a gossip thing. When we got our nails done, that’s what we talked about today. How we got our nails done, and sometimes we talk about how we’re going to get our hair done, just girl stuff, really, and boys, of course, people’s relationships, everything in that area that you can probably think of. Mostly gossip, I would say. Girl gossip, stuff that boys don’t want to have nothing to do with. There’s hardly any boys over there, actually, unless it’s somebody’s boyfriend. That’s basically it, in the morning.

Another likely possibility is that she thought that they do not have the right to be in the library unless they intend to check out books.

Alaia was the president of the book club and the first student I interviewed. As one would suspect, she *did* like to read but could not imagine hanging out in the library either. “I could just go to the library, but we can’t eat in there. (...) (i)f you’re in the library, the librarians probably think you’re checking out a book so they’ll be waiting for you to hurry up and get done so I just don’t hang out in the library and I don’t really see people hanging out in the library.”

A disagreement between the librarian and the planners about the appropriate floor material for the library’s lobby space eventually ended with the enforcement of carpet tiles through the architects. Ms. Reed, who wanted ceramic tiles, lost the battle in the planning phase but later strictly enforced a no-food-in-the-library-rule and explained the causal connection between the floor material decisions and the rule for me. She also told

me about a regular group of perhaps twenty library hangers, of which she only considered four to be “avid readers.” “The rest just fiddle around on their phones.”

It would, however, not be fair to suggest that it is the librarian who keeps the space quiet for avid readers who never show up, while not being interested in students who want a place to meet their friends. The library in the previous high school building was her responsibility as well and students and adults mentioned it in this context quite a bit. While I do not think that it was architecturally an inspiring space, it must have been one of the few somewhat comfortable and available spaces the building had to offer for students during their breaks. Food was allowed in and technology played a different role in the old building. The library was understood as a “technology center” or the space where the student computers lived. Students described how they used to meet there, or how they visited it to play videogames. I believe that the distribution of laptops to all students had only started after the school district lost the original building. Jack Randall, the IT intern and recent alumnus of Orbit High remembers that when he had to write a research paper he used to visit the computer lab area in the old school which he considered to be part of the library to “grind (...) it out at school. There was always somebody there.”

In 1990, Shilling and Cousins published a relevant paper reporting findings on two case studies about the process by which secondary school students either associate or disassociate themselves from using their school libraries. The authors emphasized in this context the connections of the process to the adults’ capability to enforce rules that render the library either as a space suited for quiet work or the power of students to use libraries as spaces to hang out with their friends. The researchers also identified the library

location and its perceived importance as a place of study as relevant factors. In one of these school libraries, adults succeeded in promoting a very restricted, extremely quiet environment that they considered conducive to study. The library was new, conceptualized as an important academic space, and teachers used it as regularly as students did. Conversations between students were only allowed if almost inaudible and centered on a study project. Eating, moving chairs from one table to the next in order to be closer to a friend, and sitting on the floor while reading was not tolerated. In this particular library, most students only used the space to take out or return books. There were clear and strong divisions between students who spent time in the library and students who did not. It was not the smartest or the most industrious students who spent time in the library but the students who needed a quiet and comfortable space that was otherwise hard to come by in their school. The library hangers did not necessarily comply with all the rules and expectations. Instead, many created *Social Space* and chatted quietly with their friends, enjoying the comfortable seating while they gave the impression of working. They turned the pages of books without reading them, for example, and looked at the shelves, pretending to search for a book while chatting to their friends very quietly in order to not disturb the approved use of the library and to prevent being banned from the space.

Orbit High's library environment seems similar in many ways. The rules of conduct, however, were not as strict and there are numerous other comfortable and relatively quiet spots to hang elsewhere in the building, which left the students who were looking for this quality during breaks with more alternatives. Perhaps most important to mention is the difference in location. Dicken's library is located away from the loud and

lively spaces, while Orbit's library is very close to the school's social center and the lunchroom.

It is hard for me not to speculate about what would happen if Orbit's library staff would embrace the nature of its location, open the big door, and let the students redefine the lower level of the library as a space to hang. In Shilling and Cousins second case study of a school library, adults were not able to enforce a quiet environment and nobody really embraced it as a special space for study or thought of it as very different from other classrooms, except for the considerably lower level of supervision, perhaps. Crompton's library is located next to the lunchroom in a school building that lacks alternative spaces for students who want to chat. It was commonly understood as a place in which mostly older male students congregated before school and waited for the bus after instructions were over. The level of ownership of Crompton's library by students might sound more or less enticing, depending on the perspective on school environments one prescribes to. However, more interestingly, it also resulted in an environment that excluded girls or younger boys who had started visiting the library with the expectation to find a quiet space to read and study before they understood the local behavioral library norms set by the older boys who considered this their spot.

I am certain that Orbit's library would become noisier during times when the door is open. But how a change to the physical environment like this and the connected change in school routines would affect the social climate of the library and the epicenter remains to be seen and would have to be observed. The space is designed with flexibility in mind in the hope that it might be able to adjust more easily to future needs. No walls will need to be removed and a bad decision will not be followed by decades of regret. If

stakeholders would ever be interested in increasing student attendance in the library, experimenting with an open door during different times of the school day would be easy. The architects wanted to provide a space that would allow Orbit High to reimagine their school library to lead future learning (Valenza, 2017). For now, the library appeared underutilized.

Courtyards at Orbit High are located between the classroom wings and were supposed to serve two major purposes. For one, they were designed to support the particular content areas of the adjacent classroom wings. Furthermore, they were thought of as transitional spaces. Students were expected to walk through them during passing on their way to the next classroom located in a different part of the building. Therefore, this lowest school level does not have a major connecting “circulation spine” like the two upper levels do. Together, the classroom wings, the exterior spaces, and the students walking through them were expected to create a high school *campus* environment.

The courtyard between the performing arts center and the arts and communication wing, for example, is an outdoor amphitheater centered on another huge door that connects the exterior space with the black box theatre. When opened, the interior theater space could function as a fully equipped back stage area for a performance on an open air proscenium in front of an audience that is seated outside (Figure 23). The courtyard between business and science and math is terraced along the sloped site in five foot increments to support gravity based science experiments such as egg drops. Some teachers told me that they occasionally took students out into the courtyards during instructional times to practice public speaking, for example, and students shared how

much they liked that. Even so, the use of the courtyards was clearly not integrated deeply into everyday teaching practices at Orbit High, yet.

But, I am most interested in the spaces that are used for social contact between adolescent students during non-instructional times and the courtyards certainly appeared to me like they could promote social encounter. All of the courtyards offer either benches or custom landscaping features designed to afford seating for more than a few people. They looked like great spaces to hang, but they were always empty. I can only remember a handful of times that I saw the courtyards inhabited by people. At closer inspection, these people were usually gardeners maintaining the beds or cutting decorative grasses. The courtyard in front of the coffee shop was the sole exception. Students were allowed to spend their lunch break in this courtyard and the exterior tables became physical markers for the social space a few cliques created for themselves. Jarmal put it like this: "That's how it is. That is our table. That's where we all met and became friends, so that is our spot. That's where we sit and congregate" (Figure 26). In November, he and his friends did not have plans, yet, where they would meet during their lunch break once it got too cold to sit outside, other than "(j)ust dress warm."

I asked the architect whether he designed the courtyards as a space to learn or as a space for social encounter because I did not want to lose track of the case boundary drawn around the spaces students used during their breaks by thinking about the courtyards that perhaps were intended and used for instructions instead. Jon Simon's response was:



Figure 23. Courtyard next to the performing arts center



Figure 24. Entry lobby or "learning stairs" and adjacent courtyard



Figure 25. Courtyard next to Orbit Alley, open during lunch time



Figure 26. “That’s where we all met and became friends so that is our spot.”

I think that's both. I don't think in today's education that you necessarily should separate the two because I think that as much as we're used to the old educational system where you have one person teaching everybody, that you have the hands-on learning. You have learning by doing. You have group interactions. There's multiple ways that students can learn and do learn. I think the two are connected.

This sounded like a conversational version of a textbook for the education of teachers to me. He did not mind the idea that the courtyards could be used as a space for social encounter between students and went even further to claim that social experiences between teenage peers and learning experiences should not be conceptualized as exclusive processes in school. It became even clearer than during our conversation about the library that from his perspective the conceptual goal of this school building was to blur the boundaries between social and instructional spaces. He seemed to think that high school education in the 21st century should strive to promote more conversations and more collaboration between students than it had in the past and that spaces that looked less like conventional classrooms were more likely to support these ways to learn.

But the majority of educators I talked to were not ready to embrace this philosophy of educational spaces for the future in a consequent manner. They felt like they could not risk giving students access to all these spaces designed for learning. They thought that especially 9th and 10th graders were not yet mature enough to be exposed to the full range of learning opportunities supported by the architecture. They believed that experience taught them that teenagers would use these opportunities to skip class or exploit them for inappropriate actions. They expected half of their students to fail if given the freedom to handle the building responsibly.

In terms of the courtyards, they were not ready to release the students into the exterior spaces during their breaks because they feared not being able to provide the

necessary level of supervision. Jane Palmer, the school psychologist and sponsor of the hip-hop club, thought that the students should either not be allowed to use the courtyards or “(i)f they are in those spaces they have to be supervised. Otherwise they just leave.” Mr. Cogswell was an assistant principal and the designer of the supervision schedules. He did not like the fact that the courtyards were only accessible from the semipublic hallway spaces. He worried that in an emergency, like a physical fight between students, adults would not be able to intervene fast enough. The design team, in his opinion, successfully insured sufficient informal supervision of the hallway spaces in the classroom wings through big sliding barn doors that provided the adults in the classrooms with ample opportunities to keep an eye on the adjacent hallway spaces without having to leave their room (Figure 27). The assistant principal voiced that he would be more likely to allow students to spend their breaks using the courtyards if a similar connection between the classrooms, clearly owned by teachers, (Astor et al., 1999) and the adjacent courtyards would exist.

Instead, there were big signs at eye level on the inside of all the glass doors through which one theoretically could have accessed the courtyards that claimed: “EMERGENCY EXIT ONLY ALARM WILL SOUND” if this door would be opened (Figure 28). To make a long story short, the courtyards were not open to students, who needed to travel from one classroom wing to the next during passing, even though there is no interior hallway on this level connecting all the classroom wings. This decision made counter intuitive traffic patterns necessary. Students on their way from the teaching kitchen located at the South end of the first level to the band room at the North end of the same level, or from the drafting room to the journalism lab had to use the big open stair



Figure 27. Sliding barn doors between classrooms and hallways

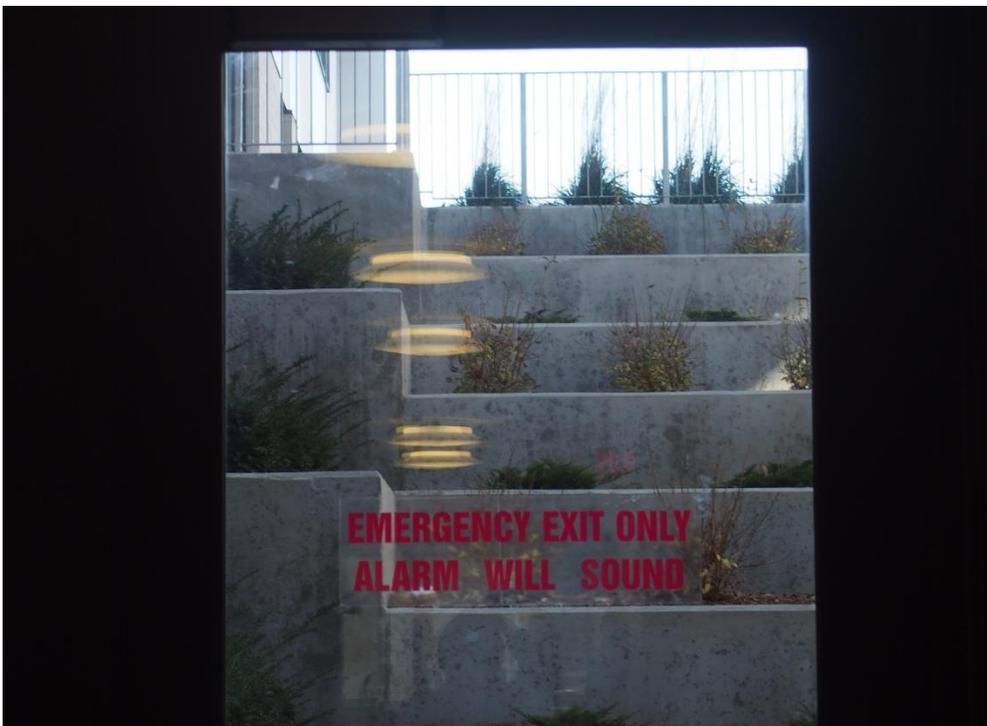


Figure 28. Door to the courtyard

case at the epicenter to reach the main second floor level, then travel along the main hallway spine to the North end of the building, before they could take another stair located in the performing art center to reach the lower level again. A similar procedure was necessary to get from the coffee shop to the counselors' suite which are both located on the same floor and separated only by a single courtyard. Students did not complain about the up-over-and-down-again to me, but the crowded staircase during passing and the short amount of time they had to reach the next classroom came up a lot. Many remembered that they had been promised to be able to use the courtyards.

(W)e were supposed to be able to walk outdoors to get to our next classes but since they're so concerned about people skipping or just leaving school property they keep the doors with an alarm on them, or else the ones that don't have an alarm on them will be locked so you can't get back inside (Bethany).

Claire and Colby, student leaders of the cartoonist club, pondered how they would like to use their lunch break or a free hour to draw in the courtyards if it had been an option. "Yeah, it's really pretty out there, but you just can't" (Claire). "They never let us out. We never get to use them" (Colby). Some students were still confident that they eventually would get access. "That's what teachers have told us; they're still working on it to be able to let us go through those courtyards" (Brad).

Mr. Wilson, a young and beloved Spanish teacher, had a stance toward the school building in general and the courtyards in particular that stood out to me. He enjoyed experimenting with the opportunities the building offers and took his students out into the courtyards "all the time" (Claire). He also reported to use the big open classroom spaces (Figure 29) that are part of every classroom wing "to switch it up."

If I notice my students are getting sluggish or dragging their feet or they just get a little burned out, (...) The other time I use it is for presentations. I find that students, if I change the environment right before the presentation, they feel better

about presenting (...). If I have a student do a presentation in this classroom with his or her classmates that are always in the exact same place, they tend to be much more nervous than if I take them out to this open area and I have them do presentations out there. I'm not sure why that is, but I have had better results having presentations out there than I have having them in here. That may be just the change in environment that gets them on their toes a little, makes them a little more focused on the presentation and less being so self-conscious. I'm not sure, but yeah, it's cool.

During the pilot study at Sendak Middle, I got into the habit of asking my adult participants what kind of changes, concerning the breaks at school, student behavior during these times, and the associated spaces, they would like to see, if things would be up to them and I continued this practice during my time at Orbit High. Most teachers responded along the following lines. They wanted to see the schedule adjusted to a real block schedule to minimize the break times and in extension minimize the opportunities for students to get in trouble (Irby, 2014). They wanted to see their students be more studious and go to their teachers' classroom right away in the morning to receive help with their homework. Adults who indicated that they became teachers because school had always been a happy place for them wanted students to be more respectful, because student behavior overall had clearly declined and because students these days appeared less responsible. Mr. Willson being an exception to this pattern said: "If I can do one thing today (...) If I could, I would give them access to (the courtyards)."

Fence. Relatively late in the planning process a fence was added to the school design and later built. It closes off all the courtyard spaces which were originally envisioned to remain open towards the rest of the site. At some point stakeholders at school and on the school district level felt the strong need to create a more secure exterior environment for the school users. The fence was added to create a barrier between the exterior school spaces and the spaces occupied by parking lots which are openly



Figure 29. Open classroom space where the “magic kids” met every morning



Figure 30. Think Tank

accessible to the public. Those gates were supposed to be the “secure mechanism for the facility” which should have allowed the doors that connect the courtyards with the hallway spaces of the classroom wings to remain unlocked. “Just as you have access from one space to another above where it happens to be indoor space” (Jon Simon). While the architect argued that the courtyards need to be understood as “outdoor hallways” between the classroom wings on the lower level, secured through the fence, the adults at school found it necessary to restrict the entry points to the courtyards from the hallways as well. Gatekeeping turned into teachers’ responsibilities who received keys. Additionally, some issues with the complex key system during the building’s first year of operation left many teachers and their students worrying that they might not be able to get back into the building after they had spent time outside.

When Jon Simon inquired why the doors on both sides of the courtyard need to be locked, one of the resource officers explained that otherwise they would not know how to keep the students from leaving once they were outside the building. A few years later, when I talked to the architect, he still expressed having a hard time understanding the argument because the building has many more exit doors through which students could have left whenever they decided to.

Orbit High’s campus was closed in the double sense: closed as in fenced in, but students were also not allowed to leave during the school day. While I was usually the one who asked questions about the courtyards, the students took this opportunity to talk about the fence. They all hated it and claimed it made the school look like a prison. “The prison gates, we call those the prison gates. They are so ugly they make me sad” (Claire) (Figure 31).



Figure 31. Entry through the fence from the bus stop



Figure 32. Closing the gates, “a full time job”

The teenagers strongly suspected that their purpose was to keep them from leaving the premises. “They put these gates up so you couldn’t escape” (Alaia). But they were also aware how hard it is to keep adolescent students at school against their will. “(T)hese fences are very jumpable. I’ve heard that kids have been able to jump over them, so they don’t do much anyway. I don’t even know if they always lock the prison gates” (Colby). To be absolutely clear, nobody needed to climb or jump the fence at Orbit High when they wanted to leave. The “prison gates” function as exit doors and can be opened from the inside at any time. The same is true for the roughly 200 other exit doors the school building has, but this is how the fence and the gates were perceived by the teenagers that I interviewed.

Concerns related to the fence that affected the everyday routine at school for Mr. Plodder, the district’s director of safety and security, was twofold. He worried about students’ attendance and about “people trickling in that don’t belong here.” Part of his responsibilities was to tend to students who decided to leave early or during lunch to skip school. His office doubled as location for the three-screen-review-station of the security camera footage and I remember him leaving during the day I spent reviewing the 189 cameras to pick up a student “lunch skipper” from McDonald’s to accompany him back to school. There was also an attendance officer whose full-time job was to promote students’ attendance. He spent a lot of time sitting at a high table top in the green social porch on the third floor across from the principal’s office for the 9th and 10th graders (Figure 3). Upper classmen with free hours served as “runners” for the office. Their job was to pull younger students out of their classrooms for meetings with him, during which he reviewed their attendance records and inquired about past absences. He first insured

them that he never was a model student either and then tried to motivate them to ask their parents or guardians to write a late note to excuse their absences if they were caused by excusable reasons such as illness for example. From there he moved on to encourage them to avoid further absences before he released them back to their instructions. Many people were invested in the process of getting kids to school and keeping them there.

It lays with a whole bunch of people in this building, principal, secretaries. There's an attendance window up here that has a young lady that does attendance. We have several people in the building that handle attendance, and trying to keep kids in school and so forth. (The attendance officer) is just one of the people because there's several (Mr. Plodder).

The resource officers, administrators, and teachers felt like they needed the closed campus policy to keep the tardies down and the attendance up. They were afraid that students could decide to not come back after lunch if they were allowed to leave. Dr. Spacely explained to me that Orbit High was the biggest school in its district and therefore, after the previous school year, which was the first year of operations in the new building, under substantial pressure to achieve attendance goals that were quantified at ninety percent of the students attending during ninety percent of the school time.

But, the purpose of the fence was, of course, also to keep potential threats out of the building and to ensure that visitors were channeled through two or three well-secured entrances to "keep tabs on who's in the building." Mr. Plodder spent substantial time in the courtyards closing the gates. He refers to this task alone as a "full-time job" (Figure 32).

I called this section *Closed Space*, because the library, the courtyards, and some other additional spaces I have not talked about, such as the think tanks (Figure 30), for example, all had gatekeepers who needed to grant students access. To what degree

student access was regulated or denied by adults varied from space to space but the consequences were very similar for all of them. These spaces became unused or empty space. Since all these areas were designed with great attention to support learning, I consider the empty ones as lost opportunities. Hopefully in the future, Orbit High's adults will start to explore all the spaces, experiment with the flexible features of the school environment, and allow their students to experience more of these spaces designed for the future. In contrast to these empty spaces, there are some spatially dense areas which also deserve attention.

Crowded Space: Sucks

Crowding is a complex, multidimensional concept. If density is “a mathematical measure of the number of people in a given space,” crowding is “the perceived judgement of excessive density” (C. S. Weinstein, 1979 referring to a distinction Stokol made). But, many other differentiations of related terms have been made and many social reactions to crowding have been studied for children of a variety of ages. The results remain less consistent than convenient and the relationships between the involved social and physical aspects of crowded environments cannot be considered straightforward. “Nonetheless, the evidence is sufficient to suggest a number of undesirable reactions, such as dissatisfaction, nervousness, less social interaction, and increased aggression” (C. S. Weinstein, 1979, p. 588). The concept has remained relevant for the investigation of schools since Carol Weinstein in 1979 concluded her section on crowding as part of a review of the research on *The Physical Environment of the School*. Researchers have not stopped being interested, never felt as if they had sufficiently

understood crowding, and therefore have continued to study related phenomena (Cash et al., 2015; L. E. Maxwell, 2003; Tanner, 2000).

During the research design of this project, crowding did not yet appear crucially relevant for my study of *Social Space* at school. However, it does now, because students as well as adults kept bringing it up, which suggests that *Crowded Space* is a relevant classification for the spaces between classrooms. Adolescent school users were “annoyed” and “irritated” by the combination of tight schedules and crowded hallways: “Time is so short, and the hallway is just so congested” (Colby). “There is so many people on the second floor. It freaks me out” (Alaia). Many tried to avoid the crowded main staircase during passing: “I go in the back stairs. (...) It’s less crowded” (Claire). Even students who were regular *Hangers* at the busy social epicenter tried to avoid the lunchroom as a space to eat: “Yesterday, usually (...) I get food and then I have friends on the third floor that I meet up with. I just take the food back up there, and then we just talk up there because it’s so busy and so noisy in the lunchroom. We just find places” (Diego). Adults worried about crowded school environments in general. “(A)nytime you get a lot of kids in one particular space, it can be problematic. (...) (W)hen you have 800 kids in one area, (...) during lunch time (...) is the most chance for conflict” (Mr. Cogswell).

When students at Orbit High used the term *Crowded Space* they usually wanted to share one of two thoughts, but in either case they went on to describe unpleasant experiences during the lunch break or during passing. First, several students reported feeling rushed by the schedule and obstructed by *Crowded Space*, (or more accurately, by all the people that make space feel crowded) from engaging in behavior that was

expected from them by some expression of the *Institutional Order*. Second, many explained tactics on how they handled crowded environments in which they were needed to function or how they succeeded to avoid *Crowded Space*.

Prime locations for *Crowded Space* were the lunchroom, hallways in general, and the main open staircase. Crowding in the lunchroom happened, as one would expect, during the lunch break while crowding in the hallways and on the main open staircase occurred predominantly during passing times.

Lunch was a non-instructional time at Orbit High that many students associated with *Crowded Space*. Students' social lunch experience was afforded by the quality of the lunchroom space, which was spacious and sunny (Figure 33) and at the same time strongly structured by the schedule. The modified block schedule (Figure 34) was complex because only Wednesdays and Thursdays were actually on a block schedule, where during one of these days one half of the classes and on the next day the remaining classes were held.

Schedules on Mondays and Fridays were identical to each other, using much shorter class periods, which created enough room to teach seven topics plus transitions on the same day. Tuesdays were very similar to Mondays and Fridays but without the transition class (another term commonly used to refer to transition is study hall). Wednesdays were yet different because, while lunch was roughly at the same time, it interrupted the fifth hour instead of the fourth hour which was the case during all other days of the week. Lunch was separated into four lunch periods. Each was 27 minutes long and overlapped five minutes with the following lunch period. First lunch was at the beginning of the hour, so instructions started 27 minutes after the "start" of the hour.



Figure 33. Lunchroom at 7:41 AM

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|--|--|---|
| 1st Hour 8:30-9:16 (:46) | 1st Hour 8:30-9:21 (:51) | 1st Hour 8:30-10:06 (:96) | 2nd Hour 8:30-10:12 (:102) | 1st Hour 8:30-9:16 (:46) |
| 2nd Hour 9:21-10:07 (:46) | 2nd Hour 9:26-10:18 (:52) | | | 2nd Hour 9:21-10:07 (:46) |
| 3rd Hour 10:12-10:58 (:46) | 3rd Hour 10:23-11:15 (:52) | 3rd Hour 10:11-11:47 (:96) | TRANSITIONS 10:17-11:47 (:90) | 3rd Hour 10:12-10:58 (:46) |
| TRANSITIONS 11:03-11:30 (:27) | | | | TRANSITIONS 11:03-11:30 (:27) |
| 4th Hour 11:35-1:05 (:56) 4 Lunches: 11:32-11:50 11:54-12:21 12:16-12:43 12:38-1:05 | 4th Hour 11:20-12:50 (:56) 4 Lunches: 11:17-11:44 11:39-12:06 12:01-12:28 12:23-12:50 | 5th Hour 11:52-2:00 (:96) 4 Lunches: 11:49-12:16 12:11-12:38 12:33-1:00 12:55-1:22 | 4th Hour 11:52-2:00 (:96) 4 Lunches: 11:49-12:16 12:11-12:38 12:33-1:00 12:55-1:22 | 4th Hour 11:35-1:05 (:56) 4 Lunches: 11:32-11:50 11:54-12:21 12:16-12:43 12:38-1:05 |
| 5th Hour 1:10-1:58 (:48) | 5th Hour 12:55-1:47 (:52) | | | 5th Hour 1:10-1:58 (:48) |
| 6th Hour 2:01-2:48 (:47) | 6th Hour 1:52-2:44 (:52) | 7th Hour 2:05-3:40 (:95) | 6th Hour 2:05-3:40 (:95) | 6th Hour 2:01-2:48 (:47) |
| 7th Hour 2:53-3:40 (:47) | 7th Hour 2:49-3:40 (:51) | | | 7th Hour 2:53-3:40 (:47) |

Revised 6/17/14

Figure 34. Modified block schedule

Second and third lunch interrupted the lunch hour about halfway through, which left some time for instructions on the same subject before and some time for instructions after lunch. Fourth lunch was at the end of that hour, which meant that instructions ended 27 minutes before the end of the hour to leave enough time for the last lunch period. This sounds very complicated and it is. I suspect a long list of factors had affected the schedule before this particular schedule seemed like a good way to organize the school week at Orbit High. I also think that one of them was probably the idea that several lunch periods would make the lunchroom considerably less crowded than a single one, which is how Orbit High had organized their lunch period in the old building.

The lunchroom is spacious and beautiful with lots of natural light and some variations of furniture layouts in addition to the big round tables with eight stools that are attached to the table. Many students prefer to use the more intimate smaller gathering spaces for lunch that this unusual school building has to offer.

Students who were part of the show choir met in the lobby of the performing arts wing, or in the dark blue social porch closest to the theater wing on the third level, to eat. They claimed that the lunchroom was too crowded, too loud, and too rowdy for them. Someone mentioned food fights, which I never actually saw happen during my time at Orbit High. All social porches belonged to regular groups of lunch hangers. Some think tanks were used by small regular lunch groups, although most think tanks need to be understood as *Closed Space* with adult gatekeepers. Some students who had teaching assistant jobs, like Danielle, Bethany, and a third senior girl, all of whom were white, had established ownership of little areas that they were able to carve out of their teachers'

laboratories or classrooms. They felt privileged to have this somewhat private lunch space into which they invited their closest friends to join them.

Anything that is peaceful. (...) The school is so big and there's so many people, it's really nice to have places to go that there aren't many people. Even though it's a place that many people like, like the coffee shop or think tanks or anything like that, they are pretty private. They get quiet. That's why we like it in here too because it's kind of an escape from the crazy school (Bethany).

Here they ate, talked, looked at prom dresses on their laptops, and listened to music during lunch.

The most common alternative to the lunchroom, which was perceived as equally crowded, is Orbit Alley. It is located on the lower level, directly underneath the lunchroom and connected to it through a big cutout in the floor between the first and second floor. The airspace doubles as location for the big open staircase (Figure 35). Orbit Alley was designed and functioned as an extension of the lunchroom. A coffee shop, a bar selling snow cones, and a school store, all of which were run by students, are located along the parameter of Orbit Alley. It has the feel of a high-end mall food court, the looks of a modern adaptation of a diner, or the vibe of a big café (Figure 36). Many students I met really liked it, but space was limited and usually occupied by teenagers who met one of two criteria. Either the classroom they attended during the hour prior to lunch was in close proximity to Orbit Alley and therefore they were able to get there very quickly to claim one of the booths or a table, like Annie, or they were part of the cool kids crowd.

The benches of the booths, here, have high backs that create small spaces between them that leave visual connections to the bigger space and the student life within, but also a degree of separation and privacy for its occupants (Figure 37). I can report that it was



Figure 35. Big open staircase connecting all three school levels

very comfortable to sit there alone (Figure 38), which I did regularly, or with one other person (the principal, for example) who met me in one of the booths to explain the schedule to me. The booths provided enough space for cliques up to eight students and

were regularly expanded to fit ten friends by adding a chair on either end. The chairs were all loose on this level so they were easily moved.

The high round tables, arranged along the window to the adjacent courtyard and equipped with barstools, also offered opportunities for varying group sizes. Usually small cliques of three or four students would use them for lunch. But, toward the end of each lunch period other members of their crowd started to stop by to chat for a moment. They stood behind or between the seated students, but shared the same eye level (Figure 39).

The long rectangular tables with the conventional dining table height, on the other hand, were often shared by two cliques of students with each group arranged around one end.

The coffee shop was probably *the* place to be. It belonged to the students who worked there as part of a business class and their friends. Mr. Ross, who I considered to be an expert for the space because his classroom was adjacent to it and because he helped to run the coffee shop, described it like this:

It's a little cliquey there, too. There's usually two big round tables that are full of seniors. Maybe popular juniors, not just athletes but kind of the cool kids, I guess, for a lack of a better term. (...) they are usually the ones in control of the music that's on the Apple TV and stuff like that. (...) There is still definitely another group. (...) They moved their table all the way over to, kind of like the culinary arts. (...) That's their table, I would say and no one is going to take that.

In contrast to some of the students I interviewed, I consider the lunchroom and Orbit Alley during lunch lively, loud and busy, but not crowded. At the same time, I am certain that the social environment is very complex to negotiate and full of environmental stress factors for insiders. The most important point is that the boundaries between *Social Space*, full of lively interaction between teenagers, and *Crowded Space*, that "sucks," are blurry. *Loners*, *Hangers*, and *Floaters* would probably all draw them differently.



Figure 36. Orbit Alley



Figure 37. Booths in Orbit Alley during lunch



Figure 38. Studying alone



Figure 39. High round tables in Orbit Alley during lunch

Commonly understood by all of them as *Crowded Space* that “sucks” was the lunch line that formed in the southeast corner of the lunchroom (Figure 40). I selected my student participants because they were very different from each other, but all of them agreed that time spent in the lunch line was unpleasant. They shared two strategies to address the problem with me. Either they avoided the line by using different and quieter spaces elsewhere for the lunch break or they tried to meet their friends first to stand in line together. Texting was a popular tool to support the task. The daily experience of strange comments and random conversations of unfamiliar peers that stand too close seemed to bother them a lot less in the company of friends. “What I do is, I normally wait for couple of my friends (...) that I can sit in line with because the line is huge. If you know nobody, you feel very uncomfortable because you have all types of different people talking about something. Like, huh, I never liked that” (Jarmal).

The first lunch started usually right after the special education students had their food and occupied some of the tables right next to the room in which the food needed to be picked up. A big crowded line formed fast in front of the double doors through which students needed to enter and along the edge created by the bar that also separates the hallway zone from the table zone on the west side of the cafeteria (Figure 41). Cords, similar to the cords in front of ticket offices in major museums, staked out the acceptable width for the lunch line. The line was about five students wide and reached beyond the bar and the open airspace that connects all three school levels at this central point (Figure 35). There seemed to be a lot more boys than girls in this line. The students were standing closely together. Some just looked ahead, some talked in friendship pairs, some in cliques. A few of the students who arrived rather late walked on the cafeteria side of the

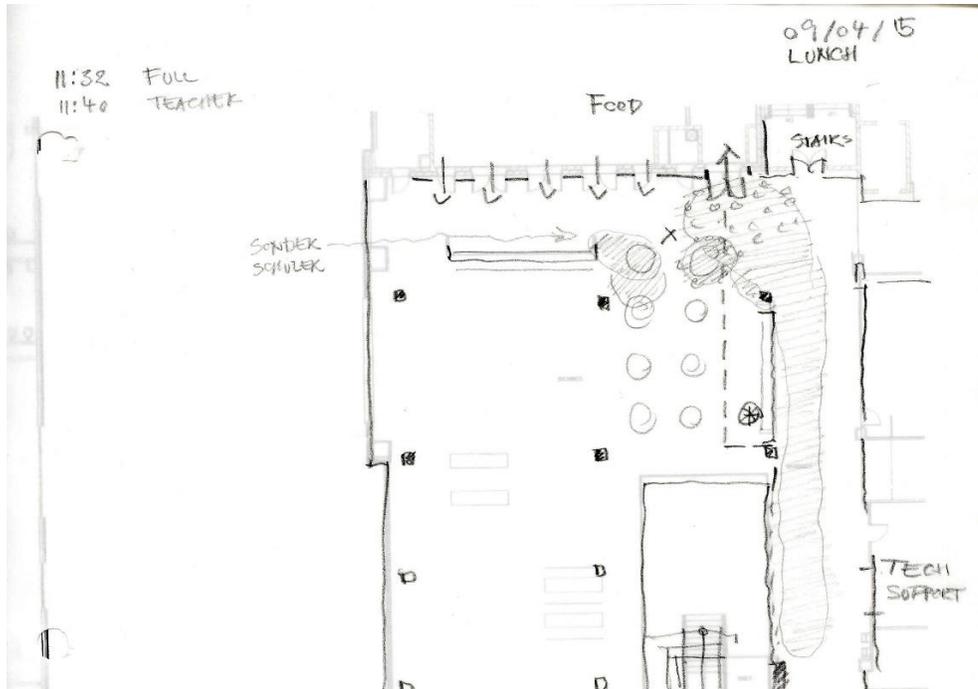


Figure 40. Lunch line sketch



Figure 41. Lunch line

line towards the front and stepped over the cord to meet their friends or simply tried to cut in line. Colonel Jasper was always right there to supervise and regulate the student behavior at the lunch line in his extremely friendly way that at the same time did not leave much room for interpretation. It took usually only about ten minutes until the line was dissolved. The first lunch period was like all the others, 27 minutes long, which left about 17 minutes for the students toward the end of that line to get food, find their table, eat, discard the tray and dishes, and get back to their classroom. During the first lunch, the lunchroom and Orbit Alley were always very busy, all the tables were taken. There are a few additional areas at the parameters of the cafeteria that were used by students during the first lunch as well, the windowsills at the northeast corner of the cafeteria and the benches along the north façade of the skybridge. Toward the end of each lunch period, the epicenter in front of the open staircase saw some regular visitors. Single students started to stand there and look into their phones until they were eventually joined by another student. These friendship pairs stood and talked until they were eventually joined by more students. Then cliques got up from their tables cleared their trays away and stopped there to stand for a while and talk some more. Eventually they kissed or hugged or said good-bye and disappeared into different directions.

Second lunch was less busy. The students trickled in without creating a big crowded line at the entry to the food distribution space. About a third of the tables remained empty and the overflow zones on the skybridge and the windowsills remained unused. The effect of students, meeting at the epicenter during the last few minutes of their lunchbreak, however, was still detectable. The third and fourth lunch periods were busier again, with longer lines and bigger groups of students at the beginning that

appeared to have considerably more boys than girls. The overflow zones were not in use. Both of these lunch periods ended with substantial gatherings at the social epicenter again.

I could certainly have described everyday life at the epicenter as part of this section on *Crowded Space* and a different scholar with a different perspective might have decided to do just that. Instead, I made the epicenter focus of the section on *Social Space*. Talking about the epicenter here, again, would be somewhat redundant. If I had decided to describe the epicenter as *Crowded Space*, though, I would have done it from the perspective of students who are not part of the hangout crowds there and, therefore, did not experience its social benefits. Instead, these students thought of the epicenter as a roadblock on their way to class. There is a bigger point to be made here that might be true for *Crowded Space* at school more generally. Students who chose to be part of *Crowded Space* with the intent to engage in meaningful social interaction were better prepared for the associated “environmental stress” (Ahrentzen et al., 1984; Evans & Cohen, 1987). Students who chose more intimate spaces to meet their friends thought of the teenagers occupying *Crowded Space* as the cause for the environmental stress they experienced, because there were no social benefits to counteract the stress for them. The *Institutional Order* in form of tight schedules and strict tardy policies both fostered *Crowded Space* and the understanding of the behavior of students who were more resilient to the environmental stress associated with *Crowded Space* as the cause of potential social problems.

Cash and colleagues analyzed data from 37 elementary schools to understand the effects density had on student behavior in the spaces between classrooms. They

concluded that the association between density and rule violations is not straightforward, but also that a perception of high-density areas as dangerous because of the opportunity to commit rule violations begins in elementary school. Adults at school observed higher rates of school rule violations in areas with high student density but also saw less violations if they believed that a good supervision system was in place (Cash et al., 2015).

The effects that crowding of children and adolescents has on their ability to engage in cooperative behavior and the study of aggressive behavior of children under crowded conditions had been a popular topic of investigation in the early days of environment and behavior research (Aiello et al., 1979). Initially, findings that were considered inconsistent and important differentiations between “social density,” the number of people attending an institutions, and “spatial density,” the amount of space available to each person in a behavioral setting, were considered insufficiently recognized (Barker & Gump, 1964). Later, Carol Weinstein stressed the different social conditions studies, conducted in laboratory settings, and studies of authentic socio-physical environments were created. The inconsistent findings, therefore, were not surprising (C. S. Weinstein, 1979). In the 1980s, Glen Earthman declared the need to understand the effects different aspects of the physical school environment, such as crowding, might have on students’ attitude and behavior, again (Earthman, 1986). Despite his call for action, the following two decades seemed to have failed to produce much research on crowding and its potential to promote aggressive behavior. The publications I did find focused on classroom environments rather than the not non-instructional spaces (Tanner, 2000). The most recent research pointed toward the complexity of an array of contextual

factors between different non-classroom settings within the same school for the different forms of rule breaking (Cash et al., 2015). So, while crowding still does not lead in a straight causal line towards aggressive behavior in children or teenagers, there are many social scientists, educators, and students who suspect connections.

Some students did suggest that fights happened in spaces that needed to be considered lively social centers and *Crowded Space* at the same time, and my very limited experience with physical fights supports this assessment. Diego was a regular *Hanger* at the epicenter where he always met his best friend Jarmal in the morning. Together they floated to other well-attended lobby areas at Orbit High, where they met their clique of friends associated with the hip-hop club. Diego was also the center of attention for a small clique of girls who regularly gathered around him after lunch. All the spaces Diego used to hang were lively social centers. Therefore, he must be considered an expert. “Usually, fights, for some reason, always happen in essential spots where you always are” (Diego). Jack Randall, the recent alumni of Orbit High and intern in the IT department, which is located adjacent to the lunch line and in close proximity to the epicenter, suspected a causal relationship between *Crowded Space* and physical fights but also saw an upside.

This area (the epicenter and the space of the lunch line) to me is (...) the main vein through the whole school. I don't know, I could see how it could cause problems, because a lot of fights that have gone on I think they've just blatantly happened right out here in the open, which is why they're dispersed so quickly. I like it. I like the big open feel to it.

While Jack Randall was the only person who used the word “cause” to reference a possible connection between *Crowded Space* and fights, several students and adults did mention *Crowded Space* as the location of physical fights. Whatever the connections

between *Crowded Space* and school fights might have been, the students at Orbit High had a much clearer sense and stronger opinion about the power their *Digital Space* had to fuel social conflicts in front of a big audience over time, until they culminated in physically aggressive behavior.

There is another connection between fights and crowding that also left much stronger traces in the interview data; fights did not only happen in *Crowded Space* they also drew crowds. “It’s crowded everywhere. Wherever the fight is that’s where everybody goes” (Diego). “Basically, when you see a crowd in the hallway, it’s a fight” (Jarmal). “(E)veryone just runs to it so you can tell what happens by where people are going” (Katie) and “(t)he others are gathering around to watch” (Mr. Plodder).

Passing. Like in many secondary schools in the US, the institutional routine was to release more than 2000 teenagers at the same time into the hallways with the expectation that they would use the regularly scheduled five minute breaks until the next class period started to walk directly to their next classroom location and get ready for the new subject. Everyone who really would want to understand what was going on in the hallways during passing at Orbit High, and who or what caused the unpleasant crowding where, would have to untangle the relationships between the aspects of the social and the physical school environment governed by the rules the *Institutional Order* enforced. As for the socio-physical environment, we have “pretty small hallways compared to all the students that just flood it (the hallways) when class is over” (Brody). The hallways actually appeared rather wide (Figure 42), compared to most schools I have spent time in, until I saw them during passing. Then, the central “circulation spine” was full of students, most of whom were moving fast. They separated themselves into two groups.



Figure 42. Main hallway during class time

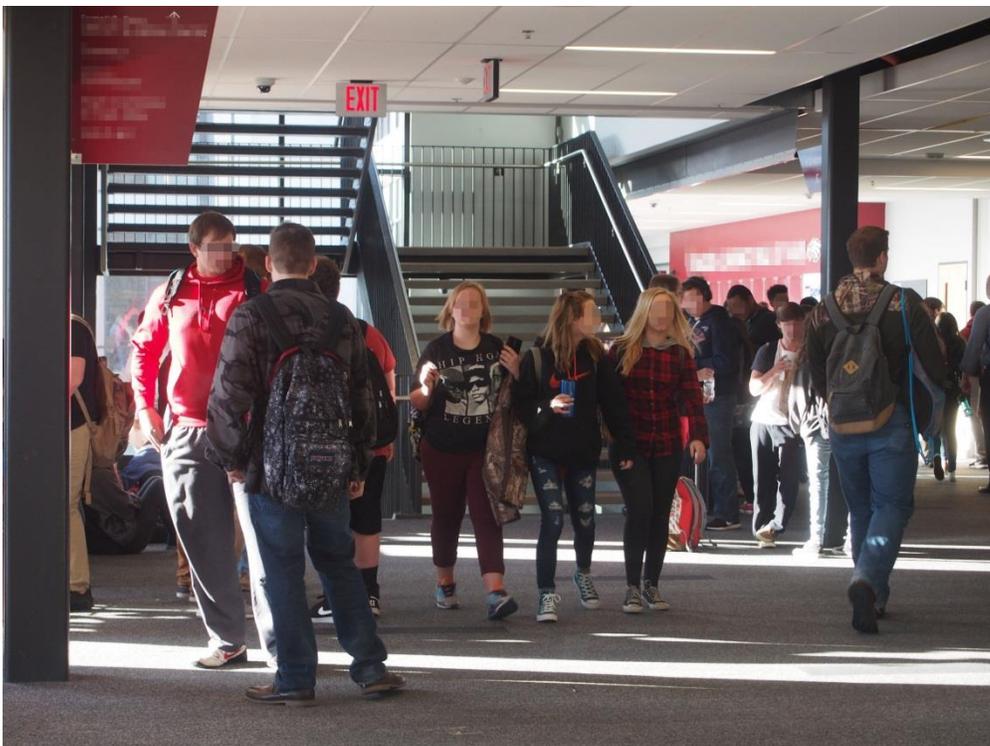


Figure 43. Main hallway with hangers (left) and floaters (center)

The “purposeful collisions” between the “circulation spine” (Jon Simon) and the smaller hallways at the center of each classroom wing, which I call social porches, did what they were designed to do. Students who usually would be unlikely to meet during the school day because of their different schedules and class selections did encounter each other by chance or because experience with their schedules had informed them about likely times and spaces where they could meet during passing (in the hallway intersections during the times between classes) and talk for a moment. Only the students did not have enough time to step into them and out of the busy hallways to sit down like they tended to do during lunch. Instead they hung around at the center of these intersections. “(T)hey just stand there and they’re talking, they are not trying to get to class. They’re just standing, talking, hanging out with their friends, but they don’t notice it. This is just their spot to hang out, so they don’t notice people trying to get around them” (Brad). *Loners* who felt most comfortable alone or in the presence of adults in classrooms perceived the hall hangers as inappropriately social and suggested they caused others to have problems at school: “Sometimes there’s no way around them so they cause you to be late” (Annie). Alaia was of mixed race, a *Floater*, trying to negotiate both her role in more than one group and the racial divisions between them. She suffered from ADHD and anxiety, did not have much patience for the peers who were “socializing right in the middle of the hallway,” and had strong advice to offer: “I believe you should be going to your class right now instead of talking to your friend or making out with your girlfriend or boyfriend.” Brianna, a black girl who was considered to have “issues” but tried to deliver on her promises to “do better,” was not happy with couples hugging and kissing in the middle of the hallway either and thought of them as too self-centered. She

felt encumbered in her efforts to comply with the rules: “People, I am trying to get to class. (...) If people were more focused on what was going on around them, and just not so focused on them, then people can get where they need to go, and people can take care of things better.”

Several students told me that the time allocated for travel through the school building was tight enough that they did not risk going to the bathroom during passing, but rather waited until class time had started to avoid being tardy. Once instructions started they were at more peace to visit the bathroom because they could receive a hall pass from their teacher, which allowed them to justify their presence in the hallway during times of instructions.

The main open staircase also had a crowding problem during passing. It looked wide and generously dimensioned until it was tightly packed with students during these five-minute breaks (Figure 44). “There’s a lot of them (...) a lot of people on them. This is the worst staircase” (Claire). During my first few visits, I thought that the staircase might be too narrow to handle the heavy traffic during passing. But after I had spent considerable time in one of the booths on the lowest level across from the coffee shop, observing the staircase between classes, I realized that it could be twice as wide and still would remain crowded as long as all these students only had five minutes to change levels here. “I have to go down those stairs to get to that class because it is in Orbit Alley, so I know I’m going to have to rush and go a little bit faster, because I have to beat the traffic down there, or you have to swerve your way through, squeeze through traffic” (Brad). I have no way of knowing how many of the students on the main staircase had to



Figure 44. Main open staircase during passing

do the *up-over-and-down-again* I talked about in the section on *Closed Space*. But for someone with access to students' schedules, it should not be too hard to find out how many students would not have had to use this staircase during the passing periods if they could have walked through the courtyards instead. As the school year progressed, more

students found the “little shortcuts and which way to go to avoid those big crowds, because typically, they always are in the same spots (...) after every hour” (Brad).

Crowded Space sucks.

There is one other quality of the physical school environment that people at Orbit High felt strongly enough about to make it the topic of conversation with me without having been prompted by an interview question. Just like crowding, it could have been on my research agenda from the start, because it is one of the buildings’ most obvious characteristics, transparency.

Transparent Space: Mixed Messages

The academic conversation provides us with a range of conflicting understandings of the meaning and the opportunities transparent buildings offer their users (Jarosinski, 2002). Interpretations reach from a simple transparency = democracy equation, toward understandings that emphasize the potential for surveillance and control, especially in institutional buildings.

The design team of Orbit High School’s architecture targeted particular opportunities the transparent building qualities could afford and made them part of the public transcript of the design intent. First was the idea to use transparency, articulated by numerous interior windows and window walls, to create a school environment that displays available educational opportunities to its students. The designers expressed the hope that views into interesting learning environments could inspire students to entertain previously unexplored educational opportunities. But my adult participants did not volunteer information about their experiences with educational affordance of transparency. Their sensitivities concerning the effects of transparency at school seemed

to evolve around affordances for supervision, which they understand as the foundation of a safe school.

Safe space. Second was the belief that a transparent school building could help to stimulate a safe school environment. Transparency was used to create visual connections between interior spaces for administrators and the adjacent hallway lobby on the second floor for example (Figure 45). The glass wall separating both spaces allows for the casual supervision of the adjacent hallway, which was one of the social centers in the mornings and after school. Administrators were aware and appreciative of the feature. “This main hallway out here has been most difficult to control but the best part about it is visually you can watch it (from here) and at least see that it’s safe, see that it’s secure (...) because of our glass front I can also monitor downstairs from above” (Mr. Cogswell). Mr. Ross felt enabled by the transparent connections between his classroom and the coffee shop on the lower school level, to have a lunch break with his peers while staying in touch with the extremely popular space for students’ social life at school. “Then at lunch I go and eat with the Business Department (...) the beauty is we sit in the classroom where we can see the coffee shop (...) and we can all see what’s going on” (Figure 46). I was reminded of Jane Jacobs’ descriptions of the “eyes on the street” that made great American cities safe while listening to Mr. Ross (Jacobs, 1961).

Similar features, including big sliding “barn doors” that connect all classrooms with the adjacent hallways, are implemented throughout the building and seemed to work as envisioned. The architect not only designed the environment to offer informal opportunities for supervision to support a safe school environment, but also believed that it can change students’ mindsets and will encourage them to adjust their peer culture at



Figure 45. Interior window wall between one assistant principal's office suite and the hallway lobby on the second floor



Figure 46. Transparent connection between coffee shop and classroom

school. “(T)here are these grand views in and throughout and outside the facility. That was important to us because, one, security. With all the glass (...) students feel like at any point, wherever they are in the facility someone could be watching them. That plays in the overall psyche of the students and their behavior and the ways they interact with each other” (Jon Simon). The architect’s remarks recalls Foucault’s description of the affordances Bentham’s panopticon offered the “overseer’s gaze” and their expected effect of compliant behavior by institutionalized populations (Foucault, 1980, p. 147). According to Foucault, immersing people in “a field of total visibility prevents even the possibility of wrongdoing” (Foucault, 1980, p. 153). Preventing even the possibility of wrongdoing of students in high schools is close to what I think the American school culture and local adult representatives would consider the ultimate goal. “(T)he less opportunity kids have to, if you will, deviate in any affair with making a good choice or a bad choice” (Mr. Cogswell), the better.

At closer inspection, the attempt to use Bentham’s device as an analogy for Orbit High’s transparent school building must fail. The panopticon relies on a backlit alignment of windows to create one way transparency (windows that are transparent in one direction, while remaining opaque in the other) to create the “quintessential model of modern discipline” (Hill, 2006) in which inmates literally never know if someone is watching. Orbit High on the other hand has a lot of interior and exterior windows that allow for visual connection between different building areas, which they offer in both direction. The regular *Hangers* who had “their spots” in the little lobby across from Mr. Cogswell’s office suite, in which he held meetings with his staff, had equal opportunity to

be informed about what was going on in there. Anybody who decided to put their feet on the coffee table could have been easily identified from the hallway.

Another facet of the transparency that Jon Simon pointed out is that it turns the school into a public building. The transparent architectural qualities make it hard to approach the building without being noticed in advance which enforced his understanding that transparency promotes *Safe Space* further. Interestingly some of my participants prescribed to diametric readings of transparency.

Anxious space. Ms. Reed, the librarian, Alaia, and Brad expressed fear in connection with glass as prominent building material and the transparent features of the architecture and suggested that some of their friends felt similar. Brad worried about what would happen to the building, largely made out of glass, in case of a natural disaster like the one that had destroyed the old school. Alaia and Ms. Reed recalled a shooter alert they had experienced in the previous year which made them wish for bulletproof glass and more opaque surfaces to conceal themselves from potential intruders. There is another disconnected piece that I suspect belongs in this small but important section on *Anxious Space* as part of *Transparent Space*. Many teachers decorated their interior and exterior windows with curtains and examples of their students' work and some covered them up with colored paper. One teacher at Orbit High decided to cover every inch of his north facing classroom window with aluminum foil (Figure 46).

It was first and foremost adults who shared their understandings of the transparent qualities of the building as fostering *Safe Space*. Brad knew that people would be safe in the new building's shelter space but worried about the brand new school in case of a disaster. I am almost certain that Alaia and Ms. Reed had informed each other's reactions

to the traumatic incident because they had experienced it together and I did not try to find out which teacher it was who felt more comfortable teaching behind aluminum foil than next to a large window. Most important to this project are, of course, the student perspectives which were much more pronounced on the potential of transparency to support rubbernecking.

Gawking space. “It happens sometimes (fights between students), but when it does everybody wants to see it. Like this even, the windows right here, people even line up on the windows just to see it“ (Diego). The window wall that separates the third floor hallway from the airspace of the lunchroom (Figure 48) was the best spot to get a good look at fights in the lunchroom.

Well, the main staircase, the little thing that looks over that hallway in the cafeteria (means lunchroom), I was standing up there and there was a bunch of people crowded down there. I was like, “I wonder what’s going on.” So I look down there. It was between two girls (she moves on to describe the fight between a white and a black girl in detail). I saw the fight, it was pretty interesting (Annie).

From there the things that were observed in *Gawking Space* rapidly made their way into *Digital Space* while increasing the size of the audience substantially. “(A)lmost instantly people are recording it, taking pictures of it and posting it on Facebook, tagging their friends in it – saying, “Hey look at this” (...) Most of these people have lots of friends on Facebook so they see it instantly it really spreads like that” (Brody).

Stuff definitely spreads around faster with the internet access at school. I know Facebook’s really, really popular about posting videos after fights, for some reason, so a lot of people see that. Then about an hour or two, it’ll get taken down because the principal will see it, that kid will be brought into the office, getting in trouble (Brad).

But teenage gawkers are not the only stakeholders who recorded and preserved unacceptable behavior at Orbit High for later review. The 189 security cameras all



Figure 47. Classroom window covered with aluminum foil

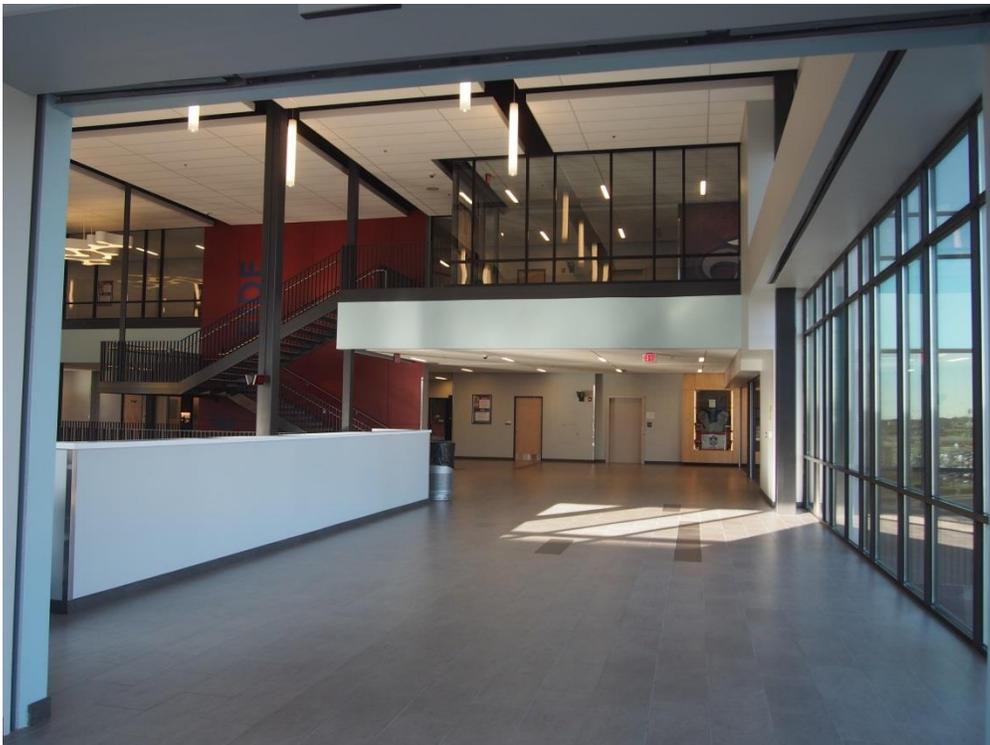


Figure 48. Window wall that separates the third floor hallway from the air space of the lunchroom

located in the spaces between classrooms are equipped with motion sensors and started the surveillance as soon as there was social life to be recorded.

Surveilled space. Unlike the windows and transparent walls at Orbit High, security cameras created transparency in only one direction, while it remained unclear to the students if and when someone was actually watching. They were aware of the gaze though. I overheard and recorded a remark by a black girl, a regular *Hanger* at the orange social porch. She walked with two of her friends toward the skybridge on her way to the gym and said, “I am not dumb, there are cameras.” I remember a similar moment with one of the predominantly white male magic kids who spent their mornings playing the card game in the green open classroom space in classroom wing E.

The presence of the security cameras had not affected me personally much for a long time. I had started the interview process weeks into my time at Orbit High by conducting student interviews, because they were the most important stakeholders to me and also needed more time to return their consent forms. Therefore, I wanted to have their voices secured before I started to talk to adults, which I knew would be much easier to recruit. Later, during the adult interviews I was surprised to learn about the wide range of issues that were addressed by reviewing the security camera footage. When Dr. Spacely allowed me to spend time at the review stations, he also asked me to inform him in case I saw something “bad” happening. But I spent a full school day in Mr. Plodder’s office in front of three screens that were reserved for this task and did not see anything I had not seen before while hanging in the hallways except for the two baton twirlers who practiced their skills in the double high lobby space of the performing arts wing.

Mr. Plodder described his tasks as keeper of the camera records like this:

I am asked to look at all kind of things, from a student that left the building through a door skipping, or during lunch, or during the day sometime. Fights, somebody that said they told the teacher that they went somewhere and the teacher's checking up to see if they really did do what they were supposed to do or not...Did I say fights? Leaving trash at lunch time on tables.

Elke: You will review security cameras for trash that has been left out? Really?

Mr. Plodder: Yes. I know, I am telling you. (...) For example, they don't want the kids to take lunch up to the third floor. When they find trash up there, they want to get with those specific kids. (...) They can go back to those specific kids and say, "Don't do that anymore." That's the kind of stuff they have me doing.

There were several other adults who talked about "spilled fries" in response to my questions about what kind of instances would lead to a review of footage from the security cameras. Colonel Jasper, the JROTC teacher and lunch line supervisor, was one of them. We used to talk regularly in the lunchroom. When the crowded lunch line had dissolved he came over sometimes to find me at my usual spot close to the main staircase from which I could see all three school levels. He strongly believed that teenagers, for their own good, needed to be strictly supervised during the times between classes. The Colonel, however, seemed almost as surprised as I was about the possibilities the security cameras offered the teachers at Orbit High.

I had some kids roaming the hallway. They didn't do anything, but I was concerned that they were going to. They were cutting class, and I had a student I was concerned about (...) I think I asked. That's when I found out that I could. I think I found out the week prior and I'm like, oh boy. That they would actually do that. I am like no kidding.

Different camera views of the same space could be displayed on screen side by side to watch a "hotspot" at school from different perspectives at the same time. There was also an opportunity to save a grouping of cameras in a digital folder to be able to reuse the same settings at a later time. The only folder with a preset camera selection I found contained cameras located in the exit staircases, which are separated from the

hallways by a big set of double doors. Mr. Plodder explained that towards the beginning of the school year they had some issues with students who would “make-out” in there, but in the meantime students had learned that adults were “watching” the exit stairs with the help of the security cameras, which seemed to have solved the problem.

After I had observed all my favorite spots and myself on camera while I reviewed footage from a previous day, things felt differently for a while. When I returned to the hallways the next day to sit like always in one of the booths next to the coffee shop and later on the little soft bench in front of the school store, because I did not like to occupy these most popular student spots during lunch time, I was strangely aware of the cameras’ gaze. I also remember spending time in the orange social porch across from the library (Figure 19) trying to find all the cameras that had a good “look” at my location. When I walked down the third floor hallway I thought about how the review screens could produce images of me walking, from the front and images of me walking from the back, side by side. At the time I did not think to ask students whether someone had shown them footage of themselves, to prove a point perhaps, and how it made them feel.

Another of my favorite spots to hang was the green social porch across from the assistant principals’ office suite (in charge of the freshman and sophomore students) on the third floor (Figure 3) where the attendance officer had started to meet students to discuss their attendance records. Here, I learned from two assistant principals that the reason students at Orbit High were not allowed to wear hats at school had nothing to do with an attempt to suppress opportunities for the display of gang trademark symbols like I had suspected. Instead the problem was that baseball caps and hoodies would make it hard to identify students’ faces in the camera footage.

Then every once in a while we will get an e-mail, “Who is this child?” And they take a still shot of somebody where they weren’t supposed to be at the moment when something happened and we identify the child so they can get the consequences that they would have gotten away with before. We do a lot of that” (Jane Palmer, school psychologist).

Safe Space and *Surveilled Space* could complement each other effectively as Mr. Cogswell described here.

We could use some more manpower but to say we watch an hour and a half worth of video to find out who’s escaping through the halls, that’s not going to happen on a daily basis. But if we see somebody...You could stand up here and you could see somebody walk out. You can also see somebody coming back and then we can pin it down with a time and location and then they can go and find that person on video.

The reason that nine pages into this section on findings about *Transparent Space I* have not reported about natural light or beautiful views, yet, is that, while my participants did not need to be prompted about transparency, these design aspects did usually not come up in our interviews. The only exceptions were Jane Palmer who pointed out that the bright hallways are hard to handle for her special education’s students, Alaia who mentioned problems with glare while using her laptop in the classrooms, and Mr. Willson the “space embracing” Spanish teacher. He shared that the green social porch was his favorite place to watch the sunrise on days he arrived in school early and proudly called his third floor classroom his “penthouse” because of its location on the highest floor, the very large corner window and his view into one of the carefully designed courtyards.

Summary of Findings

I started this chapter on findings with the architectural intent as documented in the public transcript and will revisit it now to structure the summary. Design goals emerged not too long after a traumatic event, a natural disaster that had destroyed Orbit

City's previous high school building. A variety of school stakeholders, including students, participated in the early vision process which was led by the architects. The four core goals for Orbit High's new school building were (1) to promote the spirit of education, (2) to foster connections between students who had chosen different career paths, (3) to provide a flexible school building that could easily respond to changes in the educational needs, and (4) to create a comfortable school for students in a deliberate contrast to the institutional looking school they previously had inhabited.

The first goal, to promote the spirit of education, is more closely connected to my research agenda than one might initially think. I suspect that every principal would want the spirit of education roaming around in the hallways at school and I consider it an excellent goal. Most educators I have met want to create school environments that make education, or better yet learning, appear not only as a desirable goal but a fundamentally accessible and inspiring part of everyday practices at school. The lack of data, therefore, is problematic. It could simply mean that my questions were not suited to elicit valuable responses about the state of the spirit of education at Orbit High, which is not unlikely because they were not designed to do that. They were designed to promote responses that help us understand the quality of students' peer culture during their breaks. Another possibility, however, is that the building did not promote the educational spirit or that the *Institutional Order*, in an attempt to create an orderly and risk-free environment had, perhaps unintentionally, detrimental effects on the educational spirits that the building might be able to help evoke in a different educational context or culture.

The second goal, to foster connections between smaller sub communities, aligns more evidently with my own goal to understand the ability of the building to promote

social encounter between students as governed by the school rules and practices. A close look at the tight and complex schedule suggested that the opportunities for social encounter between peers who observed different schedules and class selections were extremely brief, which many students noted with regret. Administrators believed that minimizing break times would also minimize students' chances to get in trouble in spaces that were not owned by adults and, therefore, harder to control than classrooms. My analysis, however, also showed evidence that the architecture, on the other hand, did promote by-chance encounters and that the hallway intersections were spaces that enabled students to meet their friends briefly but regularly during passing. The physical environment offers, as intended, many opportunities to hang and meet, while the schedule rendered this social behavior into a behavioral problem. The mixed messages sent by the physical environment and the *Institutional Order* enhanced crowding problems for students who worked hard to comply with school rules and *Loners* who preferred to spend their breaks in the classrooms owned by adults rather than in the *Spaces in Between* that belonged to peer cliques and crowds of which they were not part. They felt obstructed in their attempts to comply with the *Institutional Order* and blamed the *Hangers* for the institutional consequences they had to face for being tardy, for example.

There are connections between meaningful and lively *Social Space* and unpleasant *Crowded Space*. Some cliques' *Social Space* was perceived as the cause for *Crowded Space* or as *Crowded Space* itself by another group of students. But, the causes for crowding cannot be reduced to the bodies of students who occupied the space perceived as *Crowded Space* even if they were not in compliance with the rules the *Institutional Order* created for them to deny them chances to get in trouble. The schedule

suggested that, ideally several times per day, 2000 students should have moved fast and effectively to use five minutes to reach dozens of different “gates,” located on three different levels. When we look at the passing routine like this, it is relatively easy to understand that on the one hand students who did not have to travel far might want to hang at an intersections to talk to their friends for a few minutes, especially if they did not feel equally comfortable alone or with adults in classrooms. On the other hand, it is also clear that the students who did have to reach the other end of the building might have been annoyed by the roadblock the *Hangers* created for them. Mr. Cogswell used the word “road rage” when he described what was going on in the hallways of the old building during passing. He thought that the new building dispersed the students better and that as a result the atmosphere during the breaks had improved. While I am certain that this is true, the crowding continued to be an environmental stress factor that probably affected the more vulnerable students more than others. The total number of student occupants and the short travel time available were just as relevant to the crowded hallways during passing as the hallway width and the cliques of student hangers.

Furthermore, the introduction of *Closed Space*, another important manifestation of the *Institutional Order*, in particular the decision to close the courtyards, re-directed part of the traffic flow and added student users to the occupant load of the main open staircase. More students than anticipated during the design process were regularly channeled through this bottleneck space, which added to the perceived crowding during passing. *Social Space*, *Crowded Space*, and *Closed Space* were all relevant to the peer culture during breaks. Different perspectives, however, can make different consequences

for advisable adjustments to the *Institutional Order* seem appropriate. I will engage in interpretations and recommendations in the following chapter.

Digital Space added a contemporary layer to the phenomenon of student break behavior at school, and has become an evolving focus of social research about the adolescent in general. It was a lot harder to observe and understand than teenagers' social interaction in the physical space. My findings are far from comprehensive, preliminary in nature, yet interesting. Texting, and in extension phones, helped the students to maximize their opportunities to meet each other despite the very limited lunch time and the relatively crowded physical environment of the lunchroom. But, social media was the main public space for long drawn and meaner teenage dramas than the ones I observed in the physical space. Students were convinced that the mean quality and longevity of social-media-girl-drama was responsible for the evolution of social peer conflicts into real drama, which was likely eventually followed by a physical fight of the protagonists during a coincidental encounter at one of the social centers in Orbit High's spaces in between classrooms.

The third design goal was to create a flexible school building in the hope that it could be more easily adjusted to unforeseeable future educational needs. My data analysis provides evidence for an inversion of the envisioned relationship between educators and their school building. Instead of the building having to adjust to changing user needs, for now the features of the school building, characterized by a variety of spaces designed for different and new learning activities, stretched many of the educators out of their educational comfort zone. Over decades, teachers grew accustomed to school environments that forced them to teach and supervise in very rigid spaces. They felt

challenged to have to adjust their practices to the building for the future. Instead of feeling inspired by all the new possibilities they felt stretched by the blurred boundaries between learning spaces and spaces designed for teenagers to feel comfortable in, which brings us to the fourth goal, to provide students with comfortable spaces rather than with the double-loaded hard corridors of an institution. It must have seemed counterintuitive to the educators to try to give students no chance for misbehavior, to try to prevent them from “escaping” and to control them for their own good, into attendance of school hallways that look like a system of connected hotel lounges for the adolescent.

Some special features, such as the coffee shop, seemed easier to use and embrace, perhaps because of its straightforward connection to the business classes. One might argue that the coffee shop became a core element to promote the entrepreneurial spirit at Orbit High, which is highly valued in the American culture. The flexible elements designed to blur the boundaries between spaces for social interaction and spaces for learning, such as the big sliding door between the library and the epicenter, for example, or the courtyards that were supposed to function as both hallways and outdoor classrooms, were experienced as impossible to adjust to for the time being and therefore remained closed.

Let’s think of schools as socio-physical environments governed by the rules of the *Institutional Order* one more time, and of the courtyards or the “open” library as spaces that offer unexplored and hard to predict educational and social affordances to its users. The minds of experienced educators who had been part of the American school culture of control for a long time were socialized to expect the worst from their students’ behavior and at the same time socialized to know they had failed on some level, if misbehavior

was an available option to their students. At this point, it is a little easier to understand why educators' first response to the courtyards was to exclude the spaces from students' break experiences. The associated supervision routines were, just like the spaces themselves, unprecedented and must have appeared extremely challenging as long as a maximum of control remains a fundamental goal at high school.

However, the people who represented the *Institutional Order* used two spatial tactics that remain hard to comprehend. I cannot understand the rationale behind the attempt to try to literally enforce the closed campus policy and prevent students from leaving the building prematurely by locking the doors to the courtyards. Did the adults at Orbit High really think that locking doors would keep their students present? Closed doors must be unlikely to raise the spirit of education. Second, the extent to which *Surveilled Space* was used in an attempt to turn *Safe Space* into perfectly controlled space at Orbit High is from my perspective questionable. I do not believe that the end justifies the means.

The question which remains is why the educators asked for a building like this one if many of the opportunities it offers were so hard to incorporate into their everyday school culture. The mindset of the adults who were involved in the vision team had been at an unconventional point during the planning phase. The immediate crisis after the traumatizing event had turned into hope for a better future and into opportunity, the opportunity to start fresh. The architects and the nature of the participatory design process must have encouraged them further to think about their educational vision and practices. Their minds were open and the interim campus at the mall allowed them to experiment with unconventional spatial approaches to high school. While the school at the mall was a

real school with real teenagers, the environment was less complex than what Orbit High's adults had to deal with after the new building was completed. It was only the upper classmen who attended school at the mall and students traveled to other schools in the district to be part of athletic teams or after school activities. Therefore the interim campus was usually closed right after instructions were over. Most importantly, though, the adults who experienced regular school days at Orbit High's mall campus were not in their usual state of mind. The first thing on their school agenda was not to create a risk-free environment anymore, but to make the students feel good. That was the quality of the school climate in which the concept that drove the building design for Orbit High School evolved. I spent time at Orbit High during the first half of its second year of operations in the new school building when things were back to normal.

CHAPTER FOUR

Discussion

This study of Social Space at Orbit High is unconventional. I neither exclusively prescribe to an explanatory framework of individual processes of adaptation, nor to a conceptual system that focuses on behavior in its social context (Saegert & Winkel, 1990). I also have not engaged in the cultural meaning making typical for the work of architectural historians or architectural theorists (Markus, 1987). Instead, I aimed for a holistic and interdisciplinary understanding of the school environment outside the classrooms and produced an account that made connections between all these levels of inquiry. At the same time I am determined to avoid that the complexity of the case, or its connections to the national school culture that I suggest, leaves my readers and the stakeholder at Orbit High feeling paralyzed. There is space for improvement of the place and I will offer suggestions for changes towards the end of this final chapter.

In the previous findings chapter, I untangled some of the interactions between the behavioral patterns of teenagers' space use and the social and organizational mechanisms particular to the local context that governed the interactions between students and their school building, and fostered some environmental stressors. I nodded toward relevant connections between the organizational structure of the school environment at hand and the national school culture of which it is a product. What remains to be done here is to seek for the meaning the place has for Orbit High's students. The last of my research questions still needs to be answered.

How do students understand their school place?

I described some aspects of their place experience along the way already but would like to address it here in a more coherent way.

David Canter's place experience model (Canter, 1991) will structure this answer. His framework is an appropriate fit since he embraces individual, social, and cultural aspects of places and promotes that an understanding of the interactions between these processes can serve as a valuable foundation to initiate change and improvement to the places we investigate. He suggests that:

Consideration of the interaction between, on the one hand, the processes of cognitive representation of places and, on the other, of the social patterning of behavior, reveals that these two processes have roots within the socio-cultural context out of which the experience of places grow, these experiences being related to the role that a person has within that context. (Canter, 1991, p. 25)

The more time I spend trying to understand both the complexities of environmental qualities at school and the driving force between the predominant qualities of particular school places, the more I believe that David Canter is right when he claims that it is the cultural constraints on appropriate actions and the associated expectancies of patterns of place use that are the point of departure for place experience.

Let's try to understand the place from the students' perspective. Canter used a simple Venn diagram (Figure 49) to illustrate the process of place experience. "At the most basic level this theory of environmental role emphasizes the need to understand how a person's actions in a place shape his conceptions of that place and in turn how those conceptions influence his actions" (Canter, 1991, p. 25) The overlap between a particular space, the activities that animate it, and the members' conception of the meaning of both the space and the actions produce the perceived quality of the place. David Canter is

convinced that understanding the interplay between the conceptualization and the actions of places will be the best foundation for both to understand what it is that makes places contribute to people's wellbeing and to initiate change to the places we investigate.



Figure 49. Canter's place experience model

I created separate Venn diagrams for all the spatial qualities that mattered to my participants. Each one provides us with understandings of a prominent aspect of the place. This is the diagram that condenses students' place experience of *Closed Space*, for example, into just a few words (Figure 50). It will remind us of the activities that happened in *Closed Space* and of the meanings students attached to both the closed quality of the space and the activities it was allowed to afford at the time.

There are several spaces that belonged in this category, but the beautifully designed courtyards will serve as an example. They are enclosed by a tall metal fence and since students were denied access, there was not a lot going on in there. Rare activities were likely to evolve either around students "skipping school" or adults who closed the doors in the fence behind them. What closed spaces lack in activity they seem to make up for with a rich range of shared connotations. Students conceived the doors to the courtyards (equipped with prominently displayed warning signs about alarms that would

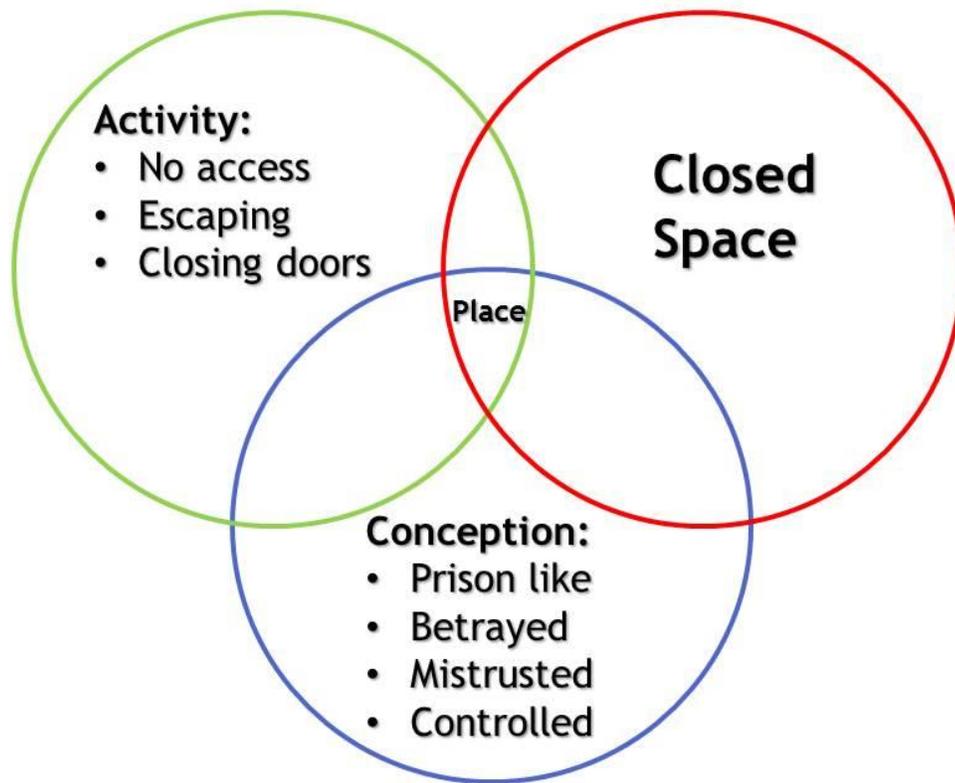


Figure 50. Students' place aspect diagram: Closed Space

sound if operated), plus the fenced in empty courtyard spaces in combination with the occasional attempts of students to escape through them and the security officers closing the fence doors all day, as a prison-like environment. Talking about *Closed Space* they felt mistrusted, over-controlled and betrayed, since they had been waiting for the promised access for about a year and a half.

Digital Space was very important to students' place experience at Orbit High. Unlike *Closed Space* it was full of activities. Students tried to connect through it in order to meet in the physical school space for lunch; they shared news, documented events including fights, and they discussed their conflicts, the conflicts of their friends, and the conflicts of their Facebook friends. They stirred the drama (Marwick & Boyd, 2014) and created and maintained self-images as musicians for example. *Digital space* was

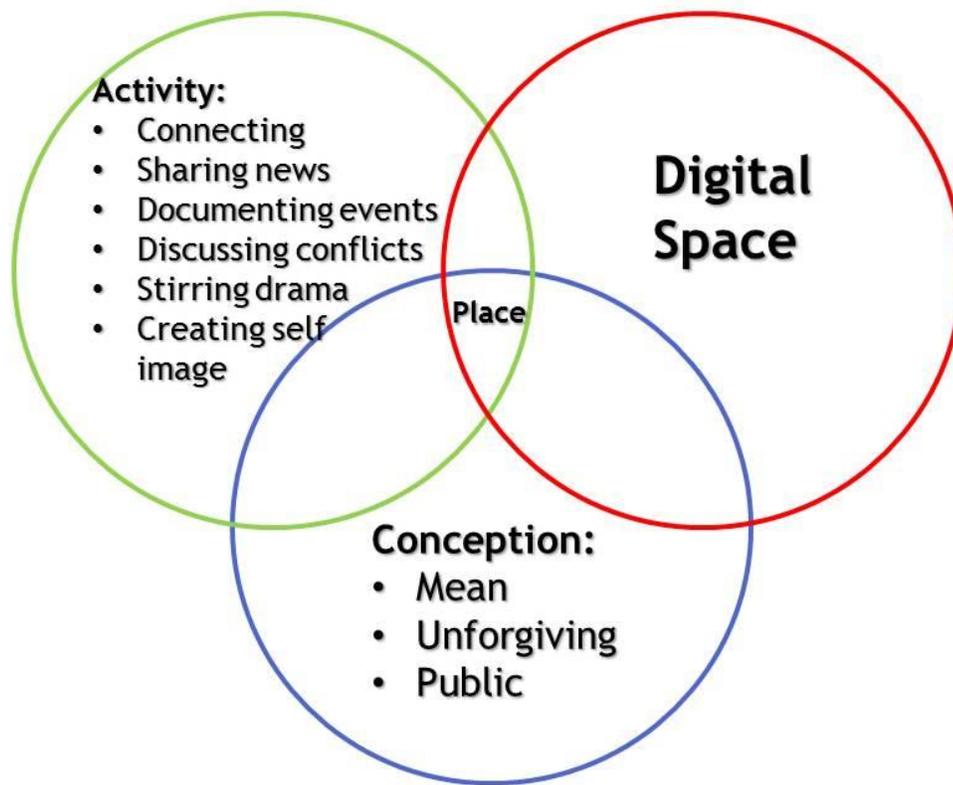


Figure 51. Students' place aspect diagram: Digital Space

commonly conceived as mean and unforgiving when it gave student conflicts an overly long afterlife and embarrassed the teenagers at the center of these conflicts in front of a big audience.

More than any other aspect of space, the transparent qualities of Orbit High were perceived as holding a variety of contradictory meanings among stakeholders. While I knew that diametric readings of transparency have been a topic of academic discussion before (Kenzari & Elsheshtawy, 2003; Şen, Özdemir, Candaş Kahya, Sarı, & Sağsöz, 2011), it was surprising to see and hear how strongly it affected the behavior of some teachers and students. The intellectual responses were unprompted by my questions, yet passionate. I would like to revisit some of the findings. Transparency was a popular

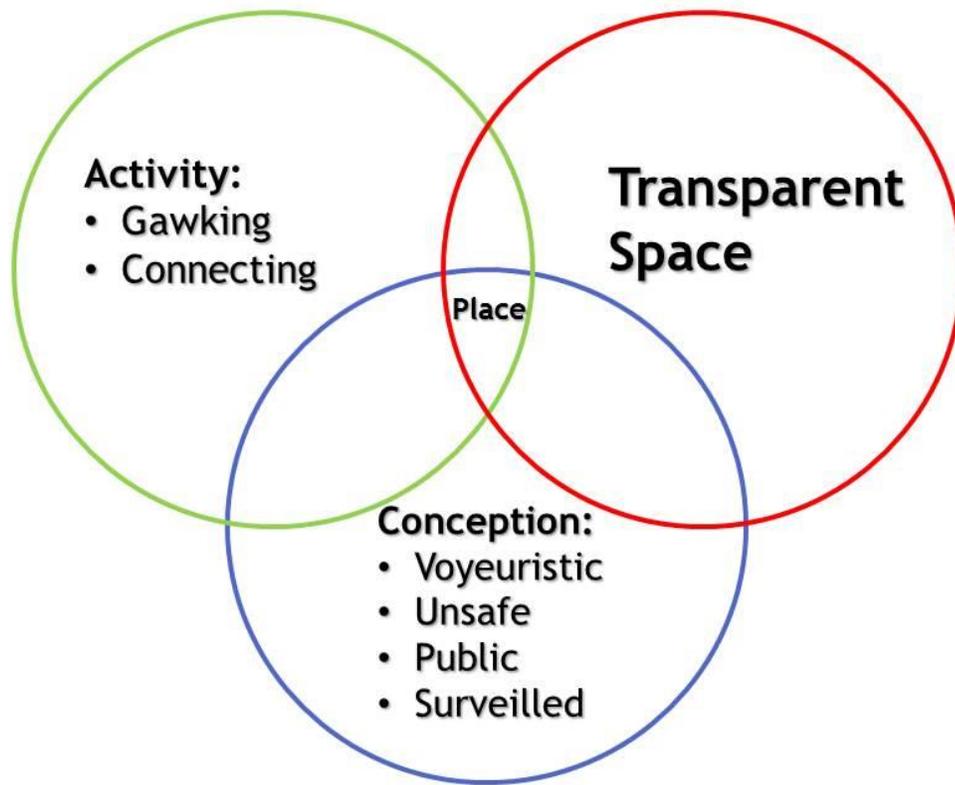


Figure 52. Students' place aspect diagram: Transparent Space

conversation topic for the teenagers, but all the affordances for informal supervision activities the adults reported about, did not make their way into the student interviews.

I do not consider this an indicator that they were hesitant to share their critical understandings of this manifestation of the *Institutional Order* with me, because they were very open about connotations of *Closed Space* as excessively controlled for example. I also did not overhear a single remark about this topic while hanging around in the hallways but remember several occasions at which students appeared annoyed about the gaze of the security cameras. Consequently, I am not under the impression that students were overly bothered by being visible to adults at school and believe that the locations of the social centers and favorite places at the most prominent locations support this understanding as well. Furthermore, all students loved the coffee shop, independently

of the question whether or not they were cool enough to establish it as regular hangout and nobody as much as hinted at the transparent connections to the adjacent classrooms as a drawback.

I included the analysis of data I collected around the perception of the security cameras into *Transparent Space* instead of incorporating it into *Digital Space*, which would have been another very obvious choice. This decision is represented by the conception of *Transparent Space* as surveilled. However, when *students* talked about *Transparent Space*, the common nominator was its affordance for watching fights, which was understood as voyeuristic and crowd producing.

To sum it up: *Closed Space* is prison-like, *Digital Space* is mean, *Transparent Space* is voyeuristic, and *Crowded Space* sucks, as you remember.

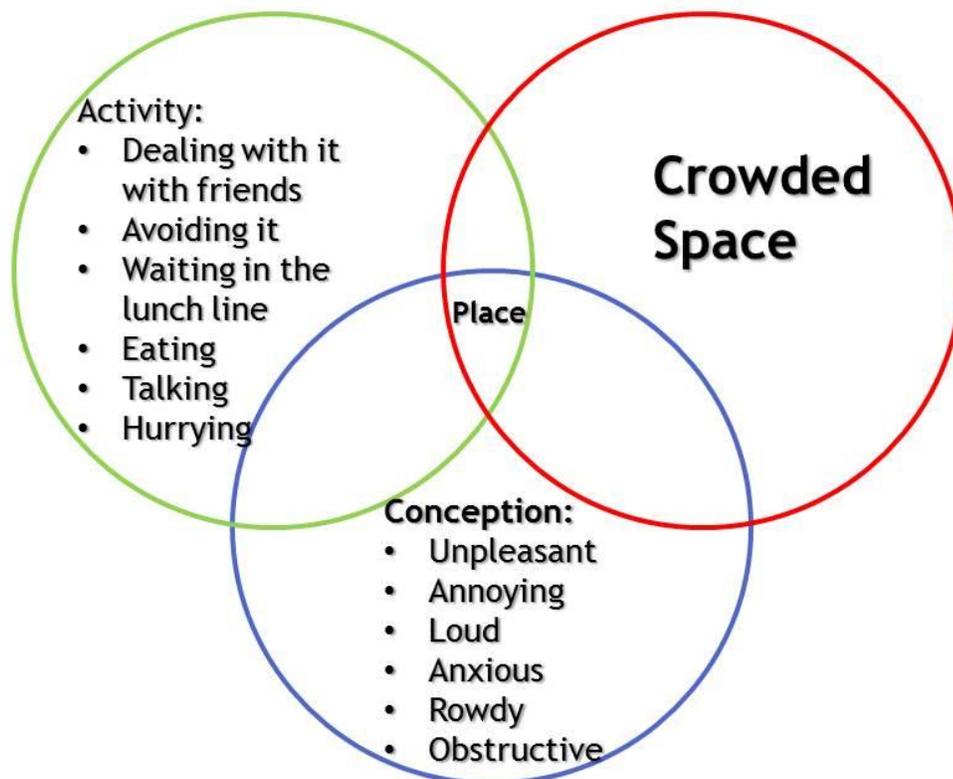


Figure 53. Students' place aspect diagram: Crowded Space

Orbit High during breaks for the most part was not an inspiring or a comfortable place for its teenagers. This is true despite the gorgeous school building that was designed and built to fit these underprivileged adolescents' social-emotional and educational needs after the destruction of their old school building and despite all the local adult stakeholders that cared deeply about their students' well-being.

Schools are, of course, perceived differently by adults and teenagers and not all students are alike. The uniqueness of a place might even emerge from these differences in perception and the conflicting understandings of the particular place by different social groups that belong to it (Gustafson, 2001). We saw that adults at Orbit High, *Loners*, and the students that tried to “get their act together,” thought of *Social Space* as it manifested in the social centers as unpleasantly crowded, a “roadblock” on the way to class, and as a waste of time—time diverted from the real activities of the place, teaching and learning.

The remaining majority of students, the *Hangers* and the *Floater*s, perceived their school place as bearable, as pleasant, or even as a good place of education because of the *Social Space* they managed to create for their clique despite the unpleasant activities and conceptions they had of other place aspects. They were supported by like-minded friends in *Social Space*; they had fun and felt a sense of shared ownership of “their spot.” In an environment where nothing belongs to the students and the spaces that matter most belong to the teachers (Astor et al., 1999), perceptions of ownership are hard to achieve. *Social Space* was the reason why students came to school early every morning and hung around afterwards longer than absolutely necessary. Social Space at school matters.

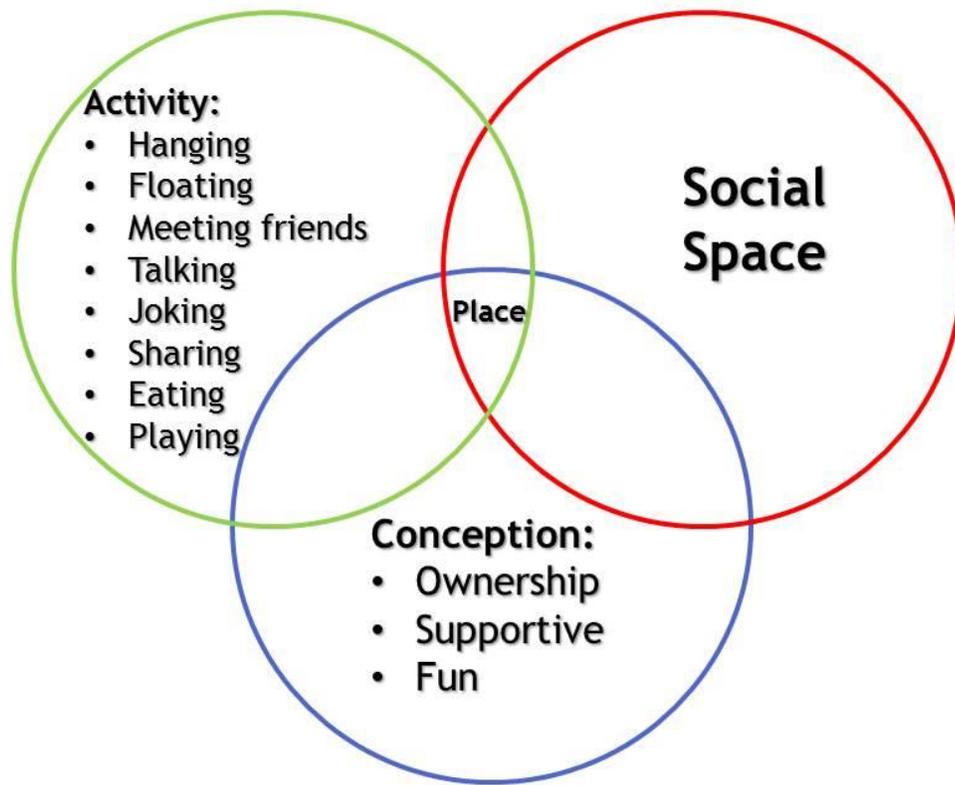


Figure 54. Students' place aspect diagram: Social Space

I later sized all the place aspect Venn diagrams individually to indicate the level of presence of each spatial aspect in the interview data. The bigger diagrams represent stronger traces than the smaller ones. Finally, I connected them all into Figure 55, which is a visual representation of the way Orbit High's students experienced their school place outside the classrooms.

Conclusion

Place experience is reflected by actions in space and draws upon members' conception of the place over time. Together, actions and conceptions create a system that structures a place: the place's inherent rules. These rules of a place are consolidated further by organizational processes (Canter, 1991), which in the case of Orbit High are

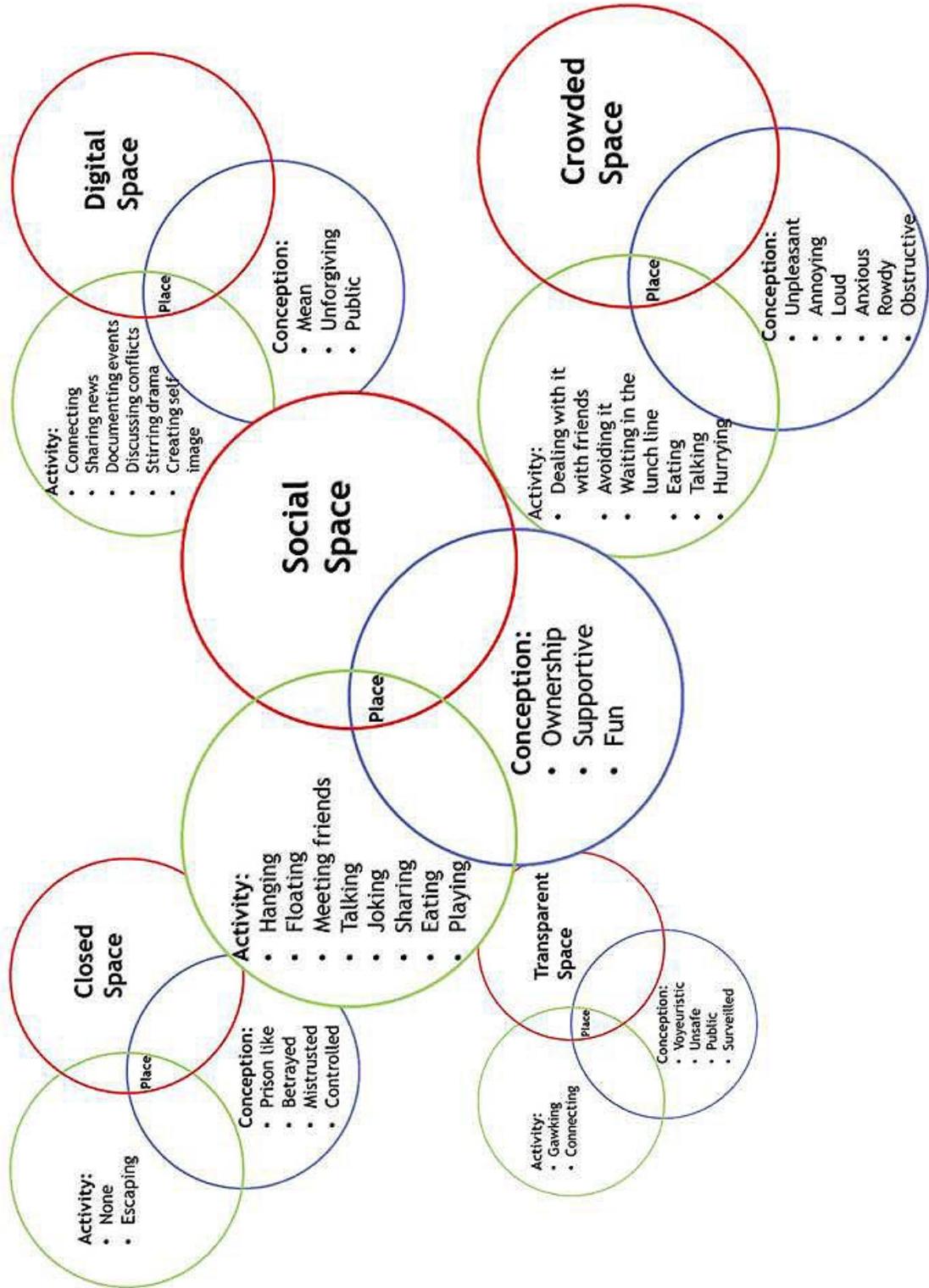


Figure 55. Students' place experience at Orbit High School in the Spaces in Between

the manifestations of the *Institutional Order*, such as the schedule and the tardy proceedings. Lisa Gross showed in her dissertation how rigidly the “spatiotemporal order” of a typical public middle school in the Midwest structured the activities for everyone who belonged to the place. The combination of spatial parameters, set by the institutional school building, and the numerous arbitrary schedules, that the social life at school had to comply to, left little room for adjustments to what educators perceived as the real needs of their students (L. A. Gross, 2004). The forces that drive everyday activities at schools are equally relevant to researchers of educational environments, practicing educators, and students. Everyone who has spent substantial time at a public secondary school in the United States knows on some level already that the relationships between social actions, place conceptions, and organizational processes create a tightly integrated, stable, and therefore, hard to change system at school.

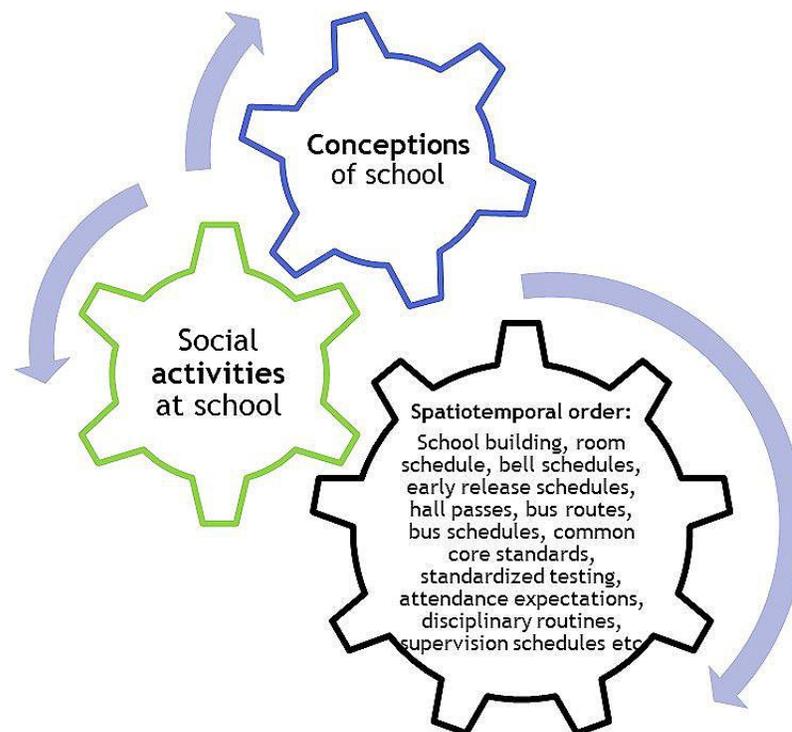


Figure 56. Tightly integrated place system at school

Since all the parts enable and promote each other, the whole place system has to be understood before meaningful improvements can be developed and successfully implemented. Effective changes need to address all components and their relationships because people's actions will only change if "their understanding of what they are trying to achieve" changes as well.

The diverse perceptions of a place are deeply imbedded in the unequal place roles of its members. While I spent time at Orbit High, students were expected to be irresponsible and adults were expected to do their best to counteract the unfortunate effects by policing the exit doors and making it hard for students to "escape" or by reviewing security camera footage to find out who did not return their lunch tray to the appropriate spot or spilled the fries. Canter would argue that in order to change and improve the place, activities and in extension the place perception the role relationships, need to be changed as well. As long as adults at Orbit High think that their job is to control the students' behavior to the best of their ability, it will remain hard to make meaningful changes to the place and it will also remain hard for adults to embrace the educational affordances of the new spaces and actually use the new architecture. Therefore, on a very basic level, student roles need to shift toward roles of increased responsibility. Adult roles need to shift toward roles of true support rather than prosecution.

This is exactly what I suspect had happened at the mall campus, during the school year that followed the destruction of the old school building. Temporarily, adults had changed their roles, their activities, and their relationships to the place. As Mr. Cogswell, an assistant principal in charge of disciplinary actions at school, pointed out, for a while

the strongest objective for adults' place roles was to make the students "feel good." Students' agendas might have changed temporarily as well. They had lost some of their peers during the natural disaster. Adults had changed their attitude and their behavior toward them, and the organizational processes were much less complex. The physical environment was new, beautiful, and together with its location at the mall suggested dissimilar connotations than the institutional building they used to occupy. Perhaps these losses and the gains together made them more aware of their community and of the attached opportunities for action. Along with the altered roles, the activities and conceptions of the place changed as well. Many people at Orbit High still remembered the place at the mall campus fondly. A student-produced lip dub music video became part of the public transcript (Scott, 1990) of the activities that helped shape the perception of the temporary place. It was wildly distributed via social media. Orbit High has about 50,000 residents and the YouTube video records up to this point report 51,258 views, which could mean that everyone at Orbit City has seen it. For eight and a half minutes it takes the audience on a fast pace tour through the interim school's *Spaces in Between*, which are crowded with Orbit City's teenagers who all dance and pretend to sing: "Let's get it started in here." The video ends outside the exit doors on a parking lot with a huge school cheer. It is a digital student place account that vibrates with optimism and a strong pride of place.

This video, together with the sentiments students and teachers shared with me about the school at the mall, can be considered evidence for the temporarily changed rules of the place. The national school culture had not changed. But the roles toward the

place had and along with it the place experience of the members and their conception of Orbit High.

Implications and Recommendations

There are a few implicit questions that this case poses for educators, students, and educational researchers.

1. How can the rules of this school place, or others like it, be changed permanently?
2. What kind of new place rules will lead to better places for students?

How can obsolete place rules change? One of the current issues that prevent school place rules from noticeably changing sooner rather than later, permanently and perhaps even nationwide, is that too many adults at school became educators for the wrong reasons. Too many adult stakeholders became educators because school has always been a happy place for them. They became teachers and administrators because they loved school, back when they were students themselves. Things worked well for them at school the way school was. Their teachers were great role models, everyday activities at school appeared appropriate, the rules were fair, and the behavioral expectations of the place felt commonsensical to them and their friends, while the school buildings looked the way they should.

I think that many teachers and administrators in the US must belong in this category. They are unlikely to see the need for changed place rules unless they are faced with an immediate and unusual crisis in which nothing works the way it used to anyway. It is hard for them to understand why they should change their roles at school long-term because they embrace the existing national school culture as the foundation for their own

professional identities, their roles at school, and as a natural framework to guide their actions.

What they still might not be aware of enough, is that neither the American school culture nor the stable place systems of schools usually aim to make students independently of their race, gender, or economic status, feel like they belong there. Instead, school places are more likely to be happy places for the students who are extremely similar to the adults in charge. These students are at a distinct advantage to not only “get” the place rules but compliance (crucial to success in school) is natural to them because they come from comparable places and have been exposed to similar social norms as the adult stakeholders. Students who are different because they call very different places home do not feel equally comfortable and tend to be perceived as “having issues” (Hanna, 1988; Monroe, 2005; Noguera, 2003; Russell Skiba & Rausch, 2004; R. J. Skiba et al., 1997; Willis, 1977) by the people who matter at school. This monoculture of schooling still reinforces insistent sets of place rules at American schools that continue to promote the reproduction of gender, race, and class inequalities (Giroux, 1983; Harker, 1990; Levinson, 2011).

How did I get so fast from unpleasantly crowded hallways to these powerful examples of educational research and the theories that guide them? Together they illuminate the depressing continuous reproduction of class or race divisions in and through the places of public education that instead should facilitate equal opportunities. Let me take a few steps back. I can see how the first and foremost *aggravating* student place experience that emerged from the data I collected at Orbit High could, in comparison to these big issues, be understood as an insignificant problem to have. These

teenagers had a gorgeous brand new school building, high-end laptops that came with full-time tech support, and teachers that cared about them. They were expected to be on time to their next class, not allowed to use the courtyards and not supposed to leave school prematurely? So what? We are talking about high school. Did they not have real problems?

But common school issues, while located on different “levels of analysis” (Wexler, 1987) are deeply connected. Let me highlight a few of these connections I see between the micro scale of this case and some serious problems at the macro scale of public secondary education in the US.

To the white middle-class student crowds (magic kids, geeks, brains, etc.), unpleasant and over-controlled school places were just annoying hurdles on their way to becoming actors in bigger and better educational places of the future. Their high school place might have delayed their acceptance of a more responsible role until they became part of a college community. Did it keep them from joining these places that eventually expected them to act like they knew why they want to be there? Probably not.

I am more worried, however, about the “misfits,” the student crowds and cliques that hung in the middle of the hallways, either having a good time or being really annoyed, even though students were supposed to hurry to class at the time. They were just a little bit too animated and too loud to make everyone else close by feel like they knew exactly what was going on. The behavioral differences between these crowds were subtle, but if the rules of the place understood “acting black” (Carter, 2007) as a potential issue or as “immature,” these teenagers likely did not feel like they belonged there. I will spend a moment trying to look at black students’ place experience in school, where white

adults are usually in charge, act white and promote white place conceptions, similar to the working-class adolescents Willis wrote about (1977). The “lads” distanced themselves from the school culture and school requirements and developed their own counterculture which made them feel independent and powerful for the time being, but their attitudes also eventually led them to adult lives spent in factories. All kinds of students who are not a good fit for the dominant place conceptions of adults naturally might focus their energies on “escaping” the place that does not accept them yet tries to force them to stay for their own good. Therefore, their annoyance with the place might close their minds prematurely toward further educational opportunities and instead turn into counterproductive resistance. In the context of the case, I was most concerned for the black girls I met at Orbit High. While there were a few established and prestigious student roles such as “athlete” available for black boys at the school, which had a lively football culture, the black girls seemed to have had a tougher time connecting to the place. Even the black girls that appeared in tune with the rules of the place claimed that they “hate everybody here.” While friendships are of course an important, if not essential, micro-context of adolescent development, the macro contexts of friendships for minority students are rarely examined (Rogers, Niwa, & Way, 2017). That is why it is important for adults to redefine their roles at school (Razer & Friedman, 2017).

Fortunately, I see several strategies that would help to facilitate changes to place roles. It only takes a few smart and caring white middle-class administrators per school who belong in the category I described earlier to understand the origins and the effects of the current school place rules on the student body in general and student minorities in particular. These individuals, ideally popular and charismatic leaders to local adults and

teenagers alike, need to lead the overdue efforts of redefining the roles and the actions. The conceptions and eventually the rules of the place will follow.

I am afraid that it will be a slow and cumbersome process to convey and convince all the deeply integrated adult stakeholders of their new place roles one by one. However, whenever new administrators or teachers apply to join the school place, I encourage the decision makers to choose adults that confess to have had strained relationships with their own high school like Mr. Willson. They are already aware that places of education are exclusive and became teachers to help change that. Teachers, and just as importantly administrators, who consider themselves as having been problematic students or simply outsiders to the predominant crowds, are less likely to understand students who do not fit into this obsolete place conception as problematic. Their relationship to school places is not as rooted in the national school culture but in varying degrees of opposition to its effects. They are motivated to take actions that will change their school's conception to a more complex, less homogenous, better place.

What kind of new place rules will lead to better places for students? During the first year of operation in the new school building, Orbit High's students enjoyed the affordances of the *Spaces in Between* but the blurred boundaries between break spaces and spaces for learning made it hard for the *Institutional Order* to decide who was skipping school at school and who had a legitimate reason to hang out during instructional times. Some students had free class periods, others were supposed to work on online assignments for a blended classroom environment, yet others were using the presence of legitimate *Hangers* as cover for their own social use of the space during times when they should have attended instructions elsewhere. One could argue that the

school place must have been more fun for students at the time (before additional procedures made it easier for adults to distinguish these three groups from each other). But did they learn enough? Could school really feel that good and still do its job, educating all the students? It must have been frustrating when the spaces designed for new and more active learning activities were used to skip school and the teachers who walked by felt like they had to be suspicious that one-third of the students they met were avoiding their education which happened at the same time in one of the classrooms. It is probably unnecessary to mention that the attendance and tardy data collected at Orbit High, and commonly used in the following year to understand and evaluate school performance, went into a range that did not make the district's school board happy. The underlying reason for the collection of this data and the request for certain minimum threshold values fundamentally make sense. Having as many students as possible, as often as possible, and on time in the classrooms where the instructions happen and the teachers are, is a commonsensical basic step toward the goal to create a successful public institution of secondary education. And, as I mentioned earlier, I am certain that the best schools have high attendance rates and low occurrences of student tardiness. I do, however, not believe that low tardy and high attendance rates necessarily translate into focused or meaningful learning activities. And in this case, and probably in many others like this one, it did not. The boundaries between learning spaces and *Social Space* were in fact blurred, but not only in the *Spaces in Between* but also in the classrooms. The time students spent attending their classes was not necessarily productive. I assume that the traditional social distractions classroom environments and daydreams afford were still intact, but *Digital Space* offered new opportunities to extend the *Social Space* beyond the

very limited break times. Adults and students shared that teenagers played video games alone or online with friends in other classrooms, visited social network sites, streamed movies, and watched YouTube videos in the classrooms when they were supposed to study. While this surely also annoyed anyone who aimed for a focused learning place at Orbit High, the tools the *Institutional Order* used to assess the school's performance were too clumsy or rigid to capture the phenomenon. The place is conceived as somewhat successful as long as students and teachers are in the classrooms together in an orderly fashion. But the quality of learning activities does not increase because "every minute is accounted for" or because all the students are in their classrooms on time and the social activities in the *Spaces in Between* do not need to be considered as a waste of time or a problem because the data collection systems the national school culture relies on are not designed to collect qualitative data or interpret it.

The Spaces in Between do not have to be disregarded or closed. Social times do not have to be minimized to avoid possibilities for conflict because students are too immature to handle it. Instead, the roles need to be redefined and activities need to adjust until the place rules adapt and most stakeholders will be prepared to effectively use the educational opportunities all these spaces offer.

In some well-established alternative school philosophies, community-building practices and self-directed learning activities outside the classroom environments have been complementing conventional instruction strategies since before the First World War in the case of the Montessori Method and since shortly after the Second World War for the Reggio Emilia approach. The practices have been intrinsically tied to the quality of the school buildings they inhabit and to schools' perceptions as learning communities.

These school environments are conceived as educational places in which students take very responsible roles (Al, Sari, & Kahya, 2012; Strong-Wilson & Ellis, 2007), mostly because they are expected to act mature. Students get opportunities to practice these roles, as part of their school communities during their school days, during instructions, and during their ample break times, in and outside their school buildings and on and off campus. I am aware of the gap between the European school cultures and contexts these pedagogical approaches emerged from, and their American counterparts. However, my latest efforts to collect relevant research literature suggests that social scientists and policymakers in the US recently started to also focus on questions, tools, practices, and policies that will promote a more positive school culture (Deal & Peterson, 2016; Winkler, Walsh, de Blois, Maré, & Carvajal) and better school climates (Bear, Yang, Mantz, & Harris, 2017; Bosworth et al., 2009) in the US. Researchers started to develop tools and scales to effectively measure and evaluate school climate and its connection to school belonging (E. Lee et al., 2017). I found substantial records of a growing understanding that social and emotional educational outcomes are important for teenagers' healthy social development (Murray et al., 2013), for the process of changing students' roles towards increased responsibility (Eklund, Griffiths, & Newton, 2017; Garibaldi & Josias, 2015), and to positively influence academic outcomes (Davis & Warner, 2015; Roeser, Urdan, & Stephens, 2009). Therefore, I do not think that it is inappropriate or naive of the architects to suggest that the spaces they designed could be both comfortable for the students and foster active learning and student success.

Perhaps the biggest place challenges at Orbit High were not created by the blurred boundaries of the spaces but the blurred boundaries between instructional times and break

times. The common attempt to create, as much as possible, school days that are break free was met by student resistance. The digital learning tools and personal devices enabled them to take breaks from academic activities whether there was sufficient time allocated in the school schedule or not.

I cannot help but wonder what would happen if adults at Orbit High would decide to make the social times considerably longer, instead of trying to use every minute for instructions and as a consequence have these strange and unwinnable struggles for students' attention and attendance. If students knew that they deserve the extended breaks, are expected to check in with their friends, have time to visit the vending machines, and experience less crowded hallways, they will be in better shape to understand that during class time in contrast to the breaks they are expected to focus on the academic activities. Perhaps teachers could classify phones as toys that will be stored at charging stations during class times and work together to find out how to successfully integrate laptops into their learning activities to make them valuable educational tools.

While thinking about everyday life, institutional routines, new activities, and changed roles for Orbit High, adult leaders could try to change the questions that guide their efforts. Instead of asking: How can we force students into attendance and success?, which they will surely appreciate once they are mature enough to understand its value, perhaps they could ask: How can we help to promote a school climate in which teenagers want to be here and become a responsible and successful member of the community?

As for the macro scale of educational policy, I suggest that the state boards of education policies adjust their goals, in this case stated in school improvement programs,

from “every minute accounted for” which is quantified as 7830 minutes of instructions per class and year, to “Make every minute count!”

Addendum

My last visit to Orbit City took place in late January of 2016. A little over a year later, I finished this report and then went back to take photos that showed the students during their breaks in the *Spaces in Between* at Orbit High to illustrate the text more appropriately than with photos of the empty spaces that the Institutional Review Board had originally approved. I knew that Dr. Spacely had left his position as principal and that another administrator had been in charge for about seven months. The new principal and I had been in contact via e-mail and he had allowed me to come back to take these photos.

I arrived at the school early on a Thursday morning because I wanted to photograph the “magic kids” in their hangout at the open classroom area in Hallway E where they met before the start of instructions (Figure 29). Cindy Walker was, as I had suspected, not at her front desk position yet. I expected her to arrive about half an hour later. The learning stairs were still very empty because the busses had not started to arrive and only very few parents had already dropped off their children (Figure 24). The doors that connect the entry lobby with the hallways of the school were still open and the attendance office window was not yet occupied. The hallways had so little traffic at this time that I could see from a distance that the social center was still empty. None of this surprised me at this hour, but when I passed the orange social porch I noticed that the furniture had been removed. The orange armchairs and the high table tops with bar stools had been replaced by a long cheap plastic folding table on which lost sweat shirts were

piled (Figure 57). I wondered if this change had been made by the adults to create more space for the students who liked to hang out there, without having to open the sliding door to the library, or simply to make it less comfortable for the teenagers in the hope that it would reduce the numbers of students that would want to hang out in this most popular spot. Later that morning I noticed that the arm chairs had found a new home in one of the principal office suites and that three students sat in the corners of the orange social porch closest to the lunchroom on the carpeted floor with their laptops open. The lunchroom, moreover, had been furnished with two additional rows of high tables and chairs. They had been placed along the edges of the space that extended the skybridge into the lunchroom, where I had observed the little scooter races after school during the previous year (Figure 18).

When I entered classroom wing E, there were only two students sitting in the space, watching a screen together, where I had expected at least 25 to play a card game (Figure 29). However, they looked like they could belong to the crowd I had in mind, since they were white males with a slightly geeky vibe. I was correct. They told me that the game club regrettably had folded since the end of the last school year. I immediately found myself pondering whether Brody, who is now a junior, had found something new to do with his break times that could make him feel equally good during his school days. Feeling vaguely disappointed myself, I started to float around between the lunchroom (which still looked as though laptops and phones were served instead of food), the coffee shop area in Orbit Alley, and the entry lobby. The next thing that I noticed was that the learning stairs never filled. I had spent what now feels like weeks in this entry lobby before and after school, watching kids engaging in playful behavior, sliding down the

balustrades, or just sitting on the big steps, waiting for their friends to arrive. Some students used to bring donuts or soft drinks for their best friends in the mornings and couples sat here regularly holding hands. On March 1, 2017, there was a single girl sitting there all morning and two more girls on the chairs next to the attendance window were braiding each other's hair. Perhaps all the social activity between students that I missed that morning might still be going on after school, while the students wait for their parents to pick them up. Unfortunately, I was unable to stay long enough to find out.

The biggest changes I noticed during the half day I recently spent at Orbit High were related to the institutional routines that organize the lunch time. I was on the lower level in Orbit Alley, going over the final edits of this report, since the new block schedule provided very limited opportunities to take photos of students during their breaks. Because all the booths were taken by students, I sat at one of the high round tables both next to the glass façade and next to the spot where Jarmal used to meet his friends in the courtyard for lunch. His table (Figure 26) had been removed as well. I did, however, meet Brianna there, who greeted me with a big smile. She sat together with another girl in one of the booths and they appeared to be engaged in focused school work. When I heard the special education kids get their food, I knew it was almost time to photograph the lunch line that would form upstairs any minute now. I grabbed my things and headed for the lunchroom.

To my surprise, several adjustments had been made to the physical environment of the students' break space since the morning. I noticed that one of the metal gates, usually recessed into the ceiling, had been lowered, which reduced the size of the opening between the main hallway and the lunchroom at the social center to half its usual width.

The other half was closed off by crowd control stanchions that left only two three-foot-wide openings, one to enter and the other to leave the lunchroom. The attendance officer was in position to supervise and facilitate these narrow access points (Figure 58, 59).

The other big open transition between the gyms, or more accurately between the skybridge and the lunchroom, had been closed off completely with the door that was designed to prevent the spread of flames from one area to the next in the event of a fire (Figure 60). This door was operated occasionally by an adult. I did not stay to find out what was going on and how these changes to the institutional routines affected the students' behavior during lunch. After a while, one of the adults who remembered me from the previous school year called me over to tell me that the students were very upset about an incident that had happened that morning and asked me to stop taking photos. He was worried that it would upset the teenagers further. Then Alaia walked by me together with a friend. She was crying. After I got a chance to wave to Colonel Jasper one last time in the hallway, I left Orbit High School.



Figure 57, Orange social porch after furniture removal



Figure 58, Adjustments to the physical environment in preparation for lunch time



Figure 59, Crowd control stantions at the social center right before lunch



Figure 60, Closed fire door to the skybridge during lunch

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Appendix A-Administrator / Teacher Consent Form

Administrator / Teacher Consent Form

Dissertation Research Project

Social Space in School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri, Fall 2015

Nature of Participation: Elke Altenburger, Pd.D. candidate in the Department of Architectural Studies at the University of Missouri is conducting a dissertation project about the break times and routines at your school. It is a study of the spaces between classrooms and the times before and in between instructions, used for social encounters of students and adults. Participants include administrators, teachers and students. The researcher has been participating in the school days as an observer for some time. As data is collected and analyzed, emerging themes are developed. To understand these themes as interpreted by individuals represented in the study, formal interviews are planned to be conducted. The researcher would like to ask you for your participation in these open ended interviews. She will acquire permission for interviewing participants in accordance with IRB and regulations of the Columbia Public School system. No individual will be interviewed without proper consent.

Voluntary Participation: Participation in this project is completely voluntary. The research is in no way connected to students' progress or outcomes and is not evaluative in regard to teachers' instructional practices. You may choose to avoid any interaction with the researcher at any time throughout the study. You may also refuse to answer any questions she might ask or choose to withdraw from participation at any time without penalty or loss of benefits to which you would be entitled. The interviews will be up to 45 minutes long and will be audiotaped and transcribed. The transcripts of interviews you may participate in will be made available to you upon request.

Confidentiality: Every effort will be made to keep each individual's information and identity confidential. The participants' names will be replaced by aliases, distinguishable only by the researcher when analyzing data, for potential presentations and / or publications. Any data collected that may suggest the identity of any participant will be kept under lock until reconstructed into descriptive context that includes the alias of the participant.

Risks: Participants are not purposely deceived nor does the project pose physical danger. There are no known risks to this study.

Benefits: Research concerning physical school environments has been very focused on classroom spaces and the times of instructions and learning. This project may help to understand a 'slice' of the bigger phenomenon of students' 'break behavior', as facilitated by the physical school environment of your school. The results could inform your institutional social practices and use of the existing school building and will contribute to the foundation of research based school design.

Questions: Please feel free to contact Elke Altenburger at 573.355.0146 with any questions or concerns related to the project. For additional information regarding human participation in research, contact the UMC campus IRB Office at 573.882.9585.

If you decide to agree to participate in the suggested interviews, please complete and sign both copies of this form, return one of them to the researcher and keep the second one for your records.

I _____ have read and understand the

Administrartor / Teacher Consent form and agree to participate in this study.

Administrator's / Teacher's Signature

Date

Appendix B-Adult Consent Form

Adult Consent Form

Dissertation Research Project

Social Space in School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri, Fall 2015

Nature of Participation: Elke Altenburger, Pd.D. candidate in the Department of Architectural Studies at the University of Missouri is conducting a dissertation project about the break times and routines at your school. It is a study of the spaces between classrooms and the times before and in between instructions, used for social encounters of students and adults. Participants include administrators, teachers, parents, and students. The researcher has been participating in the school days as an observer for some time. As data is collected and analyzed, emerging themes are developed. To understand these themes as interpreted by individuals represented in the study, formal interviews are planned to be conducted. The researcher would like to ask you for your participation in these open ended interviews. She will acquire permission for interviewing participants in accordance with IRB and regulations of the Columbia Public School system. No individual will be interviewed without proper consent.

Voluntary Participation: Participation in this project is completely voluntary. The research is in no way connected to students' progress or outcomes and is not evaluative in regard to teachers' instructional practices. You may choose to avoid any interaction with the researcher at any time throughout the study. You may also refuse to answer any questions she might ask or choose to withdraw from participation at any time without penalty or loss of benefits to which you would be entitled. The interviews will be up to 45 minutes long and will be audiotaped and transcribed. The transcripts of interviews you may participate in will be made available to you upon request.

Confidentiality: Every effort will be made to keep each individual's information and identity confidential. The participants' names will be replaced by aliases, distinguishable only by the researcher when analyzing data, for potential presentations and / or publications. Any data collected that may suggest the identity of any participant will be kept under lock until reconstructed into descriptive context that includes the alias of the participant.

Risks: Participants are not purposely deceived nor does the project pose physical danger. There are no known risks to this study.

Benefits: Research concerning physical school environments has been very focused on classroom spaces and the times of instructions and learning. This project may help to understand a 'slice' of the bigger phenomenon of students' 'break behavior', as facilitated by the physical school environment of your school. The results could inform your institutional social practices and use of the existing school building and will contribute to the foundation of research based school design.

Questions: Please feel free to contact Elke Altenburger at 573.355.0146 with any questions or concerns related to the project. For additional information regarding human participation in research, contact the UMC campus IRB Office at 573.882.9585.

If you decide to agree to participate in the suggested interviews, please complete and sign both copies of this form, return one of them to the researcher and keep the second one for your records.

I _____ have read and understand the

Administrartor / Teacher Consent form and agree to participate in this study.

Administrator's / Teacher's Signature

Date

Appendix C-Parent / Guardian Consent Form

Parent / Guardian Consent Form

Dissertation Research Project

Social Space in School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri, Fall 2015

Description of the Research: The research study your student is invited to participate in is conducted by Elke Altenburger, a Ph.D. candidate at the University of Missouri. She is an interior designer and interested to understand how students use their school building during their break times. She participates in the daily school routines and observes the social life at your school. To deepen the understanding she achieves through her observations she will also conduct interviews with teachers, administrators, parents, and most importantly students.

Participation: Your student is invited to participate in two interviews with the researcher. Each interview will take approximately 30 - 45 minutes. It will be conducted at the school during one of your child's free periods and will be audiotaped. These interviews will help her to better understand how students spend their social time at school and how they feel about their school building.

Voluntary Participation: Participation in this project is completely voluntary. The participants may choose to withdraw from the study at any time without any penalty or loss of benefits to which they would have been entitled. The research is in no way connected to students' grades or schoolwork, nor is it evaluative of teachers' instructional practices.

Confidentiality: Every effort will be made to keep each individual's information and identity confidential. The participants' names will be replaced by aliases, distinguishable only by the researcher when analyzing data, for potential presentations and / or publications. Any data collected that may suggest the identity of any participant will be kept under lock until reconstructed into descriptive context that includes the alias of the participant.

Risks: Participants are not purposely deceived nor does the project pose physical danger. There are no known risks to this study.

Benefits: This study may help the teachers and administrators at your school or similar schools to understand how students experience their physical school environment. It will allow the involved students to share what they like, dislike, or would like to change about their experience in the school building between classes.

Questions: Please feel free to contact Elke Altenburger at 573.355.0146 with any questions or concerns related to this project. For additional information regarding human participation in research, contact the UMC campus IRB Office at 573.882.9585.

If you decide to allow your child to participate in these interviews, please complete and sign both copies of this form, return one of them to the researcher and keep the second one for your records.

I have read and understand the Parent / Guardian Consent form and agree to allow my child,

_____, to participate.

Parent / Guardian Signature

Date

Appendix D-Youth Assent Form

Youth Assent Form

Dissertation Research Project

Social Space in School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri, Fall 2015

Description of the Research: The research study you are invited to participate in is conducted by Elke Altenburger, a graduate student at the University of Missouri. Elke is an interior designer and interested to understand how high school students use their school building during their break times. She participates in the daily school routines and observes the life at your school. To better understand, she will also conduct interviews with teachers, administrators and most importantly students.

Your Participation: You are invited to participate in two interviews with Elke. Each interview will take approximately 30 - 45 minutes of your time. These interviews will be audiotaped. They will help her to better understand how students feel about their school buildings.

Voluntary Participation: Your participation in this study is voluntarily. You may choose to not participate at all or to stop participating at any time. If you should change your mind after the first interview you can just tell Elke that you will not return for a second interview. Nobody will be upset about this decision.

Confidentiality: Every effort will be made to keep your identity confidential. When Elke takes notes or uses the information from this research study for presentations, discussions or in future publications she will give you an alias, or a "fake name". Nobody will be able to find out who you are when she writes her final report.

Risks: There are no known risks to this study. The interviews will take place at your school.

Benefits: This study may help the teachers and administrators at your school to understand what it is like to be a student in your school building. It will allow you to share what you like, dislike, or would like to change about your experience during your breaks at school.

Questions: Please feel free to contact Elke at 573.355.0146 with any questions or concerns related to the project. For additional information regarding human participation in research, contact the UMC campus IRB Office at 573.882.9585.

Appendix E-Research Cover Letter

Research Information

Dissertation Research Project

Social Space in School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri Fall 2015

Nature of Participation: Elke Altenburger, Pd.D. candidate in the Department of Architectural Studies at the University of Missouri will conduct a dissertation project about the break times and routines at your school. It is a study of the spaces between classrooms and the times before and in between instructions, used for social encounters of students and adults. Participants will include administrators, teachers, parents, and students. The researcher will participate in the school days as an observer for some time. As data is collected and analyzed, emerging themes are expected to develop. To understand these themes as interpreted by individuals represented in the study, formal interviews are planned to be conducted. The researcher might ask you for your participation in these open ended interviews. She will acquire permission for interviewing participants in accordance with IRB and regulations of your school. No individual will be interviewed without proper consent.

Voluntary Participation: Participation in this project is completely voluntary. The research is in no way connected to students' progress or outcomes and is not evaluative in regard to teachers' instructional practices. You may choose to avoid any interaction with the researcher at any time throughout the study. You may also refuse to answer any questions she might ask or choose to withdraw from participation at any time without penalty or loss of benefits to which you would be entitled. The interviews will be up to 45 minutes long and will be audiotaped and transcribed. The transcripts of interviews you may participate in will be made available to you upon request.

Confidentiality: Every effort will be made to keep each individual's information and identity confidential. The participants' names will be replaced by aliases, distinguishable only by the researcher when analyzing data, for potential presentations and / or publications. Any data collected that may suggest the identity of any participant will be kept under lock until reconstructed into descriptive context that includes the alias of the participant.

Risks: Participants are not purposely deceived nor does the project pose physical danger. There are no known risks to this study.

Benefits: Research concerning physical school environments has been very focused on classroom spaces and the times of instructions and learning. This project may help to understand a 'slice' of the bigger phenomenon of students' 'break behavior', as facilitated by the physical school environment of your school. The results could inform your institutional social practices and use of the existing school building and will contribute to the foundation of research based school design.

Questions: Please feel free to contact Elke Altenburger at 573.355.0146 with any questions or concerns related to the project. For additional information regarding human participation in research, contact the UMC campus IRB Office at 573.882.9585.

Appendix F-Interview Guide for Architect

Interview Guide for Architects

Dissertation Research Project

Social Space in School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri Fall 2015

1. When I visited the school for the very first time this summer the principal told me a little bit about the unique planning process, which started shortly after the tornado correct?

Prompts:

 - i. Tell me about it. **How did it all start?**
 - ii. The **clients were very involved?**
 - iii. Students too?

2. I would like to hear about the design concept for the high school. Could you tell me what were the most important considerations, or the driving forces for the architectural design of the high school? Conceptually speaking...

Prompts:

 - i. The flier with the floorplan talks about **the wish to support social interaction.**
 - ii. Is that the educators talking?
 - iii. Or the architects talking?
 - iv. Or both?
 - v. **How did you plan to achieve that?**

3. I am interested in the relatively **big open space that is part of the cafeteria on the second floor**, right in front of the open staircase that connects the café, the lunchroom and the third floor.

Prompts:

 - i. During the design phases, **what did you envision happening there?**
 - ii. How about the **library?** It is in that area as well and has this big custom sliding glass door?
 - iii. What was the idea behind that?

4. I have a few questions about **exterior spaces**. Tell me about the design of the **courtyards**.

Prompts:

 - i. What did you envision happening in there?
 - ii. All the doors that lead to the courtyards now have signs that inform you that it is an **emergency exit only** and that an alarm will sound if you should open them.
 - iii. How about the **fence?**

- iv. How about **the space where the busses pick up** the students after school?

5. Tell me about the **entrance lobby and the learning stairs**.
Prompts:
 - i. What did you envision would happen there?
 - ii. What is going on with the **big screens around the edge** on the second level there? What is their purpose?

6. What is your **favorite space** that is not a classroom?

Prompts:
 - i. Why?

7. **It is hard to talk about this building or this generation of students without talking about technology**.
Prompts:
 - ii. I have heard you talk in a little video that is floating around about the connection between laptops and the absence of lockers. Is there anything else that you would like to share in terms of the use of technology in this building?
 - iii. How about **all the screens** in the hallways and porches etc?
 - iv. The **security cameras**?

8. Can you tell me about the **material and color concept** for the school?
Prompts:
 - i. What is it about?

Appendix G-Interview Guide for Administrators

Interview Guide for Administrators

Dissertation Research Project

Social Space at School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri, Fall 2015

I am interested in students' breaks (recess). I am here to study the environment and the behavior or the school building and the social life within. As I see it there is the building which promotes some action and hinders others and the social interactions between its users, most importantly the students. Both are governed by school rules and educational policies.

1. Therefore my question for you is **what are the most important rules, expectations or policies that govern the students' behavior in the spaces between classrooms and in the times between instructions?**

Prompts:

- i. Tardy sweeps?
- ii. Attendance policies?
- iii. I noticed that you have a new resource officer and that he calls himself attendance officer. Is that a new position you created?
- iv. Zero tolerance policies?
- v. What else

2. Could you tell me what you did **today after you arrived at school?**

Prompts:

- i. How about the students?

3. What are your **responsibilities during the breaks** between classes?

Prompts:

- i. What do the students do during the breaks?
- ii. Where do they like to spend their time?

4. What did you do during **lunch hour?**

Prompts:

- i. How about the students?
- ii. Any stories from today?
- iii. Where do they spend their time and what do they do?

5. What did you do yesterday after **school was over** in the afternoons, before you left for the day?

Prompts:

- i. How about the students?

6. What is your **favorite place** at school?

Prompts:

- i. Besides your office?
- ii. What do you do there?
- iii. Who else is there?
- iv. What makes it a nice place?

7. What do the **students do during the breaks** and where do they like to spend their time?
8. What else do **students do in the mornings before classes start and after school** is over and where?
9. If everything would be up to you, **what would you like to see the students do** during their breaks and where?
10. What is the **most problematic space** at school? And why?
11. It is hard to talk about this building or this generation of students without talking about **technology**.

Prompts:

- i. You are **recognized by Apple as a distinguished school for innovation**, leadership, and educational excellence. I have been spending time here since August, but all the **screens in the hallways** (which are at the focus of my study) seem to be barely used...
- ii. What role does **social media or the cell phone** use of students play for your work here?
- iii. For what kind of incidents do you review the **security camera** records?

12. Do you spend time in the **library**?

13. **Lunchroom**?

14. **Coffee shop**?

15. **Think tanks, open spaces and casework in classroom wings**?

16. **Courtyards**? I noticed that the doors to the courtyards have signs that indicate that the doors are emergency doors only and that an alarm will sound if you open them in order to enter a courtyard.

Prompts:

- i. What are you concerned about?

Appendix H-Interview Guide for Teachers

Interview Guide for Teachers

Dissertation Research Project

Social Space at School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri, Fall 2015

1. Could you tell me what you did today after you arrived at school **until the first class period started**?
Prompts:
 - i. Start with how you got here? When? And which entrance you used?
 - ii. Where were you? What did do you do there?
2. What did you do during the **lunch break**?
Prompts:
 - i. What are your responsibilities during the **passing times** and during the **lunch hour**?
3. What did you to yesterday **right after school**?
4. Do you have **preparation time** or free periods?
Prompts:
 - ii. Did you have one today or yesterday? When was your last free period?
 - iii. What did you do?
 - iv. With whom?
 - v. Where?
 - vi. Tell me about it.
5. What is your **favorite place** at school?
Prompts:
 - vii. What is your favorite place that is not a classroom?
 - viii. What do you do there?
 - ix. Who else is there?
 - x. What makes it a nice place?
6. What do the **students do during the breaks** and where do they like to spend their time?
7. What else do **students do in the mornings before classes start and after school** is over and where?

8. If everything would be up to you, **what would you like to see the students do** during their breaks?

9. What is the **most problematic space** at school? And why?

10. It is hard to talk about this building or this generation of students without talking about **technology**.

Prompts:

- i. You are recognized by Apple as a distinguished school for innovation, leadership, and educational excellence. I have been spending time here since August, but all the **screens in the hallways** (which are at the focus of my study) seem to be barely used...
- ii. What role does **social media** or the **cell phone** use of students play for your work here?
- iii. Did you ever ask someone to review the security camera footage? For what kind of incidents do you review the **security camera** records?

11. Do you spend time at the **library**?

12. **Lunchroom**?

13. **Coffee shop**?

14. **Think tank, open spaces and casework in the classroom wings**?

15. **Courtyards**?

Prompts:

- i. I noticed that the doors to the courtyards have signs that indicate that the doors are emergency doors only and that an alarm will sound if you open them in order to enter a courtyard.

Appendix I-Interview Guide for Students

Interview Guide for Students

Dissertation Research Project

Social Space in School: How do Teenage Students Spend Their Time Between Classes?

Elke Altenburger

University of Missouri, Fall 2015

1. Could you tell me what you did today after you arrived at school until the first class period started?
2. What did you do during your lunch break and where did you spend it? How about your friends?
3. What did your teachers do today during the breaks?
4. Which is your favorite place at school during your breaks between classes? What do you do there?
5. If you could do anything you wanted at school between the end of the lessons and the time you are picked up what would it be? Where would it be?

Appendix J-Connections between Research and Interview Questions

Research questions and the interview question that will inform them:

Research Question 1: What happens regularly during the breaks at this High School?

Interview questions informing research question 1:

- Student questions: 1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 15
- Teacher questions: 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15
- Administrator questions: 1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 16, 17

Research Question 2: What are the most popular student spaces during these times?

Interview questions informing research question 2:

- Student questions: 3, 8, 9
- Teacher questions: 6, 9, 12, 13
- Administrator questions: 7, 8, 11, 12, 14, 15

Research Question 3: How can these spaces been described and understood?

Interview questions informing research question 3:

- Student questions: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
- Teacher questions: 6, 7, 9, 10, 11, 12, 13, 14, 15
- Administrator questions: 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17

Research Question 4: How do students understand their school place?

Interview questions informing research question 4:

- Student question 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
- Teacher questions: 1, 2, 3, 4,
- Administrator questions: 1, 2, 3, 4

Vita

Elke Altenburger received her degree as Graduate Engineer of Interior Architecture at the University of Applied Science in Düsseldorf, Germany in 1995. Early during her professional career she worked for Guenter Behnisch, a German architect known for his school buildings and buildings for higher education. Later, she was the liaison for the Christian Pavillion for the World Exposition EXPO 2000 in Hannover. She practiced interior design in large architectural teams in Europe and the United States. Her portfolio includes cultural buildings and projects of higher education. She is NCIDQ-certified and LEED-accredited, and a member of the Environmental Design Research Association (EDRA), the Interior Design Educators Council (IDEC), and the American Educational Research Association (AERA). Recently, she accepted a position at Illinois State University, where she will start in the fall of 2017 as Assistant Professor for Interior Design.